SUBURBAN RAIL LOOP EAST

SRL East Draft Structure Plan | Clayton

Housing Needs Assessment

More Homes For Victorians

VICTORIA State Government

Suburban Rail Loop

PREPARED FOR SUBURBAN RAIL LOOP AUTHORITY

SRL EAST DRAFT STRUCTURE PLAN - HOUSING NEEDS ASSESSMENT – CLAYTON

FEBRUARY 2025

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Executive summary

As part of the Suburban Rail Loop (SRL) East project, Draft Structure Plans (Structure Plans) are being prepared for the neighbourhoods surrounding the new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood, and Box Hill.

The Structure Plans will provide a framework to guide growth and change in each neighbourhood, while protecting and preserving the features that people love about them now.

This report will inform the development of the Structure Plan for Clayton.

HOUSING NEEDS

Understanding future demand for housing in Clayton due to population growth is crucial for structure planning.

The report describes the existing demographics of residents and the state of the housing market in each Structure Plan Area and the surrounding area. It also identifies the future housing and dwelling needs of the projected population, including number of dwellings, type (e.g. apartment, separate houses) and size, considering case study analysis and development trends.

Recommendations to consider when developing the Structure Plan are made to ensure the right amount and type of housing is delivered in Clayton in the right locations.

FINDINGS

Current Population and Demographics

The Clayton Structure Plan Area is already supporting strong population and dwelling growth, with an estimated resident population of just over 14,200 in the Structure Plan Area as of 2021.

Over 1400 medium or high-density dwellings have been constructed in the Structure Plan Area over the last decade. Most high-density dwellings were one to two-bedrooms, with developers targeting international buyers and the investor market.

Features of the Clayton Structure Plan Area resident population in 2021 include:

- Low (but growing) household incomes, partly due to smaller household sizes, but incomes are low on a per capita basis
- A large cohort of younger adults
- More group households, but fewer families with children
- The majority of households are renting
- A large overseas-born population
- A large share of residents residing in medium-density dwellings.

Future Population

The population in the Clayton Structure Plan Area is expected to increase to an estimated **26,900 people in 2041**. This growth translates to 3.2% growth per annum. An estimated 12,700 additional people in the Structure Plan Area from 2021 levels will create a strong demand for new housing.

Dwelling Growth

An estimated **5590 net additional dwellings** are required by 2041 to house the projected population in the Structure Plan Area, which would increase total dwellings to 11,600. This translates to an annual growth rate of 280 dwellings. Accounting for projected demolitions of around 310 existing stock, a total of 5910 new dwellings are required to be built to meet projected population growth.

High-density dwellings are likely required to accommodate a large amount of projected growth. Within the Structure Plan Area, high-density dwellings are projected to make up 5740 of the new dwellings projected. The most common product is projected to be two-bedroom high-density with substantial amount of new high-density three or more-bedroom dwellings to accommodate families.

Low-density dwellings are projected to decline due to some demolitions of older stock and the need to build medium-density and high-density dwellings to accommodate population growth efficiently.

Analysis of dwelling growth in comparable areas suggests the projected growth is on the higher end of what has been seen elsewhere and is also above what has been achieved over the last 10 years locally[1]. This analysis suggests the growth in high-density dwellings is unprecedented within the Clayton Structure Plan Area, and higher than what has occurred in other locations such as Auburn or Kogarah over the previous 20 years. AJM JV notes the total growth in dwellings projected for the Structure Plan Area is line with that experienced in Macquarie University.

Diverse Housing

With multiple transport connections, an activity centre providing a high level of amenity, the presence of the Monash Health precinct, and proximity to Monash University's Clayton campus, make this an appealing location for a broad range of demographic groups. This includes workers, students, and elderly residents, among others.

There is projected to be 1910 households eligible for social and affordable housing by 2041. Considering the current supply (100 dwellings), the gap of 1810 (eligible households minus current supply) amounts to 32.3% of the total net additional dwellings required by 2041 (5590). The large gap between eligibility and supply indicates a need for greater supply of social and affordable housing in the Structure Plan Area.

New retirement dwellings and beds are projected to be relatively minimal with a total of 60 ILUs and 0 RAC beds projected by 2041. Nonetheless, the attributes of the area are suited to aged care or retirement living units given the proximity to the health precinct. Some new accommodation for the over-65 population should be expected.

Given the presence of the Monash Health precinct, there will be considerable demand for key worker housing - 6340 key workers on very low to moderate incomes are projected to work within the Structure Plan Area by 2041.

There is the potential for student accommodation facilities within the Structure Plan Area given the proximity Monash University's Clayton campus. There are many areas surrounding the university (including the Monash Structure Plan Area) that student accommodation could be built in. The projected need generated from Monash University's Clayton campus is quantified in the *SRL East Structure Plan - Housing Needs Assessment – Monash report.* AJM JV also notes that students are not required to reside in the student accommodation and can instead reside in standard residential accommodation.

HOUSING REQUIREMENT BY STRUCTURE, CLAYTON STRUCTURE PLAN AREA, 2021–2041

	2021		2041		2021-2041 CHANGE	
	NO.	%	NO.	%	NO.	ANNUAL GROWTH RATE (%)
Population (no.)						
Low-density	6100	43.1%	5800	21.7%	-300	-0.2%
Medium-density	6800	47.8%	7700	28.8%	900	0.7%
High-density	1300	9.0%	13,300	49.5%	12,000	12.4%
Total population	**14,200**	**100.0%**	**26,900**	**100.0%**	**12,700**	**3.2%**
Dwellings (no.)						
Low-density	2350	39.0%	2030	17.5%	-320	-0.7%
Medium-density	2990	49.8%	3160	27.3%	170	0.3%
High-density	670	11.2%	6410	55.2%	5740	11.9%
Total dwellings	**6010**	**100.0%**	**11,600**	**100.0%**	**5590**	**3.3%**
Floorspace (sq.m GBA)						
Low-density	694,500	54.4%	600,800	33.6%	-93,700	-0.7%
Medium-density	514,700	40.3%	530,300	29.7%	15,600	0.1%
High-density	66,700	5.2%	656,100	36.7%	589,400	12.1%
Total floorspace	**1,275,900**	**100.0%**	**1,787,100**	**100.0%**	**511,200**	**1.7%**

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Dwellings and floorspace under the 2021-2041 CHANGE column refer to net dwelling change, not accounting for new dwelling required to be built because of demolitions of existing stock. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

[1] Comparable areas are chosen through a selection process detailed in section 7.

PROJECTED DWELLINGS REQUIREMENTS, CLAYTON STRUCTURE PLAN AREA, 2021–2041

	2021		2041		2021-2041 CHANGE	
	NO.	%	NO.	%	NO.	ANNUAL GROWTH RATE (%)
Low-density						
Studio / 1-bedroom	20	0.3%	10	0.1%	-10	-2.4%
2-bedroom	290	4.8%	240	2.0%	-50	-1.0%
3+bedroom	2040	33.9%	1780	15.4%	-260	-0.7%
Total dwellings	**2350**	**39.0%**	**2030**	**17.5%**	**-320**	**-0.7%**
Medium-density						
Studio / 1-bedroom	60	1.0%	120	1.0%	60	3.5%
2-bedroom	1140	18.9%	1260	10.9%	120	0.5%
3+bedroom	1790	29.8%	1790	15.4%	0	0.0%
Total dwellings	**2990**	**49.8%**	**3160**	**27.3%**	**170**	**0.3%**
High-density						
Studio / 1-bedroom	110	1.8%	1560	13.4%	1450	14.3%
2-bedroom	530	8.9%	4030	34.7%	3500	10.6%
3+bedroom	30	0.5%	820	7.1%	790	17.5%
Total dwellings	**670**	**11.2%**	**6410**	**55.2%**	**5740**	**11.9%**
Grand total dwellings	**6010**	**100.0%**	**11,600**	**100.0%**	**5590**	**3.3%**

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

CASE STUDIES VS DRAFT CLAYTON STRUCTURE PLAN (CLAYTON STRUCTURE PLAN), DWELLING GROWTH PER ANNUM, ACTUAL & PROJECTED

CASE STUDY	ADDITIONAL DWELLINGS PER ANNUM			
	LOW-DENSITY	MEDIUM-DENSITY	HIGH-DENSITY	TOTAL
Macquarie University (2011-2021)	20	30	230	**280**
Auburn (2011-2021)	20	10	180	**220**
Kogarah (2011-2021)	0	-20	150	**140**
Clayton Structure Plan Historic Growth (2011-2021)	-10	100	40	**140**
Clayton Structure Plan Projection (2021-2041)	**-20**	**10**	**290**	**280**

Source: ABS (2001 & 2021) STRD Dwelling Structure; AJM JV

ADDITIONAL DIVERSE HOUSING REQUIRED, CLAYTON STRUCTURE PLAN AREA, 2021–2041

	EXISTING SUPPLY	MODELLED REQUIREMENT - 2041	GAP (+UNDERSUPPLY, -OVERSUPPLY)	PROPORTION OF TOTAL ADDITIONAL DWELLINGS NEEDED
Total "in need" - affordable, social and homeless requirement	100	1910	**+1810**	**32.3%**
Student accommodation[2]	0	6730	**+6730**	**-**
Retirement village (ILU)	0	60	**+60**	**1.1%**
Residential aged care facility (RAC)	160	160	**0**	**-**

[2] Additional student accommodation dwellings required represents the total demand generated from Monash University's Clayton campus. The portion of these dwellings that will be captured is uncertain. This issue is further explored in Section 9.

Note: Affordable and social housing supply is derived from the 2021 Census. RACs are measured in terms of beds and cannot be compared with dwellings required. Numbers rounded. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS ERP; AJM JV

RECOMMENDATIONS

The recommendations derived through this report are summarised below, and their locations are shown in the Figure at the end of this Executive Summary. The numbers on the Figure refer to the number of each recommendation below.

Housing number and density

1) Plan for around 5600 net new dwellings in the Clayton Structure Plan Area to accommodate an additional projected population of over 12,700 people by 2041.
2) Facilitate the delivery of high-quality, predominantly high-density housing to meet the projected dwelling demand.
3) Encourage the delivery of the higher density housing in preference to low- or medium-density forms.

Housing diversity

4) Encourage development that offers a diversity of medium and higher density housing typologies, including larger (family sized) apartments and affordable options.
5) Ensure adequate open space, facilities and amenity are provided on site or in proximity to apartments to attract diverse household types.
6) Facilitate opportunities for a variety of residential types and development locations to attract a diverse range of developers and builders.
7) Support the delivery of social and affordable housing in the Structure Plan Area. Mechanisms to feasibly secure social and affordable housing provision within private housing developments should be explored.
8) Support the delivery of other purpose-built housing types such as key worker housing, student accommodation, and aged care and retirement living.

Housing locations

9) Facilitate high-density apartment development of scale within the core of the Structure Plan Area, while protecting the vibrant retail offer fronting Clayton Road.
10) Balance housing and employment growth in key locations around the health precinct.
    a. Support a mix of housing and employment density along Clayton Road.
    b. Consider the balance of higher density housing and health-related uses surrounding the health precinct.
11) Support increased housing density on the PMP Printing site.
12) Support high-density apartment buildings along the key road corridors such as Clayton, North and Dandenong Roads.
13) Encourage social and affordable housing, student accommodation, housing for key workers, and housing for elderly residents, particularly close to the central core and health precinct.

Other opportunities

Although potentially beyond the scope of the Structure Plan development and the planning scheme amendments, other opportunities to support housing development in Clayton include.

- Improve active transport connections to Monash University's Clayton campus from Clayton.
- Consider facilitating housing on surplus State Government land, particularly social and affordable housing in line with the Victorian Government's Housing Statement.
- Identify suitable planning provisions and processes to support the faster approval of suitable and eligible priority housing development.
- Consider the role of high-density residential development along Centre Road, given recent residential development extending into industrial areas.

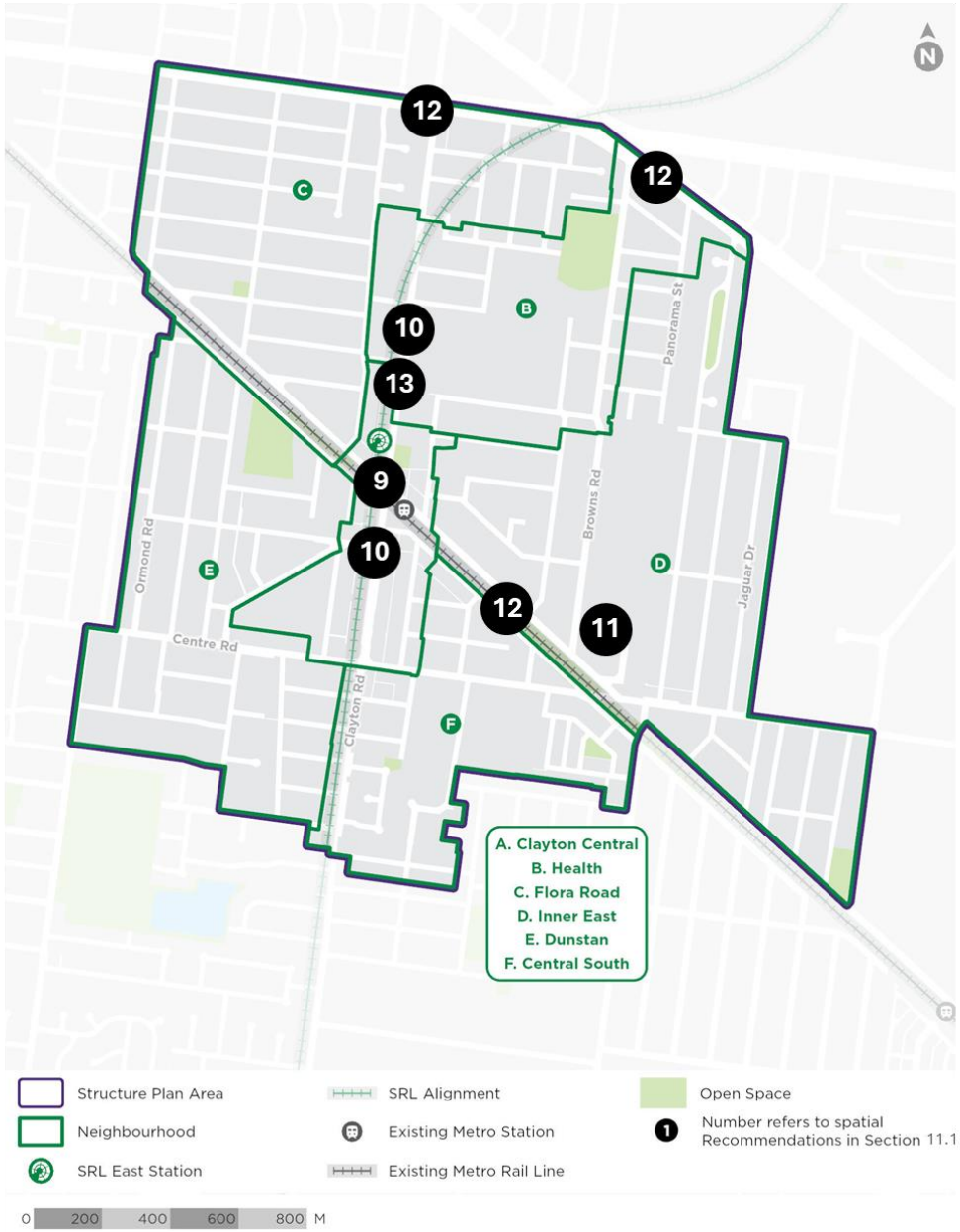
9 Facilitate high-density apartment development of scale within the core of the Structure Plan Area, while protecting the vibrant retail offer fronting Clayton Road.

10 Structure planning in Clayton will need to balance housing and employment growth in key locations around the health precinct.

11 Support increased housing density on the PMP Printing site.

12 Support high-density apartment buildings along the key road corridors such as Clayton, North and Dandenong Roads

13 Encourage social and affordable housing, student accommodation, housing for key workers, and housing for elderly residents, particularly close to the central core and health precinct.



Only location-related recommendations are outlined on the map. Where a number does not reference a specific site, it indicates a general area rather than an exact location.

HOUSING DEVELOPMENT LOCATION CONSIDERATIONS, CLAYTON STRUCTURE PLAN AREA

1. Introduction

Suburban Rail Loop (SRL) is a transformational project that will help shape Melbourne's growth in the decades ahead. It will better connect Victorians to jobs, retail, education, health services and each other – and help Melbourne evolve into a 'city of centres'.

SRL will deliver a 90-kilometre rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport.

SRL East from Cheltenham to Box Hill will connect major employment, health, education and retail destinations in Melbourne's east and south east. Twin 26-kilometre tunnels will link priority growth suburbs in the municipalities of Bayside, Kingston, Monash and Whitehorse.

SRL East Structure Plan Areas will surround the six new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood, and Box Hill.

1.1 Purpose of this report

This technical report will inform the development of the Draft Clayton Structure Plan (Clayton Structure Plan) and guide land use planning and development in the Structure Plan Area.

The report describes the existing demographics of residents and the state of the housing market in the Structure Plan Area and the surrounding area. It also identifies the future housing and dwelling needs of the projected population, including number of dwellings, type (e.g. apartment, separate houses) and size.

Issues and opportunities relating to housing that impact planning for the development of the Clayton Structure Plan Area are identified.

Recommendations to consider when developing the Clayton Structure Plan are made, with the objective to avoid, minimise or manage potential negative impacts of change, and to maximise potential for positive change. This includes recommendations to ensure the right amount and type of housing is developed in the right locations.

1.2 Project context

Construction of the SRL East underground stations is underway at Cheltenham, Clayton, Monash, Glen Waverley, Burwood, and Box Hill. This provides an opportunity to enhance the surrounding neighbourhoods. SRL East will support thriving and sustainable neighbourhoods and communities that offer diverse and affordable housing options, with easy access to jobs, transport networks, open space, and community facilities and services. Figure 1.1 shows SRL East in the context of the entire SRL project and Melbourne's rail network.

A Vision has been developed in consultation with the community and stakeholders for each SRL East Structure Plan Area and surrounds. The visions set out the long-term aspirations for these areas, ensuring they are ready to meet the needs of our growing population.

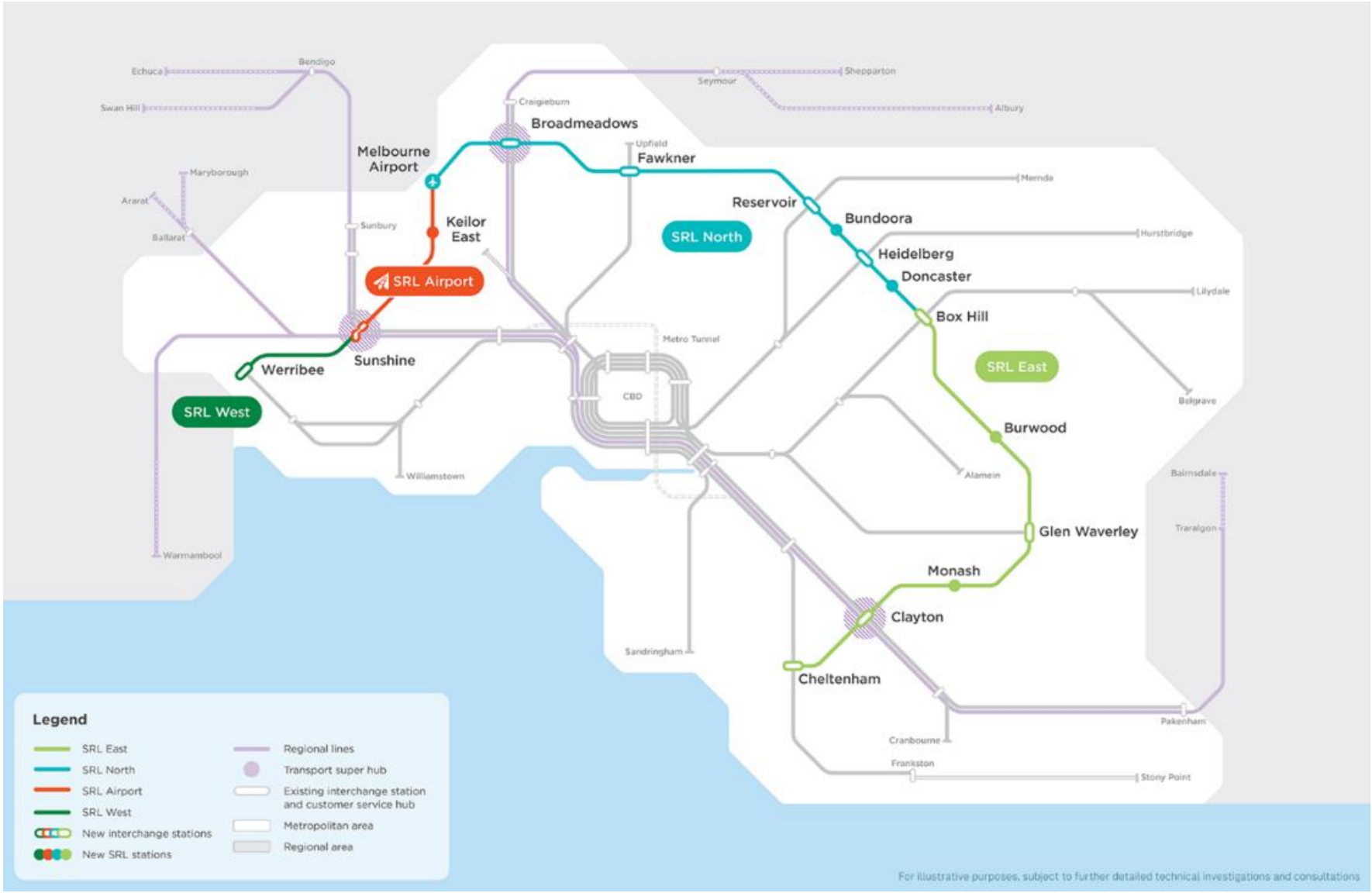


FIGURE 1.1 SUBURBAN RAIL LOOP

1.3 Structure planning for SRL East

Draft Structure Plans (Structure Plans) have been prepared for defined areas surrounding the new SRL East stations to help deliver the Vision developed for each SRL East neighbourhood.

The Structure Plans cover defined Structure Plan Areas that can support the most growth and change. These areas cover a walkable catchment that extends from the SRL station entrances. Additional places are included within each defined area as required to make planning guidance more robust and effective, and to align with each community's aspirations and current and future needs.

A Structure Plan is a blueprint to guide how an area develops and changes over a period of time. Structure Plans describe how future growth within the area will be managed in an appropriate and sustainable way to achieve social, economic and environmental objectives. The plans cover a wide range of matters, such as transport connections and car parking, housing and commercial development, community infrastructure, urban design, open space, water and energy management, climate resilience and sustainability.

By tailoring planning decisions to reflect the needs of a defined area, Structure Plans give effect to the policies and objectives set for these areas and cater for changing community needs. They also provide certainty for residents, businesses and developers by identifying the preferred locations and timing of future land uses, development and infrastructure provision.

Structure Plans take a flexible and responsive approach that enables places to evolve over time.

Planning scheme amendments will be required to implement the Structure Plans into the planning schemes of the cities of Bayside, Kingston, Monash and Whitehorse.

1.4 Structure of this report

Part A: Background

- Part A reviews Victorian and local government housing policies and strategies and considers how development in the Structure Plan Area can contribute to achieving their objectives. Trends contributing to high-density living as well as high-density development in Melbourne to date that will likely influence future housing in the Structure Plan Area are considered.

Part B: Current state

- Part B describes the existing resident characteristics and housing stock in the Structure Plan Area. Housing costs and affordability are considered as well as recent trends in housing supply, including recent and proposed developments.

Part C: Future housing need

- Part C forecasts population growth and housing demand in the Structure Plan Area including for social, affordable and key worker housing, as well as student accommodation, and aged care and retirement living.

Part D: Summary and recommendations

- Part D summarises the findings of the assessment and makes recommendations to consider when developing the Structure Plan.

1.5 Key data sources and definitions

The key data sources and definitions relevant to this assessment are outlined below. Additional abbreviations, references, data sources and definitions are provided in Appendix A.

- Future housing demand was assessed using population projections for the Structure Plan Area which were derived from the CityPlan population projections outlined in the Business and Investment Case (BIC) prepared for the Suburban Rail Loop (August 2021). The CityPlan projections used in the BIC projections account for the expected overall growth of Melbourne and the transport interventions and precinct initiatives of SRL influence the distribution of population. That is, population growth isn't solely driven by SRL, rather SRL influences the distribution of growth
- **Total population** refers to all long-term residents of the Structure Plan Area. Long-term residents are those who have lived, or intend to live, within the Structure Plan Area for six months or longer. This means all residents are included, apart from those living in temporary forms of accommodation such as hotels, correctional institutions or hospitals. People living in student

accommodation, retirement villages and other non-standard forms of residential accommodation are included in the total population.

- **Structural private dwellings** referred to in this report are categorised into three types, consistent with Australian Bureau of Statistics (ABS) definitions[3]:
  1. **Low-density** refers to stand-alone dwellings, not connected to any other dwelling.
  2. **Medium-density** refers to attached dwellings like semi-detached houses, terraced houses, townhouses, detached units within a strata lot, and apartment buildings with one to two storeys.
  3. **High-density** refers to flats and apartment buildings with three or more storeys.
- The definitions of dwelling density were chosen to align with ABS definitions and ensure consistency in data analysis, though they may differ from those used in other technical reports.
- Note that other dwellings which include caravans and cabins, improvised dwellings (e.g. sheds, tents or humpies), houseboats and flats attached to shops were excluded for the purposes of the analysis as they comprise <1% of the total number of dwellings and are not expected to form a material part of planning for housing in the Structure Plan Area.
- Apartment buildings are divided into three categories by height: low-rise (1 to 3 storeys), mid-rise (4 to 8 storeys) and high-rise (9 or more storeys).
- **Dwelling typology** defines the type of housing based on its density structure (high, medium, low) and number of bedrooms. For example, a two-bedroom high-density dwelling.

A comprehensive compilation of abbreviations, data sources and definitions is provided in Appendix A.

1.6 Key assumptions and limitations

The following key assumptions and limitations apply to this assessment:

- The numbers presented in this report in tables are rounded to the nearest 10, 100 or 1000 depending on the size of the number. This is for ease of reading and recognising many of the figures are estimates. In some cases, summing the rounded numbers produces a different result to the rounded total. This is not an error.
- The analysis focuses on a single potential population outcome and evaluates the housing requirements necessary to achieve that specific outcome. The projected year for housing demand is 2041 as the emphasis for structure planning is 2041.
- CityPlan land use projections are based on modelling, which are always an approximation of what can be expected in the real environment. CityPlan is best at representing strategic level demands and patterns, rather than for small areas. Notwithstanding this, there will usually be differences between forecasts or projected and actual results because events and circumstances frequently do not occur as expected or predicted, and those differences may be material.
- The dwelling requirements, segmented by high/medium/low density and by number of bedrooms, are considered independently from the form of housing or ownership structures that may see those dwellings delivered (e.g. public vs private, for sale vs for rent).
- For example, the high-density housing need estimated in this report may be delivered through developers selling individual apartments to owner-occupiers or investors (Build-To-Sell), or through Build-To-Rent (BTR) arrangements. BTR is a term used to describe residential developments that are designed and built specifically for renting rather than for sale. These properties are typically owned by institutional investors and managed by professional property management companies. The concept is relatively new in Australia, but it has been successful in other countries like the UK and the US. It is

[3] ABS definitions for structural private dwellings are located on the ABS website https://www.abs.gov.au/census/guide-census-data/census-dictionary/2021/variables-topic/housing/dwelling-structure-strd

expected to be an increasingly important part of the future housing mix in Australia, subject to continuing efforts to make it a more attractive development option (e.g. tax reform). Benefits can include stability for renters, professional management and maintenance of properties, creation of vibrant and integrated mixed-use communities, and increasing the supply of housing with different financial hurdles compared to Build-To-Sell. BTR is assumed to represent a share of the dwelling growth identified in this report within the SRL East Structure Plan Areas, and that its delivery will be supported through government policy and the preparation of the Structure Plans.

- The diverse housing requirements identified in this report are also a subset of the total demand estimates. There is no additional requirement on top of the total dwelling need estimates for forms of diverse accommodation as often the choice of accommodation type is a matter of preference. For example, students can decide if they wish to live in student accommodation or standard residential apartments. Similarly, an elderly couple downsizing may choose to purchase a 1-bedroom apartment, or alternatively move to a retirement village.
- The diverse housing estimates provided are therefore based on the projected population and demographic profile in the Structure Plan Area, which for the purposes of this analysis, is a fixed estimate. For example, the share of over 65-year population seeking aged care or retirement living options, or the number of households eligible for social or affordable housing based on their income status. Workers and students working and studying in the Structure Plan Area are considered for key worker and student accommodation, respectively.

Further details regarding these assumptions and limitations are discussed throughout this report, while additional ones are outlined in Appendix B.

1.7 Interactions with other technical reports

This *SRL East Structure Plan - Housing Needs Assessment – Clayton* report informs, or is informed by other reports prepared to guide the development of SRL East Structure Plans:

- *SRL East Structure Plan - Economic Profile Technical Report – Clayton:* This report forecasts the long-term economic function of the Structure Plan Area, including employment growth and the amount and type of floorspace needed to support it. Employment uses and housing need to be delivered in an integrated way, resulting in a need to understand anticipated economic outcomes and the consequences for housing delivery.
- *SRL East Structure Plan - Retail Assessment – Clayton:* This report forecasts long-term retail demand in the Structure Plan Area, and the amount and type of retail floorspace needed to meet the demand. Retail space needs to be directed to appropriate areas to support the future population and workforce.
- *SRL East Structure Plan - Land Use Scenario and Capacity Assessment (LUSCA):* This analysis tests the capacity of the Structure Plan Areas to accommodate projected population and employment floorspace at 2041. The housing floorspace demand derived from this report is an input to LUSCA.
- *SRL East Structure Plan - Community Infrastructure Needs Assessment - Clayton:* This will provide an understanding of the community infrastructure needs associated with the growth and renewal of the Structure Plan Areas to 2041, recommendations for future community infrastructure provision priorities and potential sites to accommodate them. The scale, location and nature of housing development, informed by this report, influences the community infrastructure requirements.
- *SRL East Structure Plan – Transport Technical Report - Clayton:* Outlines how the transport network, across all modes, will support the Structure Planning process. It also includes a Precinct Parking Plan which recommends parking management tools to support the development of the Structure Plan Areas and support implementing a schedule for the Parking Overlay. The scale, location and nature of housing development, informed by this report, influences transport and parking requirements.

1.8 Structure Plan Area

1.8.1 STRUCTURE PLAN AREA DEFINITION

This assessment is based on the Clayton Structure Plan Area.

The Clayton Structure Plan Area surrounds the SRL station at Clayton in the cities of Monash and Kingston.

The Structure Plan Area is generally bordered by North Road / Wellington Road to the north, Ormond Road to the west, residential lots between Alward Avenue and Murdock Street, and parts of the Dandenong Line to the south, and Kombi Road and Buckland Street to the east.

Dandenong Road is a major road, running in a north-west to south-east alignment through the edge of the Structure Plan Area.

The existing Cranbourne / Pakenham Line intersects the Structure Plan Area in a north-south alignment.

The Structure Plan Area spans approximately 378 hectares and is shown in Figure 1.2.

The Structure Plan Area is divided into a series of neighbourhoods. These neighbourhoods represent areas with similar land use mix and are referenced through the structure planning process. Neighbourhood A is referred to as the “core area” throughout this report.

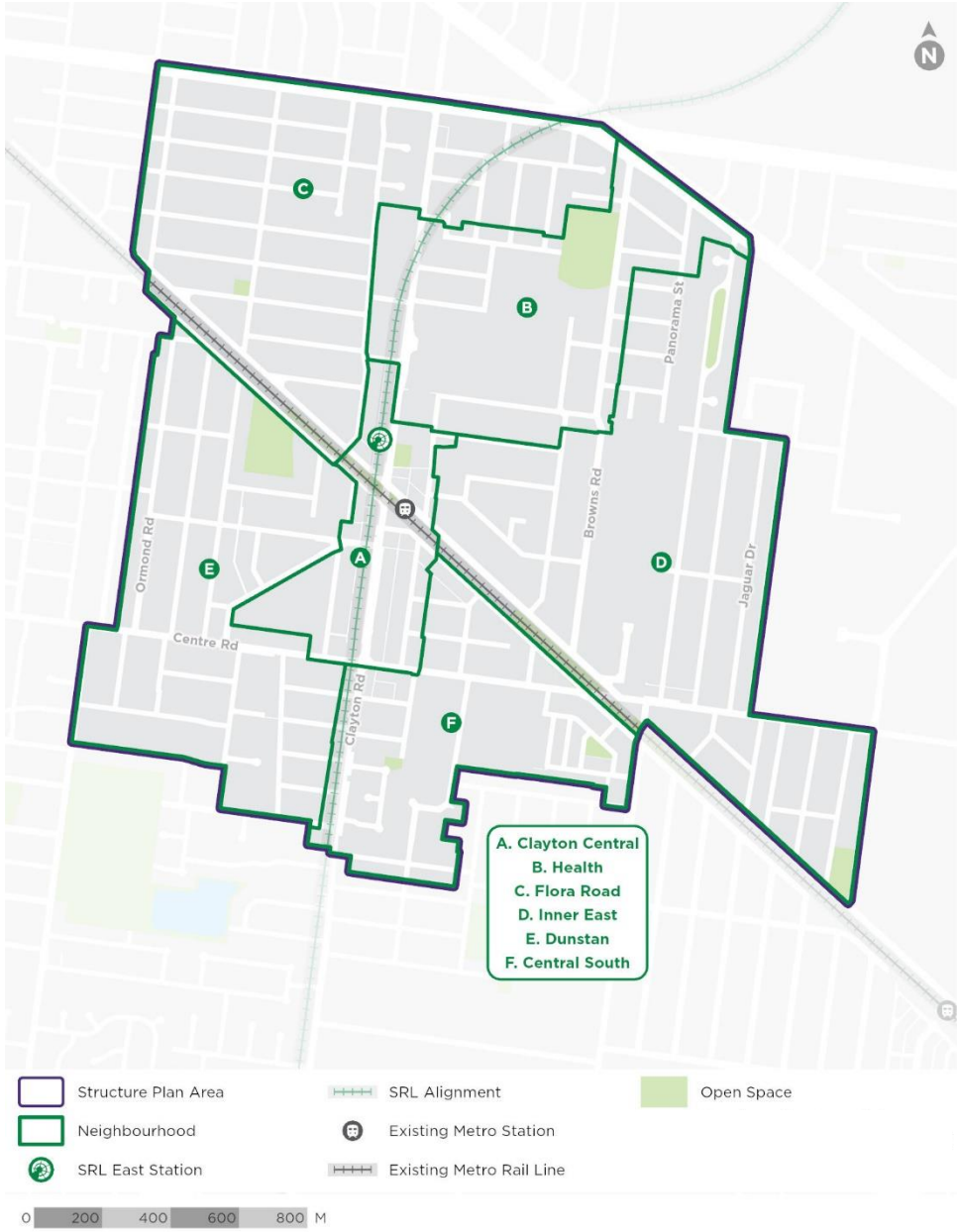


FIGURE 1.2 CLAYTON STRUCTURE PLAN AREA

1.8.2 STRUCTURE PLAN AREA POPULATION PROJECTIONS

Table 1.1 shows the current and projected population for the Structure Plan Area.

The 2041 figure is used for assessing future housing demand in the Structure Plan Area and is derived from projections generated for the SRL Business and Investment Case (BIC). Note population growth in the area is not solely driven by SRL East.

TABLE 1.1 PROJECTED POPULATION GROWTH, CLAYTON STRUCTURE PLAN AREA, 2021–2041

	PROJECTED POPULATION (NO.)	
	2021	2041
Clayton Structure Plan Area	14,200	26,900

Source: ABS ERP; Structure Plan Area population projections derived from CityPlan (published in SRL BIC)

1.8.3 BENCHMARK AREAS

For the purposes of benchmarking, data was also collected for the following areas:

- **Greater Melbourne:** as defined by the Australian Bureau of Statistics (ABS) Greater Capital City Statistical Areas boundary.
- **South East Region:** which comprises the following local government areas: Bayside, Glen Eira, Boroondara, Greater Dandenong, Kingston, Knox, Manningham, Maroondah, Monash, Whitehorse, and Stonnington.

The South East Region is shown in Figure 1.3.

Throughout the report data is presented for the Structure Plan Area alongside data for the South East Region and Greater Melbourne for context.

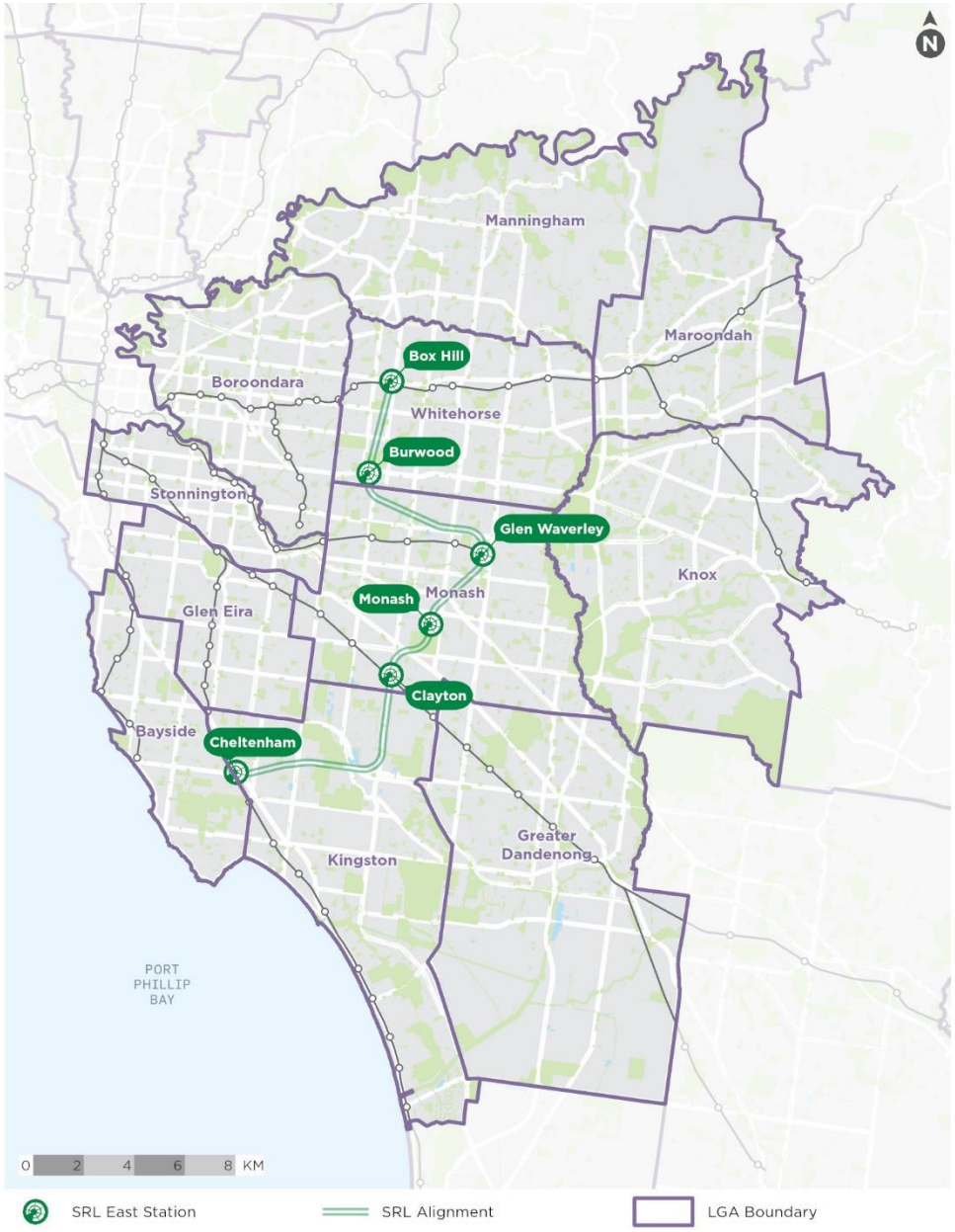


FIGURE 1.3 SOUTH EAST REGION

Part A: Background

Part A includes:

- **Section 2** reviews Victorian and local government housing policies and strategies and considers how development in the Structure Plan Area can contribute to achieving their objectives.
- **Section 3** considers trends contributing to high-density living as well as high-density development in Melbourne to date that will likely influence future housing in the Structure Plan Area.

2. Strategic context

This section summarises Victorian and local government housing policies and strategies and considers how development in the Structure Plan Area can help achieve their objectives.

2.1 Greater Melbourne population growth

Victoria is Australia's most urbanised state and Melbourne is the second-most populated city with just over 5 million residents in June 2023.

Over the decade to June 2023, Melbourne experienced strong population growth of 1.8% per annum. While the COVID-19 pandemic caused a short-term pause in population growth (annual rate of -0.2% from 2020 to 2022), over the past year from 2022 to 2023, population growth resumed with a high 3.3% per annum growth.

Figure 2.1 shows Melbourne's historical and projected population growth. Melbourne is expected to be home to 9.2 million residents by 2061. It is projected to surpass Sydney as Australia's largest capital city by around 2031–32. To accommodate this projected population growth, the city will need additional dwellings.

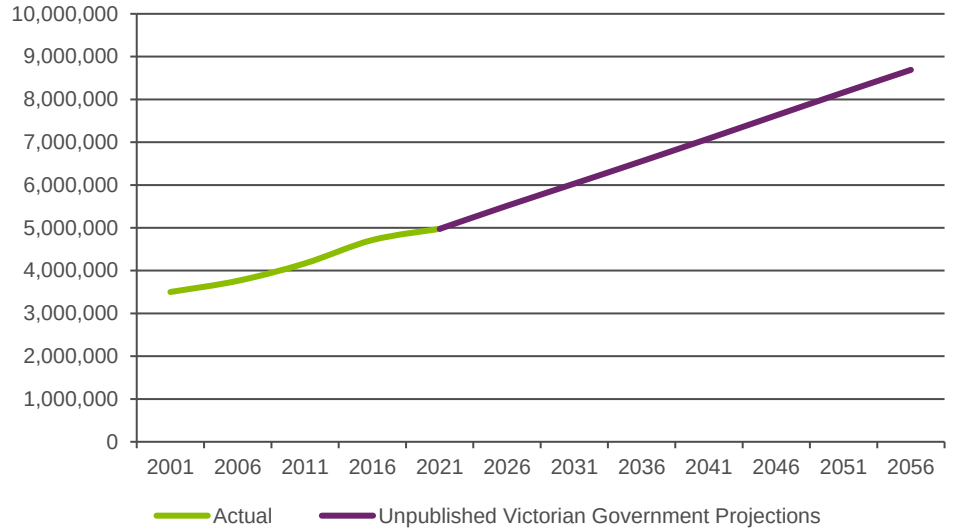


FIGURE 2.1 HISTORICAL AND PROJECTED POPULATION GROWTH, GREATER MELBOURNE, 2001–2041 (YEAR TO JUNE)

Source: ABS ERP; Unpublished Victorian Government Projections, 2023; AJM JV

2.2 Victorian Government policy

2.2.1 PLAN MELBOURNE 2017–2050

Plan Melbourne 2017–2050 is the Victorian Government's long-term planning strategy, guiding the way the city will grow and change to 2050.

It provides an integrated land use, infrastructure and transport planning strategy to support population and jobs growth, while building on Melbourne's legacy of distinctiveness, liveability and sustainability.

Outcome 2 of Plan Melbourne is to ensure that '*Melbourne provides housing choice in locations close to jobs and services'* with the following directions also relevant:

- **Direction 2.1** – Manage the supply of new housing in the right locations to meet population growth and create a sustainable city.
- **Direction 2.2** – Deliver more housing closer to jobs and public transport.
- **Direction 2.5** – Provide greater choice and diversity of housing.

Plan Melbourne aims to facilitate an increased percentage of new housing in established areas to create a city of 20-minute neighbourhoods close to existing services, jobs and public transport. It includes an aspirational scenario for 70% of new homes to be built in Melbourne's established suburbs by 2051, and 30% in greenfield areas. Plan Melbourne states this approach will support greater housing diversity and offer better access to services and jobs.

Plan Melbourne recognises that to support increased housing supply in established areas, it will be necessary to define locations best able to support increased densities.

In middle suburbs, ideal locations for more medium- and higher-density development are identified as those near employment and transport such as:

> *…urban renewal precincts; areas identified for residential growth; areas identified for greyfield renewal; areas designated as national employment and innovation clusters; metropolitan activity centres and major activity centres; neighbourhood activity centres—especially if they have good public transport connections; areas near existing and proposed railway stations that can support transit-oriented development.*[4]

Clayton is designated as a Major Activity Centre and will play an important role in the delivery of additional high-density housing. Plan Melbourne defines major activity centres as important suburban centres outside of the city centre that provide access to a wide range of goods and services.

The Clayton Major Activity Centre forms part of the Monash NEIC, which is one of the seven NEICs identified in Plan Melbourne. Monash is Melbourne's largest established NEIC and is the largest concentration of employment outside the central city. As an activity centre within the NEIC, Clayton is designated to fulfill a supportive and amenity role for the wider cluster, including supporting services, employment and housing.

The Monash Health facilities located in Clayton form a designated Health Precinct. Plan Melbourne seeks to reinforce the economic functions of these precincts and states that '*they should provide opportunity for ancillary health and education services, retail, commercial and accommodation uses'.*[5]

Plan Melbourne recognises that to achieve medium and higher-density living '*the standards of higher-density housing need to be raised'.*[6]

Plan Melbourne aims to provide more diverse housing and increase the supply of social and affordable housing:

> *For Melbourne to remain liveable for all its citizens, the supply of social and affordable housing needs to be increased. A range of housing types need to be developed within suburbs across Melbourne—not just in outer areas—to improve local affordability for homeowners and renters.*[7]

[4] Department of Environment Land Water and Planning (2017) Metropolitan Planning Strategy Plan Melbourne 2017-2050. https://www.planning.vic.gov.au/__data/assets/pdf_file/0025/654550/Plan_Melbourne_2017-2050_Strategy_.pdf. p. 50

5 DELWP, Plan Melbourne 2017 p. 15

6 DELWP, Plan Melbourne 2017 p. 50

7 DELWP, Plan Melbourne 2017 p. 55

The use of government land to deliver additional social housing is promoted in Plan Melbourne.

