Review of Strategic Direction **Box Hill Metropolitan Activity Centre**

Analysis & Options —Appendices

May 2019
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Appendix 1
Box Hill Activity Centre – Demand Report

BOX HILL ACTIVITY CENTRE – DEMAND REPORT

FINAL
MAY 2019

Prepared for
MGS and City of Whitehorse

Independent insight.

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EXECUTIVE SUMMARY

Overview

MGS, in collaboration with Tania Quick, Movement & Place and SGS Economics and Planning, has been commissioned to review the planning framework for the Box Hill Activity Centre.

This report outlines population and employment forecasts for the Centre and the demand for additional floor space to accommodate this growth. These forecasts will inform the review of the current planning framework.

Trends and drivers of growth

The Box Hill Activity Centre has the unique distinction of an ongoing designation as a metropolitan activity centre since 1954. The current structure plan for the Centre was adopted in 2007 and sought to encourage investment in the centre – both employment and housing – to underpin future economic growth in Whitehorse.

Over the last 10 years the Centre has experienced strong population growth, growing from 6,400 in 2006 to 8,500 in 2016 (an average growth rate of 2.9% per annum). Growth of the working age population and tertiary students has been particularly strong.

In the same period growth in employment has grown at a rate of 2.3% per annum. Growth in the health and education industry sectors was particularly strong. These sectors added an estimated 2,500 and 600 jobs respectively between 2006 and 2016 (average growth rates of 4.7% and 5.1%).

Future employment growth is likely to be influenced by the deepening of the knowledge economy, further strengthening of the health and education specialisation, and opportunities for retail growth. The muted suburban rail route would result in better connectivity between Box Hill to areas to the north and south and further increase the attractiveness of the Centre for firms and households.

Population and housing forecasts

SGS have prepared population and employment forecasts for Box Hill drawing on the Victorian Government's Victoria in the Future (VIF) forecasts. The VIF forecasts are prepared at the SA2 level and then assigned to smaller geographies ('travel zones'). For population, this assignment process is based on recent trends in housing development and the capacity for dwellings, derived from a variety of sources (e.g. the Urban Development Program, VPA Precinct Structure Plans, renewal precinct specific information and state and local planning policy documents).

Two population forecasts have been provided. The first is based directly on the VIF forecasts, whilst the second assumes a slightly slower rate of population growth. This second scenario considered the possibility that the high number of recent residential approvals suggests a degree of speculative planning approval activity, which may not be an accurate reflection of the true extent of latent demand.

Taking these two scenarios as a range, the population of the Centre is forecast to grow by between 8,400 and 10,100 people between 2016 and 2036. The would translate to demand for 4,200 to 5,000 additional dwellings. Table 1 shows the population and dwelling forecasts under both scenarios in 2036.

TABLE 1: POPULATION AND HOUSING FORECASTS

	2016	Base forecasts			Revised forecast (lower growth than base)		
		2036	2016-36 growth	Growth rate	2036	2016-36 growth	Growth rate
Population (ERP)	8,500	18,600	10,100	4.0%	16,900	8,400	3.5%
Dwellings (SPD)	3,900	8,900	5,000	4.2%	8,100	4,200	3.7%

Source: SGS Economics & Planning, derived using VIF 2016. ERP = Estimated Resident Population; SPD = Structural Private Dwellings.

Employment forecasts

Employment forecasts for the Centre are derived from VIF total labour force growth estimates for the State and Greater Melbourne. This growth is assigned to smaller areas, by industry, using ABS Census Journey to Work data and the ABS Labour Force Survey.

Two employment scenarios were considered. The first is SGS's base employment forecasts for the Centre, whilst the second assumes slightly higher rate of growth in office, retail, health and education. This second scenario reflects the findings of early stakeholder consultations that have suggested significant appetite to grow employment in these sectors.

The resulting employment growth forecasts for the 20 year period to 2036 are in the order of 8,400 to 11,000 additional jobs. Table 2 outlines the employment forecasts by broad land use type for each scenario to 2036. The largest employment growth is forecast in the health sector, followed by office-based employment.

TABLE 2: EMPLOYMENT FORECASTS

	2016	Base forecasts			Revised forecast (higher growth than base)		
		2036	2016-36 Growth	Growth rate	2036	2016-36 Growth	Growth rate
Office	7,500	10,100	2,600	1.5%	11,100	3,600	2.0%
Retail	2,800	3,800	1,000	1.5%	4,100	1,300	1.9%
Industrial	100	100	-	0.0%	100	-	0.0%
Education	1,500	2,400	900	2.4%	2,700	1,200	3.0%
Health	6,200	9,900	3,700	2.4%	10,900	4,700	2.9%
Entertainment/Recreation	100	200	100	3.5%	200	100	3.5%
Construction	300	400	100	1.4%	400	100	1.4%
Total	**18,500**	**26,900**	**8,400**	**1.9%**	**29,500**	**11,000**	**2.4%**

Source: SGS Economics & Planning derived from VIF 2016.

Floorspace demand

These forecasts for dwelling and employment growth have been converted into floorspace demand to understand the additional floor space required in the Centre. Employment floorspace requirements have been estimated using floorspace to job ratios by land use type. Residential floorspace requirements have been estimated using an average dwelling size assumption. These floor space estimates are for the gross floor area of new buildings, excluding areas for parking.

Demand for additional employment floor space is in the order of 266,000 to 346,000 square metres. Over half of this demand is for health floorspace. Demand for office and education floorspace is also forecast to be significant. Demand for additional residential floor space is in the order of 417,000 to 498,000 square metres.

Combining the VIF forecasts and the revised forecasts (higher employment growth and lower residential growth than the base forecasts) suggests that the total demand for additional floor space could be between 763,000 and 764,000 square metres.

These floor space forecasts are intended to inform future planning for the Centre by providing an indication of the quantum of additional floor space required, the mix of employment and housing, and the mix of different types of employment floor space.

To facilitate the efficient development of the additional floor space required to satisfy forecast demand, future planning will need provide development opportunities that are in excess of the identified floor space requirements.

TABLE 3: FLOORSPACE DEMAND FORECASTS (SQUARE METRES)

		Base forecasts		Revised forecast (lower population; higher employment)	
	2016 Estimate	2036	2016-36 Growth	2036	2016-36 Growth
Office	187,000	253,000	66,000	278,000	91,000
Retail	84,000	113,000	29,000	123,000	39,000
Industrial	8,000	8,000	-	8,000	-
Education	92,000	146,000	54,000	161,000	69,000
Health	185,000	297,000	112,000	327,000	142,000
Entertainment / Recreation	8,000	13,000	5,000	13,000	5,000
All Employment Floorspace	**564,000**	**830,000**	**266,000**	**910,000**	**346,000**
Residential Floorspace	**391,000**	**889,000**	**498,000**	**808,000**	**417,000**
Total Floorspace	**955,000**	**1,719,000**	**764,000**	**1,718,000**	**763,000**

Source: SGS Economics & Planning, derived from VIF 2016.

Note: the 2016 floorspace estimate is based on job to floorspace ratios applied to employment estimates in 2016, due to data limitations on current floorspace within Box Hill.

1. INTRODUCTION

1.1 Project background

MGS, in collaboration with Tania Quick, Movement & Place and SGS Economics and Planning, has been commissioned to review the planning framework for the Box Hill Activity Centre.

The project consists of three phases:

- Phase 1: Analysis and Options
- Phase 2: Box Hill refresh (update the vision, structure plan and urban design framework)
- Phase 3: Planning Scheme Amendment

This report includes background demographic and economic analysis for the Phase 1: Analysis and Options report. It addresses the following questions:

- What macro trends will affect the growth and development of the Box Hill Activity Centre?
- What is the likely population and employment growth that the centre might need to accommodate to 2036?
- How much additional floor space is required to accommodate forecast population and employment growth?

1.2 Report structure

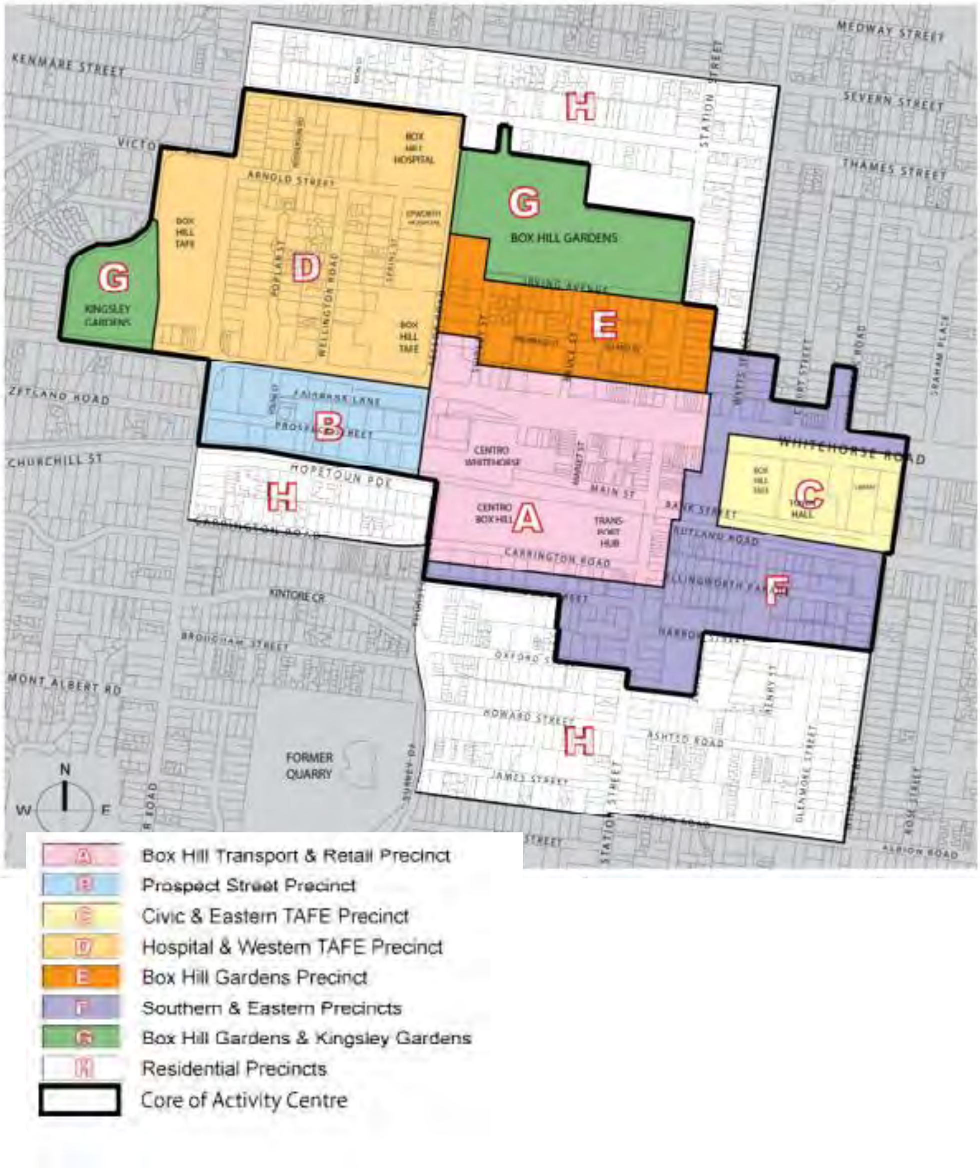
This report is structured as follows:

- Section 2 provides a background information including and current trends and macroeconomic drivers that are influencing the development of the Centre.
- Section 3 outlines the population, employment and floorspace forecasts for Box Hill Activity centre.
- Section 4 will discuss the implications of these forecasts for future planning and will include a discussion of development feasibility and, potentially, a discussion of the economic merits of planning mechanisms designed to influence the future land use mix.

1.3 Study area

The definition of the Box Hill Activity Centre used throughout this report aligns with the definition set out in the Whitehorse Planning Scheme shown in Figure 1 . This includes the Core of Activity Centre (Areas A to G) and the adjacent residential precincts (Area H).

FIGURE 1: BOX HILL ACTIVITY CENTRE



Source: City of Whitehorse Structure Plan 2007

2. BACKGROUND

This section provides a background to recent development in Box Hill and current trends and macroeconomic drivers influencing the centre.

2.1 Context

Box Hill has developed into a successful and thriving centre as a result of coordinated local and state government investment in key industries of health, education and transport, in combination with private sector activity that has led to intensification in the centre.

A range of success factors helped in Box Hill's development, including a long-term designation as a major metropolitan activity centre, the availability of development-ready land, an innovative and proactive Council, and significant investment following deregulation of the banking system.

