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Knox Central: Land Use, Economic & Property Analysis

Consolidated Report v4

Prepared for
Knox City Council
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Summary

Objective

This report provides an assessment of the economic, property and land use trends affecting Knox Central Activity Centre (Knox Central). It includes modelling of land use demand and land capacity in the activity centre. This report's primary purpose is to inform the preparation of a Structure Plan for Knox Central.

Retail

Key Findings:

- Over the coming decades, modest population and disposable income growth is expected in the primary catchment, and larger eastern sub-region.
- There is an increasingly competitive retailing environment in the eastern sub-region. This is primarily through the expansion of Eastland at Ringwood and Knox Central may be less competitive following the completion of this development. The inclusion of David Jones in the Ringwood development, coupled with significant investment in entertainment and hospitality options, will significantly increase variety available at Ringwood. Knox Central is currently positioned very strongly when compared to Ringwood, however planned expansions at Ringwood will make them more similarly attractive to consumers (even with the Stage 1 expansion plans at Westfield Knox).
- Long-term trends such as automation, home delivery, and omni-channel¹ retailing will reduce the labour intensiveness of retail and it is unlikely it will be a major employment generator at Knox Central over the next few decades. The real value of retail expansion comes from other activities that may be attracted around a high-amenity retail location – such as entertainment and hospitality, high value industry², and residential development.
- Distinctive experiences at Knox Central, particularly the natural environment and mixed use setting, are, perhaps, underutilised in existing retailing and the first stage of the proposed Westfield redevelopment.
- Land use demand modelling suggests that between 30,000 and 70,000 of additional retail floor space is required by 2035. This figure is inclusive of hospitality and entertainment uses (more detailed discussion of this sector is provided below). The Westfield Knox stage 1 redevelopment will add 45,000sqm of retail space in the activity centre. Following this redevelopment there will be up to 25,000sqm of unfulfilled retail floor space demand.

¹ Omni-channel retailing refers to the convergence of offline and online retailing. It incorporates trends such as home delivery, browsing in store before ordering online (show rooming), and online-offline comparison-shopping.

² Those industries that are likely to require high skilled and high paid employees, and which are generally more resilient to automation trends amongst industry.



- The land supply capacity for retail floor space in Knox Central is expected to be at least 42,000 sqm by 2035. This supply should easily respond to demand for retail space.

Implications for Structure Plan:

- No more than 25,000sqm of retail floor space needs to be made available across the centre over the coming two decades (in addition to the first stage of the Westfield redevelopment). There is a need to consider whether this figure might be accommodated outside of the existing Westfield Knox site, or if future demand is encouraged to be included in Stage 2 of the Westfield redevelopment.
- Promote a greater diversity and independence of retailing at Knox Central would increase the centre's competitiveness in the longer term. This would include independent shops or restaurants located outside of Westfield Knox. This will allow the centre to better compete with other regional centres in the face of changing consumer preferences and a desire for varied, urban style experiences in activity centres.
- Knox City Council should consider whether there is a desire for accommodating bulky goods/large format retailing along Burwood Highway, and options for this accommodation.
- Knox City Council needs to determine when the non-compete agreement between Westfield and Coles is set to expire. If this will occur after the proposed Westfield redevelopment, then Council needs to consider accommodating alternative supermarkets (e.g. Woolworths, Aldi) outside Westfield to overcome current competitive issues, and then explore options for this accommodation.
- A distinctive experience at Knox Central should be promoted to differentiate it from other major activity centres in the eastern region. Promoting the interface between retail activity and the natural amenity in the area (Blind Creek, Lewis Park) and outdoor spaces is one avenue. The second stage of the Westfield redevelopment provides an opportunity to encourage these outcomes.

Entertainment and Hospitality

Key Findings:

- Knox Central services a very large entertainment and hospitality catchment, extending up to 35 minutes away. The current mix of options at Knox Central is strong and competes successfully with regional centres at Ringwood, Glen Waverley, Dandenong, and Fountain Gate. However, competition is likely to increase substantially with the imminent development of more leisure based retail and hospitality options at Ringwood.



- Like retail, there is a concern about the impact of a single owner and manager of the vast majority of entertainment and hospitality offering at Knox Central. Quickly shifting consumer expectations, and a market desire for urban style smaller, organic and diverse offerings may reduce the competitiveness of Knox Central.
- The general outlook for both demand and employment in the entertainment and hospitality sector is strong. Growing consumer desires for 'experience purchases', and the labour intensiveness of the sector drives this.
- In terms of land use demand, entertainment and hospitality uses are included in retail floor space estimates (see earlier commentary). It is likely that food and beverage services (restaurants and cafes) will account for a major component of the expected increase in retail land use demand at Knox Central.

Implications for Structure Plan:

- Structure planning should consider how the parkland and creek amenity and outdoor spaces available at Knox Central could be leveraged. Any development along the creek corridor/parkland may seek to promote entertainment and hospitality businesses at a ground floor level. A good reference point is new office and residential developments adjoining the Parramatta River in Parramatta, Sydney.
- Encourage entertainment and hospitality businesses to develop outside of the Westfield site is important. This will help to diversify the offering and ownership in this sector, making it more resilient to shifts in consumer desires.
- Knox City Council should consider using a Performing Arts Centre (PAC) as a catalyst development. A PAC will help to unlock complementary businesses and community groups - restaurants, bars, accommodation, arts groups, for example. A PAC would help promote more premium entertainment and hospitality options in the centre. It could also be the catalyst for more diverse ownership and management of entertainment and hospitality premises throughout the precinct. Council should use the Structure Planning process, including considering how it uses its land holdings, to promote this greater diversity of ownership.
- Promote spaces that could be used for restaurant and café businesses on the ground floor of higher density residential buildings. This is one means to build a greater diversity in the local hospitality offering.

Professional Services and Office Space

Key Findings:

- Knox Central does not play a significant regional role in professional, technical, and financial services. The labour catchment of Knox Central is primary local, reinforcing this point. Professional 'white collar' jobs that require office space are increasingly being 'reurbanised' – with significant growth in these sectors in the inner city, and little growth in established, outer urban areas.



- There is not expected to be a significant increase in demand for office space within Knox Central over all time periods. The only exception would be if there is a significant shift toward a regional role for Knox Central. This might be driven by a substantial investment in public transport infrastructure (connecting to other locations in the region) or a regionally significant business park type development.
- Vacancy rates across a mix of office space categories in the study area are high. The quality of some office stock may be a barrier to market uptake.
- Knox Central will require between 5,000 and 17,000 sqm of additional office space over the next two decades. The higher figure presumes that Knox Central will play a more significant service role within the region than it currently holds, and will attract professional, technical and financial workers from beyond the local catchment area.
- There is potential supply of at least 64,000sqm of office space across the Activity Centre by 2035. This supply would easily absorb expected increase in demand for office space.

Implications for Structure Plan:

- There is a need to provide up to 17,000sqm of additional office space, presuming that Knox Central will play a more significant role within the region's professional services market. It is unlikely that substantial office space for professional services will require development in Knox Central without a fundamental economic shift (in regional status, or local skills levels). This may impact the viability of some land uses/development models proposed in the initial UDF (e.g. mixed use buildings, or standalone office buildings).
- If the Structure Plan seeks to facilitate a more regional office role, and achieve an additional 17,000sqm of space, it will need to consider how it might compete with other centres in the outer eastern region, potentially through a number of mechanisms such as:
 1. Promote high profile and quality office locations which are needed especially when office development begins in order to further develop the 'office focused branding' of Knox Central.
 2. Consider a strategy to transition existing industrial uses to office uses as the demand for office space becomes larger. This may require the creation of sub-precincts where land and infrastructure is packaged together in order to target niche market segments (e.g. technology firms).
 3. Offer a variety of amenities including speciality stores, cafés, restaurants, banking facilities and car parking.
 4. Invest in marketing or branding to promote Knox Central as an office location.
 5. Consider whether a business park or similar could be facilitated within the centre.



Health & Social Services

Key Findings:

- Healthcare is a key employment driver in the eastern region across the long term. There is currently a very limited healthcare role at Knox Central. There are a number of smaller medical services – such as general practitioners, orthodontists, and physiotherapy.
- The Wantirna Health Precinct, located around 10 minutes from Knox Central will capture the majority of employment and floor space growth in this sector over the long term. The Precinct is a State significant health precinct in Plan Melbourne. It will be the focus of both state and private investment in the health sector over this period. Given dominance of the precinct in the health and social services sector, it is important to consider how it complements the offering at Knox Central in other sectors.
- Land demand and supply relevant to the health industry is captured within the modelling, and discussion of office space demand and supply within Knox Central (see earlier commentary).

Implications for Structure Plan:

- The Structure Plan needs to consider how the Wantirna Health Precinct and Knox Central can work as a two complementary centres, or essentially work as a single extended centre.
- The Structure Plan needs to consider the demand for accommodation, conference and other uses at Knox Central in the context of industry and growth at Wantirna Health Precinct.
- Planning should discourage the fragmentation of a regional level hospitality, entertainment and accommodation offering between the two centres.
- Knox City Council should advocate for increases in the frequency and efficiency of bus services between the two centres.
- Knox City Council should plan for enhanced cycling links between the two centres.
- Knox City Council should consider how the two centres might be promoted together through industry attraction, and lifestyle marketing programs or branding.
- Knox City Council should clarify the preferred location for aged care and retirement living.
- Knox City Council should promote industry connections between medical and pharmaceutically aligned businesses around Lewis Road and health services and health education at the Health Precinct.



- Knox City Council should promote industry connections between aged care and retirement living at Knox Central and the health services, research and education at Wantirna Health Precinct.

Aged Care & Seniors Living

Key Findings:

- Retirement and aged care represent key market opportunities for Knox Central with demand being driven by an ageing population in Knox and nearby municipalities; and proximity/access to a range of facilities and services.
- The accessibility of Knox Central from a large regional area due to good road transport infrastructure (although the lack of public transport is a disadvantage) also will stimulate locational demand. This is important as Australians tend to prefer to 'age in place' and/or in their local area. Generally, older Australians tend to prefer to be within (around) 20 kilometres from friends and family.³
- The outer east location of Knox Central offers various benefits including proximity to Dandenong Ranges (and other natural assets) and superior views from facilities.
- Land use demand and capacity analysis for seniors living is included in the residential analysis.

Implications for Structure Plan:

- Consider planning for potential locations of retirement / aged care facilities (e.g. by nominating a precinct and/or site to accommodate future facilities as part of master planning processes).
- Provide for sufficient flexibility in the planning process to allow the growth and evolution of facilities. For example, the co-location of aged care and retirement living facilities is now common to allow residents to 'age in place' in the same location.
- Plan for the integration of aged care and residential facilities into Knox Central so that the lifestyle elements and advantages are protected and enhanced. This is because retirement living, especially, is also increasingly a 'lifestyle' choice and aged care facilities are increasingly of a higher quality providing a range of services and facilities.
- Plan for aged care and retirement facilities of different sizes and formats. This may include low-rise facilities or vertical/multi-storey facilities. It is noted, however, that although vertical aged care and retirement products are less common in Melbourne's middle suburbs, with low rise broadacre villages being more prevalent, Villa Maria and Arcare Knox are both vertical developments and have set a precedent for this type of facility in the area. Although there is a lack of information on the extent to which vertical villages are meeting the needs of residents/consumer,

³ For example, a survey of purchasers who have recently bought in a retirement village found that 37% moved more than 20 kilometres and 22% moved more than 50 kilometres (source: McCrindle Baynes Villages Census Report 2013);



partly because this type of development is relatively new, vertical villages are an innovation being rolled out both in Australia and internationally (e.g. Hogeweyk, Amsterdam; Mercy Place, Parkville; and Rathdowne Place Aged Care).

Industry

Key Findings:

- Knox Central is one of the only substantial activity centres in metropolitan Melbourne with a large quantity of industrial land available. Knox Central has a statistically significant manufacturing and wholesaling presence, when compared to other activity centres in Melbourne's east.
- This creates an opportunity to target high value industry that is attracted to high amenity locations. Creek and parkland access, and street trees in the area also promote amenity benefits in the Lewis Road area.
- There are some existing clusters of businesses around the Lewis Road area, with differing levels of value add and industrial complexity. These include furniture and floor covering manufacturing and wholesaling; medical, scientific equipment and pharmaceutical manufacturing and laboratories; automobile repair services; and construction businesses.
- There is expected to be no growth in industrial land demand over the coming decades. The demand modelling suggests negative demand over the period of next twenty years. The analysis of land supply suggests there is an opportunity to intensify some of the existing industry in the Lewis Road area, however, the lack of demand suggests there is little benefit from intensification.
- Opportunities exist to build demand, through growing existing clusters, and focusing on higher value industries. However, overall, new employment generated in strong industries will be offset by expected employment declines in other industries. Promoting business park type development that accommodates a mix of office and higher amenity manufacturing/warehousing should be considered. There are a number of large, strategic sites that might accommodate such development.

Implications for Structure Plan:

- Knox City Council could identify potential specialisations in the Lewis Road industrial area, and promote these specialisations/clusters to potential investors and developers (including through the Structure Plan). This might include identifying the types of industry that could be discouraged from locating in the area, and which may be better suited in other locations (e.g. Bayswater and Scoresby/Rowville). Holistic strategic planning for all industrial and business precincts across the City of Knox, or the wider outer eastern region, would help to coordinate the best location for different industry types.
- Amenity conflicts between lower amenity uses (e.g. panel beaters) and a desire for higher amenity and higher value industry (e.g. scientific laboratories) should be



resolved. Mechanisms to promote this might include buffer treatments, landscaping, locational choices or zoning.

- The redevelopment of lower quality, vacant stock in the Lewis Road (that is often mismatched with market desires) should be encouraged.
- Consider Council's role (if any) in the consolidation of strategic parcels of land to help shift toward higher value uses in the area.
- Identify strategic sites that might be candidates for business park style development that can accommodate a mix of office and higher amenity industry.⁴ These would generally be larger sites, those with strong consolidation potential, and those with good amenity. Council may play a role in facilitating such development on this land through promotion, consolidation, joint ventures or incentives.
- Promote amenity throughout the Lewis Road area through street scaping and links to Westfield Knox and Blind Creek.⁵

Residential Development

Key Findings:

- There is robust demand for higher density (medium and high density) residential dwellings on the site. Key target markets include:
 - Couple only households (e.g. empty nesters who might use extra bedrooms as a study, for guests or storage);
 - Younger households / persons (e.g. looking to stay in the area);
 - Lone person households (e.g. professionals); and
 - Households / persons who are working in the local/regional area.
- A variety of housing products may be required and, depending on the product, feasible, including:
 - Townhouses / villa units (and other similar one and two storeys attached and semi-detached dwelling types). Demand for townhouses can be considered as 'uncapped' – the main barriers to development of townhouse stock will be supply side factors (land economics and lack of available supply). There is capacity for up to 630 townhouses across the Activity Centre, primarily on the DPI site.
 - Apartments (three plus storeys). There is expected to be demand for up to 2,400 additional apartments across Knox Central by 2035. There is expected to be sufficient land to supply for at least 4,000 apartments in the Activity Centre by 2035, easily fulfilling demand.

⁴ Given expectation of moderate increase in office demand, and decrease in industry floor space demand.

⁵ SouthWest Business Park (Logan, QLD) and Norwest Business Park (NSW) both provide examples of high amenity business parks with strong environmental features (green space, landscaping, water features).



Implications for Structure Plan:

- Knox City Council should intensify land use, while also ensuring that a broad range of dwelling types are provided which meets current market demand at the time of development.
- The focus should be on medium density housing stock with some provision for apartments in the initial stages of residential development.
- The focus on high-density development should occur in the latter stages of development. By 2035, there is expected to be demand for up to 2,400 additional apartments in the activity centre.
- A variety of precincts / locations would be suitable for residential development. These include:
 1. Eastern side of the activity centre facing the existing residential stock opposite on Scoresby Road;
 2. North western segment of the activity centre in close proximity to the shopping centre;
 3. Areas on the southern side of Burwood Highway.
 4. Areas at the eastern end of the Westfield Knox, and
 5. Areas on the northern edge of Burwood Highway (these areas are of secondary suitability and would only work if there was insufficient capacity in other areas, or if there was possibility for wholesale transition of existing land use toward residential use in this area, rather than incremental transition).

Analysis of Knox Central 2005 Urban Design Framework

The final section of this report provides an analysis of key inclusions of the 2005 Knox Central Urban Design Framework (UDF) that should be revisited, based on analysis within this report. A number of recommendations are made regarding the broad direction/focus of the Structure Plan, and how it could differ from the 2005 UDF (these are reflected in other parts of this summary). Specific recommendations are also made about some individual sites or precincts identified in the 2005 UDF.

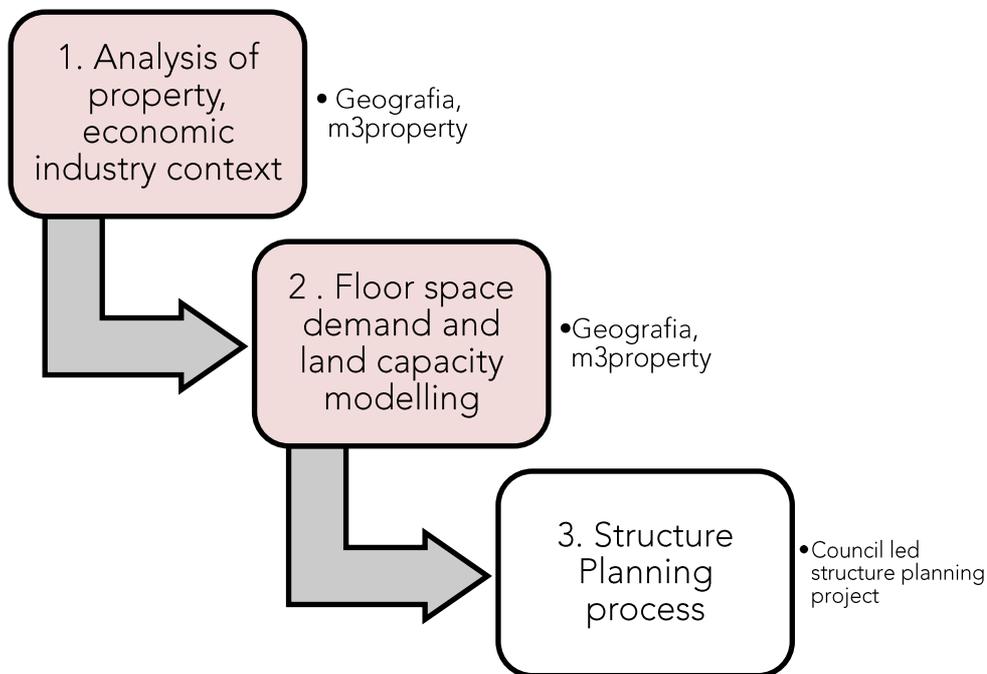


1 Introduction

Background

This report provides an assessment of the economic, property and land use trends affecting Knox Central Activity Centre. It includes modelling land use demand and land capacity in the activity centre. This report's primary purpose is to inform the preparation of a Structure Plan for Knox Central. Knox City Council will be leading the preparation of a structure plan for the area in months following this report.

Figure 1 Analysis stages and approach



An adapted investment logic mapping (ILM) session was held with Council officers to help understand the background to this study. ILM processes help to articulate the issues, problems or impetus for economic studies such as this. The ILM session determined that there are three key factors that together create the impetus for this study:

1. Knox Central's evolving role is unclear, which is putting Knox's premier activity centre at risk.
2. Council's current mix of strategies may no longer provide sufficient investment guidance and the right incentives to ensure Knox Central's prosperity.



3. There is a limited evidence-base for long-term planning of Knox Central.

This study will help respond to these issues by providing clear advice about the current economic and property context affecting Knox Central, with a view toward establishing an evidence base for the preparation of a Knox Central Structure Plan. The study area for this analysis is provided at Figure 2.

Knox Central Urban Design Framework (2005)

An Urban Design Framework (UDF) was previously prepared for Knox Central and approved by Council in 2005. Major elements of the Urban Design Framework include:

- Intensification of activity throughout the Structure Plan area.
- Diversification of activity – with a focus on residential and employment.
- Consolidating the civic and local government role of the centre.
- Expanding retail offering at Knox Central.
- Focusing development on the creek corridor and parkland to take advantage of the natural environment.
- Redeveloping state government (Department of Environment and Primary Industries) held land.
- Increasing connectivity within the centre.
- Promoting environmental sustainability within the centre.

Substantial Changes Since 2005

There have been a number of significant infrastructure and property changes within and around Knox Central since the preparation of the UDF in 2005. These include:

- The opening of Eastlink, significantly increasing accessibility between Knox Central and other eastern suburbs.
- The purchase of 50% of Knox Shopping Centre by Westfield in 2012. The owners plan a substantial expansion for the Centre, which has received Council approval (Stage 1).
- The development of new high-density residential, aged care and a hotel.
- Existing and expected major investment at Ringwood and Glen Waverley shopping centres.
- The closure of Myer at Dandenong Plaza.
- The expected development of surplus State Government land (Department of Environment and Primary Industries) within the centre in the short to medium term.



Changes to the economic and demographic profile of Knox Central, its catchment, economic trends, and metropolitan planning structure are detailed in later chapters of this report.



Figure2 Knox Central (Structure Plan Study Area)



2 Activity Centre Profile

Land Use Survey

Geografia undertook a land use survey of all premises and businesses within the activity centre. The survey provides up to date data on the types of businesses, vacancy rates and building conditions. The results were coded according to Australian and New Zealand Standard Industry Classification (ANZSIC) and shown at Figure 3 / Figure 4 (ANZSIC level 1), and Figure 5 / Figure 6 (ANZSIC level 3).

Figure 3 Business mix in Knox Central (excluding Westfield), ANZSIC1 level (number of businesses)

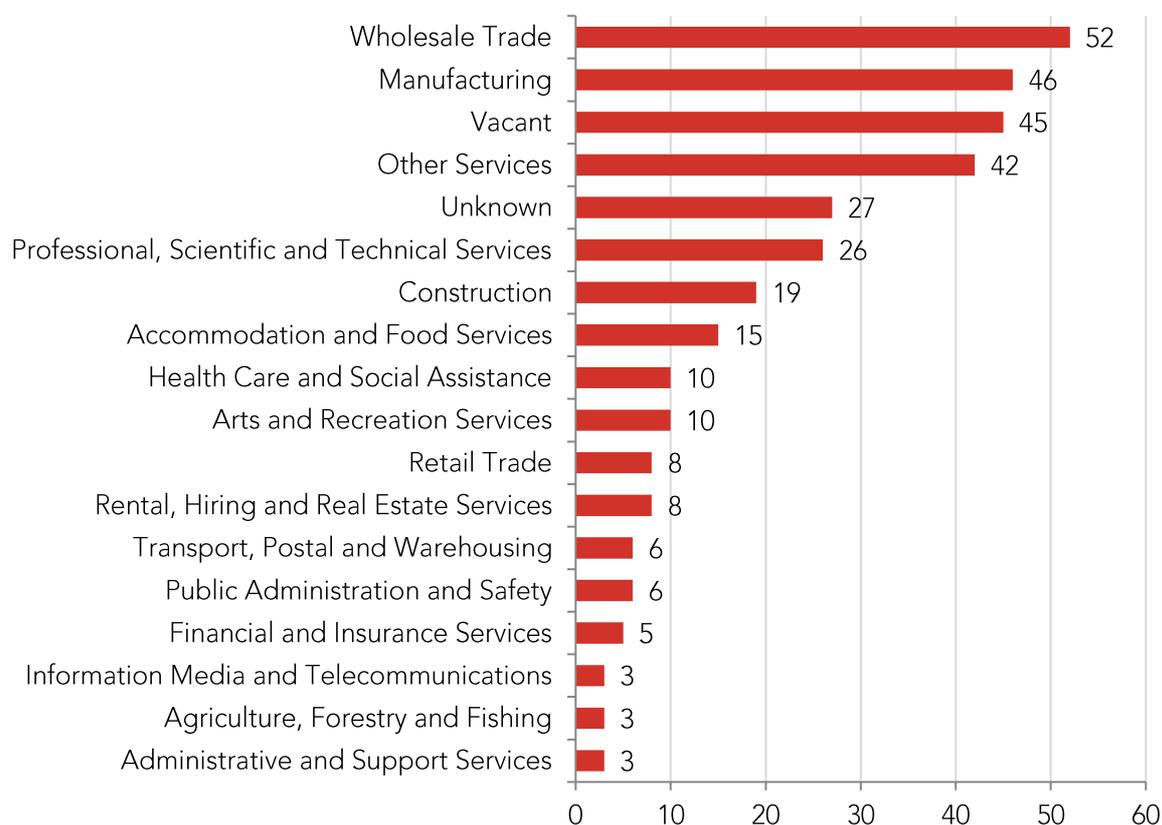


Figure 4 Business mix in Knox Central (including Westfield), ANZSIC1 level (number of businesses)



Figure 5 Business mix in Knox Central (excluding Westfield), ANZSIC3 level (number of businesses)

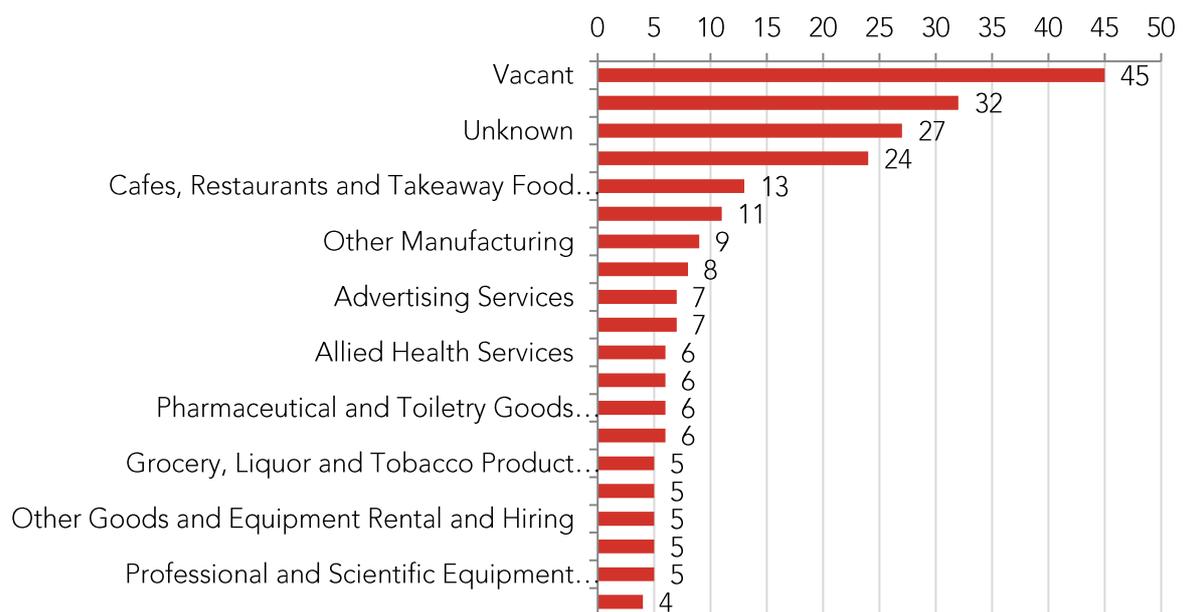
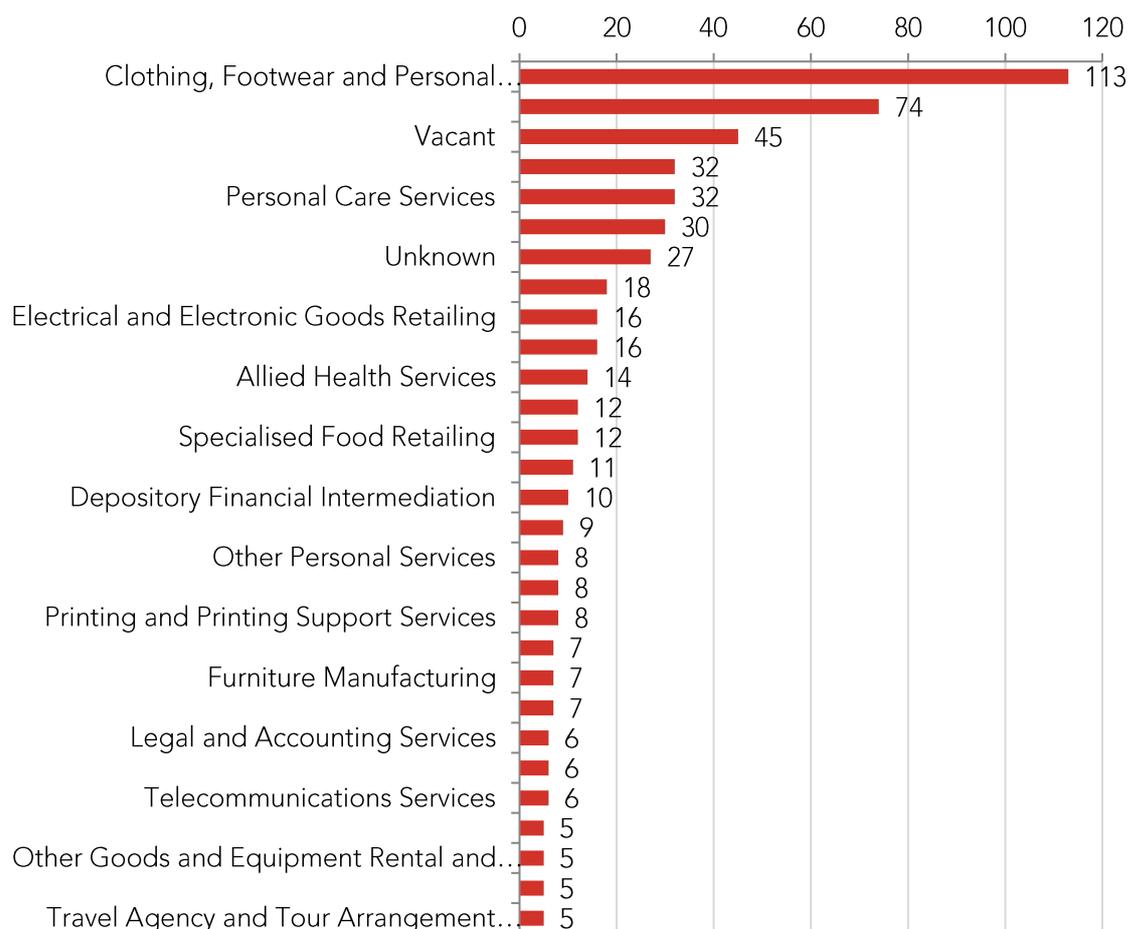


Figure 6 Business mix in Knox Central (including Westfield), ANZSIC3 level (number of businesses)



Industry Profile, 2011 Census

The 2011 Census also provides an insight into the type of employment generated in Knox Central. For this analysis, five relevant destination zones that best fit the activity centre have been used for analysis (Zones 212542394, 212522381, 212602401, 212602403 and 212602405).

Figure 7 shows the breakdown of jobs in the centre by industry at ANZSIC 1 level. This is compared to the average job profile across other major, eastern region activity centres. It reveals the dominance of retail and public administration activity in Knox Central, but also the activity centre's unique position within the region, having a statistically significant manufacturing and wholesaling presence.