The 2019 Addendum to Plan Melbourne updates Melbourne's projected population, housing and employment growth and incorporates Stage 1 of the SRL (SRL East). The Addendum recognises SRL's role in connecting Melbourne's major employment, health, and innovation precincts and supporting the development of 20-minute neighbourhoods.

2.2.2 MELBOURNE'S FUTURE PLANNING FRAMEWORK

In 2021, six region-specific Draft Land Use Framework Plans were released to guide the application of Plan Melbourne at a regional level. The metropolitan region relevant to Clayton is the Eastern Metro Region, although the southern part of the Structure Plan boundary falls within the Southern Metro Region. Although these Framework Plans are in draft form, they indicate policy intentions for the region.

2.2.2.1 Draft Eastern Metro Land Use Framework Plan

The Eastern Metro Region comprises the municipalities of Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges.

The Eastern Metro Region has an established network of activity centres, linear corridors based along key transport routes for residential and employment growth, and urban renewal areas that will provide opportunities to increase the supply of housing.

The framework supports significant land use change and higher-density development around SRL stations. SRL is emphasised for its potential to enhance inter-regional connectivity and create housing opportunities surrounding the SRL stations.

The Structure Plan Areas surrounding SRL stations are designated for medium- and higher-density housing development. Housing development in the Structure Plan Areas will be supported by other uses such as commercial, retail and services to maximise their potential as transit-oriented development sites.

The framework acknowledges that a key challenge for planning for housing around public transport is balancing the strong demand for housing with the need to provide land for employment and jobs in and around activity centres.

The framework also emphasises the need to provide housing diversity to reflect community needs, especially adaptable housing options for the ageing population to 'age in place', student accommodation close or well connected to university and higher education campuses, and low-cost rental, supported accommodation, and social housing to accommodate low-income groups.

The following strategies relate to housing in Structure Plan Areas around the SRL stations in the Eastern Metro Region:

- **Strategy 22** – Maximise housing development within the established areas of the Eastern Metro Region to achieve the aspirational housing distribution scenario for metropolitan Melbourne.
- **Strategy 23** – Increase the supply of medium- and higher-density housing around the Monash NEIC, in and around metropolitan and Major Activity Centres, urban renewal areas, SRL precincts, along activity corridors, and in and around neighbourhood activity centres serviced by good public transport.
- **Strategy 25** – Support substantial housing change in locations where transport upgrades and improvements such as SRL create opportunities to locate housing closer to jobs, services and infrastructure.
- **Strategy 27** – Encourage a genuine mix of dwelling types and sizes in the Eastern Metro Region, particularly in the western part of the region and along the SRL corridor, to accommodate the region's changing future needs.
- **Strategy 28** – Support alternative and sustainable residential development formats such as co-housing or build-to-rent in appropriate locations, and car-free residential development models in locations with good access to alternative transport modes.
- **Strategy 29** – Facilitate the development of housing that is adaptable and flexible to cater for changing demographics and to support 'ageing in place'.
- **Strategy 30** – Optimise the opportunities for student accommodation and key worker housing around health and/or education precincts in the Eastern Metro Region.

- **Strategy 32** – Facilitate more affordable housing across the region, particularly in locations with good access to jobs, services, and public transport.

The framework outlines a series of future role/strategic opportunities for the Clayton Major Activity Centre. Those concerning housing include:

- Continue support for major high-density, high amenity, lifestyle and service hub for the Monash NEIC.
- Encourage higher-density development.
- Connect higher-density housing to the station to maximise inter- and cross-regional opportunities to access employment, educational and health services.

2.2.2.2 Draft Southern Metro Land Use Framework Plan

The Southern Metro Region includes the municipalities of Cardinia, Casey, Frankston, Greater Dandenong, Kingston and the Mornington Peninsula.

A priority for Southern Metro Region is to undertake extensive urban consolidation to meet future housing demand. The framework highlights that there are opportunities to locate medium- and higher-density housing in and around metropolitan and major activity centres, identified urban renewal areas and in locations supported by good public transport.

The framework notes housing must be designed to reflect community needs and especially respond to an ageing population. Future housing development will also need to consider housing adaptability, dwelling size and type to cater for downsizing options and more affordable options for the region's ageing population.

Increasing the supply of affordable housing is a key focus and the framework notes that planning should facilitate the delivery of affordable housing in the Southern Metro Region by considering opportunities to develop under-utilised or disused government-owned land for social housing.

The following strategies relate to housing outcomes in the Clayton Structure Plan Area:

- **Strategy 27 –** Increase the supply of medium- and higher-density housing around the Dandenong NEIC, in and around metropolitan and major activity centres, urban renewal areas, SRL precincts and in neighbourhood activity centres serviced by good public transport.
- **Strategy 29 –** Support substantial housing change in locations where transport upgrades and improvements such as Suburban Rail Loop create opportunities to locate housing closer to jobs, services and infrastructure.
- **Strategy 33 –** Encourage a genuine mix of dwelling types and sizes in the Southern Metro Region to accommodate the changing future needs of the region.
- **Strategy 36 –** Facilitate more affordable housing across the region, particularly in locations that have good access to jobs, services and public transport.
- **Strategy 38 –** Support the delivery of community care accommodation and rooming houses to provide housing requirements for Victorians in need.

2.2.3 VICTORIA'S HOUSING STATEMENT

In September 2023, the Victorian Government released *Victoria's Housing Statement: The Decade Ahead 2024–2034*, setting an ambitious goal for addressing Victoria's housing needs. Draft housing targets have been developed following the Housing Statement release, including housing targets for all areas of the state.

The overall target is to increase housing delivery from 54,000 homes a year to 80,000 homes a year (equivalent to 800,000 homes over the next decade), with 70% constructed in established areas and 30% in growth areas.

By 2051, the draft targets indicate the Monash and Kingston LGA's are to accommodate 72,000 and 59,000 new homes, respectively.

The Housing Statement aims to support a significant share of the work agreed under the National Housing Accord and National Cabinet – across areas such as planning reform, expedited approvals, social and affordable housing and renters rights. This will build on previous rental reforms and projects like the 'Big Housing Build'.

The Housing Statement focuses on five key areas to achieve these targets and other housing aspirations:

- **Good decisions, made faster** – reforming Victoria's planning system, clearing the backlog of planning permits, giving builders, buyers and renovators certainty about how long approvals will take – and a clear pathway to resolve issues quickly if those timeframes aren't met. The reforms make the Minister for Planning the decision-maker and streamline the planning process for medium and high-density residential developments, with a construction cost of over $50 million in Melbourne and delivering at least 10% affordable housing.
- **Cheaper housing, closer to where people work** – unlocking new spaces to increase supply and stop urban sprawl, building more homes closer to where people have the transport, roads, hospitals and schools they need and delivering vital, basic community infrastructure faster. The need to create more housing with the best design standards where people want to live is key to this section of the housing statement.
- **Protecting renters' rights** – closing loopholes that drive up the cost of living for renters, giving tenants more certainty over their leases, living standards and finances, and resolving tenancy disputes faster to keep them out of VCAT. It has been identified in the last five years; typical rents have gone up by 21% in Melbourne. Increasing supply is seen as the solution to increasing affordability and the measures in the housing statement facilitate an additional 70,000 rental properties over the next 10 years.
- **More social housing** – rapidly accelerating the rollout of social and affordable homes across Victoria and launching Australia's biggest urban renewal project across Melbourne's 44 high-rise social housing towers. Redevelopment of ageing high-rise towers to provide more modern, comfortable and efficient homes is suggested. The building of 769 homes through the Commonwealth Government's Social Housing Accelerator and more than 4,000 social housing homes through other programs are planned.
- **A long-term housing plan** – delivering a long-term plan to guide how our state grows in the decades ahead and reviewing the *Planning and Environment Act 1987* to build a planning system that works with Victorians – not against them. This section forms the first steps in creating a plan to help deliver Victoria's share of the nation's housing accord, which nationally includes one million new well-located homes by 2029 and 10,000 affordable homes.

2.2.4 VICTORIA PLANNING PROVISIONS

The Victoria Planning Provisions (VPP) are the standard provisions that form the framework for all of Victoria's planning schemes.

Clause 16 of the VPP outlines a number of strategies in relation to housing.

The objectives of the Clause include:

- To facilitate well-located, integrated and diverse housing that meets community needs.
- To deliver more affordable housing closer to jobs, transport and services.

There are a series of strategies that seek to achieve these objectives, including the likes of:

- Ensure that an appropriate quantity, quality and type of housing is provided, including aged care facilities and other housing suitable for older people, supported accommodation for people with disability, rooming houses, student accommodation and social housing.
- Increase the proportion of housing in designated locations in established urban areas (including under-utilised urban land) and reduce the share of new dwellings in greenfield, fringe and dispersed development areas.
- Encourage higher density housing development on sites that are well located in relation to jobs, services and public transport.
- Facilitate diverse housing that offers choice and meets changing household needs by widening housing diversity through a mix of housing types.
- Improve housing affordability by increasing choice in housing type, tenure and cost to meet the needs of households as they move through life cycle changes and to support diverse communities.
- Increase the supply of well-located affordable housing by facilitating a mix of private, affordable and social housing in suburbs, activity centres and urban renewal precincts.
- Facilitate the delivery of social housing by identifying surplus government land suitable for housing.

2.3 Local government policy

Local government planning policies relating to housing are summarised below, noting the Clayton Structure Plan Area straddles the border between the Cities of Monash and Kingston:

2.3.1 MONASH HOUSING STRATEGY

The *Monash Housing Strategy 2014* identifies initiatives and actions to be implemented by Council to facilitate a wider range of housing types, and to balance the need to provide for current and future demand while maintaining key elements of valued neighbourhood character across the municipality and enhancing sustainability.

Relevant objectives of the Strategy include:

- To provide accommodation for a diverse and growing population that caters for different family, cultural and lifestyle preferences and a variety of residential environments and urban experiences.
- To encourage the provision of a variety of housing styles and sizes that will accommodate the future housing needs and preferences of the Monash community.
- To recognise and provide for housing needs of an ageing population.
- To ensure that development is appropriate with regards to the residential environment of the area, in particular neighbourhood character and amenity.
- To ensure that heritage dwellings and precincts are identified and conserved.
- To revitalise Monash's activity centres by supporting higher density residential and mixed-use development.
- To ensure appropriate and affordable housing is available to suit the social and economic needs of the community.[8]

The Strategy identifies that *'the need for the City of Monash to adopt a proactive role to address housing issues is imperative, as opportunities for residential growth are limited within established areas'*.[9]

While the Strategy aims to maintain the predominately single-detached dwelling style in suburban residential areas, it seeks to maximise development potential around activity centres, the employment cluster and transport nodes.

Relevant strategies to driving housing growth in the Clayton Structure Plan Area include:

- Identify opportunities for the provision of additional housing within the residential zoned land within Monash National Employment Cluster.[10]
- Explore opportunities for the development of Council owned and controlled land for strategic commercial and residential development for community benefit with particular emphasis on the Clayton, Oakleigh and Glen Waverley Activity Centres.[11]
- Encourage the provision of high-quality student accommodation in proximity to education facilities particularly Monash University's Clayton campus and Holmesglen Training and Further Education (TAFE).[12]

2.3.2 MONASH AFFORDABLE HOUSING STRATEGY

In response to rising house prices and rents, along with limited investment in social and affordable housing leading to a dramatic increase in the number of households experiencing housing stress, the Monash City Council adopted the *Monash Affordable Housing Strategy* in 2023.

The Strategy and actions outlined are targeted to increase the amount of affordable housing available, and over the longer term, reduce demand for affordable housing by increasing housing affordability within Monash.

[8] Planisphere (2014), Monash Housing Strategy 2014 for the Monash City Council, https://www.monash.vic.gov.au/files/assets/public/v/1/edms/planning-development/strategic-planning/monash-housing-strategy-2014.pdf., p. ix

[9] Planisphere (2014), p. 2.
[10] Planisphere (2014), p. 62
[11] Planisphere (2014), p. 63
[12] Planisphere (2014), p. 59

The Strategy seeks to:

- *Prioritise, facilitate and increase the availability of affordable housing.*
- *Advocate for improved housing affordability and increase supply of affordable housing in Monash.*[13]

It is identified that activity centres are a prime location for affordable housing:

> *Activity centres in Monash have significant scope for increased density and development uplift. They are suitable for the provision of a more diverse and affordability range of housing types, particularly because they provide the ability for affordable housing to be located in close proximity to employment, services and shops.*[14]

The Strategy also states precinct planning for the SRL precincts should ensure the inclusion of affordable housing:

> *Action 5.1 – Advocate for the provision of substantial amounts of affordable housing in the Suburban Rail Loop Station Precincts at a level that reflects the future residential and workforce aspirations and subsequent forecast needs in the precincts.*[15]

2.3.3 CLAYTON PRECINCT PLAN

The Clayton Activity Centre Precinct Plan (2020) provides a framework to guide future land use and built form changes within the Centre and makes recommendations for future land uses in the centre including retail, commercial and residential uses.

In relation to housing, the objective of the Plan is to:

> *To provide a diverse range of housing types within the Activity Centre that caters to the needs of existing and future residents and meets expected population growth.*[16]

Strategies outlining how this will be achieved include:

- Provide broader housing choices within the Activity Centre to support the needs of families, couples, singles, older people, students and multi-generational families.
- Support higher density development on key redevelopment sites within the Commercial Areas of the Activity Centre.
- Promote residential uses above retail and office premises to provide for additional people living within the commercial area and provide greater surveillance of streets and public spaces.
- Provide for a greater diversity of housing types within the residential areas of the Activity Centre.
- Support the development of adaptable housing that can meet the needs of all users.
- Encourage opportunities for affordable housing across the Activity Centre.
- Encourage the consolidation of allotments within the Commercial and Residential Areas of the Activity Centre to provide for greater efficiency and higher amenity in new housing developments.[17]

In relation to the locations to housing development, the Plan highlights:

> *The existing residential areas will have a significant role to play in delivering this future housing through the redevelopment of single dwellings for townhouses and low scale apartment buildings.*
>
> *…The commercial areas of Clayton also provide good opportunities for mixed-use apartment developments that can meet some of the housing needs. Providing housing within the commercial core of Clayton will contribute to active and vibrant streets, and provide greater demand for additional shops, cafés, restaurants and services.*[18]

[13] City of Monash (2023), "Monash Affordable Housing Strategy. https://hdp-au-prod-app-mon-shape-files.s3.ap-southeast-2.amazonaws.com/8516/9579/1805/Adopted_Monash_Affordable_Housing_Strategy-_September_2023_D23-279390.PDF. p. 6

[14] City of Monash (2023), p. 20

[15] City of Monash (2023), p. 23

[16] Tract Consulting, prepared for City of Monash (2020), Clayton Activity Centre – Precinct Plan January 2020, p 39

[17] Tract Consulting prepared for City of Monash (2020), p. 39

[18] Tract Consulting prepared for City of Monash (2020), p. 38

2.3.4 KINGSTON HOUSING STRATEGY AND NEIGHBOURHOOD CHARACTER STUDY

The Kingston Housing Strategy and Neighbourhood Character Study (2020) outlines a 20-year framework for housing development and includes series of priorities needed to make housing more diverse, sustainable, and matched to the changing needs of the local community, whilst acknowledging the unique characteristics of Kingston's suburbs.

The recommendations of the study were incorporated into the Kingston Planning Scheme in May 2024.

The overarching vision for guiding housing growth and change in Kingston is underpinned by several component objectives, including:

- *To ensure that housing in the City of Kingston meets the needs of current and future residents.*
- *To ensure a housing stock that is diverse in its types, designs, sizes and tenure and that is flexible and adaptable to be able to accommodate changing needs within the community.*
- *To promote housing growth and diversity, including medium and high-density housing, in locations within walking distance of public transport, local services, parks and education.*
- *To advocate for increased affordable and special needs stock, including for elderly people and people with disabilities.*[19]

The study identifies different categories of housing change to guide the future growth and development of Kingston's residential areas. Areas in Clayton South that form part of Clayton Structure Plan Area are identified as substantial change areas. The majority of housing growth will occur within Kingston's substantial change areas. Key objectives for substantial change areas include:

- *Encourage the development of high-density housing types, particularly townhouses, apartments and shop-top dwellings.*
- *Encourage a diversity of housing types, including smaller housing types (particularly one and two bedroom dwellings) and apartments with 3 or more bedrooms.*
- *Encourage a variety of tenures, particularly affordable housing types, to meet the needs of a range of households.*
- *Encourage site amalgamation and consolidation.*[20]

2.3.5 KINGSTON SOCIAL AND AFFORDABLE HOUSING STRATEGY

The *Kingston Social and Affordable Housing Strategy* (2020) sets out a range of strategies and actions that Council will pursue to assist households in Kingston affected by the lack of affordable accommodation.

Council's specific strategies to increase the supply of affordable housing include:

- *Continue to support housing diversity and choice through Council's existing planning policies.*
- *Develop planning policies and mechanisms for affordable housing where approvals create land value uplift.*
- *Consider opportunities for affordable housing on appropriate Council-owned land.*
- *Explore options for contributions to affordable housing through joint ventures.*
- *Adopt an information sharing and brokerage role for development and affordable housing sectors.*
- *Strategic linkages to other projects and policy initiatives led by other business areas of Council.*
- *Advocate for state-wide mandatory inclusionary zoning policy and/or planning tools to allow a mandatory inclusionary zoning approach, in collaboration with other Councils.*

[19] Ethos Urban, prepared for the City of Kingston (2020), Kingston Housing Strategy & Neighbourhood Character Study, July 2020. housing-strategy-and-neighbourhood-character-strategy.pdf (kingston.vic.gov.au), p. 21

[20] Ethos Urban, prepared for the City of Kingston (2020), p. 45.

- *Advocate for increase investment into social housing through information and demonstration projects.*
- *Advocacy for direct government investment and subsidies.*[21]

2.4 Implications for Clayton Structure Plan

SRL East will contribute to achieving the objectives of Victorian Government and local government policies and strategies relating to housing, particularly increasing quickly the supply of more affordable housing options to meet demand due to population growth.

Specific implications of the policy landscape for development of the Clayton Structure Plan include:

- As a major activity centre and part of the Monash NEIC, Clayton is strategically well positioned to accommodate medium and higher-density housing within the Structure Plan Area.
- Victorian Government and local government policies point to the following themes for housing delivery in Clayton:
  - » Provide housing opportunities close to where people work and key public transport nodes.
  - » Diversity of housing choices is important, with well-designed medium- and high-density living options needing to provide for a wider cross-section of the community compared to development to date.
  - » Support for higher density development focussed within Clayton Major Activity Centre. This includes promotion of residential uses above commercial spaces, with mixed-use developments identified as enhancing vibrancy and safety of the Activity Centre.
  - » Consolidation of allotments within commercial and residential areas is supported in the Clayton Precinct Plan.
  - » Clayton offers a chance to enhance the variety of housing options, catering to key workers in the health precinct, as well as workers associated with other institutions in the Monash NEIC, including students seeking accommodation close to Monash University's Clayton campus.
- The housing requirements of those most in need should be addressed, including delivery of sufficient social and affordable housing. These homes should be strategically located close to jobs, transport, services and amenity, such as areas like Clayton.

[21] SGS Economics and Planning, prepared for the City of Kingston (2020), Kingston Social & Affordable Housing Strategy July 2020. kingston-social-and-affordable-housing-strategy-july-2020.pdf., p. 5

3. Trends towards high-density development

This section provides an overview of trends in high-density living world-wide as well as the location and type of high-density development in Melbourne to date.

3.1 Shift to high-density living

The share of the global population living in cities has accelerated rapidly. From 1950 to 2018, the proportion of the world's population living in urban areas increased from 30% to 55%, and projections indicate it will increase to 68% by 2050.[22]

As more people migrate to cities, high-density living has become more common. However, Australian cities have been relatively slow in embracing higher densities, despite being one of the world's most urbanised countries with around 92% of people living in urban areas.[23] Australia has one of the lowest rates of high-density housing among OECD countries, about 65% lower than the OECD average[24], as shown in Figure 3.1.

Australia's growth model has seen cities spread outwards and new homes developed in greenfield areas (e.g. former rural and agricultural areas). However, as cities continue to grow, urban sprawl is increasingly untenable.

As outlined by the OECD:

> *Urban sprawl creates negative impacts, such as higher infrastructure costs and diminished energy and resource efficiency. It can also result in encroachment on agricultural land, forests, open space or wetlands, with a corresponding loss of the economic, recreational and ecological values provided by those ecosystems. Longer commuting times without affordable public transport systems also diminishes access to jobs and services for many urban residents.*
>
> *Compact urban form, characterised by dense and proximate development patterns linked by public transport systems and with accessibility to local services and jobs, can counteract such negative impacts and maximise the economic, social and environmental potential of cities. It is associated with a wide range of urban benefits, including increased productivity due to agglomeration economies, improved accessibility to urban services, reduced travel times, and a smaller ecological footprint due to lower energy and land consumption.*[25]

Denser living generates urban advantages and also improves affordability.

Australian cities face significant housing affordability challenges. As of 2023, Sydney's housing market ranked as the second-least affordable globally, with Melbourne in 9th place, Adelaide in 14th, and Brisbane in 15th.[26]

Housing prices have significantly increased compared to income levels, leading to a decline in home ownership. From 1995 to 2020, the proportion of renter households across Australia increased from 26% to 31%, and the proportion of homeowners who own their home outright has also decreased.[27]

Apartments offer a more affordable option, with median prices 55% lower than houses in Melbourne.[28] Expanding the housing stock to include more townhouses and apartments is crucial to maintain a sustainable balance between growth and liveability and ensure residents can find homes that meet their needs and preferences.

[22] United Nations, 2018, "World Urbanization Prospects 2018." https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf.

[23] Australian Bureau of Statistics (2021), TableBuilder, counting persons, place of enumeration, ABS Website, accessed March 2024.

[24] Data on residential dwelling stock refer to 2020, except for Costa Rica (2021), the United States (2019), Canada, Colombia, Iceland, Japan, New Zealand, Chile (2017) and Australia (2021).

[25] OECD, [online] Available at https://www.oecd.org/regional/cities/compact-urban-development.htm, accessed March 2024

[26] Cox, W, 2024, Demographia International Housing Affordability 2024 Edition, Chapman Universityhttp://www.demographia.com/dhi.pdf

[27] Australian Bureau of Statistics (2019-20), Housing Occupancy and Costs, ABS Website, accessed March 2024.

[28] CoreLogic (2024) Hedonic Home Value Index, April 2024.

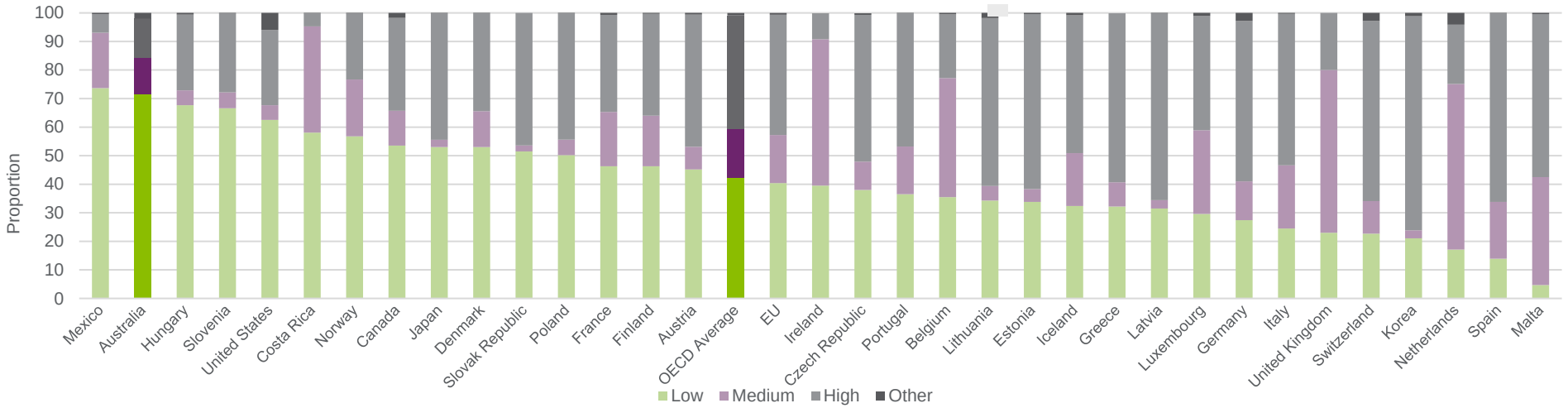


FIGURE 3.1 HOUSING MIX (% OF TOTAL OCCUPIED RESIDENTIAL DWELLING STOCK), OECD COUNTRIES, 2020

Source: OECD Housing Material Hm15:2023); AJM ***JV***

3.2 Trends in household size

As household sizes decrease, housing demand and preferences are shifting, creating a need for various types of dwellings. Higher-density development can cater to a diverse range of household types, particularly smaller households.

In Australia, the average number of people living in each household has declined from around 4.5 in 1910[29], to 2.9 in the mid-1980s to around 2.5 more recently.[30]

Similar trends are observed worldwide, with a global shift towards an average household size of just over two people, as shown in Figure 3.2.

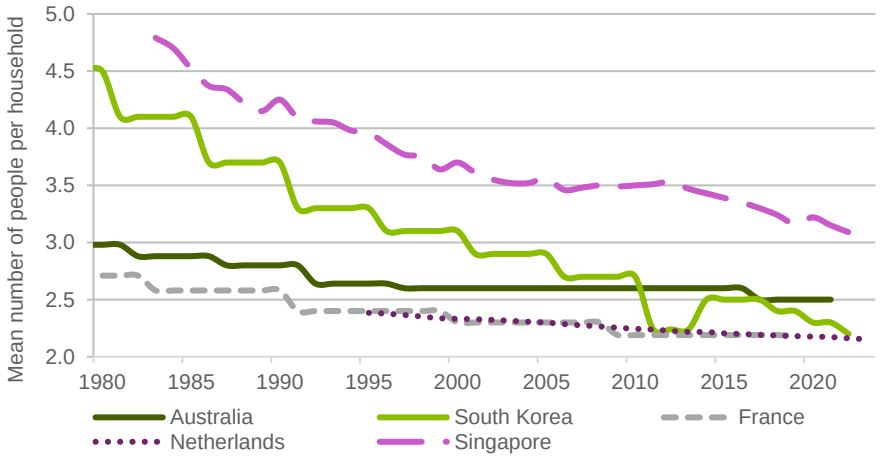


FIGURE 3.2 HISTORICAL HOUSEHOLD SIZE, SELECT COUNTRIES, 1980–2023
Source: Statista, ABS; AJM JV

Major factors driving the decrease in household sizes include declining fertility rates, later marriages, higher divorce and separation rates, more solo living, and an ageing population.

Australia's fertility rate has steadily declined from 2.06 in 1975 to 1.63 in 2022 as shown in Figure 3.3.

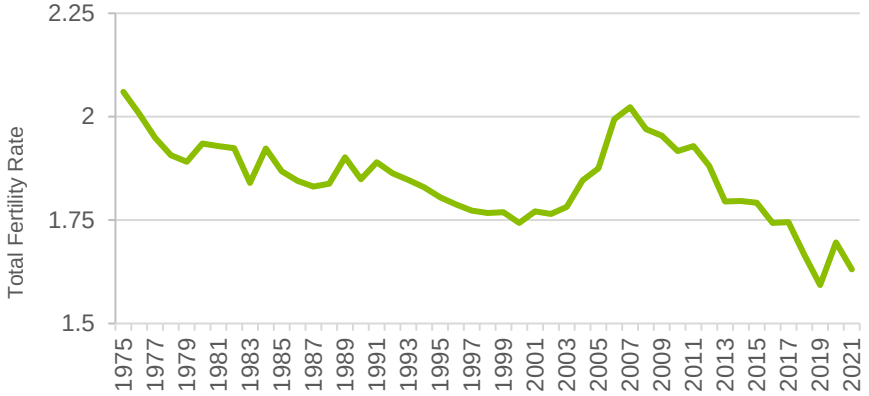


FIGURE 3.3 HISTORICAL FERTILITY RATE, AUSTRALIA, 1975–2021
Source: AIHW, 2024

[29] Qu L, Baxter J and Gorniak M (2023) Population, households and families https://aifs.gov.au/research/facts-and-figures/population-households-and-families, Australian Institute of Family Studies

[30] Agarwal N, Bishop J and Day I, (2023) A New Measure of Average Household Size, RBA, https://www.rba.gov.au/publications/bulletin/2023/mar/a-new-measure-of-average-household-size.html

Lone person households have increased from 18% of all households in 1981 to 26% in 2021[31], as shown in Figure 3.4. Family households, including couples with and without children, have declined as a share of the total.

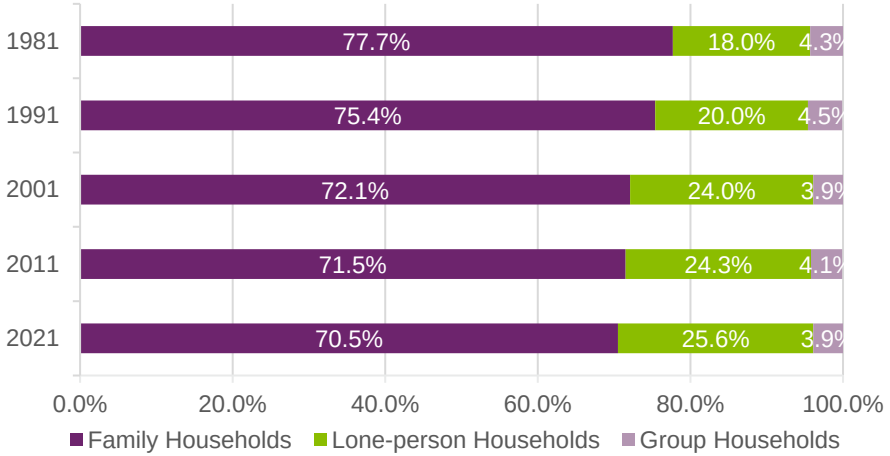


FIGURE 3.4 HOUSEHOLD TYPE, AUSTRALIA, 1981–2021
Source: ABS, AJM JV

While households have become smaller, the consumption levels of land have remained unchanged to date, as those living in smaller numbers, retain their demand for larger block sizes.[32]

3.3 High-density development in Melbourne

Changes in the types and locations of apartment development in Melbourne in recent years are discussed below.

3.3.1 TYPE OF APARTMENTS DELIVERED

In the year to October 2015, apartment approvals in Melbourne peaked, with approximately 26,500 approved apartments across Greater Melbourne. This represented 44% of total dwelling approvals over that period.

Much of Melbourne's recent apartment stock has been small one and two-bedroom apartments catering to investors.

Since 2015, 36% of the off-the-plan apartments built in Melbourne have been one-bedroom units, 56% have been two-bedroom units, and only 8% have been three-bedroom units.[33]

From 2015 to 2017, the average size of a one-bedroom apartment was approximately 52 sq.m.[34]

Better Apartment Design Standards (BADS) were introduced into the Victorian Planning Scheme in 2017. These standards aim to improve apartment design and amenity outcomes.

Over the year leading up to Q1 2017, the average size of off-the-plan one-bedroom apartments was 52.3 sq.m. By Q1 2024 (following the introduction of BADS), the average size had increased to 56.5 sq.m.[35]

[31] Qu L, Baxter J and Gorniak M, (2023)
[32] Qu L, Baxter J and Gorniak M, (2023)
[33] Urbis (2024) Apartment Essentials, accessed March 2024
[34] Urbis (2024)
[35] Urbis (2024)

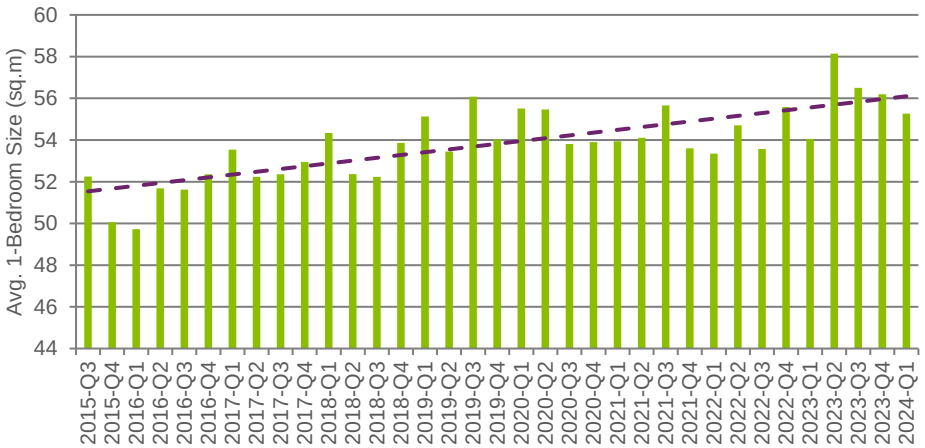


FIGURE 3.5 WEIGHTED AVERAGE MID-POINT 1-BEDROOM APARTMENT SIZE, GREATER MELBOURNE, Q3 2015 – Q1 2024

Source: Urbis Apartment Essentials

3.3.2 TYPE OF APARTMENTS NEEDED

Over the past few decades, Australian households have undergone significant changes, leading to a mismatch between the existing housing stock and current demand.

The decrease in household sizes (as outlined in section 4.1.1), combined with affordability concerns, have led to a shift in the demand for larger apartments (two and three-bedroom) and an increasing misalignment between the market's supply and growing demand for larger apartments.

This demand mismatch has been illustrated by a lack of property listings for both units and houses. As of March 2024, 40% of searches on realestate.com.au were for three-bedroom units, with three-bedroom listings only making up 25% of house listings.[36]

It is also important to note that this increased demand for larger apartments is likely driven by young working professionals seeking lifestyle and amenity, and also families seeking an affordable alternative to a detached dwelling.

As such there is a need to increase the development of larger units to meet the changing needs of Australians.

Apartment options for families are improving but still limited. Between 2015 and 2019 only 6% of apartments constructed had three or more bedrooms, since 2019, however, 10% of apartments constructed have three or more bedrooms.[37]

[36] Realestate.com.au (2024) The great housing mismatch: Why Aussie homes are no longer meeting our needs, https://www.realestate.com.au/insights/the-great-housing-mismatch-why-aussie-homes-are-no-longer-meeting-our-needs/

[37] Urbis (2024)

3.3.3 KEY CLUSTERS OF HIGH-DENSITY DEVELOPMENT IN MELBOURNE

Figure 3.6 shows locations across Melbourne where higher density has been approved in the past 10 years, relative to the locations of the six SRL station locations. Most apartment development has occurred in the inner city and a few middle-ring hotspots.

Figure 3.6 highlights the trends in townhouse and unit development proposals across Greater Melbourne:

- There is a general expansion of density starting in the CBD and radiating out.
- Beyond the CBD and city fringe, there are pockets of density at an evenly spaced distance from the CBD at the likes of Footscray, Sunshine, Essendon, Coburg, Preston, Doncaster and Box Hill. All these areas support large activity and shopping centres or are designated Metropolitan Activity Centres.
- Higher density development follows major roads and train lines, and where there are inner to middle-ring suburbs with low-density, there is often a lack of transport linkages servicing them.
- The disparity in prices between houses and apartments is also a contributing factor to the emergence of clusters of high-density development. Areas where houses are significantly more expensive than apartments are seeing more demand for apartments (Figure 3.7).

As illustrated in Figure 3.6, apartment development has not yet significantly commenced in the middle ring and SRL East Structure Plan areas, with the exception of Box Hill and, to a lesser extent, Glen Waverley. Several factors contribute to this, including inadequate transport options (Burwood, Monash), the slightly greater distance from the CBD placing some areas just on the fringe of where higher density development is occurring, underdeveloped activity centres (Burwood, Monash), extensive areas of established low-density housing where change is gradual, and relative affordability (see Figure 3.7).

While proximity to the CBD is one driver of high-density development, as travel times increase with density and in line with the concept of providing jobs close to where people live, proximity to suburban employment centres will be a driver too.

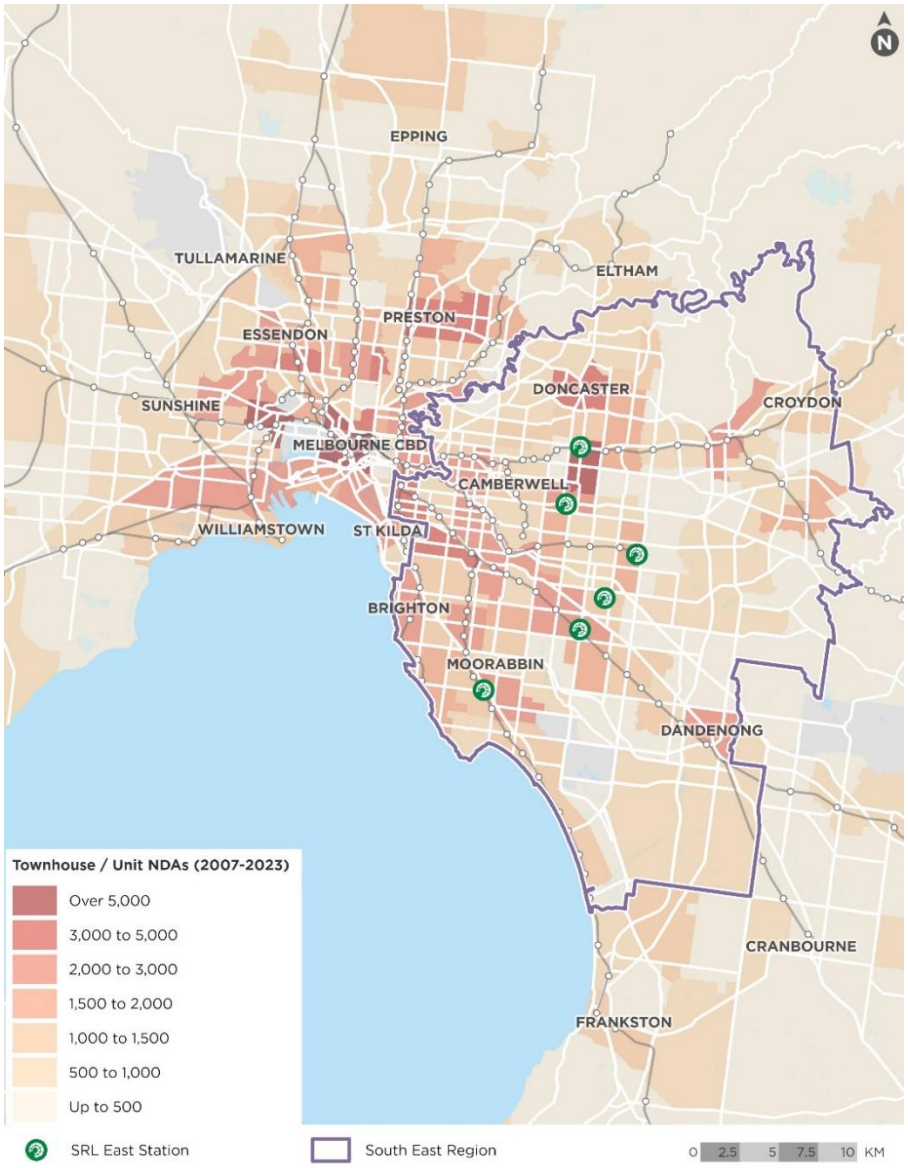


FIGURE 3.6 TOWNHOUSE AND UNIT NEW DWELLING APPROVALS, 2014–2023

Source: ABS; AJM JV

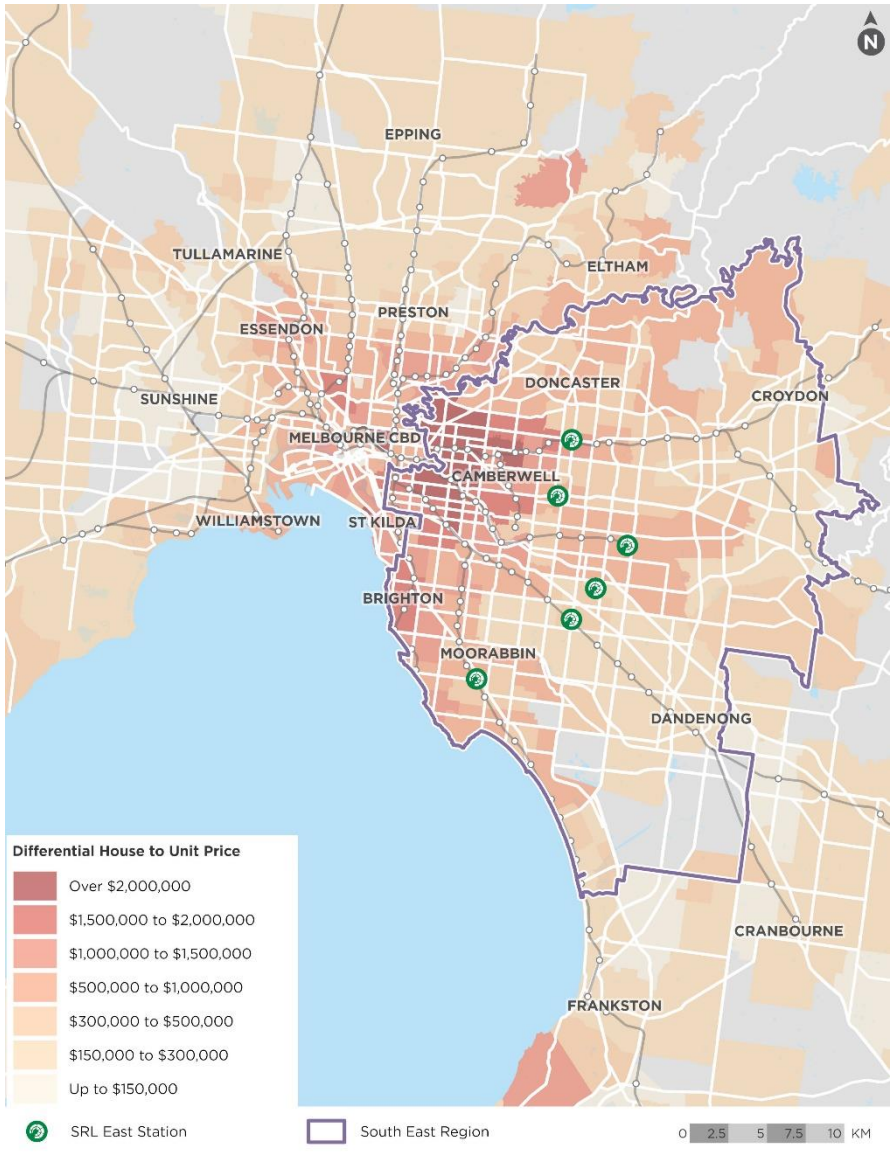


FIGURE 3.7 PRICE DIFFERENTIAL BETWEEN HOUSE AND UNITS, YEAR TO JUNE 2023

Source: ABS; AJM JV

3.3.4 DRIVERS OF HIGH-DENSITY DEVELOPMENT

To understand the conditions that have facilitated significant high-density development (particularly apartments) in Melbourne in more detail, five case study precincts were analysed.

The precincts studied are areas of Melbourne that have seen a significant level of apartment development in recent years and include:

- Footscray
- Brunswick
- Collingwood
- Richmond – North
- Caulfield – North.

These case study locations have not been selected to suggest conditions in the SRL East station areas are directly comparable, but rather to understand the influence factors such as planning zones, developable lot sizes, and number of residential developers have played in facilitating high-density development.

As shown in Figure 3.8, these precincts saw a significant increase in the number of apartments between 2011 and 2021, ranging from +32% in Caulfield-North to +165% in Collingwood.

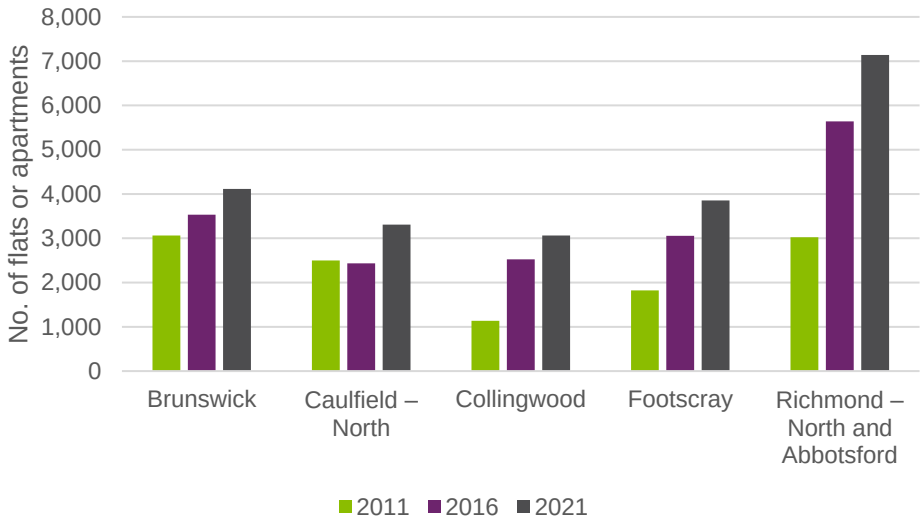


FIGURE 3.8 DWELLING STRUCTURE – FLAT OR APARTMENT (NO.), 2011-2021

Note: Data is based on occupied private dwelling structure. Source: ABS Data by region 2011-2023, by ASGS main structure (ASGS Edition 3 (2021 – 2026))

Analysis of data from Urbis Apartment Essentials, including projects built since 2014 and those currently under construction, identified common factors driving significant increases in density, such as zoning and amenities. Additionally, the relationship between yield (i.e., the number of apartments) and lot size, as well as the number of developers involved, was examined.