Planning policy and direction in Melbourne has shifted back and forth over the years, however key some principles have remained consistent throughout Melbourne's history. This includes limiting outward urban expansion, articulated through an urban growth boundary, and the desire to decentralise some activities to regional centres, later known as activity centres.

The most notable difference between Melbourne's various planning documents is the emphasis placed on the central city. Early Melbourne until the 1950s was heavily focused on central Melbourne. The 1950s saw a change in direction, with more intense decentralisation policy the preference, including a focus on Box Hill.

The success of Box Hill as an employment node was strengthened by the decision of the Australian Tax Office locate in the Centre in the late 1980s, coupled with higher frequency train services.

Much of the Centre's growth since 1990 is attributable to the nearby regional education and health facilities, and later in the early 2000s, the extension of the Route 109 tram.

Macroeconomic policy settings and the microeconomic reform agenda carried out by the Commonwealth and State Governments have greatly shaped the economy of broader Melbourne, and provided a fertile economic environment for Box Hill to successfully develop.

Recent planning policy returns the focus to major activity centres in targeted locations that have many opportunities to succeed, including a focus on Box Hill.

FIGURE 2: TIMELINE OF DEVELOPMENT IN BOX HILL

1950s	1970s	1980s	1990s	Early 2000s	2010s
Box Hill designated as one of five district centres by the MMBW in 1954 **Box Hill Hospital** established in 1956	**Box Hill Modal Interchange project launched** - Elimination of the Station Street level crossing - Construction of the new station - Integration of a suburban bus and taxi station - Provision of extensive commuter car parking - Commercial redevelopment of the air rights above station - Station opened in 1983	**Box Hill Central constructed** 1987 **Australian Tax Office** established its headquarters in Box Hill. **Prospect Street** commercial development **Box Hill TAFE** established in 1984	**Box Hill TAFE** becomes Box Hill Institute **Box Hill Institute** expansion to Nelson Road Site (1995)	**Extension of the Route 109 tram** in 2003. The intention was to further strengthen the centre and was modelled on the past success of the rail integration with the centre.	Approval and development of numerous **high density residential towers** such as the Box Hill Tower (34 storeys). **Box Hill Hospital** Redevelopment in 2014 ($447.5 million)

Transit City Structure Plan (2007)

The Box Hill Activity Centre Transit City Structure Plan was adopted in 2007. It identifies Box Hill as the main driver of socio-economic wealth in the City of Whitehorse and outlines the importance of growing key clusters of economic activity within the centre, including health and medical services, education and vocational training, community services and restaurant and cafes.

The Structure Plan suggested there was a need to increase the population of the region as Whitehorse's human capital would be constrained by low population growth. The Plan suggests that demand for medium to high density residential was likely to increase in the next decade and the population in the centre was forecast to more than double from 3,825 people in 2001 to 8,500 over a 10 year period. This total population figure was not realised until 2016. Demand for office space was forecast to increase by 55,000 to 75,000 square metres, which would be added to the estimated 117,251 square metres of existing office floorspace.

2.2 Current trends and issues

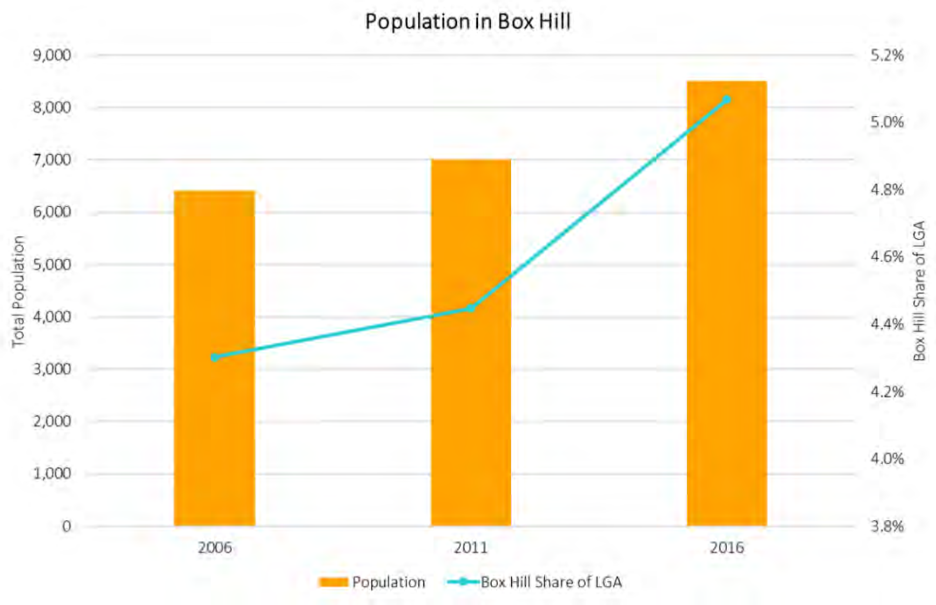
Strong recent population growth

Over the last 10 years, population in the Box Hill Activity Centre has increased at a faster rate than the rest of the LGA, the Eastern region, and Metropolitan Melbourne. The average annual growth rate of population in Box Hill was 2.9%, higher than the Greater Melbourne average of 1.2% (2006-16).

In 2016 there were over 8,500 residents within the Box Hill Activity Centre, comprising 5.1% of the LGA's population. This share has risen from 4.1% in 2001. The Box Hill Activity Centre hosted 14% of the total population growth of Whitehorse LGA over the last 5 years.

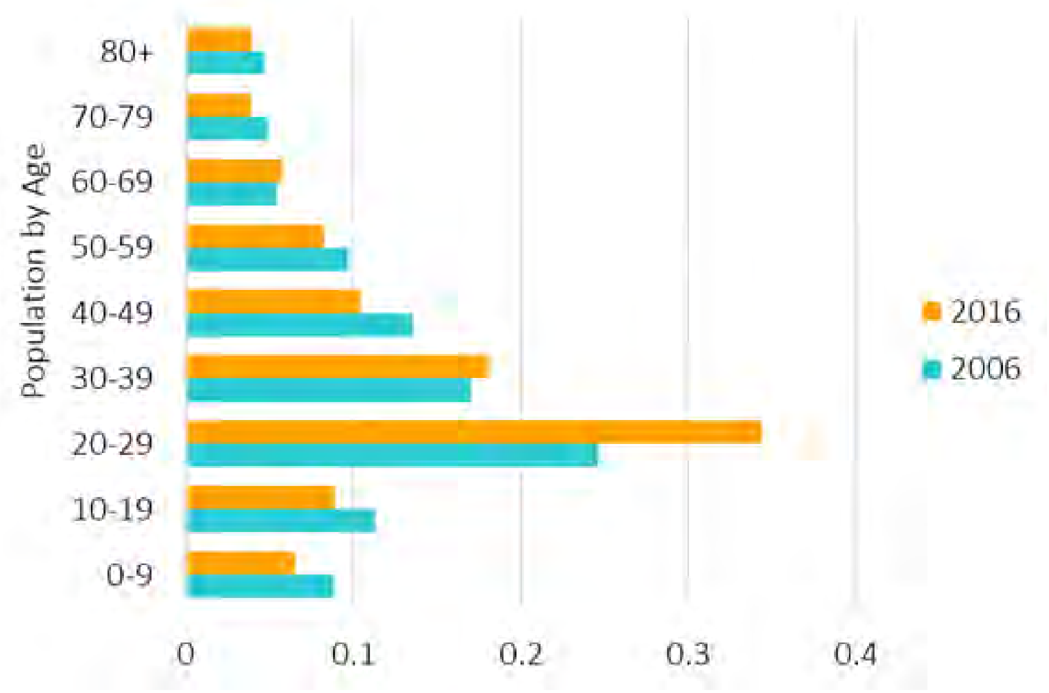
Between 2006 and 2016, the Centre has experienced strong growth in working age population and school aged children. Residents aged 26 to 64 have increased at an average annual growth rate of 4.8%, and those aged between 0 to 17 have grown by 3.5% per annum. The 20-29 year age group contains a large share of the population in 2016, having increased since 2006 (see Figure 4).

FIGURE 3: POPULATION IN BOX HILL



Source: ABS Census 2016

FIGURE 4: POPULATION IN BOX HILL BY AGE GROUP

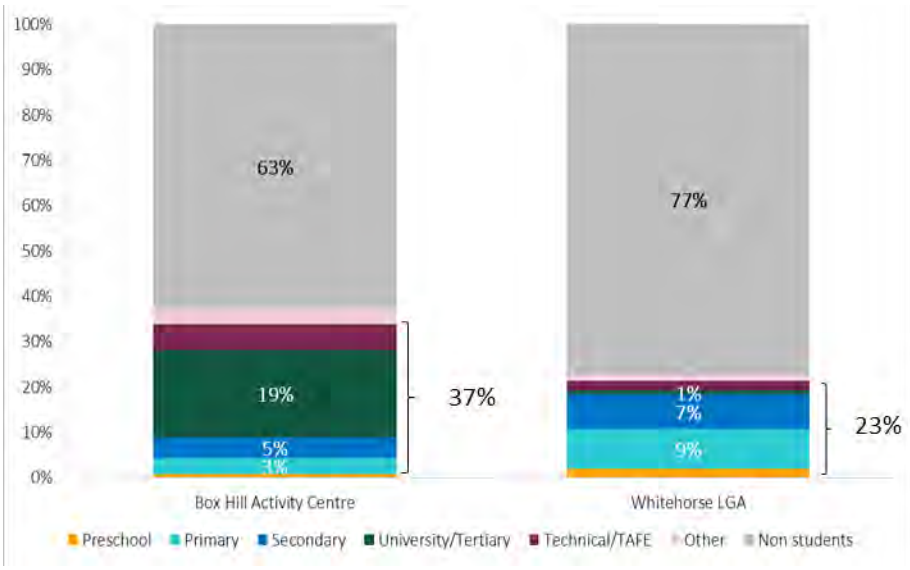


Source: ABS Census 2016

A large student population

The Box Hill Activity centre hosts a large number of students. Approximately 37% of the population living within the Box Hill Activity Centre are undertaking some form of education, and or those, around half are tertiary students (see Figure 5). The tertiary students would most likely be attending the Box Hill Institute (in Box Hill), Deakin University in Burwood and Swinburne University in Hawthorn. Both universities are well connected to Box Hill by bus and rail services. In contrast, the students in the wider Whitehorse LGA precinct are mostly primary and secondary school students living with their families.

FIGURE 5: TYPE OF EDUCATIONAL INSTITUTION ATTENDING, 2016

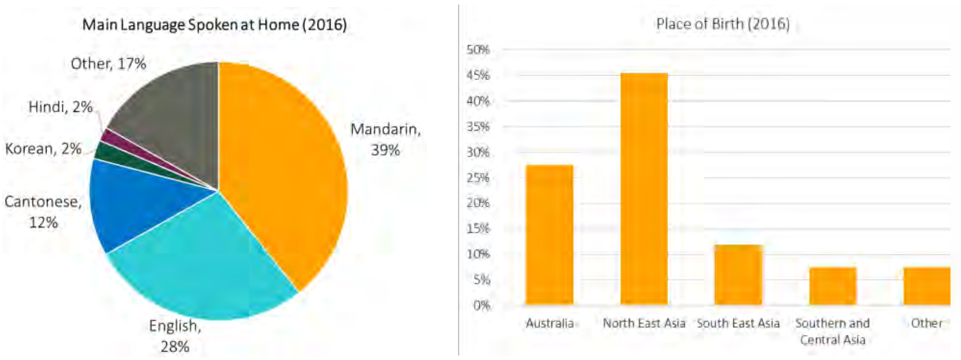


Source: ABS Census 2016

Diverse resident population

Box Hill has a culturally diverse resident population, as shown in Figure 6. 39% of the resident population in Box Hill speak Mandarin at home, 12% speak Cantonese and 28% speak English. Over 45% of the population were born in North East Asia (2016 Census).