Figure 7 Total employment by industry, Knox Central (including Westfield) and other eastern activity centres (ABS, 2011)⁶

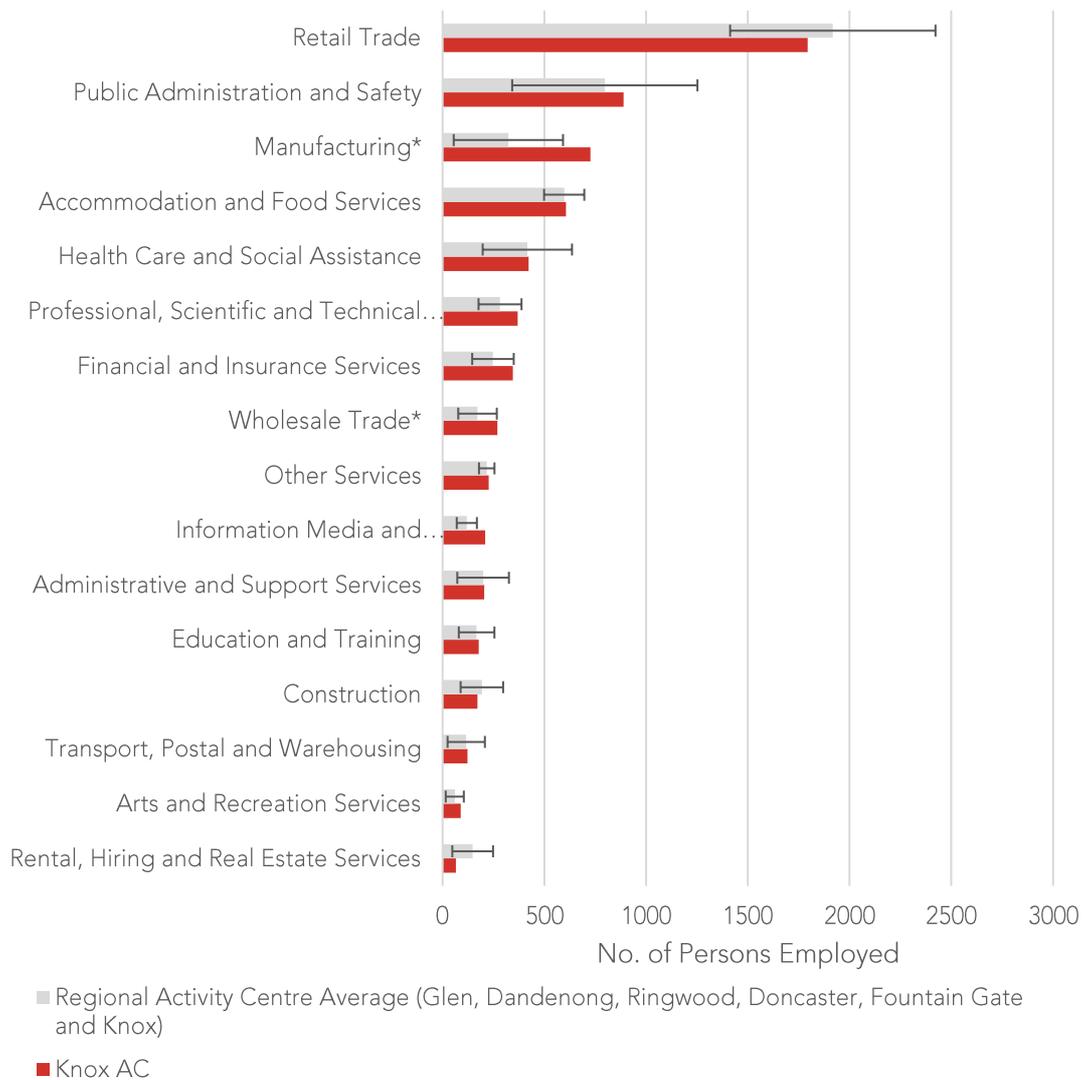
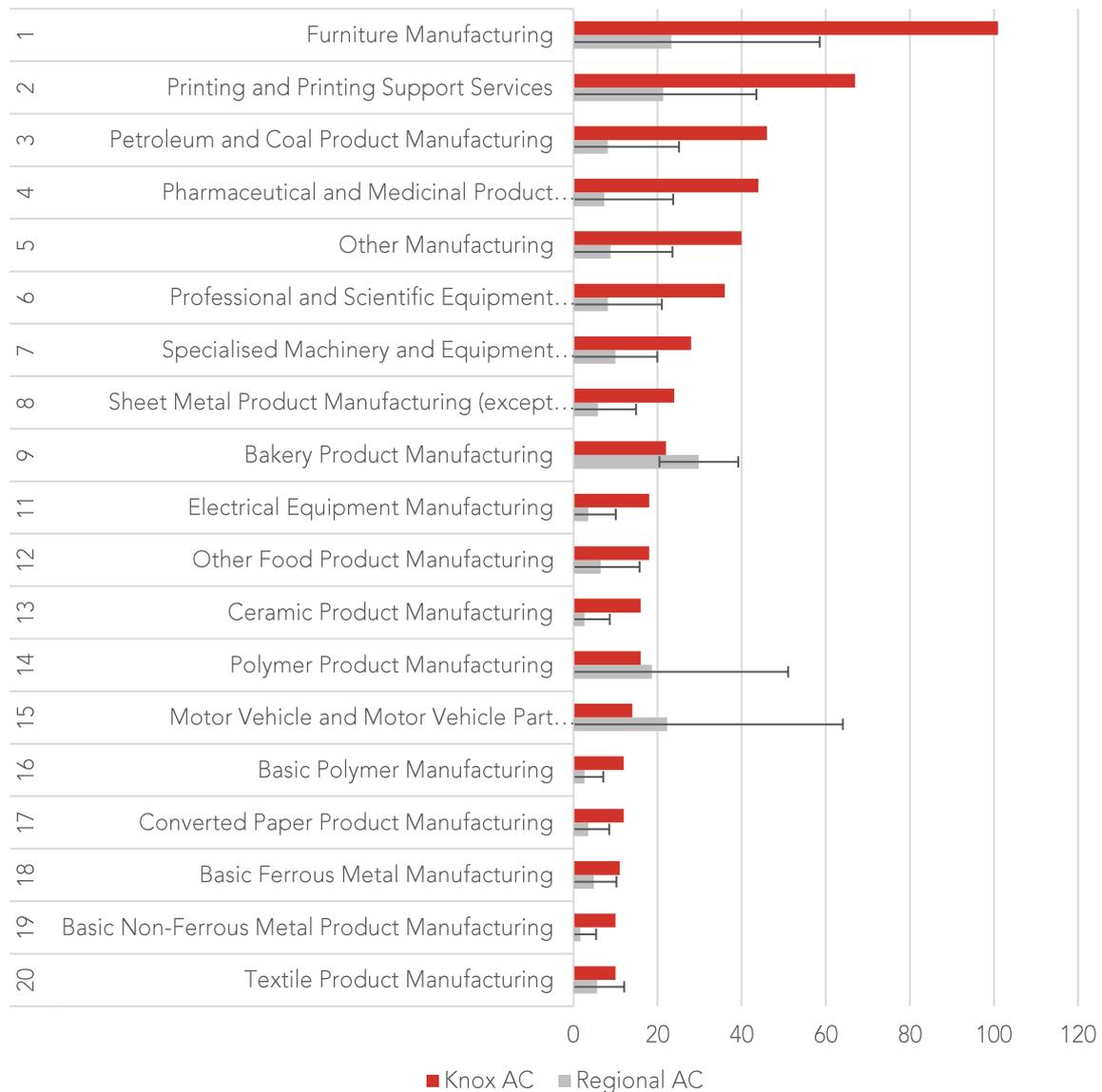


Figure 8 provides more detailed analysis of the manufacturing employment in the centre. Again, this is compared to average levels across other activity centres in the region.

⁶ Asterisks represent statistically significant differences between Knox Central and regional centre averages. Statistical significance is used to understand when Knox Central has a particularly high presence of an industry. In essence, it is a statistical test to determine the scale of the difference between Knox and other centres. 90% confidence intervals were used to determine the statistical significance. Bar chart whiskers represent the confidence intervals around the regional activity centre average. If Knox Central exceeds these whiskers, then it is considered as statistically significant.



Figure 8 Manufacturing breakdown ANZSIC3, Knox Central and other eastern activity centres (ABS, 2011)⁷



Existing Clusters

The results from the both the land use study and ABS data suggest a number of industry clusters in the area:

1. **Retailing, entertainment and hospitality:** centred on the Knox Westfield Shopping Centre.

⁷ Bar chart whiskers represent 90% confidence intervals around regional centre averages.



2. **Car related services:** auto-repair, panel beating, auto electrical services. These businesses are likely to be strongly connected to each other through supply chains and customer referrals. They are located primarily within the Lewis Road industrial area due to proximity to retailing activity at Knox Central. Figure 9 shows one cluster of such businesses. They are located on small lots, with fragmented ownership.
3. **Furniture and flooring** manufacturers and wholesalers. These vary from small warehouses to large manufacturers. Wholesaling activity also extends into other sectors.
4. **Higher value manufacturing⁸ and scientific services**, particularly in the pharmaceutical and the professional/scientific equipment sectors. Example businesses within the study area include DNA Solutions (medical testing laboratory), Douglas Bean (surgical/medical equipment manufacturing), Ratek (laboratory equipment manufacturing), Sleep Technologies Australia, Baldwin Medical (device manufacturing), and Magnum Australia. These manufacturers appear to be occupying higher quality, and larger industrial building and office stock in the Lewis Road area.
5. **Construction.** Small construction related companies operating bases/warehouses from small lots throughout the Lewis Road area.

Vacancy Rates

We estimate a commercial property vacancy rate of around 13% within the activity centre. This is considered high. For example, a survey of larger industrial facilities (over 10,000 square metres) found that metropolitan Melbourne's industrial vacancy rate was 5.0% in August 2014 (source: Urbis Industrial Vacancy Rate Report August 2014). The Eastern sub market (which includes Knox) had the lowest vacancy rate (1.0%), followed by the Western (4.7%), South Eastern (5.8%) and Northern (7.2%) sub market. The vacant properties in Knox Central are a mix of smaller and larger properties.

The elevated vacancy rate is likely to represent a mismatch between the needs of business and building stock available. Specifically, some stock is too small for many businesses. In other instances, the building condition/age may be a barrier to uptake.

⁸ Those manufacturers that are likely to require high skilled and high paid employees, and which are generally more resilient to automation trends amongst industry.



Figure 9 Cluster of auto repair businesses around Eastgate Court



Source: Geografia



3 Planning Context

Metropolitan Planning

Melbourne's metropolitan planning strategy ('Plan Melbourne') has a strong economic focus – facilitating jobs and investment. Specifically, Plan Melbourne seeks to 'create a city structure that drives productivity, supports investment through certainty and creates more jobs'. The recently elected Government is in the process of 'refreshing' Plan Melbourne, although substantial changes to the plan are not expected as a result of this.

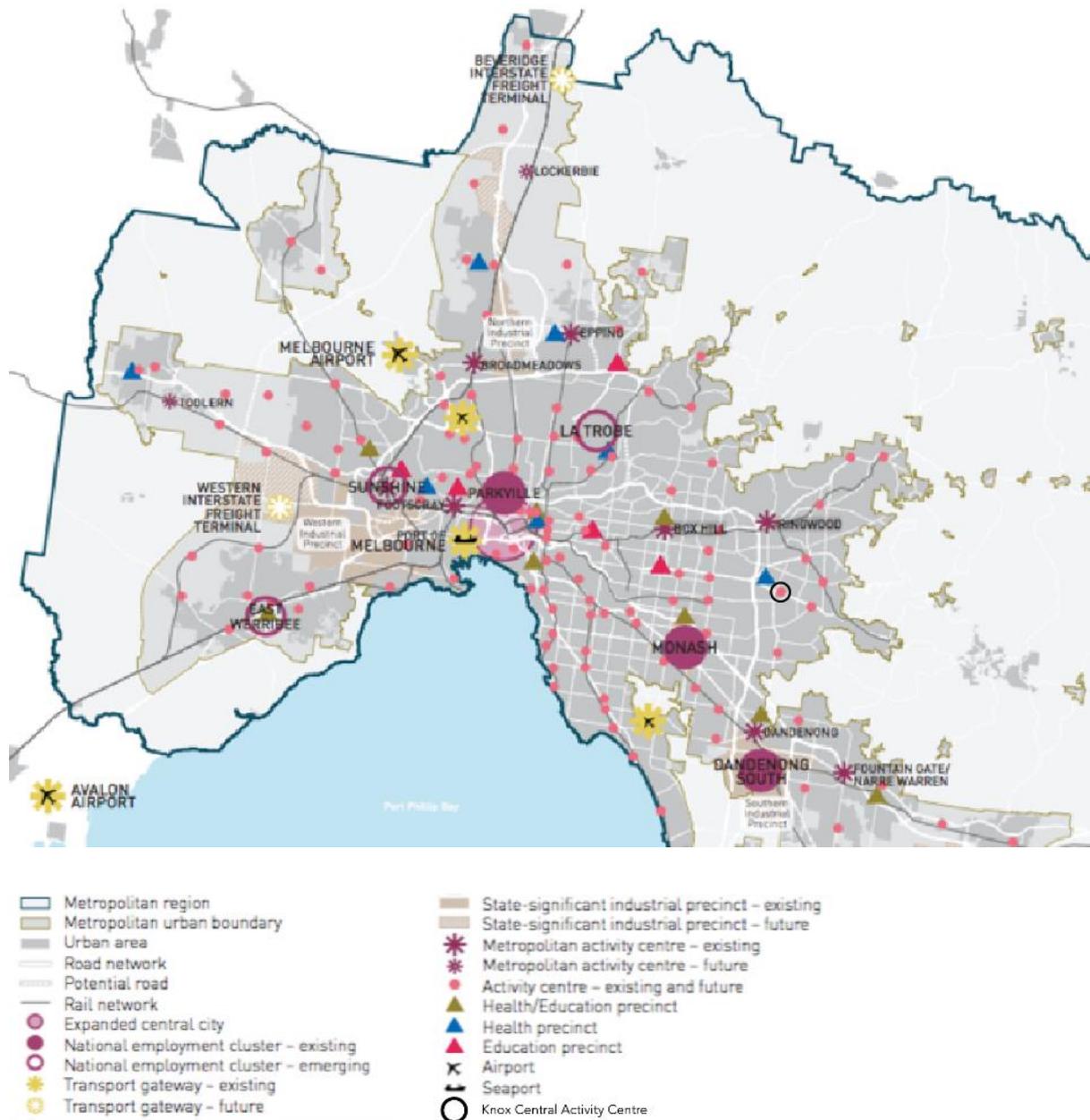
Plan Melbourne defines a spatial network of economic activity across metropolitan Melbourne (Figure10). The Plan differentiates between State and locally significant precincts. It is expected that the State Government, through the Metropolitan Planning Authority, will take a lead role for State significant centres.

The Metropolitan Melbourne Structure Plan defines Knox Central as an 'Activity Centre'. Knox Central is located within close proximity to a State significant health precinct (Knox Private Health/Wantirna Health precinct, approximately 5km away). Within this metropolitan hierarchy (Figure10), Knox Central is a locally significant centre, sitting alongside more major centres such as Ringwood, Box Hill and Dandenong.

Plan Melbourne also identifies urban renewal areas within metropolitan Melbourne where State investment and intervention will be focused. Knox Central is not included as an urban renewal area within Plan Melbourne.



Figure10 Metropolitan Melbourne Structure Plan, Plan Melbourne (DTPLI, 2014)



Transport Infrastructure and Accessibility

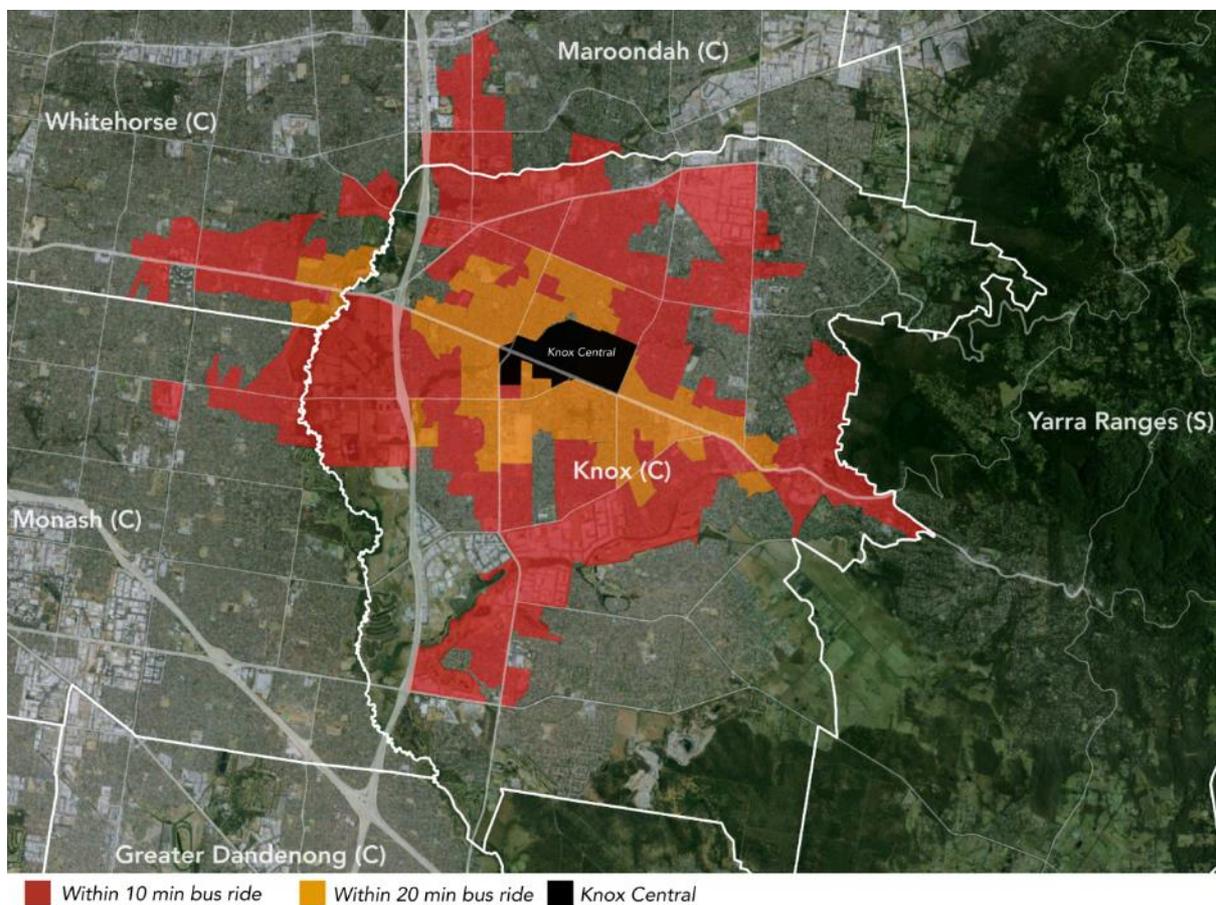
Since the preparation of 2005 UDF, there have been significant transport infrastructure investments that have increased regional accessibility to Knox Central. Specifically, the opening of East Link in 2008 has improved access to the centre from south and north.



Council continues to advocate for the extension of light rail to Knox Central. In the absence of rail access to the centre, a large number of local and regional bus routes depart from/terminate at Knox Central. Figure11 shows accessibility of Knox Central by public bus (<20 minutes bus ride, in keeping with the directions of Plan Melbourne). Relative to competing centres, public transport options at Knox Central are limited, potentially negatively impacting the demand for many commercial and community uses at Knox Central.

Plan Melbourne identifies the Rowville train line as a potential investment in transport infrastructure in the region. This would have some spill over effect on Knox Central. However, it would not provide direct, heavy transit access to the activity centre. The need for modal interchange to access the centre by public transport would persist.

Figure11 Public transport accessibility to Knox Central



Source: Geografia, 2015



Knox Economic Development Strategy 2008-2018

The main objective of the Knox Economic Development Strategy 2008-2018 is to improve liveability and wellbeing in Knox. This will be done through economic growth that creates high quality jobs, generates wealth and investment.

The Knox Economic Development Strategy 2008-2018 is being incorporated into the municipality's integrated city strategy that is currently at draft stage.

The objectives of the strategy are:

- Development of Knox Central Principal Activity Centre;
- Establishment of High Tech Learning Centres;
- Development of the Scoresby/Rowville Employment Precinct;
- Establishment of Strong, Sustainable Energy Efficient Industry Clusters;
- Strong Secondary, Tertiary and Industry Linkages Providing for the Needs of High Tech Industries (support services, technical backup and marketing);
- Fully Developed and highly functional Major, Neighbourhood and Local Activity Centres;
- A More Balanced Business Mix, including More Business Support Services and Tertiary Industries;
- A Strong Knox-wide Industry Network Promoting Knox Products and Services Nationally and Internationally;
- Establishment of a Centre for Entrepreneurial Development Integrating Education, New Start-ups and Business Incubators;
- Redevelopment of the Bayswater/Bayswater North Industrial Precinct; and
- Availability of World-Competitive Infrastructure in Transport, Telecommunications and Supporting Services.

Local Planning Policies

Clause 21.07 (Economic Development) in the Knox Planning Scheme is relevant to the planning of the Knox Central Activity Centre. Significantly, it notes that:

- The Scoresby/Rowville Employment Precinct will be a prime opportunity to develop higher value industry in the outer east – focusing on research and development, industry/technology and office uses.
- Retail development will be directed toward existing activity centres, and highway style large format retailing will be discouraged across most parts of the City (except in areas allocated as 'restricted retail' under Clause 22.02 of the Scheme).



- Knox Central will continue to be the principal activity centre within the City, and will play a key service role within the outer eastern region.
- Retail development will be discouraged in industrial areas.

Clause 22.02 (Industrial and Restricted Retail Area Design) provides guidance regarding the design of key industrial areas in the City, including those around Lewis Road in Knox Central. The Clause seeks to promote high amenity within these industrial areas through controlling design aspects such as set backs, landscaping, architectural quality and signage.

Commercial Zone Reforms

A series of new/updated commercial and industrial zones were introduced into the Victoria Planning Provisions and planning schemes in mid-2013. These new zones allow for a wider range of uses and are intended to support more mixed use employment in commercial centres. Specifically:

- The *Commercial 1 zone* is intended to create vibrant mixed use activity centres, and to provide for higher density residential uses. This zone broadens the range of activities that land can be used for without the need for a planning permit and removes floor area restrictions.
- The *Commercial 2 zone's* is intended to encourage commercial areas for offices, manufacturing and industries, bulky goods retailing, other retail uses and associated business and commercial services. This zone provides opportunities for office, restricted retail premises, trade supplies and some limited retail activity. Floor area restrictions for office and some retail uses have been removed to create new opportunities for office and retail growth on land within these zones.
- The purpose of the *Industrial 1 zone* is to provide for manufacturing, storage and distribution of goods in a manner that does not affect the safety and amenity of local communities.
- The *Industrial 3 zone* is intended to provide industries in specific areas where special consideration of the nature and impacts of industry is required, as well as allowing for limited retail opportunities including small-scale supermarkets and associated shops. Both Industrial 1 and Industrial 2 zones have been amended to remove the default floor area restriction for an office of 500 square metres.
- Under the Industrial 3 Zone small scale supermarkets of up to 1,800 square metres and associated shops of up to 500 square metres are exempt from a permit in metropolitan Melbourne. Supermarkets greater than 1,800 square metres and shops without an associated supermarket are prohibited in the Industrial 3 Zone.



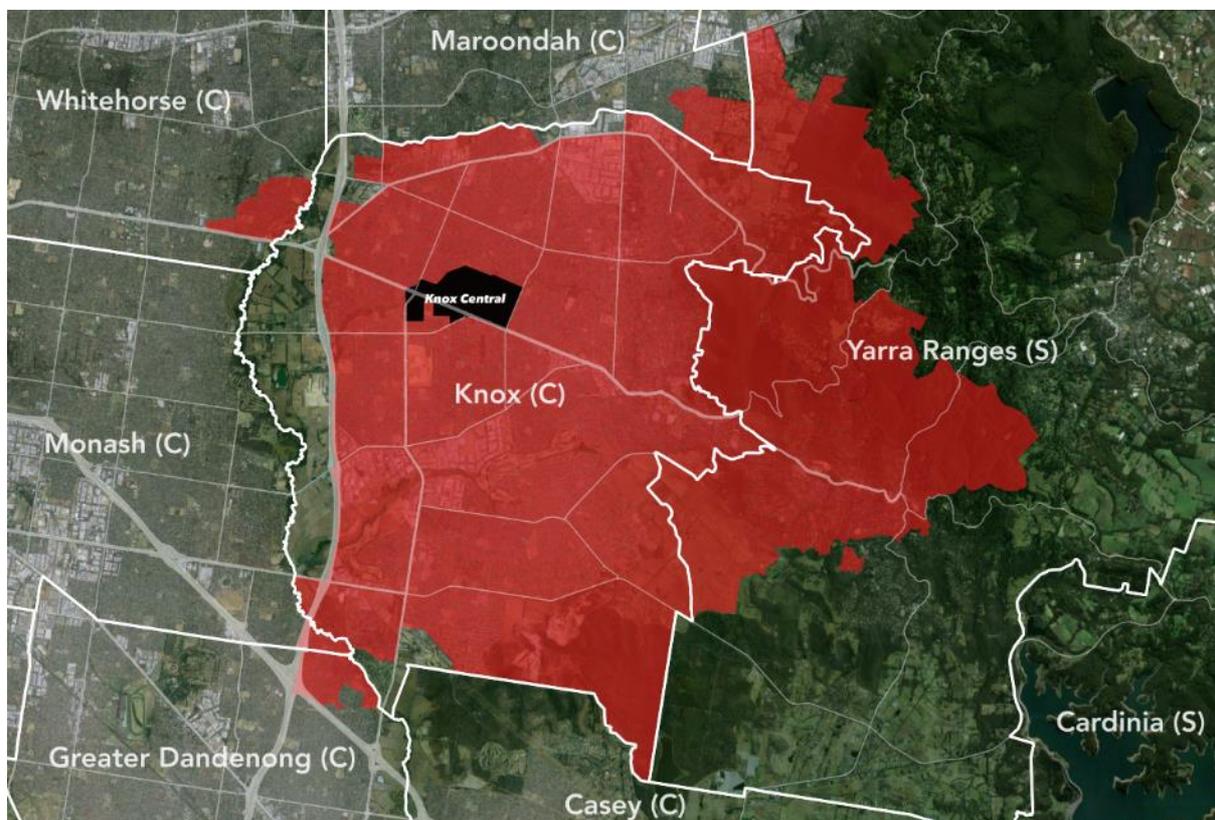
4 Retail Context

Primary Catchment

Knox Central's primary retail catchment has been determined based on the distance between Statistical Areas (SA1s) and the nearest major shopping centre (with a department store). Drive time between an SA1 and a centre is used as the units of measurement.

Figure12 shows the extent of Knox Central's primary catchment area. It generally encompasses most of Knox City Council, and some parts of the Yarra Ranges Shire Council. This catchment is generally consistent with the primary catchment indicated by Westfield in marketing materials.

Figure12 Knox Central Primary Catchment



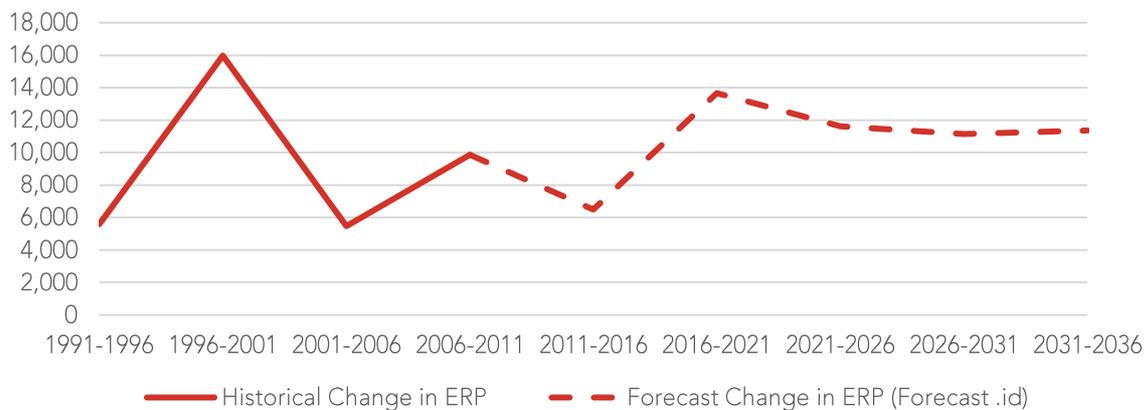
Source: Geografia, 2015

The primary catchment area is characterised by:



- Moderate projected population growth (see Figure13). Both the primary catchment and wider eastern subregion continue to experience a growing population, but growth remains below the Melbourne average and below that of many other subregions, including inner Melbourne (where new apartment supply has facilitated an expansion) and the West, South East and North subregions (where new dwelling creation, including in growth fronts, has driven an increase in population).
- Below average increases in household income between 2001 and 2011, see Figure 14. The wider Eastern sub-region is expected to experience modest income and wealth growth in the longer term relative to other sub-regions in Melbourne.
- Significant ageing of the population over the last decade – the fastest ageing areas in metro Melbourne (see Figure 15). This is likely to be driven by a mix of residents 'ageing in place' and children leaving home. It has been a major driver of modest growth in household income in the area.

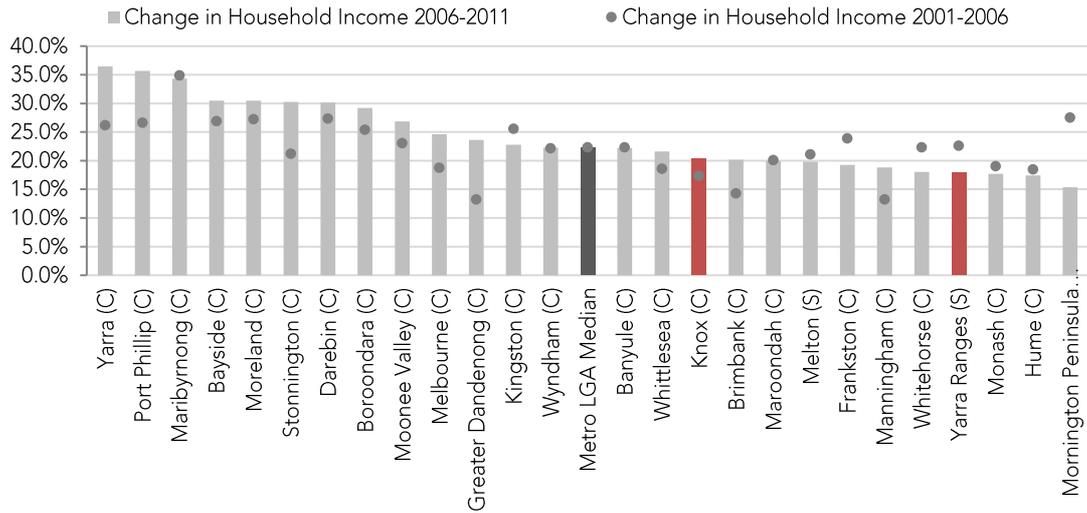
Figure13 Five yearly Estimated Residential Population (ERP) change in Knox City and Yarra Ranges Shire



Source: *Informed Decisions, 2015*

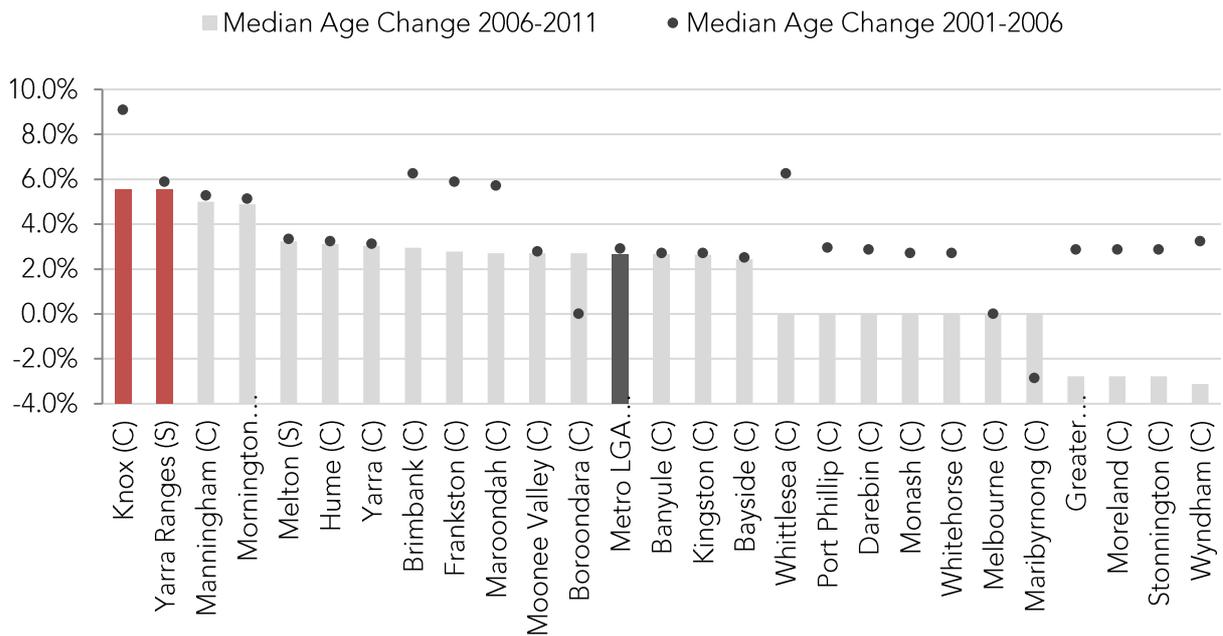


Figure 14 Change in household income by LGA



Source: ABS, 2001-2011, Analysis: Geografia

Figure 15 Change median age by LGA



Source: ABS, 2001-2011, Analysis: Geografia



Competing Centres

The eastern region of Melbourne is characterised by strong competition between major shopping centres (those over 80,000 sqm in floor space and presence of department stores).