All precincts benefit from significant retail facilities (convenience and discretionary based retail), entertainment and lifestyle options, and are easily accessible by multiple modes of public transport, including trains and trams. When sacrificing living space, it is essential residents have access to a high-level of external amenity in return.

In terms of zoning, Table 3.1 highlights the land zones where development has occurred, showing the number and percentage of the total dwellings delivered in that suburb in each zone.

Across all precincts, most dwellings have been constructed in mixed-use environments where there is a combination of residential and employment activity. The number of apartments delivered is fairly evenly distributed among C1Z, ACZ1, and MUZ zoned land, with 26%, 24%, and 30% respectively. A further 13% of apartments were delivered in Priority Development Zones applicable to development in Caulfield – North and Richmond – North / Abbotsford.

Residential growth zones have contributed relatively little to the overall development, despite being predominantly residential zones intended to drive more growth. This indicates that it is challenging to achieve significant growth in standard residential zones when applied over existing low-density residential areas.

TABLE 3.1 PLANNING ZONES OF PROJECTS (TOTAL NUMBER AND PROPORTION OF DWELLINGS), 2014-2024 YEAR TO DATE

	ACTIVITY CENTRE ZONE 1 (ACZ1)	COMMERCIAL ZONE 1 (C1Z)	GENERAL RESIDENTIAL ZONES (GRZ1, GR2, GRZ3, GRZ4)	MIXED USE ZONES (MUZ, MUZ1)	NEIGHBOURHOOD RESIDENTIAL ZONE 1 (NRZ1)	PRIORITY DEVELOPMENT ZONES (PDZ1, PDZ2)	RESIDENTIAL GROWTH ZONE 1 (RGZ1)	TOTAL
Brunswick	-	1862	44	1237	-	-	-	**3143**
	-	59%	1%	39%	0%	0%	0%	**100%**
Caulfield – North	-	-	152	-	-	900	61	**1113**
	-	-	14%	-	-	81%	5%	**100%**
Collingwood	-	775	-	1589	-	-	-	**2364**
	-	33%	-	67%	-	-	-	**100%**
Footscray	4036	-	137	1400	-	-	-	**5573**
	72%	-	2%	25%	-	-	-	**100%**
Richmond - North and Abbotsford	-	1623	561	755	38	1325	-	**4302**
	-	38%	13%	18%	1%	31%	-	**100%**

Source: Urbis Apartment Essentials

Figure 3.9 shows the spread of development size (number of units) and lot size (sq.m) across the different case study precincts.

Across all precincts, the median development size in terms of the number of apartments is approximately 70. These developments are typically situated on lots around 1500 sq.m in size. It is important to note that there are a few outliers, which are large mixed-use sites that include additional facilities on the same lot, such as retail spaces (e.g. Caulfield Village).

The relationship between the number of apartments and lot size is influenced by typology, as shown in Table 3.2. For instance, the lot size required for developments with 450-500 apartments can vary significantly based on their typology: Caulfield Heath, with 463 dwellings across five buildings with a maximum of five stories, occupies 14,500 sq.m, allowing for considerable space between buildings. In contrast, Green Square in Richmond has 500 apartments within a single nine-storey structure, occupying around 6500 sq.m.

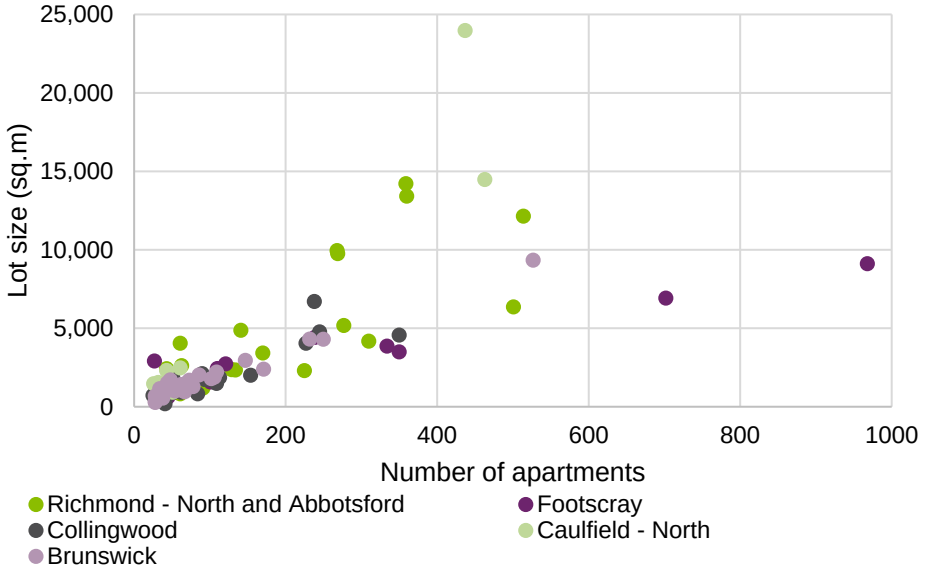


FIGURE 3.9 DEVELOPMENT SIZE (NO. OF APARTMENTS) VS. LOT SIZE (SQ.M), 2014-2024 YEAR TO DATE

Source: Urbis Apartment Essentials

TABLE 3.2 MEDIAN DEVELOPMENT AND LOT SIZE, 2014-2024 YEAR TO DATE

	BRUNSWICK	CAULFIELD – NORTH	COLLING-WOOD	FOOTSCRAY	RICHMOND – NORTH AND ABBOTSFORD	TOTAL
Median dev. size (no. apts.)	62	51	77	121	129	**68**
Median lot size (sq.m)	1200	2306	1282	2911	2414	**1559**

Source: Urbis Apartment Essentials

Table 3.3 displays the top five developers in each precinct, including their share of the total precinct apartments delivered. Some insights from this data include:

- In general, there is a mix of developers across the precincts.
- Richmond-North and Abbotsford and Caulfield-North, however, have been master-planned or overseen by one or a few large developers. The market share of Salta and Beck is anticipated to grow even further as they have more apartments in the pipeline in Richmond – North and Abbotsford and Caulfield – North.
- Generally, when a single developer is responsible for a large number of apartments, they also provide additional facilities, such as retail spaces, alongside the residential units.

This last point is important to note in relation to the delivery of growth around the SRL stations. It highlights that significant growth in dwelling numbers can be more easily achieved when one or few developers are responsible for a large share of the new development, with residential development supported by complementary delivery of retail and other amenity. Less coordinated development across a greater number of parties can result in slower change and delayed delivery of important community facilities.

TABLE 3.3 TOP 5 DEVELOPERS IN EACH PRECINCT BY NUMBER OF APARTMENTS CONSTRUCTED OR UNDER CONSTRUCTION, 2014-2024 YEAR TO DATE

	BRUNSWICK	CAULFIELD – NORTH	COLLINGWOOD	FOOTSCRAY	RICHMOND – NORTH & ABBOTSFORD
1	Mirvac (527, 17%)	Beck Property Group (463, 42%)	Gurner (471, 20%)	R&F Properties (1400, 25%)	Salta Properties (1137, 26%)
2	Hines (250, 8%)	Realm (437, 39%)	SMA Projects (350, 15%)	Growland Group (1068, 19%)	Blue Earth Group (587, 14%)
3	CBD Development Group (232, 7%)	BNG Group (61, 5%)	Banco Group (238, 10%)	AZX Group (968, 17%)	Home (GFM) (360, 8%)
4	Neometro Developments (212, 7%)	Chocolate Towers Pty Ltd (51, 5%)	Urban Inc (227, 10%)	Investa (702,13%)	Hamton (359, 8%)
5	Assemble (171, 5%)	Platinum Investments Pty Ltd 43, 4%)	Cbus Property (154, 7%)	Bensons Property Group (350, 6%)	Marne Properties (269, 6%)

Source: Urbis Apartment Essentials

In summary, the analysis suggests key drivers of density can include mixed-use zoning or equivalent; transport links, especially rail and trams; and retail and lifestyle amenity. For a standard development of around 70 apartments, a lot size of around 1500 sq.m is required. A mix of developers is typical, however, generally a single developer with a larger market share is able to provide more amenities within the residential developments.

3.4 Implications for Clayton Structure Plan

The analysis in this section highlights the following considerations for the Clayton Structure Plan:

- Although a large share of Australia's population lives in urban areas, the country has been slow to adopt high-density housing, favouring low-density detached homes instead.
- Household sizes in Australia have significantly decreased over the past 20 years, reflecting global trends. However, the housing stock has not evolved to meet changing demands.
- There is currently a mismatch between the existing housing stock and current demand, highlighting the need for more development of larger units with three bedrooms or more.
- High-density development in Melbourne has primarily occurred in the inner city and a few middle-ring hotspots, driven by good transport links, access to amenity, and an increasing gap between prices of houses and apartments. In the Clayton Structure Plan Area, high-density development has been observed in the Jackson Green renewal site and other limited developments. It is still, however, an emerging market given housing remains more affordable than some eastern suburban locations.
- Case study analysis indicates high-density infill development has generally been delivered through zones that allow a mix of uses (e.g. MUZ, ACZ, C1Z, PDZ). Standard residential zones have not supported large increases in apartment numbers. This has been witnessed in the Clayton context to some extent. High-density development has been delivered at Jackson Green which is now a RGZ, but was a conversion of previous industrial land. Adjoining land has been rezoned to MUZ, while the PMP site has been considered under a Comprehensive Development Zone. Going forward, the C1Z core of the Structure Plan Area will likely be a focus for residential development.
- As the typical lot size in the case study precincts was over 1500 sq.m, encouragement of site amalgamation may also be necessary to ensure sufficient access to large development sites.

Part B: Current state

Part B includes:

- **Section 4** describes the existing resident characteristics and housing stock in the Structure Plan Area.
- **Section 5** considers housing costs and affordability in the Structure Plan Area.
- **Section 6** outlines trends in housing supply in the Structure Plan Area, including recent and proposed developments.

4. Population and housing characteristics

This section provides an overview of the current resident characteristics and type of housing in the Structure Plan Area, based on the 2021 Census.

Data is provided for the Structure Plan Area and benchmarked against the South East Region and Greater Melbourne.

4.1 Historical population growth

Figure 4.1 shows the population growth in the Structure Plan Area from 2011 to 2023. There has been significantly higher-than-average population growth in the Structure Plan Area from 2021 to 2023, with a 6.8% annual growth rate, recovering from the decline in population from 2020-2021 due to COVID. Over the same period, the South East Region and Greater Melbourne recorded growth of just 1.6% and 2.3% per annum, respectively.

Prior to the last few years, growth in Clayton's population had been modest, below the rate for Greater Melbourne from 2011 to 2021.

The main reason for the recovery in Clayton recently has been the regaining of population lost during the COVID-19 period. The proximity of Clayton to Monash University's Clayton campus makes it an attractive location for students. The area otherwise also has a high overseas-born population. With borders closing, a large share of students and other overseas residents returned home. They are now coming back.

Looking over an extended period, Clayton's average growth from 2016 to 2023 was closer to 1% per annum.

Table 4.1 shows that density in the Clayton Structure Plan Area increased in the period from 2011 to 2023, from 34 to 43 people per hectare. Apartment developments in the area drove this higher density.

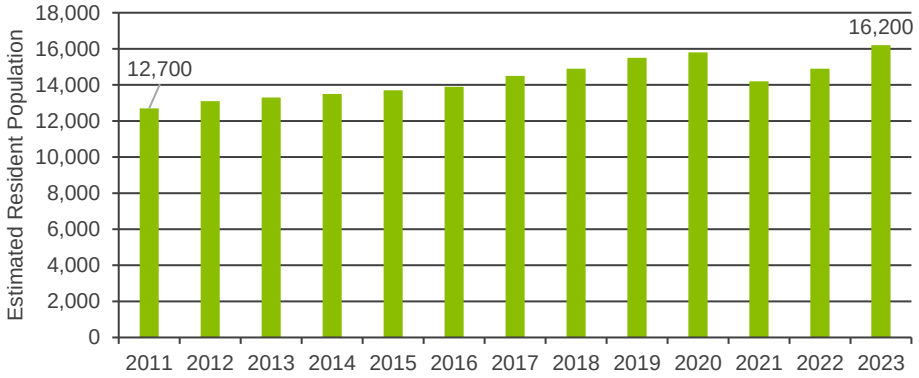


FIGURE 4.1 HISTORICAL POPULATION GROWTH, CLAYTON STRUCTURE PLAN AREA, 2011–2023 (YEAR TO JUNE)

Source: ABS ERP; AJM JV

TABLE 4.1 HISTORICAL POPULATION AND DENSITY

POPULATION (NO.)				
	2011	**2016**	**2021**	**2023**
Clayton Structure Plan Area	12,700	13,900	14,200	16,200
South East Region	1,503,200	1,618,900	1,614,900	1,665,400
Greater Melbourne	4,169,400	4,714,400	4,975,300	5,207,100
ANNUAL POPULATION GROWTH (%)				
		2011-2016	**2016-2021**	**2021-2023**
Clayton Structure Plan Area		1.8%	0.4%	6.8%
South East Region		1.5%	0.0%	1.6%
Greater Melbourne		2.5%	1.1%	2.3%
DENSITY (PERSONS PER HECTARE)				
	2011	**2016**	**2021**	**2023**
Clayton Structure Plan Area	33.6	36.8	37.6	42.9

South East Region	18.4	19.8	19.8	20.4
Greater Melbourne	4.2	4.7	5.0	5.2

Source: ABS ERP; AJM JV

4.2 Resident characteristics

4.2.1 CURRENT DEMOGRAPHICS

Table 4.2 shows the demographic profile of existing residents in the Clayton Structure Plan Area compared to the South East Region and Greater Melbourne. Detailed sociodemographic data can be found in Appendix C.

Characteristics to note are:

- The profile of residents in the Structure Plan Area is slightly different to the wider South East Region (e.g. slightly lower incomes, a skew to the younger age brackets particularly the 15 to 39-years group, high proportion of renters and those currently enrolled in tertiary education), due primarily to the proximity to Monash University's Clayton campus.
- Across the Structure Plan Area, household composition also differs from Greater Melbourne with a lower proportion of couple family with children households (22%). There is a high proportion of group households (17%) reflecting the high number of students.
- There is a very high proportion of overseas-born residents in the Clayton Structure Plan Area at 71% compared to South East Region (39%) and Greater Melbourne (37%).
- The Structure Plan Area has a high proportion of medium-density dwellings, at 50%. Comparatively, only 27% of dwellings in South East Melbourne and 22% Greater Melbourne are medium-density.
- There is a high proportion of renters in the Structure Plan Area (55%) compared to Greater Melbourne at 30%. Subsequently, there is a lower proportion of owner-occupier households in the Structure Plan Area.

TABLE 4.2 DEMOGRAPHIC PROFILE, CLAYTON STRUCTURE PLAN AREA COMPARED TO BENCHMARKS, 2021

	STRUCTURE PLAN AREA	SOUTH EAST REGION	GREATER MELBOURNE
Income			
Per capita Income	$44,832	$48,471	$46,017
Var. from Melbourne average	-3%	5%	-
Average household income	$104,624	$127,711	$119,232
Var. from Melbourne average	-14%	7%	-
Age profile			
% 0-14 years	10%	16%	18%
% 15-24 years	19%	13%	12%
% 25-39 years	39%	21%	24%
% 40-54 years	13%	20%	20%
% 55-65 years	7%	12%	11%
% 65+ years	11%	18%	15%
Household type*			
Couple family no children	23%	24%	23%
Couple family with children	22%	33%	32%
One parent family	8%	9%	10%
Other family households	5%	2%	2%
Lone person household	22%	25%	24%
Group household	17%	4%	4%
Other	4%	3%	4%
Occupied Dwelling density*			
Low-density	39%	61%	66%
Medium-density	50%	27%	22%
High-density	11%	11%	13%

	STRUCTURE PLAN AREA	SOUTH EAST REGION	GREATER MELBOURNE
Housing tenure*			
Owned outright	22%	36%	30%
Owned with a mortgage	21%	34%	38%
Rented	55%	29%	30%
Other metrics			
Household size	2.3	2.4	2.4
% Overseas-born	71%	39%	37%
% White collar workers	66%	79%	74%
% Blue collar workers	34%	21%	26%
% Undertaking tertiary education	19%	9%	8%

** Excludes non-private dwellings and other private dwellings. Source: ABS Census of Population and Housing 2021; AJM JV*

4.2.2 DEMOGRAPHIC CHANGE

Table 4.3 summarises key demographic trends in the Clayton Structure Plan Area based on changes observed between the 2011 and 2021 Census.

- Although income levels are still below the Greater Melbourne average, per capita and household incomes grew significantly stronger in the Structure Plan Area.
- The Clayton Structure Plan Area increased its share of residents in the 25 to 39-years age group. Other age groups had a decreasing or stable share of the total over the 10 years to 2021. The 25 to 39-years group as a percentage of the total is now higher in the Structure Plan Area (39%) than in Greater Melbourne (24%). Population growth is still driving absolute growth in most age groups. The 0 to 14-years group saw a slight fall in population from 2011 to 2021.
- The focus on medium- and high-density developments in the Structure Plan Area has resulted in the proportion of medium- and high-density dwellings increasing a total of 14% pts over the 10 years to 2021 to be 61% of dwellings. The proportion of low-density dwellings has therefore decreased.
- In the Clayton Structure Plan Area, higher density influenced the change in housing tenure over the 10 years to 2021. Rented dwellings (+3% pts) have increased as a portion of total tenure types over the 10 years to 2021 at a faster rate than Greater Melbourne. Dwellings owned with a mortgage also increased by 3% points over the period.

TABLE 4.3 VARIATION IN THE PERCENTAGE POINT CHANGE FROM 2011–2021 IN CLAYTON VS GREATER MELBOURNE

	CHANGE	CLAYTON STRUCTURE PLAN AREA	GREATER MELBOURNE	VARIATION FROM GR. MELBOURNE CHANGE (%PT)
Per capita income	%	60%	35%	25%
Average household income	%	66%	40%	27%
% 0-14 years	% point	-2%	0%	-1%
% 25-39 years	% point	6%	1%	5%
Low-density dwellings	% point	-14%	-7%	-6%
Medium-density dwellings	% point	8%	10%	-2%
High-density dwellings	% point	6%	-3%	8%
Owned outright	% point	-6%	4%	-11%
Owned with a mortgage	% point	3%	8%	-6%
Dwellings rented	% point	3%	9%	-6%

Note: Numbers rounded. Source: ABS Census of Population and Housing 2011 & 2021; AJM JV

4.2.3 MOVERS ANALYSIS

The analysis here considers the profile of residents who moved into or within the Structure Plan Area from 2016 to 2021. These 'movers' are distinct from residents living in the same location in the area since pre-2016 but include those moving houses within the area.

4.2.3.1 Origin of movers

According to the 2021 Census, around 35% people currently living in the Clayton Structure Plan Area were living in the same property at the last Census.

Figure 4.2 and Table 4.2 show the locations that residents who moved into the Structure Plan Area migrated from. Of the 65% of people moved to or within the area over the five years, 30% were from overseas (30%), with the remaining 35% moving domestically. The key origin locations for domestic movers were the surrounding LGAs including the City of Monash and the City of Kingston where the Structure Plan Area extends across, as well as the neighbouring City of Glen Eira. This indicates a preference for people to stay in the local area.

While most movers to the Clayton Structure Plan Area came from the local area from 2016 to 2021, this may change over the coming decades. SRL will open the opportunity for people to live in Monash who might work or study in other parts of the rail corridor. Outward migration from inner Melbourne is also anticipated to increase as property prices remain high. There is also likely to be greater demand from outer areas due to the anticipated new housing offered in the area.

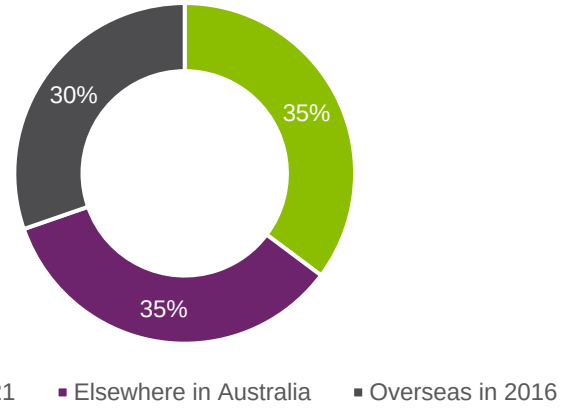


FIGURE 4.2 MIGRATION ANALYSIS – OVERSEAS VS DOMESTIC, SHARE OF TOTAL HOUSEHOLDS

Note: Locations that Clayton Structure Plan Area residents migrated from in the last 5 years and those who remained in the same place of residence compared to 2016. Source: ABS (2021) UAI5P Usual Address Five Years Ago Indicator; AJM JV

TABLE 4.4 MIGRATION ANALYSIS – TOP 10 LOCATIONS WHERE CLAYTON 2021 STRUCTURE PLAN AREA RESIDENTS LIVED IN 2016

PLACE OF RESIDENCE 2016		SHARE OF PEOPLE WHO MOVED FROM 2016 TO 2021
1	Overseas	30.3%
2	City of Monash	13.8%
3	City of Kingston (Vic)	5.0%
4	City of Glen Eira	4.9%
5	City of Greater Dandenong	3.9%
6	City of Casey	2.3%
7	City of Melbourne	1.8%
8	City of Whitehorse	1.6%
9	City of Knox	1.4%
10	City Stonnington	1.3%

Note: Data excludes not stated and not applicable responses. Includes only the people who moved into the Clayton Structure Plan Area between 2016 and 2021. The table shows their previous place of residence as of the 2016 Census. Source: ABS (2021) UAI5P Usual Address Five Years Ago Indicator Elsewhere in Australia, Local Government Areas of Usual Residence Five Years Ago; AJM JV

4.2.3.2 Characteristics of movers

Figure 4.3 to Figure 4.6 show the age cohorts, dwelling density, tenure types and incomes of people living in the Clayton Structure Plan Area as of the 2021 Census by mover status. The key insights from this analysis are below:

- Those moving from overseas or within Australia were predominantly in the 20–39-year age cohort. This reflects the proximity to Monash University's Clayton campus for students and Australia's skilled migration program which brings in predominantly young professionals. Older age cohorts are much less likely to be movers.
- Movers (new residents) are most likely to reside into medium-density dwellings, although they are more likely than residents who didn't move to live in a high-density dwelling.
- The majority of movers rent rather than buy their home.
- People who did not move within the Structure Plan Area, generally have a similar level of affluence as those who moved to the area, as measured by their household incomes. However, Figure 4.6 shows that those who moved from elsewhere in Australia are more represented in the higher income brackets and those who moved from overseas are less highly represented in these income brackets.

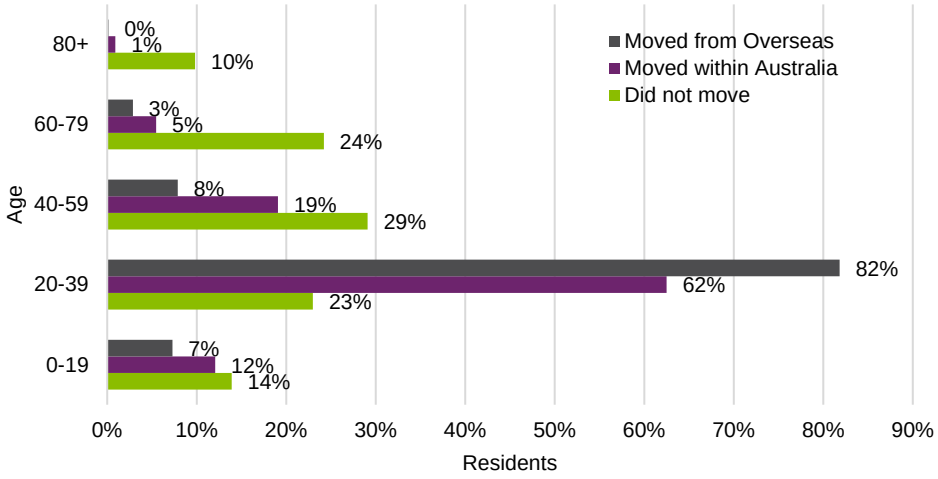


FIGURE 4.3 AGE COHORTS, CLAYTON STRUCTURE PLAN AREA, 2021

Note: Percentages excluded not applicable and not stated. Source: ABS (2021) AGE10P Age in Ten Year Groups; AJM JV

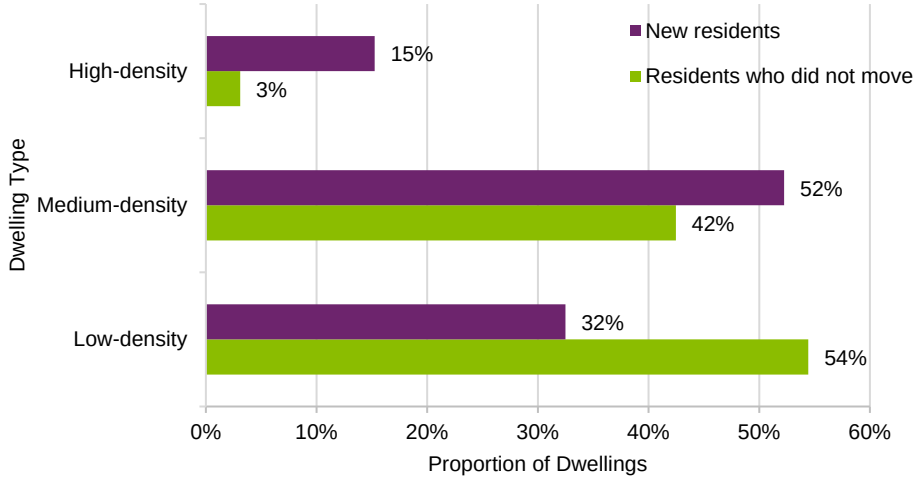


FIGURE 4.4 DWELLING DENSITY, CLAYTON STRUCTURE PLAN AREA, 2021

Note: Percentages are the percentage of the total new residents or residents who did not move. Excludes not applicable or not stated. Source: ABS (2021) STRD Dwelling Structure MV5D Household Five Year Mobility Indicator; AJM JV

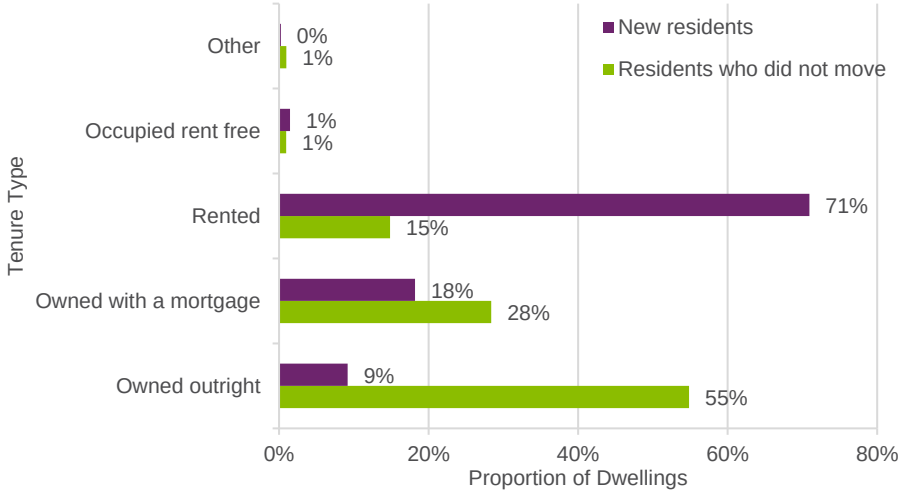


FIGURE 4.5 TENURE TYPE, CLAYTON STRUCTURE PLAN AREA, 2021

Note: Percentages are the percentage of the total new residents or residents who did not move. Excludes not applicable or not stated. Source: ABS (2021) TEND Tenure Type, MV5D Household Five Year Mobility Indicator; AJM JV

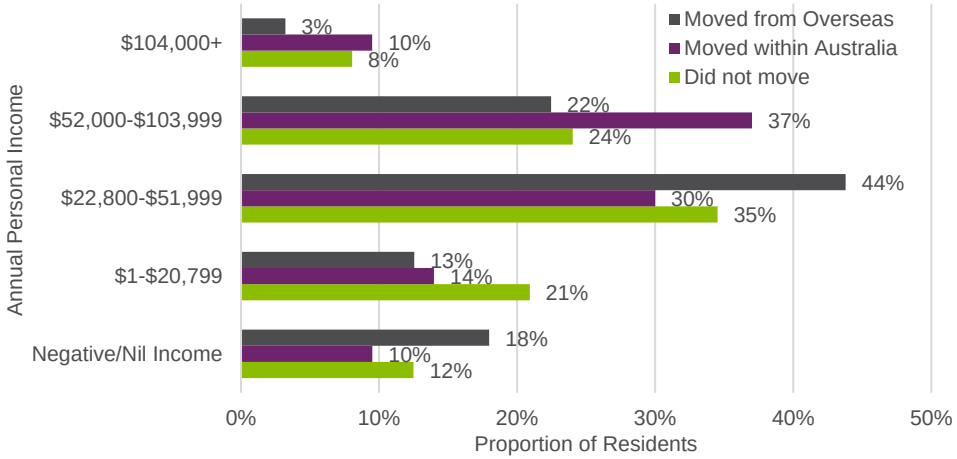


FIGURE 4.6 PERSONAL INCOME, CLAYTON, 2021

Note: Percentages are the percentage of the total new residents from overseas or elsewhere in Australia or residents who did not move. Source: ABS (2021) INCP Total Personal income (weekly); AJM

4.3 Dwelling stock

This sub-section considers dwelling growth as well as the nature of dwellings, including dwelling density, tenure, and size (in terms of the number of bedrooms) in the Structure Plan Area compared to the wider South East Region and Greater Melbourne.

Dwelling suitability is examined to determine if there is a mismatch between the dwelling stock and the requirements of residents in the Clayton Structure Plan Area.

The current supply of diverse accommodation, which is tailored to specific housing needs is identified (e.g. social and affordable, student housing, retirement and aged care) in the Structure Plan Area. When referring to renters, it includes all renters, including social housing renters.

4.3.1 HISTORICAL DWELLING GROWTH

Table 4.5 summarises the changes in dwellings in the Clayton Structure Plan Area from 2011 to 2021. At the 2021 Census, there were around 673,000 private dwellings in the South East region, of which 0.9% (6010 dwellings) were located in the Structure Plan Area.

The number of dwellings in the Clayton Structure Plan Area increased by an annual rate of 2.1% from 2011-2016 and 3.1% from 2016-2021. This indicates an increase in the rate of new dwellings being added over the past five years. For comparison, Greater Melbourne recorded dwelling growth of 2.3% and 2.4% between 2011-2016 and 2016-2021 respectively.

TABLE 4.5 HISTORICAL DWELLING GROWTH, CLAYTON STRUCTURE PLAN AREA, 2011–2021

	DWELLINGS (NO.)		
	2011	**2016**	**2021**
Clayton Structure Plan Area	4650	5150	6010
South East Region	580,600	625,100	672,900
Greater Melbourne	1,627,700	1,822,100	2,051,300
	ANNUAL CHANGE IN DWELLINGS (NO.)		
		2011-2016	**2016-2021**
Clayton Structure Plan Area		100	170
South East Region		8900	9560
Greater Melbourne		38,880	45,840
	ANNUAL GROWTH RATE IN DWELLINGS (%)		
		2011-2016	**2016-2021**
Clayton Structure Plan Area		2.1%	3.1%
South East Region		1.5%	1.5%
Greater Melbourne		2.3%	2.4%

Note: Excludes non-private dwellings and other private dwellings. Historical numbers rounded. Source: ABS Census of Population and Housing 2011, 2016 & 2021; AJM JV

4.3.2 DWELLING DENSITY

4.3.2.1 Comparison of dwelling density to benchmarks

At the 2021 Census, the Clayton Structure Plan Area had a significantly lower proportion of low-density dwellings (39%) than Greater Melbourne (66%).

High-density living, including apartments and flats, accounted for the highest share of dwelling density types in the Structure Plan Area (50%), compared to just 22% for Greater Melbourne.

High-density dwellings were more aligned across the Clayton Structure Plan Area, the South East Region, and Greater Melbourne.

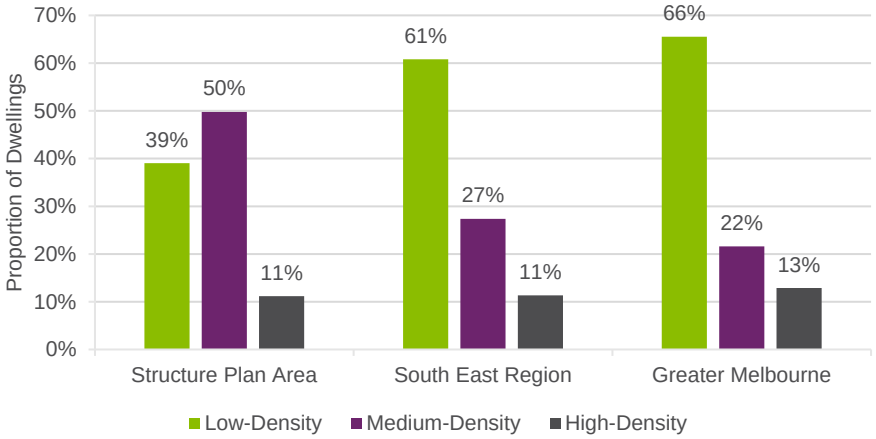


FIGURE 4.7 DWELLING DENSITY, CLAYTON STRUCTURE PLAN AREA COMPARED TO BENCHMARKS, 2021

Note: Excludes non-private dwellings and other private dwellings. Source: ABS (2021) STRD Dwelling Structure; AJM JV

4.3.2.2 Change in dwelling density in the Structure Plan Area

A sizeable increase (430) of high-density dwellings in the Structure Plan Area occurred from 2011 to 2021. This was accompanied by a large increase in medium-density dwellings (1030) and a decrease in low-density dwellings (100). Development of the Jackson Green estate on former industrial land in the southern part of the Structure Plan Area with a mix of apartments and townhouses, has influenced these results.

TABLE 4.6 CHANGE IN DWELLING DENSITY, CLAYTON STRUCTURE PLAN AREA, 2011–2021

	HISTORIC (NO.)			HISTORIC GROWTH PER ANNUM	
	2011	2016	2021	2011-2016	2016-2021
Low-density	2450	2170	2350	-60	30
Medium-density	1960	2670	2990	140	70
High-density	240	320	670	10	70
Total	**4650**	**5150**	**6010**	**100**	**170**

Note: Excludes non-private dwellings and other private dwellings. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: ABS Census 2011, 2016, 2021; AJM JV

4.3.2.3 Household type by dwelling density

Figure 4.8 shows household composition by dwelling density in the Clayton Structure Plan Area at the 2021 Census. Low-density and medium-density dwellings share similar proportions for household types. In high-density dwellings, there was a greater proportion of lone person households. Low-density dwellings support more families with children.

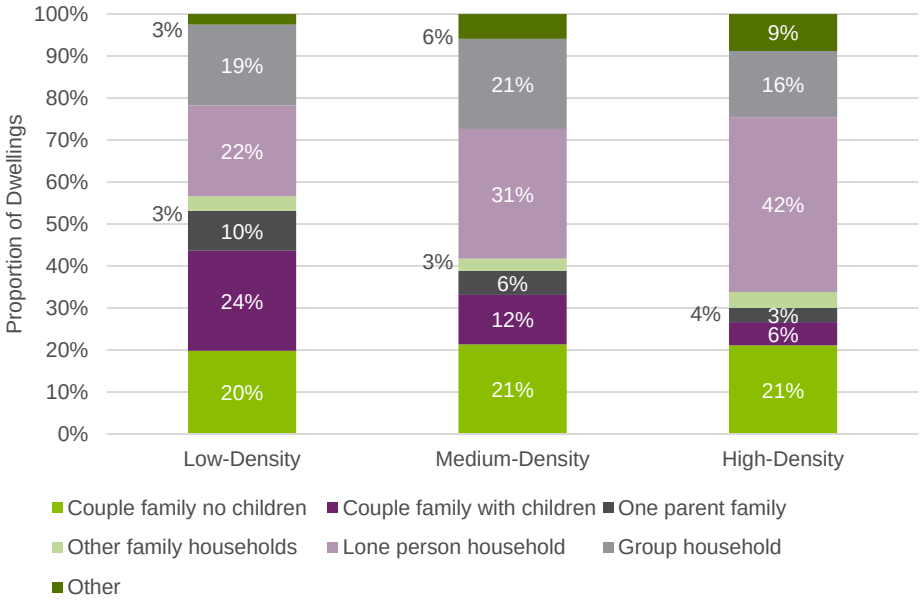


FIGURE 4.8 HOUSEHOLD COMPOSITION BY DWELLING DENSITY, CLAYTON STRUCTURE PLAN AREA, 2021

Note: Excludes non-private dwellings and other private dwellings. Source: ABS (2021) STRD Dwelling Structure & HCFMD Family Household Composition (Dwelling); AJM JV

4.3.3 TENURE TYPE

4.3.3.1 Comparison of tenure type to benchmark

Figure 4.9 shows the tenure type in the Structure Plan Area, the South East Region, and Greater Melbourne. The Structure Plan Area has a high proportion of rented dwellings, accounting for 55% of total occupied dwellings (excluding other tenure), much higher than the Greater Melbourne benchmark at 31%.

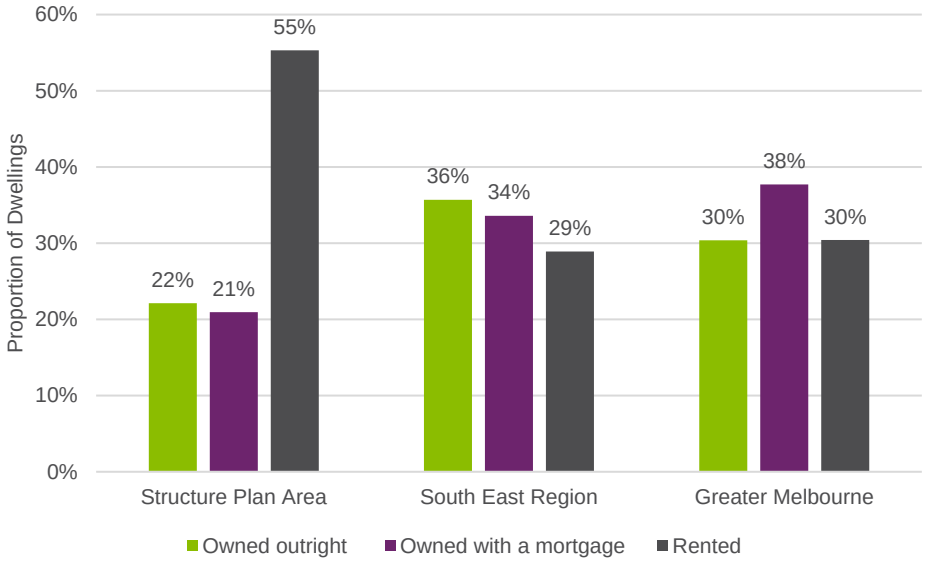


FIGURE 4.9 TENURE TYPE BY GEOGRAPHY, 2021

Note: Excludes non-private dwellings and other private dwellings. Source: ABS (2021) TEND Tenure Type; AJM JV

4.3.3.2 Number of bedrooms per dwelling by density

Figure 4.10 shows the dwelling structures by bedroom number in the Structure Plan Area.

Low-density dwellings are largely three bedrooms or more (87% of all low-density). Some 38% of medium-density and 79% of high-density have two bedrooms. Medium-density structures do offer more three-plus-bedroom opportunities (60%) but only 4% of high-density dwellings have three or more bedrooms. The vast majority of high-density dwellings have 2 bedrooms.

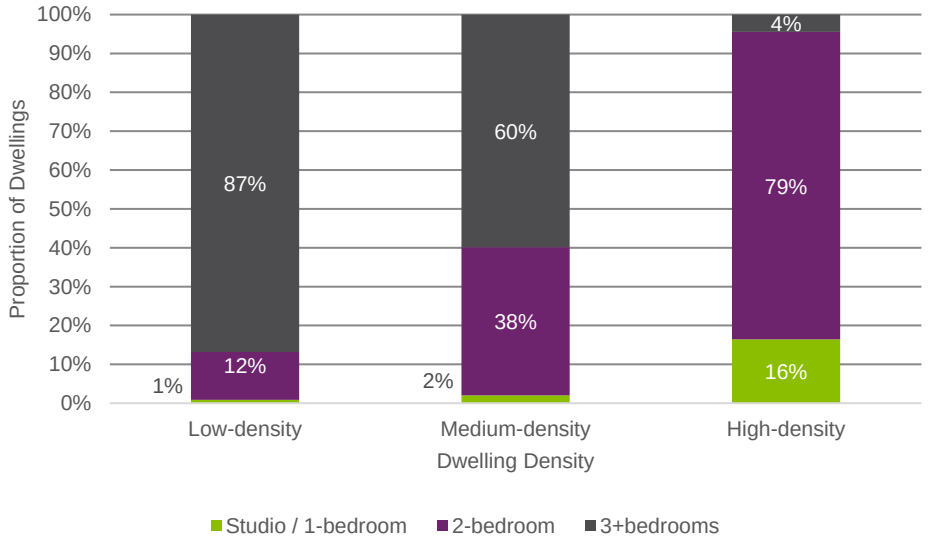


FIGURE 4.10 DWELLING STRUCTURE, CLAYTON STRUCTURE PLAN AREA, 2021

Note: Excludes non-private dwellings and other private dwellings. Source: ABS (2021) STRD Dwelling Structure & BEDRD Number of Bedrooms in Private Dwelling (ranges); AJM JV

4.3.3.3 Change by dwelling structure

Table 4.7 summaries the dwellings by dwelling structure in the Structure Plan Area from 2011 to 2021. Three-bedroom medium-density dwellings saw the greatest growth, equating to an increase of approximately 98 and 58 dwellings per annum between 2011-16 and 2016-21 respectively. Two-bedroom high-density have also grown strongly between 2016-21, growing at 60 dwellings per annum.

TABLE 4.7 DWELLINGS BY DWELLING STRUCTURE, CLAYTON STRUCTURE PLAN, 2011-2021

	HISTORIC (NO.)			HISTORIC GROWTH (PER ANNUM)	
	2011	2016	2021	2011-2016	2016-2021
Low-density					
Studio / 1-bedroom	20	20	20	0	0
2-bedroom	430	300	290	-30	0
3+bedrooms	2000	1860	2040	-30	30
Total	**2450**	**2170**	**2350**	**-60**	**30**
Medium-density					
Studio / 1-bedroom	50	70	60	0	0
2-bedroom	900	1100	1140	40	10
3+bedrooms	1010	1500	1790	100	60
Total	**1960**	**2670**	**2990**	**140**	**70**
High-density					
Studio / 1-bedroom	40	60	110	0	10
2-bedroom	170	230	530	10	60
3+bedrooms	30	30	30	0	0
Total	**240**	**320**	**670**	**10**	**70**
Grand total	**4650**	**5160**	**6010**	**90**	**170**

Note: Excludes non-private dwellings and other private dwellings. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: ABS (2021) STRD Dwelling Structure & BEDRD Number of Bedrooms in Private Dwelling (ranges); AJM JV

4.3.4 HOUSING SUITABILITY

4.3.4.1 Housing suitability in the Structure Plan Area

Figure 4.11 shows housing suitability in the Structure Plan Area. It shows the distribution for high, medium and low-density dwellings based on the number of bedrooms identified in the 2021 Census as being surplus to the people living in the house, not enough, or the right amount. The Figure shows a line for each density, while the distance from the centre represents the proportion for that density recorded at each point of the radar.

A significant share of dwellings in the Clayton Structure Plan Area was the 'right size' for the occupants – in other words, there were no spare or needed bedrooms.

However, a greater number of dwellings across all densities were indicated to have one bedroom more than what was necessary. High-density dwellings were largely right-sized or had one spare bedroom. Medium-density dwellings fell in the middle, and low-density dwellings were less right-sized.

Approximately 34% of low-density dwellings had two spare bedrooms, with more than 8% having three spare bedrooms. This suggests an opportunity for some households to downsize from large houses into smaller dwelling formats or for those large houses to be replaced by several more 'right-sized' dwellings to house the future population more efficiently.

Only a small number of households were considered too small for the people living there. However, that does not imply there is no need to increase the number of dwellings with more bedrooms to attract larger households that currently have more limited options, particularly in high-density dwellings.

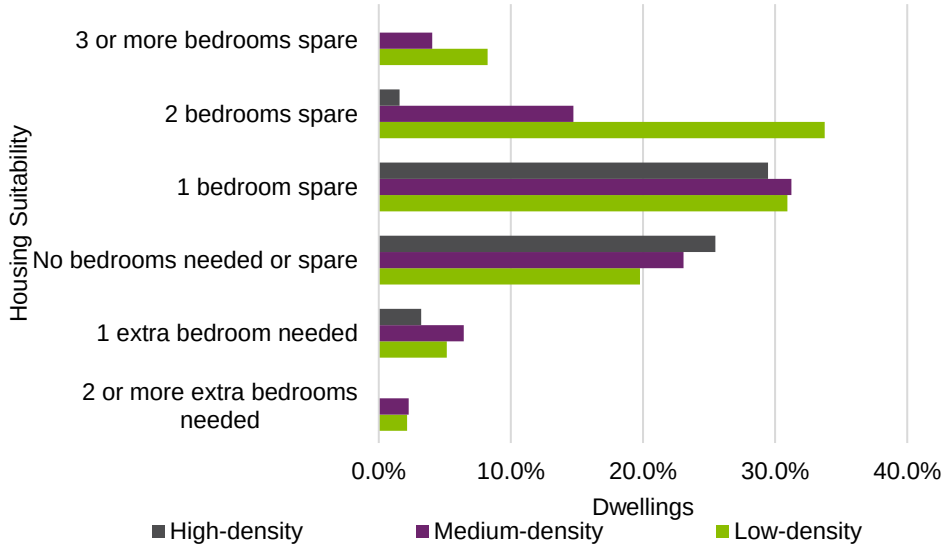


FIGURE 4.11 HOUSING SUITABILITY, CLAYTON STRUCTURE PLAN AREA. 2021

Note: Excludes not applicable responses. Source: ABS (2021) HOSD Housing Suitability; AJM JV

4.3.5 DIVERSE HOUSING TO ADDRESS THE VARIED NEEDS OF THE COMMUNITY

The current supply of diverse housing types providing tailored housing for specific cohorts is discussed below.