FIGURE 6: BOX HILL RESIDENT DEMOGRAPHICS – LANGUAGE AND PLACE OF BIRTH (2016)



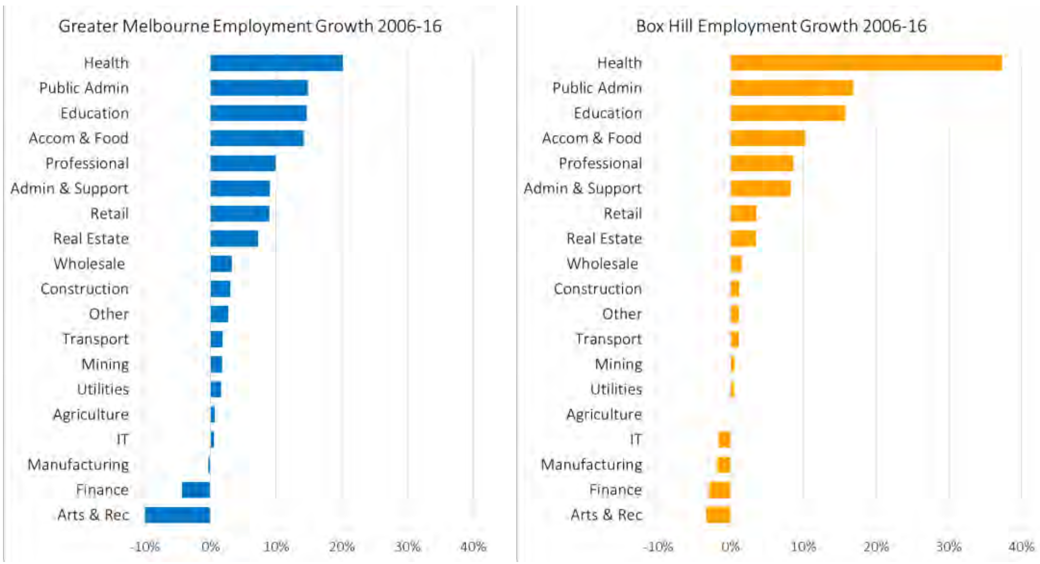
Source: SGS Economics & Planning

Employment growth

Box Hill is the main economic centre within Whitehorse LGA. The Centre hosted 18,500 jobs in 2016 which is around 24% of the 80,000 jobs in Whitehorse. Box Hill has experienced strong employment growth over the last ten years, at 2.3% per year compared to 0.7% across Whitehorse LGA.

Health is a key industry in Box Hill, contributing almost 40% to total employment growth from 2006 to 2016 (see Figure 7). This is higher than the Melbourne average for Health jobs (20% contribution to growth). Other growing industries for Box Hill include Public Admin, Education, Accommodation & Food, Professional Services and Admin & Support.

FIGURE 7: BOX HILL VS GREATER MELBOURNE EMPLOYMENT GROWTH (2006-16)

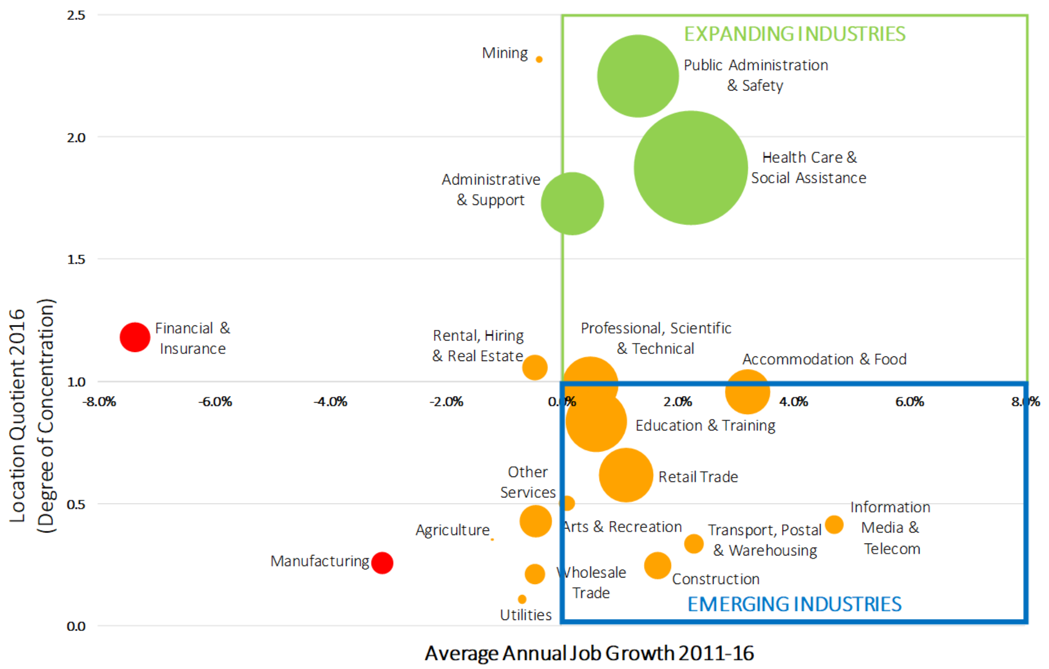


Source: SGS Economics & Planning

Figure 8 highlights those industries that are expanding and those that are emerging in by comparing three metrics key metrics. The 'location quotient' of each industry is shown on the vertical axis. This represents the level of specialisation of that industry in Box Hill as compared to the City of Whitehorse. The average annual growth rate of employment in each industry in Box Hill is shown on the horizontal axis. Finally, the size of the bubble represents the number of jobs in each industry.

Expanding industries in Box Hill and their respective shares of all employment are: health care and social assistance (32%), public administration and safety (16%), administrative and support (10%), and education and training (9%). *Emerging industries* include: professional services, education & training, retail trade, accommodation & food services, information media & telecommunications and transport, postal & warehousing.

FIGURE 8: BOX HILL GROWTH SHARE MATRIX



Source: SGS Economics & Planning

2.3 Macroeconomic drivers

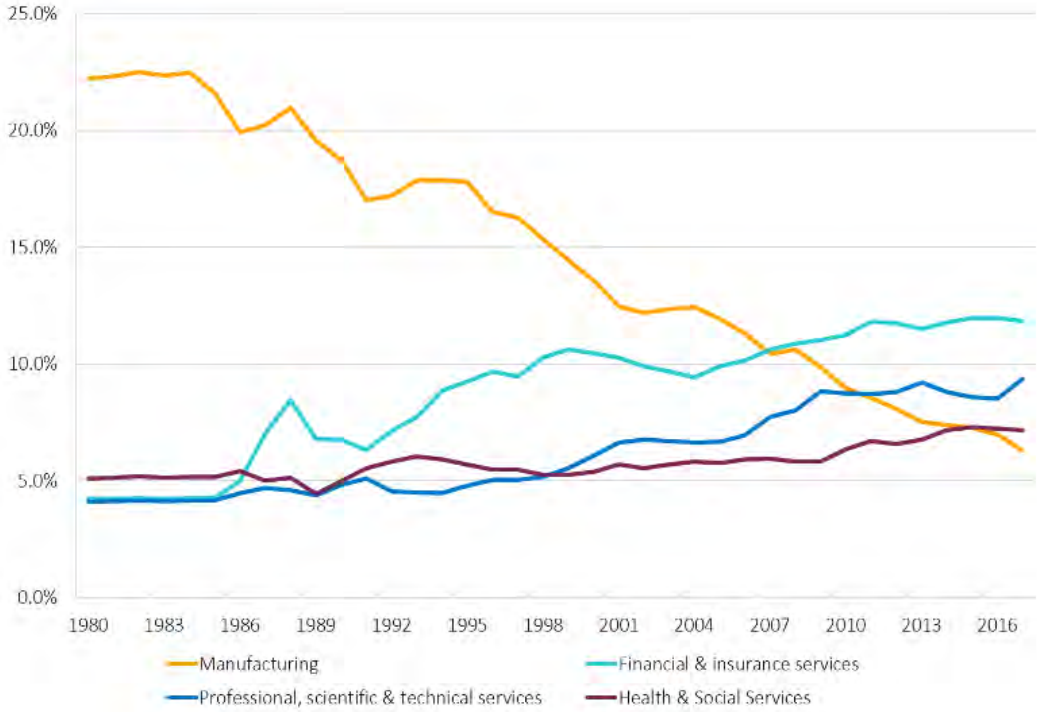
Melbourne's economic transition

Melbourne's economy has undergone significant change over the last 30 years. The recession of the late 1980s and early 1990s affected the Melbourne economy more extensively than the rest of Australia. The industrial heartland of the city contracted sharply as global demand for manufactured goods fell. This had a range of flow on economic effects on the metropolitan economy which has transitioned from an industrial focused economy to one that is rich in knowledge intensive services. In the 1970s and early 1980s Manufacturing produced between 21% and 22.5% of all income generated in Melbourne (see Figure 9). Since then it has been in steady decline and in 2016-17 manufacturing represented just 6.3% of Melbourne's income. Over the same period financial and insurance services increased from around 4% in 1974-75 to 11.8% in 2016-17. Professional services overtook manufacturing in 2010-11 as the second largest industry in Melbourne. It generated 9.3% of all income in Melbourne in 2016-17.

The population of Greater Melbourne has increased from 1.5 million in 1954, to 4.6 million in 2016. The last five years have seen significant population growth in Melbourne, due to increased interstate and international migration of skilled labour. This has seen strong population growth in most parts of Melbourne, particularly in growth areas and within established areas with increasing dwelling densities.

These broader structural changes in the economy have impacted Box Hill's development over the last 30 years, particularly the decline in Manufacturing and shift to knowledge intensive services. As an established migrant community, Box Hill has attracted a large migrant population of students and skilled labour, as it provides a mix of housing types, good transport connections and a retail offer that caters to the needs of these groups.

FIGURE 9: INDUSTRY SHARE OF MELBOURE'S GDP, 1980 – 2017



Source: SGS Economics & Planning

Health and education are likely to continue to be a strength of the centre

Demand for health services will be strong in the future, as the population ages and life expectancies increase.

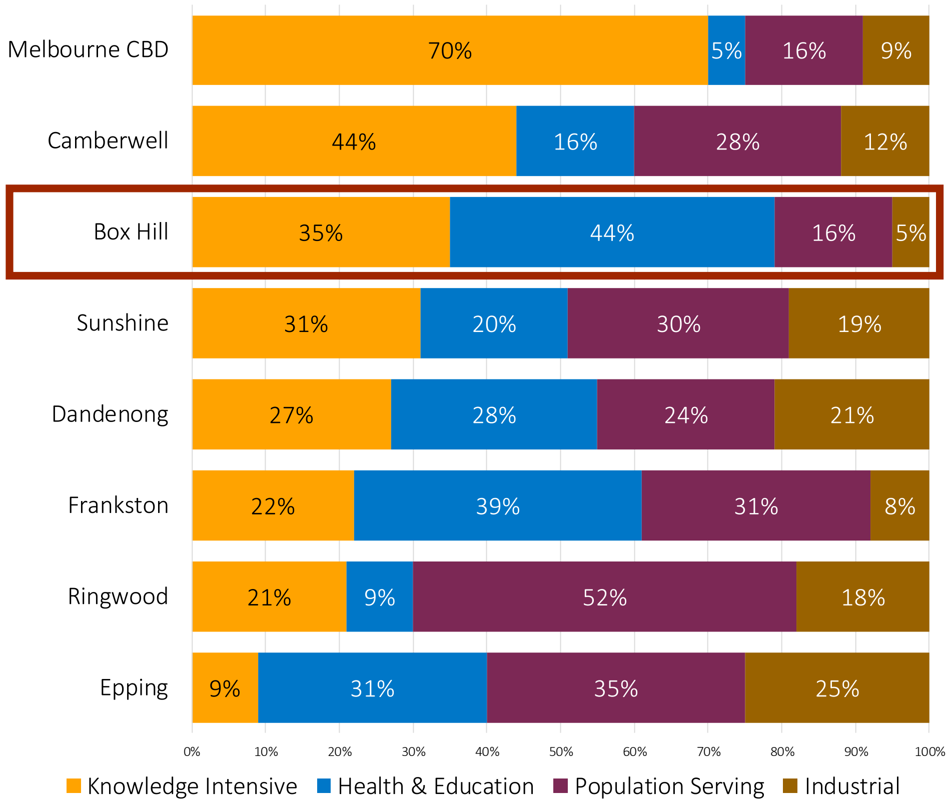
As Figure 10 shows, the mix of jobs and economic activity in Box Hill features a larger share of knowledge, health and education employment than other metropolitan activity centres. In this context, Box Hill can consolidate on its strengths as a major hub for health services and attract health care jobs from elsewhere in the region. Demand for health services and therefore floorspace is likely to be high. Changes in service delivery models and technology will impact how health care services are delivered in the longer term and resulting floorspace requirements in the future may vary to what is required today.

The Epworth Hospital has expansion plans to add a 15-storey building adjacent to the existing hospital building. The development has an estimated construction value of $49 million and will be completed by 2021.[1] It will add 32,000 sqm of floor space.[2]

Education and training have been growing in Box Hill, with strong demand for education evident across Melbourne. The centre is also a hub for student accommodation, as previously identified. These existing strengths present opportunities to grow these industries in the future.