Since Eastlink was opened, the accessibility for residents in the region to all shopping centres has increased substantially. Figure 16 shows the areas that are within 20 minutes⁹ (off peak) drive from Knox Central, as well as other major, proximate shopping centres. It shows significant overlap between these destinations. The overlap between these centres (which also excludes Glen Waverley and Doncaster) is much more significant than the overlap between centres in the south-east Melbourne corridors (see Figure 17). The drive time analysis suggests that there is significant competition between regional centres for retail and hospitality expenditure in the outer east metropolitan region.

Strong levels of competition are expected to increase with:

- Recent upgrades at Westfield Doncaster. However, there may be limited competition between Westfield Knox and Westfield Doncaster due to ownership and different positioning (many offerings at Doncaster are currently positioned at a more premium level compared to similar activities at Knox).
- Expansions currently being constructed at Ringwood Eastland. This includes the opening of a David Jones department store and the construction of a 'town square' type development with a substantial entertainment offering.
- The expected redevelopment of The Glen Shopping Centre at Glen Waverley. This expansion incorporates an additional 17,000 sqm of retail space, bringing the centre size to 76,000 sqm. It also includes three residential buildings and an expanded entertainment and hospitality offering.
- The expected redevelopment of Westfield Knox, increasing the floor space of the centre from 140,000 sqm to 190,000 sqm, and an additional 2,700 car parking places. Completion is due by 2017.

It appears that a non-compete agreement was signed between the previous owners of Knox Shopping Centre and Coles. This means that Woolworths and ALDI cannot currently be accommodated, and there are instead two Coles supermarkets at the Centre. It is unclear when this non-compete agreement may cease. However, it does mean that the lack of variety of supermarkets at the centre could handicap Knox Central in an increasingly competitive eastern retail market.

⁹ This is considered the travel duration an outer suburban resident is willing to accept to access destination retailing.



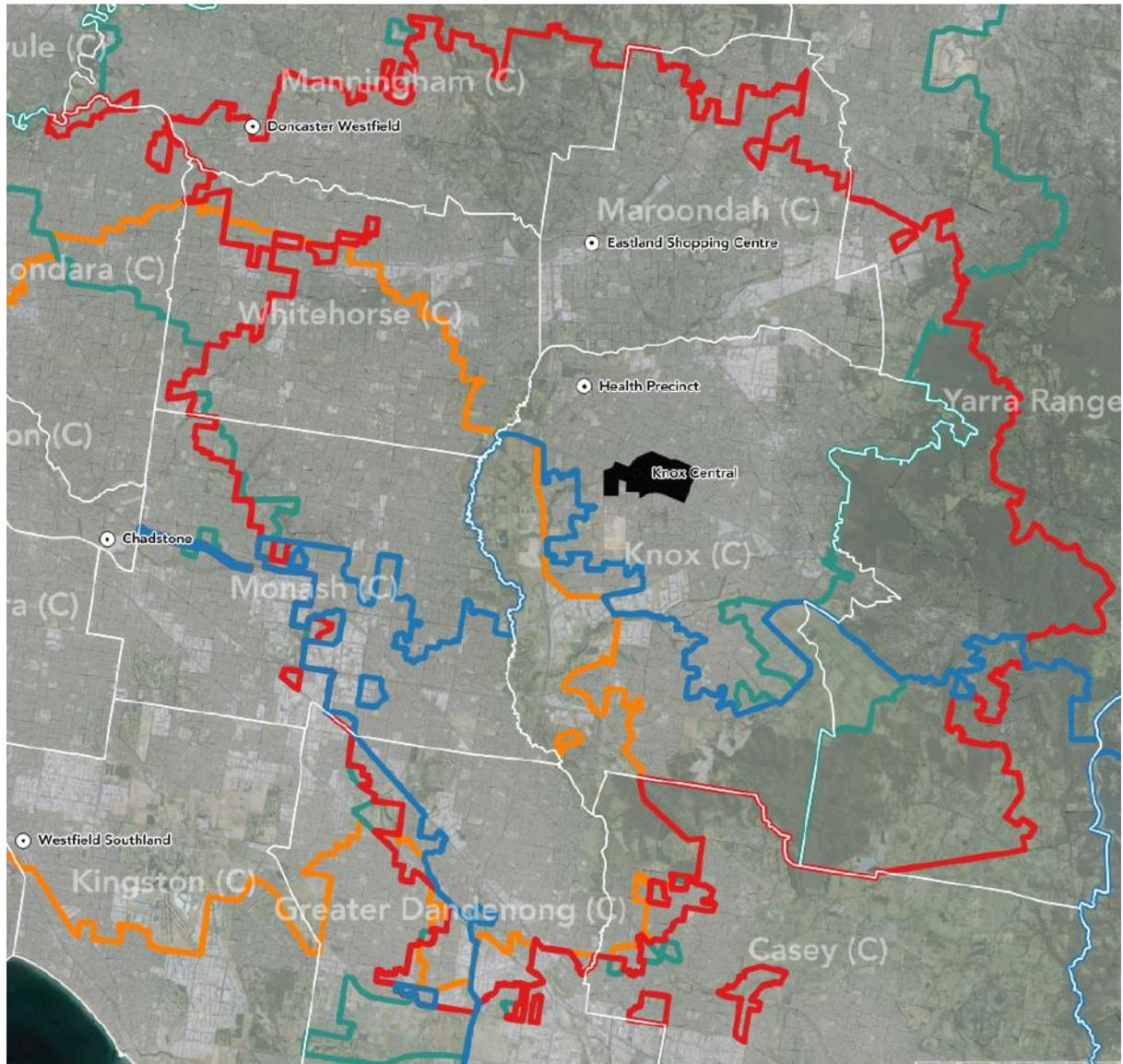
There are also a number of sub-regional centres anchored by discount department stores, including in the eastern parts of the primary catchment in the Dandenong Ranges. Sub-regional centres with discount department stores that play a sub-regional role in the vicinity of Knox include Stud Park, Forest Hill, and Chirnside Park.

Competition may also come from larger format retailing which traditionally occupies main road positions and which have become increasingly prevalent. The main large format retailing clusters continue to be at Whitehorse Road Nunawading / Blackburn, Canterbury Road Bayswater, Springvale Road, Dandenong Road and Dandenong South.

The 2013 commercial zone reforms (see Section 3 for further discussion) have removed floor space caps from many commercial centres. This may increase competition between centres of different sizes over the longer term (e.g. centres lower in the retail planning hierarchy could significantly increase their floor space and increase their competitive position with larger centres).



Figure 16 Twenty-minute drive time areas for principal shopping centres surrounding Knox LGA



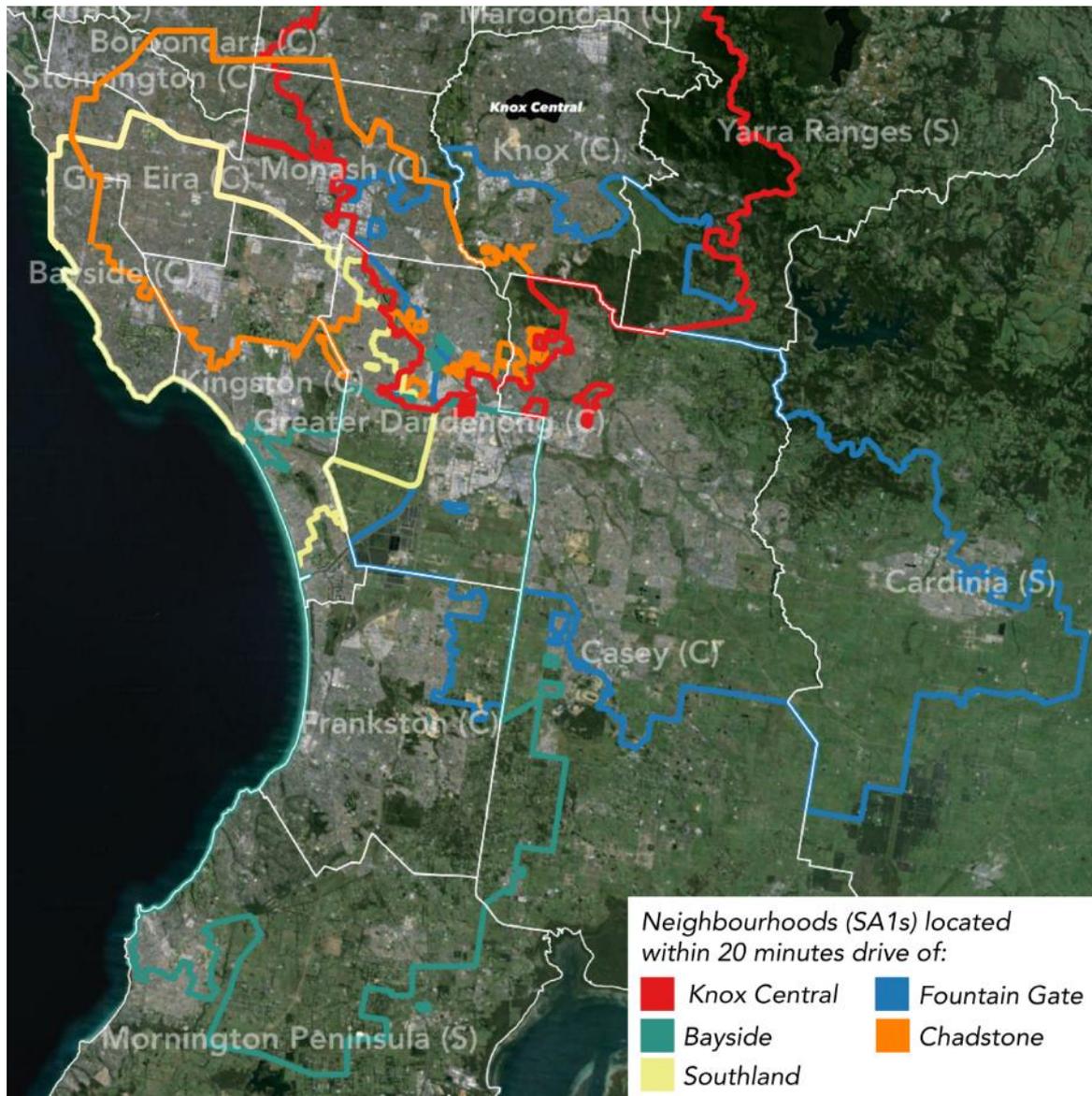
Neighbourhoods (SA1s) located within 20 minutes drive of:

- Knox Central
- Fountain Gate
- Ringwood
- Chadstone

Source: Geografia



Figure 17 Twenty minute driving time from principal shopping centres in Melbourne's south-east



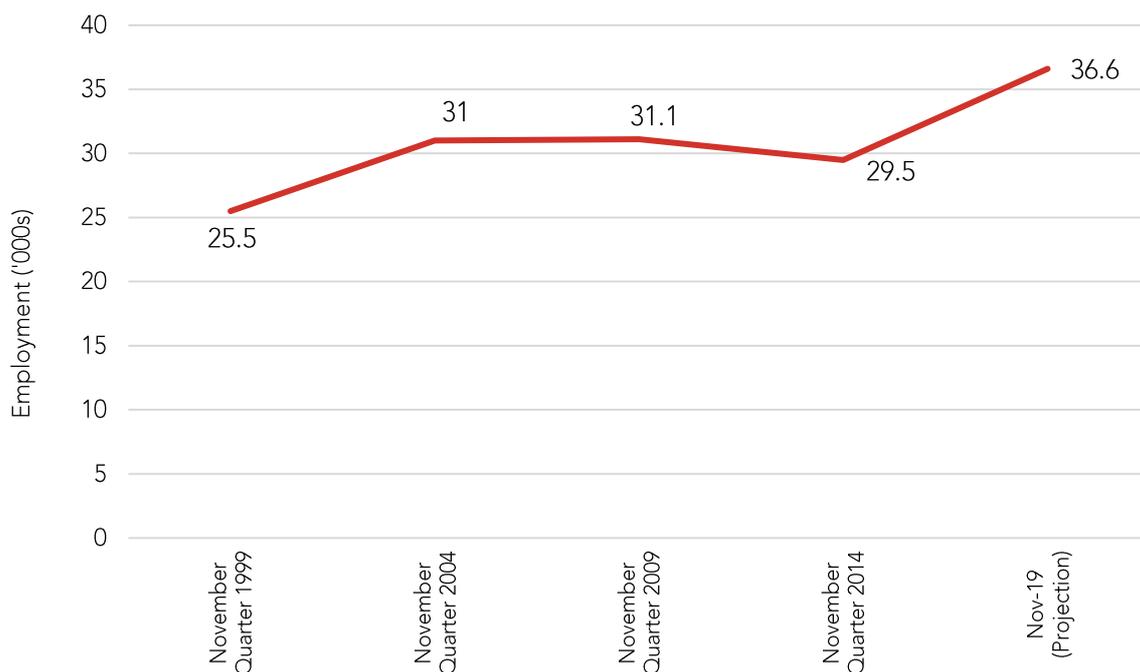
Source: Geografia

Retail Industry Outlook

Department of Employment estimates show that retail employment is expected to increase within the Melbourne Outer East region between 2014 and 2019 (short to medium term), as shown Figur 18. It should be noted that projected growth in employment is above trend.



Figure 18 Historical and forecast change in retail employment, Melbourne Outer East SA4



Source: Department of Employment

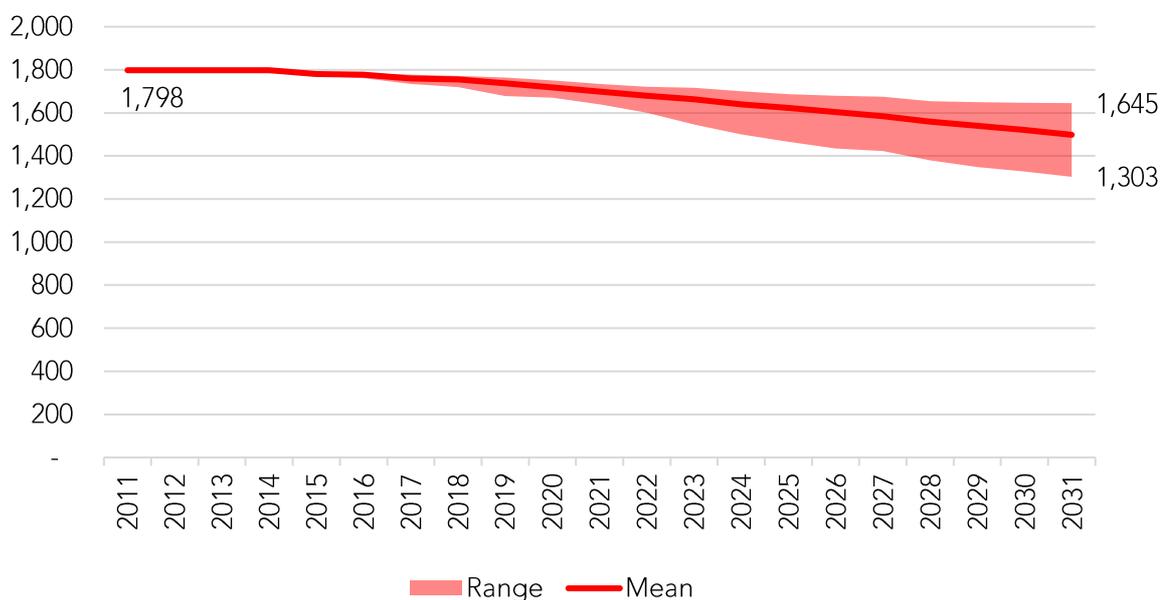
There is expected to be an increase in retail trade and employment with the proposed Westfield expansion within the next five years. However, in the longer term we do not expect substantial additional investment in retail within Knox Central. This is due to:

- Much of the projected growth is expected to be in non-store retail (in other words, employment related to online retail). This is unlikely to generate employment growth in Knox Central.
- The softening Australian dollar is increasing the price of some goods, but also encouraging more domestic consumption. This is likely to have little impact on the medium to long-term employment in retail.
- Increasing competition with Ringwood and Glen Waverley, as noted earlier.
- Stage 2 of the Westfield Knox development is unlikely to incorporate a large amount of retail floor space.
- Modest population and disposable income growth expected within the catchment area.



In addition, the retail sector is expected to become substantially less labour intensive in the longer term. This is driven by automation, 'just in time' inventory and logistics techniques, and store efficiencies from the growth of omni-channel retailing. Figure 19 shows the projected decrease in retail employment at Knox Central due to automation if no other retail jobs were generated (e.g. it does not consider the expansion of Westfield Knox generating new jobs¹⁰).

Figure 19 Estimated impact of automation of retail jobs at Knox Central



Source: Geografia

In conclusion, there is not expected to be any substantial investment within retail at Knox Central beyond the currently proposed Westfield expansion over the next twenty years. The substantial investment that Westfield is expected to make during Stage 1 of the proposed shopping centre expansion will help absorb any increase in demand from the local market.

There are also concerns about the increasingly competitive environment amongst major shopping centres in the eastern region, and what this might mean for floor space and employment growth at Knox Central. Finally, the impact of automation and other process efficiencies will offset any increase in employment. This means that retail will not be a core

¹⁰ These figures are intended to provide an understanding of the impact of job automation, with all other factors being equal. Employment and floor space modelling presented in Chapter 10 of this analysis provides retail forecasts that consider growth at Westfield Knox and increased demand in the region. It should be noted that Westfield has provided employment estimates alongside planning applications for Stage 1 of shopping centre redevelopment. However, these employment estimates appear to be based on casual/part-time employment figures, rather than full-time figures, and therefore are much higher than outcomes presented in Chapter 10 of this report.



employment generator in Knox Central in the long term. There is a need to consider opportunities to create employment growth in other sectors in the centre.¹¹

There may be some potential for larger format, bulky good type retailers in Knox Central (e.g. home makers, big box stores). There are currently few of these stores in the area as this form of development would contradict Council's planning policy (see Section 3 for a detailed discussion of restricted retail in Knox City Council). They will generally require prominence and easy access to a major highway (e.g. Burwood Highway). The large number of such stores along Whitehorse Road may also be capturing a large proportion of potential trade in this sector at Knox Central.

Implications for Structure Plan

This analysis reveals a number of preliminary implications for the structure planning process:

- Promote a greater diversity and independence of retailing at Knox Central. This will allow the centre to better compete with other regional centres in the face of changing consumer preferences and a desire for varied, urban style experiences in activity centres. However, a desire for street-based retail and smaller scale retailing may be a challenge due to overall low demand for additional retail beyond the current Westfield redevelopment proposal.
- Consider which sites might be preferable for larger format big box style retail, and whether they are consistent with any vision for the centre. There are a number of large sites, with high visibility on Burwood Highway that might be pursued by large format retailers in the medium to long term.
- Consider whether supermarkets might be promoted outside of Westfield – to overcome the single supermarket issue. The new commercial zones provide an opportunity for this to be more easily realised. Again, high visibility sites along Lewis Road are likely to be the most viable sites for these uses.
- Build a distinctive experience at Knox Central and to differentiate it from other major retail centres in the eastern region, due to growing competition. Promoting interface between retail activity and the natural amenity in the area (Blind Creek, Lewis Park) and outdoor spaces is one means to promote this.
- Diversify the activity centre beyond retail through allocation of land uses, given limits to the longer-term demand for retail floor space in Knox Central.

¹¹ This might be facilitated through employment planning for the Knox Central precinct, or through more general economic development planning at a municipal level. More detailed analysis around the potential focus and positioning of the Lewis Road area will be key to this.

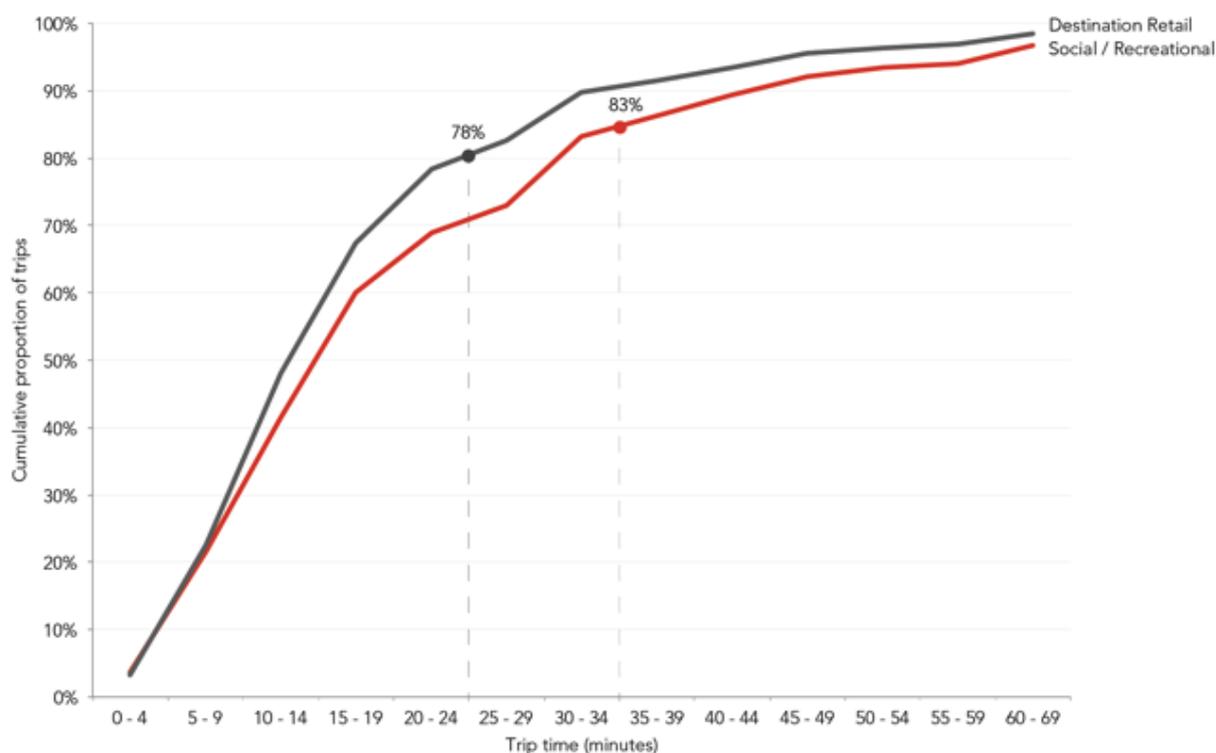


5 Entertainment & Hospitality Context

Catchment/Market

The distance that outer suburban residents are willing to drive to access entertainment and social activities is notably further than retail. This can be observed from VISTA data in Figure 20.

Figure 20 Cumulative travel times for outer suburban residents by activity



Source: VISTA; Analysis: Geografia

The concept of a core catchment is less important when analysing entertainment and hospitality catchments. This is because consumers differentiate between different entertainment offerings and centres – entertainment and leisure experiences are each quite unique, whereas there is more similarity/overlap in the offer of retail models.

The consequence is that Knox Central can potentially attract entertainment consumers from up to 30-35 minutes' drive away. It also means that these consumers choose between Knox Central and other entertainment alternatives within this distance.



Competition and Competitive Advantages

Knox Central's existing entertainment and leisure provision consists of:

- A 15 screen cinema complex at Knox Ozone
- Restaurants and bars within Knox Ozone (outdoor/laneway themed dining)
- AMF Bowling at Knox Ozone
- A number of standalone restaurants, located on Burwood Highway
- Sporting and recreational opportunities (e.g. commercial gymnasiums, passive and active open space)
- In-centre accommodation provision (Punt Hill, for example)

Knox Central's entertainment and leisure offering competes with a number of centres in the eastern region:

- Ringwood/Eastland Shopping Centre: which is expected to have a substantial increase in entertainment when current expansions are complete. It is expected that this will increase competition for entertainment offering within the eastern region, and may negatively impact on the attractiveness of Knox Ozone if there is no further investment in the precinct in the medium term.
- Westfield Doncaster: with a number of premium restaurants and hospitality options when compared to Knox Ozone.
- Glen Waverley: which has a large diversity of restaurants and hospitality options across a mix of price points. The offering at Glen Waverley is more organic and has a greater variety than Knox Central, reflecting inner to middle urban provision. Glen Waverley also has a cinema and a large centrally located, mid-range hotel at the Novotel.
- Fountain Gate: cinema provision, but limited entertainment and restaurant offering beyond this.
- Dandenong: diversity of restaurants, little premium offer, cinema.
- Box Hill: diversity of independent restaurants, however the centre lacks more major attractions such as bowling or cinema.

Within this region, Knox Central is uniquely positioned due to the distinctive offer at Knox Ozone. The outdoor dining and bar options available at Knox Central are quite distinct from any other offer in the region, and attract consumers from much wider areas in the eastern region catchment. This has positive flow on effects for complimentary sectors at Knox Central, such as retail. The recent development of more in-centre accommodation offering reinforces the availability of provision at Knox Central in this sector.



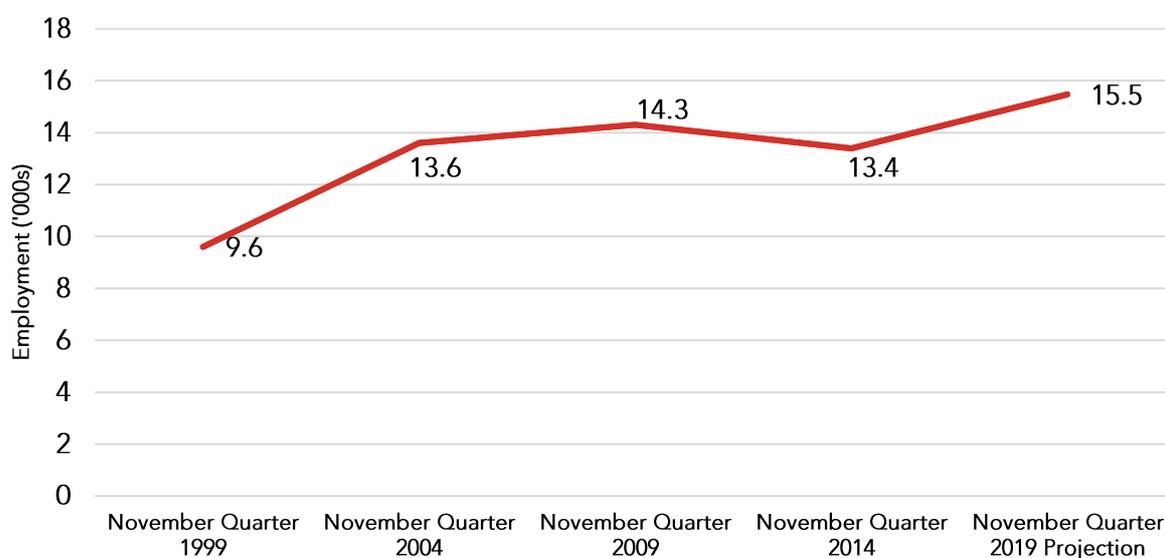
Knox Central (like Fountain Gate and Doncaster) lacks good access to mass transit services. Public transport is particularly important in this sector, as it provides access for key markets – younger people, older adults, and night-time users (whom often will consume alcohol). Ringwood and Glen Waverley in particular have advantages in this regard.

Sector Outlook

Department of Employment estimates show that food and accommodation sector employment is expected to increase within the Melbourne Outer East region between 2014 and 2019 (short term) in line with the historical trend (Figure 21).

In the medium to longer term, it is expected that the sector will enjoy similar levels of growth. This will be driven by an increasing consumer focus on ‘experience’ seeking, and an ageing population in the region. Due to the importance of experience in this sector, it is likely that automation will not have as significant impact as other sectors.

Figure 21 Melbourne Outer East SA4: Historical and projected employment in accommodation & food services



Source: Department of Employment

There is evidence of recent shift in consumer preferences toward diverse, premium and sophisticated hospitality and entertainment product in outer suburban areas (see, for example, recent investments at Westfield Doncaster, Westfield Chatswood in Sydney). This closely reflects a consumer interest in accessing entertainment options that were, until recently, exclusively provided in inner and middle ring suburbs.



The current position of Knox Ozone may not reflect this trend as much as other regional centres such as Glen Waverley or Doncaster. There is some threat that a single owner/manager at Knox Ozone may stifle the diversity of entertainment and hospitality offering, and miss consumer expectations that come with this shift.

Implications for Structure Plan

It should be noted that promoting hospitality and entertainment offering at Knox Central has significant economic and social advantages beyond the activity centre. It helps to underpin liveability in Knox City Council more generally, and therefore is potentially a key driver of attracting skilled workers, population growth and higher value jobs to the wider municipality. The importance of the sector in this context needs to be considered.

There are a number of key opportunities to consolidate Knox Central's role as a regional entertainment and hospitality precinct. This will help to respond to increased competition from other regional centres and to drive the local capture of regional employment growth in this sector. Knox City Council could:

- Leverage parkland and creek amenity and outdoor spaces available at Knox Central. Knox Central is the only eastern region activity centre to benefit from natural amenity. Any development along the creek corridor/parkland may seek to promote entertainment and hospitality businesses at a ground floor level. A good reference point is new office and residential developments adjoining the Parramatta River in Parramatta, Sydney.
- Use a Performing Arts Centre (PAC) as a catalyst development. A performing arts centre will help to unlock complementary businesses and community groups - restaurants, bars, accommodation, arts groups, for example. A PAC would help promote more premium entertainment and hospitality options in the centre. It could also be the catalyst for more diverse ownership and management of entertainment and hospitality premises throughout the precinct.
- Promote entertainment and hospitality businesses to develop outside of the Westfield site. This will help to diversify the offering and ownership in the in this sector, making it more resilient to shifts in consumer desires. Council should consider how it uses Council land and any the development of any future PAC centre to promote entertainment and hospitality businesses outside of the Westfield site.
- Promote spaces that could be used for restaurant and café businesses on the ground floor of higher density residential buildings. This is one means to build a greater diversity in the local hospitality offering.
- Explore opportunities to enhance public transport offering to and from residents, using Bus Rapid Transit or similar.