4.3.5.1 Social and affordable housing

Table 4.8 shows the change in social and affordable housing in the Clayton Structure Plan Area from 2011 to 2021. Social and affordable housing includes dwellings rented from a state or territory housing authority or a community housing provider.

Only five additional social or affordable housing dwellings were constructed in the Structure Plan Area from 2011 to 2021. However, this is in the context of the wider South East Region and Greater Melbourne, where there was a decrease in social and affordable housing.

TABLE 4.8 SOCIAL AND AFFORDABLE HOUSING, CLAYTON STRUCTURE PLAN AREA, 2011–2021

	HISTORICAL (NO. OF DWELLINGS)			HISTORICAL GROWTH (PER ANNUM)	
	2011	2016	2021	2011-2016	2016-2021
Structure Plan Area	100	70	105	-6	7
South East Region	12,000	12,000	12,000	-0.4	-0.6
Greater Melbourne	42,700	42,600	42,300	-24	-66

Note: Only includes dwellings that are rented from State or Territory Housing Authority and community housing providers. Source: ABS (2021, 2016, 2011) Census of Population and Housing; AJM JV

4.3.5.2 Student accommodation

There is no purpose-built student accommodation currently recorded as being in the Clayton Structure Plan Area. Several are located just north of the Structure Plan Area near Monash University's Clayton campus.

4.3.5.3 Retirement living and residential aged care

Table 4.9 shows the retirement and aged care supply in the Clayton Structure Plan Area in May 2024. A total 160 residential aged care beds were located in the Structure Plan Area, with no independent retirement living units recorded.

Bupa Aged Care Clayton is the only aged care facility located within the Structure Plan Area. It is located at 12 Burton Avenue, Clayton and has a total of around 160 aged care beds.

TABLE 4.9 RETIREMENT AND AGED CARE SUPPLY, CLAYTON STRUCTURE PLAN AREA, MAY 2024

TYPE OF ACCOMMODATION	STRUCTURE PLAN AREA	SOUTH EAST REGION
Retirement units	0	13,300
Residential aged care beds	160	10,100
Total	**160**	**23,400**

Source: Urbis Retirement and Aged Care database. (May 2024)

4.3.5.4 Diverse housing provision rates

Compared to national or regional benchmarks, the current provision of diverse housing does not appear to align with the current population profile in the Clayton Structure Plan Area.

The analysis of provision rates for the examined diverse housing shown in Table 4.10 highlights that:

- There is a significant supply of aged care and retirement living for the 1610 people identified as aged over 65 years in the Clayton Structure Plan Area in 2021 (ABS 2021). There is one aged care bed available for every 10.4 people aged 65 years plus. The comparable Australian provision rate of retirement and aged care facilities is 1 bed for every 19.6 people aged 65 years plus. In other words, there is greater supply in Clayton relative to the population.
- However, it should be noted that central Clayton is a high amenity area where aged care and retirement living would be concentrated to serve the wider region, particularly given the presence of the existing Clayton Train Station and the SRL station, Monash health precinct and vibrant shopping centre. It is reasonable to expect the Structure Plan Area will continue to have higher provision rates of retirement and aged care facilities in future.
- There are no purpose-built student accommodation beds in the Clayton Structure Plan Area. With 19% of the population reported to be students in 2021, this equates to around 2610 tertiary students living in the Structure Plan Area. There is, however, significant provision of student accommodation just north of the Structure Plan Area closer to Monash University's Clayton campus.
- The amount of affordable housing in the Clayton Structure Plan Area is largely in line with the provision in South East Melbourne but below the Greater Melbourne benchmarks. It has a provision rate of 1 affordable dwelling per 135 people in the area. The provision rate in Greater Melbourne is 1 dwelling per 116 people. This indicates under-provision relative to the rest of Melbourne, although it is important to consider the relative incomes of residents as well. It is also acknowledged that Greater Melbourne's provision does not represent an ideal supply. More analysis of the need for affordable housing is provided in Section 9.

TABLE 4.10 DIVERSE HOUSING PROVISION RATES

UNITS	LOCATION	DIVERSE. HOUSING UNITS	POPULATION	PROVISION 1 UNIT PER:
Retirement and aged care beds and units	Clayton Structure Plan	160	1610**	10.4 people aged 65+
	Australia	233,400	4,566,200**	19.6 people aged 65+
Purpose-Built Student accommodation beds	Clayton Structure Plan	0	2610***	N/A
	Suburban Melbourne			11.4* students
Affordable housing dwellings	Clayton Structure Plan	105	14,190	135 people
	South East Region	12,000	1,600,100	133 people
	Greater Melbourne	42,300	4,917,600	116 people

** Full-time student provision only Urbis Benchmarks ** Population aged over 65 years, *** Student population*

4.4 Implications for Clayton Structure Plan

The current and changing profile of the population and housing in the Clayton Structure Plan Area highlights the following areas the Structure Plan will need to consider:

- Population growth for the Clayton Structure Plan Area between 2016 and 2021 was low at just 0.4% growth per annum over this period. The population growth was slowed considerably over this time due to COVID-19 impacting the number of students studying at Monash University's Clayton campus in 2021. There has been a strong bounce back since 2021 though, with growth of 6.8% per annum 2021 to 2023.
- Key features of the Clayton Structure Plan Area population reflect the influence of students, including the following:
  - » Slightly below average incomes, although income growth has been strong
  - » A large cohort of younger adult
  - » More group households, but fewer families with children
  - » Most households rent their dwelling
  - » A large overseas born population
  - » A large share of residents enrolled in tertiary education.
- Around 65% of residents moved house from 2016 to 2021. These 'movers' are split fairly evenly between those from overseas and those moving domestically, with most domestic movers shifting from nearby areas. These domestic movers are more likely than established residents to be young, renting and living in high-density dwellings.
- The increase in medium-density dwellings (1030 dwellings) in Clayton has been more significant than high-density dwellings (430 dwellings) over the decade 2011 to 2021. High-density development did become more prominent after 2016 though, highlighting the emerging market for this type of housing.
- The current housing offer is considered broadly 'right sized' for the households living in it, although the low- and medium-density housing typically has more bedrooms than needed. This presents opportunities for downsizers (e.g. older couples with no children left at home) moving to smaller properties and groups of students moving to dedicated student accommodation). The Structure Plan Area could look to encourage downsizing, by encouraging more housing diversity in the area.
- The current higher-density housing type is skewed towards two-bedroom dwellings. Going forward, it is important to ensure high-density dwellings are suitable for all parts of the community. This means ensuring there are larger three or more-bedroom homes that meet the needs of families and groups, alongside smaller apartments that meet the needs of couples and singles. Medium-density housing delivered has generally been larger, supporting a wider range of households.
- The lower income levels of current residents and the high share of residents enrolled in tertiary studies highlight the need to encourage diverse housing options, particularly including affordable housing and student accommodation.

5. Housing costs and affordability

This section considers housing affordability, in terms of the relationship between expenditure on housing (prices, mortgage payments or rents) and household incomes.

5.1 The cost of housing

Safe and affordable housing is essential to wellbeing. Affordability is important for people wanting to purchase housing or rent. This section considers the cost of renting or buying housing and compares it to the incomes of households paying the expected rents and mortgages.

Data relating to sales activity is presented for the suburbs within and surrounding the Structure Plan Area. This includes Clayton, Clayton South Oakleigh East, Oakleigh South, Huntingdale, Clarinda, Springvale, Mulgrave and Notting Hill. Although Clayton is the focus, a wider area beyond the Structure Plan Area is considered for this analysis as investors, owner-occupiers and renters will consider areas surrounding their ideal location when deciding where to live. These suburbs, therefore, represent direct competition for dwellings, and their prices will influence prices in the Clayton Structure Plan Area.

Meanwhile, rental and vacancy data is provided for a more specific area that aligns more closely to the Structure Plan area. The rental data primarily relies on the Department of Families, Fairness and Housing (DFFH) Rental Report, which typically aggregates multiple suburbs, making it difficult to separate them individually. The suburbs of Clayton and Notting Hill are included in the Clayton DFFH Rental Report area, which also encompasses the suburb Oakleigh South. Rental vacancy data is provided for the Clayton postcode 3168.

For the purposes of this analysis, information is provided for ‘houses’ and ‘units’, with ‘units’ encompassing a mix of semi-detached dwellings, townhouses, and apartments.

5.1.1 PURCHASING A HOME

Figure 5.1 shows the median house and unit prices in Clayton from 2014 to 2023. House prices grew 5.8% per annum to reach $1.19 million by 2023. This is on par with the growth experienced across Greater Melbourne for the median house price (5.4% per annum).

The median price for units in Clayton also increased 3.7% per annum between 2014 and 2023 – this is above the growth witnessed across Greater Melbourne over the same period (2.8% per annum).

Figure 5.2 shows the median house price compared to unit price in Clayton and surrounding suburbs over the year in 2023. In Clayton, house prices were significantly higher than unit prices, with the median house price of $1.19 million, which is almost double the median price of units in the suburb ($640,000). House prices in Clayton were among the highest of the surrounding suburbs, although the discount for units was more substantial.

Unit prices in Clayton were recorded at a much smaller $25,000 premium to Greater Melbourne.

As such, house prices are now out of reach for many households in Clayton and surrounding suburbs. Therefore, potential new residents coming to the area are anticipated to need to consider higher-density living as a more affordable option. The absolute supply needs to increase as the population grows to limit pressure on property prices.

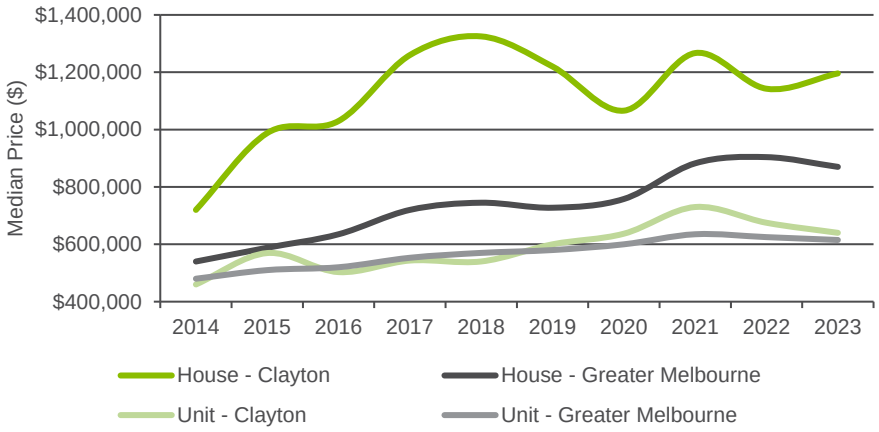


FIGURE 5.1 MEDIAN PRICE – CLAYTON COMPARED TO GREATER MELBOURNE, FEBRUARY 2016-DECEMBER 2023

Note: Only includes settled sales. Source: Pricefinder

FIGURE 5.2 MEDIAN HOUSE VS. UNIT PRICES, CLAYTON AND SURROUNDING SUBURBS, YEAR TO DECEMBER 2023

Note: Only includes settled sales. Source: Pricefinder

TABLE 5.1 HOUSE MEDIAN PRICE AND GROWTH – CLAYTON AND SURROUNDING SUBURBS COMPARED TO GREATER MELBOURNE, YEAR TO DECEMBER 2023

SUBURB	HOUSE PRICE GROWTH			
	MEDIAN HOUSE PRICE	1 YEAR	3 YEAR P.A	10 YEAR P.A
Clayton	$1,196,000	4.7%	-2.0%	5.8%
Oakleigh East	$1,228,000	5.5%	2.9%	5.2%
Huntingdale	$1,211,000	-3.1%	3.7%	5.9%
Oakleigh South	$1,130,000	3.4%	3.4%	5.5%
Notting Hill	$1,095,000	1.4%	4.0%	6.0%
Mulgrave	$1,040,000	4.0%	3.9%	5.9%
Clarinda	$953,000	-10.1%	3.6%	5.2%
Clayton South	$925,000	-2.1%	1.8%	5.4%
Springvale	$870,000	-2.9%	2.3%	5.6%
Greater Melbourne	*$870,000*	*-3.8%*	*3.2%*	*5.4%*

Note: Only includes settled sales. Source: Pricefinder

TABLE 5.2 UNIT MEDIAN PRICE AND GROWTH – CLAYTON AND SURROUNDING SUBURBS COMPARED TO GREATER MELBOURNE, YEAR TO DECEMBER 2023

SUBURB	UNIT PRICE GROWTH			
	MEDIAN UNIT PRICE	1 YEAR	3 YEAR P.A	10 YEAR P.A
Clayton	$640,000	-5.2%	3.4%	3.7%
Oakleigh East	$914,000	6.9%	2.5%	4.7%
Huntingdale	$688,000	-11.2%	10.2%	7.0%
Oakleigh South	$841,000	16.5%	1.9%	6.9%
Notting Hill	$390,000	-6.0%	3.4%	-0.5%
Mulgrave	$766,000	-3.3%	0.4%	5.2%
Clarinda	$790,000	-4.3%	1.8%	6.5%
Clayton South	$526,000	-12.9%	0.7%	2.6%
Springvale	$585,000	-7.3%	1.2%	2.8%
Greater Melbourne	*$615,000*	*-1.6%*	*1.5%*	*2.8%*

Note: Only includes settled sales. Source: Pricefinder

5.1.2 COST OF RENTAL ACCOMMODATION

Figure 5.3 shows the median weekly rents for houses and units in Clayton compared with Greater Melbourne from 2011 to 2023.

Table 5.3 shows the median rental growth in Clayton over the year from December 2023.

The cost of house and unit rental has increased significantly following the COVID-19 pandemic. House rentals in Clayton grew 17.9% over the year to December 2023 to $574 per week. Unit rents increased by 16.7% to reach $461 per week.

For Greater Melbourne, there has been a similar trend in strong rental growth for houses and units. Over the year to December 2023, house rental growth was 10.9%, and unit rental growth was 19.8%.

Longer-term growth in units and houses in Clayton has been closer to the average growth experienced across Greater Melbourne, with growth from December 2013 to December 2023 of 4.5% per annum for houses and 3.4% per annum for units.

The supply of a large number and diversity of housing stock in the Structure Plan Area will be required to ensure sustainable rental growth that maintains or improves affordability.

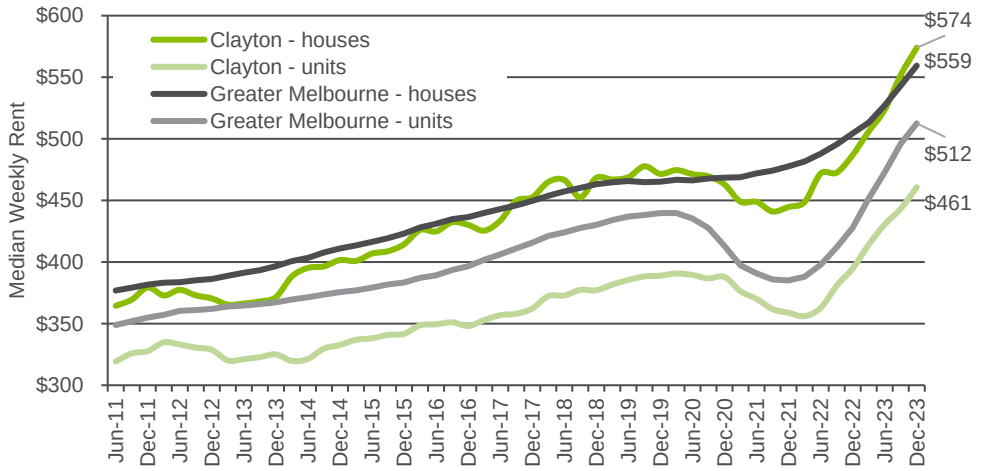


FIGURE 5.3 MEDIAN WEEKLY RENTS – HOUSES AND UNITS, CLAYTON AND GREATER MELBOURNE, 2011–2023

Note: Clayton data includes the suburbs of Clayton, Notting Hill and Oakleigh South. Source: Department of Health and Human Services

TABLE 5.3 MEDIAN RENTAL GROWTH, CLAYTON COMPARED TO GREATER MELBOURNE, DECEMBER 2023

	HOUSE		UNIT	
	CLAYTON	GREATER MELBOURNE	CLAYTON	GREATER MELBOURNE
Median weekly rent (Dec 2023)	$574	$559	$461	$512
1 year	17.9%	10.9%	16.7%	19.8%
3 year p.a	4.1%	3.8%	4.1%	3.6%
10 year p.a	4.5%	3.8%	3.4%	3.5%

Note: Clayton data includes the suburbs of Clayton, Notting Hill and Oakleigh South. Source: Department of Health and Human Services

5.1.3 VACANCY RATE

Figure 5.4 shows the average annual rental dwellings vacancy rate in Clayton (postcode 3168) compared with Greater Melbourne from 2005 to 2024.

Clayton has typically stayed above the Greater Melbourne average, generally sitting between 2% and 6% between 2008 and 2019. Vacancy rates then trended upwards during the COVID period, reaching a peak of 11.4% in 2021. Since 2021, vacancy rates have dropped to around 1.7%, indicating a tight market.

A vacancy rate of 3% is generally considered equilibrium (where supply equals demand). When vacancy is below this equilibrium, supply is limited and does not meet demand. This leads to increasing pressure on rents, as seen in the last year.

Looking forward, the extended low vacancy rates in the Clayton postcode highlights the lack of available supply relative to demand. With strong population growth expected in the Clayton Structure Plan Area, there will be a need for it to support the delivery of a significant increase in the number of dwellings so that supply keeps pace with demand. The scale of dwelling increase needed is discussed in later sections of this report.

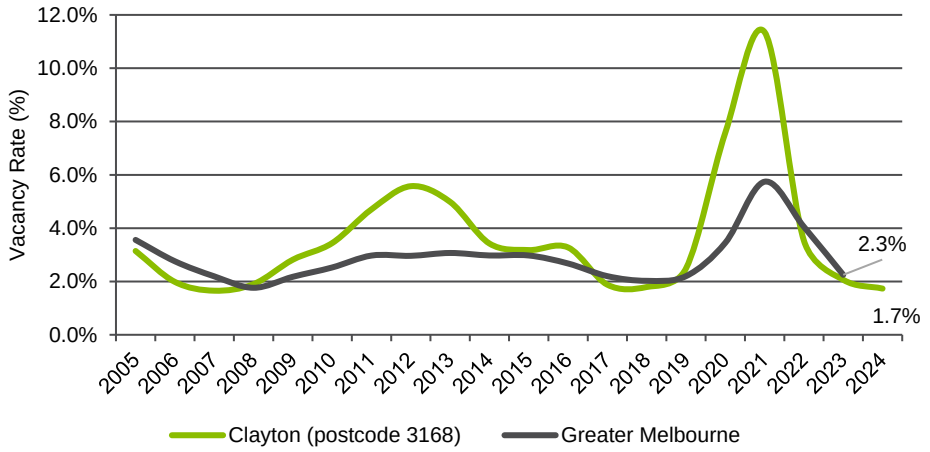


FIGURE 5.4 AVERAGE ANNUAL RENTAL DWELLING VACANCY RATE, CLAYTON AND GREATER MELBOURNE, 2005– 2024

Note: Clayton includes the postcode of 3168. Annual except 2024, which represents the March quarter. Source: SQM Research; REIA

5.2 Housing affordability

Assessing housing affordability is not straightforward. Various factors influence affordability such as a household's financial status, the overall market demand for housing, and housing tenure (whether one is seeking to rent, is renting, is looking to buy, or is already a homeowner with or without a mortgage), as noted by the Senate Standing Committees on Economics in 2015.[38]

The simplest measure of housing affordability compares housing costs to gross household income, where housing stress is defined as households spending over 30% of their income on housing costs.

However, this overlooks the possibility that high-income households may choose to spend more than 30% of their household income on housing, and their higher income means they have sufficient income after housing costs to avoid financial stress.

In contrast, low-income households (within the bottom 40% of the household income distribution) are more susceptible to financial hardships resulting from significant life events or shifts in the housing market.

Housing stress among low-income households is therefore examined here. Table 5.4 compares housing affordability for households in the Structure Plan Area to the Greater Melbourne average.

In the Clayton Structure Plan Area, households under rental and mortgage stress (i.e. low-income households paying more than 30% of income on rent or mortgage payments) are a slightly higher proportion of all households compared to Greater Melbourne. The total level of housing stress at 19% of households in the Structure Plan Area is above the Melbourne average of 13%. This variance if primarily due to the higher share of renters, combined with slightly lower incomes.

While interest rates have likely stabilised and house price growth slowing, income growth is also slowing while rents have been increasing. This will likely mean the continuation of a degree of mortgage and rental stress in many locations in the South East Region, including the Clayton area, over the short- to medium-term.

If the Structure Plan Area can provide for a large number of new dwellings this would help reduce dwelling price growth and reduce the share of households in housing stress.

TABLE 5.4 PROPORTION OF LOW-INCOME HOUSEHOLDS IN MORTGAGE AND RENTAL STRESS, CLAYTON AND GREATER MELBOURNE, 2021

	STRUCTURE PLAN AREA	GREATER MELBOURNE
Low-income households as a share of all households	44%	40%
Share of all households in rental stress (low income and rent >30% of income)	15%	9%
Share of all households in mortgage stress (low income and mortgage payments >30% of income)	3%	4%
Share of all households in housing stress	**19%**	**13%**

Note: Percentages are calculated as a portion of total households in the locations. Source: ABS; AJM JV

Figure 5.5 and Figure 5.6 on the next page show how housing stress differs by location and among housing tenure types (e.g. homeowners with a mortgage and renters) at suburb level across Melbourne. The maps show the share of total households in housing stress.

[38] Senate Standing Committees on Economics (2015), Out of reach? The Australian housing affordability challenge (aph.gov.au), May 2015

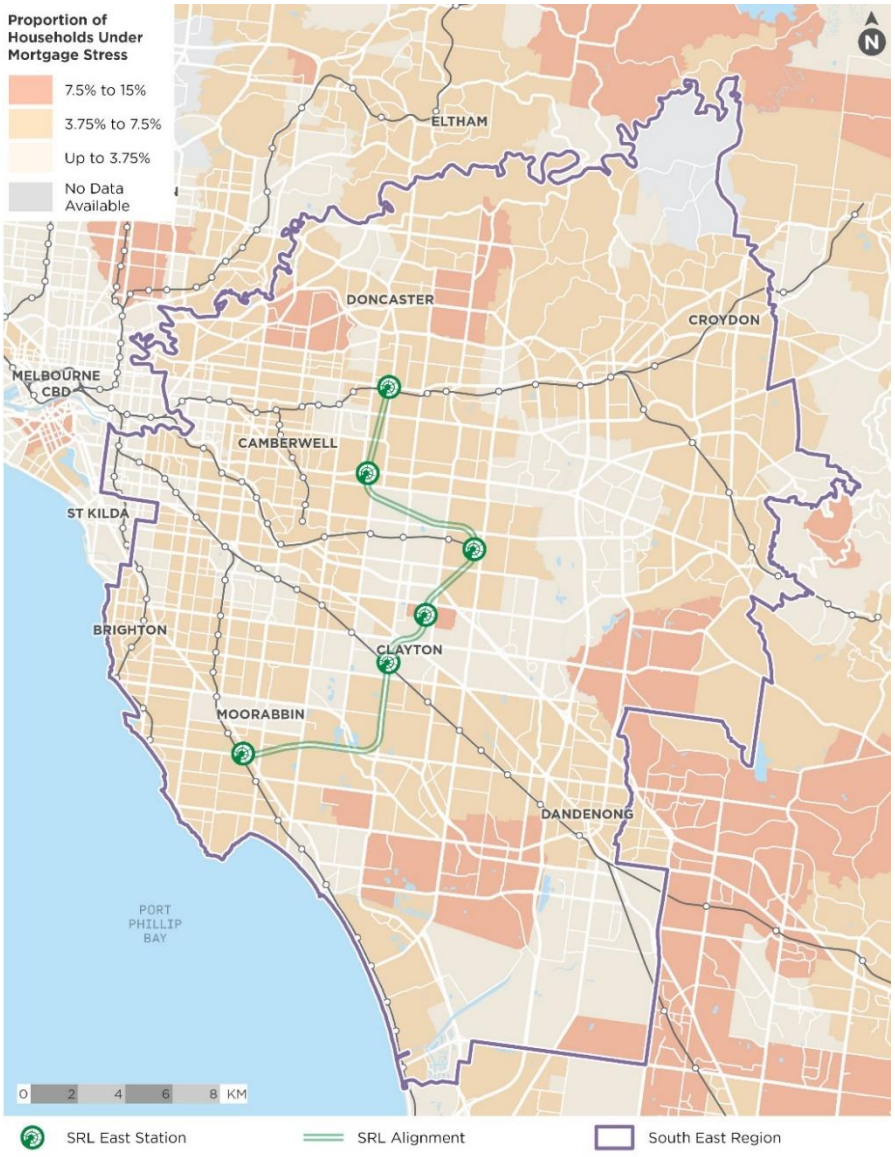


FIGURE 5.5 PROPORTION OF HOUSEHOLDS IN MORTGAGE STRESS BY SUBURB, 2021

Source: ABS (2021) MAID Mortgage Affordability Indicator; AJM JV

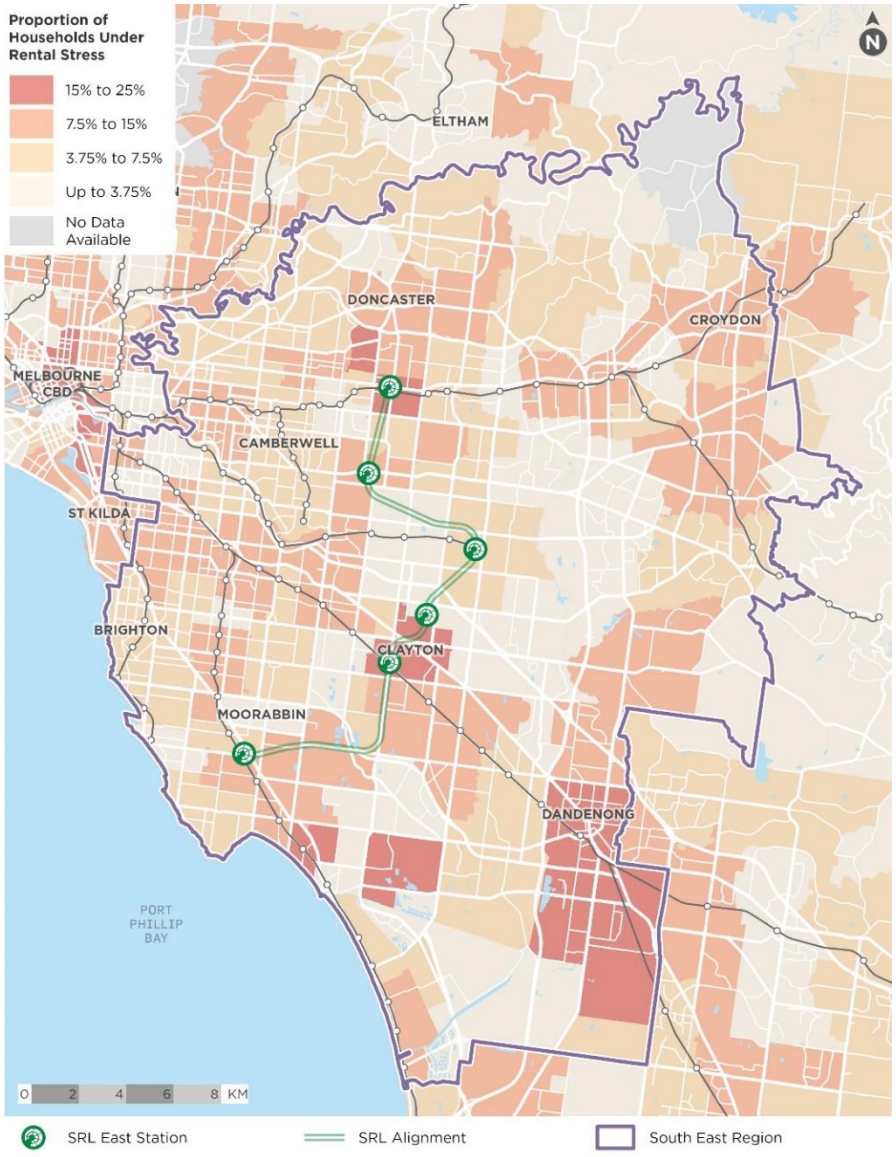


FIGURE 5.6 PROPORTION OF HOUSEHOLDS IN RENTAL STRESS BY SUBURB, 2021

Source: ABS (2021) RAID Rent Affordability Indicator; AJM JV

5.3 Implications for Clayton Structure Plan

The analysis of housing costs and affordability in the Clayton Structure Plan Area highlights the following affordability challenges and opportunities:

- Houses in Clayton and the surrounding areas are generally priced well above the Greater Melbourne median, making them unaffordable for many potential residents. Units (including apartments and townhouses) in Clayton and surrounding areas offer a more affordable option, with more supply needed.
- There has also been strong rental growth for houses and units from 2022 to 2023, with rental vacancy rates being very tight.
- Housing stress, and particularly rental stress, is greater than the Melbourne average. The delivery of a sufficient supply of housing to meet population growth projections and to moderate price and rent increases is necessary.
- The delivery of more diverse housing product will provide increased opportunities for low to moderate incomes to purchase or rent more affordable dwellings, as well as for a broad range of demographic groups (e.g. renters and buyers, lower and higher income, different family types).
- Facilitating greater housing density in the Structure Plan Area could support growth in supply and provide greater diversity of product. Development of higher density dwellings is emerging in Clayton with redevelopment at Jackson Green and other sites identified such as the PMP Printing site and mixed-use development in the core of the Clayton Activity Centre.

6. Housing delivery trends in the Structure Plan Area

The section considers housing development trends in the Clayton Structure Plan Area, including new dwelling approvals and recent completions.

6.1 New dwelling approvals

Figure 6.1 shows new dwelling approvals by type for the Clayton Structure Plan Area from FY2017 to FY2023. Since FY2017, an average of approximately 180 new dwellings were approved each year in the Clayton Structure Plan Area. Activity in new dwellings varied significantly from a high of 486 approvals in FY2020 to a low of just below 60 in FY2021. In FY2023 there were around 68 new dwelling approvals, 88% of which were for other residential dwellings, including apartments, semi-detached dwellings and townhouses.

Looking at the breakdown of new dwellings by type, other residential dwellings dominated activity from FY2017 to FY2023, accounting for 88% of all approvals over the period.

New dwelling approvals in FY2017 were 179, before slowing as the market took time to absorb the new supply. There was then another run of approvals as the market strengthened to FY2020 before slowing again to absorb the supply. FY2022 saw a further rise in activity.

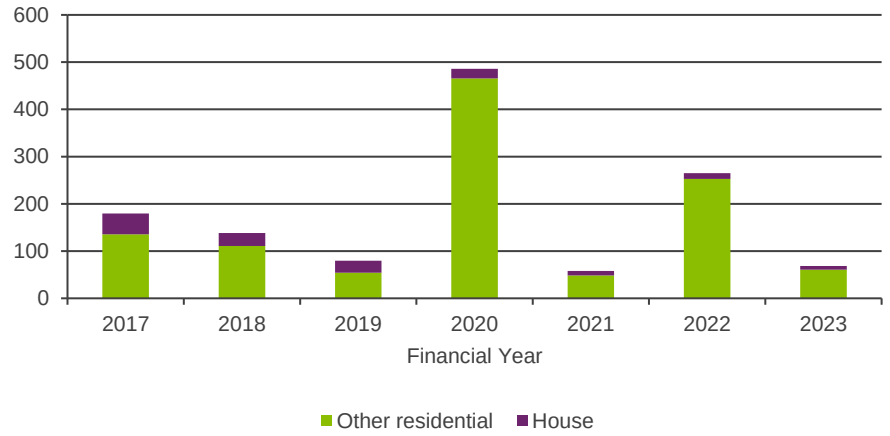


FIGURE 6.1 NEW DWELLING APPROVALS BY TYPE, CLAYTON STRUCTURE PLAN AREA, 2016/17–2022/23

Note: Other Residential includes apartments, semi-detached dwellings, and townhouses. Source: AJM JV; ABS

6.2 Private dwelling future supply

Figure 6.2 and Figure 6.3 show the supply pipeline of new dwellings in the Clayton Structure Plan Area by approval stage and estimated completion data.

According to data from Cordell Connect (which records all multi-dwelling proposals including those in early planning, in applications with councils, approved permits and under construction), there are over 1600 dwellings in the proposed pipeline in the Clayton Structure Plan Area. Units / apartments account for 64% of these proposed new dwellings. Additionally, there are 276 townhouses and 306 “other residential” dwellings in the pipeline which are largely student accommodation developments.

Just under 110 dwellings are currently under construction. The remainder of dwellings in the pipeline are in the approval and planning application (not yet gaining council approval) stages, meaning they may not necessarily be constructed.

It is noted that data from Cordell Connect does not include single dwelling proposals, so there will likely be a small amount of single dwellings that will be a minor share of housing development. Single dwellings are likely to only replace existing houses, and so the net change, as has been seen over the last decade in the Structure Plan Area, will be minimal.

A peak in new supply is anticipated in 2026, with 846 units/apartments projected to be completed, pending council approvals.

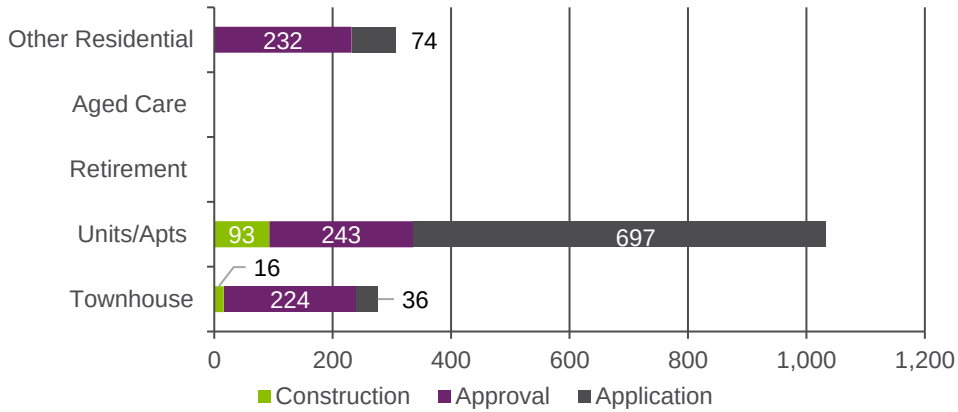


FIGURE 6.2 NEW DWELLINGS SUPPLY BY STATUS, CLAYTON STRUCTURE PLAN AREA 2024–2028

Note: Student Accommodation is included in Other Residential This data represents development projects currently in the planning application, planning approval or construction stage. Source: Cordell Connect (May 2024)

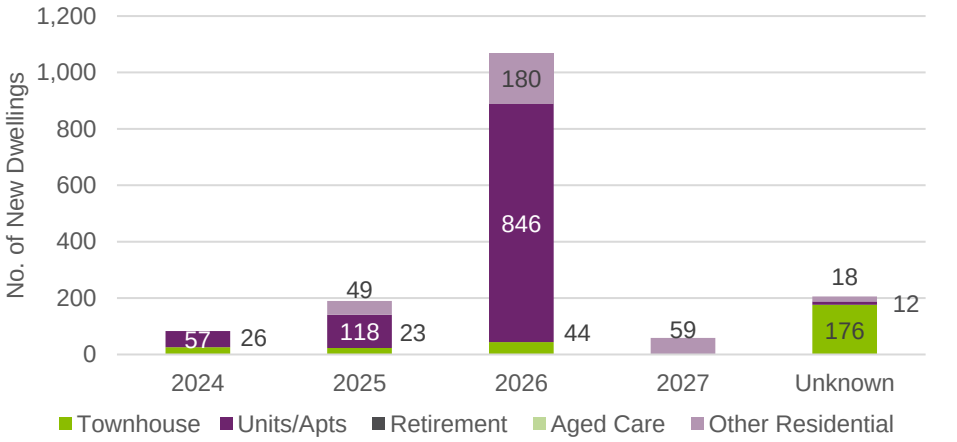


FIGURE 6.3 NEW DWELLINGS SUPPLY BY COMPLETION DATE, CLAYTON STRUCTURE PLAN AREA 2024–2028

Note: Student Accommodation is included in Other Residential. Source: Cordell Connect (May 2024)

6.3 Recent and proposed development

The most recent housing development in the Clayton Structure Plan Area has included estates comprising townhouses and low to medium rise apartment blocks.

Note both key projects were delivered on brownfield sites (Jackson Green being a former industrial site, and Eastwood Monash the former Clayton Primary School site) highlighting the importance of large sites to drive significant development. Other industrial sites on Centre Road next to Jackson Green Estate have been earmarked for transition to residential by the City of Kingston.

Table 6.1 summarises key projects delivered and proposed in the Structure Plan Area.

TABLE 6.1 RECENT AND PROPOSED RESIDENTIAL DEVELOPMENTS, CLAYTON STRUCTURE PLAN AREA

JACKSON GREEN ESTATE **ORCHID STREET, CLAYTON SOUTH** 	• Jackson Green is a new medium-density estate developed by Cedar Woods. The estate is a 6.5 ha site that includes 151 townhouses and 430 apartments. • Development stage: Complete (early 2023)
EASTWOOD MONASH ESTATE **29 BROWNS ROAD, CLAYTON** 	• Comprises 72 townhouses and 147 one- and two-bedroom apartments built around a communal garden. • Development stage: Complete (2020)
409 CLAYTON ROAD, CLAYTON 	• 17-storey mixed use development to comprise 144 apartments, office & retail. Located on a strategic corner site towards the southern end of the Clayton Road strip. • Apartment mix: 49 x 1-bed, 87 x 2-bed and 8 x 3-bed. Includes 2 x social housing apartments. • Project stage: Development approval received • Expected completion: Early 2029
6-8 BELMONT AVENUE, CLAYTON 	• 28 1, 2 and 3-bedroom apartments. Developed in a low-density residential area not far from the Clayton Road strip. • Currently for sale from $460,000 to $1,120,000 • Developer: Pitard Group • Stage: Under Construction • Completion Date: October 2024 (estimated)

PMP PRINTING PRECINCT
209-211 CARINISH ROAD AND 27-49 BROWNS ROAD, CLAYTON

- The PMP Printing Precinct is a 10-hectare site located between the former Clayton Primary School site, Carinish Road and Browns Road, including land east of Bendix Drive.
- The precinct will transform from industrial land into a mixed-use residential and commercial strategic site to accommodate an indicative 1,180 new homes and 1,000 local jobs.
- Development company Assemble has proposed a 680-build-to-rent apartment development within the precinct alongside 6000 sq.m of commercial space. Around 20% is to be delivered as social housing managed by Assemble's community housing partner Housing Choices Australia. A further 35% of dwellings will be dedicated to affordable housing targeting essential workers, such as local Monash health and education workers. The remainder of the residences will be delivered as market housing.
- Project stage: The planning application for this component is still awaiting council decision. Construction is set to commence by late-2024, however, this is subject to council approval.
- Expected completion: Late 2026

Source: Cordell Connect; AJM JV

Figure 6.4 maps the location and scale of apartment development projects completed since 2014 or now under construction or approved. It shows that most dwelling approvals have been on the edges of the core area and along the Carinish Road and Clayton Road corridors. The built developments were those at Jackson Green and Eastwood Monash profiled above.

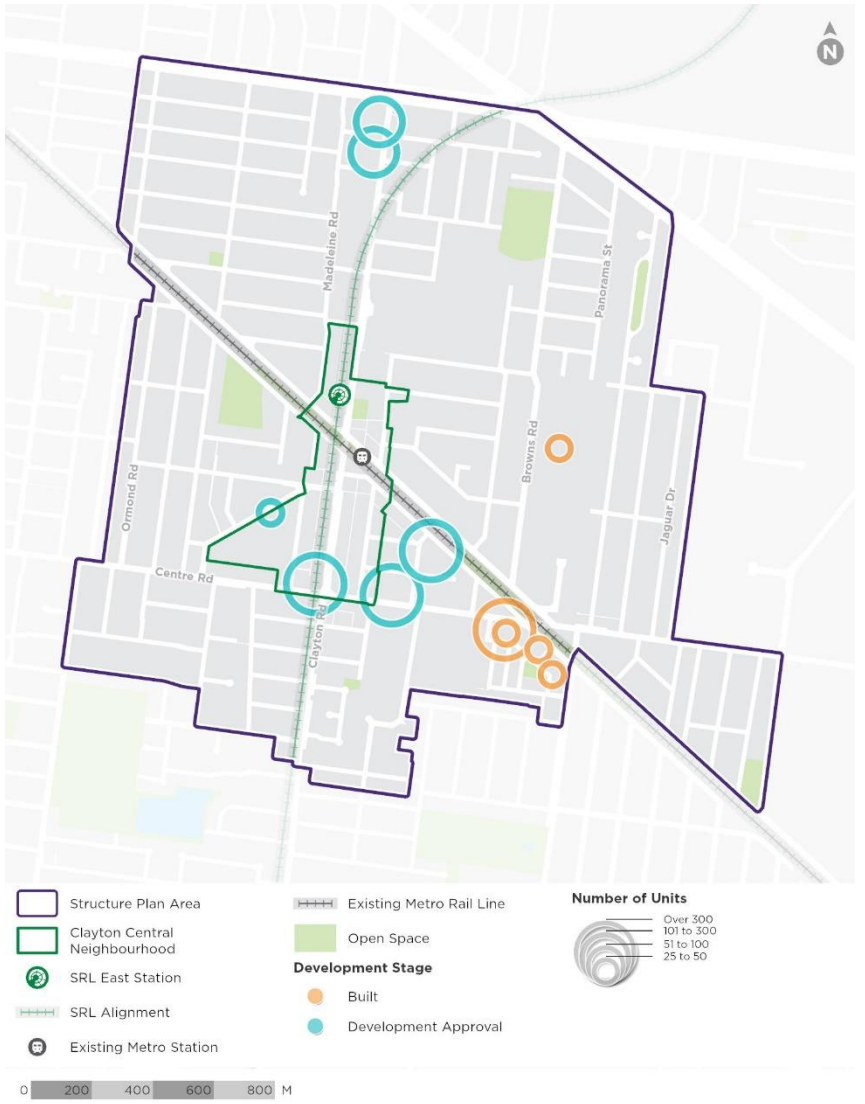


FIGURE 6.4 STATUS OF PROJECTS RECEIVING APPROVAL 2014-2024, CLAYTON STRUCTURE PLAN AREA

Note: Includes apartment developments with 25 apartments or more. Source: Urbis Apartment Essentials

6.4 Apartment stock

In addition to the quantum and density of housing being delivered in the Structure Plan Area, it is important to understand the typical size and nature of the dwellings.

Table 6.2 shows data analysed from *Urbis Apartment Essentials*, which records details of off-the-plan apartment projects.

In the Clayton Structure Plan Area, data is available for Huntington Apartments at Jackson Green (part of the broader development) and Eastwood Monash (former school site):

- Approximately 76% of the apartments across the two projects are two-bedroom apartments – this mix may need to shift if greater diversity of the population living in apartments is to be achieved.
- One-bedroom apartments make up 20% of the apartments delivered across both projects
- Larger apartments with three or more bedrooms are included in Huntington Apartments but represent only 8% of that specific development or 4% of apartments across both projects. Despite their relatively large size of 100-150 sq.m, an increase in these larger units is necessary to encourage families to move into high-density housing.

TABLE 6.2 APARTMENTS AVERAGE SIZE BY BEDROOMS, CLAYTON STRUCTURE PLAN AREA

PROJECT/MIX	APARTMENT NUMBER	AVERAGE SIZE (SQ.M)
Huntington Apartments at Jackson Green	**165**	**74**
1Bed + 1Bath	20	57
2Bed + 1Bath	66	68
2Bed + 2Bath	65	80
3Bed + 2Bath	12	101
3Bed + 3Bath	2	149
Eastwood Monash	**147**	**68**
1Bed + 1Bath	40	56
2Bed + 1Bath	107	73

Note: The housing requirements modelling presented in section 8 uses internal area benchmarks to estimate total residential floorspace. Benchmarks used in section 8 are not the same as those in Table 6.2 and are based on internal area benchmarks for all of suburban Melbourne. Source: Urbis Apartment Essentials

6.5 Future supply of housing meet diverse community needs

6.5.1 AFFORDABLE, SOCIAL AND KEY WORKER HOUSING

According to Cordell Connect, in terms of planned affordable, social and key worker housing in the Clayton Structure Plan Area, only two projects will contain social and affordable housing. This includes is the former PMP Printing Site at 209-211 Carnish Road, Clayton and 409 Clayton Road, Clayton. The PMP Printing Site, however, is still waiting for final planning approval. Around 20% of the units are proposed to be social housing managed by Housing Choices Australia and 35% will be classified as affordable. The property at 409 Clayton Road, Clayton has two social apartments planned.

It is difficult to determine the future supply pipeline for key worker housing as there is significant overlap between social and affordable housing (as key workers can be accommodated in these housing types).

6.5.2 STUDENT ACCOMMODATION

There are 367 student accommodation units currently in the development approval stage for the Clayton Structure Plan Area according to Cordell Connect and the Urbis Student Accommodation Database.

TABLE 6.3 STUDENT ACCOMMODATION FUTURE SUPPLY PIPELINE, CLAYTON STRUCTURE PLAN AREA

STUDENT ACCOMMODATION	UNITS	STAGE
North Road Student Accommodation	106	Development Approval
209-211 Clayton Road Student Accommodation	96	Development Approval
Madeleine Road Student Accommodation Units	59	Development Approval
410-412 Haughton Road Student Accommodation Building	57	Development Application
13 Burton Avenue Clayton Student Accommodation Units	49	Development Approval
Total	**367**	

Source: Urbis Student Accommodation database; Cordell Connect

6.5.3 RETIREMENT LIVING AND RESIDENTIAL AGED CARE

There is no future supply planned for the Clayton Structure Plan Area. However, across the South East Region, there is proposed supply of a further 2400 independent living units and around 3400 residential aged care beds.