[1] Cordell Connect (2019)
[2] Figure from MGS discussions with Epworth.

FIGURE 10: INDUSTRY COMPOSITION IN ACTIVITY CENTRES (2016)



Source: SGS Economics & Planning

Significant opportunity for retail growth

Box Hill also has a large retail precinct, employing a large number of retail workers in the region. Future plans to redevelop Box Hill Central by Vicinity Centres will impact retail employment and floorspace, but has the potential to enhance the retail, recreation and lifestyle offering in the Centre. Vicinity have suggested they are considering doubling the retail floor space in their centre from the existing 36,000 sqm to at least 72,000 sqm.

Transport improvements

The proposed Suburban Rail Loop (SRL) project seeks to transform Victoria's public transport system, providing an underground rail connection between Melbourne's major employment, health, education and activity precincts outside of the CBD. A station is proposed for Box Hill that will connect it to Burwood, Glen Waverley, Monash/Clayton and Cheltenham in the south east, and to Doncaster, Heidelberg and La Trobe in the north.

If the level of service provided by the Suburban Rail Loop offers comparable travel times to the private car, the South Eastern section from Cheltenham to Box Hill could generate high patronage and offer opportunities for more intensive urban development around each station. The South Eastern section appears to have the most potential, with the Monash – Clayton stations being the primary driver of demand and Box Hill anchoring the northern end.

This South Eastern section has roughly three quarters of the higher education enrolments, half the population, workers and jobs of the whole SRL corridor, but is only a quarter of the track length. The intent to start construction on this section of the SRL project makes sense based on these figures.

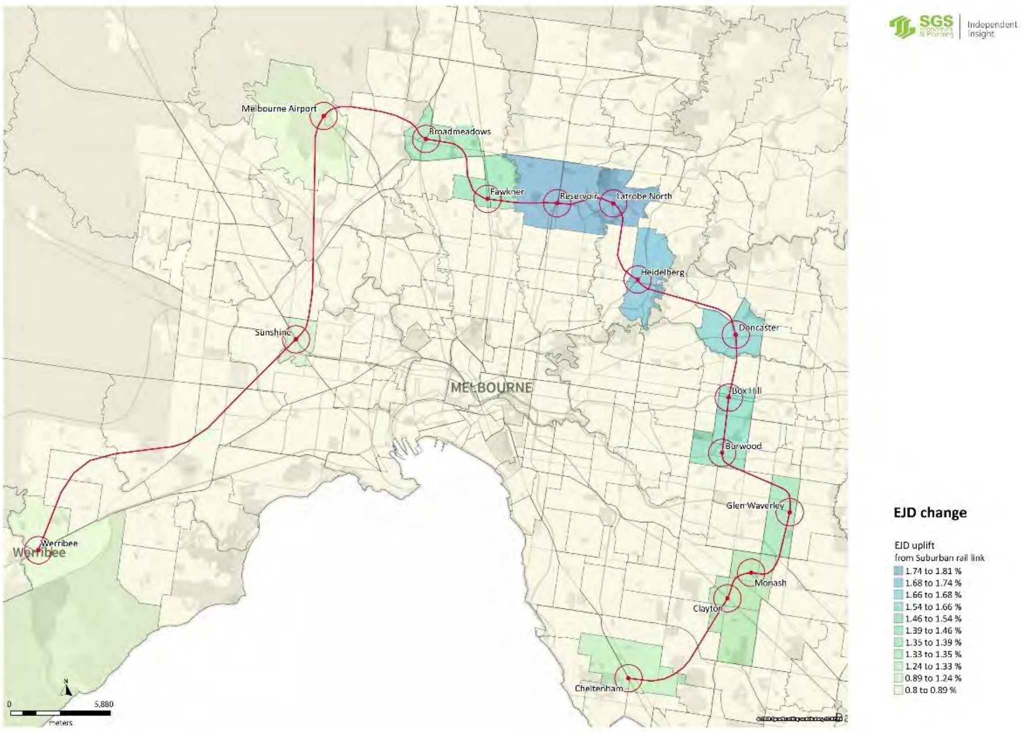
Box Hill already has a cluster of residents and workers in the eastern region, and the construction of the SRL will broaden its catchment of jobs, education, health and other services and housing. It will also provide opportunities for other economic hubs with similar industries to connect to Box Hill, such as Burwood and Monash. This provides significant advantages in terms of:

- Residents having greater access to a variety of education and employment opportunities in the south east
- Industry sectors being able to agglomerate making them more efficient and creating a critical mass that makes smaller supplier businesses more viable
- Individual businesses being able to learn from each other and accelerate innovation
- Higher order and more efficient transport networks can be deployed to provide cost effective transport for people between the high intensity areas.

A high level assessment of change in accessibility to jobs (Effective Job Density or EJD), demonstrates that Box Hill and Burwood will have a large uplift in connectivity as a result of the SRL (see Figure 11).

If built, SRL will re-shape how Melbourne functions, redefining land markets, housing markets and labour markets. With further improved accessibility, Box Hill has the potential to become a major employment hub offering CBD-like functions. Firms locate in areas with high accessibility to gain the benefits of agglomeration. As a result, the SRL project could generate greater demand for commercial floorspace in Box Hill in the longer term.

FIGURE 11: ACCESSIBILITY CHANGES FROM SRL PROJECT



Source: SGS Economics & Planning

3. FORECASTS

This section outlines the population, employment and floorspace forecasts prepared for Box Hill Activity centre.

3.1 Population forecasts

SGS have prepared population and employment forecasts for Box Hill based on the Victorian Government's Victoria in the Future (VIF) forecasts. The VIF forecasts are prepared at the SA2 level and then assigned to smaller geographies ('travel zones') based on recent trends in housing development and the capacity for dwellings from a variety of sources (e.g. the Urban Development Program, VPA Precinct Structure Plans, renewal precinct specific information and state and local planning policy documents). They do not account for any influence of the Suburban Rail Loop (SRL) project on population or employment growth.

Two population forecasts have been provided. The first is based on a 'default' allocation of VIF forecasts, whilst the second assumes a slightly slower rate of population growth. This second scenario considered the possibility that the high number of recent residential approvals suggests a degree of speculative planning approval activity, which may not be an accurate reflection of the true extent of latent demand.

Taking these two scenarios as a range the population of the Centre is forecast to grow by between 8,400 and 10,100 people between 2016 and 2036. The would translate to demand for 4,200 to 5,000 additional dwellings. Table 4 shows the population and dwelling forecasts under both scenarios in 2036. Under the base forecasts scenario the population of Box Hill Activity Centre is projected to grow slightly faster than it did in the previous 10 years, at a rate of 4.0% per annum to 2036 vs 2.9% per annum from 2006 to 2016 (see Table 6).

As the main residential and commercial centre in the Whitehorse LGA, Box Hill has historically accommodated a significant proportion of new residents and this trend is likely to continue. Box Hill is forecast to have a greater share of the LGA's population in the future, increasing to 9.1% of Whitehorse LGA population in 2036.

Dwellings in Box Hill are forecast to grow at a slightly faster rate than population, resulting in a decreasing average household size. This trend is already evident, with more apartment living and small family sizes.

Over the next 20 years to 2036, there is likely to be significant growth in the elderly population aged 65+ years (5.0% per annum) and in the working age population aged 26 to 64 years (4.4% per annum). Strong growth is also forecast for school age children (0 to 17 years) at 4.2% per annum (see Table 5).

TABLE 4: POPULATION AND HOUSING FORECASTS

	2016	Base forecasts			Revised forecast (lower growth than base)		
		2036	2016-36 growth	Growth rate	2036	2016-36 growth	Growth rate
Population (ERP)	8,500	18,600	10,100	4.0%	16,900	8,400	3.5%
Dwellings (SPD)	3,900	8,900	5,000	4.2%	8,100	4,200	3.7%

Source: SGS Economics & Planning, derived using VIF 2016. ERP = Estimated Resident Population; SPD = Structural Private Dwellings.

TABLE 5: POPULATION BY AGE FORECAST (VIF FORECAST SCENARIO), BOX HILL

Age Group	2011	2016	2036	AAGR 2016-36
0 – 17 years	1,000	1,200	2,900	4.2%
18 – 25 years	1,500	1,700	2,400	1.7%
26 – 64 years	3,500	4,400	10,300	4.4%
65+ years	1,000	1,200	3,000	5.0%
Total	**7,000**	**8,500**	**18,600**	**4.0%**

Source: SGS Economics & Planning

TABLE 6: HISTORICAL POPULATION AND DWELLING, BOX HILL AND WHITEHORSE LGA

	2006	2011	2016	AAGR 06-16
Box Hill				
Population	6,400	7,000	8,500	2.9%
Households (Occupied Private Dwellings)	2,700	3,000	3,600	2.9%
Average household size	2.4	2.4	2.4	
Box Hill Population Share of LGA	*4.3%*	*4.4%*	*5.1%*	
Whitehorse LGA				
Population	149,000	157,500	168,000	1.2%
Households	57,000	60,800	64,800	1.2%
Average household size	2.6	2.6	2.6	

Source: SGS Economics & Planning

Note: AAGR = average annual growth rate. Occupied Private Dwellings are a subset of Structural Private Dwellings, which also includes unoccupied private dwellings.

Comparison to ID Consulting forecasts

Population projections prepared by ID Consulting (2017) cover a smaller area than the SGS projections and have used different assumptions. As a result, there are difference between these two sets of projections. A comparison of the two is provided in Table 7.

The ID Consulting forecasts estimates an average annual growth rate of 5.7% to 2036 for Box Hill. This is high compared to SGS projections of 4.0%. Both forecasts estimate that there will be an additional 10,000 residents in Box Hill by 2036.

Both the VIF and ID forecasts indicate possible future growth scenarios are reasonable estimates for future planning purposes. The higher rate a residential growth suggested in the ID forecast could have implications for the 'crowding out' of the forecast growth in employment uses. This issue will be explored in the subsequent stage of the study.

TABLE 7: COMPARISON OF ID POPULATION FORECASTS

		2016	2036	2016-36	AAGR 2016 - 2036
ID forecasts	Population	4,728	14,379	9,651	5.7%
	Households	2,047	6,231	4,184	5.7%
SGS forecasts (base)	Population	8,500	18,600	10,100	4.0%
	Households	3,900	8,900	5,000	4.2%

Source: ID Consulting, 2017.

3.2 Employment forecasts

Employment forecasts for the Centre are derived from total labour force growth estimates for the State and Greater Melbourne. This growth is assigned to smaller areas, by industry, using ABS Census Journey to Work data and the ABS Labour Force Survey.

Two employment scenarios were considered. The first is SGS's base employment forecasts for the Centre, whilst the second assumes slightly higher rate of growth in office, retail, health and education. This second scenario reflects the findings of early stakeholder consultations that have suggested significant appetite to grow employment in these sectors.

The potential for employment growth to be impacted by the 'crowding out' effects of residential development has not been considered.

The resulting employment growth forecasts for the 20 year period to 2036 are in the order of 8,400 to 11,000 additional jobs.

Employment forecasts have been prepared for each industry as defined by the Australia and New Zealand Standard Industry Classification (ANZSIC 2006) from the ABS at the one digit level. Demand for employment floorspace by six floor space categories are estimated using the employment by industry forecasts. The types of floorspace required by firms varies by industry and location.

In Box Hill, an activity centre with predominantly retail and office floorspace, firms that are classified as being engaged in manufacturing and wholesale trade, are more likely to be found in office and/or retail floorspace instead of industrial floorspace.

To deal with this complexity, employment by industry has been converted to floor space categories using a matrix approach. Table 9 shows the conversion of employment industry to floorspace category used for Box Hill. For example, 95% of Manufacturing employment is allocated to office floorspace and 5% is allocated to industrial floorspace. This allocation in the matrix is based on a review of similar data from other activities centres and consideration of 2 ,3, and 4 digit industry classifications.