6 Professional Services and Office Space

This section discusses services that are generally considered 'white collar jobs' that demand office space. This includes ANZSIC categories such as Professional, Technical and Scientific Services, Information Media and Communications, and Financial Services.

Sector Outlook

The general outlook at a metropolitan level for professional, financial, and technical services is for modest growth in the medium to long term. Short to medium term employment growth in the sector should be driven by construction and engineering related professional services with the expected increase in infrastructure investment in the next five years (Department of Employment projections assume this will occur). In the longer term, growth may be driven by the export of Australian services especially to emerging economies in Asia – a mix of financial, engineering and technical services.

Metropolitan Trends

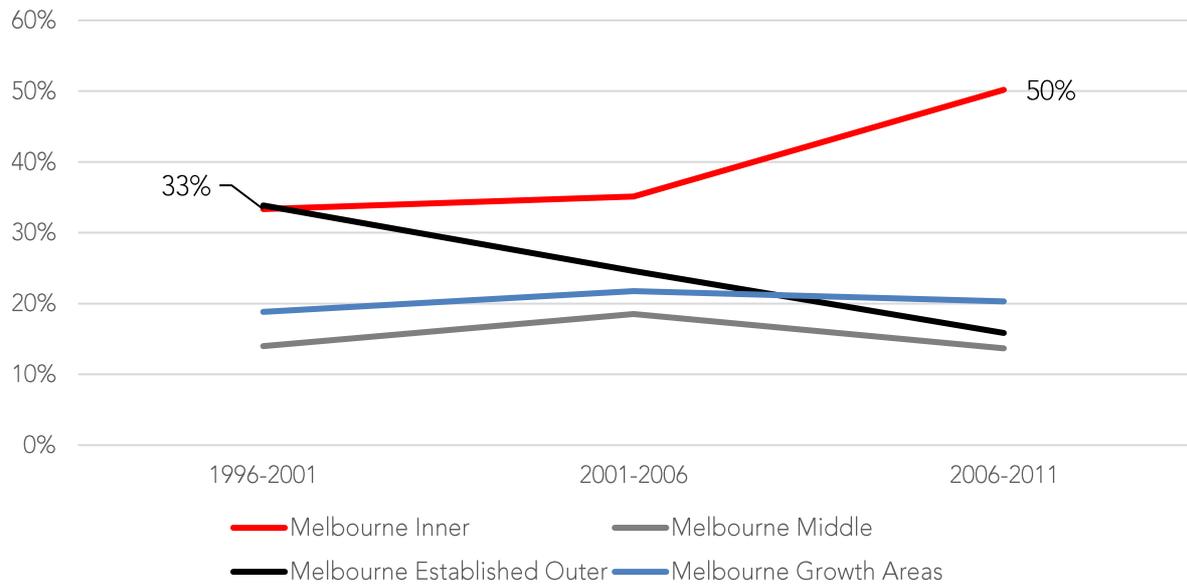
Since the preparation of the 2005 UDF there have been fundamental shifts in the structure of Melbourne's urban economy. There has been a 'reurbanisation' of many high value tertiary jobs as professional services, finance or public administration jobs move to inner urban areas (see Figure 22 and Figure 23). This has been driven by the agglomeration benefits of inner urban locations, as well as proximity to higher skilled, knowledge workers.

Within suburban locations, there has been a shift toward greater agglomeration in office space – through the development of business parks and industry clusters. This also reflects the benefits derived from higher densities of knowledge workers.

The only exception would be if there were a shift toward a more regional workforce catchment, which would capture additional growth. This would need to be driven by substantial public transport investment or a regional business park, for example.

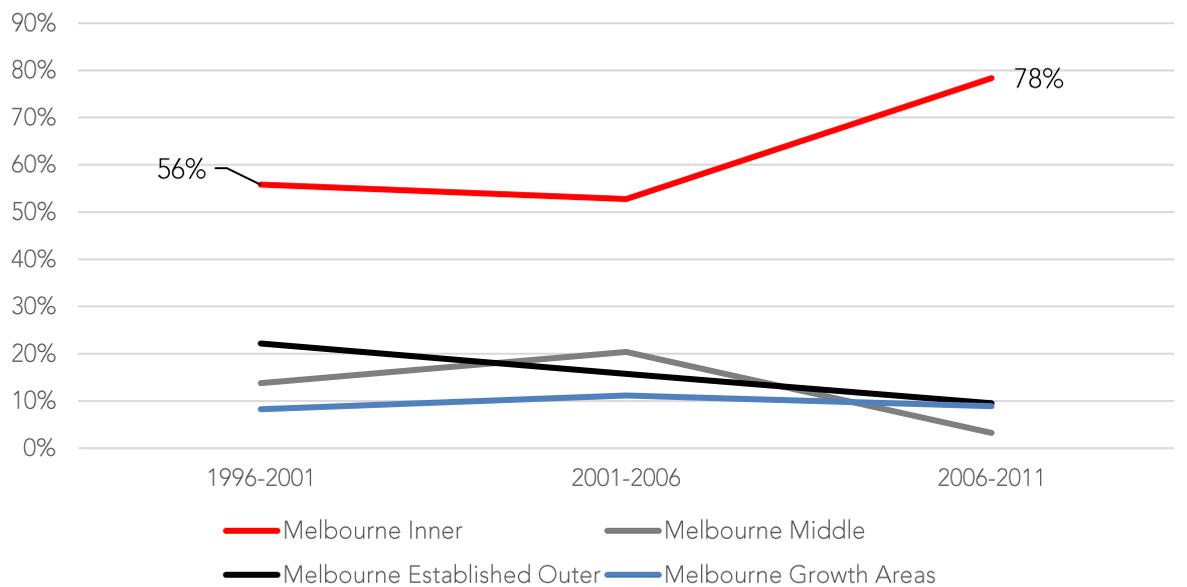


Figure 22 Share of tertiary industry jobs growth by location in Melbourne



Source: ABS Census, Analysis: Geografia

Figure 23 Share of government & professional jobs growth by location in Melbourne



Source: ABS Census, Analysis: Geografia



Plan Melbourne recognises that knowledge based industries are clustering in more defined locations based on their need to have closer access to clients, better access to highly skilled and educated workers, and the ability to share ideas and knowledge.

Catchment/Market

The labour force catchment of Knox Central helps to understand the area that the centre services, especially for office space and professional services. Figure 24 shows the residential location of Knox Central's workforce¹², which is clearly quite localised, mirroring the core catchment shown in Figure 12. This suggests that growth in the professional services employment base and office market would be driven by local changes, rather than regional influences.

Modest population growth and income growth is expected within this local, primary catchment area, as detailed in Figure 13 and 14. Moreover, there is a lower proportion of managers and professionals living within Knox Central's workforce catchment. Consequently, there is not expected to be a substantial change in the demand for space from professional services in the activity centre.

¹² Those that work within the approximate area of the Knox Central (represented by ABS destination zones 212542394, 212522381, 212602401, 212602403 and 212602405)



Figure 24 Place of residence of Knox Central workers¹³



Source: ABS Census, Analysis: Geografia

Suburban Office Market

- Tenant demand is rebounding leading to a decline in the vacancy rate.
- The vacancy rate remains above the long-term average due to Victoria's below-trend economic growth, subdued business confidence and higher unemployment.
- New supply is expected to reach near record levels in 2015 with development.
- Gross face rentals have remained relatively stable over the last year with prime rents performing better than secondary rents as tenants opted for prime stock.
- Despite the weight of money (that is, investment demand) compressing prime and secondary yields, suburban market purchases continue to show relatively attractive yields.
- The level of transactions are increasing driven by a diverse range of purchaser segments including AREITs, which are re-entering the market, unlisted funds and syndicates, offshore buyers and owner occupiers.

¹³ The scale of each dot shows the number of Knox Central workers that live in each SA1. It shows that the vast majority of workers live within the Knox LGA, especially the northern parts of the LGA. There are fewer dots in areas outside of the Knox LGA (e.g. in Maroondah or Monash LGAs), meaning workers do not generally come from these areas.



- Investment demand is expected to remain bolstered by continued low interest rates and expectations of a rebound in economic and employment growth.

Market Definition

Melbourne's suburban office market comprises an estimated 2.8 million square metres of office space. The Outer East region, which includes Knox, accommodates around 750,000 square metres.

Table 1 Summary of office markets

Office Sub-Region	Core Suburbs	Estimated Total Stock (m ²)
City Fringe	Port Melb; South Melb; East Melb; Richmond; Carlton	900,000
Outer East	Mulgrave; Burwood East; Glen Waverley; Box Hill	750,000
Inner East	South Yarra; Hawthorn; Camberwell	550,000
South East	Cheltenham, Moorabbin; Dandenong; Frankston	375,000
North & West	Moonee Ponds; Preston; Footscray; Heidelberg	225,000
Sub-Total		2,800,000
Central City	CBD; Docklands; Southbank; St Kilda Road	5,550,651

Source: Property Council of Australia OMR (2015), m3property Research.

Tenant Demand

Melbourne suburban office market annual net absorption (that is, office space absorbed or taken up) rose in 2014, reflecting a rebound in tenant demand during the year.

The City Fringe represented well over a third of all suburban office net absorption as tenants moved closer to the CBD. All precincts recorded positive net absorption.

Demand for prime stock remains stronger compared to secondary grade stock. This reflects a range of factors including the ongoing 'flight to quality' seen in recent years with tenants taking the opportunity to upgrade to better quality premises.

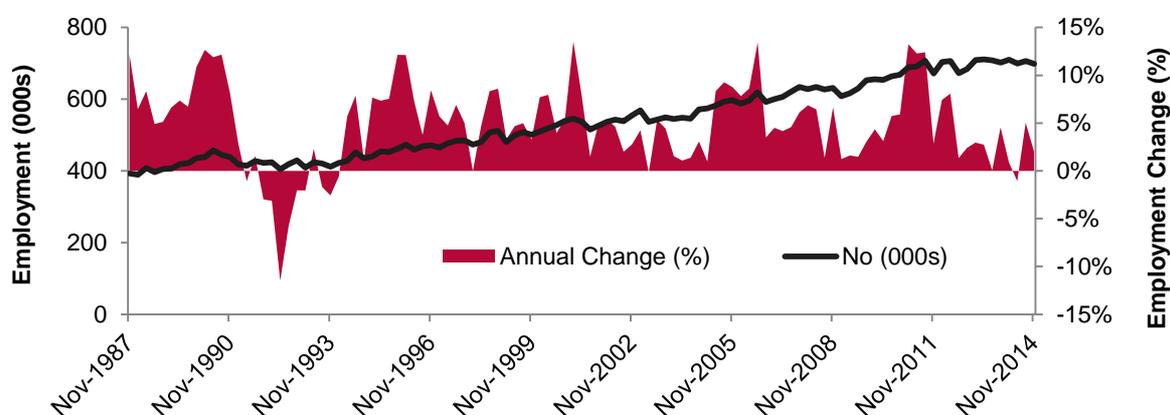
Although tenant demand continues to be challenged by generally soft economic and employment conditions recent data from the Australian Bureau of Statistics (ABS) suggests a tentative rebound in some service sectors which underpin white collar employment. These service sectors include *Information, Media and Telecommunications, Finance and*



Insurance Services, Rental, Hiring and Real Estate Services, Professional, Scientific & Technical Services and Administration & Support Services and Public Administration and Safety. In particular, employment in these sectors grew by 2.0% in the year to November 2014 (up 13,800 jobs to 698,400) led by growth in the Information, Media and & Telecommunications (up 8.1% to 64,000 job), Rental, Hiring & Real Estate Services (up 8.7% to 47,300 jobs) and Public Administration and Safety (up 9.0% to 155,000 jobs) sectors.

In terms of the opportunity for Knox, over the medium to long term, various service based sectors are expected to play an increasingly important role as a share of the local and regional workforce. This is especially the case as the local population grows, demographic changes continues to occur (for example ageing) and income and wealth levels continue to grow.

Figure 25 Victoria, white collar employment



Source: ABS, m3property Research. *Information, Media and & Telecommunications, Finance and Insurance Services, Rental, Hiring and Real Estate Services, Professional, Scientific & Technical Services and Administration & Support Services and Public Administration.

Going forward, white collar employment growth is expected to improve as economic growth increases due to lower interest rates, a lower Australian dollar and low petrol prices. The speed at which the national economy can rebalance from mining and resources investment to more diverse drivers of growth (a process which will be very dependent on the level of the Australian dollar), will be a key driver of this transition and overall tenant demand in east coast office markets including that of the Melbourne suburban office market.

Supply

New supply is expected to reach near record levels in 2015 due to two main factors: 1) higher levels of speculative development are increasing supply levels; and 2) some new development is being driven by the public sector. These include two buildings for the Australian Taxation Office and buildings for South East Water and Cardinia Shire Council.



Increasing supply levels is reversing the dominant pattern in recent years which saw the delivery of new office stock relatively constrained. The Outer East region is one of the metropolitan locations which is expected to see new commercial office buildings with new developments in the pipeline in Box Hill, Scoresby, Mulgrave, Mt Waverley, Ringwood and Chadstone.

As the series of speculative developments are completed we expect pre-commitments to drive new supply.

Vacancy

The overall vacancy rate as at April 2015 was estimated to be around 6.5%. This declined over the year, reversing three years of increases. This was led by vacancy rate declines in better grade office space. Also, during 2014, the vacancy rate declined especially in the City Fringe as tenants moved closer to the CBD.

Continuing economic uncertainty (tenants remain cautious about short-medium term economic conditions) and below average business confidence suggest vacancies will remain higher for longer. However, although the vacancy rate remains above the long-term average, reflecting a still relatively soft demand environment, the ongoing rebound in employment should limit any significant potential vacancy increases.

Rental Market

Gross face rentals¹⁴ have remained relatively stable over the last year with prime rents performing better than secondary rents as tenants opted for prime stock (it is noted that gross rent is the rent calculated inclusive of all building costs while net rent is the rent calculated excluding building costs. In addition, face rent is the quoted rental rate before incorporating incentives or increases while effective rent is the rental rate averaged out over the term of the lease including rent-free periods or up-front incentives).

Investment Market Sales Activity

Investment activity remains robust supported by continued low interest rates, a lack of prime investment opportunities in the CBD, the weight of money and the search for yield. A range of buying groups are becoming increasingly active.

After a period of staying away AREITs are re-entering the market. Unlisted funds and syndicates remain key purchaser groups representing over a quarter of all transactions (by value). Offshore buyers are increasingly active in the suburban office market being driven by a range of factors including higher yields and value adding and redevelopment

¹⁴ The quoted rental price (excluding any incentives)



opportunities. Owner occupiers remain active purchasers, within the sub \$10 million capital value range, buoyed by low interest rates.

The market will continue to provide good, albeit limited, acquisition opportunities in 2015 and 2016 especially as interest rates remain low and market fundamentals and employment growth improves. Modern A-Grade office buildings¹⁵, which are located in prime positions and with good quality lease covenants, will remain especially sought after.

Investment Market Yields

In Australia, the spread between yield and the real risk-free rate has remained wide by historical standards. This trend, combined with the global hunt for yield, continues to make Australian office assets attractive.

Despite the weight of money driving prime and secondary yields down, suburban market purchases are showing relatively attractive yields. Prime yields range from 7.00% to 8.00%. Secondary yields now typically range from 8.25% to 9.25% with investors being increasingly more willing to move up the risk curve given the relative lack of prime investment opportunities. Given gradually improving tenant demand and limited new supply this suggests an emerging opportunity for long-term investors.

Melbourne Suburban Office Market Outlook

- Supply is expected to be above long term average levels and, beyond the current speculative round of new supply completions, to be pre-commitment driven.
- Tenant demand is forecast to improve during 2015 as employment growth and business confidence improves. The pace of the transition in growth in the non-mining sector and overall unemployment levels (which will also influence white collar employment) will be a key determinant of underlying tenant demand going forward.
- The flight to quality trend observed in recent years is expected to continue as tenants continue to capitalise on attractive leasing conditions.
- Gross face rentals are expected to increase below trend in 2015, around trend in 2016 and greater than trend in 2017.
- Incentives have largely peaked but should remain elevated before gradually beginning to decline. The decline in incentives will be led by the City Fringe and Inner East precincts due to the relative lack of suitable options.
- Yield compression is not complete with low interest rates, the weight of money and the yield spread between CBD and suburban offices suggesting suburban yields may tighten further.

¹⁵ The highest grade office space, as rated using quality guides such as the Property Council of Australia's ratings guide.



- Acquisition interest is expected to remain robust with transactions limited by a relative lack of suitable stock. Continued demand for residential development sites will also see older secondary stock withdrawn from the market for conversion and redevelopment.

Regional Commercial Office Market

Demand Considerations

- The Outer East commercial office market has traditionally provided both prime and secondary accommodation to a range of tenants including from SMEs to larger corporates. Office space is provided to a range of industries including:
- Education (e.g. office occupiers include Monash University);
- Manufacturing (e.g. Mazda);
- Technology industries (e.g. GS1 Australia, Huawei);
- Public administration (e.g. Ambulance Victoria); and
- Healthcare and Social Assistance (e.g. Cabrini Health).

Drivers of Demand

A key driver of demand for office space in the Outer East is the greater affordability of the market relative to other locations including especially locations which are closer to the CBD. The East Region, however, competes with the South-East Region office market.

Organisations that service local and regional population markets have typically been attracted to accommodation in East. However infrastructure improvements, most notably EastLink, have increased the attractiveness of the market to users given easier access to a range of markets including in the South East.

Supply Considerations

The Outer East Region commercial office includes a range of markets including Mulgrave, Burwood East, Glen Waverley, Mt Waverley and Box Hill.

The Outer East market includes around 750,000 square metres and is one of the larger office markets in the suburban office market (after the City Fringe market which has around 900,000 square metres and includes office markets such as Port Melbourne, South Melbourne, East Melbourne, Richmond and Carlton).

The Outer East office market has seen a range of new developments in recent years. Key development locations in the Outer East include mainly the traditional office locations of Mulgrave, Box Hill, Scoresby, Mulgrave, Mt Waverley, Chadstone, Ringwood and Mulgrave.



In particular, projects recently completed and in the pipeline include in Mulgrave (3 Nexus Court, 8 Nexus Court, Bld A, 211 Wellington Road and Bld B, 211 Wellington Road), in Box Hill (913 Whitehorse Road), Scoresby (35 Dalmore Drive), Mt Waverley (545 Blackburn Road), Chadstone (1367 Dandenong Road) and Ringwood (171-175 Maroondah Highway).

New stock is characterised by a range of features including:

- A strong design component;
- A range of facilities such as end of trip facilities, cafes, car parking etc.; and
- Located in areas of high amenity (transport, retail etc.) and close to other office buildings.



211 Wellington Road, Mulgrave

- Australand and CIP
- Seven-level office building
- Five star NABERS rated
- Adjacent to multi-level 650 bay car park
- Additional commercial buildings expected on site.

Source: www.realcommercial.com.au, m3property Research



545 Blackburn Rd, Mt Waverley

- 7,400 square metres commercial office space
- Basement catering for over 330 cars.
- End of trip facilities, ground level cafe and rooftop recreation area.

Source: 545blackburn.com.au, m3property Research

Business Parks

Business parks are an increasingly popular location for suburban employment and are hosting an increasing number of commercial offices and industrial buildings. While business



parks are not new in Australia in recent decades they have become a key location for industrial, office and other property types and employment uses.

Drivers of business park development include:

- Economies of scale and scope in development (for example in common service provision);
- The loss of traditional industrial uses which are being replaced with commercial office-type premises as part of a broader transition to an economy which is increasingly reliant on services and various knowledge-based activities;
- Proximity to strategic assets and infrastructure such as roads, research and development (R&D) facilities, skilled labour;
- The ability to provide an attractive working environment (critical in ensuring firms can attract and retain staff in the ongoing 'war for talent' for skills); and
- Facilitating clustering of firms which provides a range of direct and indirect benefits.

The Outer East and South-East regions of Melbourne have a number of business parks (including Caribbean Park) and related types of precincts (e.g. office parks, technology precincts etc.).

A number of these business parks are located in the Monash municipality. Examples include the Monash Technology Precinct, Axxess Corporate Park in Mount Waverley and Wellington Business Park in Mulgrave.

In many cases business parks can have an industry or economic focus. For example, the Monash Technology Precinct is designated for less intensive industrial uses and more knowledge-based activities such as information technology, biotechnology and other R&D based industries.

High-tech and specialist industries are often located in business parks due to presence of unique supporting assets. For example, in the case of the Monash Technology Precinct the close proximity of internationally recognised research facilities (such as Monash University, the Monash Medical Centre and the Australia Synchrotron) acts to attract firms to the location.

Local Commercial Office Market

Demand Considerations

Knox - and Knox Central in particular - has relatively stable office demand driven by:

- A variety of industries and types of economic activity and skills (e.g. professional and business services); and



- Amenities which attract employers and office staff (e.g. the Westfield Knox Shopping Centre).

However, the area faces several barriers to greater office demand including a relatively diverse employment profile with a lower concentration of white collar workers. This is due to Knox being mainly a population serving centre (see Figure 24). Knox also has a large number of individuals with certificate level qualifications. This is due partly to retail and manufacturing being the most important industries and these industries typically require less office space.

Supply Considerations

Knox Central and adjoining locations has a varied supply of offices including both stand-alone office buildings terrace buildings used by medical and health providers and industrial facilities with an office component. Indicative office supply currently being offered in the local area is shown below.



Westfield Office Tower-425 Burwood Highway, Wantirna South

- Includes office suite accommodation
- Office building provides staff with variety of speciality stores, cafés, restaurants, banking facilities and ample car parking
- Flexible floor areas, kitchenette available
- Onsite parking
- Office space for lease currently being advertised (102 square metres, \$29,667 per annum exc. GST). No outgoings payable.

Source: www.realcommercial.com.au, m3property Research





5B/426-430 Burwood Highway, Wantirna South

- Office for medical providers
- Office space for lease currently being advertised (86 square metres).

Source: www.realcommercial.com.au, **m3**property Research



Caribbean Park, 35 Dalmore Drive, Scoresby

- Under construction, anticipated completion mid 2015
- "A" grade office buildings
- Set amongst Masterplanned and manicured parkland precinct
- Amenity within precinct includes a fresh food market, cafe, end of trip facilities, running and riding tracks and parkland Wi-Fi hot spots
- Flexible floor plates offered (1,000 square metres to 16,000 square metres)
- Basement and multi-deck car parking
- Security, heating & cooling, ICT infrastructure
- 5 Star Green Star and NABERS rating.

Source: www.realcommercial.com.au, **m3**property Research





16 Jellico Drive, Scoresby

- Combined industrial warehouse/office building
- Fully partitioned offices / open plan
- Separate amenities
- Adjacent to Eastlink
- Office space for lease currently being advertised (300 square metres, \$40,000 per annum). Current rental includes all outgoings.

Source: www.realcommercial.com.au, m3property Research.

Competitive Supply

Office facilities in Knox Central would face competition from a range of office markets both in Knox (e.g. the employment areas of Scoresby-Rowville which hosts a number of corporate firms) and other locations including Ringwood, Monash, Whitehorse, Box Hill and Dandenong.

Different locations represent different forms of competition. Some locations - for example Dandenong, Box Hill and Ringwood which are designated as existing Metropolitan Activity Centres (MACs) - would be competitive based on a range of factors including being targeted by the State Government for more intensive office development and have superior transport links (including public transport).

Locations such as Monash with sizeable office markets (including in business park format) would be competitive given they are already large and are known to tenants/occupiers.

Conclusions

Demand for commercial office space in the short-term (0-5 years) is considered to be low given the competitiveness of other locations, the generally moderate level of metropolitan office demand overall and Knox Central not being recognised as a main office location.

Given the modest longer term population growth within Knox Central's catchment area, and 'reurbanisation' of many professional services growth, it is unlikely that there will be notable employment growth or floor space demand from this sector during this short to medium term period. This is reinforced by the limited number of professional services firms and jobs located within Knox Central, and the observed vacancies at Westfield tower and other relevant premises in the area.



A range of demand sources are possible in the medium to longer term, primarily from small business. These would be driven by:

- Knox Central's current status and critical mass as an employment location hosting a range of firms, industries and employment types;
- The ongoing transformation of the many manufacturing and transport, logistics and distribution firms in the East and South East subregions which will see a corresponding shift from industrial to office uses;
- Continued use of EastLink which has already shaped Melbourne's East and South-East subregions;
- The growth in the local/regional workforce;
- Demographic change, for example, ageing which may increase demand for professional and business services (e.g. finance and insurance brokers, offices for healthcare and social assistance organisations / medical centres); and
- Latent demand from SMEs in the Eastern subregion although this will require support, facilitation and a range of supply side responses in order to meet the requirements of these firms. In addition, there are a range of challenges in leasing to and managing multiple SMEs.

Implications for Structure Plan

It is unlikely that substantial office space for professional services will require development in Knox Central without a fundamental economic shift (in regional status, or local skills levels). Modelling of office demand in Knox Central is detailed in Section 10 of this report. The lack of demand for office space may impact the viability of some land uses/development models proposed in the initial UDF (e.g. mixed use buildings, or standalone office buildings).

If the Structure Plan seeks to facilitate a more regional office role, it will need to consider how Knox Central might compete with other centres in the outer eastern region. This could be achieved through a number of actions:

- Promote a high profile and quality office locations especially when office development begins - to develop the 'office focused branding' of Knox Central;
- Consider a strategy to transition existing industrial uses to office uses as the demand for office space becomes larger. This may require the creation of sub-precincts where land and infrastructure is packaged together in order to target niche market segments (e.g. technology firms)¹⁶;

¹⁶ See, for example, Metroplex on Gateway (Queensland) as an example of investment in a holistic approach to infrastructure investment in a business park environment – including communications, business facilities/meeting areas, public transport, landscape and recreation features.



- Offer a variety of amenities including speciality stores, cafés, restaurants, banking facilities and car parking;
- Market / brand Knox Central as an office location; and
- Consider whether a business park or similar could be facilitated within Knox Central.



7 Health & Social Services

Sector Outlook

The health and social services sector is expected to be the key driver of employment in the eastern region of Melbourne over both the medium and long term. Department of Employment projections in Figure 26 show the addition of around 6,100 jobs by 2019. This easily exceeds the expected growth in any other industry sector (the second largest increase is expected from construction with 3,200 jobs).

Figure 26 Forecast change in employment, Eastern Melbourne Region (2014-2019)



Source: Department of Employment

This level of growth is expected to continue over the longer term, driven by the introduction of the National Disability Insurance Scheme, an ageing population and increasing demand for childcare/home-based care. There is, however, potential for this level of growth to be moderated by decreasing funding from government and potential for increased automation over the longer term.



Existing Provision

There is a limited health care role at Knox Central. There are a number of smaller medical services – such as general practitioners, orthodontists, and physiotherapy. There is, however, a substantial aged care presence in the local area – with both Arcare and Villa Maria recently increasing capital investment in the activity centre. Stockland has reportedly shown some interest increasing the intensity of the Arcare development in the future.

Wantirna Health Precinct

The main health precinct that services Knox Central's retail and entertainment catchment is located on Mountain Highway where Eastern Health and Knox Private Hospital both have a large presence. The Precinct is located approximately 8 minutes' drive, or 10 minute bus ride from Knox Central.

There is ample land available for further development at the Wantirna Health Precinct, which is classified as a State significant health precinct in the Melbourne metropolitan plan. The precinct is likely to capture the largest share of health and social services employment and floor space growth in the sub-region and will be the focus of both State and private investment in the health sector. Given its dominance, it is important to consider how it complements the offering at Knox Central in other sectors.

Figure 27 shows that workers at the Wantirna Health Precinct (by SA2) come from across the outer eastern region, including Knox, and the areas within Knox Central's primary retail catchment area. However, a notable proportion also comes from outside of Knox Central's primary catchment. For example, from Monash City Council and areas typically within Ringwood's primary catchment area.

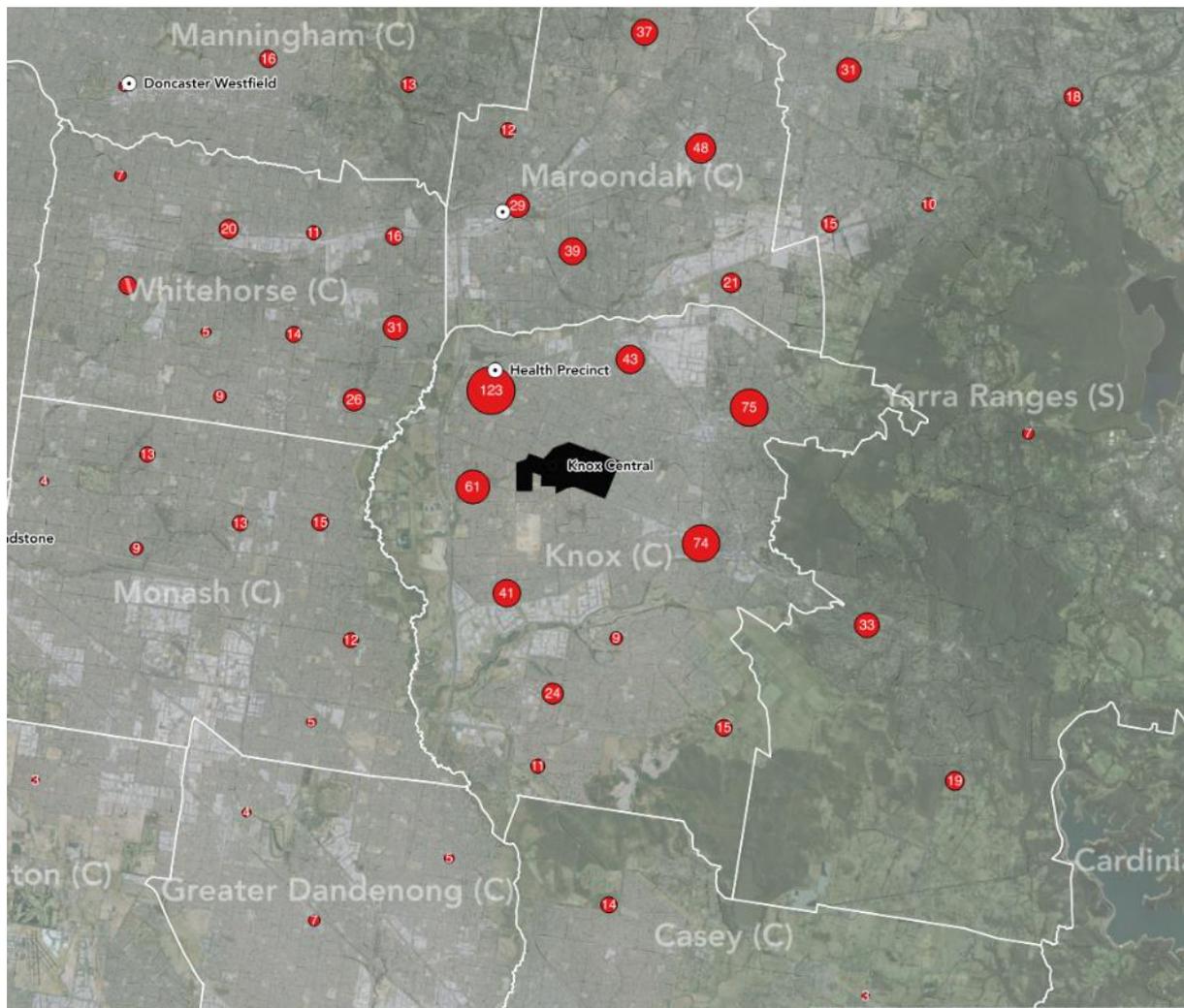
Consideration needs to be given to how Knox Central can service the Health Precinct's workers and customers in the context of competition from other centres (Glen Waverley and Ringwood in particular). Focusing on the development of facilities that are complementary to land uses at Health Precinct, and increasing linkages (both physical and services) is crucial to strengthening the role of Knox Central alongside the Health Precinct.