TABLE 6.4 RETIREMENT AND AGED CARE FUTURE SUPPLY PIPELINE

TYPE OF ACCOMMODATION	STRUCTURE PLAN AREA	SOUTH EAST REGION
Retirement units	0	2400
Residential aged care beds	0	3400
Total yield	**0**	**5800**

Source: Urbis Retirement and Aged Care Database

6.6 Implications for Clayton Structure Plan Area

The analysis in this section highlights the following considerations for the Clayton Structure Plan:

- The housing delivery trends in the Clayton Structure Plan Area indicate market sentiment and momentum are tracking in the right direction to meet future needs of the projected population.
- The pipeline of dwelling proposals, particularly apartments, is significant and represents a significant share of the future dwelling needs.
- Large projects recently delivered and proposed in and around the core of the Structure Plan Area, and on renewal sites such as Jackson Green and in future, the PMP site, indicate the market already exists to deliver continued growth in dwellings in the Structure Plan Area. The PMP Printing Site, for example, is set to deliver up to 680 dwellings.
- Recent and proposed developments appear to offer a range of dwelling types and numbers of bedrooms across medium- and high-density buildings. However, the provision of three or more-bedroom apartments is still low. The numbers of these larger apartments will be needed to cater for the diversify of the profile of residents living in Clayton.
- There is some social and affordable housing in the pipeline, although more will have to be delivered to meet the need in the Structure Plan Area over the longer term.
- Student accommodation is being delivered in response to the high demand as students return to Monash University's Clayton campus post-COVID. This market will continue deliver further student housing in Clayton, with the Structure Plan simply needing to create the opportunity for delivery of diverse housing options.

Part C: Future housing need

Part C includes:

- **Section 7** summarises the methodology used for modelling future housing requirements in the Structure Plan Area.
- **Section 8** forecasts population growth and housing requirements in the Structure Plan Area.
- **Section 9** assesses future requirements for housing tailored to specific community needs including social, affordable and key worker housing, as well as student accommodation and aged care and retirement living.

7. Housing requirement methodology

This section summarises the methodology and modelling used to assess the amount and structure of housing required to support the projected population growth in the Structure Plan Area. Structure refers to the density (high, medium, low) and bedroom number of a dwelling.

7.1 Methodology

The housing requirements methodology uses modelling of population projections for the Structure Plan Area to estimate the residential dwellings and residential floorspace required to accommodate that population.

The modelling uses 2021 Census data to determine the existing number of dwellings in 2021 and population projections derived from the SRL Business and Investment Case to forecast out to 2041. These projections are described in Appendix E.

It is important to note that since the population projections include all long-term residents, the housing requirements assessment allocates all long-term residents to a dwelling structure (i.e., high / medium / low-density by bedroom number).

Note the dwellings and floorspace modelled are general and do not imply that a specific form of accommodation is required. For example, the amount of high-density two-bedroom units required could be provided as standard residential apartments or a type of diverse accommodation such as student accommodation. Similarly, the number of low-density units could be satisfied by standard low-density housing or partially through retirement villages. While the specific form of accommodation (i.e., standard residential, retirement, key worker housing etc) depends upon many factors, the dwelling structure numbers modelled (i.e., proportion of 1 bedroom high-density required) will be similar across specific accommodation types.

The dwellings (and floor space) are also ‘sector blind’ which means they could represent private or government-provided accommodation.

Lastly the 2021 dwelling numbers include all private dwellings, including those occupied and unoccupied. The 2041 dwelling estimates are calculated to accommodate the projected population, with a factor added to account for vacant stock making them directly comparable to the 2021 dwelling estimates. The 2041 dwelling estimates are calculated from population estimates and do not initially include vacant stock. Therefore, a vacancy factor is incorporated to account for vacant stock that is important to a functioning residential market.

Figure 7.1 details the methodology for assessing housing requirements, which is explained more below and in Appendix E. The lettering corresponds with the full explanation provided in the Appendix.

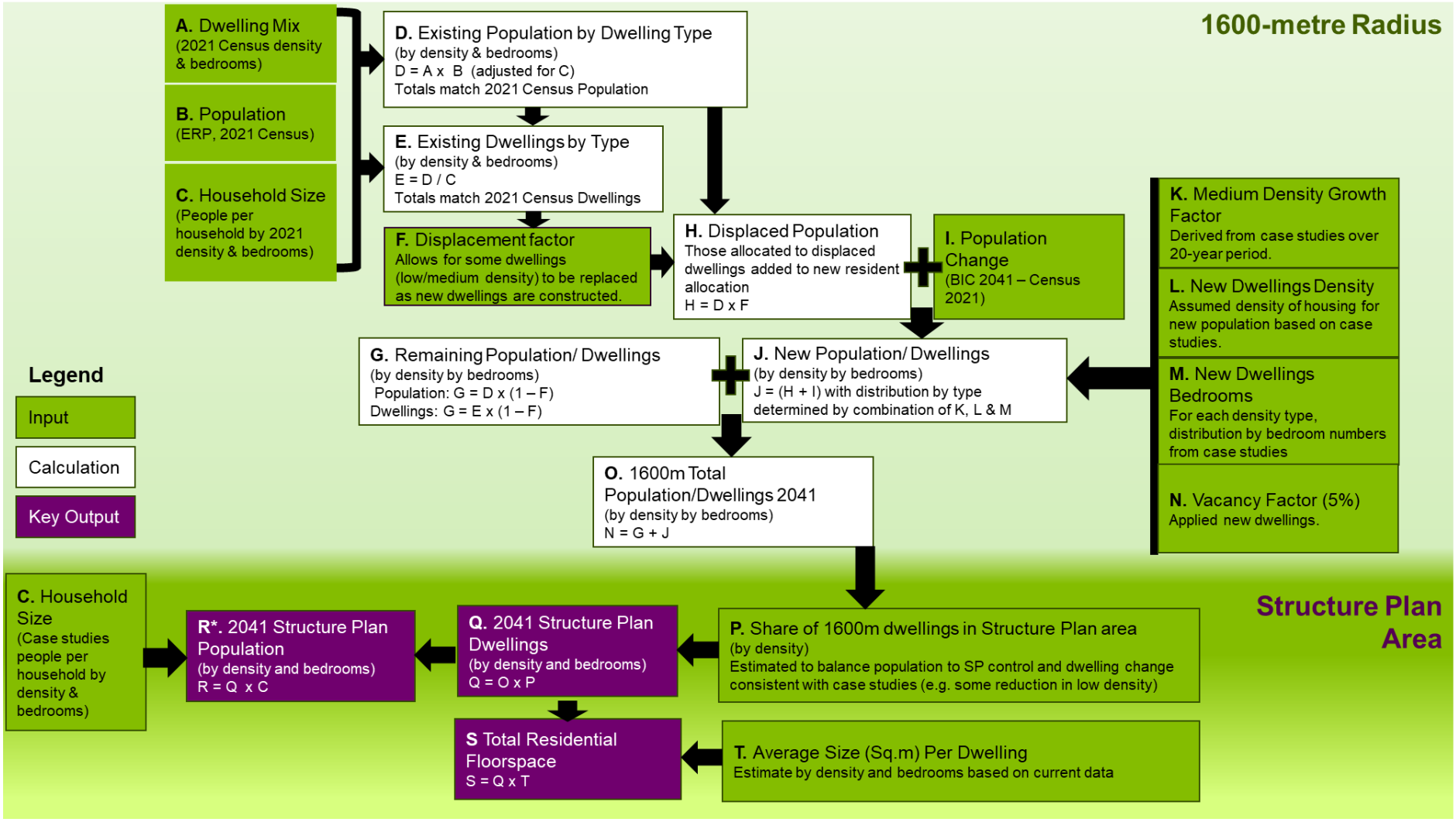


FIGURE 7.1 HIGH-LEVEL METHODOLOGY FOR ASSESSING HOUSING REQUIREMENTS

Source: AJM JV

7.1.1 DRAWING ON HOUSING DEVELOPMENT TRENDS IN CASE STUDY AREAS

The evolution of prominent transportation hubs in Australia over the past two decades offers valuable insights into the SRL East Structure Plan Areas and serves as a basis for understanding the housing requirements of transit-oriented precincts (TOPs). Areas with both new and established train stations have typically seen an increase in housing density, with medium- and high-density residences becoming more prevalent in numerous precincts.

The dynamics of these precincts was explored for this assessment, with in-depth analyses of several case study precincts, with the results used as an evidence base for the housing requirements modelling for the Structure Plan Area. The case studies are primarily used to inform the likely mix of housing that will emerge.

At a high level, the model is balancing between the old (the existing dwelling mix) and the new (evidence from chosen TOPs) to deliver a realistic outcome for the Structure Plan Area. This accounts for the fact that while some existing dwellings will be replaced by new construction, a large share of the existing housing will still be in place in 2041 (the period of assessment).

Rather than relying on arbitrary estimations of equivalent 'structure plan' boundaries in the case study areas, a radius of 1600 metres from each case study train station (or equivalent) was used. This method maintains consistency in benchmarking across all precincts.

For each Structure Plan Area, the three most comparable case studies were chosen, considering factors such as population density, demographics of residents, proximity to hospitals or universities where relevant, and distance from the CBD. The case studies are selected using a ‘similarity search score’ that ranks the locations relative to the subject SRL location for each of the factors.

Case studies were selected from Sydney, Brisbane and Canberra. Melbourne examples were considered but ultimately not included for a few reasons.

Firstly, the case study approach requires consideration of a period of 20 years of housing growth from 2001 to 2021, to compare to the 20 years for assessment of the SRL East Structure Plan Areas from 2021 to 2041. In Melbourne, there are few examples of suburban locations that experienced significant high density residential development in the 20 years prior to 2021 comparable to what may be experienced around the SRL stations to 2041. With the possible exception of Box Hill, the suburbs in Melbourne where growth has been observed are largely inner suburbs such as Richmond, South Yarra or Footscray. Distance from the CBD is a factor in the case study selection process which reduced the relevance of inner-city locations.

Due to a combination of different levels of amenity, context, market activity, and demographics among other reasons, these locations are seen as not being appropriate to draw conclusions for the middle suburban SRL locations. Consequently, most of the case studies which rate as most similar to the SRL situation are middle suburban locations in Sydney. Sydney is more advanced in its delivery of density beyond the central areas, with more evidence of change over the last 20 years.

Secondly, each urban precinct is unique, fulfilling a specific role within a city. For example, the unique characteristics that Parramatta brings to Sydney (secondary CBD and office market, providing a hub for the outer western suburbs) mean that few if any other precinct within Sydney can fulfill this role. Case studies in Melbourne were not selected as they would be serving distinct roles to the subject SRL precinct.

Considering the housing requirement projections are somewhat sensitive to the case studies selected, a weighted average approach was utilised to minimise this sensitivity and to ensure the Structure Plan Area is being compared to a wider variety of urban precincts.

It should also be noted that the selection of case studies, although providing important data points to consider the likely change in the areas around the SRL stations (e.g. share of dwellings by density and bedroom numbers, change in growth of low/medium density dwellings, average household size), are not entirely determinative of the results. Other case studies could reasonably be selected in each situation, but with the weightings applied and the data being used as a reference only, the final results would not differ greatly. The key determinant of the housing need is the population forecast in each Structure Plan (which in turn broadly determines the number of dwellings), with the case studies helping to inform the housing mix required for that given population.

The case study analysis offers insights into the potential housing landscape within the 1600-metre radius of the SRL station. However, it is important to note that the

Structure Plan Area is smaller, so to derive estimates for it the estimated 1600-metre housing mix (by dwelling density and bedroom number) needed to be allocated to the Structure Plan Area. This considers the current distribution and likely change in low-, medium-, and high-density dwellings in the Structure Plan Area.

The results of the case study selection process for the Structure Plan Area are shown below in Section 7.2, with more detail on the methodology provided in Appendix D.

7.1.2 DERIVING ESTIMATES FOR THE STRUCTURE PLAN AREA

Once case studies were selected, the methodology for determining the number and structure of dwellings and associated residential floor space needed to support the projected population in the Structure Plan Area was modelled using insights from the case studies.

The methodology is outlined briefly below, with a more comprehensive description provided in Appendices D and E. Note that steps 1 to 4 are completed for a 1600-metre radius from the SRL station at Clayton, whereas steps 5 and 6 are for the Structure Plan Area. Also note the methodology below explains how estimates of the 2041 housing requirements are attained. Estimates for existing dwellings in 2021 are based on 2021 census data.

1) For the **population residing in existing dwellings**, all key housing estimates are sourced from the 2021 Census for a 1600-metre radius from the SRL station at Clayton. This data is used to allocate the 2021 population into dwelling types based on density (high / medium / low) and by number of bedrooms for each density.

2) Recognising that some of the future (2041) dwellings will be those that exist now, **the future population living in existing and new dwellings is analysed. This requires using a 'displacement factor'**, which reflects the share of existing dwellings that will be removed to allow the construction of new dwellings. The number of displaced dwellings is outlined in Appendix E.

3) The displaced population is added to the change in projected population to produce the **total population needing to be accommodated in new dwellings**. The dwelling requirements for this population are derived from a series of inputs derived from the case studies, including the proportion of residents by the density and bedroom number of their dwelling.

4) The population in new dwellings is added to the population in remaining existing dwellings **to calculate the total population in the 1600-metre radius from the SRL station and dwelling (by type) estimates for 2041**. The dwelling estimates include a vacancy allowance (+5%), noting there will be additional dwellings on top of those accommodating the projected population that are vacant at a point in time. These results are cross-checked against the growth in dwelling structure in the case studies.

5) **Dwellings in the 1600-metre radius area are distributed to the Structure Plan Area.** This distribution is achieved by applying proportions based on the typology mix seen in the selected case studies which represents what is achievable for dense urban precincts. The distribution also considers what is feasible given the existing dwelling stock, as there is a limit on how much housing can be displaced before 2041. It is ensured that the derived result from the above matches the forecast population for the Structure Plan Area by adjusting these proportions (and the household sizes).

6) By applying household size to dwellings (people per household derived from the case study estimates), average internal area (sq.m) and Gross Building Area (GBA) **the total dwelling numbers by dwelling structure can be estimated, as well as population by dwelling structure, and total residential floorspace needed in the Structure Plan Area.**

7.1.3 PEER REVIEW

This technical report has been independently peer reviewed by Julian Szfraniec of SGS. The peer review report is attached as Appendix G of this report, which sets out the peer reviewer's opinion on the Housing Needs Assessment.

7.2 Selected case studies for Clayton

This sub-section discusses the case studies referenced above. Based on a similarity search and ranking exercise of urban precincts outside inner-city areas in Australia, the case studies were used to derive key housing parameters for a 1600-metre radius from the SRL East station at Clayton:

- Macquarie University – weight of 0.5
- Auburn – weight of 0.3
- Kogarah – weight of 0.2.

Each selected case study was chosen for its own specific reason. The selected case studies have similar amounts of office employment and similar density profiles. Given the small difference in overall score (Table 7.1) the selected case studies and their weightings were decided on as per below.

A weighted approach was used to ensure a diversity of relevant urban precincts were incorporated into the modelling, and to allow for the most relevant case studies to have a higher influence on modelled results. A weighting of 0.5 was assigned to the most comparable precinct with weightings of 0.3 and 0.2 assigned to the 2nd and 3rd most comparable precincts selected.

Macquarie University was given the second highest weighting as it is a university-based precinct similarly to Clayton. Auburn was chosen next because of its high similarity score across a range of indicators. Kogarah was selected last because of the presence of a major hospital (Auburn has a smaller hospital). Kelvin Grove was not chosen because it lacks a train station.

Due to the similarity between the 1600m area around the SRL station and the selected case studies, the growth rates achieved within the selected case studies are compared with the modelled projections for the 1600m area. Therefore, the case studies also serve as a benchmark for our modelling, providing insight into whether the magnitude of growth has occurred in comparable locations elsewhere.

As mentioned previously, the choice of case study is not entirely determinative of the final results. There may be other case studies considered appropriate for comparison, however, with the use of weighting and the data points informing primarily the mix of housing rather than the quantum of housing, the results would not differ dramatically. The case studies provide reference points as to where change of the scale projected has occurred, and how that change occurred on the ground (e.g. dwelling density, typology, nature of redevelopment sites).

Table 7.1 provides more details on the scoring and ranking across all 11 indicators. Appendix D provides more information about the case studies, including a profile of affordability, age structure, demographics, and planning considerations.

TABLE 7.1 SIMILARITY SCORE RELATIVE TO CLAYTON AND RANKING, SELECTED CASE STUDIES, 2021

PRECINCT	CITY	RANK	SCORE	TRAIN STATION	DENSITY INDEX (PAST)	DENSITY INDEX (CURRENT)	N'HOOD DENSITY INDEX (PAST)	PUBLIC TRANSPORT JOURNEY TO CBD (MINS)	SEIFA (IRSAD)	OVERSEAS BORN (PAST)	OFFICE EMP. (CURRENT)	UNI	HOSP'L
Auburn	Sydney	1	1.12	YES	29.25	53.99	25.06	41 Mins	943	65.1%	2,572	NO	YES
Kelvin Grove	Brisbane	2	1.16	NO	25.93	42.61	26.66	15 Mins*	1086	36.0%	5378	YES	YES
Kogarah	Sydney	3	1.36	YES	44.44	60.21	45.52	33 Mins	1025	54.5%	4510	NO	YES
Macquarie University	Sydney	4	1.40	YES	22.02	36.40	32.11	32 Mins	1103	51.7%	15,481	YES	NO
Lidcombe	Sydney	5	1.41	YES	30.15	58.75	25.06	38 Mins	991	63.0%	1012	NO	NO
Flemington	Sydney	6	1.79	YES	17.84	55.73	45.32	30 Mins	1072	56.8%	2695	NO	NO
Rockdale	Sydney	7	1.81	YES	42.34	64.07	45.52	28 Mins	1021	52.7%	4314	NO	NO
Wolli Creek	Sydney	8	1.84	YES	24.93	67.14	45.52	20 Mins	1074	52.5%	1294	NO	NO
Strathfield	Sydney	9	1.86	YES	38.79	63.63	45.32	22 Mins	1077	56.8%	4698	NO	NO
Burwood	Sydney	10	1.88	YES	39.32	64.65	45.32	20 Mins	1065	54.1%	3850	NO	NO
Clayton 1600m Radius Area	**Melbourne**	**-**	**-**	**YES**	**27.59**	**61.40**	**23.01**	**28 Mins**	**1012**	**67.4%**	**3,492**	**YES**	**YES**

*Source: ABS (2021) Census of Population and Housing various; Google Maps; AJM JV. Note Macquarie University has a hospital that is expressly for teaching and learning which is not counted as a major hospital for the purposes of this assessment. However, the hospital in Macquarie University was a factor in our decision making. * Kelvin Grove Train Journey is the public transport journey to Roma Street Station*

To reach higher population densities, all case study areas experienced a significant shift to higher density dwelling types, as shown in Table 7.2. In Macquarie University, Auburn and Kogarah the proportion of high-density dwellings increased by a weighted average of around +22.9 percentage points. In total, high-density dwellings accounted for 86% of all new dwellings, reflecting the need to accommodate population growth in established areas. The high proportion of new high-density dwellings reflect that TOP's with strong amenity attract substantial high-density development.

There were significant increases in the number low-density dwellings within Macquarie University and Auburn. Increases in both case studies likely reflect increases in subdivisions to accommodate students in shared accommodation or other forms of group living[39]. While there were increases in low-density dwellings in the case studies, the housing requirement assessments assume no net increase in low-density dwellings in the Structure Plan Area. This assumption takes into consideration the scarcity of land in Clayton and the nature of the Structure Plan Area as an established residential area.

TABLE 7.2 PRE- AND POST-DEVELOPMENT DWELLINGS, SELECTED CASE STUDIES, NUMBER AND SHARE, 2001 AND 2021

CASE STUDY	PRE-DEVELOPMENT 2001					POST-DEVELOPMENT 2021				
	LOW-DENSITY	MEDIUM-DENSITY	HIGH-DENSITY	OTHER	TOTAL	LOW-DENSITY	MEDIUM-DENSITY	HIGH-DENSITY	OTHER	TOTAL
Macquarie University	1474	1887	1972	0	**5333**	1910	2469	6487	0	**10,866**
Kogarah	4298	2003	3850	72	**10,223**	4352	1668	6933	109	**13,062**
Auburn	3596	2248	842	14	**6700**	4006	2459	4534	38	**11,037**
Weighted average	**2675**	**2019**	**2009**	**19**	**6721**	**3027**	**2306**	**5990**	**33**	**11,357**
Macquarie University	27.6%	35.4%	37.0%	0.0%	**100%**	17.6%	22.7%	59.7%	0.0%	**100%**
Kogarah	42.0%	19.6%	37.7%	0.7%	**100%**	33.3%	12.8%	53.1%	0.8%	**100%**
Auburn	53.7%	33.6%	12.6%	0.2%	**100%**	36.3%	22.3%	41.1%	0.3%	**100%**
Weighted average	**39.8%**	**30.0%**	**29.9%**	**0.3%**	**100%**	**26.7%**	**20.3%**	**52.7%**	**0.3%**	**100%**

Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: ABS (2011 & 2021) Census of Population and Housing; AJM JV

[39] Due to changing preferences of students, new student accommodation will likely be studios and 1-bedroom apartments. Therefore, a significant increase in low-density dwellings is not expected in Clayton to meet rising student numbers.

Table 7.3 outlines the change in household types witnessed in the selected case studies from 2011-2021.

The household types with the strongest increases across the case studies are couple family without children and lone person households. Increases across these household types will lead to demand for a variety of accommodation including studio / one-bedroom (for lone person households) and two-bedroom (for couple families without children). There is a wide variation in the change in couple family with children household type between case studies. The change in this household type in the Clayton Structure Plan Area will be dependent on the residential stock built.

TABLE 7.3 CHANGE IN HOUSEHOLD TYPE, CASE STUDY PRECINCTS, 2011–2021

	KOGARAH 1600M RADIUS				MACQUARIE UNIVERSITY 1600M RADIUS				AUBURN 1600M RADIUS			
	2011	2021	CHANGE (2011-2021)	ANNUAL GROWTH RATE (%)	2011	2021	CHANGE (2011-2021)	ANNUAL GROWTH RATE (%)	2011	2021	CHANGE (2011-2021)	ANNUAL GROWTH RATE (%)
Couple family without children	2400	2800	400	1.5%	1500	2500	1000	5.5%	1400	2000	600	3.9%
Couple family with children	3600	3800	200	0.6%	1500	2300	800	4.4%	3200	3000	-200	-0.7%
Other family	1200	1400	200	1.0%	600	800	200	3.8%	1100	1100	0	0.2%
Multi family	300	300	0	-0.7%	100	100	0	4.2%	400	500	100	0.6%
Lone person household	2300	2700	400	1.9%	1900	2800	900	4.1%	1200	1600	400	3.1%
Group household	500	600	100	2.2%	600	600	0	-0.3%	500	1200	700	8.8%
Other	600	500	-100	-2.4%	300	400	100	5.5%	600	600	0	1.2%
Total	**10,800**	**12,000**	**1200**	**1.0%**	**6400**	**9600**	**3200**	**4.2%**	**8400**	**10,000**	**1600**	**1.8%**

Source: ABS (2011 & 2021) Census of Population and Housing; AJM JV

Table 7.4 outlines the key evidence taken from the case study analysis and applied in the modelling for this assessment. The key evidence is the dwelling structure proportions used to allocate population growth. The extent of population growth drives the need for new dwellings, and the dwelling structure proportions are how the model allocates this need.

TABLE 7.4 KEY EVIDENCE DERIVED FROM CASE STUDIES

EVIDENCE	CASE STUDIES	APPLICATION IN MODEL
Household sizes	All case studies	An average household size across dense urban precincts is estimated by looking at all case studies investigated in the scoring and ranking exercise. This estimate is applied to the population in each dwelling structure to estimate the number of dwellings.
Dwelling structure	Selected case studies	Dwelling structure refers to the density and the number of bedrooms a person's dwelling has. These proportions for medium-density and high-density dwellings are referenced from the selected case studies to apportion the new population growth in the Structure Plan Area.
Growth in low-density & medium-density dwellings	Selected case studies	The growth in low-density and medium-density dwellings in the case studies provides a guide to how much these dwellings would be expected to grow in the Structure Plan Area. This growth is used as a sense check for the modelled estimates.

Source: AJM JV

8. Structure Plan Area housing requirement projections

This section provides the housing requirements estimates for the Clayton Structure Plan Area, including projected population, housing need and housing diversity. Population projections are the key driver of additional housing needs and so are outlined to further understand likely housing needs.

8.1 Population projections

8.1.1 TOTAL POPULATION

Table 8.1 shows the population projections for relevant geographies:

The population in the Clayton Structure Plan Area is expected to grow from approximately 14,200 in 2021 to 26,900 in 2041. This growth translates to an increase of 3.2% per annum. The additional ~12,700 people in the Structure Plan Area will create a strong requirement for additional housing.

- The Clayton Structure Plan Area population is anticipated to grow at a much faster rate (3.2% per annum) than the South East Region (1.1% per annum) and Greater Melbourne (1.8% per annum).

TABLE 8.1 PROJECTED POPULATION GROWTH, KEY GEOGRAPHIES, 2021–2041

	PROJECTED POPULATION (NO.)		CHANGE (NO.)	ANNUAL GROWTH RATE (%)
	2021	2041	2021-2041	2021-2041
Clayton Structure Plan Area	14,200	26,900	12,700	3.2%
Clayton 1600m Radius Area*	22,500	40,500	18,000	3.0%
South East Region	1,614,900	1,991,900	377,000	1.1%
Greater Melbourne	4,917,300	7,087,100	2,111,800	1.8%

**Weighted non-overlap figure per the SRL BIC – where the 1600m areas for Monash and Clayton intersect, the proportionate weight of each precinct within the overlapping area is applied to avoid overlapping catchments.*
Source: ABS ERP; CityPlan (1600m radius area published in SRL BIC, Structure Plan Area derived from SRL BIC); VIF2023 (South East Region, Greater Melbourne)

8.1.2 AGE STRUCTURE

Figure 8.1 shows the projected age breakdown of residents in the Structure Plan Area. This information is used to model the requirement for student accommodation and aged care and retirement living (in Section 9).

The largest changes in age structure in the Structure Plan Area from 2021 to 2041 are anticipated to be in the 0 to 4 years, 5 to 11 years and 26-64 years cohorts. All these cohorts are expected to grow 4.0% per annum or more. The increases in these age brackets will lead to more demand for family accommodation.

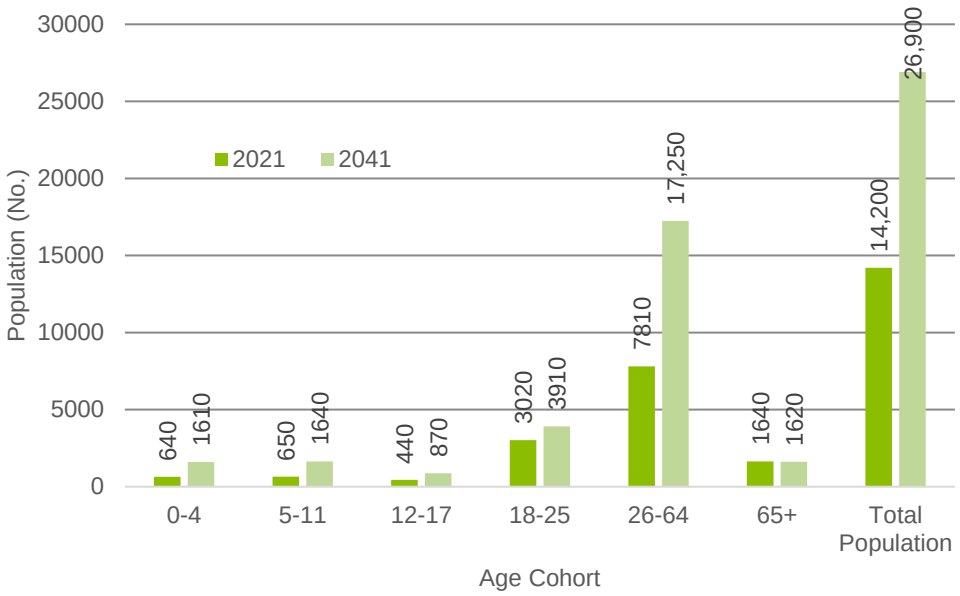


FIGURE 8.1 PROJECTED POPULATION BY AGE GROUP, CLAYTON STRUCTURE PLAN AREA, 2021 & 2041

Source: ABS ERP; Structure Plan Area population projections derived from CityPlan (published in SRL BIC); VIF2023 (South East Region, Greater Melbourne)

8.2 Projected housing requirements

The dwelling requirement numbers provided in this sub-section represent the estimate of the number of dwellings, by dwelling structure (including number of bedrooms per dwelling), likely to be required in the Clayton Structure Plan Area, to realise the population forecasts derived from the SRL Business and Investment Case (BIC). AJM JV notes the projected housing requirements presented in section 8 are inclusive of future demand for student accommodation within the Structure Plan Area. The projections for student accommodation within the Structure Plan Area are provided in section 9.3.

Appendix E provides a detailed methodology to explain how the projected housing requirements were calculated.

8.2.1 TOTAL DWELLINGS

Table 8.2 outlines the total number of dwellings required in the Structure Plan Area by 2041. **A total of 11,600 are estimated to be required by 2041 which reflects a net increase of 5590 over the 20-year period.**

TABLE 8.2 HOUSING REQUIREMENTS, CLAYTON STRUCTURE PLAN AREA, 2021–2041

	2021	2041	2021-2041 CHANGE	ANNUAL GROWTH RATE (%)
Dwellings	6010	11,600	5590	3.3%

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

8.2.2 DWELLINGS BY TYPE

Table 8.3[40] provides the key housing projections (population, dwelling number, floorspace) by density type for the Clayton Structure Plan Area. Based on case study analysis, dwellings are projected to be mostly high-density by 2041, representing 55% of all dwellings. This is the result of a projected 5740 net increase in the number of high-density dwellings. Accounting for demolitions across all dwelling types, 5910 new dwellings are projected to be required to be built.

The Clayton Structure Plan is projected to see a net reduction in the number of low-density dwellings (-320). This is largely because much of the Structure Plan Area is covered by low-density residential areas where growth will be expected, with higher density replacing some existing houses. The increase in medium-density dwellings is expected to be minimal (170). While there is evidence of market support for medium-density housing currently, to meet projected growth, greater provision of high-density housing will be needed.

TABLE 8.3 HOUSING REQUIREMENTS BY DENSITY, CLAYTON STRUCTURE PLAN AREA, 2021–2041

	2021		2041		2021-2041 CHANGE	
	NO.	%	NO.	%	NO.	ANNUAL GROWTH RATE (%)
Population (no.)						
Low-density	6100	43.1%	5800	21.7%	-300	-0.2%
Medium-density	6800	47.8%	7700	28.8%	900	0.7%
High-density	1300	9.0%	13,300	49.5%	12,000	12.4%
Total	**14,200**	**100.0%**	**26,900**	**100.0%**	**12,700**	**3.2%**
Dwellings (no.)						
Low-density	2350	39.0%	2030	17.5%	-320	-0.7%
Medium-density	2990	49.8%	3160	27.3%	170	0.3%
High-density	670	11.2%	6410	55.2%	5740	11.9%
Total	**6010**	**100.0%**	**11,600**	**100.0%**	**5590**	**3.3%**
Floorspace (sq.m GBA)						
Low-density	694,500	54.4%	600,800	33.6%	-93,700	-0.7%
Medium-density	514,700	40.3%	530,300	29.7%	15,600	0.1%
High-density	66,700	5.2%	656,100	36.7%	589,400	12.1%
Total	**1,275,900**	**100.0%**	**1,787,100**	**100.0%**	**511,200**	**1.7%**

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

[40] Note that household sizes implied from Table 8.3 differ between 2021 and 2041. This is because 2041 household sizes applied are based upon an average of the case studies which represents the 'need' for new dwellings. 2021 household sizes are representative of the 2021 Census which because of a low sample size (the Structure Plan Area only) and an unusually high number of dwellings being registered as vacant, is not a strong guide for household sizes going forward. There will also be a change in household size for a given density as the typology within each density is likely to change (e.g. larger medium- and high-density dwellings). Therefore, it is not valid to directly compare household sizes between time periods.

Table 8.4 shows the dwelling projections by density and bedrooms for the Structure Plan Area. High-density, two-bedroom dwellings are projected to be the most common dwelling type by 2041 with 4030 projected. High-density three or more-bedroom dwellings are predicted to need to increase significantly, accounting for around 7.1% of all dwellings in 2041 compared to 0.5% in 2021. The net increase in these high-density three or more-bedroom dwellings (790) will outweigh the decrease in low-density three or more-bedroom dwellings (-260).

TABLE 8.4 HOUSING REQUIREMENTS BY STRUCTURE (DWELLINGS), CLAYTON STRUCTURE PLAN AREA, 2021–2041

	2021		2041		2021-2041 CHANGE	
	NO.	%	NO.	%	NO.	ANNUAL GROWTH RATE (%)
Low-density						
Studio / 1-bedroom	20	0.3%	10	0.1%	-10	-2.4%
2-bedroom	290	4.8%	240	2.0%	-50	-1.0%
3+bedroom	2040	33.9%	1780	15.4%	-260	-0.7%
Total dwellings	**2350**	**39.0%**	**2030**	**17.5%**	**-320**	**-0.7%**
Medium-density						
Studio / 1-bedroom	60	1.0%	120	1.0%	60	3.5%
2-bedroom	1140	18.9%	1260	10.9%	120	0.5%
3+bedroom	1790	29.8%	1790	15.4%	0	0.0%
Total dwellings	**2990**	**49.8%**	**3160**	**27.3%**	**170**	**0.3%**
High-density						
Studio / 1-bedroom	110	1.8%	1560	13.4%	1450	14.3%
2-bedroom	530	8.9%	4030	34.7%	3500	10.6%
3+bedroom	30	0.5%	820	7.1%	790	17.5%
Total dwellings	**670**	**11.2%**	**6410**	**55.2%**	**5740**	**11.9%**
Grand total dwellings	**6010**	**100.0%**	**11,600**	**100.0%**	**5590**	**3.3%**

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

8.3 Testing housing requirements

This sub-section evaluates if the market has the potential to meet housing requirements by assessing the following:

- Does historical growth suggest the requirements can be fulfilled?
- Does the current pipeline indicate the market is already responding to the needs?
- Is there evidence the diversity of housing implied by the future dwelling mix will be delivered by the market?

This assessment aims to determine if a substantial change in the current housing delivery is needed to effectively meet the projected housing requirements in the Clayton Structure Planning Area.

Table 8.5 compares historical dwelling growth to that required to accommodate future population projections, while Table 8.6 presents the dwelling growth achieved annually in the case study areas.

Does historical growth indicate required growth can be achieved?

There is a small but growing apartment market within the Clayton Structure Plan. From 2011 to 2021, ABS data shows the number of high-density dwellings increased from 240 to 670, representing growth of around 40 apartments per annum.

The need for around 5740 additional high-density dwellings by 2041 growth reflects an average increase of around 290 additional apartments each year over the 20-year period. A sizeable uptick from this growth rate will be required to achieve projected requirements. Furthermore, this increased growth rate will need to be sustained over a longer timeframe.

Growth required to meet projected requirements is also above what has been delivered over the past 20 years in the selected case studies.

Table 8.6Table 8.6 shows the dwelling growth per annum in selected case studies. It shows the selected case studies added from 150 to 230 high-density dwellings per annum from 2001 to 2021. To achieve the projected growth in high-density dwellings, shifts in policy settings in the Structure Plan Area may be required to stimulate growth further. Delivery of key sites such as the PMP site as a mixed-use precinct will be important.

A factor that increases the likelihood of achieving projected requirements in high-density apartments is the shift in student accommodation facilities towards towers containing high-density apartments. This trend will likely see few, if any, new student accommodation facilities that are low or medium-density, helping to achieve projected requirements.

The majority of apartments delivered within Clayton have consisted of one and two-bedroom apartments. Of the total high-density stock of 670 in 2021, around 640 are studio, one or two-bedroom dwellings, showing the predominance of these dwelling types. Going forward, achieving growth in three-bedroom apartments is critical to accommodating all groups in the community. The required growth in three-bedroom apartments is greater than the recent growth seen in this product type, as historically, apartments haven't been built to cater for families.

It is recommended that structure planning and policy consider options to stimulate growth in high-density apartments. Although mandating delivery of larger apartments (three or more-bedroom) is unlikely to be feasible, consideration could be given to how to incentivising diversity of high-density product. Without change from the status-quo, there will be less population diversity in the Structure Plan Area, and potentially a need for more (albeit smaller) dwellings for the given population growth.

Overall, historical growth indicates there is a growing market for high-density dwellings, however achieving growth will require a significant uptick in growth which the Structure Plan should seek to facilitate.

Does the current pipeline indicate meeting required growth is likely?

There are approximately 1400 apartments/units in the development pipeline to be delivered out to 2026 according to Cordell Connect. This equates to an annual completion rate of around 470. With around 290 apartments required to be constructed annually until 2041 (to meet the modelled requirements of 5740 extra high-density dwellings), the current supply pipeline is meeting projected growth. However, the current supply pipeline reflects the developments of some significant projects such as the PMP Printing Precinct with 1180 units projected. Sustaining this high growth rate of will be the challenge for the Structure Plan Area.

The market will move in cycles, with current conditions more subdued than previous peaks. An average of around 180 apartments have been approved annually from FY2017 to FY2023 in the Clayton Structure Plan Area (based on ABS New Dwelling Approvals, NDA, data). The highest number of apartment approvals occurred in 2019/20, reaching close to 500, whereas the approvals dropped to below 100 in FY2023.

The apartment market over the last couple of years has been influenced by prevailing market conditions, predominantly high construction costs and labour shortages in the construction sector, rather than a lack of requirements from potential residents. Given the long-term nature of the forecasts, it is likely that market conditions will ease, and apartment construction may be able to increase further.

While the short-term pipeline indicates dwelling delivery is on track, sustaining this growth over a twenty-year period may prove challenging and require shifts in policy settings or other incentives to maintain dwelling delivery.

Will the diversity of housing identified in the future mix be delivered?

The analysis presented below indicates a need for a significant increase in the delivery of three or more-bedroom high-density dwellings relative to what the market has delivered to date.

The case studies upon which the projected dwelling mix has been derived have indicated that markets can respond without specific initiatives introduced, supporting growth in family households despite larger high-density dwellings being the predominant form of new housing. In 2021, three or more-bedroom high-density dwellings in the case studies represented between 4.3% and 8.5% of total dwellings.

Within the Structure Plan Area, it is reasonable to expect that as low-density housing becomes more unaffordable in relative terms, there will also be stronger

demand to drive the market to respond with greater diversity of product, including larger apartments.

Nonetheless, it is prudent to understand the implications if an increase in three or more-bedroom high-density dwellings is not achieved. In general terms, if more one- or two-bedroom apartments are delivered instead of the larger apartments, more total dwellings will be required to house the population. However, the total floorspace increase required to support this will not be as proportionately great, due to the lower average dwelling sizes of studio / one-bedroom and two-bedroom apartments.

To provide an indication of the impact of the growth in three or more-bedroom apartments not being achieved, a simple calculation of the effect of limited growth in this dwelling type is presented here. If the share of three or more-bedroom dwellings as a share of total high-density dwellings is kept constant from 2021 and the growth not achieved is reallocated to studio / one-bed and two-bed apartments, the number of dwellings required to house the projected population would increase slightly (less than 5%). Due to the smaller sizes of the apartments, the total floorspace would likely decrease slightly.

The magnitude of changes to total dwellings and floorspace are not substantial enough to materially change structure planning. The main effect of less growth in three or more-bedroom apartments is on the future demographics of the Structure Plan Area. Less three or more-bedroom apartments would result in fewer families but more couple without children and lone person households residing in the Structure Plan Area.

It should be kept in mind that the number of three or more-bedroom apartments projected in 2041 represents only 7% of all dwellings, within the range achieved in the case studies.

Measures to encourage the delivery of larger apartments could be considered, but there is some evidence from the case studies that the market can respond to some extent to demand from families and other larger households by providing 3+ bedroom apartments. The consequences of not delivering what is in volume terms a modest increase in three or more-bedroom high-density dwellings are not significant to meeting population growth. However, there could be an influence on the demographic of the population supported in the Structure Plan Area.

TABLE 8.5 COMPARING PROJECTED DWELLING REQUIREMENTS TO HISTORICAL SUPPLY, BY STRUCTURE & BEDROOMS, CLAYTON STRUCTURE PLAN AREA, 2011–2041

	HISTORIC (NO.)			PROJECTIONS (NO.)	HISTORIC GROWTH (PER ANNUM)		REQUIRED GROWTH TO MEET PROJECTIONS (PER ANNUM)	GAP (PER ANNUM)
	2011	2016	2021	2041	2011-2016	2016-2021 (A)	2021-2041 (B)	(C) = (B) - (A)
Low-density								
Studio / 1-bedroom	20	20	20	10	0	0	-1	-1
2-bedroom	430	300	290	240	-26	-2	-3	-1
3+bedrooms	2000	1860	2040	1780	-28	36	-13	-49
Total	**2450**	**2170**	**2350**	**2030**	**-56**	**36**	**-16**	**-52**
Medium-density								
Studio / 1-bedroom	50	70	60	120	4	-2	3	5

2-bedroom	900	1100	1140	1260	40	8	6	-2
3+bedrooms	1010	1500	1790	1790	98	58	0	-58
Total	**1960**	**2670**	**2990**	**3160**	**142**	**64**	**9**	**-56**
High-density								
Studio / 1-bedroom	40	60	110	1560	4	10	73	63
2-bedroom	170	230	530	4030	12	60	175	115
3+bedrooms	30	30	30	820	0	0	40	40
Total	**240**	**320**	**670**	**6410**	**16**	**70**	**287**	**217**
Grand total	**4650**	**5150**	**6010**	**11,600**	**100**	**172**	**280**	**108**

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2011-2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

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TABLE 8.6 DWELLING GROWTH PER ANNUM, SELECTED CASE STUDIES, 2011–2021

CASE STUDY	ADDITIONAL DWELLINGS PER ANNUM (2001-2021)			
	LOW-DENSITY	MEDIUM-DENSITY	HIGH-DENSITY	TOTAL
Macquarie University	20	30	230	**280**
Auburn	20	10	180	**220**
Kogarah	0	-20	150	**140**
Weighted average	**20**	**10**	**200**	**230**

Source: ABS (2001 & 2021) STRD Dwelling Structure; AJM

8.4 Implications for Clayton Structure Plan

The analysis in this section highlights the following considerations for the Clayton Structure Plan:

- The Structure Plan Area is projected to need to support a net increase of almost 5600 dwellings from 2021. This will require around 280 new dwellings per annum. Given the anticipated slight reduction in low-density dwellings, the increase in high-density apartments needed will be even greater at 5740 in total (287 per annum).
- This is a high rate of growth, well above what has been seen historically in the Structure Plan Area (170 dwellings annually 2016-21), and slightly above the 230 apartments per annum achieved in the Macquarie University case study area.
- To achieve this growth of overall housing, structure planning may need to support higher density housing throughout the Structure Plan Area, particularly around the central core, but also through the large, established residential areas.
- What has been delivered in apartment buildings to date in the Structure Plan Area has been focused on one and two-bedroom apartments, attracting mainly lone person and couple households. It should be noted the case study precincts indicate this type of change is not unusual, while it is also suitable for the high number of students living in Clayton.
- An increase from the currently low level of a significant increase in three or more-bedroom high-density dwellings, although not critical to achieving population growth, is needed to accommodate a broader range of groups, including families and group households. It is therefore important that the Structure Plan promote a broader range of apartment types, especially emphasising the construction of larger apartments (living space and bedroom numbers) to accommodate projected population growth across a range of demographic cohorts.
- While medium-density development has been common in Clayton, a shift more to higher-density housing should be encouraged. Development of predominantly townhouses may compromise the ability of the Structure Plan Area to meet population targets with more high-density dwellings helping to maximise limited land supply within Monash. Some townhouse development may be appropriate though, to support diversity of households, particularly families and group households who require more bedrooms.
- Accommodating future population growth in predominantly high-density dwellings across larger areas of the Structure Plan Area results in a more efficient use of land. This development will need to be supported in a mix of commercial areas (such as the Centre Road strip), key regeneration sites (e.g. PMP), main road frontages, and in the low-density residential areas which cover large parts of the Structure Plan Area.

9. Housing for diverse community needs

This section estimates the demand[41] for various housing types designed to address specific community requirements or accommodate particular demographic groups in the Structure Plan Area. These include social and affordable housing, key worker housing, student accommodation, and aged care and retirement living.

Note the housing requirements estimates provided are a subset of the total demand estimates in the previous Section 8. There is no additional requirement for forms of diverse accommodation as often the choice of accommodation type is a matter of preference (e.g. students can decide if they wish to live in student accommodation or standard residential apartments).

The diverse housing estimates provided are based on the projected population and demographic profile in the Structure Plan Area, which for the purposes of this analysis, is a fixed estimate. Workers and students working and studying in the Structure Plan Area are considered for key worker and student accommodation, respectively.

It should be noted there may be opportunity for the Structure Plan Area to play an elevated role in meeting the diverse housing needs of a wider population area. The attributes of the Structure Plan Area, particularly with excellent future access to public transport and other amenity, mean it will be a location suited to supporting diverse housing types, including affordable and social housing, student accommodation, key worker housing and so on. A wider population base may, therefore, desire diverse accommodation beyond the projected population living in the Structure Plan Area. For this reason, the estimates below potentially represent a minimum estimate of the potential opportunity for accommodation located in the Structure Plan Area.