TABLE 8: BOX HILL EMPLOYMENT BY INDUSTRY

Industry of Employment (ANZSIC)	2006	2011	2016	2036	2016-36 Growth
Agriculture	0	0	0	0	0
Mining	0	20	0	0	0
Manufacturing	320	260	320	240	-80
Electricity, Gas, Water & Waste	10	20	10	20	10
Construction	160	170	300	450	150
Wholesale Trade	150	250	360	370	10
Retail Trade	1,330	1,250	1,140	1,600	460
Accommodation & Food	590	680	1,100	1,390	290
Transport, Postal & Warehousing	120	120	100	130	30
Information Media & Telecommunications	190	220	190	220	30
Financial & Insurance	610	500	610	780	170
Rental, Hiring & Real Estate	140	260	440	520	80
Professional, Scientific & Technical	1,160	1,430	1,410	2,360	950
Administrative & Support	1,060	1,230	1,180	1,790	610
Public Administration & Safety	2,860	2,750	2,410	2,990	580
Education & Training	940	1,770	1,530	2,440	910
Health Care & Social Assistance	4,350	5,660	6,870	10,990	4,120
Arts & Recreation	280	110	60	110	50
Other Services	420	400	450	480	30
Total Employment	**14,700**	**17,100**	**18,500**	**26,910**	**8,410**

Source: SGS Economics & Planning

TABLE 9: EMPLOYMENT BY INDUSTRY CONVERSION TO FLOORSPACE CATEGORIES

		Floorspace Category						
		Office	Retail	Industrial	Education	Health	Entertain-ment / Recreation	Other
Industry of Employment (ANZSIC)	Agriculture	100%						
	Mining	100%						
	Manufacturing	95%		5%				
	Electricity, Gas, Water & Waste			100%				
	Construction							100%
	Wholesale Trade	60%	30%	10%				
	Retail Trade		100%					
	Accommodation & Food		95%				5%	
	Transport, Postal & Warehousing	80%	10%	10%				
	Information Media & Telecommunications	90%	10%					

	Financial & Insurance	90%	10%					
	Rental, Hiring & Real Estate	80%	20%					
	Professional, Scientific & Technical	85%	15%					
	Administrative & Support	100%						
	Public Administration & Safety	95%	5%					
	Education & Training				100%			
	Health Care & Social Assistance	10%				90%		
	Arts & Recreation		10%				90%	
	Other Services	100%						

Source: SGS Economics & Planning

Table 10 outlines the employment forecasts by broad land use type after applying the matrix approach to the employment by industry forecasts shown in Table 8. The largest employment growth is forecast in health, followed by office-based employment (including professional services and administrative support services).

Box Hill is expected to increase its share of LGA employment to 26%, up from 24% in 2016. It is expected to be a key employment hub for the Eastern Region in the future with a broad base of employment services.

Table 11 presents estimates of employment in Box Hill in 2006, 2011 and 2016, highlighting that there has been strong employment growth in the past 10 years of 2.3% per annum. The two employment scenarios estimate an annual employment growth rate between 1.9 to 2.4% per annum, in line with the historical growth rate. Providing the necessary commercial development and opportunities for businesses to locate in Box Hill will be important to the future success of the centre.

TABLE 10: EMPLOYMENT FORECASTS FOR BOX HILL

	2016	**Base forecasts**			**Revised forecast (higher employment growth)**		
		2036	2016-36 Growth	Growth rate	2036	2016-36 Growth	Growth rate
Office	7,500	10,100	2,600	1.5%	11,100	3,600	2.0%
Retail	2,800	3,800	1,000	1.5%	4,100	1,300	1.9%
Industrial	100	100	-	0.0%	100	-	0.0%
Education	1,500	2,400	900	2.4%	2,700	1,200	3.0%
Health	6,200	9,900	3,700	2.4%	10,900	4,700	2.9%
Entertainment/Recreation	100	200	100	3.5%	200	100	3.5%
Construction	300	400	100	1.4%	400	100	1.4%
Total	**18,500**	**26,900**	**8,400**	**1.9%**	**29,500**	**11,000**	**2.4%**

Source: VIF 2016 and SGS Economics & Planning

TABLE 11: HISTORICAL EMPLOYMENT IN BOX HILL

	2006	2011	2016	AAGR 2006-16
Office	7,000	7,400	7,500	0.7%
Retail	2,400	2,500	2,800	1.6%
Industrial	100	100	100	0.0%
Education	900	1,800	1,500	5.2%
Health	3,900	5,100	6,200	4.7%
Entertainment / Recreation	300	100	100	-10.4%
Construction	200	200	300	4.1%
Total	**14,700**	**17,100**	**18,500**	**2.3%**

Source: SGS Economics & Planning

3.3 Floorspace forecasts

Current floorspace estimates

The current floor space in the Centre has been estimated by multiplying current employment estimates by job to floor area ratios by broad land use industry.

Using this approach the total non-residential floorspace in Box Hill is estimated to be 647,000 square metres in 2016. This is comprised of commercial, retail, health, education and institutional floor space.

The Centre has an estimate 187,000 sqm of commercial office floorspace, spread across large commercial offices including the Australian Tax Office, 990 Whitehorse Road and the DHHS Office. There are also a number of small-scale commercial offices on Prospect Street and in the area surrounding Ellingworth Parade.

Health care floorspace in Box Hill is estimated at 185,000 sqm, with the majority of this at Box Hill Hospital and the Epworth Eastern Hospital. There are also several small-scale medical services and GPs surrounding the two hospitals.

Box Hill has a large amount of education floorspace, estimated at 92,000 sqm currently. The majority of this is made up by the Box Hill Institute across the three campuses on Elgar Rd, Nelson Rd and Whitehorse Rd.

Retail floorspace in Box Hill is estimated at 84,000 sqm, with most of this at Box Hill Central and the surrounding retail precinct.

TABLE 12: BOX HILL CURRENT FLOORSPACE BY LAND USE TYPE

Land use type	2016 Floorspace estimate (sqm)
Office	187,000
Retail	84,000
Industrial	8,000
Education	92,000
Health	185,000
Entertainment / Recreation	8,000
Total Floorspace	**564,000**

Source: Floorspace estimate - SGS Economics & Planning

To cross check the accuracy of SGS's approach to estimate current floor space we have compared a 2011 estimate to data from the Census of Land Use and Employment (CLUE) survey undertaken in 2011. Table 13 shows the 2011 estimates of floorspace sourced from the 2011 CLUE survey along with the SGS estimates of 2011 floorspace, using the same method outline above.

Both sources suggest a similar total quantum of floor space however the composition does vary somewhat. This is like to be the result of differences in data, methodologies and assumptions. The fact that the overall figures are closely aligned suggests that the SGS method provide a reasonably accurate estimate of the total employment floor space in the Centre.

These figures might be varied through analysis of historic Council rates data which will include floor space estimates for most properties. Although this approach would also have the limitation of not including the floor space on non-rateable properties which could be significant if education and health facilities fall into this category.

TABLE 13: BOX HILL 2011 FLOORSPACE BY LAND USE TYPE – SGS AND CLUE

Land use type	2011 Floorspace (CLUE data) (sqm)	2011 Floorspace estimate (sqm)
Office	150,000	185,000
Retail	63,000	74,000
Industrial	11,000	8,000
Education	85,000	106,000
Health	51,000	153,000
Entertainment / Recreation	27,000	10,000
Total Floorspace	**478,000**	**536,000**

Source: CLUE Box Hill (2011), Floorspace estimate - SGS Economics & Planning

Forecast floor space demand

These forecasts for dwelling and employment growth have been converted into floorspace demand to understand the additional floor space required in the Centre. Employment floorspace requirements have been estimated using floorspace to job ratios by broad land use type (shown in Table 14). Residential floorspace requirements have been estimated using an average dwelling size assumption. These floor space estimates are for the gross floor area of new buildings, exclude areas for parking.

TABLE 14: BOX HILL EMPLOYMENT TO FLOORSPACE RATIOS BY LAND USE TYPE

Land use type	2016	2036
Office	25	25
Retail	30	30
Industrial	100	100
Education	60	60
Health	30	30
Entertainment / Recreation	80	80

Source: SGS Economics & Planning

Demand for additional employment floor space is in the order of 266,000 to 346,000 square metres. Over half of this demand is for health floorspace. Demand for office and education floorspace is also forecast to be significant. Demand for additional residential floor space is in the order of 417,000 to 498,000 square metres. Combining the VIF vase forecasts and the revised forecasts suggests that the total demand for additional floor space could be between 763,000 and 764,000 square metres.

These floor space forecasts are intended to inform future planning for the Centre by providing an indication of the quantum of additional floor space required, the mix of employment and housing, and the mix of different types of employment floor space. They are not intended to be used as a target or absolute limit for growth in the Centre.

TABLE 15: FLOORSPACE DEMAND FORECASTS (SQUARE METRES)

		Base forecasts		Revised forecast (lower population; higher employment)	
	2016 Estimate	2036	2016-36 Growth	2036	2016-36 Growth
Office	187,000	253,000	66,000	278,000	91,000
Retail	84,000	113,000	29,000	123,000	39,000
Industrial	8,000	8,000	-	8,000	-
Education	92,000	146,000	54,000	161,000	69,000
Health	185,000	297,000	112,000	327,000	142,000
Entertainment / Recreation	8,000	13,000	5,000	13,000	5,000
All Employment Floorspace	**564,000**	**830,000**	**266,000**	**910,000**	**346,000**
Residential Floorspace	**391,000**	**889,000**	**498,000**	**808,000**	**417,000**
Total Floorspace	**955,000**	**1,719,000**	**764,000**	**1,718,000**	**763,000**

Source: SGS Economics & Planning, derived from VIF 2016.

Note: the 2016 floorspace estimate is based on job to floorspace ratios applied to employment estimates in 2016, due to data limitations on current floorspace within Box Hill.

APPENDIX 1

This appendix provides more detail on the dwellings and population forecasting methodology.

Population

First control totals by SA2 are established – Module 1 (M01). This is based on the Victoria in Future forecasts (VIF16).

Dwellings (i.e. occupied and unoccupied dwellings) is the first variable estimated at a travel zone level - Module 2 (M02).

Dwellings are then systematically disaggregated to occupied private dwellings, population, and age groups. People in non-private dwellings (i.e. nursing homes, jails, hotels, etc) are also estimated and incorporated into the population and population by age projections.

Module 1: SPD to ERP by Age by SA2

Structural Private Dwellings[3] (SPD) for each SA2 from VIF16 is used as the starting point. These were combined with historical data from the Housing Development Data[4] (HDD) and ABS Census data to generate a time series from 1996 out to 2046. Further adjustments are then made using Urban Development Program[5] (UDP) data and Victorian Planning Authority (VPA) and local government planning documents, particularly Precinct Structure Plans[6] (PSPs).

SPD is then broken down to Occupied and Unoccupied Private Dwellings (OPD/UOPD). OPD are translated to Population in OPD and Population in Non-Private Dwellings (NPD) (i.e. college dormitories, jails, nursing homes) and calculated separately. These are combined to represent total Estimated Residential Population (ERP). Data is sourced directly from VIF16 for projection years, ABS ERP and ABS Census data is then aligned to SPD to create a historical dataset.

Module 2: Structural Private Dwellings by Travel Zone

SA2 level projections are then apportioned to the Travel Zone (TZ) level over the entire state. Travel zones are small geographies allowing a detailed understanding of urban development. This apportionment is based on the trends in housing development and capacity for dwellings evident from a variety of sources captured in an *integrated capacity database* constructed by SGS. The datasets captured in this database are summarised in Figure 12. For the base year actual data is usually available. As projections reach further into the future, however, the certainty of the inputs declines. This interaction is depicted at the bottom of the graphic.

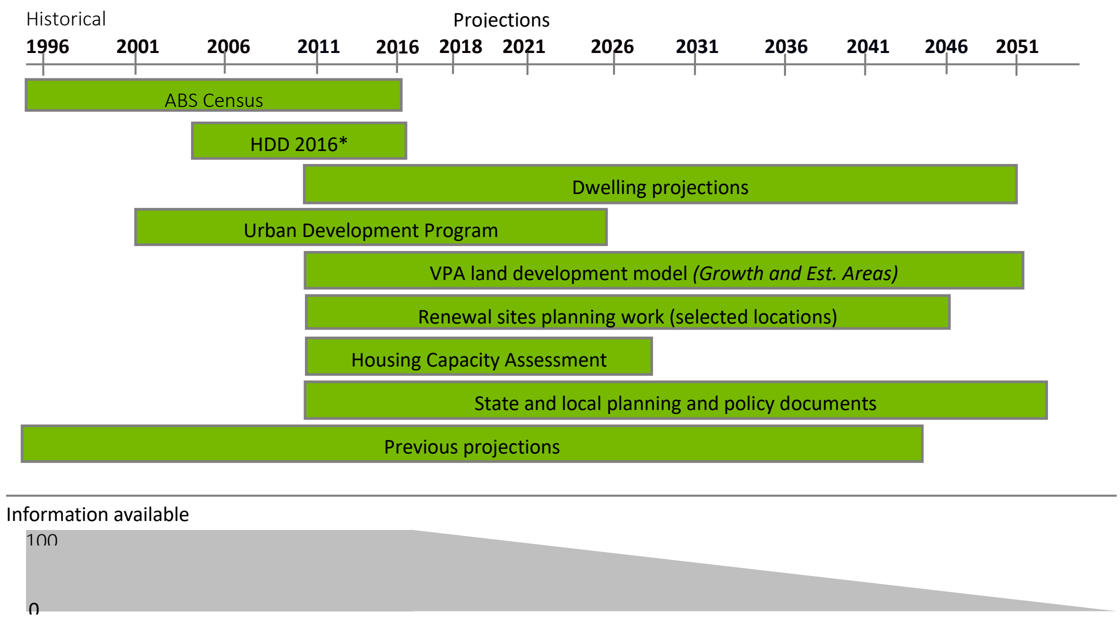
[3] A privately owned building or structure that people live in. This may include a house, an apartment, or it may be a mobile dwelling such as a caravan.