Knox City Council and the Metropolitan Planning Authority have recently commissioned a structure plan for the Health Precinct. Initial research into the Precinct commissioned by Council appears to highlight opportunities for the precinct outside of health provision, training and research – specifically mixed use and residential development. The background research also notes the opportunities for medical device and pharmaceutical manufacturing in Knox. Given the availability of industrial land and existing cluster of businesses at Knox Central, the two areas (Knox Central and Wantirna Health Precinct) need to be considered in



tandem.¹⁷ Higher value industries (such as medical manufacturing and research) benefit from agglomeration economies, and there is a need to stimulate this across the two precincts, ensuring that they do not develop in a fragmented or competitive manner.

Figure 27 Place of residence of Wantirna Health Precinct workers¹⁸



Source: ABS Census, Analysis: Geografia

¹⁷ Knox Central has an existing cluster of medical and scientific related manufacturing and laboratories. It is unclear whether the same cluster exists in other areas such as Bayswater, that also have good access to Wantirna Health Precinct. In any case, the Knox Central Activity Centre is the prime mixed used activity centre within proximity to Wantirna Health Precinct and will benefit from the strongest links to the centre.

¹⁸ The size of circles represents the number of Health Precinct workers that live in a local area (at an ABS SA2 level).



Implications for Structure Plan

The Structure Plan needs to consider how the Wantirna Health Precinct and Knox Central can work as a two complementary centres, or essentially work as a single extended centre.

The Structure Plan should:

- Consider the demand for accommodation, conference and other uses at Knox Central in the context of industry and growth at Wantirna Health Precinct.
- Discourage the fragmentation of a hospitality, entertainment and accommodation offering between the two centres.
- Promote increased frequency and efficiency of bus services between the two centres.
- Improve cycling links between the two centres.
- Consider how the two centres might be promoted together through industry attraction, and lifestyle marketing programs or branding.
- Consider the preferred location for aged care and retirement living.
- Consider opportunities for promoting industry connections between medical and pharmaceutically aligned businesses around Lewis Road and health services and health education at the Health Precinct.
- Consider opportunities for promoting industry connections between aged care and retirement living at Knox Central and the health services, research and education at Wantirna Health Precinct.



8 Aged Care & Seniors Living

Metropolitan Markets

Retirement villages and aged care facilities in Melbourne are concentrated in the south, east and south east regions. This reflects the number of older persons in these locations, development history and affordability.

Regional / Local Seniors Markets

Retirement Living Demand Drivers

The demand for aged care and retirement living in Wantirna South and Knox more generally is influenced by a range of factors. These include lifestyle considerations, transport infrastructure improvements, decentralisation of employment, ageing and outward displacement.

The main driver is the ageing population in Knox and the surrounding region. It is estimated that the number of Knox residents aged 60+ will increase by over 25,170 persons over the period 2011-2031.

There will also be significant growth in the population aged 60+ in the surrounding municipalities of Maroondah, Monash, Whitehorse, Greater Dandenong and Manningham. These municipalities also represent additional potential sources of demand.

Moreover, consistent with broader trends, the fastest growth in older persons will be in older market segments (e.g. 75+ years). This will disproportionately increase the demand for facilities where higher levels of care can be provided.

An improving Melbourne residential housing market has increased consumer confidence and the ability of older persons to sell their homes. Although it is difficult to estimate the trajectory of Melbourne residential prices in the medium-long term, several factors suggest moderate price growth could continue¹⁹.

However, the GFC has affected wealth levels (e.g. home values, superannuation balances) which has led to some people delaying retirement. These potential retirees remain cautious and might be waiting to see further evidence of house price stabilisation and growth. Equally, they might be interested in relatively more affordable retirement living options.

¹⁹ For example, due to robust population growth, Government strategy (especially efforts to contain urban sprawl) and the increasing internationalisation of the residential Melbourne property market (marked by increasing overseas interest including in the east and south-east regions of Melbourne).



Given the convergence of various factors (for example, ageing demographic profile, rising land values, attractive local area, high amenity location etc.), there is an opportunity to promote the development of innovative aged care (and retirement village) facilities in Knox.

The section below highlights some innovative aged care facilities which are also multi-storey.

Hogeweyk, Amsterdam

The neighbourhood is called Hogeweyk, in the village of Weesp near Amsterdam, and is inhabited by residents who are at an advanced stage of dementia.

Hogeweyk is unique in Europe in that it is an entire self-contained, purpose-built quarter. The neighbourhood includes shops, cafes, restaurants, squares and single-storey villas where people with dementia can move about freely and, as much as possible, live, a 'normal' life.

The residential area consists of 160 residents who live with each other in lifestyle groups, with a maximum of seven people per group. These residents share similar interests and backgrounds.

The decor, design and direct environment of the dwellings are adapted to suit each separate lifestyle which consist of recognisable and everyday elements.

When it comes to their own daily life residents experience so many recognizable stimuli that they are challenged in order to continue participating in that lifestyle.

Aged care integrated into Bondi Environment – Kresner Group

The Kresner Group have developed a 5 storey aged care facility that fits comfortably into the urban character of Bondi.

From the rooftop common room there are views across Bondi to the ocean while the other floor common areas give views of the life on the street.

The design ensures that the facility is as home-like as possible therefore avoiding an institutional character. Rising to five storeys above street level, amongst neighbouring apartment buildings, Bondi Waters has 56 large, state-of-the-art, furnished private suites and is an ageing in place facility providing temporary respite, low care, high care and secure dementia care.

The building has a basement level, a lower ground, four residential levels and a communal rooftop common room. Facilities include:

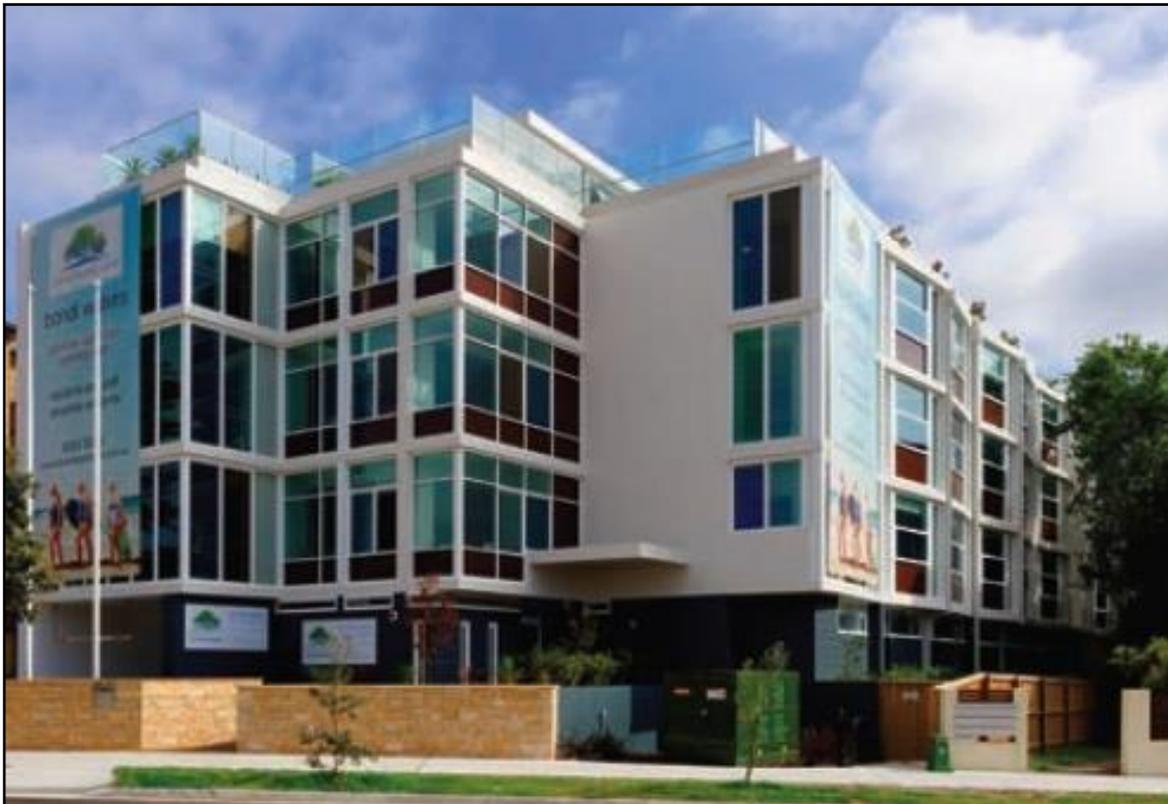
- Lounge areas for socializing, activities and theatre;



- Café and bistro-style dining; top floor lounge with outdoor terrace areas;
- In-house cinema;
- Dedicated areas for daily activities; and
- Hair and beauty salon and treatment room for therapies.

Located just 400 metres from the beach and originally occupied by a pair of semis and a detached house it is conveniently located to local shops, excellent bus services and public facilities.

Figure 28 Bondi Waters



Source: www.advantagedcare.com.au/residential-aged-care-facility/sydney-australia/bondi-waters, Urban Taskforce magazine, m3property Research.

In an area with a number of apartment blocks, predominantly with four storey scale and varying in style and period, the new building is set out orthogonally to the side boundaries. This creates a stepped alignment to the street and is consistent with the established pattern of buildings on O'Brien Street and nearby.



The living spaces to the street frontage reflect traditional enclosed balconies and allow the residents to 'engage' with the activity of the community in the street.

Mercy Place Parkville

Mercy Place Parkville is a new retirement community offering high, low and dementia-specific residential care. The facility incorporates the architecturally designed Mercy Place Apartments, a community hub with activity spaces, shops and services, and an aged care residence catering for people needing higher levels of care and support.

Mercy Place Parkville caters for 140 people with low and high care needs and offers dementia specific care. The residence is the central to the surrounding aged care community, which includes 52 independent living apartments.

Mercy Place Parkville offers two accommodation types that include rooms with similar features, qualities and amenities. The two accommodation types are:

1. Premium rooms on the Extra Service floor
2. Standard rooms.

Rathdowne Place Aged Care

Rathdowne Place Aged Care (Australian Unity) is a new inner-city aged-care facility. The facility features contemporary interiors, resident balconies, some with city views, resident cinema and onsite wellbeing centre.

Facilities include:

- Gym and indoor hydrotherapy pool, services by a physiotherapist;
- Private cinema;
- Multi-faith room;
- Hairdressing and beauty salon;
- Licensed restaurant and convenience store;
- Medical and Allied Health Suites will include physiotherapy, speech pathology, podiatry, occupational therapy and dietician consulting; and
- Community room.

In summary, it is apparent that multi-storey aged care or independent living facilities are feasible when:

- They are located in high amenity locations.



- They include leisure and commercial facilities that can only be made feasible with higher densities of population in a facility, or greater economies of scale.
- They are designed with high quality buildings and outlooks, often differentiating themselves from lower scale facilities.
- They are targeted toward a premium market – through pricing and included amenities.

Level of Retirement Living Demand

Previous research by the consultants (m3property) for a private client suggests an increasing demand for retirement living facilities in the Knox LGA. The high-level findings are presented below.

In assessing Independent Living Unit (ILU) resident demand three scenarios were modelled / assessed, under three growth scenarios, as shown by the following table:

1. **No Growth** – ILU resident demand to increase from 624 persons to 1,524 persons;
2. **Moderate Growth (Base Case)** – ILU resident demand to increase from 624 persons to 6,353 persons; and
3. **High Growth** – ILU resident demand to increase from 624 persons to 9,476 persons.

Table 2 Resident demand ILUs Knox LGA

	2011	2016	2021	2026	2031
No Growth	624	794	1,005	1,266	1,524
Moderate Growth*	624	1,603	2,577	4,135	6,353
High Growth	624	1,944	3,340	5,746	9,476

Source: ABS, Victorian Government, m3property Research.

ILU resident demand was converted (assuming a proportion of persons per ILU) to ILU household demand under the same three scenarios (Table 3).



Table 3 Households demand ILUs Knox LGA

	2011	2016	2021	2026	2031
No Growth	531	676	860	1,093	1,325
Moderate Growth*	531	1,373	2,218	3,591	5,559
High Growth	531	1,670	2,886	5,010	8,326

Source: ABS, Victorian Government, m3property Research.

Ageing trends also drive demand for aged care facilities, which is also expected to increase.

Competing Supply

A high level analysis of competing facilities in the local area has been undertaken previously by the consultants (m3property) for a private client. The analysis found over 1,900 (current and future) ILUs/independent living apartments (ILAs)/serviced apartments in various nearby suburbs, including Knoxfield, Bayswater, Ferntree Gully, Rowville, Vermont South and Wantirna. These included over 1,800 completed ILUs/ILAs/serviced apartments. In addition, over 100 ILUs/ILAs/serviced apartments were identified in the pipeline. Our review of facilities found few vacancies and limited supply. It is noted, however, that certain villages have room to expand.

A number of retirement and aged care facilities are in Knox Central or are easily accessible from the precinct. These are shown in Figure 29.



Figure 29 Existing aged care and retirement stock supply at Knox Central



Villa Maria Residential Aged Care

355 Stud Road, Wantirna South

- 96-bed aged care residence over three levels
- Offers ageing in place, specialised dementia support and respite options
- Private bedrooms with ensuites and
- Room size - 19 square metres.



Arcare Knox

478 Burwood Highway, Wantirna South

- 120 bed aged care residence over four levels
- Offers low, high and dementia care
- Private bedrooms with ensuites
- Facilities include beauty salon, chapel, theatre room and café.

Source: Organisation websites, *m3property* Research

Quantum of Opportunity

The table overleaf presents the underlying balance between demand and supply for ILUs in Knox. It shows:

- **No Growth scenario** – An excess supply of ILUs as at 2016 (around 1,179 units) with excess supply remaining (albeit diminishing) over the forecast period to 2031;
- **Moderate Growth (Base Case) scenario** – An excess supply of ILUs as at 2016 (around 482 units) with excess demand emerging over the period 2016-2021 with around 261 ILUs required by 2021; and
- **High Growth scenario** – An excess supply of ILUs as at 2016 (around 185 units) with excess demand emerging over the period 2016-2021 with around 929 units required by 2021.

We consider that a scenario closer to the **Moderate-growth (Base Case)** scenario forecast is most likely to eventuate.



Table 4 ILU Demand Supply Analysis

ILU HOUSEHOLD DEMAND (KNOX)					
	2011	2016	2021	2026	2031
No Growth	531	676	860	1,093	1,325
Moderate Growth*	531	1,373	2,218	3,591	5,559
High Growth	531	1,670	2,886	5,010	8,326
ILU HOUSEHOLD SUPPLY (KNOX)					
Current and Planned	1,855	1,855	1,957	1,957	1,957
UNDERLYING BALANCE / OPPORTUNITY (EXCESS DEMAND (+) / EXCESS SUPPLY (-))					
No Growth	-1,324	-1,179	-1,097	-864	-632
Moderate Growth*	-1,324	-482	261	1,634	3,602
High Growth	-1,324	-185	929	3,053	6,369
TAKE-UP RATES					
Underlying Balance / Opportunity (Excess Demand (+) / Excess Supply (-))					
	2011	2016	2021	2026	2031
No Growth	-1,324	-1,179	-1,097	-864	-632
5 yearly take up		145	82	232	233
Annual take-up		29	16	46	47
Monthly take-up		2	1	4	4
Moderate Growth*	-1,324	-482	261	1,634	3,602
5 yearly take up		842	744	1,373	1,968
Annual take-up		168	149	275	394
Monthly take-up		14	12	23	33
High Growth	-1,324	-185	929	3,053	6,369
5 yearly take up		1,138	1,114	2,124	3,316
Annual take-up		228	223	425	663
Monthly take-up		19	19	35	55

Source: ABS, Retirement Villages, Victorian Government, m3property Research. *Moderate Scenario is the Base Case



Market Demand

Retirement and aged care represent key market opportunities for Knox Central with demand being driven by:

- An ageing population in Knox and nearby municipalities;
- Proximity/access to a range of facilities and services (such as Knox Shopping Centre);
- The accessibility of Knox Central from a large regional area due to good road transport infrastructure (although the lack of public transport is a disadvantage). This is important as Australians tend to prefer to 'age in place' and/or in their local area. A large number of older Australians tend to prefer to be within 20 kilometres of their original place of residence. For example, a survey of purchasers who have recently bought in a retirement village found that 56% of respondents moved less than 20 kilometres (source: McCrindle Baynes Villages Census Report 2013); and
- Outer east location of Knox Central, which offers various benefits including proximity to Dandenong Ranges (and other natural assets) and superior views from facilities.

Implications for Structure Plan

In order to capitalise on this market opportunity a range of supply side responses, from both Council and other stakeholders, may be required:

- Plan for potential locations of retirement / aged care facilities (e.g. by nominating a precinct and/or site to accommodate future facilities as part of master planning processes);
- Provide for sufficient flexibility in the planning process to allow the growth and evolution of facilities. For example, the co-location of aged care and retirement living facilities is now common to allow residents to 'age in place' in the same location;
- Plan for the integration of aged care and residential facilities into Knox Central so that the lifestyle elements and advantages are protected and enhanced. This is because retirement living, especially, is also increasingly a 'lifestyle' choice and aged care facilities are increasingly of a higher quality providing a range of services and facilities; and
- Plan for facilities of different sizes and formats. This may include low-rise facilities or vertical/multi-storey facilities. It is noted, however, that although vertical aged care and retirement products are less common in Melbourne's middle suburbs, with low rise broadacre villages being more prevalent, Villa Maria and Arcare Knox are both vertical developments and have set a precedent for this type of facility in the local area.



9 'Out of Centre' Industry

This section provides an overview of industries that are not typically located in activity centres. These might include wholesaling, logistics and transport, manufacturing and construction. Such industries generally require access to industrial property such as warehouses, which often integrate office spaces into the property.

Knox Central is unique because it is an activity centre with a large number of industrial properties. The key industrial clusters, as discussed at Section 2, include manufacturing, wholesale and logistics, automotive repairs and construction.

Key Sectors

Advanced and Smaller Scale Manufacturing

The outlook for the general manufacturing industry continues to be poor across all time frames. Department of Employment projections show that the closure of the motor vehicle industry will drive significant employment decline in Victoria across supporting manufacturers. There is no evidence of manufacturers directly related to the auto industry within the Knox Central area.

There is anecdotal evidence of increasing viability of local, trade-exposed manufacturers (e.g. furniture manufacturing).²⁰ However, this has not yet been captured through data or within the Department of Employment short to medium term forecasts.

Despite the poor outlook for manufacturing as a whole in Victoria, there may be some growth potential in smaller scale, advanced manufacturing that is not related to the automobile industry. Smaller scale manufacturing is particularly well suited to existing industrial areas in established suburbs – there is generally access to required workers, and industrial land of sufficient size.

Knox Central attracts a large number of jobs in several high value manufacturing sectors, including professional, scientific, and technical equipment-manufacturing; pharmaceutical and medical device manufacturing

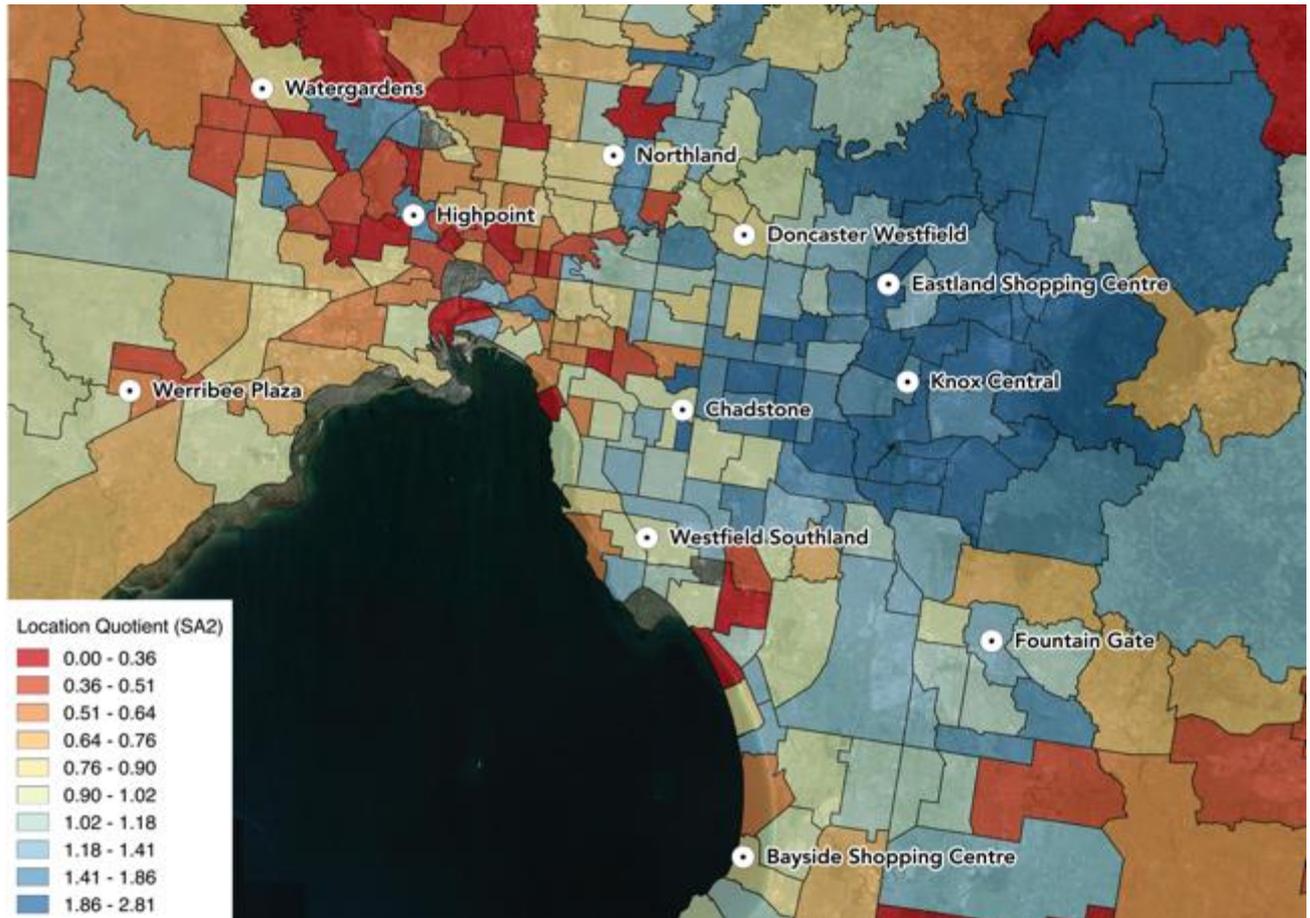
This is driven by proximity to workers in this sector, who are more likely to live in the middle to outer eastern suburbs surrounding Knox Central (see Figure 30) and high amenity of the area (natural environment, retail access). Knox Central also remains attractive to firms in this

²⁰ Identified by Geografia through recent industrial land and manufacturing industry studies in Moreland, Moorabool, Monash, Greater Dandenong, and Kingston LGAs.



sector, as they do not typically require large facilities for manufacturing. Unlike some other forms of manufacturing, they often derive profit from high margins, rather than quantity.

Figure 30 Location of professional, scientific and technical services workers



Source: ABS, Analysis: Geografia

Industrial areas in Knox Central also attract furniture related manufacturing firms. It is unclear why a small cluster of these firms has developed around Knox Central²¹ – there is no link to the location of furniture retailing and wholesaling supply chains across Melbourne. Opportunities to build upon, or add value to this cluster should be considered.

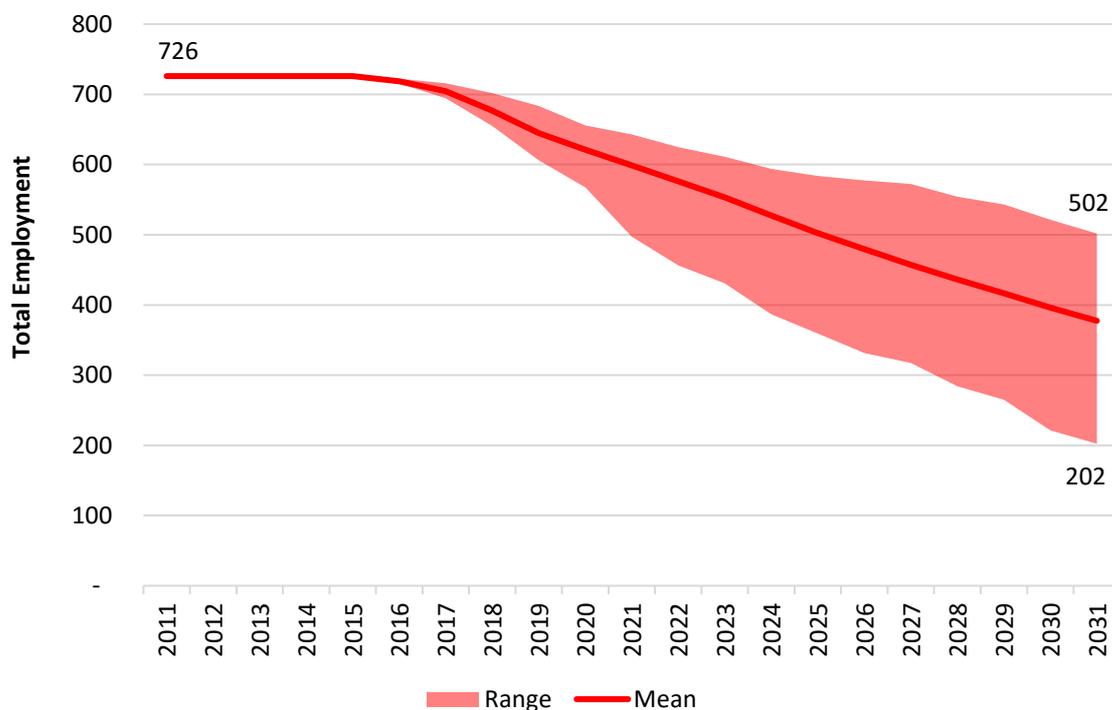
Automation continues to impact on employment levels within the manufacturing industry. While many manufacturing businesses may continue to grow within Knox Central, employment per unit of output is likely to decrease. The potential impact of automation on existing manufacturing employment in Knox Central is detailed in Figure 31. These figures,

²¹ There may be some benefit in examining this further through consultation with the industry.



showing a significant decrease in employment in the sector, assumes that no new jobs are created due to growth in industry outputs, or new businesses entering the local area. In other words it is a projection of automation impacts if all other factors remain equal.

Figure 31 Employment projections for manufacturing industry automation impact in Knox Central



Source: Geografia

Advanced and higher value manufacturing is increasingly overlapping with service provision. For example, a company may custom design and then manufacture high-value, small quantities of medical equipment components for other another company or health provider. This is altering both the type of labour that manufacturers demand, and the property types that are most suitable for them. For example, high quality office space alongside a small manufacturing facility is increasingly attractive to modern, high value manufacturers.

Wholesale and Logistics

Plan Melbourne recognises that transport, warehousing, and wholesale trade activities need access to modern, large facilities with ready access to customers and suppliers via efficient



road networks. Consequently, outer suburban locations with large land supply, proximity to multiple freeways, and access to ports/airports will capture most of the growth in this sector. Examples of this can be seen in areas such as Deer Park/Laverton.

It is unlikely that Knox Central will be a major attractor of this industry beyond small wholesale/distribution facilities with small throughputs. Indeed, existing wholesale businesses within the Centre are likely to be under increasing pressure unless they are specialised in high-value, small quantity, 'just in time' style logistics.

Automation is expected to have a substantial impact on employment growth potential in this sector.

Automotive Services

There are a large number of auto repair and other car services located within the industrial areas at Knox Central. This reflects convenience to regional level retail facilities. The short-term outlook for the aftermarket auto sector is generally good – driven by high new car sales after the GFC. However, there are a number of emerging trends that may impact on this sector in the longer term:

- Changes in car technology, with increasing computerisation. This can mean a decrease in demand for some auto services, and a redistribution of auto aftermarket revenue to manufacturer (which has technical skills to leverage this computerisation). Manufacturer related services are often located in more centralised locations, with fewer smaller providers.
- A longer term shift toward cars being provided as a service (car share), and automated vehicles. Companies such as Ford are exploring this area. Ford has rolled out car sharing plans to cities in the United States and the United Kingdom. In these instances, they will service the vehicles themselves, and rent the cars to consumers as a service on a time based system.

Construction

The construction companies located around the Lewis Road area appear to be domestic operators in small spaces used a base for their operations (e.g. an electrician storing equipment, stock and vehicles).

The Department of Employment projects high levels of growth in this sector in the short to medium term in the eastern region. This is expected to be driven by growth in building approvals in the short term, and potential for medium term infrastructure investment.

Longer-term fundamentals in the construction industry are more difficult to project. In general, Knox Central is well positioned to capture any growth in the construction sector amongst smaller and medium sized businesses (that require small to medium sized property). These firms generally provide services to the residential and commercial



segments of the construction industry – rather than infrastructure, plant or large-scale capital investment.

Metropolitan Industrial Property Market

Melbourne is Australia's largest industrial property market. Industrial land users include a range of domestic service industries, such as mechanics and smash repairers, to national transport, logistics and distribution facilities and major manufacturers.

Melbourne's industrial property market has a range of competitive advantages vis-à-vis other capital city industrial property markets:

- Melbourne is amongst Australia's most affordable industrial land markets;
- Around 40% of Australia's container shipping passes through the Port of Melbourne which helps reinforce Melbourne's position as a major distribution centre;
- Melbourne remains Australia's manufacturing centre; and
- Melbourne's strategic position in Australia's south-east places help Melbourne between two capital cities (Sydney and Adelaide) and the large bulk of Australia's population, more broadly, which resides in Australia's south east.

Regional Industrial Property Market

Demand Considerations

Industrial demand in the Eastern subregion is characterised by a range of users many of which service the local and regional population. Although larger facilities, for example TLD space which services the national market, can be found in the subregion, the types of industrial users in Knox Central is indicative of the average user profile.

This demand profile is due to other regions being the main industrial property locations in Melbourne (in particular the Western, North and South East subregions), the presence of strategic transport infrastructure in other locations (e.g. the Port of Melbourne, Melbourne International Airport) and the location of the bulk of Australia's population.

It is noted that all subregions, except the Eastern subregion are expected to have an economic gateway (a port, airport, interstate freight terminal or state-significant industrial precinct).



Supply Considerations

The following table shows a summary of gross zoned industrial land supply and total stock (ha) in 2013-14. The Eastern subregion had 2,612 hectares of gross zoned industrial land stock with the majority (2,412 or 92%) being occupied.