These estimates are not targets and do not represent the number of each housing type that must be provided in the Structure Plan Area. They should rather be thought of as an indication of the potential demand that may exist for a wide range of community needs. In many cases, the housing will be delivered by private developers in response to future market demand (e.g. student accommodation, aged care and retirement living).

9.1 Social and affordable housing

Social and affordable housing are an important component of the housing mix providing accommodation to groups that cannot afford accommodation on the private market. Demand for social and affordable housing has been modelled for this assessment to indicate the potential scale of social and affordable housing, based on the share of households who may meet eligibility criteria.

9.1.1 SOCIAL AND AFFORDABLE HOUSING DEFINITION

Affordable housing refers to housing options that are available at a rent or price lower than the local market rate. Affordable housing may be owned by private developers, local governments, charitable organisations or community housing providers. It is usually managed by community housing providers. Affordable housing is considered to be accessible for those on moderate incomes or below.

For the purposes of the modelling the income ranges that are eligible for affordable housing are outlined in Table 9.1

Social housing refers to government-subsidised short and long-term rentals. There are two types of social housing: public housing, which is owned by the government, and community housing, which is managed (and sometimes owned) by not-for-profit organisations. Social housing rents are calculated based on income, typically 25 to 30% of household income, and target people on very low incomes and who often have experienced homelessness, family violence or have other complex needs.

[41] Housing projections in section 7 and 8 are described as requirements while in section 9 they are described as estimated demand since diverse housing is only a potential subset and is not technically required.

For the purposes of this assessment, the eligibility for social housing is defined by the income ranges provided by Housing Victoria, outlined Table 9.2. As defined, social housing is a subset of affordable housing that falls within the very-low- and low-income brackets.

Appendix F provides a further explanation of the methodology behind the social and affordable housing estimates.

TABLE 9.1 SOCIAL AND AFFORDABLE HOUSING INCOME RANGE CLASSIFICATION, GREATER MELBOURNE, 2023

HOUSEHOLD TYPES	VERY LOW-INCOME RANGE (ANNUAL)	LOW INCOME RANGE (ANNUAL)	MODERATE INCOME RANGE (ANNUAL)	SOCIAL HOUSING INCOME RANGE (ANNUAL)
Single adult	Up to $26,200	$26,201 - $41,920	$41,921 - $62,860	<$32,552
Couple, no dependants	Up to $39,290	$39,291 - $62,870	$62,871 - $94,300	<$56,264
Family (with one or two parents) and dependent children	Up to $55,000	$55,001 - $88,020	$88,021 - $132,030	<$58,292

Note: The annual income limit for social housing increases by $2028 for each additional dependent. Source: Victoria Government Gazette No. G 25, 23 June 2023; Housing Victoria

The eligibility for social housing and criteria for affordable housing overlap, meaning that some households that are eligible for social housing will also be eligible for affordable housing and vice versa. Furthermore, the income ranges for social housing can fall within very low or low affordable income brackets depending on the household type. This means that projections for social and affordable housing must be considered together.

Finally, it is important to note the social and affordable estimates provided here represent the number of households potentially eligible for such housing. The number of households potentially eligible for affordable housing can be reduced if the cost of housing decreases, potentially through greater amounts of affordable supply built or an increase in the total amount of supply relative to demand, which would put downward pressure on housing costs.

9.1.2 SOCIAL AND AFFORDABLE AND HOMELESSNESS METHODOLOGY

The methodology for estimating requirements for social and affordable housing involves calculating the proportion of households with very low, low, and moderate incomes at the 2021 Census (using the 2021 income ranges). These estimates are then refined to only include households falling within these income brackets that are renters and in rental stress, defined as those with 30% or more of their household incomes going towards rent.

It is important to note this methodology does not consider forecasts or assumptions for changes in relative housing costs (rents) faced by households. It is not possible to accurately predict relative change in incomes versus rents over 15 to 20 years.

An estimate of individuals experiencing homelessness[42] in the Structure Plan Area is also incorporated into the assessment for the requirements for social and affordable housing. It is vital to ensure those who are currently homeless (and so not counted in current rental data) are provided access to social or affordable housing.

The detailed methodology for assessing social and affordable housing requirements and homelessness is detailed more in Appendix F.

9.1.3 SOCIAL AND AFFORDABLE HOUSING REQUIREMENTS RESULTS

Table 9.2 provides estimates of the number of people in need of social housing and affordable housing in the Clayton Structure Plan Area from 2021 to 2041.

There is projected to be a growing need for more affordable housing, with **1910 households (including homeless individuals) across the Structure Plan Area projected to be eligible for social and affordable housing by 2041.**

The number of households eligible for social housing, which includes those on very low and low incomes, is projected to be 900 by 2041.

The number of people experiencing homelessness is estimated at around 160 in 2021, which assuming continuation of the current proportion, would increase to approximately 300 by 2041. These individuals are most in need and are least likely to be able to afford to rent or purchase their own home.

TABLE 9.2 SOCIAL AND AFFORDABLE HOUSING REQUIREMENTS, CLAYTON STRUCTURE PLAN AREA, 2021–2041

GROUP ELIGIBLE FOR SOCIAL / AFFORDABLE HOUSING	STEPS	NO.		CHANGE (NO.)	ANNUAL GROWTH RATE (%)
		2021	2041	2021-2041	
Very low income (households)	(A)	450	870	420	3.3%
Low income (households)	(B)	220	430	210	3.3%
Social housing (households)	**(C) = Subset of (A) and (B)**	**470**	**900**	**430**	**3.3%**
Moderate income (households)	(D)	160	310	150	3.3%
Homelessness estimate (individuals)	(E)	160	300	140	3.2%
Total "in need"	**(F) = (A) + (B) + (D) + (E)**	**990**	**1910**	**920**	**3.3%**

Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV

[42] Groups defined as homeless are defined in Appendix F.

9.2 Key worker housing

9.2.1 KEY WORKER HOUSING DEFINITION

The term ‘key worker’ lacks a consistent or universally accepted definition in Australia. Key workers are generally described as employees engaged in essential services crucial to a city's operation. They must be physically present at their workplaces and often operate beyond regular business hours.

The designation of key worker encompasses individuals traditionally linked to the concept, such as teachers, doctors, nurses, police, and emergency service personnel. Additionally, it is often extended to roles like laundry workers, cleaners, public transport operators, aged care and childcare workers, and community services and support staff.

Ensuring that key workers can reside near their workplaces is vital. This proximity is especially critical in fields like healthcare and emergency services, where workers must cover shifts, quickly respond to increases in service demand, and attend emergency situations. Given that SRL East Structure Plan Areas serve as key employment hubs, it is advisable to promote key worker housing[43] within walking distance of SRL East stations and major employers such as universities and hospitals.

Due to their generally modest incomes, key workers are particularly vulnerable to high housing costs. As housing costs continue to rise, securing suitable and affordable housing near work becomes a significant challenge for key workers, often resulting in lengthy commutes.

The objective of this analysis is to identify the residential locations of key workers with very low to moderate incomes. This understanding will shed light on the potential for providing suitable housing options, aiming to reduce the share of workers commuting from outside the region.

It is important to note that key low-income workers who live in the Structure Plan Area will be a subset of the affordable housing needs estimated in Section 8 Key workers who live outside the Structure Plan Area represent demand that could potentially be accommodated depending on SRLA's strategic direction or providers' response (i.e. key workers who live outside the Structure Plan Area could move into the area, closer to their place of work).

9.2.2 KEY WORKER HOUSING DEMAND METHODOLOGY

The methodology for assessing key worker housing demand involves determining the number of key workers with very low, low and moderate incomes and understanding their place of residence. The share of key workers by the broad industry sector in 2021 is applied to the job projections (by the broad industry sector) to estimate the potential number of key workers in 2041.

Key workers living outside the South East Region are considered the target for key worker housing, as they have long commutes and could benefit from housing close to their place of work. However, going forward, it cannot necessarily be assumed that key workers will be able to live in the South East Region in the same proportion as they do now. Therefore, the total estimated number of low-income key workers could create demand for the delivery of dedicated key worker housing.

Note the share of key workers in different industries and the share of those key workers on very low to moderate incomes and their place of residence has been derived in a 1600-metre radius from the SRL station (as opposed to the Structure Plan Area) due to data reliability issues at a small area when multiple criteria are used for segmentation (e.g. by industry, by occupation, by income, by residential location). The proportion of key workers in different industries and places of residence in the 1600-metre radius has been applied to workers in the Structure Plan Area to calculate estimates for the Structure Plan Area.

[43] There is no universal definition for key worker housing. Some define it as rental housing for key workers with very low, low, or moderate household incomes, which must be owned, managed, allocated, and monitored by a Registered Housing Agency or registered charity. This report focuses on the number of key workers with low to moderate incomes, regardless of housing tenure. If more key workers can live closer to their place of work, either renting or purchasing, it would be considered a good outcome.

9.2.3 KEY WORKER HOUSING DEMAND RESULTS

Table 9.3 shows there were approximately 8000 key workers in the Clayton Structure Plan Area in 2021. With the health precinct within the area, the key worker number is very high. Of those workers, almost 40% were earning very low to moderate incomes.

TABLE 9.3 ESTIMATED NUMBER OF KEY WORKERS (TOTAL AND EARNING VERY LOW TO MODERATE INCOMES), CLAYTON STRUCTURE PLAN AREA, 2021

INDUSTRY	TOTAL JOBS (WORKERS)	TOTAL KEY WORKERS	PROPORTION OF TOTAL KEY WORKERS EARNING VERY LOW TO MODERATE INCOMES	TOTAL VERY LOW TO MODERATE KEY WORKERS
Education	300	120	42%	50
Health	9000	7510	38%	2825
Other	3400	380	66%	250
Total	**12,700**	**8010**	**39%**	**3125**

Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: ABS (2021) INDP Industry of Employment; AJM JV

Table 9.4 shows that 1 in 5 key workers on very low to moderate incomes live in the Monash municipality. A further 37% live in Kingston, Greater Dandenong, Glen Eira, Knox, Whitehorse and Stonnington combined – all of which are part of the South East Region. In total, 64% of key workers on very low to moderate incomes live in the South East Region.

Some 14% of workers are travelling to the Structure Plan Area from the City of Casey to the south east. This will in part be due to the affordable greenfield housing available in the outer suburbs that is well-connected to Clayton by rail and road.

TABLE 9.4 KEY WORKERS (EARNING VERY LOW TO MODERATE INCOMES) PLACE OF RESIDENCE BY LGA, CLAYTON STRUCTURE PLAN AREA, 2021

PLACE OF RESIDENCE (LOCAL GOVERNMENT AREA)	PROPORTION OF TOTAL VERY LOW TO MODERATE KEY WORKERS
Monash	20%
Casey	14%
Kingston (Vic.)	10%
Greater Dandenong	10%
Glen Eira	6%
Knox	4%
Whitehorse	4%
Stonnington	3%
Frankston	3%
Cardinia	3%
Elsewhere	23%
Total	**100%**

Within the South East Region
Source: ABS (2021) INDP Industry of Employment; AJM JV

Table 9.5 shows that an estimated 6340 key workers earning very low to moderate incomes will work in the Clayton Structure Plan Area in 2041. Without more affordable housing for these key workers, the proportion working and living in the Structure Plan Area will likely decline.

Again, assuming the share of those living outside the South East Region remains constant at 36%, by 2041 there will be around 2300 key workers (earning very low to moderate incomes) living outside the South East Region.

If the objective is to offer appropriate housing to reduce the need for workers to travel from outside the South East Region to work in Clayton, efforts should be directed towards providing suitable housing options. However, given the possibility that affordability across the South East Region may worsen, the potential demand could come from the entire lower income key worker cohort (6340 in 2041).

TABLE 9.5 PROJECTED KEY WORKERS (EARNING VERY LOW TO MODERATE INCOMES), CLAYTON STRUCTURE PLAN AREA, 2041

INDUSTRY	TOTAL JOBS (WORKERS)	TOTAL KEY WORKERS	TOTAL VERY LOW TO MODERATE KEY WORKERS
Education	1300	530	220
Health	16,800	14,020	5280
Other	11,500	1290	840
Total	**29,600**	**15,840**	**6340**
Total living outside the South East Region (@ 36%)			*2305*

Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: ABS (2021) INDP Industry of Employment & INCP Total Personal Income (weekly); Structure Plan Area population and employment projections derived from CityPlan (published in SRL BIC); AJM JV

9.3 Student accommodation

9.3.1 STUDENT ACCOMMODATION DEFINITION

Student accommodation is defined as accommodation specifically built for, and to cater towards, students enrolled at an institution of tertiary education. This is otherwise known as Purpose Built Student Accommodation (PBSA).

The Clayton Structure Plan Area is southwest of Monash University's Clayton campus. Given the geographic proximity of the campus to the Clayton Structure Plan Area, the Structure Plan Area can service some of the demand for student accommodation generated by the University. This opportunity is enhanced with the connection created by SRL East.

Monash University is ranked 37th in the world according to the QS World University Rankings 2025 and has an estimated 37,800 enrolments at the Clayton campus as of 2023. Considering the tight rental market in recent years, providing student accommodation may enable more individuals, in particular prospective regional and international students, to receive a tertiary education.

It is estimated there are currently 0 operational PBSA beds within the Structure Plan but there are 367 in the supply pipeline.

The likely requirement for PBSA based on Monash University's Clayton campus was estimated in the *SRL East Structure Plan - Housing Needs Assessment – Monash* report. The same modelled numbers are carried over in this report. A full outline of the methodology is provided in Appendix F.

9.3.2 STUDENT ACCOMMODATION DEMAND

Table 9.6 provides estimates for student enrolments at Monash University's Clayton campus and the potential requirement for PBSA beds to house these students. A further explanation is provided in Appendix F.

There is an estimated demand for 4990 beds within the Structure Plan which increases to 6730 beds demanded by 2041. This represents growth of 1740 beds by 2041. Propensity rates decrease by 2041 because of a decrease in the propensity of interstate, regional student and international students. Propensities are further explained in Appendix F.

The required student accommodation does not have to be built within the Structure Plan and could be built in areas outside of the Structure Plan with suitable amenity.

PBSA facilities are usually 25 beds or more, which means the projections could potentially support many new facilities in the Structure Plan Area.

If all facilities in the pipeline for Clayton Structure Plan Area are completed this would work out to be around 7% of 2023 demand which could provide guidance as to what type of market share the Structure Plan Area could attain going forward. We have not estimated a market share in Table 9.6 because of the uncertainty around the supply pipeline and ultimate location of PBSA.

Considering there is no strict requirement for students to reside in PBSA during their studies, the requirements for PBSA is not additional to the required dwelling estimates provided in Section 8 but could potentially be a form of housing that supports that demand (e.g. studio/1-bed high-density).

TABLE 9.6 PROJECTED ENROLMENTS AND PBSA DEMAND, CLAYTON STRUCTURE PLAN AREA, 2023-2041[44]

	NO.		2023-2041 CHANGE	
	2023	2041	NO.	ANNUAL GROWTH RATE (%)
Clayton Campus Enrolments	37,800	60,500	22,700	2.6%
PBSA Propensity	13.2%	11.1%	-	-
Bed Demand	4990	6730	1740	1.7%

Source: Population growth rates are for the 18-25 cohort projected by CityPlan (derived from SRL BIC); Department of Education; Vet Institutions Annual Reports; AJM JV

9.4 Aged care and retirement living

9.4.1 AGED CARE AND RETIREMENT LIVING DEFINITION

Diverse housing for older persons encompasses two distinct types of specialised accommodation:

- Independent Living Units (ILUs) are targeted at those aged over 65 years and offer a communal living environment for seniors. There is no day-to-day care or medical support provided as part of this accommodation.
- Aged Care, also referred to as Residential Aged Care (RAC), refers to facilities that offer 24/7 medical support for elderly residents who require this assistance.

ILUs and RACs provide living conditions tailored to the needs of the elderly and so are an important component of the Structure Plan Area housing mix. As the population continues to age, there is expected to be a notable surge in demand for retirement living accommodation.

9.4.2 AGED CARE AND RETIREMENT LIVING DEMAND METHODOLOGY

The method used to evaluate the demand for RACs and ILUs involves applying propensity rates of the projected over-65 population in the Structure Plan Area to live in RACs or ILUs.

The propensity rates are estimated by considering the current supply of units or beds against the over-65 years population in the Structure Plan Area. These propensities therefore consider the currently relative supply available and may differ from average propensity rates seen across the Greater Melbourne Greater Capital City Statistical Area (GCCSA), sourced from the 2021 Census.

Appendix F explains the methodology for assessing demand for residential aged care beds and retirement living units.

[44] PBSA Supply includes facilities that are predominantly tailored to higher education students.

9.4.3 AGED CARE AND RETIREMENT LIVING DEMAND RESULTS

By 2041, based on population projections, there will be 1620 residents in the Structure Plan Area aged over 65 years. It is noted that this implies no growth in the over-65 population from 2021 to 2041.

ILU propensities are set to the Greater Melbourne propensity of 4.3%, since there is no existing supply within the Structure Plan Area.

RAC propensities are set so they equate to the current supply in the Structure Plan Area (outlined in Section 9.5 below). The implied propensity rate for RAC beds in the Clayton Structure Plan Area based on existing supply and allowing for 1.25 residents per unit, is 9.8% of the over-65 years population.

Table 9.7 shows the projected requirements for ILUs and RACs in the Structure Plan Area from 2021 to 2041. Given there is no projected growth in the over-65 years population, the estimated demand in 2041 remains at 60 ILUs and 160 RAC beds.

With the (slightly) declining over 65 population projection, this modelling implies the opportunity exists to supply the 60 ILUs (given no supply currently), although there is no further capacity for RAC beds. It is possible that the projected population at the age group level is understated, so the opportunity for development of new facilities subject to future demand should be kept open through the Structure Plan. Given the amenity that exists in Clayton with the activity centre and proximity to tertiary level health facilities, it should be expected that the Structure Plan Area could support a higher provision of living options for older residents.

TABLE 9.7 ILU AND RAC DEMAND, CLAYTON STRUCTURE PLAN, 2021–2041

	2021	2041	2021-2041 CHANGE	2021-2041 ANNUAL GROWTH RATE (%)
Population	14,200	26,900	12,700	3.2%
Population (65+)	1,640	1,620	-20	-0.1%
ILUs				
ILU propensity rates	4.3%	4.3%	-	-
Demand - potential ILU residents	70	70	0	0.0%
Average household size	1.25	1.25	-	-
Demand - potential ILUs	**60**	**60**	**0**	0.0%
RACs				
RAC propensity rates	9.8%	9.8%	-	-
Demand - potential RAC beds	**160**	**160**	**0**	**0.0%**

Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS ERP; AJM JV

9.5 Additional need

The amenities in the Structure Plan Area (e.g. train station, hospital, access to education) enables accommodation in the Structure Plan Area to draw demand from a wide geographic base. The consequence is that using the Structure Plan Area projected population as the basis for modelling has the potential to understate the demand for diverse housing in the Structure Plan Area. The modelled requirements for all forms of diverse housing should serve as a starting point, with additional amounts of supply likely supportable when including demand from outside the Structure Plan Area.

Furthermore, because of the relatively small amounts of supply of diverse accommodation types in the Structure Plan Area market, it is difficult to gauge how the market is tracking to meet demand. To help understand the magnitude of extra supply that would be needed to satisfy potential requirements, Table 9.8 shows the existing supply compared to the modelled requirements in 2041.

There is a large discrepancy between the existing supply and projected eligibility of social and affordable housing. An extra 1810 dwellings are estimated to be required by 2041. With no upward trend in social and affordable housing seen in the last 10 years, it is likely that policy settings will be required to shift in the Structure Plan Area to stimulate supply. Additional social and affordable housing could also be used to house the expected number of key workers in the Structure Plan Area.

The projected requirement for student accommodation to serve Monash University's Clayton campus is significant. Although the University is in the adjoining Clayton Structure Plan Area, given the substantial need and future improved connections, the Clayton Structure Plan area could support a share of the PBSA need. The share of the population undertaking tertiary education and living in the Clayton Structure Plan Area is already substantial, highlighting the residential role already being played.

The projected requirement for ILUs and RACs by 2041 under the modelling is limited, given the projected slight decline in the over-65 population. Nonetheless, the attributes of the area are suited to aged care or retirement living units given the proximity to the health precinct. Some new accommodation for the over-65 population should be expected.

TABLE 9.8 DIVERSE HOUSING NEEDS, CLAYTON STRUCTURE PLAN AREA, 2021–2041

	EXISTING SUPPLY	MODELLED REQUIREMENT - 2041	GAP (+ UNDERSUPPLY, - OVERSUPPLY)	PROPORTION OF TOTAL ADDITIONAL DWELLINGS NEEDED
Total 'in need' - affordable, social and homeless requirement	100	1910	**+1810**	**32.3%**
Student accommodation	0	6730	**+6730**	**-**
Retirement village (ILU)	0	60	**+60**	**1.1%**
Residential aged care facility (RAC)	160	160	**0**	**-**

Note: Affordable and social housing supply is derived from the 2021 Census. RACs are measured in terms of beds and cannot be compared with dwellings required. Numbers rounded. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS ERP; AJM JV

9.6 Implications for Clayton Structure Plan

The analysis in this section highlights the following considerations for the Clayton Structure Plan:

- In 2041, 1910 households are estimated to be eligible for social and affordable housing. Accounting for the existing supply (100 social and affordable dwellings), the gap of 1810 households represents 32.4% of the required additional dwellings (5590 dwellings by 2041 as outlined in Section 8.2.1.).
- The lack of new supply of social and affordable housing indicates that the Clayton Structure Plan requires a range of housing initiatives to stimulate more affordable and social housing within the Structure Plan Area.
- Providing key worker housing is potentially of higher importance in Clayton than many locations due to the number of workers in the health precinct. Roughly 6400 key workers earning very low to moderate incomes are estimated to work in the Clayton Structure Plan Area in 2041 with around 2300 of those living outside the South East Region. Structure planning should consider suitable housing options, preferably close to the health precinct and core of the Structure Plan Area.
- There is significant demand for student accommodation being generated from the Clayton campus. There is an opportunity for some of this to be met in the Clayton Structure Plan Area given future improved connections. There are proposals for new facilities in Clayton, while there is already a large share of the population studying at the Clayton campus. Limited intervention is likely needed, with future development delivered by private operators in response to demand.
- The demand for retirement accommodation is stagnant, based on a slight decline in growth across the over 65 age cohort until 2041. Nonetheless, the Clayton Structure Plan Area is a location suited to retirement or aged care accommodation, and still should be anticipated to be delivered.

Part D: Summary and recommendations

Part D includes:

- **Section 10** summarises the findings of the assessment provided in the previous sections.
- **Section 11** makes recommendations for housing planning and development to consider when developing the Structure Plan.

10. Overview of housing requirements

This section summarises policy expectations for housing in Clayton, and the housing requirements in the Structure Plan Area, in total and for diverse housing for the community.

10.1 Housing policy expectations and goals

Various policies express the need for greater housing supply to support projected population growth, address housing shortages, and to improve affordability. This includes specific reference to unlocking potential around major transport projects in Melbourne's inner and middle suburbs is a key focus. The Structure Plan Areas surrounding SRL stations are an important opportunity to deliver new homes in established suburbs.

Specific implications of the policy landscape for development of the Clayton Structure Plan include:

- As a major activity centre and part of the Monash NEIC, Clayton is strategically well positioned to accommodate medium and higher-density housing within the Structure Plan Area.
- Victorian Government and local government policies point to the following themes for housing delivery in Clayton:
  - » Provide housing opportunities close to where people work and key public transport nodes.
  - » Diversity of housing choices is important, with well-designed medium- and high-density living options needing to provide for a wider cross-section of the community compared to development to date.
  - » Support for higher-density development focussed within the Clayton Major Activity Centre. There is support for residential uses above commercial spaces, with mixed-use developments identified as enhancing vibrancy and safety.
  - » Clayton offers a chance to enhance the variety of housing options, catering to key workers in the health precinct, as well as workers associated with other institutions in the Monash NEIC and students seeking accommodation close to Monash University's Clayton campus.
  - » Increasing the supply of and accessibility to social and affordable homes is a priority. These homes should be strategically located close to jobs, transport, services and amenity, such as areas like Clayton.
  - » Consideration should be given to specific opportunities for urban renewal, as identified in various policy documents. Although not specifically referenced in policy, within the Structure Plan Area, this could include transitioning industrial areas such as those in the south of the Area, including the PMP site.

10.2 Total housing need in the Structure Plan Area

Table 10.1 and Table 10.2 summarise dwelling growth by structure that is expected to be achieved and needed to support the projected population growth. Key points to note from these projections are:

- The population of the Clayton Structure Plan Area will increase from around 14,200 in 2021 to almost 26,900 by 2041. This represents a per annum growth of 3.2%.
- This is above historical growth from 2011 to 2021 when the average annual population growth of the Structure Plan Area was 1.1%, noting there was an outflow of residents through the COVID period.
- The housing requirements model estimates 5590 net additional dwellings will be required by 2041 to accommodate population growth. This equates to around over 500,000 sq.m of additional residential floor space.
- Accommodating the projected population growth will require a further shift to high-density living, with most new dwellings being high-density. This will also

necessarily result in some replacement of older stock, which are predominantly low-density dwellings.

- The proportion of three or more-bedroom high-density dwellings required is projected to rise from the current 0.5% of all dwellings to 7.1% in 2041. The increase will allow diverse family types to be accommodated in the Structure Plan Area. The increase in high-density three or more-bedroom dwellings will more than offset the projected reduction in larger, low-density dwellings.
- The case studies applicable to Clayton (Macquarie University, Auburn and Kogarah) show these precincts, predominantly comprising apartments, can still cater to the demand for three-bedroom apartments and owner occupiers.
- The Structure Plan Area will need to sustain a high annual number of apartment completions to meet the population projections. Past growth trends and the development pipeline, indicate the magnitude of dwelling delivery in Clayton required is achievable should SRL East and other initiatives support an uptick in growth. The case study precincts also show examples of similar changes.

TABLE 10.1 KEY HOUSING PROJECTIONS, CLAYTON STRUCTURE PLAN, 2021–2041

	2021	2041	2021-2041 CHANGE	ANNUAL GROWTH RATE (%)
Population	14,200	26,900	12,700	3.2%
Dwellings	6010	11,600	5590	3.3%
Floorspace sq.m	1,275,900	1,786,900	511,000	1.7%

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

TABLE 10.2 DWELLING STRUCTURE PROJECTIONS, CLAYTON STRUCTURE PLAN, 2021–2041

	2021		2041		2021-2041 CHANGE	
	NO.	%	NO.	%	NO.	ANNUAL GROWTH RATE (%)
Low-density						
Studio / 1-bedroom	20	0.3%	10	0.1%	-10	-2.4%
2-bedroom	290	4.8%	240	2.0%	-50	-1.0%
3+bedroom	2040	33.9%	1780	15.4%	-260	-0.7%
Total dwellings	**2350**	**39.0%**	**2030**	**17.5%**	**-320**	**-0.7%**
Medium-density						
Studio / 1-bedroom	60	1.0%	120	1.0%	60	3.5%
2-bedroom	1140	18.9%	1260	10.8%	120	0.5%
3+bedroom	1790	29.8%	1780	15.4%	-10	0.0%
Total dwellings	**2990**	**49.8%**	**3160**	**27.2%**	**170**	**0.3%**
High-density						
Studio / 1-bedroom	110	1.8%	1560	13.4%	1450	14.3%
2-bedroom	530	8.9%	4030	34.7%	3500	10.7%
3+bedroom	30	0.5%	820	7.1%	790	17.5%
Total dwellings	**670**	**11.2%**	**6410**	**55.2%**	**5740**	**11.9%**
Grand total dwellings	**6010**	**100.0%**	**11,600**	**100.0%**	**5590**	**3.3%**

Note: 2041 numbers are inclusive of a 5% applied vacancy rate. 2021 dwelling numbers refer to all private dwellings are therefore inclusive of vacancies. Numbers rounded – sum of the rounded numbers may not equal the rounded totals. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; AJM JV; Urbis Apartment Essentials

10.3 Housing to meet diverse community needs in the Structure Plan Area

Table 10.3 summarises the projected housing requirements for identified diverse accommodation forms to meet the needs of a diverse community. Main points include:

- The demand for diverse housing in the Structure Plan Area, as outlined in Section 9 is a subset of the overall requirement for housing in the Structure Plan Area.
- Modelling shows that around 1910 of households within the Structure Plan would be eligible for social and affordable housing. Policy settings will need to be in place to ensure this need is met within the Structure Plan Area.
- Estimates in this report are potentially conservative and the need for affordable and social housing could prove greater. The eligibility for social and affordable housing depends predominantly on real incomes of Structure Plan Area residents and the magnitude of housing costs, both of which could shift significantly by 2041.
- It is projected that there will also be 6340 key workers (individuals on very low to moderate incomes) working in the Structure Plan Area by 2041.
- Student accommodation required to service the Clayton campus represents a significant share of future modelled dwellings requirements. Given the closer proximity of the Clayton Structure Plan Area to the Clayton campus it serves it will likely draw a large share of future demand. The amount of PBSA demand that Clayton Structure Plan Area will attract is uncertain but considering students can choose to live in standard residential apartments, PBSA should not comprise a large part of structure planning.
- Retirement living options comprises a relatively small portion of the projected dwelling requirement by 2041. With a declining over 65 population it is expected there will be not net new facilities in the Structure Plan Area and that private market operators can respond to fluctuations in demand.

TABLE 10.3 PROJECTED DIVERSE HOUSING ACCOMMODATION REQUIREMENTS, CLAYTON STRUCTURE PLAN, 2041

	EXISTING SUPPLY	MODELLED REQUIREMENT-2041	GAP (+ UNDERSUPPLY, - OVERSUPPLY)
Total 'in need' - affordable, social and homeless requirement	100	1910	**+1810**
Student accommodation	0	6730	**+6730**
Retirement village (ILU)	0	60	**+60**
Residential aged care facility (RAC)	160	160	**0**

Note: Affordable and social housing supply is derived from the 2021 Census. Source: Structure Plan Area population projections derived from CityPlan (published in SRL BIC); ABS (2021) Census of Population and Housing; Urbis Retirement & Aged Care Database; AJM JV

11. Recommendations and opportunities

This section makes recommendations to ensure the right amount and type of housing is delivered in the right locations in the Structure Plan Area.

The recommendations below are summarised, and their locations are shown in Figure 11.1 at the end of this section. The numbers on the Figure refer to the number of each recommendation below.

11.1 Recommendations

11.1.1 HOUSING QUANTUM AND DENSITY

Recommendation 1 – Plan for almost 5600 net new dwellings in the Clayton Structure Plan Area to accommodate an additional population of over 12,700 people by 2041.

The analysis in this report has identified that to meet the projected population growth estimates, the Structure Plan Area will need to accommodate:

- A population increase of around 12,700, reaching 26,900 people by 2041.
- 5590 additional dwellings, approaching double the current 6010. This will require delivery of around 280 net new dwellings annually on average.
- 510,000 sq.m of additional residential floorspace with 1.79 million sq.m of residential floorspace projected by 2041.

The level of development required to meet the population and dwelling projections will need to exceed recent development rates. The net increase of population and dwellings from 2011-2021 was around 150 and 140 per annum respectively.

Recommendation 2 - Facilitate the delivery of high-quality, predominantly high-density housing to meet the projected dwelling increase.

Around 55% of all dwellings are expected to need to be high-density by 2041 to support population growth. In net terms, virtually all the growth in dwellings are expected to be high-density.

With a modest pipeline of development and a projected rate of growth that is substantially stronger than what has been observed recently, locations where significant high-density residential development is encouraged will be needed to see the market respond to the opportunity.

Clayton has the attributes to support residential density growth. With multiple transport connections, an activity centre providing a high level of amenity, the presence of the Monash Health precinct, and proximity to Monash University's Clayton campus, make this an appealing location for a broad range of demographic groups. This includes workers, students, and elderly residents, among others.

Recommendation 3 - Encourage the delivery of the higher density housing in preference to low- or medium-density forms.

As existing residential areas attract redevelopment, our analysis projects there will be a reduction of around 320 low-density dwellings. Achievement of forecast population requires low-density housing to be replaced with higher density forms. Low-density housing is, and will remain, the predominant form in large parts of Clayton. However, if existing separate houses are too frequently replaced by say a new single house or sub-divided, the net increase in dwellings will be limited.

In the large residential areas of the Clayton Structure Plan Area away from main roads and the core area, development has delivered only modest net increases in dwellings. Existing houses are often being replaced by 2-4 smaller, but still freestanding homes with a maximum of two levels. While this does increase dwelling numbers, it doesn't achieve the sort of change necessary to support the significant residential growth forecast for Clayton. Since 2011, the number of new medium-density dwellings delivered per annum has outstripped the number of high-density dwellings delivered. While this has shifted slightly more recently, a more significant change is needed.

This existing trend ultimately may restrict residential development capacity. By developing new homes that are unlikely to be redeveloped over the next 30-40 years, it has the potential to reduce the opportunity for site consolidation that might support greater density in time. This development outcome may need to be curtailed through structure planning, particularly in the low-density residential areas closest to the core area.

Noting the challenges of restricting the type of lower density development above, going hand in hand with this will be approaches to encourage the necessary higher-density delivery. This requires ensuring development of the desired form is appealing to the market. This could include:

- Encouraging site amalgamation so a greater dwelling yield can be achieved which is sensitive to the existing context; and
- Reducing planning hurdles that add time and cost to development.

11.1.2 HOUSING DIVERSITY

Recommendation 4 - Encourage development of a diversity of medium and higher density housing typologies, including larger (family sized) apartments and affordable options.

The existing residents of the Clayton Structure Plan Area and surrounding suburbs are diverse, with a younger adult population influenced by the proximity to Monash University's Clayton campus, a culturally diverse population, but still with a typical cross-section of other household groups such as families and couples. Supporting the full spectrum of the community to be able to live in Clayton close to the amenity, employment options, and transport connections should be supported by facilitating future higher density housing that enables current and future residents to have access to suitable 'right sized' and affordable accommodation.

Over time, it is expected the housing market will respond to this diverse demand as observed in the case study precincts in Sydney identified in this report. Nonetheless, incentives could be considered.

This report has found an increasing misalignment between the market's supply and growing demand for larger apartments. A significant increase in three or more-bedroom high-density dwellings is needed to accommodate a broader range of groups. Providing a greater number of three or more-bedroom high-density homes could tap into a previously underexplored section of the market that is not currently catered for, which will help in increasing the growth rate of high-density apartments and accommodate population growth.

While noting the value of encouraging dwelling diversity that could support larger household types, it should be recognised that low-density housing will remain through large parts of the Structure Plan Area that can support a diverse population, albeit at higher costs than apartments.

Recommendation 5 - Ensure adequate open space, facilities and amenity are provided on site or in proximity to apartments to attract diverse household types.

To create attractive residential places, consideration should be given to matters beyond dwelling size and configuration. The Structure Plan should consider how more diversity of housing can be encouraged, without impacting flexibility for the private sector to develop in line with market demand at the time. This should include:

- Facilitating the provision of open space and other amenity or services within the Structure Plan Area to ensure living centrally in a high-density environment appeals to families (open space and community infrastructure needs are considered in other technical reports).
- Promoting development that supports family-friendly apartments through on-site amenity.

Recommendation 6 – Facilitate opportunities for a variety of residential types and development locations to attract a diverse range of developers and builders.

The construction capacity and appetite for development of residential developers through economic cycles is an important consideration. Housing growth is delivered across a spectrum from large developers (e.g. those delivering large residential towers) through to smaller builders or construction companies (e.g. townhouse and smaller apartment complex developers). Larger and smaller

developers/builders tend to operate with separate workforces, and scale activity around market peaks and troughs.

If the Structure Plan is overly reliant on one residential type (e.g. apartment towers near the core), and that market segment is impacted either by a market downturn that halts development, or a lack of capacity when the market is strong, then the necessary housing increase may be curtailed.

Recommendation 7 - Support the delivery of social and affordable housing in the Structure Plan Area.

This report has identified there is a sizeable need for affordable housing for those on very low, low, and moderate incomes. An estimated 16% of households in 2041 will be technically eligible for affordable housing based on these income ranges and associated household composition criteria.

Given the high amenity in the core with retail options, and accessibility to public transport, the Structure Plan Area offers a highly suitable location to deliver affordable housing needs. This could include supporting the regional needs generated along the SRL East corridor.

Mechanisms to secure social and affordable housing provision within private housing developments should be explored. Intervention of some form is expected to be required to achieve growth in affordable housing provision. The market is unlikely to address the need. This will need to be done in such a way as to not undermine the viability of residential development in the area, as the delivery of more housing stock is also critical in addressing the housing crisis and affordability concerns.

Recommendation 8 - Support the delivery of other purpose-built housing types such as key worker housing, student accommodation, and aged care and retirement living.

Like other forms of affordable housing, there is forecast to be increased demand for housing to support key workers employed in the Structure Plan Area. This need is more acute in Clayton due to the presence of the health precinct. There is a need to support health workers in particular, noting shift work and being on call requires staff to preferably live nearby, who are on lower incomes and cannot afford to live in Clayton without assistance.

Locations in walkable distance to the health precinct, core area and new and existing stations would be highly suitable for key worker housing.

Given the proximity to Monash University's Clayton campus, the Structure Plan Area can support a sizeable provision of purpose-built student accommodation. It should be noted that several regular apartment complexes target the student market, while currently, students live in share housing around Clayton. More dedicated student housing facilities could be supported over time.

The delivery of student housing will be driven by market demand in line with student growth. Private market operators are expected to respond to the identified demand. The significant pipeline of proposals is testament to this. Consequently, intervention is unlikely required. Nonetheless, the Structure Plan should allow for student housing types (typically mid-rise apartment complexes) close to the station to allow easy access to the University.

The Clayton Structure Plan Area provides one aged care facility, with others nearby beyond the boundary of the area. As the population grows and ages, market providers will seek to provide further facilities for the local population, potentially in higher-density developments. The ability to accommodate large, low-density development in the Structure Plan Area will be limited going forward. Therefore, high-density aged care and retirement options will likely be required. We note the existing Bupa aged care complex near the Clayton Library is a three-level development.

Although the share of the population aged over 65 is not large, and projected growth is flat, the attributes of the area are generally supportive of aged care and retirement, particularly the access to health facilities, amenity, and transport. Private and not-for-profit market operators in the aged and retirement living sector will respond to any demand that emerges if allowed to do so.

11.1.3 HOUSING LOCATIONS

Recommendation 9 – Facilitate high-density apartment development of scale within the core of the Structure Plan Area, while protecting the vibrant retail offer fronting Clayton Road.

High-density development should be concentrated along the Clayton Road commercial activity strip. It will be important to maintain retail activity at the ground level of these developments, but there is an opportunity to redevelop existing older space.

Increasing density can likely be sustained in and around core activity area, subject to sites being amalgamated to create the necessary footprints for large buildings. The approved development on the corner of Centre and Clayton Roads is an example of how this can be achieved, although noting that was a larger site to start with. Given the need for larger sites, locations just to the north of the existing train line and the supermarket car park sites to the west of the retail strip are the types of locations where high-density development should be encouraged.

Amalgamation of other properties along the strip could also be encouraged, as it will be challenging to deliver large developments given the narrow properties common through this area.

Recommendation 10 – Balance housing and employment growth in key locations around the health precinct.

The need for housing in the core area will have to be weighed against the requirement to also deliver employment-related floorspace. The Economic Profile report for Clayton has identified a substantial demand for health-related floorspace which should be concentrated near the existing health precinct. This need for balance is particularly relevant along the Clayton Road corridor moving north from the station between the new station and health precinct, as well as the residential land surrounding the health precinct. Unrestricted, housing would likely be the preferred market use in the short term, limiting future growth in employment uses. Achieving a balance in the right areas will be necessary.

To ensure a mix is delivered, incentives for commercial development could be considered. For example, uplifts for residential development if commercial space is part of the mix (subject to ensuring commercial space is not delivered in excess of market need). Two specific locations are identified here.

- Support a mix of housing and employment density along Clayton Road.

  Along the Clayton Road corridor, encouragement of a mix of uses on sites or generally in the sub-precinct should be encouraged. Rather than prohibition of residential development, development that delivers commercial space at lower levels with residential uses above may be appropriate. Although we note, achieving employment forecasts will likely require some entire buildings to be dedicated to health-related use.

- Consider the mix of higher density housing and health-related uses surrounding the health precinct.

  The areas wrapping around the health precinct are currently low-density residential in nature. The Economic Profile analysis has found achieving growth in health floorspace will likely require expanding the footprint of the health precinct, bleeding into surrounding residential areas. This has occurred to some extent, with medical practitioners situated in residential areas surrounding the hospitals. Higher-density housing in these residential areas may still be appropriate, although the focus might be more on key worker or other affordable housing options.

Recommendation 11 – Support increased housing density on the PMP Printing site.

The PMP site presents a good opportunity for medium to higher density residential development. The nearby Jackson Green development highlights a market exists for development of this nature on well-located land. There may be an opportunity to push density further on the PMP site, with current plans indicating delivery of just over 1000 new dwellings. Adjacent sites have also been converted to residential uses recently.

Recommendation 12 – Accommodate further high-density apartment buildings along the key road corridors such as Clayton, North and Dandenong Roads.

As discussed above, the Clayton Road corridor is an important location for greater height in residential development, either close to the core area, or north and south of the core in existing residential areas. The scale of development may not be as high as in the core areas, but still significant density could be delivered.

Other key routes on the edge of the Structure Plan Area such as North and Dandenong Roads, along with the existing Dandenong-Pakenham rail corridor, may also be an appropriate location for higher density development.

Recommendation 13 – Encourage social and affordable housing, student accommodation, housing for key workers, and housing for elderly residents, particularly close to the central core and health precinct.

As previously identified, social and affordable housing, along with other forms of diverse housing, will be required to support a diverse demographic. This should be provided for throughout the Structure Plan Area. However, like other housing, there will be a weighting towards the core, due to the retail amenity, employment opportunities and transport connections.

Student accommodation is also suited in the area due to the proximity to Monash University's Clayton campus, but with the retail offer appealing relative to what is currently available closer to the University. Access to the University via train will create demand for housing near the station, while areas to the north of the Structure Plan Area are in walking distance of the campus.

Key worker housing can be a complementary use close to the health precinct. The residential areas surrounding the health precinct are likely ideal locations for housing dedicated to key workers, particularly those in the healthcare sector. As discussed above, this will need to be balanced against the requirement to support growth of employment in the health sector.

The need for key worker housing is likely greater in Clayton than other SRL East precincts given the presence of the hospital and the demographic of the population.

Opportunities for housing to meet the needs of elderly residents should also be supported.

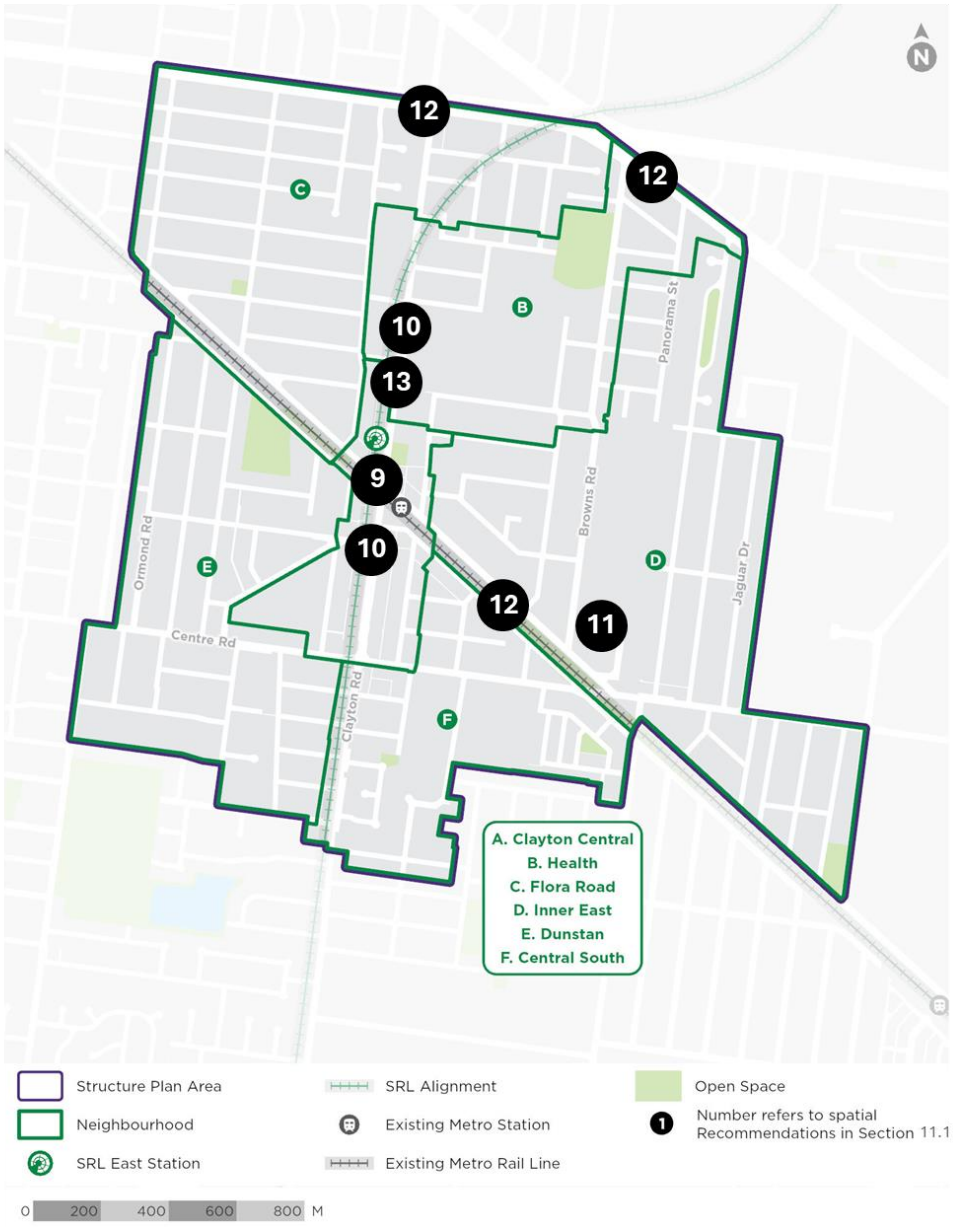
9 Facilitate high-density apartment development of scale within the core of the Structure Plan Area, while protecting the vibrant retail offer fronting Clayton Road.