[4] Information on the number and location of existing dwellings, vacant residential land and resident residential development. Available for metropolitan Melbourne only

[5] Information on the pipeline of major residential projects in established areas and the supply of greenfield residential land in metropolitan Melbourne and selected regional areas

[6] Planning framework for development in greenfield areas

FIGURE 12. INTEGRATED CAPACITY DATABASE



* HDD data is available for Metropolitan Melbourne only.
^ Urban Development Program 2015 data is available for Metropolitan Melbourne only. 2014 data is used for the rest of Victoria.
# Available for established Melbourne only.

Timing and priority is also captured in the database and allocated into three broad capacity types:

- Priority Capacity by 5 year intervals – Includes more certain and localised development information such as the UDP or information on specific sites from Council engagement.
- Other Capacity by 5 year intervals – This includes other capacity information which has some timing component. This includes Precinct Structure Plan data and incremental infill data from the Housing Capacity Assessments.
- Ultimate Capacity – This includes other untimed capacity data sources and broad density limit assumptions.

Priority and timing is used to sequentially allocate down SA2projected dwelling growth for each 5 year period to TZs. This means various development inputs are effectively treated as a development opportunity (or capacity estimate) and each opportunity is only realised if there is sufficient demand within the LGA. This will result in some development inputs being pushed out or brought forward to ensure alignment with the SA2 control totals.

Module 3: Structural Private Dwellings to Estimated Resident Population by Travel Zone

Upon synthesising SPD for each TZ in Victoria, SGS applied the housing unit method to estimate the number of occupied private dwellings, persons in occupied private dwellings, persons in non-private dwellings and estimated resident population by TZ. This stepped approach results in very robust results which capture a range of issues while still being closely aligned with estimated development patterns. Some issues which this approach will capture include:

- Holiday locations which will have lower occupancy rates
- Growth areas which will have larger household sizes, and
- Inner city areas which have smaller household sizes but are seeing a transition to more family household types.

The following table highlights the key steps and assumptions.

Housing Unit Component	Description
Structural Private Dwelling (SPD)	Developed in Module 2
Occupied Private Dwelling (OPD) = SPD * Occupancy Rate	A historical occupancy rate for each TZ is derived form 1996, 2001, 2006 and 2011 Census data. This is trended forward based on SA2 occupancy rates sourced from VIF16. Trend rates for individual TZs within an LGA are varied based on their life cycle and relationship with other TZs. For example, very new growth area zones with low occupancy rates will be trended back to the LGA average quickly to reflect new families moving in, while other TZs will remain stable.
People in OPD (POPD) = OPD * Household Size	A historical household size for each TZ is derived from 1996, 2001, 2006 and 2011 Census data. This is trended forward based on SA2 household size rates sourced from VIF16. Trend rates for individual TZs within an SA2 are varied based on their life cycle and relationship with other TZs. TZs with apartments and very low household size ratios will not continue to drop below 'unrealistic' rates.
People in Non-Private Dwellings (PNPD)	This includes persons in communal or transitory type accommodation (i.e. prisons, boarding school, hospital, defence establishments). The current distribution of PNPD for each TZ has been derived from the ABS Census. Given this is a small component of the total population, and minimal data on how it may change is available, LGA control totals have simply been allocated down based on the current distribution pattern on a pro-rata basis. Which implies no new facilities will be created and any growth in this population segment will go to existing facility locations.
Estimated Resident Population (ERP) = PNPD + POPD	Total Estimated Resident population simply equals the combination of POPD and PNPD.

During each step results are aligned to VIF16 control totals and individual TZ trends are reviewed to ensure realistic results (i.e. if there is population there must be dwellings).

Employment Forecasts

Melbourne Projections

Employment by industry projections have been developed for the Melbourne economy using a variety of different sources[7]. These projections were developed for the short (2021), long term (2036) and beyond (2046), in the context of the Victoria, Australia and Global economy. This ensures that the projected industry growth can be resourced with the finite level of resources at the disposal of Australia.

Employment growth was capped using future labour force constraints. The labour force was based on the VIF16 and projections for labour force participation for each five year age group. Labour force projections were made separately for men and women to account for observed differences in their participation by age profiles. The Intergenerational Report[8] was used as a guide to workforce participation amongst various age groups into the future. A projection of unemployment was also made to ensure a coherent picture of the future labour force.

[7] Including the Australian Bureau of Statistics (ABS), Australian Bureau of Agricultural & Resource Economics and the Joint Economic Forecasting Group.
[8] Treasury, Australian Government, 2015

Table 16 is a summary of the employment trends and drivers for each industry.

TABLE 16. INDUSTRY SUMMARY

Industry	Trend/driver
Agriculture	Small industry which are projected to remain current level.
Mining	Small industry which are projected to remain current level.
Manufacturing	Will continue to decline for the next 15 years, but at a slower rate. This is due to a growing population of Melbourne required more locally Manufactured goods.
Utilities	Will grow as the population of Melbourne increases
Construction	Will grow as the population of Melbourne increases
Wholesale Trade	Will grow as the population of Melbourne increases
Retail Trade	Will grow as the population of Melbourne increases
Accom. & Food Services	Will grow as the population of Melbourne increases
Transport & Warehousing	Will grow as the population of Melbourne increases
Information Media & Telecom.	A very diverse industries will many different components (E.g. newspapers and telecommunications) which will remain fairly static in coming years
Financial & Insurance Services	Will grow in line with historical trends
Real Estate Services	Will grow as the population of Melbourne increases
Professional Services	Will grow in line with historical trends
Administrative & Support Services	Will grow in line with historical trends
Public Administration & Safety	Will grow as the population of Melbourne increases
Education & Training	Will grow as the population of Melbourne increases
Health Care & Social Assistance	Will grow as the population of Melbourne grows and ages
Arts & Recreation Services	Will grow as the population of Melbourne increases
Other Services	Will grow as the population of Melbourne increases

SA3 Projections

This set of metropolitan projections were the cap to which the small area employment projections were limited. The Australian Bureau Statistics (ABS) Census Journey to Work data has been used to estimate employment in each SA3 for 1996, 2001, 2006 and 2011. However, due to the undercounting of this dataset, the estimates for Melbourne were benchmarked to annual average employment estimates for each industry from the Labour Force Survey for each year. An adjustment has been made to the Labour Force Survey to account for people who live in Regional Victoria but travel to Melbourne for work. Data from the City of Melbourne Census of Land Use and Employment (CLUE) has been used to adjust the Census Journey to Work data industries shares for the most recent years.

These employment figures were also split into blue collar and white collar employment using Census Journey to Work and Labour Force Survey data.

In projecting future industry employment by SA3 the following process was followed:

- Initially, the 2016-46 projections for each SA3's employment by industry was assumed to follow the growth pattern observed in Melbourne industry share between 1996 and 2011;
- In 2031 and 2046 adjustments were made to this industry to share to account for known information about the development of Melbourne;
- population projections for each SA3 were used to adjust the projections for population serving industries. This was done by observing the trends in population to industry employment between 2001 and 2016;
- A factor analysis of each of Melbourne's SA3 was utilised to appropriately cater for expected changes in employment distribution over time. This factor analysis included an assessment of each SA3s prospects and capacity for growth, transport connections, resident workforce characteristics, employment lands availability and Government spatial policy considerations. Importantly, this factor analysis was undertaken separately for each of major industry and to ensure that the level of granularity appropriately reflected their respective location drivers;
- For the years between 2016 and 2031, the projections were interpolated. That is, the assumed spatial changes at 2031 were progressively introduced; and
- For 2036, 2041 and 2046 the employment projections were extrapolated using the 2031 and 2051 SA3 industries employment shares.

SA2 Projections

The Place of Work estimates by industry and occupation at the SA2 were used to allocate each SA3's total employment to the SA2 in that SA3. Finally, a detailed review of SA2 employment by industry and occupation projections was undertaken and adjustments made as necessary. This included a review of the employment densities and a cross check against background conditions (including known structure plans and the scale of major redevelopments).

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Appendix 2
Best Practice Review—Summary of Documents Reviewed

Best practice review — summary of documents reviewed

Churchill Fellowship Report: hyper-dense, high-rise residential environments - USA, Canada, Hong Kong, Japan, South Korea, Leanne HODYL 2014

In 2014, the Churchill Fellowship Trust provided Leanne Hodyl the opportunity to investigate planning policies that deliver positive social outcomes in hyper-dense, high-rise residential environments - USA, Canada, Hong Kong, Japan, South Korea

Her findings included that High-rise apartment towers are being built in central Melbourne at four times the maximum densities allowed in Hong Kong, New York and Tokyo – some of the highest density cities in the world.

This is possible because the policies used to regulate decision-making for high-rise developments in central Melbourne are weak, ineffective or non-existent. This enables the approval of tower developments that are very tall and that squeeze out the space between buildings, with little regard on the effect on the residents within, the impact on the streets below or on the value of neighbouring properties.

Increasing the supply of housing in the central city close to jobs and transport brings numerous benefits to the city and should be supported. The high-rise apartment tower plays an important role in delivering this supply. There is legitimate concern, however, that developing at these extreme densities will have negative, long-term impact for Melbourne, eroding away Melbourne's celebrated liveability. It will create a legacy of apartments that are of poor quality – homes that lack access to light, air and an outlook - and diminish the quality of the streets and parks below by blocking sunlight, increasing wind drafts and obstructing sky views. The quality of these public spaces is critical – even more so as these city residents retreat from their compact apartments to use the city's streets and parks as their 'living room'.

At the same time, the density of these developments is resulting in a rapid and unpredictable increase in the population living in the central city. These residents need adequate open space and community services to ensure that they can enjoy a good quality of life.

There are currently no policies in place that link the density of developments to the provision of this essential infrastructure, resulting in a significant funding opportunity being missed.

Incentivising developers to deliver public benefit through density bonuses is common practice in many cities and has effectively delivered parks, plazas, community facilities like childcare and cultural facilities such as cinemas or performing arts spaces. It also enables the delivery of affordable housing to ensure low-income earners are supported and have good access to their central-city jobs. This is good planning. Instead, Melbourne's planning controls offer 'cheap density' to developers as they are able to build unlimited density with limited need for a community contribution.

The evidence from these cities is clear. Melbourne would benefit from the introduction of policies that:

– Establish appropriate density controls in central Melbourne.
– Establish density bonuses to link development to public benefit and incentivise the delivery of new open spaces, affordable housing and other community facilities.
– Establish an enforceable tower separation rule.
– Establish apartment standards.

This report also recommends investigating the introduction of two planning streams for large-scale development approvals that developers can choose between – an 'as-of-right' approval for meeting these controls (that can provide certainty to developers and the community) or a negotiated outcome (with community review) if the controls are exceeded

Churchill Fellowship Report: Inclusionary Zoning requirements to support delivery of affordable housing, USA, Canada, UK, Kate Breen, 2014

Churchill Fellowship to investigate the use of inclusionary zoning requirements to support the delivery of affordable housing - USA, Canada, UK

Meeting the demand for a diversity of housing choice, and ensuring there is adequate supply of specifically targeted affordable housing options for lower income households is a major challenge in Australia and in other developed cities.

In London, New York, Washington D.C, Montgomery County, Toronto and Vancouver mandatory and voluntary land- use policies that require developers to deliver a percentage of affordable housing within their market development, commonly referred to as 'inclusionary zoning', and policies that require developers to provide a financial contribution towards affordable housing, are generally accepted. Governments, communities and the private and not-for-profit sectors acknowledge that these approaches are an important means of supporting a more sustainable community.

A range of inclusionary housing policies are also in place in these cities, that are both supporting improved housing supply, as well as integrated affordable housing outcomes, potentially at a greater scale and impact than specific inclusionary zoning requirements. Inclusionary housing and zoning policies have not solved the affordability crisis in these cities, however they are important tools in supporting greater housing supply and affordable housing choice.