Table 5 Summary of gross zoned industrial land supply and total stock (ha) 2013-14

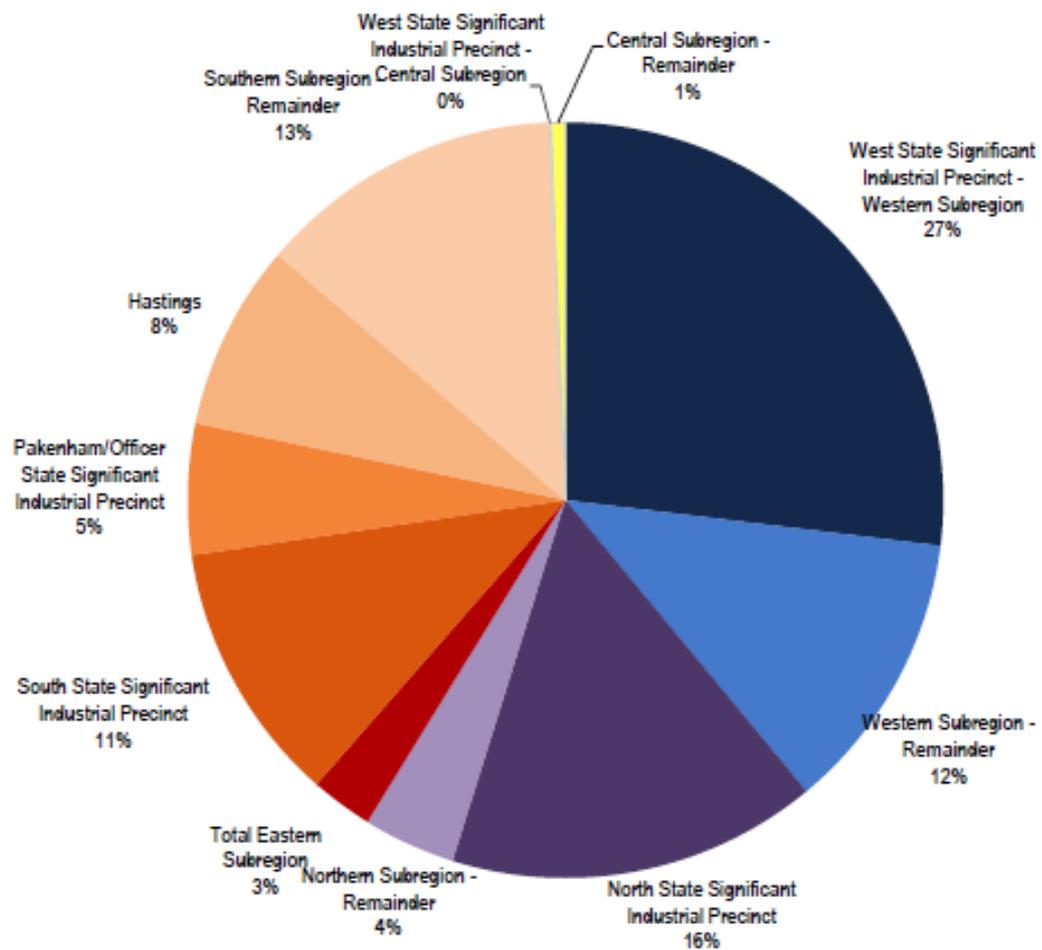
Local Government Area	Occupied	Supply	Total
Brimbank	1,667	452	2,119
Hobsons Bay	1,229	402	1,632
Melton	400	899	1,299
Moonee Valley	55	1	56
Wyndham	1,509	1,072	2,581
Total Western Subregion	4,860	2,826	7,686
<i>West State Significant Industrial Precinct - Western Subregion</i>	<i>3,520</i>	<i>1,952</i>	<i>5,472</i>
Banyule	116	2	118
Darebin	292	15	307
Hume	1,834	1,115	2,949
Moreland	264	12	277
Nillumbik	30	0	30
Whittlesea	689	291	980
Total Northern Subregion	3,225	1,435	4,661
<i>North State Significant Industrial Precinct</i>	<i>2,123</i>	<i>1,148</i>	<i>3,271</i>
Boroondara	20	0	20
Knox	743	77	820
Manningham	13	0	13
Maroondah	419	63	482
Monash	694	17	711
Whitehorse	229	6	235
Yarra Ranges	303	28	331
Total Eastern Subregion	2,421	191	2,612
Bayside	74	2	76
Cardinia	325	432	757
Casey	668	275	943
Frankston	336	59	394
Glen Eira	44	0	44
Greater Dandenong	2,193	772	2,965
Kingston	1,176	141	1,317
Mornington Peninsula	2,178	1,064	3,242
Total Southern Subregion	6,994	2,745	9,739
<i>South State Significant Industrial Precinct</i>	<i>2,190</i>	<i>814</i>	<i>3,004</i>
<i>Hastings State Significant Industrial Precinct</i>	<i>830</i>	<i>577</i>	<i>1,407</i>
<i>Pakenham/Officer State Significant Industrial Precinct</i>	<i>263</i>	<i>405</i>	<i>668</i>
Maribyrnong	507	36	543
Melbourne	318	12	330
Port Phillip	14	0	14
Stonnington	4	0	4
Yarra	139	1	140
Total Central Subregion	982	49	1,031
<i>West State Significant Industrial Precinct - Central Subregion</i>	<i>287</i>	<i>4</i>	<i>291</i>
Total Metropolitan Melbourne	18,482	7,246	25,729

Source: Department of Transport, Planning and Local Infrastructure 2014



However, the Eastern subregion had only a relatively small (3%) share of vacant zoned industrial land in 2013-14 (Figure 32).

Figure 32 Share of vacant zoned industrial land by region



Source: Department of Transport, Planning and Local Infrastructure 2014

The majority of industrial land in Knox is within relatively close proximity to that of other municipalities, in particular Monash.



Local Industrial Property Market

Demand Considerations

Knox has a broad manufacturing and industrial base which includes a range of sectors such as manufacturing, TLD users, light industry and business services.

Many of the firms in Knox Central and the broader Knox LGA serve the local and regional population and business bases. However, there may be an opportunity for firms to serve a greater market given, especially, that Knox's position in the east provides access to firms and markets in Melbourne's north, east and south-east.

The nature of industrial activity has changed, especially over the last decade. It is now more complex and knowledge intensive, which makes it feasible for Knox Central to play a role, particularly in research and business service based activities. Alternatively, industrial and related uses could be focused in other areas within the region (such as Bayswater and Rowville) to free up development land in the study area. Without undertaking a detailed industrial land study, in order to better understand both current and future supply and demand, it is difficult to assess whether the available industrial land in Knox is sufficient to meet the future requirements of business and industry.²² This is especially so, given a range of factors including the new metropolitan planning strategy (Plan Melbourne), which will seek to direct employment and residential growth to particular areas, and recent trends in the spatial distribution of land consumption. These factors may be especially significant going forward.

For example, the consumption of industrial land inside of the State Significant Industrial Precincts (SSIPs) has increased significantly in importance in recent decades while consumption outside of SSIPs has decreased.

The 2014 UDP report notes that over the period 1994-95 to 1999-00, 58% of Melbourne's industrial land consumption occurred within SSIPs. However, this increased to 70% over the period 1999-00 to 2004-05 and increased further to 76% over the period 2004-05 to 2013-14.

Declines in consumption outside of the SSIPs is due to a range of factors including increasing scarcity of vacant industrial land in Melbourne's established areas in addition to attractiveness of land in the SSIPs. In particular, the SSIPs have access to high quality transport connections and a diversity of lot sizes which enable a range of buildings and uses to be developed.

²² Knox City Council intends to undertake a municipal-wide 'Land for Business' study in 2016-2017.



Supply Considerations

Based on the most recent UDP report in 2013-14 Knox had the largest amount of available gross zoned industrial land supply of all municipalities in the Eastern Region (77 hectares) representing over 40% of all available gross zoned industrial land supply in the Eastern Subregion.

Knox Central has some competitors in this space, including Scoresby-Rowville (which has a significant number of corporates in industrial areas), Bayswater and Dandenong South, which is designated as a National Employment Cluster (NEC) in *Plan Melbourne* and is part of the Southern Industrial Precinct.

The Dandenong South NEC includes advanced manufacturing, health and education enterprises, a number of business parks, Victoria's first eco-industrial park (LOGIS) and is linked to the Dandenong MAC (which also includes Chisholm TAFE and Dandenong Hospital). The cluster has a range of strengths in advanced manufacturing, health, education, wholesale trade, retail and transport, postal and warehousing. It is estimated the cluster has around 55,000 jobs.

Conclusions

Short Term Demand

Demand for industrial space in the short-term (0-5 years) is likely to be relatively stable given the competitiveness of other locations and current industrial market conditions. Floor space demand modelling in the next stage of this project will help determine medium to longer term demand for industrial land uses.

The industrial area within Knox Central is gradually evolving in response to a changing economic base and we expect will eventually transition to be more reflective of a range or mix uses (including mixed employment). This will be driven by an increase in the relative importance of various service industries and the decline of manufacturing across the national economy. However, there are opportunities to increase value-adding²³ across both services and manufacturing sectors which will assist all firms, especially those in manufacturing, to be more competitive.

²³ Moving toward higher value activities within the industrial supply-chain (e.g. moving from basic manufacturing to advanced manufacturing, 'manufacturing as a service', or consulting manufacturer models. Recent projects undertaken by Geografia in south-east Melbourne anecdotally show that traditional secondary industries that have shifted to value-adding business models in recent years (since the 2011 Census) have been the most resilient in the face of wider industry decline.



Higher Amenity, Business Park Type Development

It is considered that a way to accelerate the evolution of existing industrial stock in the medium to longer term is to transition these areas to higher order mixed uses via the development of a business park (or more).

Business parks are an increasingly popular location for employment and are hosting an increasing number of commercial offices and industrial buildings. Drivers of business park development include economies of scale in development, the ability to provide an attractive working environment (for example in a campus format²⁴) and facilitating the clustering of firms. This would be particularly relevant to higher value industry that can build upon the existing cluster in the area.

Importantly, the outer east and south-east regions of Melbourne have a number of business parks and related types of precincts (e.g. office parks, technology precincts etc.) many of which are well-recognised and have immediate branding/marketing appeal.

A well-planned and marketed business park in Knox Central would allow the precinct to better compete and leverage its strategic position in the outer east which provides access to firms and markets in Melbourne's north, east and south-east.

Council can also accelerate the transformation of the precinct via a range of accompanying tools and mechanisms including:

- Identifying strategic sites and precincts in Knox Central to concentrate efforts and achieve a critical mass of new and modern mixed use employment facilities that can also serve as an example of the type of change occurring in Knox Central;
- Redirecting lower value industrial and related uses to other areas within the region (such as Bayswater and Rowville). This will reduce potential conflict with higher value industry, as well as freeing land for alternate development types;
- Requiring new and upgraded urban settings in Knox Central to attract higher-value adding firms and employment types (especially as economic activity evolves towards more service and knowledge-based activities); and
- Improving the image and prestige of the employment areas in Knox Central. This may occur through marketing but must be accompanied by physical changes such as new and upgraded urban settings, as noted above, and the development of shared facilities and landscaped setbacks.²⁵ This should occur initially on major road frontages.

²⁴ See, for example, Norwest Business Park (Sydney, NSW)

²⁵ See, for example, Metroplex on Gateway Business Park (Brisbane, QLD)



Feasibility

The transformation of existing industrial facilities into new modern 'industrial' mixed use/employment will be driven by a range of factors including prevailing market conditions and the type of tenant/occupier seeking facilities (in the case of development which is pre-committed). For example specialist industrial facilities, such as R&D facilities and temperature-controlled warehousing, have more complex feasibility considerations than more basic industrial facilities (such as those for warehousing or service-centres).

Although interest rates remain low and are expected to remain low for the foreseeable future, it is considered that market conditions and pricing over the next 5 years (at least) will provide limited support for significant industrial-related development on the subject site.

An opportunity for more significant industrial development is likely to arise beyond five years and will depend on the prevailing market/physical leasing and financial/feasibility conditions at the time.

For example, currently, a major trend characterising the wave of new industrial facilities is the development of large TLD facilities. In addition to profitability/financial factors (for example economies of scope in development, the introduction of new technology) a range of physical market factors and industry dynamics are driving the development of these facilities. These factors include:

- Growth of goods being transported (due to trade and population growth);
- Growth in freight services and e-commerce/online retailing; and
- The availability of relatively affordable land in major industrial precincts (especially in Melbourne's West subregion).

In terms of financial/profitability considerations the industrial property market continues to offer amongst the highest returns of all property classes attracting both large and smaller investors. Institutional and other large investors are amongst the major buyers of new industrial facilities due to the higher yields on offer and other financial benefits available (e.g. depreciation).

Furthermore, modern larger warehouse facilities are being tenanted by high quality, blue-chip national tenants on long weighted average lease expiries (WALEs). The security these tenants offer is also a major driver of investor demand.



Implications for Structure Plan

The Structure Plan will need to:

- Identify potential specialisations in the Lewis Road industrial area, and promote these specialisations/clusters to potential investors and developers (including through the Structure Plan). This might include identifying the types of industry that could be discouraged from locating in the area, and which may be better suited in other locations (e.g. Bayswater).
- Resolve amenity conflicts between lower amenity uses and a desire for higher amenity and higher value industry.
- Encourage the redevelopment of lower quality, vacant stock in the Lewis Road area that is often mismatched with market desires.
- Determine Council's role (if any) in the consolidation of strategic parcels of land to help shift toward higher value uses in the area.
- Identify strategic sites that might be candidates for business park style development. These would generally be larger sites, those with strong consolidation potential, and those with good amenity. Council may play a role in facilitating such development on this land through promotion, consolidation, joint ventures or incentives. Due to the relatively low level of office demand business park style development could initially be focused on a range of property users including transport, logistics and distribution firms and industries already present in Knox Central. A focus should be on providing a high amenity business environment that can, over time, lead to the renewal of the employment areas, create a unified precinct (or set of precincts) with a 'sense of place' (brand) and attract higher value adding sectors and firms (many of which may have a higher office component).
- Improve amenity throughout the Lewis Road area generally through street scaping and links to Knox Shopping Centre and Blind Creek.

Implications for Economic Development

In addition to the opportunities to promote industry development through the Structure Plan, some economic development actions could be explored:

Demonstrate opportunities to shift the furniture manufacturing cluster into higher value segments in the medium to long term. This could be through industry education or tour programs, for example.

Explore opportunities to build links between scientific equipment, pharmaceutical and medical device companies in the area. This could be facilitated through a formal or informal 'scientific cluster' grouping or similar. Potential links to Wantirna Health Precinct should also be explored.



- Market the specialisations that are present in the Lewis Road area through branding and investment attraction materials.
- Maintain a local labour pool with the relevant skills for industry clusters around the Lewis Road area. Working in conjunction with local businesses and training providers to encourage succession and skills planning will help promote the viability of the cluster in the longer term.
- Explore the potential for 'green industry' to be attracted to the Lewis Road area, given the high environmental amenity and setting of the precinct. Previous work by the Victorian Government (*Jobs for the Future Economy: Victoria's Action Plan for Green Jobs, Department of Innovation, Industry and Regional Development 2010*) notes that the 'green industry' includes various areas of activities such as protecting or conserving the natural environment, developing cleaner and more sustainable processes and products and providing green skills and services. Future growth in 'green jobs' is expected in a range of sectors such as building and construction, renewable energy, energy auditing, carbon markets, new manufacturing processes, energy and water efficiency retrofitting, and the recycling of materials. In addition, previous work undertaken by Geografia for Knox City Council suggests there is potential for expanding the envirotech sector across the City more generally, and the existing presence of envirotech businesses around Knox Central.²⁶

²⁶ See City of Knox Envirotech Industry Study (Geografia, 2012)



Figure 33 Large and high amenity sites within Lewis Road area (in red) that may be considered for transition



10 Commercial Floor Space Demand

This Section provides an overview of demand for commercial floor space within Knox Central Activity Centre.

Broadly, the technique used to develop commercial land use projections in this Section can be summarised into four steps:

1. Developing projections for economic activity at the regional level, giving consideration to Department of Employment forecasts and historical variability (1996-2011 Census data).
2. Understanding what proportion of regional economic growth that Knox Central might be able to capture, based on an analysis of existing share figures, historical variability, and experience with other centres.
3. Developing employment projections for Knox Central based on the two factors above. Economic multipliers and inter-industry flow figures provided by REMPlan to Knox City Council were utilised in the projections.
4. Translating employment projections to floor space demand projections, using data about the average number of floor space required per worker.

For each land use category (retail, office, industry), demand projections are provided in ranges. These take into account a mix of uncertain factors, including:

- The impact of automation on key sectors. Sections 4 and 9 of this report provide a specific breakdown of the potential impact of automation on key industries such as retail and manufacturing.
- Knox Central's role within the region. Depending on investment at Knox Central and other centres in the Eastern Region, Knox Central may capture an increased share of regional industry growth, or a decreasing share. The potential trajectories are captured within the ranges in all demand modelling in this Section.
- Potential 'catalyst' developments, such as the Knox City Shopping Centre expansion, and public investment in infrastructure, such as a performing arts facility.

Retail

For the purposes of this analysis, retail also includes accommodation and food services.

The table below shows the projected new retail related employment and floor space that may be generated within the Knox Central Activity Centre. By 2035, there is expected to be demand for:

- Between 485 and 848 new jobs in retail land uses within Knox Central.



- Between 30,000 and 70,000 sqm of additional retail space within Knox Central. For the purposes of this analysis, each new retail worker is expected to demand 61 sqm of floor space.
- The planned Westfield redevelopment (Stage 1) will increase supply of retail space by around 45,000 sqm. Therefore, following this expansion, unmet retail floor space demand is expected to be no greater than 25,000 sqm by 2035. Unmet floor space demand could be either accommodated on the Westfield site (through a future expansion stage, or through alternative sites within the Activity Centre).

Table 6 Projected new employment and floor space required for retail land uses in Knox Central

Year	Employment			Floor space (sqm)		
	Min	Med	Max	Min	Med	Max
2015	24	37	43	1,488	2,275	2,629
2016	37	64	76	2,227	3,874	4,642
2017	58	104	127	3,514	6,314	7,741
2018	80	160	199	4,898	9,730	12,127
2019	115	233	294	7,009	14,219	17,904
2020	137	298	379	8,351	18,166	23,119
2021	189	389	498	11,499	23,729	30,354
2022	239	477	607	14,561	29,091	37,021
2023	294	564	718	17,916	34,374	43,798
2024	325	617	790	19,831	37,631	48,196
2025	366	685	868	22,296	41,761	52,942
2026	402	737	951	24,528	44,939	58,023
2027	443	781	1,012	27,029	47,629	61,720
2028	446	788	1,015	27,182	48,038	61,921
2029	479	821	1,060	29,231	50,081	64,660
2030	508	835	1,102	30,958	50,947	67,216
2031	489	829	1,110	29,853	50,569	67,734
2032	499	843	1,129	30,409	51,441	68,875
2033	461	851	1,139	28,139	51,917	69,503
2034	505	844	1,152	30,805	51,460	70,272
2035	485	848	1,141	29,609	51,740	69,571

Source: Geografia (2015)



Office Space

Office includes information and media, finance, rental, hiring and real estate, professional services, administrative services and public administration.

Table 7 Projected new employment and floor space required for office land uses shows the projected new office related employment and floor space that may be generated within the Knox Central. By 2035, there is expected to be demand for:

- Between 154 and 464 new office jobs in within the activity centre.
- Between 5,000 and 17,000 sqm of additional office space within the activity centre. The upper end of this estimate would follow an elevation in Knox Central's role within the wider eastern regional office market. For the purposes of this analysis, each new office worker is expected to demand 24sqm of floor space.

Table 7 Projected new employment and floor space required for office land uses

Year	Employment			Floor space (sqm)		
	Min	Med	Max	Min	Med	Max
2015	9	15	20	1,730	2,174	2,578
2016	22	30	38	2,234	2,870	3,434
2017	36	46	57	2,805	3,661	4,288
2018	51	64	76	3,395	4,567	5,299
2019	66	84	101	4,157	5,606	6,539
2020	83	108	126	4,978	6,744	7,937
2021	100	134	156	4,946	7,137	8,560
2022	122	165	192	5,935	8,347	10,007
2023	146	198	233	6,564	9,158	11,089
2024	145	210	252	6,843	9,775	11,988
2025	175	245	294	7,153	10,177	12,712
2026	193	269	326	6,986	10,265	13,460
2027	201	288	353	7,180	10,634	13,873
2028	210	299	374	7,126	10,835	14,512
2029	205	302	396	6,794	10,752	14,583
2030	211	313	408	5,873	10,738	14,830
2031	210	319	427	5,376	10,568	15,461
2032	200	316	429	5,242	10,471	15,776
2033	173	316	436	4,225	10,378	15,879



2034	158	311	455	4,320	10,862	16,635
2035	154	308	464	4,705	10,871	16,585

Industry

Industrial includes manufacturing, construction, wholesale, utilities, transport, as well as agriculture and mining.

The table below shows the projected change in industrial employment and floor space in Knox Central. The effect of automation and the assumptions around underlying employment growth (particularly in manufacturing) is projected to cause a small decline in total employment in Knox Central, with a resultant decline in space demand, specifically:

- Between 40 and 250 fewer jobs in industrial land uses within the activity centre.
- Between 3,000 and 22,000 sqm less industrial space required. For the purposes of this analysis, each industry worker is expected to use 91 sqm of floor space.

Table 7 Projected new employment and floor space required for industry land uses

Year	Employment			Floor space (sqm)		
	Min	Med	Max	Min	Med	Max
2015	-1	0	1	-56	44	116
2016	0	2	3	-25	171	300
2017	1	5	7	72	421	635
2018	3	9	12	235	775	1,115
2019	5	14	20	456	1,273	1,783
2020	8	20	28	726	1,856	2,547
2021	0	17	28	-11	1,553	2,579
2022	3	22	36	305	2,017	3,284
2023	-5	17	36	-498	1,545	3,280
2024	-14	14	35	-1,248	1,312	3,182
2025	-29	4	35	-2,659	357	3,158
2026	-40	-4	33	-3,609	-344	3,003
2027	-74	-25	27	-6,755	-2,239	2,481
2028	-101	-43	19	-9,209	-3,895	1,726
2029	-129	-60	9	-11,718	-5,494	842
2030	-141	-73	11	-12,840	-6,631	968
2031	-160	-90	-6	-14,571	-8,163	-511
2032	-207	-107	-24	-18,821	-9,727	-2,139



2033	-202	-115	-15	-18,384	-10,487	-1,348
2034	-227	-134	-29	-20,654	-12,232	-2,674
2035	-246	-140	-39	-22,374	-12,784	-3,530



11 Residential Property Market

Market Conditions

- The Melbourne housing market is now undergoing a cyclical upturn driven by low interest rates, robust population growth and positive buyer sentiment.
- Price growth is continuing although remaining uneven across different regions and dwelling types.
- Overseas property purchasers continue to play an important role in the market both as investors and developers. The Federal Government has announced various reforms to Australia's foreign investment framework especially around residential real estate.

Population

Victoria's population was estimated to be around 5.9 million people as at December 2014 growing by around 101,500 people in 2014. Victoria's rate of population growth in 2014 was 1.8% which was above the national average (1.4%).

A key driver of population growth and a significant driver of underlying housing demand, at both the national and state levels, is net overseas migration (NOM). While NOM growth has decelerated from its recent peak in 2008-09, it remains above levels reached in the early part of the 2000s. Robust immigration levels have been driven by better economic conditions (relative to many economies) and demand for labour.

In 2014 Victoria recorded the highest net interstate migration in over four decades with 9,300 people (net) moving to the State from the rest of Australia. High Victorian net interstate migration reflects a range of factors including higher house prices in Sydney (and a corresponding decline in affordability) and continued employment declines in the mining and resources industries which has impacted population growth in Queensland and Western Australia especially.

Overseas purchasers

Overseas property purchasers are an increasingly important segment of the market (especially for apartments). A decline in the Australian dollar, an objective of the Reserve Bank of Australia (RBA), could see stronger demand for Australian property assets more generally from overseas investors.

The Federal Government has announced various reforms to Australia's foreign investment framework especially around residential real estate and agriculture. These reforms include stricter penalties for foreign investors who breach the rules and to third parties who



knowingly assist a foreign investor to breach the rules. Fees will also be levied on all foreign investment applications. For residential properties valued at \$1 million or less, foreign investors will pay a fee of \$5,000. Higher fees will apply to more expensive residential properties as well as business, agriculture and commercial real estate applications.

The Victorian Government has announced changes to land tax and land transfer duty (stamp duty). A 3% surcharge will apply to foreign purchasers when they buy or acquire residential property in Victoria, either directly or indirectly. This surcharge, which is in addition to any stamp duty or landholder duty payable, is proposed for contracts entered into (or a relevant acquisition made) on or after 1 July 2015. In addition, a 0.5% land tax surcharge will apply to land owned by absentee owners. The surcharge, which is in addition to any land tax payable, is proposed to commence from the 2016 land tax year.

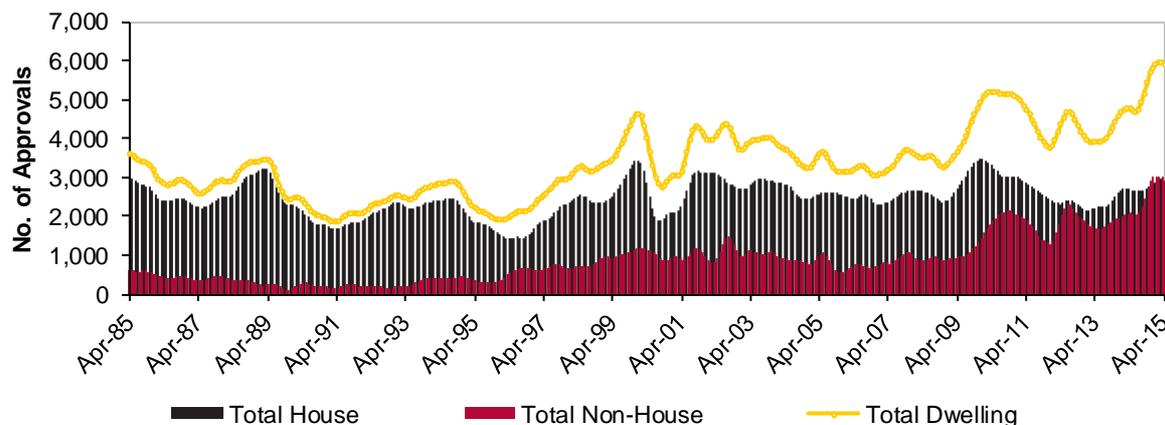
Foreign developers are becoming increasingly important in the inner city. Transactional activity has been robust in the Melbourne CBD and Southbank both of which have seen strong interest from foreign purchasers.

Supply

Building approvals are a leading indicator of residential supply. Over the last year Victorian dwelling approvals have remained strong, supported by lower interest rates and population growth. Total monthly non-house (e.g. semi-detached, row, terrace houses and townhouses and flats, units and apartments) approvals are trending higher and are at record levels.



Figure 34 Victorian Monthly Dwelling Building Approvals



Source: ABS, m3property Research.

Rental Market Vacancy Rates

The Real Estate Institute of Victoria (REIV) estimates that the overall vacancy rate in Melbourne remained flat in May 2015 at 3.0% for the fourth consecutive month.

The REIV estimates that the vacancy rate in the inner suburbs (0-10 km) increased to 2.8% in May 2015 from the previous month while the vacancy rate in the outer suburbs (20+ km) declined to 2.2% in May 2015 from 2.4% in the previous month.

The vacancy rate in the middle suburbs (10-20 km) tightened to 3.5% in May 2015 from 3.6% in April 2015.

The equilibrium vacancy rate is generally considered to be around 3.0%.

Rents

The REIV reports that median rent for houses grew by 1.3% in May 2015 to be 2.5% higher over the year. Metropolitan median house rents were averaging \$400 per week as at May 2015.

Inner suburb rents for houses and units declined by 4.5% and 2.4% respectively from April 2015 to May 2015. The decline in rents may be driven by a range of factors including the increase in inner city apartment stock and greater purchaser demand (and lower rental demand) given lower interest rates.

Rents in the middle suburbs rose by 3.8% to \$395 per week for houses in May 2015 from April 2015 while unit rentals rose by 1.4% to \$365 per week.



Outer Melbourne rents for houses declined by 2.4% to \$351 per week while unit rents declined by 4.0% to \$240 per week for units. Again, the decline might be due to the impact of lower interest rates on purchaser demand.

Prices and Sales Market

The Melbourne residential property market continues to experience price growth although below that of Sydney which is experiencing the fastest price growth of all capital cities.

CoreLogic RP Data reports that Melbourne dwelling values were up 9.0% over the year to May 2015. Price growth was led by houses (9.8% over the same period) while units experienced more subdued price growth (2.9%). Sydney dwelling values increased by 15.0% over the year to May 2015 led by price growth in houses (16.4%). Sydney unit price growth was relatively more subdued at 8.8%.

The REIV reports that in the year to the June quarter 2015 Melbourne's median house price increased by 6.3% to reach \$706,000. Over the same period Inner Melbourne's (0 to 10 km) median house price increased by 13.6% while Middle Melbourne's (10 to 20 km) median house price increased by 11.2% to reach \$827,500. Outer Melbourne's (20+ km) median house price rose by 5.8% to reach \$525,500.

In the year to the June quarter 2015 median house price growth across the suburbs of Knox has been generally much higher than the metropolitan average and the average for both Middle and Outer Melbourne.

A snapshot of recent price growth for selected suburbs is provided below:

- Bayswater (up 19.8% to reach \$645,000);
- Boronia (9.2%, \$561,000);
- Ferntree Gully (13.3%, \$602,000);
- Rowville (12.7%, \$735,000);
- Wantirna (18.6%, \$749,500); and
- Wantirna South (21.0%, \$863,000).

Auction volumes and clearance rates remain high being supported by low interest rates and positive home buyer sentiment.

Outlook

- Robust residential price growth in Melbourne has raised concerns about the level of prices, the likelihood of continued strong growth and the possibility of a marked decline (or 'correction') in the future.



- While a range of variables influence residential property prices there are a range of key factors which should be considered.
- These factors include ongoing robust overseas purchaser interest, continued low interest rates, ongoing robust population growth, an improving State economy and high levels of dwelling investment (new dwelling supply).
- Overseas purchaser interest for Australian property, including especially that of Melbourne property, remains strong buoyed by a decline in the Australian dollar. It is considered that Australia is likely to remain a desirable investment destination.
- Low interest rates should continue to support the residential market and are expected to remain low for the foreseeable future. Low interest rates have allowed more purchasers to enter the property market, either as owner occupiers or investors, while also allowing existing borrowers to repay debt at a faster rate.
- An improving Victorian economy is expected to provide support to the metropolitan property market. The Victorian Government forecasts economic growth to increase to 2.5% in 2015-16 from 2.25% in 2014-15. Growth will be driven by improved household consumption and stronger export growth while being supported by a lower Australian dollar and increasing demand from Asia.
- Melbourne's population growth is expected to remain robust due to a range of factors including an improving economy and greater dwelling affordability (relative to Sydney). Population growth will support the underlying demand for dwellings.
- Dwelling investment, especially the supply of new units and apartments, remains at record levels. In addition to being an important economic driver, new housing supply should help to moderate residential property prices.
- While apartments are becoming a more accepted type of dwelling, the inner city apartment market is expected to generally underperform compared to the broader market due to high levels of current and future dwelling supply.

Metropolitan Residential Property Market

Robust Population Growth

Melbourne continues to experience robust population growth driven by a range of factors including relatively more affordable housing, a diversity of employment options and an attractive lifestyle.

The ABS reports that Sydney and Melbourne each grew by almost 1.7 million people between 1973 and 2013. The overall growth rate for Melbourne was higher (62% increase compared with 54% respectively) reflecting Melbourne's comparatively higher growth rates in recent years.



The ABS note that, if current trends prevail, Melbourne is projected to overtake Sydney to become Australia's largest capital city by 2053.

Declining Household Sizes

Consistent with ageing and other demographic changes the average dwelling size of Melbourne has steadily declined in recent decades and this is expected to continue. The Victorian Government forecasts that the overall average household size of Melbourne will decrease from 2.53 in 2011 to 2.41 in 2051 with the rate of growth of households being faster than that of the population.

Housing Preferences

Considerable research has been undertaken in recent years on housing preferences. A key driver of this research has been a perceived imbalance between supply and demand in specific locations. In particular, there has been high levels of supply of inner city apartments and new dwellings in greenfield locations but relatively less supply of dwellings, especially of the medium-density type, in middle suburbs.