10 Structure planning in Clayton will need to balance housing and employment growth in key locations around the health precinct.

11 Support increased housing density on the PMP Printing site.

12 Support high-density apartment buildings along the key road corridors such as Clayton, North and Dandenong Roads

13 Encourage social and affordable housing, student accommodation, housing for key workers, and housing for elderly residents, particularly close to the central core and health precinct.



Only location-related recommendations are outlined on the map. Where a number does not reference a specific site, it indicates a general area rather than an exact location.

FIGURE 11.1 HOUSING DEVELOPMENT LOCATION CONSIDERATIONS, CLAYTON STRUCTURE PLAN AREA

11.2 Other opportunities

Although potentially beyond the scope of the Structure Plan development and the planning scheme amendments, other opportunities to support housing development in Clayton are:

- **Opportunity 1** – Improve active transport connections to Monash University's Clayton campus from Clayton.

  The appeal of Clayton as a residential location could be enhanced if access to Monash University's Clayton campus was improved beyond the development of the train line. If the campus were more easily reached by walking or riding from the northern parts of the Clayton Structure Plan area across Dandenong and Wellington Roads, it would be a more viable location for students and staff to live.

- **Opportunity 2** – Consider facilitating housing on surplus State Government land, particularly social and affordable housing in line with the Victorian Government's Housing Statement.

- **Opportunity 3** – Identify suitable planning provisions and processes to support the faster approval of suitable and eligible priority housing development.

- **Opportunity 4** – Consider the role of high-density residential development along Centre Road, given recent residential development extending into industrial areas.

Residential land fronting Centre Road presents a similar opportunity to Clayton Road as a location for higher density development. However, the value of extending this along the industrial land frontage east of Centre Road should also be considered.

The Economic Profile report for Clayton has identified that the Audsley Street Employment Area has a role to play providing local employment and service industry premises. However, it is concluded the mixing of residential and commercial development in this area adjoining Centre Road could be considered. Recent development of Jackson Green to the east of the industrial precinct has started the regeneration of the area, with an adjoining site now also approved to support residential development. Continuation of the residential frontage to Centre Road would not detract greatly from the industrial area and could still support commercial opportunities at lower levels. A greater population will also support activity in this local industrial area.

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Appendix A

Abbreviations, data sources and definitions

Abbreviations

TABLE A.1 ABBREVIATIONS

ABS	Australian Bureau of Statistics
AHURI	Australian Housing and Urban Research Institute Limited
AIHW	Australian Institute of Health and Welfare
ASD	Adjacent-to station development
BIC	Business and Investment Case (BIC) for SRL
BTR	Build-to-Rent
CBD	Central Business District
DEECA	Department of Energy, Environment and Climate Action
DJSIR	Department of Jobs, Skills, Industry and Regions
DTP	Department of Transport and Planning
ERP	Estimated Resident Population
FAR	Floor area ratio
FES	Floorspace Employment Survey
GBA	Gross Building Area
GFA	Gross Floor Area
GLA	Gross lettable Area
HA	Hectare
ILU	Independent Living Units
IRSAD	Index of Relative Socio-Economic Advantage and Disadvantage
LGA	Local Government Area
MAC	Metropolitan Activity Centre
NEIC	National Employment and Innovation Clusters
NLA	Net lettable area
OSD	Over-station development
PBSA	Purpose-Built Student Accommodation
RAC	Retirement and Aged Care
SEIFA	Socio-Economic Indexes for Areas
SP	Structure Plan
sq.m	Square metres
SRL	Suburban Rail Loop
SRLA	Suburban Rail Loop Authority
TOD	Transit-orientated Development
TOP	Transit-orientated Precinct
VCAT	Victorian Civil and Administrative Tribunal
VIF	Victoria in Future
VITM	Victorian Integrated Transport Mode
	Victoria Planning Provisions

Additional data sources

Along with the key data sources, the analysis also incorporated the following additional data sources:

- **Census of Population and Housing**, 2006, 2011, 2016 and 2021, Australian Bureau of Statistics (ABS).
  - » Census data is available for standard ABS geographies such as Statistical Areas (1/2/3/4) and Local Government Areas (LGAs).
- Land use projections generated as part of the **Business and Investment Case (BIC) for SRL**, 2021, KPMG (on behalf of the Victorian Government)
  - » Land use projections (including demographic, employment and enrolment estimates) included in the SRL BIC are derived from the CityPlan model.
  - » CityPlan is a strategic scale Land Use Transport Interaction (LUTI) model that is used to estimate the broad land use impacts of major transport and precinct initiatives. It was developed by KPMG on behalf of the Victorian Government Department of Transport and Planning (DTP).
  - » CityPlan's geographic scope is confined to Victoria, with a focus on metropolitan Melbourne and surrounding settlements. In this

instance, CityPlan has been used to redistribute the base population and employment distribution based on the SRL transport and other related SRL precinct initiatives. These redistribution effects have been contained within the total Victorian population projects, with the majority of movements contained within metropolitan Melbourne.

» The CityPlan model uses a range of data. Some of the data is publicly available and some is internal to the Victorian Government.

» The version of CityPlan used for the SRL BIC was Version 1.1.1. Key inputs into CityPlan Version 1.1.1 include:

  – SALUP19 based on Department of Environment, Land, Water and Planning (DELWP) Projections 2018 (Unpublished)

  – ABS Census 2016

  – Victorian Planning Authority (VPA) potential development capacities

  – Data is reported at the Travel Zone, SA2, SA3 and LGA level.

  – For an introduction to CityPlan, in the context of the SRL, see the SRL Business and Investment Case available from: https://bigbuild.vic.gov.au/library/suburban-rail-loop/business-and-investment-case

- **Urbis Apartment Essentials** tracks all off-the-plan apartment developments (25 units or more) across capital city markets in Australia. It tracks key metrics such as the number of dwellings, sale price, internal areas etc.
- **Urbis Student Accommodation Benchmarks** refers to Urbis' in-house compilation of student accommodation data, including supply and propensity to access purpose-built student accommodation.
- **Pricefinder** is a provider of up-to-date property transaction data. It provides comprehensive data on every property in Australia. AJM JV utilise Pricefinder data for residential pricing trends.
- **RP Data** is a product maintained by Core Logic that provides detailed property data for all of Australia.
- A **floorspace audit** was caried out to identify and categorise employment land in the Structure Plan Area. This process included review of a number of data sources (such as DEECA, PSMA and Space Syntax) to understand, for each building, the existing land use and estimate the amount of floorspace. This data set provided a baseline for internal area estimates and internal area to GBA conversion factors.

Additional definitions

Further to the key definitions, the following additional definitions are used in this report:

Population

Total population is defined as the Estimated Resident Population (ERP).

CityPlan projections segment the total population into broad age ranges - 0 to 4, 5 to 11, 12 to 17, 18 to 25, 26 to 64, and 65 and over. Note for modelling purposes these CityPlan segments are used. For other demographic analysis, standard age brackets with a five-year interval are used.

Private and non-private dwellings

People typically resident in two broad dwelling forms which are defined based on ABS definitions:

- Structural private dwellings in which individual households occupy self-contained dwellings that do not share bathrooms, kitchens or similar.
- Non-private dwellings as defined by the ABS include student accommodation, aged care facilities and various other dormitory style or not self-contained housing forms.

Due to data collection limitations of the ABS around 99% of dwellings are classified as private dwellings. This means that for Monash most of the student accommodation are considered private dwellings. Therefore, throughout the report we consider all forms of diverse accommodation to be a subset of the private dwelling requirement.

This distinction refers to the living arrangements in dwellings rather than their ownership, and so social housing, while mostly owned by the government, would be defined as a private dwelling.

Dwelling requirements in this report refer to private dwellings, unless otherwise stated.

Household types (within private dwellings)

The ABS definition of household types is used in this report:

- **Couple family with children** means a family with two adults and one or more children.
- **Couple family without children** means a couple in a relationship without children. This includes both young couples and older couples whose children may have moved out.
- **One parent family** means one parent living with one or more children.
- **Other family** include other kinds of households containing related people living together, such as siblings living together.
- **Multi-family household** means two or more families (from the categories above) living together in the same dwelling.
- **Lone person household** means a single person living by themselves.
- **Group household** means two or more unrelated people living together, for example, a shared house.
- **Other non-classifiable household** means a household which does not fall into the above categories, or for which insufficient information was available in the ABS census to accurately categorise the household.

Build-To-Rent (BTR)

BTR is a term used to describe residential developments that are designed and built specifically for renting rather than for sale. These properties are typically owned by institutional investors and managed by professional property management companies.

Diverse housing

Affordable housing

- The Victorian State Government has introduced a definition of affordable housing to the Planning and Environment Act 1987 being 'housing that is appropriate to the needs of very low, low, and moderate-income households'.[45]
- A Governor in Council Order forms part of the definition of affordable housing under the Act. The Order specifies the income ranges for very low, low and moderate-income households for affordable housing. The Order is published in the Government Gazette and updated annually to specify affordable housing income ranges.
- This analysis only includes renters in rental distress, defined as 30% or more of their income going towards rental payments.

Social housing

- Social housing is a subset of affordable housing. Social housing includes both public housing and community housing and generally involves some degree of subsidy. Public housing refers to properties owned and administered by the government (Homes Victoria), while community housing pertains to properties owned or managed by community housing providers.

Homelessness

- ABS categorises homeless individuals across operational groups. For the purpose of this report, homeless persons encompass those within the following operational groups: persons living in improvised dwellings, tents or sleeping out; persons in supported accommodation; persons temporarily staying with other households; persons living in boarding

45 Planning and Environment Act (1987) SECT3AA Meaning of affordable housing (austlii.edu.au)

houses; persons in other temporary lodgings; and persons living in severely crowded dwellings.

Student accommodation

- Student accommodation is defined as accommodation specifically built for and to cater towards students enrolled at an institution of tertiary education. This is otherwise known as Purpose Built Student Accommodation (PBSA). Student accommodation is inclusive of student halls and privately built apartments specifically designed to cater towards students.
- Urbis Student Accommodation Benchmarks refers to Urbis' in-house compilation of student accommodation data. This report provides data on the supply of student accommodation facilities and student propensities to reside in PBSA.

Key worker housing

- Key workers are generally defined as people who provide essential services to the community. They are unable to work from home and often work outside of traditional business hours. The analysis in this report focuses on key workers earning very low to moderate incomes.

Retirement living and aged care

- Retirement included two types of diverse housing accommodation. Independent Living Units (ILUs) are those targeted at over 65's which offer a more communal form of living for elderly people. There is no medical support provided as part of this accommodation.
- Aged Care, otherwise known as Retirement and Aged Care (RAC), refers to accommodation that provides round-the-clock medical support for elderly residents. Residents of these facilities require medical support.

Methods of floor area measurement

- **Gross Building Area** (GBA) refers to the total floorspace of a building including stairs, hallways, plant etc.
- Note that the figures are Gross Building Area (GBA) as the floorspace audit was undertaken using external building information, no common spaces or otherwise unleasable spaces have been removed from the building extents.
- **Gross Floor Area** (GFA) is the total area of all floors in a building, measured from the exterior walls. It generally excludes stairs and plant area.
- **Gross Leasable Area** (GLA) focuses on the portion of space available for lease to tenants, typically excluding common areas and utility spaces.

Industry classification

- The following Australian and New Zealand Standard Industrial Classification (ANZSIC) Divisions make up the combined industry classifications used in key worker analysis:
  - **Health:** Health Care and Social Assistance.
  - **Education:** Education and Training.
  - **Other:** Information Media and Telecommunications; Financial and Insurance Services; Rental, Hiring and Real Estate Services; Professional, Scientific and Technical Services; Administrative and Support Services; Public Administration and Safety; Construction; Retail Trade; Accommodation and Food Services, Arts and Recreation Services; Other Services; Agriculture, Forestry and Fishing; Mining; Manufacturing; Electricity, Gas, Water and Waste; Wholesale Trade; Transport, Postal and Warehousing.

- **Occupation classification**
  - **White collar occupations:** Managers; Professionals; Community and Personal Service Workers; Clerical and Administrative Workers; Sales Workers.
  - **Blue collar occupations:** Technicians and Trades Workers; Machinery Operators and Drivers; Labourers.

Appendix B

Assumptions and limitations

Assumptions

Additional assumptions related to this analysis or the data sources are:

- The modelling anticipates there are no constraints on the construction industry, and all necessary dwellings required are realised.
- Average internal floor areas for residential dwellings (by type and number of bedrooms) to remain constant over the time period. This is assumed because there are no clear trends when assessing internal floor areas, so they have been kept constant.
- The modelling assumes that internal areas low-density housing in the Glen Waverley Structure Plan are 60% higher than other SRL East Precincts for a given bedroom number. This is based on analysis of the GBA of low-density dwellings in Glen Waverley versus all other SRL East Precincts. Houses in the Structure Plan Area are, on average, larger here.
- Internal floor areas to Gross Building Area (GBA) conversion factors are assumed to remain constant over the time period.
- Household sizes for residential dwellings (by type and number of bedrooms) to remain constant over the time period. While projections predict a small decline in household sizes across Greater Melbourne, this decrease is expected to be witnessed in the SRL East Structure Plan Areas with a shift from low-density to high-density dwellings.
- Overall, it is assumed there will be no net increase in low-density dwellings in the Structure Plan Area from 2022. This does not preclude old low-density dwellings from being demolished and replaced with new low-density dwellings or potentially being sub-divided.
- Social and Affordable Housing are based on data collected at the 2021 Census. While the underlying determinants of Social and Affordable housing may change (e.g. increasing rents leading to more households in rental distress), these changes are not factored into our modelling.
- The proportion of people experiencing homelessness remains constant over time, sustaining the levels observed in the year 2021.
- The proportion of key workers within each industry remains consistent over time, maintaining the same levels observed in the year 2021.
- The modelling includes a vacancy factor of 5% for the 2041 modelled estimates. After addition of the vacancy factor, the 2041 modelled estimates are equivalent to the 2021 dwellings which already includes vacant dwellings.

Limitations

Additional limitations associated with this analysis or data sources are:

- **Census data:** The 2021 Census was conducted at an unusual time with much of Australia's eastern seaboard subject to COVID-19 restrictions, prompting caution when interpreting certain results, especially regarding data on place of employment. Census data is also subject to random perturbation to protect the confidentiality of individuals. These adjustments result in small introduced random errors when analysing more finely classified data. Changes to data management and collection methods across Census periods can also impact the use of a few datasets especially when used at a small geographic level or over time.
- **Spatial misalignment:** Numerous situations arise where the geographic units of one type intersect with the boundaries of another type in inconsistent ways. For example, the Structure Plan Areas do not perfectly align with SA1s (the principal geography from that Census data is extracted from). AJM JV and SRLA have agreed on specific methods for apportioning geographic data. However, apportioning can result in some inaccuracy in the allocation of data for the area sought to approximate.
- **Use of benchmark data:** SRL East will deliver a step change in housing demand preferences. Recent trends within local areas will not prevail in the future as population growth and density are vastly different to what these precincts would look like without SRL. To account for this, the current profile of select case study precincts has been used to determine housing preferences in the Structure Plan Area in the future. While benchmarks provide valuable insights, they are not perfect indicators of the future due to variations across different areas including local planning policy.
- **CityPlan projections included in the SRL Business and Investment Case**: The projections are strategic and should be considered indicative, particularly at the small area level. Since the projections were prepared, some material events have occurred, impacting population and employment growth and to some extent, typical behaviours of households and businesses. These include COVID-19, lower population growth, a shift in user preference to working from home, and updates to staging of competing and complementary projects.

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Appendix C

Demographic data

TABLE C.1 DEMOGRAPHICS, CLAYTON, 2011 & 2021

	STRUCTURE PLAN AREA	SOUTH EAST REGION	GREATER MELBOURNE	STRUCTURE PLAN AREA	SOUTH EAST REGION	GREATER MELBOURNE
	2011	2011	2011	2021	2021	2021
Income						
Per capita Income	$28,034	$40,607	$34,200	$44,832	$48,471	$46,017
Average household income	$62,918	$88,874	$85,326	$104,624	$127,711	$119,232
Age profile						
% 0-14 years	12%	17%	18%	10%	16%	18%
% 15-24 years	22%	14%	14%	19%	13%	12%
% 25-39 years	33%	21%	23%	39%	21%	24%
% 40-54 years	13%	21%	21%	13%	20%	20%
% 55-65 years	6%	11%	11%	7%	12%	11%
% 65+ years	13%	16%	13%	11%	18%	15%
Household type*						
Couple family no children	23%	24%	23%	23%	24%	23%
Couple family with children	24%	34%	33%	22%	33%	32%
One parent family	8%	9%	10%	8%	9%	10%
Other family households	5%	3%	3%	5%	2%	2%
Lone person household	20%	23%	22%	22%	25%	24%
Group household	15%	4%	4%	17%	4%	4%
Other	6%	3%	4%	4%	3%	4%
Dwelling density*						
Low-density	53%	69%	73%	39%	61%	66%
Medium-density	42%	29%	12%	50%	27%	22%
High-density	5%	2%	15%	11%	11%	13%
Housing tenure*						
Owned outright	28%	31%	26%	22%	36%	30%
Owned with a mortgage	18%	27%	29%	21%	34%	38%
Total Rented	53%	21%	21%	55%	29%	30%

	STRUCTURE PLAN AREA	SOUTH EAST REGION	GREATER MELBOURNE	STRUCTURE PLAN AREA	SOUTH EAST REGION	GREATER MELBOURNE
	2011	2011	2011	2021	2021	2021
Rented: Real estate agent	39%	14%	14%	44%	22%	23%
Rented: Person not in same household	10%	4%	4%	8%	4%	4%
Rented: State or territory housing authority	2%	2%	2%	2%	1%	2%
Rented: Community housing provider	0%	0%	0%	0%	0%	0%
Rented: Landlord type not stated	0%	0%	0%	0%	0%	0%
Rented: Other landlord type	1%	0%	1%	1%	0%	0%
Other tenure type	1%	0%	1%	2%	2%	2%
Other metrics:						
Household size	2.2	2.5	2.6	2.3	2.4	2.4
% Overseas-born	28%	36%	37%	71%	39%	37%
% White collar workers	79%	77%	72%	66%	79%	74%
% Blue collar workers	21%	23%	28%	34%	21%	26%

**Excludes non-private dwellings and other private dwellings. Source: ABS Census of Population and Housing 2021; AJM JV*

TABLE C.2 DEMOGRAPHIC CHANGE, CLAYTON, 2011 & 2021

	CHANGE	STRUCTURE PLAN AREA	STRUCTURE PLAN AREA	GREATER MELBOURNE	GREATER MELBOURNE	STRUCTURE PLAN AREA	GREATER MELBOURNE	VARIATION FROM GREATER MELBOURNE
		2011	2021	2011	2021	2011-2021	2011-2021	2011-2021
Income								
Per capita Income	%	$28,034	$44,832	$34,200	$46,017	60%	35%	25%
Average household income	%	$62,918	$104,624	$85,326	$119,232	66%	40%	27%
Age profile								
% 0-14 years	% point	12%	10%	18%	18%	-2%	0%	-1%
% 15-24 years	% point	22%	19%	14%	12%	-4%	-2%	-2%
% 25-39 years	% point	33%	39%	23%	24%	6%	1%	5%
% 40-54 years	% point	13%	13%	21%	20%	0%	-1%	1%
% 55-65 years	% point	6%	7%	11%	11%	1%	0%	1%
% 65+ years	% point	13%	11%	13%	15%	-2%	2%	-3%
Household type								
Couple family no children	% point	23%	23%	23%	23%	1%	0%	1%
Couple family with children	% point	24%	22%	33%	32%	-2%	-1%	-1%
One parent family	% point	8%	8%	10%	10%	0%	0%	0%
Other family	% point	5%	5%	3%	3%	0%	0%	0%
Lone person	% point	20%	22%	22%	24%	1%	1%	0%
Group household	% point	15%	17%	4%	4%	2%	0%	2%
Other	% point	6%	4%	4%	4%	-2%	0%	-2%
Dwelling density*								
Low-density	% point	53%	39%	73%	66%	-14%	-7%	-6%
Medium-density	% point	42%	50%	12%	22%	8%	10%	-2%
High-density	% point	5%	11%	15%	13%	6%	-3%	8%
Housing tenure*								
Owned outright	% point	28%	22%	34%	30%	-6%	-3%	-3%
Owned with a mortgage	% point	18%	21%	38%	38%	3%	0%	3%

	CHANGE	STRUCTURE PLAN AREA	STRUCTURE PLAN AREA	GREATER MELBOURNE	GREATER MELBOURNE	STRUCTURE PLAN AREA	GREATER MELBOURNE	VARIATION FROM GREATER MELBOURNE
		2011	2021	2011	2021	2011-2021	2011-2021	2011-2021
Rented	% point	53%	55%	28%	30%	3%	2%	0%
Other metrics								
Household size	People per dwelling	2.6	2.3	2.6	2.4	-0.3	-0.2	-0.1
% Overseas-born	% point	70%	71%	37%	37%	1%	0%	1%
% White collar workers	% point	66%	66%	72%	79%	0%	6%	-6%
% Blue collar workers	% point	34%	34%	28%	21%	0%	-6%	6%

**Excludes non-private dwellings and other private dwellings. Source: ABS Census of Population and Housing 2021; AJM JV*

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Appendix D
Case studies

Case study candidates and indicators

Case studies were used to derive key housing parameters. A total 34 case study precincts were selected based on a mapping analysis (of population densities / train station proximity) and professional knowledge. Table D.1 provides a list of the precincts reviewed. Table D.2 provides the list of factors and their weightings that were used for the similarity search and ranking exercise in Section 7.

TABLE D.1 CANDIDATE CASE STUDY PRECINCTS

PRECINCT	CITY
St Leonards Station	Sydney
Chatswood Station	Sydney
Epping Metro Station	Sydney
Rhodes Station	Sydney
Liverpool Station	Sydney
Bankstown Station	Sydney
Wolli Creek Station	Sydney
Rockdale Station	Sydney
Kogarah Station	Sydney
Hurstville Station	Sydney
Green Square Station	Sydney
Mascot Station	Sydney
Bondi Junction Station	Sydney
Burwood Station	Sydney
Strathfield Station	Sydney
Flemington Station	Sydney
Wentworthville Station	Sydney

PRECINCT	CITY
Lidcombe Station	Sydney
Auburn Station	Sydney
Parramatta Station	Sydney
Macquarie Uni. Metro Station	Sydney
North Ryde Metro Station	Sydney
Dulwich Grove Light Rail	Sydney
Indooroopilly Station	Brisbane
Toowong Station	Brisbane
Westend	Brisbane
Newstead	Brisbane
Kelvin Grove	Brisbane
Chermside	Brisbane
Nundah Station	Brisbane
Lutwyche	Brisbane
Coorparoo	Brisbane
Belconnen	Canberra
Canberra South Station	Canberra

Source: AJM JV

TABLE D.2 BUILT-FORM AND HOUSING INDICATORS USED IN SIMILARITY SEARCH

INDICATOR	DESCRIPTION	WEIGHTING (%)	RATIONALE
Train station	Is there a local train/metro or light rail station?	5%	Prioritises case studies with similar modes of infill development (TOD).
Density (prior to development)	The past ('starting point') precinct population density – prior to development.	10%	Prioritises case studies with similar past population densities.
Density (post development)	The future ('end point') precinct population density – post development.	20%	Prioritises case studies with similar future population densities.
Neighbourhood density (prior)	The past ('starting point') neighbourhood population density (local government area)	10%	Prioritises case studies with similar surrounding urban tissue – for example, inner city or suburban.
CBD distance	The CBD distance, measured through public transport travel time.	15%	Prioritises case studies with similar distances to CBD.
SEIFA (IRSAD) (prior)	The past socioeconomic levels of the precinct population – prior to development.	10%	Prioritises case studies with similar affluence and living arrangements.
Overseas born (prior)	The past proportion of overseas born population.	5%	Prioritises case studies with similar share of population more likely to live in and support high-density living arrangements.
Office employment (post)	The future quantum of office jobs.	5%	Prioritises case studies with similar quantum of office jobs.
University	Is there is a university within a 1600-m radius?	10%	Prioritises case studies in proximity to university (and likely higher proportion of student accommodation).
Hospital	Is there a hospital within a 1600-m radius?	10%	Prioritises case studies in proximity to hospital (and likely higher proportion of key worker housing).
Industrial (prior)	Was the case study precinct previously an industrial area?	0%	Prioritises case studies with similar past urban morphology. Rezoned industrial areas provide more flexibility in terms of future residential.

Source: AJM JV

Case study summaries

The demographics for the three selected case studies are summarised below. It provides insight into the urban trends experienced that influenced the modelling of the Clayton Structure Plan Area.

MACQUARIE UNIVERSITY METRO STATION 1600-M RADIUS AREA

Macquarie University is located in the north-west of Sydney within the City of Ryde. The University is connected to the city rail network through the Metro line which runs to Chatswood station. The area including and surrounding Macquarie University is known as the Macquarie Park Innovation District and, in addition to the university, houses the Macquarie Centre shopping centre, commercial land, and science and health industrial assets.

Table D.2 outlines key changes within the case study area from 2011–2021. Tables D.3, Figure D.1 and Table D.4 outline key demographic and housing trends in the area.

TABLE D.2 KEY CHANGES IN MACQUARIE UNIVERSITY 1600-M RADIUS AREA

	KEY CHANGES	IMPLICATIONS
Changes in age Structure	Largest age bracket is 15–29-year-olds, presumably students.	Greater Demand for 1- & 2-Bedroom units that cater towards younger demographics.
Change in household structure	Largely static household structure composition. Lone persons and couple households are the largest cohorts.	Greater demand for studio/1/2 bedroom catering towards lone person and couple households.
Change in house and unit prices	Unit price growth higher than Greater Sydney.	Greater demand for affordable units for young, lone households and couples.

Source: AJM; ABS (2011 & 2021) Census of Population and Housing; Pricefinder

TABLE D.3 HOUSEHOLD STRUCTURE, MACQUARIE UNIVERSITY 1600-M RADIUS AREA, 2011-2021

	MACQUARIE UNI. STATION - 2011	MACQUARIE UNI. STATION - 2021	% PT CHANGE (2011-2021)
Couple family without children	23.0%	26.0%	3.0%
Couple family with children	22.3%	23.0%	0.7%
Other family	8.8%	8.8%	0.0%
Multi family	1.1%	1.2%	0.1%
Lone person household	29.7%	29.9%	0.2%
Group household	10.1%	6.7%	-3.4%
Other	5.6%	4.6%	-1.0%
Total	**100.0%**	**100.0%**	

Source: ABS (2011 & 2021) Census of Population and Housing

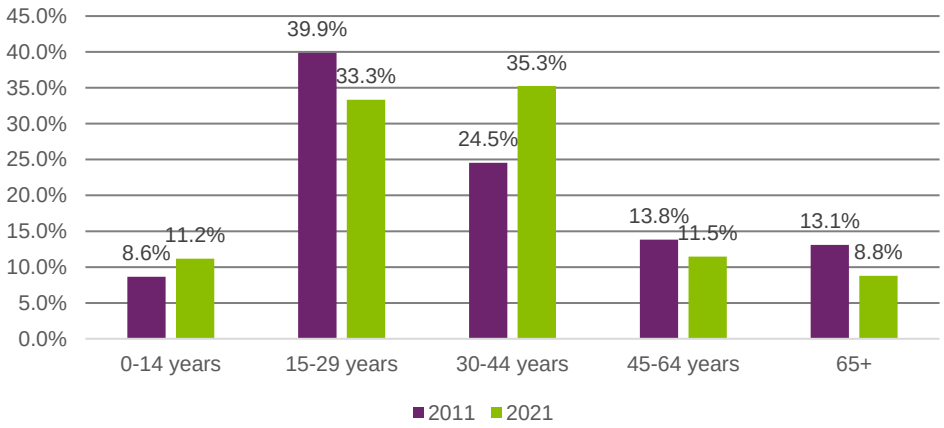


FIGURE D.1 AGE STRUCTURE, MACQUARIE UNI. 1600-M RADIUS AREA, 2011 & 2021

Source: ABS (2011 & 2021) Census of Population and Housing

TABLE D.4 MEDIAN UNITS AND HOUSE PRICES, MACQUARIE PARK (SUBURB), 2014–2023

	2014	2023	PRICE CHANGE (NO.)	TOTAL GROWTH (%)	ANNUAL GROWTH RATE (2014-2023)
Median unit prices ($)					
Macquarie Park	$640,000	$928,000	$288,000	**45.0%**	**5.0%**
Greater Sydney	$622,000	$777,500	$155,500	**25.0%**	**2.8%**
Median house price ($)					
Macquarie Park	NA	NA	NA	NA	NA
Greater Sydney	$739,000	$1,340,000	$601,000	**81.3%**	**9.0%**

Note. Macquarie Park has not had sufficient house sales to determine a median house price. Source: Pricefinder

Planning Ryde – Local Strategic Planning Statement 2020

The City of Ryde set out their strategic goals for the Macquarie Park employment and education hub in the Planning Ryde council document. The City plans to further develop Macquarie Park as a health and education centre through creation of hubs surround Macquarie University and Macquarie Park.

They plan to deliver diverse housing types in appropriate locations near the commercial core as well as create a public domain within Macquarie Park.

Liveability is also a focus of the plan, which will be proved for in the form of open spaces, walkable employment hubs and well-designed environment.

AUBURN 1600-M RADIUS AREA

Auburn is located in western Sydney, between Parramatta and Burwood. South of the station is a small commercial district featuring a variety of health, retail and government offices. Further beyond, the station is largely surrounded by low-density housing. Particularly to the north and south-west of the station. To the north-east, within the 1600-metre boundary, is an industrial precinct.

Table D.5 outlines key changes within the case study area from 2011–2021. Tables D.6, Figure D.2 and Table D.7 outline key demographic and housing trends in the area.

TABLE D.5 KEY CHANGES IN AUBURN 1600-M RADIUS AREA

	KEY CHANGES	IMPLICATIONS
Changes in age structure	Youngest age bracket shrinking whilst 30–44-year-olds and 60+ year old increasing.	Less demand for family homes. More demand for retirement accommodation.
Change in household structure	Large drop in families. Gains in group houses and couples without children.	Greater demand for 1- & 2-Bedroom dwellings.
Change in house and unit prices	Higher growth in median unit and house prices than Greater Sydney	Higher demand for affordable dwellings.

Source: AJM; ABS (2011 & 2021) Census of Population and Housing; Pricefinder

TABLE D.6 HOUSEHOLD STRUCTURE, AUBURN 1600-M RADIUS AREA, 2011-2021

	AUBURN - 2011	AUBURN - 2021	% PT CHANGE (2011-2021)
Couple family without children	15.8%	20.3%	4.5%
Couple family with children	40.1%	29.4%	-10.7%
Other family	12.7%	10.8%	-1.9%
Multi family	5.3%	4.8%	-0.5%
Lone person household	14.5%	15.9%	1.4%
Group household	5.4%	12.5%	7.1%
Other	6.2%	6.4%	0.2%
Total	**100.0%**	**100.0%**	

Source: ABS (2011 & 2021) Census of Population and Housing

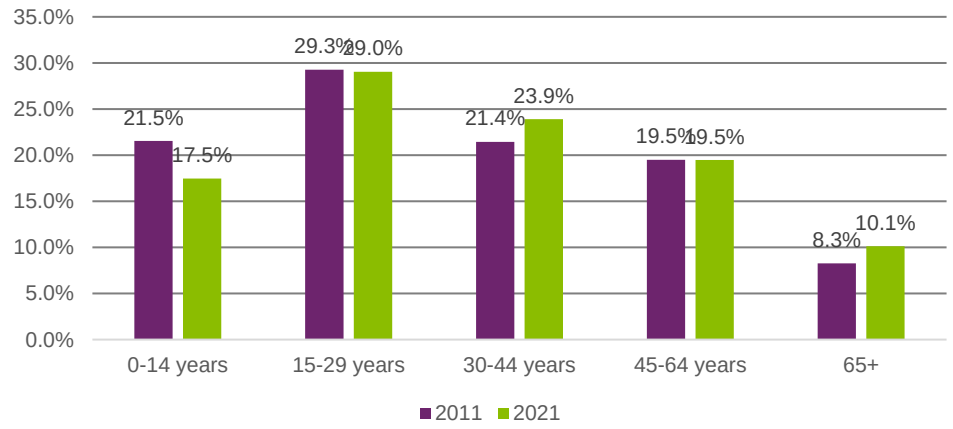


FIGURE D.2 AGE STRUCTURE, AUBURN 1600-M RADIUS AREA, 2011 & 2021

Source: ABS (2011 & 2021) Census of Population and Housing

TABLE D.7 MEDIAN UNITS AND HOUSE PRICES, AUBURN (SUBURB), 2014-2023

	2014	2023	PRICE CHANGE (NO.)	TOTAL GROWTH (%)	ANNUAL GROWTH RATE (2014-2023)
Median unit prices ($)					
Hurstville	$425,000	$570,000	$145,000	**34.1%**	**3.8%**
Greater Sydney	$622,000	$777,500	$155,500	**25.0%**	**2.8%**
Median house price ($)					
Hurstville	$745,000	$1,175,000	$430,000	**57.7%**	**6.4%**
Greater Sydney	$739,000	$1,340,000	$601,000	**81.3%**	**9.0%**

Source: Pricefinder

Cumberland 2030: Our Local Strategic Planning Statement

In their vision for Auburn's future as a principal local centre, Cumberland City Council state the need for diversity in housing, providing jobs for the young workforce, and managing the interface of employment lands with adjoining uses. In achieving this, the council highlights the industrial precincts and employment lands surrounding the station, development along Parramatta Road, as well as improvement is walkability, open space and community assets throughout the centre.

KOGARAH STATION 1600-M RADIUS AREA

Kogarah Station sits in the inner-south-west of Sydney, on the South Coast Line. A collection of commercial, education and community assets sit east of the station, include St. George Private Hospital. West of the station is a large expanse of low-density housing.

Table D.8 outlines key changes within the case study area from 2011–2021. Tables D.9, Figure D.3 and Table D.10 outline key demographic and housing trends in the area.

TABLE D.8 KEY CHANGES IN KOGARAH 1600-M RADIUS AREA

	KEY CHANGES	IMPLICATIONS
Changes in age structure	Relatively static age profile. Slight shift to older demographics.	Greater demand for retirement accommodation
Change in household structure	Less families. Increase in lone and group households.	Greater demand for studio/1/2 bedroom catering towards lone person and couple households.
Change in house and unit prices	Unit price growth above the Greater Sydney median.	Increasing unaffordability and demand for cheaper units.

Source: AJM; ABS (2011 & 2021) Census of Population and Housing; Pricefinder

TABLE D.9 HOUSEHOLD STRUCTURE, KOGARAH 1600-M RADIUS AREA, 2011-2021

	KOGARAH - 2011	KOGARAH - 2021	% PT CHANGE (2011-2021)
Couple family without children	22.6%	23.4%	0.7%
Couple family with children	31.4%	30.2%	-1.1%
Other family	11.6%	11.2%	-0.4%
Multi family	3.2%	2.7%	-0.6%
Lone person household	20.1%	22.4%	2.3%
Group household	5.2%	5.7%	0.6%
Other	5.9%	4.4%	-1.6%
Total	**100.0%**	**100.0%**	

Source: ABS (2011 & 2021) Census of Population and Housing

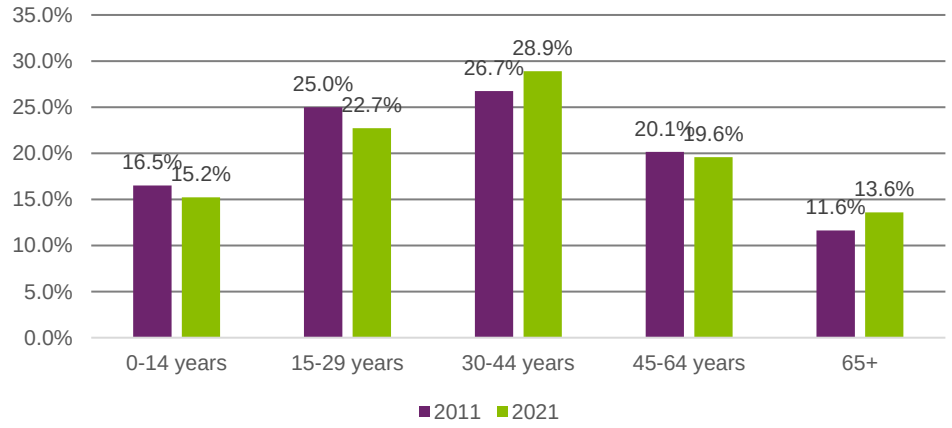


FIGURE D.3 AGE STRUCTURE, KOGARAH 1600-M RADIUS AREA, 2011 & 2021

Source: ABS (2011 & 2021) Census of Population and Housing

TABLE D.10 MEDIAN UITS AND HOUSE PRICES, KOGARAH (SUBURB), 2014-2023

	2014	2023	PRICE CHANGE (NO.)	TOTAL GROWTH (%)	ANNUAL GROWTH RATE (2014-2023)
Median unit prices ($)					
Kogarah	$580,000	$737,000	$157,000	27.1%	3.0%
Greater Sydney	$622,000	$777,500	$155,500	25.0%	2.8%
Median house price ($)					
Kogarah	$961,000	$1,640,000	$679,000	70.7%	7.9%
Greater Sydney	$739,000	$1,340,000	$601,000	81.3%	9.0%

Source: Pricefinder

Georges River Council Commercial Centres Strategies (2020)

The Greater Sydney Commission identifies Kogarah as a health and education precinct due to the high concentration of medical facilities and schools in addition to the presence of a mix of retail and community activities. The council plans to further develop the employment precinct surrounding the station with the aim of supporting between 16,000 and 20,000 jobs by 2036.

Appendix E

Housing requirements methodology

Housing requirements – detailed methodology

1600-METRE RADIUS AREA

A key component of modelling housing requirements for the Structure Plan Area is understanding and comparing the growth and development of comparable Transit Oriented Precincts (TOPs) as referenced by the case studies.

As part of the case study analyses, a radius of 1600-metre from each case study train station (or equivalent) and each SRL station was defined. The modelling uses the 1600-metre radius area as an intermediary step to model the Structure Plan Area.

A 1600-metre radius was used for the following reasons:

- **Data availability:** Many important datasets for analysis are unavailable when look at the Structure Plan Area as this required extracting data at the Mesh Block area (the smallest geography used by the ABS).
- **Lack of comparability:** Structure Plan Areas are drawn specifically around each SRL East station as the area to be specifically planned for. Each Structure Plan Area has a different extent depending on specific local circumstances. Rather than relying on arbitrary estimations of equivalent 'structure plan' boundaries within the case study areas, adopting a consistent study area based on distance enables more meaningful comparisons.

MODELLING HOUSING REQUIREMENTS FOR THE STRUCTURE PLAN AREA

The following provides a detailed breakdown of the two components of modelling housing requirements for the Structure Plan Area. The case study assessment steps are numbers while the Structure Plan Area modelling steps are lettered.

Case Study assessment:

1) Scoring and comparison of 34 case study locations around Australia was undertaken. The case studies assessed are in Table D.1. The case studies were assessed on a range of factors related to population densification, infrastructure, and other factors. Each factor was given a different weighting when applied to the respective Structure Plan Area, based on the unique characteristics of each area and a view as to which case study was most comparable. The relevant factors and weightings applied are shown in Table E.2.
2) Based on the results of the scoring, that is, which case studies were most comparable to the Structure Plan Area, and professional knowledge, three comparable case studies were chosen for the Structure Plan Area modelling. Each case study is then assigned a different weighting, based on the degree of comparability, with the most comparable being given a weighting of 0.5, the second most a weighting of 0.3 and the third most 0.2. The weightings are applied to the dwelling structure data for each case study which is in turn applied to the population projections.

Structure Plan Area modelling:

The lettered steps in Figure E.1 below outline a detailed step by step methodology for the Structure Plan Housing Requirements. Note steps and inputs A to N relate to the 1600-metre radius area, with steps beyond that deriving Structure Plan estimates:

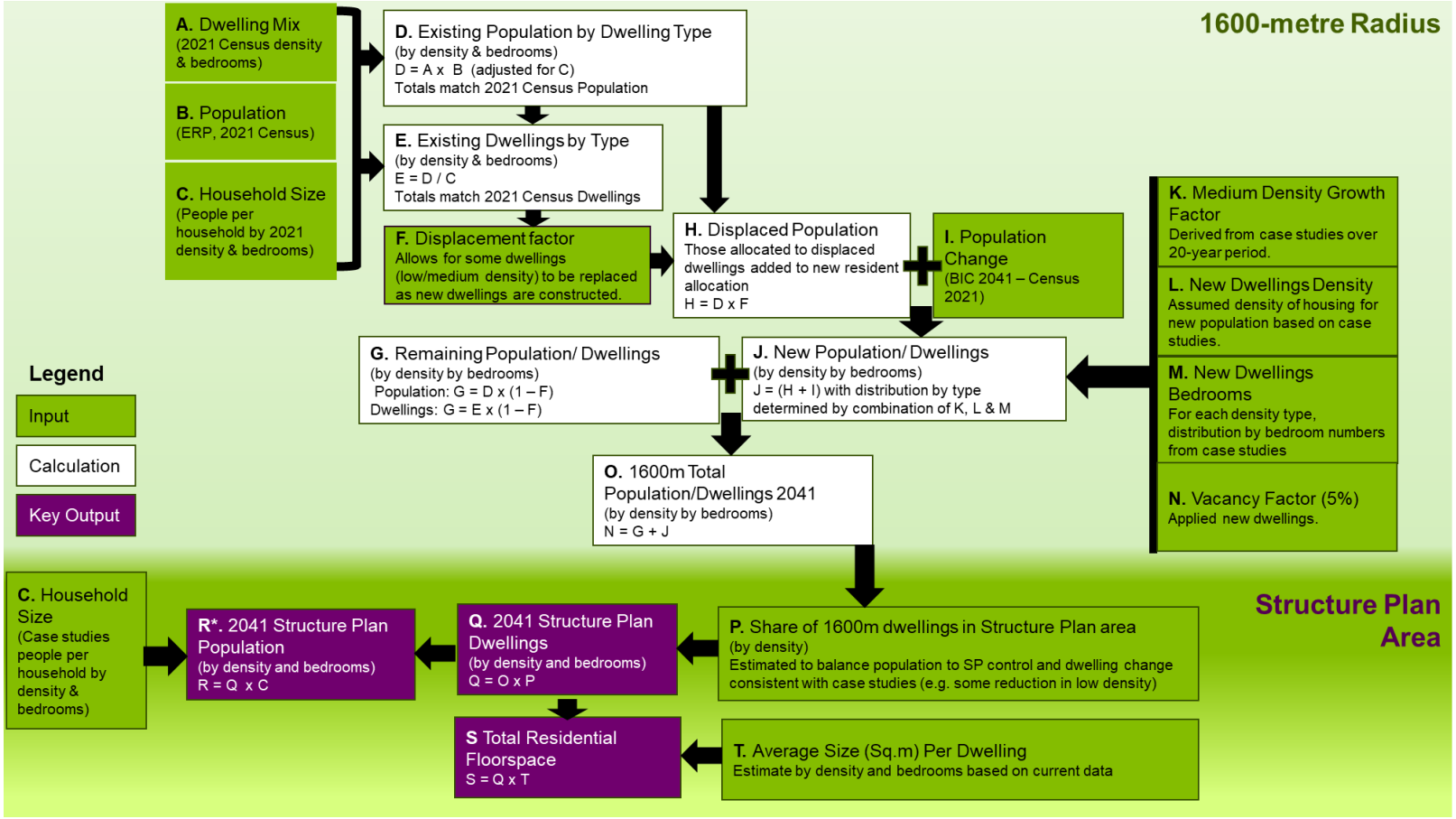


FIGURE E.1 HOUSING REQUIREMENTS METHODOLOGY DIAGRAM

Source: AJM JV

(A) The current dwelling mix (share rather than absolute number) within the 1600-metre radius area is extracted from the 2021 Census data with all dwellings split by density (high/medium/low) and bedroom numbers (studio/1/2/3/4+).

(B) The 2021 population and dwellings by structure within the 1600-metre area and Structure Plan Area are extracted from the 2021 Census.

(C) The household size (people per household) for 2021 in the 1600-metre radius is derived based on case study evidence.

(D) Population is allocated to a dwelling structure by apply household sizes to dwelling structure estimates then calibrating the resulting population to the estimated population for the Structure Plan Area.

(E) Multiplying dwellings by GLA estimates and then a GLA to GBA conversion factor provides an estimate of residential GBA.

Steps A to E are repeated at the Structure Plan Area level. These determine the 2021 estimates for population, dwellings and floorspace.

(F) A 'displacement factor' is applied to the existing dwellings within the 1600-metre radius area and the population within the respective dwelling types. This is to reflect that some of the new dwellings will come from the replacement of existing dwellings. Displacement factors have been applied so that low-density dwellings are more likely to be replaced, with some medium-density housing also being replaced by higher-density housing over time. The number of displaced dwellings differs for each 1600-metre area depending on whether there are currently non-residential sites (e.g. a brownfield site) or commercial zones (e.g. activity centres) that can be developed for housing without the need for existing housing to be replaced.

(G) When the displaced dwellings are excluded, it leaves the remaining dwellings (i.e. existing dwellings that will remain) and the population within them. This is calculated by multiplying the total existing dwellings and population by dwelling type by one minus the displacement factor. This is done for each dwelling type.

(H) The population in the dwellings assumed to be displaced (i.e. not specific of which households are displaced) will be accommodated in future new housing within the 1600-metre area. This population is, therefore, added to the net additional population forecast for the area (step I).

(I) The net population change in the 1600-metre area is calculated as the BIC 2041 forecast minus the 2021 Census population. This additional population needs to be housed in the 1600-metre area, along with the displaced population.