In Victoria, Australia there are very few policies and programs in place to adequately respond to the growing affordability crisis facing cities and communities. If Victoria is to achieve the objectives of planning to support sustainable development outcomes, support individuals and communities to access social and economic opportunities, and support the private sector to deliver sustainable and affordable communities, a wide range of inclusionary housing programs are urgently needed, including but not limited to specific inclusionary zoning requirements.

Drawing on the experience and ideas of the cities I visited, I recommend:

1. A community-driven 'Priority Development and Infrastructure Program' linking infrastructure investment to new housing supply.
2. A policy structure for implementing inclusionary zoning requirements on surplus government owned land in Victoria.
3. Scenarios where inclusionary zoning requirements could be placed on privately owned land in Victoria.
4. A greater diversity of affordable housing programs to facilitate housing choice and inclusive communities, whilst also supporting development viability.

Central Sydney Strategy, City of Sydney 2016–

The Central Sydney Strategy was adopted by the City of Sydney in July 2016, and was submitted to the Department of Planning and Environment for approval for consultation in August 2016.

The Strategy seeks to build upon existing successful planning controls to ensure that Central Sydney can continue to growing the service of its workers, residents and visitors. It seeks to ensure that Central Sydney is well positioned to contribute to metropolitan Sydney being a globally competitive and innovative city that is recognised internationally for its social and cultural life, liveability and natural environment. It identifies 10 key moves to facilitate project growth to 2036:

- Prioritise employment growth and increase capacity
- Ensure development responds to context
- Consolidate and simplify planning controls
- Provide for employment growth in new tower clusters
- Ensure infrastructure keeps pace with growth
- Move towards a more sustainable city
- Protect, enhance and expand Central Sydney's heritage, public places and spaces
- Move people more easily
- Real commitment to design excellence
- Monitor outcomes and respond

50/50 mix requirements | Source: Central Sydney Strategy 2016 Overview

Most relevantly, the first priority 'prioritising employment growth and increasing capacity' proposes short term actions to ensure the development of a genuine mixed-use centre and provide a solid foundation for the growth of employment floor space. It is intended to address concern regarding net loss of employment floor space over recent times. More specifically, It proposes to:

– Introduce a maximum 50 per cent residential and serviced apartment land use mix requirement for developments above 55 metres in height
– Increase heights along the Western Edge from 80 metres to 110 metres capitalise on the changing form and character of the area and the additional rail infrastructure commitment by the NSW Government

In addition, the priority to 'provide for employment growth in new tower clusters' proposed to introduce a new planning pathway for heights and densities above the established maximums limits will increase growth opportunities for employment floor space, promote the effficient use of land, and encourage innovative design. It will also unlock opportunities for the delivery of cultural, social and essential infrastructure and improved public spaces commensurate with growth. Specific actions include:

– Permit taller buildings with higher floor space ratios for income-earning uses in the right locations (and reduce floor space ratios for residential accommodation and serviced apartments in certain locations)
– Outline first principle environmental controls to shape growth sites (eg overshadowing)
– Create a streamlined planning proposal process through published guidelines

The strategy offers innovative approaches to managing pressure of residential development on commercial growth. However, the document has, to date, failed to obtain 'gateway determination' from the Greater Sydney Commission,. Observations of media and industry coverage indicate concern that the proposed approach is inconsistent with broader metropolitan planning strategic objectives to facilitate increased supply of housing in and around activity centres., and in locations close to jobs. (For example see https://www.millsoakley.com.au/thinking/the-central-sydney-planning-strategy-should-be-ringing-alarm-bells/).

The Central Sydney Strategy has now been superceded by the Greater Sydney Commission Regional Plan and District Plans released in March 2018.

Activity Centres Pilot Program Key Findings Report DELWP 2018

A key purpose of the Activity Centres Pilot Program (the pilot program) was to identify how planning controls could be used to provide greater clarity and certainty about development heights in activity centres and to ensure the community and developers have a clearer understanding of the form of new development expected in activity centres.

In particular, the pilot program was to investigate how planning controls could be improved to better reflect and support strategic work undertaken by councils, and lessen the instances of proposals far exceeding preferred maximum heights in place and being out of step with community expectations.

Three activity centres were identified for inclusion as part of the pilot program – Moonee Ponds in the City of Moonee Valley, Ivanhoe in the City of Banyule and Johnston Street in the City of Yarra

The pilot program has found that:

- discretionary height controls, that is – preferred maximum height controls – are generally an effective tool for facilitating development and administering height in activity centres and should continue to be the preferred way in which height controls are applied in activity centres.
- preferred heights are more commonly exceeded on larger sites, noting:

Larger sites, by their inherent size or location within an activity centre, may play a strategic role in fulfilling and implementing local and state policy objectives. Inevitably these sites will have different built form outcomes compared to smaller or more generic sites within a centre

- if set at appropriate levels that will deliver desired growth targets, mandatory controls do not necessarily inhibit development and can deliver clarity, certainty and consistency in outcomes regarding allowable building height.
- Floor area ratios can guide preferred built form outcomes in activity centres . The coupling of floor area ratios and height controls is an approach that can allow flexibility in design while providing guidance on appropriate height within the site context.
- Requirements for public benefits need to unambiguous Requirements should be included in the controls that directly relate additional height to the provision of a specified benefit that supports the objectives. Proposed public benefits should be strategically justified.

Based on the findings from the pilot program, relevant Planning Practice Notes (PPN) have been revised and updated.

PPN60 height and Setback Controls for Activity Centres has been revised to outline instances where mandatory building height controls can be considered in activity centres subject to the fulfillment of clear criteria which include:

- Council has undertaken comprehensive strategic work and is able to demonstrate that mandatory controls are appropriate in the context, and
- They are absolutely necessary to achieve the preferred built form outcomes and it can be demonstrated that exceeding these development parameters would result in unacceptable built form outcomes.

PPN 60 continues to state that mandatory building height controls will also be considered in ‘exceptional circumstances’.

Minor changes have also been made to PPN58: Structure Planning for Activity Centres and PPN59: The Role of Mandatory Provision in Planning Schemes.

Melbourne C270 (Central City Built Form Review 2016)

Amendment C270 to the Melbourne Planning Scheme introduced a new suite of planning controls for the Melbourne' Central City area including the Hoddle Grid and Southbank. The controls followed an extensive review of built form and amenity impacts in the area, and introduced mandatory building setback and separation distances, overshadowing controls, and floor area ratio controls and public benefit uplift mechanism to 'share added value'. This approach aligns with planning approaches used in in cities across the world, such as New York, Singapore, Vancouver, and Sydney.

The C270 planning controls introduced base level FAR's of 18:1 across much of the Central City area, with other precincts varying from 4:1 to 14:1. The controls also required public benefits to be provided when the FAR exceeds the base level. The Public benefits that could be provided as include:

- Public open space and laneways on site
- Commercial use
- Public space in the building
- Affordable housing in the building
- Design competition.

A Guidelines document: 'How to calculate floor area uplifts and public benefits (DELWP 2016)' was released with the controls do not have statutory status but are used as guide by the responsible authority (Minister or Council) when negotiating agreement to provision of additional FAR in exchange for public benefits.

Importantly, the primary purpose of the FARS in this regime is to manage built form and amenity impacts within the CBD, in conjunction with setback and separation controls. It does not distinguish between commercial and residential land uses, other than to the extent that it includes uplift incentives specifically designed to encourage commercial floor areas and provision of affordable housing.

Public benefits are calculated based on 10% of the GRV of the additional floor area achieved above the base level. The GRV's for different precincts are established within the Guidelines and were intended to be reviewed annually, however these have not been updated since 2016.

Industry criticisms of the proposed approach relate primarily to the uncertainty created for developers about whether or not a bonus will be agreed, and therefore how to factor it in to land purchase prices, in addition to the rigidity of the GRV values not responding adequately to market shifts.

Source: Urban.com.au

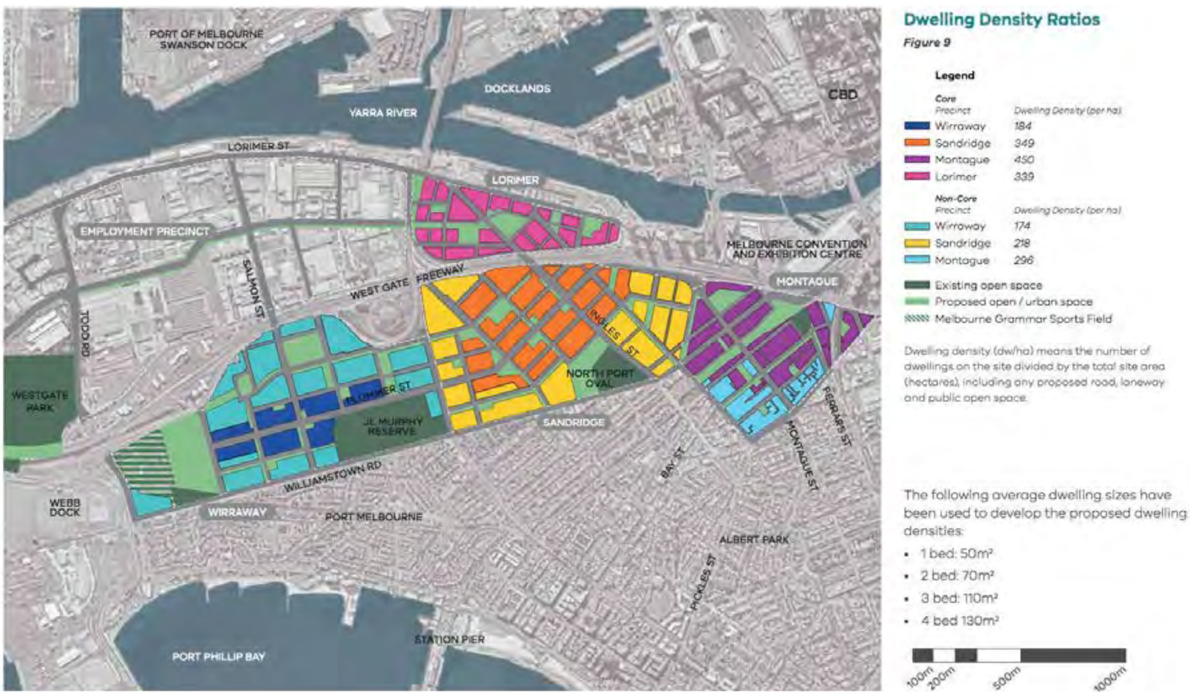
Melbourne and Port Phillip GC81 (Fishermans Bend Framework 2018)

Fishermans Bend is a 480 hectare urban renewal area strategically located between the Melbourne CBD and Port of Melbourne. Currently dominated by low scale industrial and warehousing uses, 250ha was rezoned to Capital City Zone in 2012 to facilitate mixed use medium and high density redevelopment.

The Fishemans Bend Framework 2018 sets out the plan for the precinct to accommodate approximately 80,000 residents and provide employment for up to 80,000 people, by 2050.

Amendment GC81 to the Melbourne and Port Phillip Planning Schemes came into effect in October 2018 to introduce new planning controls for the four Capital City Zoned precincts to give effect to the Framework, following the outcomes of the review by the Planning Review Panel, July 2018. Relevantly, key features included:

- Identification of a future public transport network including options for two new Metro train stations and two new tram routes
- Introduction of mandatory dwelling density controls four the four precincts ranging from 184 dw/ha to 450dw/ha for Core areas and 174dw/ha to 296dw/ha for non-core areas. This was based on an overall dwelling density of 323dw ha established by the supporting Urban Design Strategy (Hodyl 2017). Density controls were originally proposed as FAR controls(ranging from 4.1:1 to 8:1 in core areas), reflective of the approach used for the Central City, however the use of dwelling densities rather than FARS was recommended by the Panel as the most appropriate mechanism for managing population.
- •Introduced an 'uplift mechanisms' to allow dwelling densities to be exceeded only where a 'Social Housing Uplift' is provided. Local Policy directs that a social housing uplift equivalent to eight additional private dwellings may be provided' (eg an ratio of 8:1 'market dwellings' to 'social housing units'. This provision is subject to voluntary agreement between the landowner and responsible authority. It applies in addition to policy direction that at least 6% of dwellings within the base dwelling density should be provided as affordable housing.



- Also introduced a policy direction 'encouraging' development to include a minimum plot ratio not used for a dwelling, to support employment outcomes. The minimum plot ratios range from 1.6:1 to 3.7:1 and allows for most forms of employment generating uses as well as other forms of accommodation (hotel, residential village, retirement village, aged care). Discretion exists to reduce the minimium plot ratios, as guided by criteria established in policy.