Research on housing preferences in Australia (including the 2011 Grattan Institute report, *The Housing We'd Choose*) has found that people choose a more diverse range of housing types than what the traditional view might suggest (i.e. all Australians want a detached home on a large block); that they desire more variety than the market currently delivers; and that there is a shortfall of semi-detached housing and apartments in the middle and outer areas of both Sydney and Melbourne.

Barriers to providing a more diverse range of housing include developer incentives and householder incentives to recognise a better fit for their lifestyles.

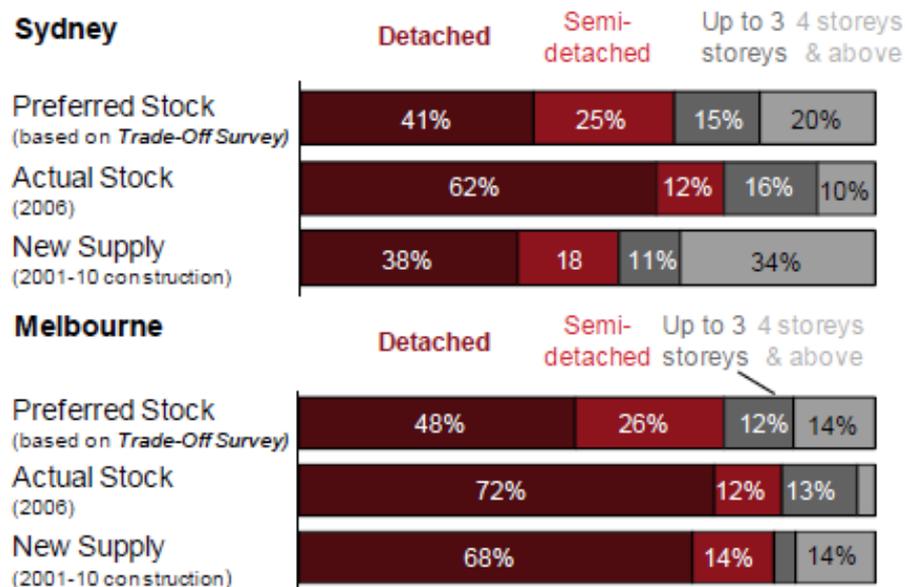
Figure 35 shows comparisons of preferences, stock and supply in Melbourne and Sydney (Grattan Institute, 2011). In the case of Melbourne, the proportion of actual stock (as at the 2006 Census) was mismatched relative to preferred stock. In particular:

- There was a significant 'oversupply' of detached stock as shown by the lower share of preferences for this type of dwelling relative to actual stock (48% compared to 72%);
- There was a significant 'undersupply' of semidetached stock as shown by the higher share of preferences for this type of dwelling relative to actual stock (26% compared to 12%);
- There was a minor/negligible 'oversupply' of apartments (or units in buildings) in up to 3 storey buildings as shown by the lower share of preferences for this type of dwelling relative to actual stock (12% compared to 13%). These buildings are sometimes referred to as 'low rise' or 'walk ups'; and



- There was a significant 'undersupply' of apartment (or units in buildings) in 4+ storeys buildings as shown by the higher share of preferences for this type of dwelling relative to actual stock (14% compared to 3%).

Figure 35 Comparison of housing preferences and supply



Source: *The Housing We'd Choose*, The Grattan Institute (2011), m3property

Higher Density Dwellings

Melbourne has been a leader in the provision of new medium and high density dwellings.

Over the Census periods 2001 to 2011 the number of medium and high density (occupied private) dwellings in metropolitan Melbourne grew strongly over the period 2001-11 (+3.1% p.a.) compared to that of separate houses (+1.4% p.a.).

The number of medium density dwellings increased by +46,000 (127,950 to 173,920) while the number of high density dwellings increased by +62,610 (178,080 to 240,690).

Dwelling approvals data show that high density approvals at record highs both in absolute terms and as a share of total dwelling approvals. Although not all approvals are expected to see completion recent approvals data highlight the ongoing structural shift in Melbourne's dwelling stock towards a greater concentration of apartments and other non-house dwellings.



Market Fundamentals

Melbourne is expected to remain a highly sought after residential location attracting purchaser interest from both local and overseas buyers.

A key driver of demand for living in Melbourne arises from the city's status as Australia's second largest capital city and a major national economic hub. For example, it is estimated Melbourne accounted for over 18% of Australia's GDP growth over the decade to 2010 which was the highest contribution of any city or region.

The rebalancing of the national economy away from mining and resources (which has benefited resources intensive jurisdictions such as Western Australia and Queensland), a lower dollar and lower interest rates should see Victoria's economic growth recover and return to trend in the medium term.

The Victorian Department of Treasury and Finance (DTF) expects economic growth to increase to 2.5% in 2015-16 from 2.25% in 2014-15. DTF notes this will be due to improved household consumption and stronger export growth with Victorian firms responding to the lower Australian dollar among other factors.

In addition to low interest rates, the State's economy is supported by a range of fundamentals including robust population growth, a skilled workforce, a diverse range of industries and broad economic base and attractive metropolitan and regional centres.

Melbourne has been relatively successful in the provision of new dwellings although much of this new supply has been concentrated in inner city apartments and new house and land packages in greenfield locations.

Regional Property Market

Affordability

Affordability is a key driver of demand and is a key advantage for Knox relative to other municipalities in the Eastern subregion.

In terms of median house prices (in 2014) the most expensive municipalities in the Eastern subregion were Boroondara (\$1,550,000), Manningham (\$975,800), Monash (\$920,500), Whitehorse (\$835,250), Maroondah (\$595,000), Knox (\$575,000) and Yarra Ranges (\$452,000).

Quantum of Development

The eastern subregion has traditionally had a high concentration of low density traditional housing stock although this has gradually changed. However, the number of new dwellings in the Eastern subregion has generally lagged that of other subregions. This is partly due to



the lack of a growth front in the Eastern subregion with all other subregions having a growth front (except for the Central City which has seen a substantial increase in the number of apartments).

Higher Density Development

Knox has one of the lowest proportions of flats, units and apartment as a share of total dwelling stock (4% as at 2011). It has experienced rapid growth in flats, units and apartment numbers (72% increase between 2001 and 2011). This was below that of Manningham (79%) but higher than that of Whitehorse (59%), Yarra Ranges (51%) and Boroondara (19%). Maroondah experienced a decline in the number of flats, units and apartments (-15%).

The same trend is apparent in the case of medium density dwellings (i.e. semi-detached, row or terrace house, townhouse etc.).

Similarly, in 2011 Knox had one of the lowest proportions of medium density dwellings in the Eastern subregion (9%). However, growth of this dwelling type over the period 2011 to 2011 was the strongest of all municipalities in the Eastern Region (363%).

The corresponding growth rates in other municipalities were lower, ranging from Yarra Ranges (92%), Maroondah (62%), Manningham (59%), Whitehorse (6%) and Boroondara (0%).

Market Performance

The median value of houses and units has increased strongly since the middle 1980s in the Eastern subregion.

Consistent with trends in the broader metropolitan area house prices in the in the Eastern subregion have increased in municipalities which are closer to the CBD. For example, over the period 1985 to 2015 the median house price of Knox increased by 672% or \$500,500 (from \$74,500 to \$575,000). However, the median house price of Boroondara increased from \$116,000 to \$1,515,000 over the period (an increase of 1206% or \$1,399,000).

Similarly, Monash (from \$84,000 to \$920,500 – an increase of 996% and \$836,500) and Whitehorse (\$80,000 to \$835,250 – increase of 944% and \$755,250) also experienced relatively strong growth.

Growth in median unit/apartment prices has been less robust than that of houses, with the gap between the two dwelling types widening over the last decade. This has made unit/apartment development more feasible and has been a key driver of residential development in the Eastern subregion over the last decade.



Local Property Market

The local residential market context is defined as Knox and respective suburbs.

Population Growth

The population of Knox has undergone stable population growth over the period 2003-04 to 2013-14 increasing from 149,068 to 155,508 – an increase of 6,440 or 4.32% (0.4% p.a.). This compares with Greater Melbourne's increase of 2% p.a. over the same period.

Demographic Change

Consistent with broader changes in metropolitan Melbourne the population of Knox has aged over the last decade and smaller households have experienced the fastest growth. Over the Census period 2001 to 2011 the number of:

- Couple families with no children increased from 10,670 to 12,846, an increase of 2,176 or 20%;
- One parent families increased from 5,245 to 6,037, an increase of 792 or 15%; and
- Lone person households increased from 8,059 to 10,023, an increase of 1,964 or 24%.

In contrast, the number of couple families with children declined from 21,738 to 21,299 (-439 dwellings or -2%).

Housing Diversity

Knox has a modest diversity of housing stock reflecting the local urban character and various waves of development.

Originally smaller settlements were concentrated around railways. Subsequently, post war development, especially in the 1970s, occurred in the west of the municipality to meet the wave of Melbourne's eastern development as it expanded. Also, the development of Rowville reflected the Melbourne's growth in the south east.

The Knox LGA primarily includes 1970s suburbs with mostly detached dwellings and newer suburbs with an emphasis on reproduction styles especially Victorian and Edwardian dwellings.



Infill / Multi-Unit Development

Infill / multi-unit development has been the most common type of residential development in Knox at least since 2001.²⁷ This has been driven by a range of factors including demographic change (e.g. ageing of the population), exhaustion of greenfield residential development opportunities and the changing preferences of current and new residents including especially the redevelopment of single house blocks into with multi-dwellings.

Development Drivers / Barriers

The Knox Central UDF (2005) identified several barriers to greater development in Knox including:

- The lengthy approval process when objections are involved;
- Few suitable sites that can be immediately developed;
- Planning leadership with developers seeking from Council a more active role in facilitating the right sort of development. This includes the way development applications are processed, Council providing clear expectations about intended outcomes in its planning policies and Council communicating to all parties the type of development that is desirable for Knox and where it should be located;
- Perceptions of the developer community. For example, in 2001 it was considered that the development of new, stand-alone office complexes was not viable on any significant scale. There was also a view that Knox market was not ready for residential to become a significant use within activity centres in the form of mixed use or even single use developments. This was driven by the general view that Knox was a typical low land value, car-based outer suburb. Views have changed somewhat during this time; and
- Developments in Knox being relatively low margin operations compared to other higher profit margin developments in more inner areas. Although this changed, inner city locations are generally more profitable for developers.

The Knox Central UDF also identified a range of initiatives that can foster greater development many of which are relevant today, including:

- Rewarding quality design for developers that have proven themselves through creating superior developments. This may include incentives such as preferred development status and fast tracking of the developer's planning permit applications;

²⁷ Census data shows there were an additional 2,128 semi-detached dwellings and apartments between 2001 and 2011 in the Knox LGA. In the same period, there were an additional 3,171 detached dwellings in the LGA. However, through the observation of the types of detached dwellings that were built in the municipality since 2000, it was noted that the vast majority were infill / dual occupancy developments.



- Take steps to broaden perceptions about the types of development that are viable in Knox Central over a longer time frame and how these developments are part of a broad and credible vision of the municipality's future; and
- Leveraging the broader competitive advantages of Knox and the regional area including Knox's 'green' image. Attracting residential and other development to Knox Central (and promoting (greater consolidation more broadly) will provide a greater ability for Council to retain the municipality's green areas.

Recent Developments

Knox Central and the surrounding area have seen a range of new developments over the last 5-10 years. Examples of developments recently completed and in the pipeline are shown in Figure 36.



Figure 36 Example developments in Knox Central



Kubix apartments (Burwood Hwy)

- Developer - Deal Corporation;
- Corner Stud Road and Burwood Highway
- 236 apartments;
- Targeting single and couple households, downsizers, young professionals (especially those living and working in the area) and people looking to remain in local market;
- Stage one completed 2015; and remainder of project is expected by 2016.



Knox Central Apartments (Stud Rd)

- Developer - Deal Corporation;
- Four level apartment building;
- 54 apartments of one and two bedrooms, conference facilities and parking;
- Completed 2007.



Knoxia (Burwood Hwy)

- Developer - Centric Capital Group;
- Six-level project opposite Knox Westfield;
- 456 Burwood Highway, Wantirna South;
- 87 apartment units (first stage) and 7 townhouses (second stage);
- Prices ranging from \$339,000 to high \$600,000s;
- Sizes ranging from 45 square metres to 110 square metres;
- Targeting owner-occupiers via offering product with unique design;
- Local market focus but some international marketing;
- Features landscaped gardens and entertaining balconies;
- Estimated completion 2017.

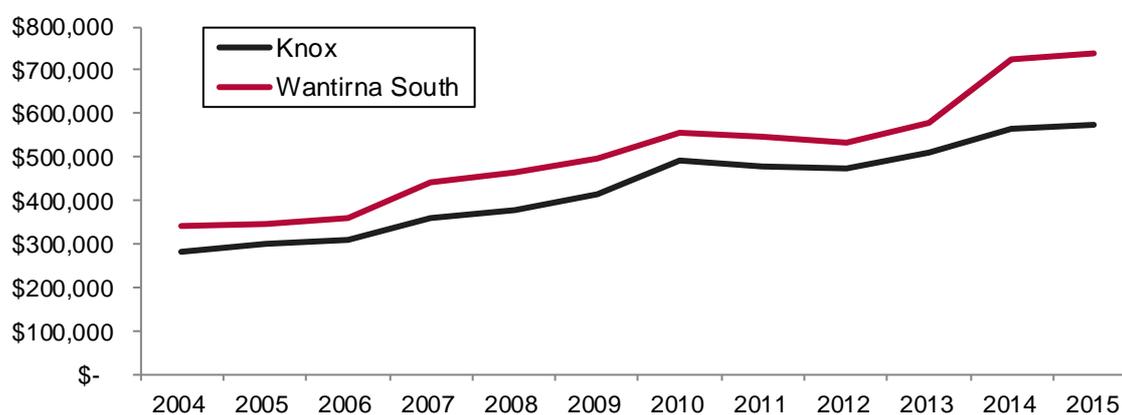


Market Performance: Prices

The median value of houses in Wantirna South has increased strongly over the last decade consistent with broader trends in Knox.

Over the period 2004 to 2015, the median house price in Wantirna South increased from \$341,500 to \$740,000 (an increase of \$398,500 or 7.3% p.a.). By comparison, the median house price in Knox increased at a slightly lower rate increasing from \$281,800 to \$575,000 (an increase of \$293,200 or 6.7% p.a.) (Figure 37).

Figure 37 Median house prices



Source: Valuer-General Victoria (VGV), m3property Research. Statistics for 2015 are based on a small number of sales and are preliminary only.

Over the period 2013 to 2014 Wantirna South houses recorded one of the fastest growth rates increasing by 25% (from \$580,000 to \$723,500). If robust price growth were to continue for houses, affordability could be significantly eroded.

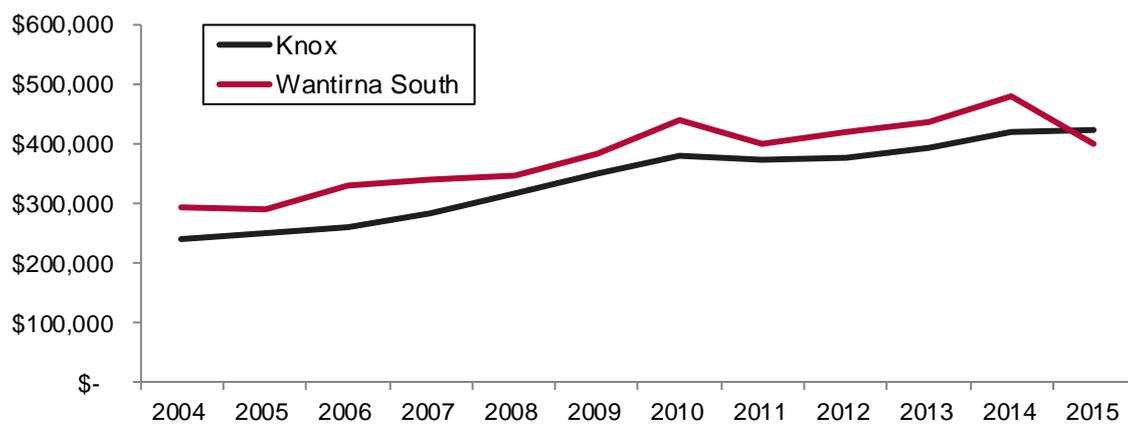
Only thirty-seven of the 399 metropolitan suburbs (with more than 10 sales for both 2013 and 2014) surveyed recorded an increase in the range 15% to 25%. Other large price increases were recorded in Oakleigh East (up 25%, from \$633,500 to \$788,500) and Malvern (up 24%, from \$1,500,000 to \$1,855,000).

The median value of units in Wantirna South increased at generally the same rate as the Knox equivalent (Figure 38).

Over the period 2004 to 2015 the median unit price in Wantirna South increased from \$291,000 to \$398,000 (an increase of \$107,000 or 2.9% p.a.). By comparison, the median unit price of Knox increased from \$240,000 to \$422,500 (an increase of \$182,500 or 5.3% p.a.).



Figure 38 Median unit prices



Source: Valuer-General Victoria (VGV), m3property Research. Statistics for 2015 are based on a small number of sales and are preliminary only.



12 Housing Demand

Housing demand in Knox Central was projected using Geografia's housing demand model. This model translates demographic and population projections into an assessment of demand for different forms of housing within the City and then Knox Central.

The focus in this analysis is on the demand for apartments. The definition of apartments is dwellings contained within "three or more stories in a single mass or multi-unit dwelling, usually with a common entrance." as per the definition contained within Knox City Council's Housing Strategy.

There is unlikely to be a ceiling on the demand for detached housing or townhouses within the activity centre in the foreseeable future with demand likely to be limited only by supply side factors – such as the feasibility of development (land economics), and the availability of land for such development. A supply side analysis of townhouses at Knox Central is provided at Section 13 (Land Supply Capacity).

Apartment demand is inclusive of both private and non-private dwellings, and both occupied and unoccupied dwellings. Non-private dwellings can include housing stock suited to ageing residents, such as Independent Living Units (ILUs).²⁸

Two alternative methods have been used to estimate apartment demand in Knox Central:

1. Modelling housing demand at a municipal level (the whole of the Knox City Council Local Government Area) and then subtracting the probable supply of apartments in other locations in the LGA. This assumes that any unfilled demand for apartments will be directed toward Knox Central.
2. Modelling housing demand at a municipal level (the whole of the Knox City Council Local Government Area) and assuming that Knox Central captures a fixed share of apartment developments across the LGA.

Knox LGA Apartment Demand

Population Projections

The 2015 Victoria in Future (VIF) population projections from the Victorian Government provide the key input into the housing model²⁹. The population projections show the modest growth within the city and an ageing population (see Section 4).

²⁸ Section 8 of this report provides a breakdown of specific demand for ILUs within the area.

²⁹ These are broadly similar to the Council's projections provided by Forecast ID.



The Victorian Government provides VIF population projections up until 2031. For the purposes of this Structure Plan, it is necessary to understand the 20-year outlook (i.e. until 2035). Therefore, population projections and age profile projections from VIF were extrapolated to 2035 by Geografia by assuming a monotonic growth rate³⁰ from 2026 for each single year of age. The VIF five-year age cohort data was disaggregated into single year of age using Beers' modified interpolation coefficients³¹.

Demand for Dwellings

Total demand for all dwellings in the Knox LGA is expected to be in the order of 95,000 dwellings (mean estimate) by 2036. This represents an additional 45% dwellings when compared to demand in 2015. The growth rate for dwelling demand will outstrip the growth rate in the population – this is due to decreasing household sizes meaning a relatively stable population still requires substantially more homes.

The dwelling demand model projects new dwellings for Knox based on the historical housing trends between the 1996 and 2011 Censuses. The following assumptions are the primary influences on the outputs:

1. Dwelling types are grouped into four typologies: separate houses; semi-detached; flats and apartments; and 'other'. These sum to the total number of dwellings, including unoccupied dwellings.
2. We use the 2011 start off point for each main attribute (i.e. dwelling type and household size) and project forward using a variance value derived from the 1996, 2001, 2006 and 2011 values. From this we derive ranged estimates of dwelling figures.
3. Household size (by dwelling type) and propensity to consume different dwelling types (as noted in the historical data) are the key determinants of the total dwelling count, as well as the dwelling count by dwelling type.
4. VIF 2015 data is used to drive the growth rate in dwelling count, and relative proportions of dwelling types are adjusted based on the trend data from 1996 to 2011. This, together with the slight decline in most household sizes, has the effect of significantly increasing the number of semi-detached dwellings and, to a lesser extent, flats/apartments in Knox.

The difference between the VIF 2015 count and the model outputs are primarily due to:

1. The former counting households (that is, effectively, occupied houses) and the latter, all dwellings, including temporary and unoccupied.
2. The assumption that the historically recorded trend in Knox of switching from separate houses to semi-detached will continue. This, together with the concurrent

³⁰ a relatively unchanging growth rate, which is what the historical data indicates.

³¹ a process used, in this case, to allocate population by age group to population by single year of age.



decline in household size, means the model assumes an increase in total dwellings in the order of 30,000 over the period 2011 to 2036. Over the equivalent time period, VIF2015 assumes an increase in population of 40,819.

3. The lion's share of dwelling growth is assumed to be due to subdivision of existing low density separate housing lots to incorporate semi-detached dwellings, and the development of apartments.

The housing demand model does not consider supply side constraints to dwelling demand, such as planning regulation, policy preferences or impacts.

Table 8 Demand for dwellings in Knox LGA

Year	Min	Mean	Max
2011	54,285	56,644	58,927
2012	55,515	58,089	60,648
2013	56,896	59,730	62,522
2014	58,276	61,562	64,719
2015	59,884	63,220	66,560
2016	61,316	64,941	68,502
2017	62,511	66,485	70,217
2018	63,881	67,954	72,051
2019	64,988	69,329	73,738
2020	66,334	71,364	75,368
2021	67,643	72,478	77,282
2022	68,657	73,468	78,490
2023	69,945	75,549	80,298
2024	70,987	76,461	81,918
2025	72,018	77,605	83,192
2026	73,351	78,953	84,697
2027	74,413	81,869	86,258
2028	75,478	81,614	87,528
2029	76,556	82,961	89,284
2030	77,590	83,829	90,444
2031	78,583	85,344	92,092
2032	80,224	84,667	94,207
2033	81,430	88,929	96,139
2034	83,066	90,503	98,157
2035	84,290	92,304	100,088
2036	85,728	94,074	102,202

Source: Geografia (2015)

Demand for Apartments

To model apartment demand based on the VIF population projections, the model factored in the variability in residential housing choice by dwelling type, household structure and age



by single year at the LGA level. Changes in the distribution by dwelling and household form from 1996 to 2011 were used to calibrate a dynamic, stochastic statistical model³² that projected forward (mean and variance) estimates of future demand by dwelling type. Much of the variation in dwelling type demand is a consequence of:

- How quickly households (by dwelling type) decrease in size;
- The changing age profile (and its impact on household structure and dwelling preference); and
- The inherent variability in dwelling choice.

The variance in the propensity to choose different housing forms was treated as an additive, linear function over time.

Mean household sizes by dwelling and household type (including standard deviations) were then used to 'allocate' residents to households over time. Then from this, demand for dwelling types was estimated. The model was run 1,000 times, using a Monte Carlo function³³ to produce a probability distribution of each output value.

Apartment demand across the entire LGA is expected to increase over the coming decades. This is being driven by three components:

1. Modest population growth across the municipality.
2. Decreasing household sizes, with a higher propensity for smaller households to reside in apartments.
3. An ageing population, with a higher propensity to reside in apartments as age increases.

The growth in demand for apartments is still relatively low when compared to the expected increase in demand for townhouses and villa units in the municipality (which is being driven by similar trends).

Modelling outcomes are provided at Figure 39 and Table 9. Demand projections are provided using a mean estimate as well as 95% confidence intervals (represented as minimum and maximum ranges). In summary, we project that:

- There will be demand for between 5,530 and 7,502 apartments across the LGA in 2025. The mean estimate is 6,478 apartments.
- There will be demand for between 7,805 and 10,450 apartments across the LGA in 2035. The mean estimate is 9,126 apartments.

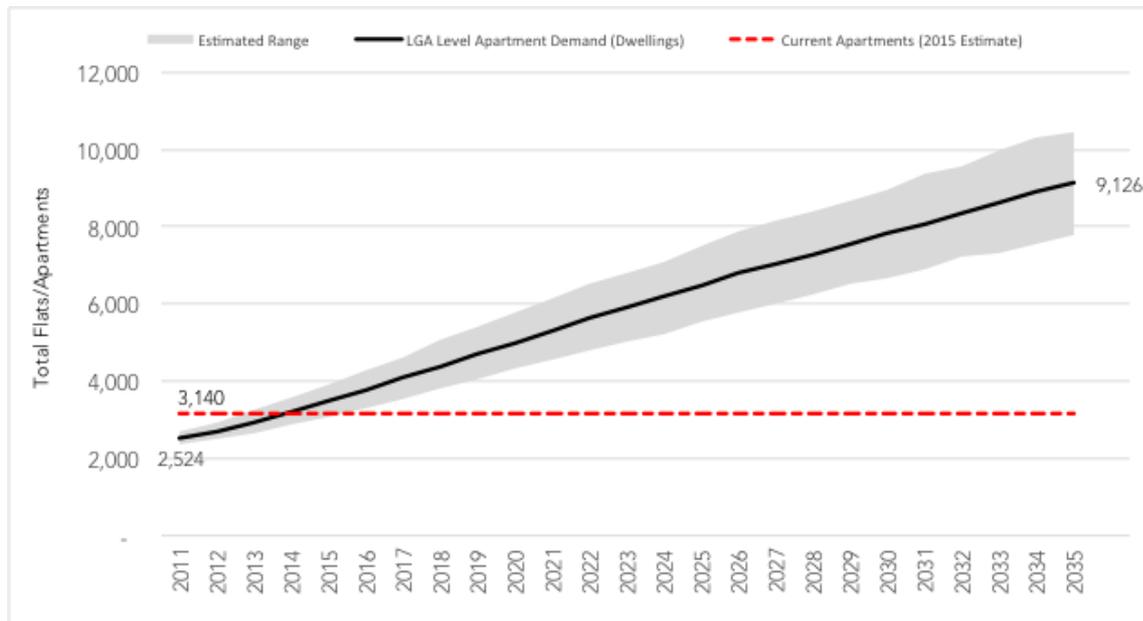
³² a model that incorporates uncertainty by including input variables as ranges with known distributions, rather than as single figures (for example, household size for separate houses may have a mean of 2.8, with a standard deviation of 0.2 and a normal distribution, rather than just 2.8.)

³³ a process where the model is run many times (called realisations). On each realisation the model draws from the distribution of stochastic variables. The results are recorded as ranges.



In 2011 (year of the last Census), the total apartment supply within Knox City Council was around 2,500 dwellings. Geografia has estimated that since 2011, around 600 apartments have been constructed in the City of Knox, bringing the total number of apartments to around 3,100.³⁴ The demand projections provided in this section are inclusive of the demand stemming from existing residents living in apartments.

Figure 39 Apartment Demand, Knox City Council (whole LGA)



Source: Geografia (2015)

³⁴ Consideration has been given to the number of apartments approved as reported in Council’s Housing Policy Monitoring and Review Program reports. It is assumed that there is a 2+ year delay in the occupation of apartments from planning approval date, and that only 75% of approved apartments continue through to construction.



Table 9 Projected Apartment Demand, Knox City Council (whole LGA)³⁵

Year	Minimum	Mean	Maximum
2011	-	2,524	-
2012	2,495	2,705	2,941
2013	2,667	2,939	3,243
2014	2,868	3,206	3,591
2015	3,080	3,488	3,929
2016	3,308	3,771	4,272
2017	3,543	4,079	4,625
2018	3,809	4,398	5,056
2019	4,053	4,699	5,421
2020	4,313	4,999	5,757
2021	4,546	5,331	6,156
2022	4,805	5,634	6,522
2023	5,014	5,902	6,814
2024	5,207	6,181	7,094
2025	5,530	6,478	7,502
2026	5,767	6,782	7,863
2027	6,028	7,041	8,145
2028	6,261	7,291	8,382
2029	6,509	7,550	8,659
2030	6,656	7,813	8,960
2031	6,894	8,079	9,360
2032	7,215	8,333	9,563
2033	7,317	8,607	9,970
2034	7,546	8,886	10,319
2035	7,805	9,126	10,450

Source: Geografia (2015)

Comparison to other projections

Knox City Council has previously commissioned dwelling demand estimates to inform the development of a DCP mechanism for the municipality.³⁶ There are a number of key differences in the forecasting methodologies used in this previous analysis and the housing demand methodology contained within this report. These include:

³⁵ Includes demand absorbed by existing constructed dwellings.

³⁶ See: Urban Enterprise (2015) *Knox Development Contributions Scoping Study*



1. Different base sources for population projections. The previous dwelling demand estimates were built using the Victorian Government's Victoria in Future 2014 projections (VIF 2014). The housing estimates contained within this report are based upon the Victorian Government's Victoria in Future (VIF 2015) projection series. The VIF series was selected due to (1) the currency of the projections, which were recently updated by the State Government; (2) the need to be consistent with projections that have informed the metropolitan planning strategy (Plan Melbourne), and that underpin the upcoming refresh of the metro planning strategy; and (3) the integrity of VIF projections, which have historically demonstrated a low margin of error.
2. Differing modelling outputs. The housing demand modelling reported in this document is segmented according to dwelling type (apartment, townhouse, detached housing etc.). The housing demand forecasts in the DCP work are aggregated (i.e. they do not forecast the typology of housing stock).

The two demand projections have been prepared for alternative purposes, using different base data sources, making them irreconcilable. The two projections outputs are also different in their form (again due to their alternative purposes), meaning they are not directly comparable.

Apartment Demand Within Knox Central

The housing demand model allocates a portion of Knox LGA apartment demand to Knox Central. Two different methods have been used to project this local demand:

1. Method A: Based on unfulfilled apartment demand. This method provides the *minimum* level of demand for apartments within Knox Central.
2. Method B: Based on Knox Central capturing a fixed percentage of apartment demand from the Knox LGA. This method provides the *maximum* level of demand for apartments within Knox Central.

The results of the two methods can be compared to better understand the *range* of possible outcomes. However, the two methods are also suited to different outcomes.

Method A: Unfulfilled Apartment Demand

This method assumes that other locations in the Knox LGA will be preferable compared to Knox Central when it comes to capturing LGA level apartment demand.³⁷ Therefore, this method assumes that Knox Central only captures the 'left over' demand from the LGA that can't be supplied elsewhere. The method calculates the probable supply in other parts of the municipality, with the excess (unfulfilled) demand allocated to Knox Central. It provides a measure of the *minimum* level of apartment demand in Knox Central.

³⁷ This is unlikely to occur, but is possible due to factors such as market preference, lack of timely land release within Knox Central, contamination and demolition issues, or misaligned land economics (e.g. commercial uses might be considered the highest and best use, rather than residential uses).



The Knox Housing Strategy provides estimates of future capacity for areas across Knox that might accommodate apartment supply. This includes a number of 'Strategic Investigation Sites' that will be subject to further planning processes to determine actual capacity. Using this information, discussions with Council strategic planning staff were held to understand the probability of each of these developments proceeding within the next ten years (2025) and twenty years (2035). A summary of this schedule and outcomes of probability analysis for development outside Knox Central is provided in Table 11.