(J) The new dwellings and the population within those new dwellings are calculated for each dwelling type (density and bedroom numbers). This is done by adding the total displaced population calculated at H to the total population change at I and then applying a series of inputs derived from the case studies to convert this total new population to new population and dwellings in each dwelling type. These inputs are described at K to N.

(K) To convert the population in need of additional housing (displaced population + new population) to dwelling estimates, a growth factor to existing medium-density dwellings is applied to calculate the estimated new medium dwellings over the forecast period. The growth factor is based on the growth in medium-density dwellings in relevant case studies.

(L) The relative density split for new dwellings is calculated. With the medium-density growth calculated at L, the remainder of the new growth is channelled into high-density dwellings. It is assumed that the new population will not be accommodated through a net increase in low-density housing (the case studies showed that there was either a constant number of low-density dwellings or a decline). Therefore, the new population will only be accommodated in high- or medium-density dwellings.

(M) To segment the population into dwellings by bedroom number for each density, the case studies were again used to derive the share of dwellings split by bedroom number.

(N) A vacancy factor of 5% is applied to the dwellings required for new dwellings within the 1600m radius area. This is to account for unoccupied stock that is necessary for a functioning residential market. Dwellings, including vacant stock, are carried through the model. Vacant stock is already implicit in the existing stock that is not displaced, so the vacancy factor is only applied to new dwellings.

(O) The 1600-metre area total population and dwellings by density and bedroom number for 2041 is calculated by adding the remaining population/dwellings (G) to the new population/dwellings (J).

Having used the case study analysis to derive population and dwelling estimates by dwelling type at the 1600-metre area, the share of dwellings that will be delivered in the Structure Plan Area as a subset of the 1600-metre area needs to be determined. This is done for each density type (see Table E.1 for the applied shares). This is an iterative process as the calculated population in the Structure Plan Area for 2041 (see step P) needs to match the population projection. The starting point is the proportion, as at the 2021 Census, of each density type in the Structure Plan Area compared to the 1600-metre radius area. As the density types have different household sizes attached to them, even though the dwelling number is fixed, a different density mix will support a different population.

(P) The other check to ensure the validity of this split is the change in the absolute number of dwellings by density in the Structure Plan Area, with reference to the findings of the case studies. For example, the absolute number of low-density dwellings would not be expected to increase dramatically, as new development will be higher density. Equally, the number of low- or medium-density dwellings wouldn't be expected to decline dramatically. This is an iterative process to produce a result that 'makes sense' when the available evidence of how density will shift as the projected scale of new development occurs is considered.

(Q) The total Structure Plan Area dwellings in 2041 (by density and bedrooms) are derived by multiplying the total dwellings for the 1600-metre area (O) by the share by density derived in (P). The bedroom mix is assumed to be consistent for each density type with the 1600-metre numbers derived from the case studies.

(R) The total Structure Plan Area population in 2041 (by density and bedrooms) is calculated by multiplying the number of dwellings, for each dwelling type (P), by the household size for that dwelling type which is derived from the 2021 Census (E)[46]. Note the sum of the population by dwelling type needs to match the projection for the Structure Plan Area in total (derived from CityPlan (published in SRL BIC). This acts as an inbuilt check of the other inputs. Note the household sizes applied before adjusting population are the those from step (C).

(S) Total residential floorspace requirements is calculated for the Structure Plan Area by multiplying the estimated number of dwellings by type (Q), by the respective average square metres per dwelling and a GLA to GBA conversion factor (T).

(T) The average square metre per dwelling figure is derived using data from the Urbis Apartment Essentials for Medium and High-density and RP data for Low-density dwellings. The GLA to GBA conversion factor is determined using professional knowledge[47] and is outlined in Table E.5.

TABLE E.1 CLAYTON STRUCTURE PLAN AREA SHARE OF 1600-M RADIUS DWELLINGS

	LOW-DENSITY	MEDIUM-DENSITY	HIGH-DENSITY
	PROPORTION 'WITHIN' STRUCTURE PLAN AREA		
Clayton Structure Plan	54.0%	75.0%	65.5%

Source: ABS; AJM JV

TABLE E.2 CLAYTON 1600-M RADIUS AREA AND STRUCTURE PLAN AREA DISPLACEMENT FACTOR

		LOW-DENSITY	MEDIUM-DENSITY	TOTAL
Geography	**Unit**	**Displaced dwellings 2021-2041**		
Clayton 1600m Radius Area (explicit)	No.	197	182	379
	Proportion as of 2021 Dwellings	5.2%	4.8%	4.5%

Note the table refers to displaced dwellings attributable to the displacement factor. The net changes in dwellings will be different as net changes incorporate projected growth in dwellings by 2041. It is assumed no high-density dwellings will be replaced. Source: ABS; AJM JV.

KEY HOUSING ASSUMPTIONS

As described through the process above, to translate the overall requirements for dwellings into residential floorspace, several assumptions are applied. Key among

[46] Note distributing the population into a dwelling structure relies on applying household sizes at the dwelling structure level and then adjusting these to align with population projections. The end distribution is not affected whether household sizes are applied to dwellings including vacancy or excluding vacancy since we have applied a uniform vacancy across all dwellings.

[47] AJM JV notes the exact ratio of GLA to GBA differs substantially between buildings. AJM JV has adopted a ratio of 1.66 for low-density dwellings and 1.35 for medium and high-density dwellings.

those are household size (number of people per household for each dwelling type) and internal area (sq.m) assumptions by dwelling structure. Household size estimates are applied for each household structure as shown in Table D.2. In the body of the report, Studio & 1-bedrooms and 3-bedrooms and 4+ bedrooms have been combined in their own categories.

Household size assumptions are based on data from the case studies, sourced from the 2021 Census. These assumptions are applied to both the Structure Plan and the 1600-metre radius in methodology. There are separate assumptions for dwelling density and bedroom numbers as outlined in Table D.2. They are kept constant through the forecast period. Because there will be more dense housing types in future with fewer bedroom numbers and lower household sizes, the shift towards these housing types will drive a downward shift in the overall household size for the Structure Plan Area, as has broadly been witnessed across Australia in recent decades.

TABLE E.3 HOUSEHOLD SIZE ASSUMPTIONS, 2021–2041

	STUDIO	1-BEDROOM	2-BEDROOMS	3-BEDROOMS	4+ BEDROOMS
Low-density	1.0	1.4	2.0	2.7	3.6
Medium-density	1.1	1.2	2.0	2.7	3.2
High-density	1.1	1.4	2.2	2.8	3.2

Source: ABS; AJM JV. Note Household sizes are applied as per Table E.3. However, population is always calibrated to match the census estimate or Structure Plan Area derived from SRL BIC. Therefore, household sizes extrapolated from modelled results will differ to those in Table E.3

Table D.3 outlines the Internal Area Assumptions. There internal area estimates were applied across existing as well as new dwellings.

To estimate the Gross Building Area (GBA), the floorspace numbers provided in the body of the report, escalation factors as outlined in Table D.4 were applied.

Internal areas assumptions represent the estimated internal floorspace of dwellings. This does not include any external areas such as car parks, gardens or backyards. For low and medium-density, estimates from RP Data was used which provides internal areas of households by density. However, as there are very few households in the Structure Plan Area that are studio or one-bedroom from low-density and medium-density, AJM JV has used professional knowledge to input internal areas for these dwelling types.

High-density internal areas have been estimated via reference to the Urbis Apartment Essentials. The Essentials database tracks all off the plan apartment sales (from developments with over 24 units) across Melbourne and other capital cities.

GBA escalation factors are estimated through professional knowledge of the construction sector.

TABLE E.4 INTERNAL AREA ASSUMPTIONS (SQ.M), 2021–2041

	STUDIO	1 BEDROOM	2 BEDROOMS	3 BEDROOMS	4+ BEDROOMS
Low-density	60	90	117	161	240
Medium-density	50	75	94	132	190
High-density	42	53	75	125	186

Source: Urbis Apartment Essentials; RP Data

TABLE E.5 CONVERSION OF INTERNAL AREA TO GROSS BUILDING AREA

DENSITY	INTERNAL AREA TO GBA FACTOR
Low-density	1.66
Medium & High-density	1.35

Source: AJM JV

BUILT-FORM AND HOUSING INDICATORS

The candidate case studies were compared to each of the 1600-metre radius area from each SRL station, across 11 built-form / housing indicators (listed in Appendix D) to find the best match. Depending on the SRL 1600-metre radius area, the indicator weightings were adjusted based on professional knowledge, to reflect the specific housing characteristics of each 1600-metre radius area – for example, in the instance of Clayton or Box Hill, the proximity of a hospital was considered more relevant, while in Burwood and Monash, the proximity to a university was more relevant.

Appendix F

Housing for diverse community needs methodology

Social and affordable housing methodology

ELIGIBILITY FOR SOCIAL AND AFFORDABLE HOUSING

In 2018 the Victorian Government amended the *Planning and Environment Act 1987* (the Act) to define affordable housing as:

> '*housing, including social housing, that is appropriate for the housing needs of any of the following:*
>
> *(a) Very Low-Income Households*
>
> *(b) Low-Income Households*
>
> *(c) Moderate Income Households'*

The estimates for affordable housing in the body of the report are in line with those in the Planning and Environment Act.

Households were only included in the social and affordable housing assessment if they met the following criteria:

Social housing:

1. They are currently renting (as of the 2021 Census).
2. They are in rental distress, defined as spending above 30% of their incomes on rent.
3. Their incomes are within the ranges specified in Housing Victoria Social Housing Priority Access Housing Income Limits (provided in Table F.1).

Affordable housing:

1. They are currently renting (as of the 2021 Census).
2. They are in Rental Distress, defined as spending above 30% of their income on rent.
3. Their incomes are within the ranges specified in Governor-In-Council 2021 Order (provided in Table F.2). Governor in Council Order forms part of the definition of affordable housing under the Act. The Order specifies the income ranges for very low, low, and moderate-income households for affordable housing that is not social housing.

Experiencing homelessness:

An estimate of individuals experiencing homelessness is also incorporated into the assessment of the requirements for social and affordable housing because it is vital to ensure they have accommodation in such housing as well.

People experiencing homelessness are defined below who are one of the following:

- Persons living in improvised dwellings, tents, or sleeping out
- Persons in supported accommodation for the homeless
- Persons staying temporarily with other households
- Persons living in boarding houses
- Persons in other temporary lodgings.

Table F.1 outlines the affordable housing income ranges while Table F.2 the social housing income limits.

TABLE F.1 GREATER CAPITAL CITY STATISTICAL AREA OF MELBOURNE AFFORDABLE HOUSING INCOME RANGE CLASSIFICATION

HOUSEHOLD TYPES	VERY LOW-INCOME RANGE (ANNUAL)	LOW INCOME RANGE (ANNUAL)	MODERATE INCOME RANGE (ANNUAL)
Single Adult	Up to $26,200	$26,201 - $41,920	$41,921 - $62,860
Couple, No dependants	Up to $39,290	$39,291 - $62,870	$62,871 - $94,300
Family (with one or two parents) and dependent children	Up to $55,000	$55,001 - $88,020	$88,021 - $132,030

Source: Governor-In-Council-Order-1-July-2021.pdf (planning.vic.gov.au)

TABLE F.2 VICTORIA SOCIAL HOUSING PRIORITY ACCESS HOUSING INCOME LIMITS, GREATER MELBOURNE

HOUSEHOLD TYPE	ANNUAL INCOME LIMIT
Single person	$32,552
Couple, no dependants	$56,264
Family (one or two parents) with one dependent child	$58,292
Each additional dependant	$2028

Source: Housing Victoria

Detailed methodology

AFFORDABLE AND SOCIAL HOUSING

The methodology considers the relationship between household income and rents at the 2021 Census. It does not consider any future change to either household incomes or housing costs. These changes were not considered because for long-term forecasts such as these, the housing market is assumed to remain in equilibrium with the relationship between household income and rents unchanged.

For this analysis, group households were treated as couples with no dependants, and other family as family with dependent children. If the affordable housing income range did not fit within Census income ranges, the range was apportioned using a pro-rata approach.[48]

The methodology for social and affordable housing and homelessness is as follows:

1. Use 2021 ABS data for the Structure Plan Area to determine households on Very Low, Low and Moderate incomes, as per Table F.0.4. ABS data includes all renters in the Structure Plan Area, including both those in rental distress and those not in rental distress.
2. Determine the proportions of households that rent on Very Low, Low and Moderate Incomes for the Structure Plan Area.
3. Apply the current proportion of households that rent (before looking at income levels) to Structure Plan modelled housing requirements.
4. Apply proportions from step 2 to the results of step 3.
5. Determine the proportion of renters who are in rental distress at the 2021 Census.
6. Apply proportion from step 5 to Structure Plan modelled requirements to determine Affordable Housing estimates.
7. Determine the proportion of those eligible for social housing within Very Low and Low bands using Housing Victoria income brackets, as outlined in Table F.2.
8. Apply the proportion from step 7 to Affordable Housing estimates to calculate the requirements for social housing.

A high-level diagram of the methodology for social and affordable housing is outlined in Figure F.1.

HOMELESSNESS

To estimate the potential homeless population which also needs to be considered for social and affordable housing, the following steps were taken:

1) To estimate the amount of homeless people within the Structure Plan, ABS estimates of the homeless population at the SA3 level were used, imputed from the 2021 Census of Population and Housing.
2) Calculate the proportion of individuals experiencing homelessness within the SA3 the Clayton Structure Plan Area is located in. From the analysis, this proportion was 0.9% for the Dandenong and Monash SA3s, which the Clayton Structure Plan Area is located within.

[48] Pro rata apportioning was needed for all income brackets and to determine those eligible for social housing. That is, of lone person households within the very low income bracket, 96% were eligible for social housing.

3) Apply this proportion to the population forecasts for the relevant Structure Plan Area.

4) Depending on their family composition, those experiencing homelessness could be housed individually or together. Estimates of individuals are provided as a conservative (maximum) estimate of the number of dwellings needed to be provided for these people.

5) Note, the estimated homeless population are additional to the total requirements for affordable and social housing, as they are not a part of the population forecast.

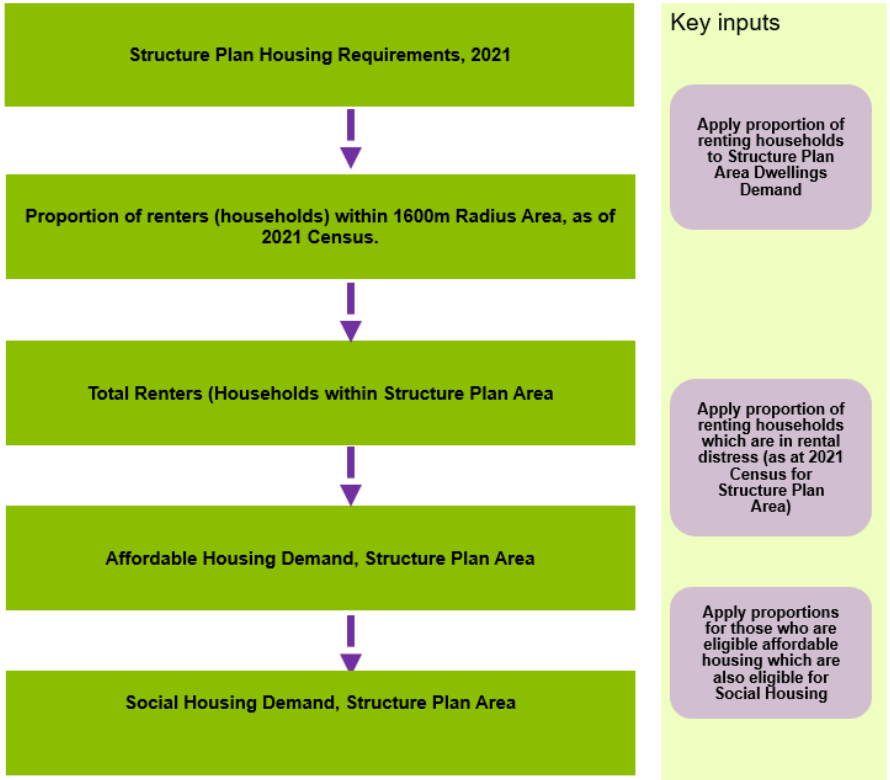


FIGURE F.1 METHODOLOGY FOR DETERMINING SOCIAL AND AFFORDABLE REQUIREMENTS

Source: AJM JV

Key worker housing

The method for estimating the future count of key workers in the Structure Plan Area is outlined below.

Note that the share of key workers in different industries and the share of those key workers on very low to moderate incomes and their place of residence was originally considered at the 1600-metre radius area (as opposed to the Structure Plan Area) due to data availability issues at a small area. The proportion of key workers by industry at the 1600-metre radius area was then applied to workers in the Structure Plan Area to calculate estimates for the Structure Plan Area.

The steps involved in estimating the number of key workers is as follows:

1) **Define relevant key worker occupations**: Occupations classified as key worker roles are based on a recent study conducted by the Australian Housing and Urban Research Institute (AHURI). These occupations are defined using defined using ABS four-digit occupation categories. Table F.3 includes a detailed list of eligible occupations.

   Note this compilation encompasses occupations typically associated with high incomes, such as Medical Practitioners. When overlaying income data, those individuals with high incomes will be excluded, while those with lower incomes, such as students, will be retained.

2) **Overlay worker incomes**: Identify key workers with very low, low, and moderate incomes based on the specified ranges outlined in the Victorian Planning and Environment Act.

3) **Consider the key worker's place of residence**: Overlay workers' place of residence by local government area to examine the number of key workers living outside the South East Region.

4) **Estimate the potential number of key workers in the future**: Use the current proportionate share of key workers in each broad industry sector and apply it to job projections for the Structure Plan Area (derived from CityPlan (published in SRL BIC)) to estimate the potential number of key workers in 2041.

TABLE F.3 KEY WORKER OCCUPATIONS BY BROAD INDUSTRY SECTOR

KEY WORKER OCCUPATIONS
• Education
• Education, Health and Welfare Services Managers, nfd
• Child Care Centre Managers
• School Principals
• Librarians
• Education Professionals, nfd
• School Teachers, nfd
• Early Childhood (Pre-primary School) Teachers
• Primary School Teachers
• Middle School Teachers (Aus) / Intermediate School Teachers (NZ)
• Secondary School Teachers
• Special Education Teachers
• Tertiary Education Teachers, nfd
• University Lecturers and Tutors
• Vocational Education Teachers (Aus) / Polytechnic Teachers (NZ)
• Miscellaneous Education Professionals, nfd
• Private Tutors and Teachers
• Teachers of English to Speakers of Other Languages
• Education Aides
• Library Assistants
• Health
• Health and Welfare Services Managers
• Medical Laboratory Scientists
• Health Professionals, nfd
• Health Diagnostic and Promotion Professionals, nfd
• Medical Imaging Professionals
• Optometrists and Orthoptists
• Pharmacists
• Other Health Diagnostic and Promotion Professionals
• Health Therapy Professionals, nfd
• Chiropractors and Osteopaths
• Complementary Health Therapists
• Dental Practitioners
• Occupational Therapists
• Physiotherapists
• Podiatrists
• Audiologists and Speech Pathologists \ Therapists
• Health (continued)
• Medical Practitioners, nfd
• General Practitioners and Resident Medical Officers
• Anaesthetists
• Specialist Physicians
• Psychiatrists
• Surgeons
• Other Medical Practitioners
• Midwifery and Nursing Professionals, nfd
• Midwives
• Nurse Educators and Researchers
• Nurse Managers
• Registered Nurses
• Legal, Social and Welfare Professionals, nfd
• Social and Welfare Professionals, nfd
• Counsellors
• Psychologists
• Social Professionals
• Social Workers
• Welfare, Recreation and Community Arts Workers
• Medical Technicians
• Community and Personal Service Workers, nfd
• Health and Welfare Support Workers, nfd
• Ambulance Officers and Paramedics
• Dental Hygienists, Technicians and Therapists
• Diversional Therapists
• Enrolled and Mothercraft Nurses
• Indigenous Health Workers
• Welfare Support Workers
• Carers and Aides, nfd
• Child Carers
• Personal Carers and Assistants, nfd
• Aged and Disabled Carers
• Dental Assistants

- Nursing Support and Personal Care Workers
- Special Care Workers

- Other
- ICT Professionals, nfd
- ICT Network and Support Professionals, nfd
- Computer Network Professionals
- ICT Support and Test Engineers
- Telecommunications Engineering Professionals
- ICT and Telecommunications Technicians, nfd
- ICT Support Technicians
- Science Technicians
- Protective Service Workers, nfd
- Defence Force Members, Fire Fighters and Police, nfd
- Fire and Emergency Workers
- Police
- Prison and Security Officers, nfd
- Prison Officers
- Road and Rail Drivers, nfd
- Automobile, Bus and Rail Drivers, nfd
- Automobile Drivers
- Train and Tram Drivers
- Delivery Drivers
- Truck Drivers
- Railway Track Workers
- Cleaners and Laundry Workers, nfd
- Commercial Cleaners
- Domestic Cleaners
- Housekeepers
- Laundry Workers
- Other Cleaners

Source: ABS

Note this is certainly not exhaustive in terms of occupations that could potentially be considered essential to a city's functioning. Other occupations not specifically reflected in the ABS's four-digit occupation categories, such as refuse collectors, also play an important role in city functioning. The implications of the findings could, therefore, extend beyond these specific occupation groups to include other workers.

Student accommodation

The methodology to forecast the demand for student accommodation included:

1) Access student enrolment data for Monash University's Clayton campus from publicly available annual report data. Estimates of student enrolments are provided in Table F.4.

2) Estimate enrolments at the Clayton Campus using historical higher education data from the Department of Education. Distinction is made between local domestic, regional and interstate, and international students due to their differing propensity to require purpose-built student accommodation. Likewise students commencing studies are more likely to live in student accommodation facilities than those returning beyond their first year.

3) Apply growth rates for the 18-64 age cohort (for the Structure Plan Area) to forecast enrolments out until 2041.

4) Apply propensities to enrolment data to calculate demand for student accommodation. Propensities refer to the proportion of enrolled students that reside in PBSA while studying. Propensities are sourced from Urbis Student Accommodation Benchmarks, explained in Appendix A. Propensities applied are outlined in Table F.5. In Urbis' modelling, propensities are decreased from 2021-2041 to account for growth in online course offerings and affordability challenges associated with PBSA. Both of these factors will result in less demand for student accommodation and as a result, a slightly lower propensity rate.

5) Estimate the amount of demand likely to be captured in the Structure Plan through looking at the existing supply as a proportion of current estimated demand. This proportion is applied to the 2041 demand too to provide an indication of the opportunity in the Structure Plan Area.

Figure F.2 provides a simple overview of the methodology to estimate student accommodation demand.

FIGURE F.2 PBSA DEMAND METHODOLOGY

Source: AJM JV

TABLE F.4 CLAYTON CAMPUS ESTIMATED ENROLMENTS, 2023-41,

	2023	2041
Commencing		
Domestic - local		
Undergraduate	5571	8137
Postgraduate	1229	1794
Other	4	6
Domestic - regional and interstate		
Undergraduate	983	1436
Postgraduate	217	317
Other	1	1
International		
Undergraduate	2921	5943
Postgraduate	932	2261
Other	27	65
Continuing		
Domestic - local		
Undergraduate	12,097	17,667
Postgraduate	2037	2976
Other	2	4
Domestic - regional and interstate		
Undergraduate	2135	3118
Postgraduate	360	525
Other	0	1
International		
Undergraduate	4521	9198
Postgraduate	2915	7068
Other	4	9
Total	**35,956**	**60,524**

Source: AJM JV; Urbis Student Accommodation Benchmarks; Department of Education

TABLE F.5 STUDENT ACCOMMODATION PROPENSITIES, 2023-41.

	2023		2041	
	COMMENCING	CONTINUING	COMMENCING	CONTINUING
Local domestic				
Undergraduate	2.0%	0.5%	2.0%	0.5%
Postgraduate	1.5%	0.5%	1.5%	0.5%
Interstate and regional				
Undergraduate	60.0%	25.0%	60.0%	22.5%
Postgraduate	32.5%	17.5%	32.5%	15.0%
International				
Undergraduate	40.0%	10.0%	40.0%	7.5%
Postgraduate	30.0%	7.5%	30.0%	5.0%
Other	40.0%	-	40.0%	-

Retirement living

Below is a step-by-step outline of the approach:

1) Use projections for the population over 65 years in the Structure Plan Area.

2) Determine the existing propensity for ILUs and RACs by taking the existing supply and dividing by the over 65 years population. The propensity for ILUs is unchanged throughout the forecast period while RACs is decreased to account for the overall decline in those over 65 years living in RACs in Australia. When there is no existing supply the propensity to use ILUs or RACs across Greater Melbourne is applied.

3) Apply propensities to the over 65 years population in the Structure Plan Area to determine the total bed demand for ILUs and RACs. Assume propensities stay constant over the forecast period with the growth in the over 65 years population driving increased demand.

4) Apply household size estimates for ILUs to determine the demand for ILU units in the Structure Plan Area.

Below are simple diagrams outlining the demand for RAC and ILUs is calculated.

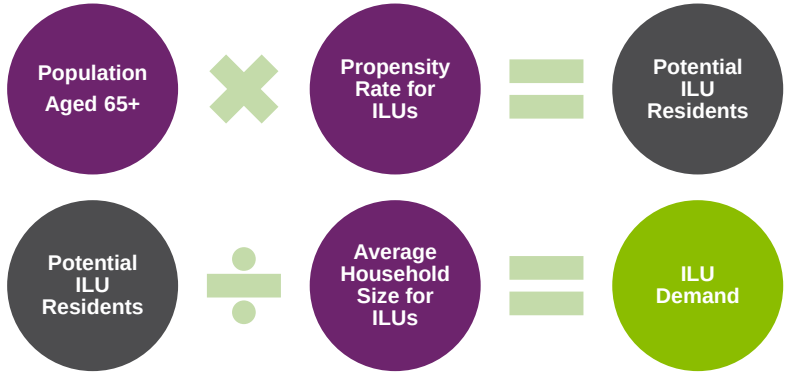


FIGURE F.3 ILU DEMAND METHODOLOGY

Source: AJM JV

FIGURE F.4 RAC DEMAND METHODOLOGY

Source: AJM JV

AJM
Joint Venture

Appendix G

Peer review report

Suburban Rail Loop East Precinct Planning Peer Review of Housing Technical Report Clayton Station Precinct

14/02/2025

1.1 Scope of Peer Review

SGS Economics and Planning (SGS), led by Julian Szafraniec, have been engaged by White & Case together with Clayton Utz acting on behalf of the Suburban Rail Loop Authority (SRLA) to provide a peer review of the Clayton Housing Needs Assessment (Technical Report) for the purpose of informing the Structure Plan (SP) and draft planning scheme amendment (PSA) for the Clayton structure plan area (SPA).

SGS was first engaged in relation to this matter in early 2024, and through an iterative approach, has reviewed the housing and economic technical reports for all six SRL East precincts, along with the land use scenario and capacity assessment (LUSCA) report. This peer review report documents SGS' findings as they relate to the Technical Report (dated February 2025).

The peer review advice addresses:

- The appropriateness of the methodology used to translate assumed population projections (developed as part of the Business and Investment Case (BIC)) into various housing needs for the Clayton SPA, specifically for the purposes of informing the SP and draft PSA.
- Understanding if the results of the analysis have then been appropriately presented and suitable precinct recommendations have been developed to inform the SP and draft PSA.

The peer review does not consider:

- Broader macro and regional trends, alternative population growth forecasts for the SRL corridor or station precincts, or the appropriateness of earlier studies, such as the BIC.
- Other technical reports or matters, such as urban design, traffic and community infrastructure.
- The extent to which the recommendations from the Technical Report were ultimately used and implemented in the Clayton SP and draft PSA.

1.2 Summary of peer review

The remainder of this peer review document is structured as follows:

- Section 1.3 provides a summary and peer review of the appropriateness of the method used in the Technical Report for the purposes of informing the SP and draft PSA. This is consistent across all six precinct peer review reports as a consistent method was applied.
- Section 1.4 provides a peer review of the results and recommendations for Clayton SPA specifically.
- Section 1.5 provides final concluding remarks from the peer review of the Technical Report.

1.3 Appropriateness of methodology, assumptions and limitations

The Technical Report is split into four Parts, along with an Executive Summary and a set of Appendices. The same overall structure, and method, for determining housing needs within the SPA has been used consistently across all six SRL East precinct reports. In summary the structure is as follows:

- Executive Summary provides an overview of the analysis and recommendations in the report.
- Introduction (Section 1) details the scope, key definitions, key assumptions, limitations and how the report relates to other technical reports and the SP process.
- Parts A and B provide a summary of key regional and local policy and housing trends.
- Part C contains the core analysis work and details how population projections were translated into various housing needs for the SPA specifically.
- Part D provides results and recommendations specific to the SPA to inform the SP and draft PSA.

The advice contained within this section of the peer review report focuses on the appropriateness of the methodology used (primarily documented in Part C) along with key definitions, assumptions and limitations (largely summarised in Section 1 and the Appendices of the Technical Report). It also provides some high-level commentary related to the appropriateness of the contextual research contained in Parts A and B, while it should be noted these sections do not materially impact the recommendations of the work.

Key inputs and interactions with other background and technical reports

Given the scale of SRL, the evidence base to inform the SP process includes many technical and background reports which investigate specific issues and combine into an overall package.

A key input into the Technical Report is the 1600m catchment precinct population projections which were derived using CityPlan as part of the BIC (August 2021). This is clearly documented in Section 1.6 and in Appendix A of the Technical Report. How they have been used, limitations and uncertainty associated with those inputs are also clearly noted. This includes noting that these projections are strategic and should be considered indicative and that material events (i.e. COVID, 2021 Census) have occurred since their development.

The Technical Report also interacts with other technical reports, including directly inputting to LUSCA (which SGS has separately completed a peer review of) and the SP. The scope and interactions with these other technical reports and the SP has informed the approach taken in the Technical Report. These interactions and broader body of work are clearly documented at Section 1.7 of the Technical Report and have been considered as part of the peer review - rather than considering the Technical Report purely in isolation.

Appropriate specification and application of definitions

For the Technical Report to appropriately inform a SP process, it is critical that any analysis directly relates to the SPA and planning horizon in question. Further, any definitions should be clearly defined and consistently applied to ensure results can be interrogated and correctly used in subsequent work.

These definitional aspects are primarily documented in Section 1 and Appendix A.

- Geography: the Technical Report results and recommendations specifically relate to the whole SPA (summarised in Section 1.8 of the Technical Report). Various inputs consider alternative geographies, including a '1600m catchment' precinct definition, travel zones and Local Government Areas (LGA).

The report is clear on which geography is being used and why. In addition, a large feature of the methodology relates to translating the '1600m catchment' population forecasts from the BIC down to the SPA geography. This draws on small area audit data and other locational assumptions which mean the spatial allocation is more nuanced than a simple 'area' split. Spatial misalignment limitations, common in this type of analysis, are likely to still exist and are also noted in Appendix B.
Overall, I believe the analysis has appropriately considered the land uses differences of various geographies and the final results and recommendations sufficiently reflect the SPA geography, for the purposes of informing a SP process.

In addition, it should be noted the Technical Report includes no sub-precinct results, beyond high-level locational recommendations and opportunities in Section 11. While more spatially detailed analysis could often be contained within a Technical Report such as this, that analysis has been completed in the LUSCA and with input from other technical reports, such as Urban Design. When considered as a package of technical reports which inform the SP process, I believe this is an appropriate approach, but increases the importance of having clear definitions that are consistently applied across all technical reports.

- Time horizon: the Technical Report analysis considers housing needs out to 2041 (20 years from 2021 or 17 years from 2024). I believe this an appropriate planning horizon for SP purposes and is consistent with Planning Practice Note 90: Planning for Housing which identifies a need to plan for "at least a 15-year period".
- Population, housing and floorspace definitions: the Technical report adopts a very broad definition of population, housing and floorspace (see Section 1.5 and Appendix A):
  - 'Population' aligns with standard ABS definitions and includes all 'long-term residents' including those in private and non-private dwellings, such as aged care, hospitals or student dormitories.
  - 'Dwelling' also includes both private and non-private dwelling forms given the definitional and counting challenges associated with non-private dwelling forms (discussed in Appendix A of the Technical Report). This means the dwelling needs and associated floorspace requirements, include both standard private market housing (i.e. detached, townhouse and apartment dwellings) along with other non-private accommodation (i.e. social housing, aged care, student accommodation) - even when the analysis is summarising results by low, medium high density or bedroom numbers.
  - 'Floorspace' in square metres relates to Gross Building Area (GBA) within the Technical Report. This definition includes space for the dwellings plus other internal circulation spaces (i.e. hallways)

  The broad definition of a 'dwelling' used in the report could create some confusion for readers (i.e. they may not understand it captures a bed in a nursing home). However, g*iven housing operates on a continuum, discrete categories can* often overlap and can be difficult to define. The benefit of this approach to how a 'dwelling' is defined, is that the overall dwelling and floorspace requirements in the Technical Report capture the entire population and scale of need within the SPA, with various segmentations by density, type and, diversity all forming a subset of this overall need. For the purpose of informing a SP process, I believe this is appropriate, as it provides the high-level guidance but then leaves more nuanced accommodation matters to still be considered in greater detail through other technical reports (i.e. urban design) and/or at a later stage (post amendment) when individual developments progress and further detailed planning needs to be completed. This broad definition for a dwelling is explained sufficiently, but may still cause confusion if the report is used for other purposes or if the reader is not clear on these complexities around accommodation forms.

  Floorspace definitions are clearly documented in Appendix A and used consistently across all technical reports. It primarily relates to a 'private dwelling' interpretation of requirements and further work would be required to understand how it should be used in various non-private dwelling contexts.

Suitability of background policy and current state analysis

Given the SRL precincts exist within an established urban context, it is critical that there is some analysis of the broader context and current state of the precinct and the housing market. This contextual analysis helps establish the baseline trends and informs the plausibility of assumptions and recommendations.

Part A and B of the Technical Report includes this contextual analysis:

- Part A includes a review of all relevant policy documents and considers a range of macro-trends related to the housing market and the drivers of high-density development. The latter is based solely on Urbis Apartment Essentials data, but the implications drawn, when combined with the broader macro trends analysed in that section provide a clear understanding of the key drivers and implications.
- Part B includes analysis of a range of population and housing trends, including housing costs, affordability and development trends. This draws on a wide range of datasets and, while much of the analysis does not directly relate to the SPA specifically, it provides a valuable understanding of the key trends, issues and opportunities in the precinct and surrounding area.

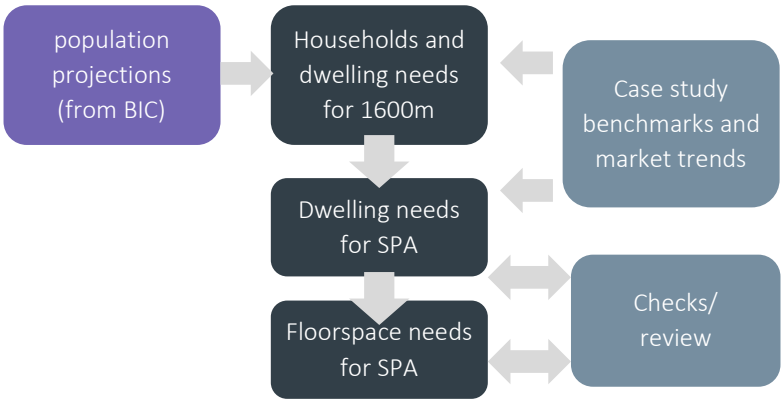
Overall, I believe these sections provide a sufficiently comprehensive summary of the key policy and housing trends that should be considered for a housing needs assessment and SP process as of December 2024. However, I would note that both the current policy and housing market contexts are rapidly evolving in Victoria. Given this, (and subject to the scale of any future (and unknown) changes) there may be a need to review and reconsider the implications from these sections, most likely post Amendment.

Estimating future housing requirements

The core purpose of the Technical Report is to estimate future housing needs in the SPA, to inform the LUSCA technical report and the SP process. The analysis should provide a clear connection between the current and planned population growth of the SPA and the associated housing requirements that should be planned for. To support this, the analysis will need to estimate the broad scale and type of housing that would be required, key locational factors and the ability for the market and current planning controls to deliver the change, or possible interventions/changes that might be implemented as part of the SP process (i.e. rezoning, policy guidance, government investment, etc).

Part C and Appendix E of the Technical Report details the methodology used to estimate housing needs for the SPA. This includes a number of steps required to both estimate housing needs and address various spatial and projections alignment challenges. A simplified version (created by SGS) is presented in Figure 1.

Figure 1: Simplified housing needs method



- **Population projections** for a 1600m catchment, from the BIC, form the basis of the housing needs analysis for each SRL station precinct. As with any projection, these have a number of limitations which are noted in Appendix B and the original BIC technical reports. In general, compared to previous and existing base forecasts, they reflect a higher (full realisation of SRL project) scenario, which in general is an appropriate scenario type on which to base a SP process. No alternative/ updated population scenarios have been considered in the Technical Report and the appropriateness (or otherwise) of these projections is beyond the scope of this peer review.
- **A Case Study** based approach is applied to shift household formation and dwelling preference trends and determine the overall housing requirements for the 1600m catchment population. There are a range of suitable ways to complete this type of analysis for a SP process, including this case study based approach. The advantage of this approach is that it will be grounded in 'real-world' examples, but it will also depend on the appropriateness of the case studies selected. Overall, the case study selection approach is robust and comprehensive, considering the same geographic extent (i.e. 1600m catchment) and a wide range of comparator metrics. While not fundamental, no Melbourne comparator locations were considered. This is discussed in Section 7.1.1 of the Technical Report and I do not believe applying different case studies would materially change the results. Overall, no case study is a perfect fit and I believe the case studies selected are appropriate for the SRL precinct and have been appropriately used in this stage of the analysis.

  Given the SRL precinct is a well-established urban location, there will need to be consideration of how new development will be required to displace existing development (i.e. a detached house may be removed to enable a set of townhouses to be built). Estimating this **displacement factor** is important to determine the 'net' additional housing and can also reflect the rate of change or disruption that a local area might experience. The displacement factor is detailed in Appendix E and Table E.2. It varies by dwelling type and has been based on general housing trends in the precinct. Within the Technical Report, and stage of the analysis, I would consider this displacement factor as indicative only, but still useful and sufficiently accurate. Ideally the displacement rate would consider sub-precinct development planning and capacity, which would further inform the rate of change (i.e. displacement) that is needed in various locations. However, that work is completed in the LUSCA report which is informed by the Technical Report and other technical reports (i.e. Urban Design). While all this analysis could have been included within the Technical Report, given the overall package of technical reports, I believe the approached used is still appropriate for informing the SP process.
- Dwelling needs by type (i.e. low, medium, high) are then **allocated to the SPA** specifically based on the existing split, with some adjustments based on housing market and policy preferences. This is discussed in Appendix E and Table E.1. In general, this distributes more of the future housing growth into the SPA - than has historically occurred. The shift in dwelling needs, to more dense forms, also contributes to growth being more centrally allocated. Conceptually, this is an appropriate approach which is grounded in existing housing development trends and planning policy. However, adjustments are still somewhat subjective. Where past trends are expected to dramatically shift, this subjective judgement becomes more material. However, without detailed analysis (similar to what has been completed within the SPA) for the areas outside the SPA, it is difficult to avoid this limitation. Ultimately, I believe the approach has sort to address these inherent trade offs as much as possible and the appropriateness of the adjusted spatial allocation proportion should be considered when reviewing the results (see Section 1.4)
- The resulting housing needs for the SPA are then **tested against a series of market** based questions which are used to both validate the results and inform the Technical Report recommendations around where policy and planning interventions are required. This is an important step that improves the robustness of the final results and recommendations.

- Finally, housing needs by dwelling type and number of bedrooms are translated into floorspace requirements in Part D – Section 10 of the Technical Report. This is based on a series of household size and floorspace benchmark assumptions derived from Urbis Apartment Essential and RP Data, which are detailed in Appendix E. Overall, these assumptions are within typical dwelling size ranges and the segmentation approach is appropriate. A further factor is applied to convert the internal dwelling floorspace into a GBA. This varies for low and medium/high density. There is limited data analysis or justification for these factors, however they are within a reasonable and appropriate range.

Housing diversity requirements

It is important that the housing needs assessment identifies the needs of diverse and vulnerable groups to inform the SP process, so that it can ensure they are sufficiently considered and identified.

Within the Technical Report housing diversity is considered as a subset of the total housing need previously estimated. This is considered in Section 9 which assesses future demand for housing tailored to specific community needs including social and affordable, key worker, student, aged care and retirement living.

For each of these community segments, a high-level trend and benchmarking based approach (see Appendix F) has been applied to gain an understanding of the scale of need that should be planned for.

- For social and affordable housing, the analysis has captured people currently experiencing homelessness, those currently in social housing and analysis of housing costs/income to determine households in housing stress and in need of social or affordable housing.
- For key workers a definition of key worker occupations by broad industry has been developed, consideration of incomes and place of residences has been used to determine the number of key workers that should be planned for.
- For student accommodation and aged care various benchmarks have been applied to enrolment and people over 65+ to determine the scale of requirements.

While these approaches are somewhat high level and only provide generalised demand estimates for each segment, I believe they are appropriate for this current stage of SP process. They should inform the scale and general nature of need that should be considered across these diverse community groups and signal what further detailed analysis should be completed at a later stage of implementation - post-amendment. This more detailed analysis might include consultation and further analysis of users/providers and further detail into sites/facilities, appropriate funding and deliver mechanisms.

1.4 Clayton SPA analysis findings and recommendations

The following section considers how the method was applied to Clayton SPA specifically and provides a review of the results and recommendations that have been developed.

Population projections and spatial allocation

The following considers how population growth compares across various geographies using data in Table 8.1 of the Technical Report. As of 2021 the SPA represents 63 per cent of the 1600m catchment dwellings. The applied method results in the SPA capturing 71 per cent of population growth (and a similar share of dwellings), which sees the overall share of population increase to 66 per cent by 2041.

Given the 1600m population projection, this allocation of population (and dwelling) growth in the SPA seems reasonable and broadly inline with past trends and the expected policy and market shifts from SRL.

Table 1: Population projection by geography, 2021-41

	Projected Population (no.)		Change (no.)
	2021	2041	2021-2041
Structure Plan Area	14,200	26,900	12,700
SPA as share of 1600m Catchment	63%	66%	71%
1600m Radius Area	22,500	40,500	18,000
South East Region	1,614,900	1,991,900	377,000
Greater Melbourne	4,975,300	7,087,100	2,111,800

Source: Derived from Table 8.1 of the Housing Needs Assessment, AJM, Feb 2025

Population and dwelling by type

The analysis indicates Clayton will need to plan for 26,900 people within the SPA by 2041 and this will require 5,590 net additional dwellings (representing 511,200 square metres of GBA floorspace) to be accommodated within the SPA. The majority of this additional residential floorspace will be high and medium-density dwellings, with a small net reduction of low-density dwellings within the SPA.

The following two tables present some additional statistics that I have prepared based on the results in Table 8.3 of the Technical Report, which assisted my review. Table 2 estimates the resulting household size (i.e. average people per occupied dwelling) by comparing population to dwellings and accounting for 5 per cent vacancy rate. Table 3 then estimates a resulting average dwelling size by comparing the total floorspace to the number of dwellings.

This additional analysis highlights that across Clayton SPA, there is a slight increase in household size for all dwelling types over the planning horizon. This rate of change is within plausible levels, but will still need to be supported through some pro-active policy initiatives in the SP and draft PSA. Appropriately, this is also identified directly in Recommendation 4 of Section 11, and would be supported by other recommendations including Recommendation 5 and 6 which encourage adequate supporting infrastructure and amenities and greater diversity of development types.

Table 2: Average household size by dwelling type, 2021-41

	2021	2041	2021-41 change (#)	2021-41 change (%)
Low-density	2.7	3.0	0.3	10%
Medium-density	2.4	2.6	0.2	7%
High-density	2.0	2.2	0.1	7%
Total dwellings	2.5	2.4	0.0	-2%

Source: Derived from Table 8.3 of the Housing Needs Assessment, AJM, Feb 2025

In addition, Table 3, presents the average resulting floorspace size by dwelling type. This shows more modest shifts in the dwelling sizes by dwelling types. The average size of low and higher density dwellings has increased, appropriately reflecting that need to accommodate larger household sizes. Given the shift towards more high-density dwellings, the average of total floorspace compared to total dwellings has decreased.

Table 3: Average floorspace ratios by dwelling type, 2021-41

SQM floorspace per dwelling	2021	2041	2021-41 change (#)	2021-41 change (%)
Low-density	295.5	296.0	0.4	0%
Medium-density	172.1	167.8	-4.3	-3%
High-density	99.6	102.4	2.8	3%
Total dwellings	212.3	154.1	-58.2	-27%

Source: Derived from Table 8.3 of the Housing Needs Assessment, AJM, Feb 2025

Overall, while the dwelling and floorspace requirements for Clayton present just one possible future scenario and do assume a shift in existing market trends, I believe they still present a plausible and appropriate scale and form of housing development to inform the SP and draft PSA process.

Review of recommendations proposed by Technical Report

Section 11 of the Technical report includes 13 Recommendations to inform the development of the SP and draft PSA. These recommendations cover the scale of housing need required, the need to plan for different types of housing (including sizes, forms, social/affordable, key worker, student and aged care) and the importance of providing open space, community facilities and other amenities to support this growth in housing and population. I believe these recommendations are appropriately evidenced via the analysis and cover the range of issues that the SP process should seek to address from a housing needs perspective.

In addition, the recommendations consider the preferred location for housing within the SPA. This includes a focus on higher density in the core and seek to leverage opportunities from major strategic sites, such as the PMP Printing site. In general, these locational recommendations are appropriate but will need to be balanced alongside recommendations made in other technical reports as part of the SP process.

1.5 Concluding comments of peer review

Overall, I believe, the final Technical Report's approach, findings and recommendations are an appropriate evidence base to inform the Clayton SP and draft PSA.

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