Table 11 Individual apartment supply in Knox LGA outside of Knox Central

Zone	Site	Dwelling Capacity (approx.)	Potential apartment share	Potential apartments	Probability of development (2025)	Probability of development (2035)
Activity Areas (residentially zoned)	Principal Public Transport Network, Knox Central, part of Rowville (RGZ1)	2,917	50%	1,458	50%	100%
	Bayswater and Boronia (RGZ2)	886	80%	709	50%	100%
Activity Areas (non-residentially zoned)	Bayswater	1,715	100%	1,715	20%	50%
	Boronia	2,626	100%	2,626	10%	50%
	Rowville	751	100%	751	30%	50%
	Mountain Gate	448	100%	448	10%	50%
Mixed use zone	MUZ	307	70%	215	20%	50%
Rowville residential opportunity sites	RGZ3	2508	15%	376	50%	100%
Major sites	Jenkins Orchard	375	20%	75	100%	100%
	Kingston Links	700	20%	140	80%	100%
	Stamford Park	151	25%	38	80%	100%

Source: Knox Housing Strategy (2014)/Geografia (2015)

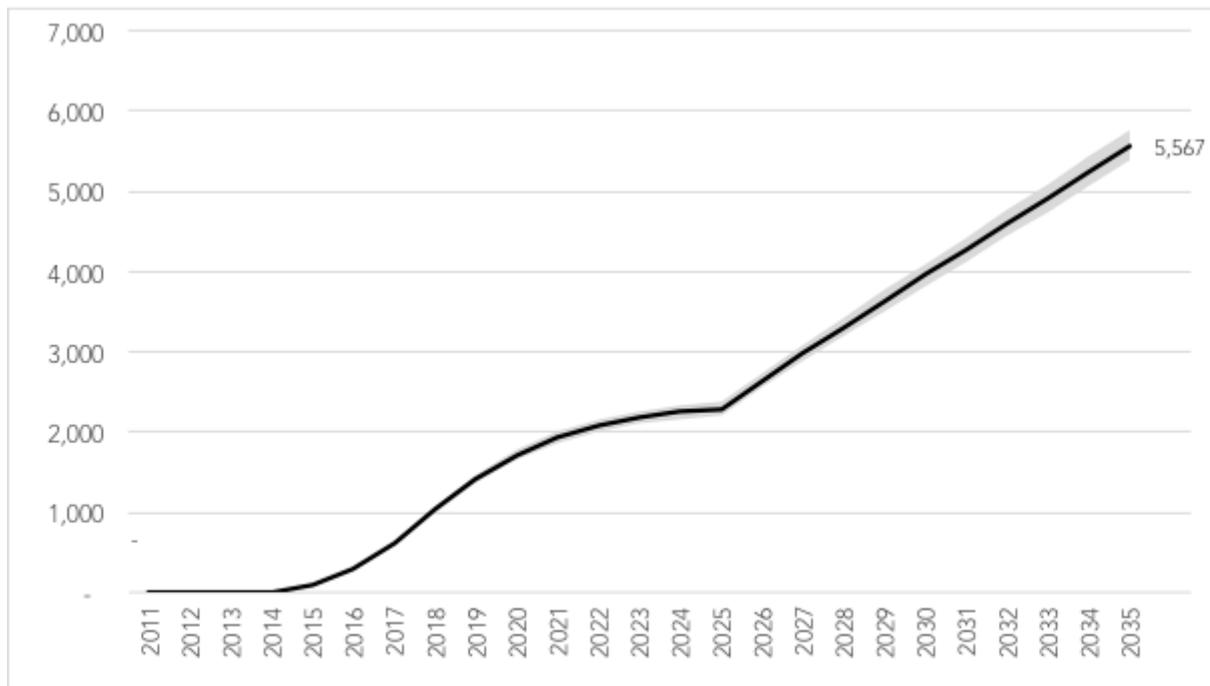


When the probability of apartment development in the LGA outside Knox Central is considered in aggregate, the following new total supply is projected:

- Between 2,210 and 2,374 new apartments in 2025, **with a mean estimate of 2,291 new apartments.**
- Between 5,387 and 5,760 new apartments in 2035, **with a mean estimate of new 5,567 apartments.**

Figure 40 graphically presents the estimate of new apartment supply outside Knox Central in the LGA. It is important to note that this excludes existing apartments (built prior to 2015). It shows that the supply of apartments in the LGA is expected to increase substantially between 2025 and 2035.

Figure 40 Probable aggregate new apartment supply outside of Knox Central



Source: Geografia (2015)



A summary of the demand projections for apartments within Knox Central, by year, is provided in Table 12 and Figure 41. It is assumed that this figure represents the minimum demand for apartments within the Knox Central study area at 2035.

Table 12 Method A: Estimated demand for apartments at Knox Central

Year	A. Projected Cumulative Apartment Demand Knox City LGA	B. Projected New Apartment LGA Demand (Cumulative from 2015)	C. Projected Cumulative Apartment Stock Knox City LGA (ex Knox Central)	D. Cumulative Estimated Apartments Required in Knox Central (D=A-C) ³⁸
2011	2,524	-	2,524 ³⁹	-
2012	2,705	-	2,577 ⁴⁰	129
2013	2,939	-	3,079	-140 ⁴¹
2014	3,206	-	3,140	66
2015	3,488	348	3,223	265
2016	3,771	631	3,426	345
2017	4,079	939	3,764	316
2018	4,398	1,258	4,175	223
2019	4,699	1,559	4,556	143
2020	4,999	1,859	4,858	141
2021	5,331	2,191	5,075	256
2022	5,634	2,494	5,220	414
2023	5,902	2,762	5,321	581
2024	6,181	3,041	5,385	796

³⁸ There may be small discrepancies in calculations due to rounding.

³⁹ Number of apartments within the LGA at 2011 Census.

⁴⁰ 2012-2014 figures include approved apartments detailed in Knox City Council development monitor. 25% of approvals removed to account for those developments that may not have proceeded. One year delay from development approval also included to account for time to market.

⁴¹ Negative numbers represents a projected excess of apartments in the LGA. This indicates that supply in the LGA has exceeded demand temporarily.



Year	A. Projected Cumulative Apartment Demand Knox City LGA	B. Projected New Apartment LGA Demand (Cumulative from 2015)	C. Projected Cumulative Apartment Stock Knox City LGA (ex Knox Central)	D. Cumulative Estimated Apartments Required in Knox Central (D=A-C) ³⁸
2025	6,478	3,338	5,431	1,047
2026	6,782	3,642	5,777	1,005
2027	7,041	3,901	6,119	922
2028	7,291	4,151	6,448	843
2029	7,550	4,410	6,775	775
2030	7,813	4,673	7,102	711
2031	8,079	4,939	7,419	660
2032	8,333	5,193	7,745	588
2033	8,607	5,467	8,068	539
2034	8,886	5,746	8,391	495
2035	9,126	5,986	8,707	419

Source: Geografia (2015)

Based on the probability of apartment supply in the Knox LGA (outside of Knox Central), there is a shortfall of 1,047⁴² (mean estimate) apartments in the LGA by 2025, equivalent to 16% of apartment demand at an LGA level. This shortfall is projected to decline to 634 (mean estimate) by 2035, which represents around 7% of LGA level apartment demand in 2035.⁴³

The most important figure for planning purposes is the demand for apartments at Knox Central in the year 2025. This is when demand for apartments at Knox Central will be at its highest. Structure planning should, therefore, ensure that there is adequate capacity for at least 1,047 apartments across Knox Central. This method is intended to provide a *minimum* apartment demand figure. Therefore, structure planning should seek to provide capacity beyond this figure. Method B provides *maximum* demand for apartments at Knox Central,

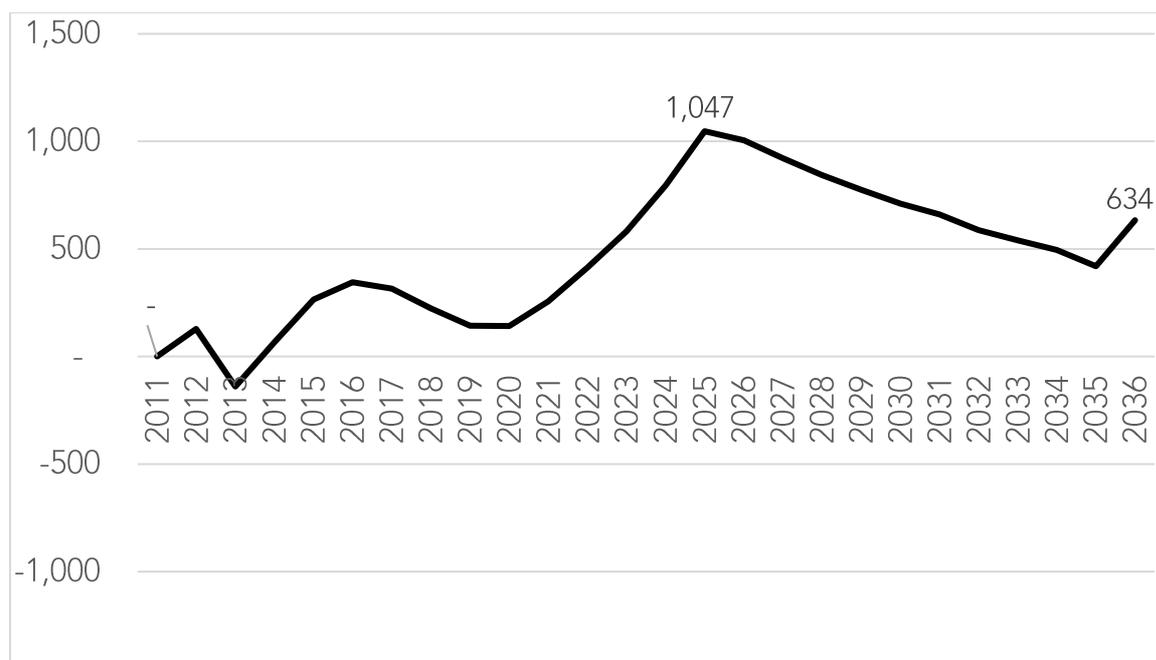
⁴² The shortfall figures discussed here are *total / aggregate* short falls, accumulated over time.

⁴³ This declines due to acceleration of new apartment supply outside of Knox Central between 2025 and 2035.



and provides a better indication of the quantum of apartment supply capacity that might be required in the centre.

Figure 41 Method A: Projected minimum demand for apartments in Knox Central



Source: Geografia (2015)

Method B: 40% Share of LGA Apartment Demand

The second scenario is based on the potential for Knox Central to capture a fixed 40% share of apartment demand from the wider LGA. This figure considers the consultant’s previous experience in other LGAs, existing studies undertaken for Knox Central⁴⁴, and existing patterns of apartment development across Knox City Council.

Knox Central is the highest amenity location for apartments in Knox City, with easy access to retail, entertainment, transport, parkland and other services. On this basis, it is likely to capture a higher amount of demand in the LGA apartment market than might be suggested in the first scenario (Method A). Between 2008 and 2014, 25% of all approved apartments in the Knox LGA were located within the Knox Central Activity Centre.⁴⁵

It is expected that with further public and private investment in Knox Central (Westfield, performing arts and other hospitality options, for example), it could capture a *maximum* of 40% of the apartment market in the Knox LGA. This would also be supported by changing

⁴⁴ An analysis of residential demand at Knox Central Activity Centre in 2008 by SGS Economics and Planning estimated that the Knox Central could capture 30% of apartment demand at the LGA level. However, increased private and public investment at Knox Central is expected to increase the attractiveness of the centre relative to other areas of Knox City Council.

⁴⁵ Geografia analysis of dwelling approval data provided by Knox City Council (9th September, 2015)



expectations of apartment purchasers, who increasingly desire to live in proximity to higher order centres with a variety of services and activities. The popularity of the Knox Central location, and potential for a growing share of apartment development, is reflected in the success of contemporary, high-density apartment developments such as Knoxia and Kubix.

The following table provides an overview of the projected demand for apartments in Knox Central using this second method. It shows:

- By 2025, there is projected to be demand for 1,335 new apartments in Knox Central.
- By 2035, there is projected to be demand for 2,394 new apartments in Knox Central.

Table 13 Method B: Projected apartment demand in Knox Central⁴⁶

Year	Cumulative Total LGA Apartment Demand	Projected New Apartment LGA Demand (Cumulative from 2015)	40% Share of LGA Demand
2015	3,488	348	139
2016	3,771	631	252
2017	4,079	939	376
2018	4,398	1,258	503
2019	4,699	1,559	624
2020	4,999	1,859	744
2021	5,331	2,191	876
2022	5,634	2,494	998
2023	5,902	2,762	1,105
2024	6,181	3,041	1,216
2025	6,478	3,338	1,335
2026	6,782	3,642	1,457
2027	7,041	3,901	1,560
2028	7,291	4,151	1,660
2029	7,550	4,410	1,764
2030	7,813	4,673	1,869
2031	8,079	4,939	1,976
2032	8,333	5,193	2,077
2033	8,607	5,467	2,187
2034	8,886	5,746	2,298
2035	9,126	5,986	2,394

Source: Geografia (2015)

⁴⁶ Table details the mean estimates only



Implications for Structure Plan

Market Demand

Demand for higher density (medium and high density) residential dwellings on the subject site is considered robust. Key target markets include:

- Couple only households (e.g. empty nesters who might use extra bedrooms as a study, for guests and for storage);
- Younger households / persons (e.g. looking to stay in the area);
- Lone person households (e.g. professionals); and
- Households / persons who are working in the local/regional area.

Housing Product Demand

A variety of housing products may be required and, possibly feasible including townhouses / villa units (and other similar one and two storeys attached and semi-attached dwelling types) and apartment units (three plus storeys).

While Council should seek to intensify land use, it should also ensure that a broad range of dwelling types are provided. In the initial stages of residential development there may be a need for a greater focus on medium density stock with some provision for apartments. In latter stages of development it is likely that a greater focus on high density development will be more suitable.

This is due to local housing preferences still favouring low and medium density housing and high density housing remaining a relatively new and emerging housing type for the municipality and the Outer East more widely. However, as noted, market and local conditions are increasingly becoming favourable for high density development (for example, rising house prices and the positive characteristics of Knox Central including high amenity, range of employment opportunities etc.).

Precincts / Development Sites

A variety of precincts / locations would be most suitable for residential development. These are based on market preference, amenity, access, lot size/assembly, past land uses and previous developer interest. These include:

1. Eastern side of the subject site facing the existing residential stock opposite on Scoresby Road;
2. North western segment of the subject site in close proximity to the shopping centre;
3. Areas on the southern side of Burwood Highway.



4. Areas at the eastern end of the Westfield shopping centre, and
5. Areas on the northern edge of Burwood Highway (these areas are of secondary suitability and would only work if there was insufficient capacity in other areas, or if there was possibility for wholesale transition of existing land use toward residential use in this area, rather than incremental transition).

These areas are shown on the map below, with numbers reflecting the list above. Primary suitable areas are shown in blue, and secondary suitable areas are shown in orange.

Figure 42 Potential residential development areas (blue=primary, orange=secondary)



The Structure Plan should ensure that there is sufficient land available to provide for the higher of the dwelling projections (Method B). That is, the Structure Plan will need to provide for up to 1,335 new apartments by 2025, and 2,394 apartments by 2035. The availability of land in a higher amenity location such as Knox Central will be attractive to the market within the wider LGA housing market, reflecting this higher target.

Method A is more useful for understanding the *minimum* number of apartments that might be developed in Knox Central. It would might provide guidance for development contribution plans or other times that it is necessary to understand the minimum level of demand in order for prudent decision making.

Demand for townhouses is expected to be uncapped, and will be limited by supply side factors (see Section 13).



13 Land Supply Capacity

This section assesses the capacity of land within the activity centre that could accommodate various uses.

Assumptions

The likely capacity of land in activity centre at 2025 and 2035 is calculated based upon the probability of some sites being made available for development at these dates. These key sites, and probabilities of redevelopment attached to each, are detailed in Table 14 (overleaf). Key assumptions in the land capacity analysis include:

- Site coverage ratios of 50%, giving consideration to the need to accommodate communal spaces, open space, and access requirements. This reflects the building patterns around Knox Central.
- Average apartment size of 200sqm including private open space, but excluding parking provision (which is generally provided at a basement level in new apartment developments in Knox Central). This reflects the average apartment size of contemporary apartment buildings in Knox Central that have recently been approved/constructed.
- Average townhouse/semi-detached housing lots that are 200sqm in area. This reflects the average townhouse lot size in nearby, contemporary developments, such as Waverley Park. This figure includes private open space and car parking provision, and allows for the average townhouse being constructed over two storeys.
- Within Table 14, height represents the average height of buildings across a site. It has been informed by existing development in Knox Central, and design requirements within the 2005 Knox Central Urban Design Framework.
- Within Table 14, redevelopment probabilities are based on discussions with Knox City Council planning staff and observation of development activity around the area.

Site assumptions have been aggregated into precincts and detailed in Table 14.



Table 14 Land supply assumptions by Precinct

Precinct	Total Unencumbered Site (Ha)	Potential average height	Apartments Volume Ratio	Townhouse Volume Ratio	Office Volume Ratio	Retail Volume Ratio	Industry Volume Ratio	Apartments	Townhouses	Retail Floor Space (includes hospitality)	Office Floor Space	Industry Floor Space	Average Redevelopment Probability	
													2025	2035
1	16.6	2	2%	95%	1%	2%	0%	77	434	8213	2971	0	70%	85%
2	1.4	6	100%	0%	0%	0%	0%	560	0	0	0	0	20%	75%
3	14.2	5	63%	19%	12%	6%	0%	2527	192	16913	39300	0	53%	80%
4	11.5	4	41%	1%	48%	10%	0%	1419	6	29700	102720	0	21%	43%
5	10.6	5	52%	0%	19%	14%	15%	1855	0	41731	46731	23000	5%	10%

Note: Site assumptions have been aggregated into the 5 precincts, as outlined in Figure 42.



Results of Capacity Analysis

Table 15 shows the results of the land supply capacity analysis. There is expected to be sufficient capacity for:

- Between 3,642 and 3,925 new apartments by 2035.
- Between 382 and 472 townhouses.
- Between 42,178 and 47,113 square metres of new retail space (includes hospitality and entertainment functions).
- Between 64,122 and 69,905 square metres of new office space.
- Between 2,070 and 2,530 sqm of new industrial space (through redevelopment of some existing key sites to achieve a higher intensity).

Table 15 Land supply capacity in Knox Central

Type	2025			2035		
	Low	Mean	High	Low	Mean	High
Apartments (dwellings)	2,106	2,196	2,282	3,642	3,780	3,925
Townhouses (dwellings)	415	472	501	549	603	630
Retail, incl hospitality (sqm)	27,543	29,319	30,109	42,178	44,512	47,113
Office (sqm)	34,121	36,455	38,117	64,122	67,009	69,905
Industry (sqm)	740	920	1,100	2,070	2,290	2,530

Source: Geografia (2015)



14 Comparison of Land Supply & Demand

The table below provides an overview of the land use demand and land supply capacity analysis for Knox Central. It compares supply side and demand side factors for different land uses – apartments, townhouses, detached dwellings, retail, commercial office space and industry.

Table 16 Overview of demand supply analysis at Knox Central

Land use	Demand side	Supply side
Apartments	Max demand for 2,394 new apartments by 2035	Minimum capacity for 3,642 apartments by 2035
Townhouses	Uncapped demand	Maximum capacity for 630 townhouses by 2035
Detached dwellings	Uncapped demand	No supply available
Retail (incl hospitality and entertainment) ⁴⁷	Max demand for around 70,000 sqm. This demand is inclusive of demand underpinning current Westfield expansion plans.	Supply of at least 42,178 sqm in 2035. This figure is in addition to capacity on the Westfield site (which is accommodating an upcoming 45,000sqm expansion).
Office	Max demand for 17,000 sqm	Potential supply of at least 69,905 sqm in 2035.
Industry	No expected additional demand	Very little industrial capacity expected to be made available (<3,000sqm).

⁴⁷ Demand and supply analysis are exclusive of Westfield Stage 1 redevelopment plan.



Implications for Structure Plan

In conclusion, the analysis shows:

- **Apartments:** There will be demand for up to 2,394 new apartments at Knox Central by 2035. There will be sufficient land available to provide for this demand.
- **Townhouses:** There is no limit to townhouse demand. Townhouse development will be limited by the quantum of supply at Knox Central. There is sufficient land to supply up to 630 townhouses within Knox Central.
- **Detached dwellings:** There is unlikely to be any new detached dwellings developed within the Knox Central area due to supply side constraints.
- **Retail:** There is demand for up to 70,000 sqm of new retail floor space across the centre. This is inclusive of demand underpinning the current Westfield expansion plans. The current Westfield Stage 1 proposal will absorb up to 45,000 sqm of this demand. The future capacity (beyond the Westfield site) of at least another 42,000 sqm ensures there will be sufficient land that could be utilised for retail, entertainment and hospitality uses across the site.
- **Office:** Conservative estimates suggest demand for up to 17,000 sqm of additional office space in Knox Central. There is more than adequate capacity to accommodate this demand.
- **Industry:** Automation and low growth expectations for industrial activity suggest little or no further demand for industrial space at Knox Central. The land capacity assessment also revealed very limited opportunity for the supply of new industrial land within the precinct. The fragmented ownership and small lots throughout much of the study area limit the ability to respond locally to any demand. Any demand in Knox may be better directed toward other industrial land within the LGA/region (such as Bayswater), where larger lots will be more suited to the contemporary industrial land market.



15 Analysis of 2005 Urban Design Framework

The tables below identify key parts of the 2005 Urban Design Framework that might require adjustment based on the analysis contained within this document. The first table discusses specific adjustments that might need to be made to the UDF. The second table discusses more general reflections that require consideration in the new Knox Central Structure Plan.

Specific Adjustments

Table 17 Specific parts of 2005 UDF that may require attention

2005 UDF	2015 Geografia Analysis	Recommendations
Prescriptive land uses contained within Figure 19. For example, Item 4: hotel location.	The market has already shown it will develop land uses where suitable, available sites are located. Greater flexibility is required to account for market dynamics: limited availability of lots, prices, consolidation requirements.	Promote more flexible activity/land use mixes within the Structure Plan.
Section 3.3: Land use and activity targets require revision.	Market dynamics have changed significantly since the UDF – with significant changes to the demand for different land uses.	If including targets in the Structure Plan, update them based on demand and supply analysis for each land use contained within this document.
Commercial office proposals along Burwood Highway (Figure 19, Item 1).	Limited demand for office space within the centre compared to other uses (residential). Market has a demonstrated recent preference for residential development along Burwood Hwy.	Promote more flexible activity/land use mixes within Structure Plan, along Burwood Highway in particular.
Large area of land allocated to institutional/education uses at corner of Scoresby Rd & Burwood Hwy. See Figure 19.	Much of this site is surplus to institutional/educational requirements, and has been deemed surplus by the State Government. Other uses are more viable.	Promote townhouse residential, retail, office development on a greater portion of this site.



2005 UDF	2015 Geografia Analysis	Recommendations
Northern edge of Burwood Hwy, between Lewis Road and DPI site is allocated as business/employment. See Figure 19.	There is expected to be a decline in demand for industrial space. Consideration should be given to where land might be transitioned to other uses. This area is one potential opportunity to do this. It is suited to retail, office and residential.	Consider if and how this land might be transitioned to other uses (e.g. residential, retail, office) in an orderly fashion.
Proposed residential development in public land along the northern edge of Knox Central and northern edge of Blind Creek. See Item 5 on Figure 19.	Demand for housing can generally be met within alternate sites at Knox Central.	Retain these areas as public land and open space.
Western edge of Lewis Road, south of Blind Creek is allocated as business/employment. See Figure 19.	Some of these areas could be encouraged to transition to higher uses such as office/business park, or retail premises. This would be more complementary to developments to the west, and would respond to declines in demand for industrial space.	<ul style="list-style-type: none"> Consider how these areas might be encouraged to transition away from lower amenity industrial uses over the longer term.
Western edge of Lewis Road, north of Blind Creek allocated as educational, institutional, and community uses.	Unclear about the source of demand for educational, institutional uses in this area.	<ul style="list-style-type: none"> Clarify demand for community facility, education and recreation uses at Knox Central. Consider promoting the transition to higher amenity commercial uses over the longer term.



General Adjustments

Table 18 Implications of analysis for review of 2005 Urban Design Framework

2005 UDF	2015 Geografia Analysis	Recommendations
<p>Lack of recognition of the need to diversify the retail and hospitality offering outside of the Westfield site.</p>	<ul style="list-style-type: none"> • Increasing consumer desires for more varied and 'urban style' experiences in suburban activity centres. • Competitive issues around lack of presence of Woolworths, Aldi, larger format retailers. • Concern about reliance on one major owner/developer in addressing consumer desires. 	<ul style="list-style-type: none"> • Consider promoting more independent retailing and hospitality options through ground level restaurants, cafes and shops along Burwood Highway (in residential/office developments). • Clarify competitive issues with Woolworths and Aldi at Westfield Knox, and consider whether they should be accommodated elsewhere. • Consider whether there is a way to incorporate larger format/big box retailing in a way that complements the character of Knox Central.



2005 UDF	2015 Geografia Analysis	Recommendations
Lack of direction around the specialisation/focus of Lewis Road industrial area.	The value of promoting clusters is increasingly important in the modern economy. There is a need to clarify the types of businesses that might be encouraged to locate there, and which industries might add the most value to existing clusters.	<ul style="list-style-type: none"> • Encourage higher amenity, higher value industrial uses (e.g. scientific services or laboratories, clean manufacturing) in the area. • Consider discouraging lower amenity uses (e.g. smash repairs) in parts of this precinct. • Consider how to reduce the visual and noise impacts of existing lower amenity uses (e.g. buffers, landscaping, screening). • Consider the promotion and investment attraction significance of the Structure Plan during its preparation.
Limited discussion about increasing amenity throughout Lewis Road Precinct.	Higher amenity industrial/business areas will promote transition to higher value uses.	Explore how the Structure Plan can promote amenity in the area through interventions such as public design/landscaping, links to Blind Creek, links to Westfield Knox, or landscaping requirements in planning permits.



2005 UDF	2015 Geografia Analysis	Recommendations
Lack of discussion around relationship between Wantirna Health Precinct and Knox Central.	The need to promote links between Wantirna Health Precinct and Knox Central, and promote them as complementary centres.	<ul style="list-style-type: none"> • Consider what uses might be promoted and discouraged at each centre, to reduce fragmentation in key industries (e.g. hospitality/entertainment) • Promote transport links between the two centres. • Consider how industry links might be created between the two precincts (networks, supply chain). • Consider where aged care and seniors living might be preferably located.



Appendix A: Case Studies

The section provides a high-level overview of selected activity centres that can provide lessons for the development of Knox Central. Some of these lessons include:

- Activity centres where people can work, shop and relax within walking distance of their home can be highly sought after locations especially if they are of high quality and seek to create an integrated community. For example University Hill (see the case study below) was conceived as a place 'in which residents are able to work, shop and relax within walking distance of home' while the aim of the State Government's Dandenong initiative (see the case study below) was to make Central Dandenong a "hub for people to live, work, study and socialise." For Knox Central creating a unique and attractive residential, employment and retail location will be very important given the activity centre's strategic disadvantages – in particular, a lack of public transport and of public investment (compared to Dandenong, see below, for example);
- Creating highly liveable environments where diverse groups will want to live is critical to attracting residential development which can then be used to drive growth in other sectors (for example sectors which meet the needs of consumers such as retail, professional services etc.). In the case of Central Dandenong Lonsdale Street was to be redeveloped as a green boulevard with slow moving traffic in order to improve access and amenity;
- Various planning tools and approaches can be used to create outcomes which will generate positive outcomes. The example of University Hill, below, highlights that planning certainty and an 'enquiry by design' process, which bring together key stakeholders to collaborate on a vision for a new or revived community can be especially useful. In the case of Knox Central gathering information on the set of opportunities available at an early stage, in consultation with key stakeholders, will be important in ensuring opportunities are identified and maximised;
- Activity Centres can benefit from a robust economic base and a diverse range of industries which creates employment, investment and other positive economic conditions such as innovation and a dynamic business environment. The examples below of University Hill and Dandenong highlight the importance of key industries and areas of economic activity in creating and revitalising activity centres. For example, University Hill was to benefit from the education industry and proximity to RMIT's Bundoora campus. Central Dandenong was to benefit from the critical mass of the City of Greater Dandenong and the south-east more broadly, the strong retail base in Central Dandenong and the range of industries in the municipality and broader region (including manufacturing and transport, logistics and distribution);
- Activity centre redevelopment can help a community adapt to structural change by facilitating the growth of certain industries while managing the change of other industries facing intense competition. In the case of University Hill planning sought to leverage the growth of the education sector, especially higher education through



linkages with RMIT, and business services through providing a modern business environment which provides inner city convenience; and

- Incremental approaches can sometimes not be sufficient to achieve community aspirations. This is especially the case in the highly competitive current environment where Melbourne's activity centres and regions are competing for investment and employment. This is shown by the example of Dandenong, below, which saw a range of initiatives brought together.

University Hill

Planning certainty and an 'enquiry by design' workshop involving Whittlesea Council and land owner MAB Corporation (MAB) were critical in creating a plan for an activity centre of high quality in which residents are able to work, shop and relax within walking distance of home. The vision for University Hill included an integrated community providing around 1,000 homes for 3,000 residents and employment for approximately 4,000 people.

University Hill is located in Melbourne's northern corridor within the City of Whittlesea. The City of Whittlesea is undergoing robust population growth due to a range of factors including relatively affordable housing and employment opportunities. The site, purchased by MAB in 2003, is 18 kilometres from Melbourne's CBD, opposite RMIT's Bundoora campus, and is situated on Plenty Road which is a major arterial route containing the Bundoora tram line and adjacent to the Metropolitan Ring Road. The site therefore benefited from good strategic transport infrastructure.

The 104 hectare site had been designated as a Specialised Activity Centre (SAC) in recognition of its geographic advantages under previous planning policies. SACs were designed to provide a mix of economic activities that generate high numbers of work and visitor trips.



Figure 43 University Hill



Figure 44 Central Dandenong



Dandenong

In April 2006 the Victorian Government launched a shared vision for revitalising Central Dandenong. This included \$290 million to invest in the redevelopment of the city centre over a 15 to 20 year period. The aim of the initiative was to restore Central Dandenong as the capital of Melbourne's south east and as a hub for people to live, work, study and socialise.

Central Dandenong faced a range of challenges due to a range of factors not least structural economic change due to the area's strong manufacturing base. In addition, the City of Greater Dandenong was one of the main locations for new migrants settling in Australia.

Both the Victorian Government and the City of Greater Dandenong realised that a 'business as usual' approach with incremental programs was unlikely to address social and economic decline and achieve the community's aspirations for a 21st century centre with improved environmental, health, wellbeing and employment outcomes.

Building on earlier work from 2000 by Council, a shared vision for the Central Dandenong's renewal and rejuvenation was developed with commitment from council, the Victorian Government, the Dandenong Development Board and VicUrban.

Council commenced the Metro 3175 residential development, the redevelopment of the Produce Market and the Drum Theatre with the assistance of a State Government grant.

In 2007, VicUrban developed an Urban Master Plan for the revitalisation of Central Dandenong which built on previous strategic work and further refined the future vision.

This 15-20 year framework aimed to create a dynamic future for Central Dandenong by attracting more people, jobs and businesses. At the time it was envisaged that revitalisation will attract \$1 billion in private sector investment in addition to creating up to 5,000 new jobs and 4,000 new homes over the next 20 years.

The Urban Master Plan outlines new and better street connections for easier and safer access throughout the city, new attractive public spaces and improved links between the railway station, Dandenong Plaza, the retail core, Dandenong Market, Dandenong Hospital and Chisholm TAFE.

The priorities for the Plan incorporate significant new infrastructure including:

- Redevelopment of Lonsdale Street as a green boulevard with slow moving traffic, improving its access and amenity;
- A new City Street to connect the railway station to the heart of the city;



- Upgrading the railway station surrounds to provide a new arrival and meeting place, and
- Constructing the George Street Bridge to create a new western gateway into Central Dandenong.