The 'uplift mechanism' is similar to that used in the Central City (via C270), although it uses a simple ratio of public benefit to additional floor area, rather than relying on GRV's. This was underpinned by feasibility testing and eliminates the need to accurately establish and regularly review the GRV calculations.

The Fishermans Bend density controls are also distinct from the Central City controls in that their primary purpose related to managing population, rather than built form. They also make a key distinction between floor area used for dwelling versus non-dwelling uses.

Moonee Valley C183 (Moonee Ponds Activity Centre Pilot Project DELWP 2017)

As part of the Activity Centres Pilot Program (DELWP 2018) Moonee Valley Amendment C100 introduced interim mandatory height limits have been introduced across the centre (via. The controls were applied on an interim basis while Council undertook work to establish new permanent built form controls for the activity centre.

As detailed in Section 3.9 of this Report, the Pilot Project confirmed that:

- Discretionary preferred height controls are generally effective
- Preferred heights are more commonly exceeded on larger sites.
- Floor area ratios can guide preferred built form outcome in activity centres
- Requirements for public benefits need to be unambiguous

The work currently being undertaken by Council includes a review of building heights, and implementing a range of building form controls such as floor ratios, building setbacks and additional controls regarding overshadowing and wind effects. It will also include exploring the appropriateness of a mechanism to deliver public benefits in the activity centre.

It is anticipated that the permanent controls will be released for public feedback in early 2019 and the public benefits mechanism will be developed in mid-2019. As details of proposed FARs are not yet publicly available and it is not possible to provide a comparison of the Mason Square development against the proposed amended controls.

Melbourne C190 (Arden Macaulay Structure Plan 2012 and Arden Vision 2018)

The 130 ha Arden Macaulay urban renewal precinct is a important opportunity to accommodate residents and employment growth over the next 30 years. The Arden Macaulay Structure Plan 2012 identifies potential for 20,500 residents and 22,500 jobs by 2040. The 50ha Arden precinct sits within the broader structure plan area., The Vision for Arden, released in July 2018, states that Arden will:

- Accommodate more than 34,000 jobs and 15,000 residents by 2051 , which equates to ta dwelling density of 330 dw/ha for the Arden precinct.
- Deliver a major transport hub around the new North Melbourne Station
- Provide at least 6 per cent of all new housing in the precinct as affordable for low to moderate income households

Arden and Macaulay precincts

The Metro Tunnel Project is crucial to Melbourne's future and to Arden's renewal. Work on the Metro Tunnel Project began in September 2016. The new North Melbourne Station in Arden, a focal point for the 16 ha Arden Central precinct, is due to open by 2025. The Metro Tunnel Project and new North Melbourne Station will transform this area into a major transit-oriented destination. Arden Central is mainly Victorian Government- owned land used for transport purposes, with a few privately owned parcels on the Arden Street frontage.

The VPA has commenced work on the Arden Structure Plan to implement the directions and objectives of the Arden Vision. Alongside the structure plan work, the VPA is preparing a comprehensive Value Creation and Capture Plan will bring together an evidence-based assessment of crucial development enablers for the Arden precinct, such as that flood mitigation, land remediation, community infrastructure and public realm. The plan will indicate the value that may be unlocked by targeted investment in enabling infrastructure over time. Equitable value capture funding mechanisms will be considered as part of the Value Creation and Capture Plan. Mechanisms could include infrastructure charges.

For the Macaulay Area, In 2015, Amendment C190 (DDO63) introduced land use and development controls, to give effect to Stage 1 of the Arden Macaulay Structure Plan area. These controls included preferred and mandatory height controls varying from 3 and 4 to 9 and 12 storeys respectively, and street wall heights which while expressed in metres, generally reflect a 1:1 street wall to street width ratio. The controls require all development that exceeds the preferred height limits to deliver 'demonstrable benefits to the broader community including amongst others':

- Exceptional quality of design.
- A positive contribution to the quality of the public realm.
- High quality pedestrian links where needed.
- Good solar access to the public realm.

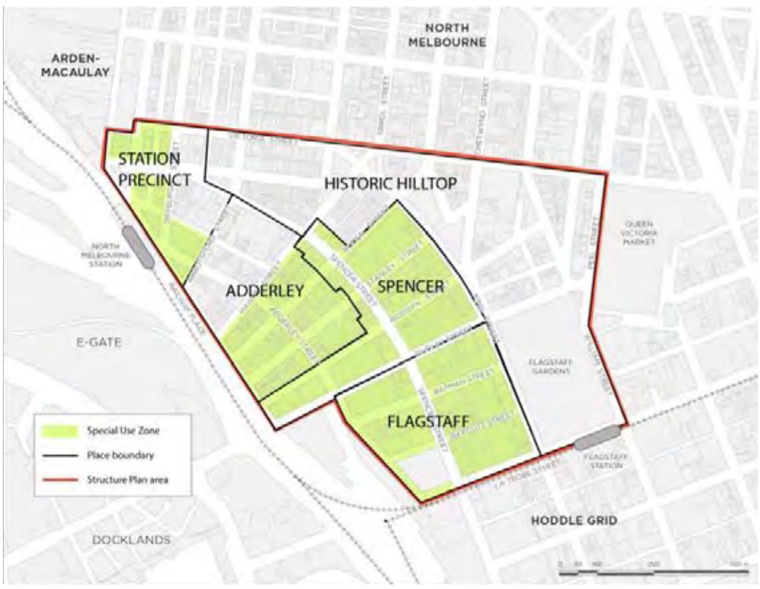
The precinct has also had an interim DCPO applied (via C295) will require permit applicants to enter into a section 173 agreement with the council to make development contributions towards the provision of community facilities and infrastructure upgrades required to deliver the Macaulay Structure Plan.

Melbourne C309 (West Melbourne Structure Plan 2018)

The West Melbourne Structure Plan (2018) and proposed Melbourne Amendment C309 are currently on exhibition. The Structure Plan identifies that within West Melbourne, there is likely to be the need to provide an additional 5500 dwellings and between around 4500 (the base case) to 7000 new jobs (depending on employment type) by 2036, requiring between around 100,000 sqm and 200,000 sqm of employment floor space (C309 Clause 21.16)

Amendment C309 proposed to rezone areas of West Melbourne to a Special Use Zone. The SUZ controls

- Introduce New mandatory density controls. The proposed floor area ratios for West Melbourne vary from 3:1 to 6:1. The floor area ratios proposed in West Melbourne give a density range of around 150-350 dwellings per hectare. There are no provisions for uplift for public benefits, except where a 'special character' building is retained.
- Include preferred maximum building heights which vary from 4 to 16 storeys, with minimum floor to floor heights of 4.0m for ground floor and 3.3m for non-residential uses on other floors.
- Require a minimum proportion of floor area to be allocated to a use other than accommodation. The minimum proportions are proposed at 1:1 for Flagstaff, Spencer and Station precincts and 0.5:1 in Adderly. The proposed SUZ excludes all forms of accommodation from this provision, in contrast to Fishermans Bend which limits only 'dwelling' and allows for other forms of employment generating accommodation uses (eg hotel, aged care) to be provided within this floor space.
- Trigger a planning permit requirement for development of 10 or more dwellings and requires that at least 6% (one in 16 dwellings) should be provided as an affordable housing dwelling, unless otherwise agreed to by the responsible authority. It is intended that exemptions only apply where the affordable housing requirement would render the project 'economically un-viable'. The legal validity of this requirement will no doubt be tested in the context of the recently changes to the Planning and Environment Act 1987 which emphasise the provision of affordable housing by voluntary agreement via S173.



Moreland C158 (Employment areas local policy 2016 - prescribed ratios of employment floorspace)

In December 2017, Moreland Amendment C158 was approved to implement the Moreland Industrial Land Strategy 2016 which requires, in designated 'Employment Areas':

employment floor space to be provided equivalent to all proposed ground and first floor building floor space (inclusive of car parking, services, and circulation spaces), in any building proposing residential components.

Where a rezoning of a large site is proposed, It also requires an (unspecified) proportion of the site to be allocated to employment uses.

This approach preceded, and is similar to the approach now used in Fishermans Bend. In both instances, local policy is used to provide direction regarding these outcomes (Moreland Clause 21.03). The policy specifically supports a transitioning to a broader range of industry and office based uses and compatible employment uses, other than retail, which is directed to activity centres. Moreland Clause 21.02 directs that the 'Employment Areas' areas are predominantly located within or adjacent to activity centres and their transition will support and reinforce the economic and employment objectives of activity centres. The policy recommends use of C1Z, SUZ, or CDZ with tailored provisions to prioritise employment uses and establish permit triggers for residential and other uses as necessary.

A variation of this approach is to or allow residential floor area to be developed only at a pro-rata rate to commercial floor area, within a development. This is the approach adopted by the City of Sydney which introduced a mandatory 50/50 ratio for commercial to residential development with the Sydney CBD.

Stonnington C172 (Chapel revision Structure Plan 2015 – vertical zoning)

Vertical Zoning is a form of restriction on different land uses at different levels within a building, intended to facilitate mixed use development.

Amendment C172 , approved in August 2017 implemented the directions from the Chapel reVision Structure Plan 2013- 2031 and associated background documents into the Stonnington Planning Scheme. It rezoned land in the centre to Activity Centre Zone and consolidated land use and built form controls into one zone. It seeks to manage the land use mix at lower levels (1-3) by providing for a range of employment based land uses 'as of right' at lower levels and only allowing 'dwelling' uses below level 4 subject to a permit.

Key elements included:

- Introducing a 'vertical zoning' permit trigger along main streets for:
- 'dwelling' , if located below the third floor of a building (in most precincts)
- 'office' if located on the ground floor
- or if the frontage exceeded 2m for either use
- applying discretionary height controls to the majority of the centre with the mandatory controls applied only in 'exceptional circumstances'
- introducing mandatory street wall height requirements to select streets.
- Specific Provision for preferred heights to be exceeded where demonstrated that 'significant community benefits' are achieved in addition to meeting visual impact and overshadowing requirements.
- Introduced building adaptability requirements requiring a minimum floor to floor heights of 4.0m at ground floor and 3.8m at first and second floor

Appendix 3
Stakeholder Reference Group Workshop Presentation

Review of Strategic Direction **Box Hill Metropolitan Activity Centre**

Stakeholder Reference Group | Workshop 1
MGS Architects / TQ Planning / Movement & Place Consulting / SGS Economics and Planning
5 March 2019

Today

—Introduction and purpose

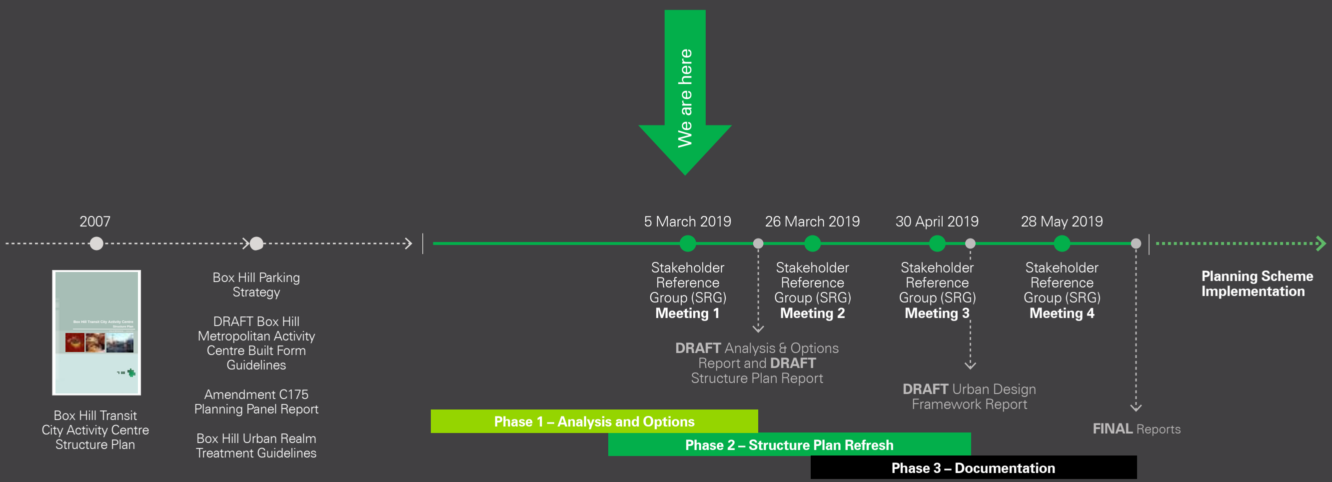
—Key issues emerging from the background analysis

—Workshop discussion: Testing the Activity Centre Vision

—Key Consultation Questions

1.0
Introductions & purpose

Project timeline



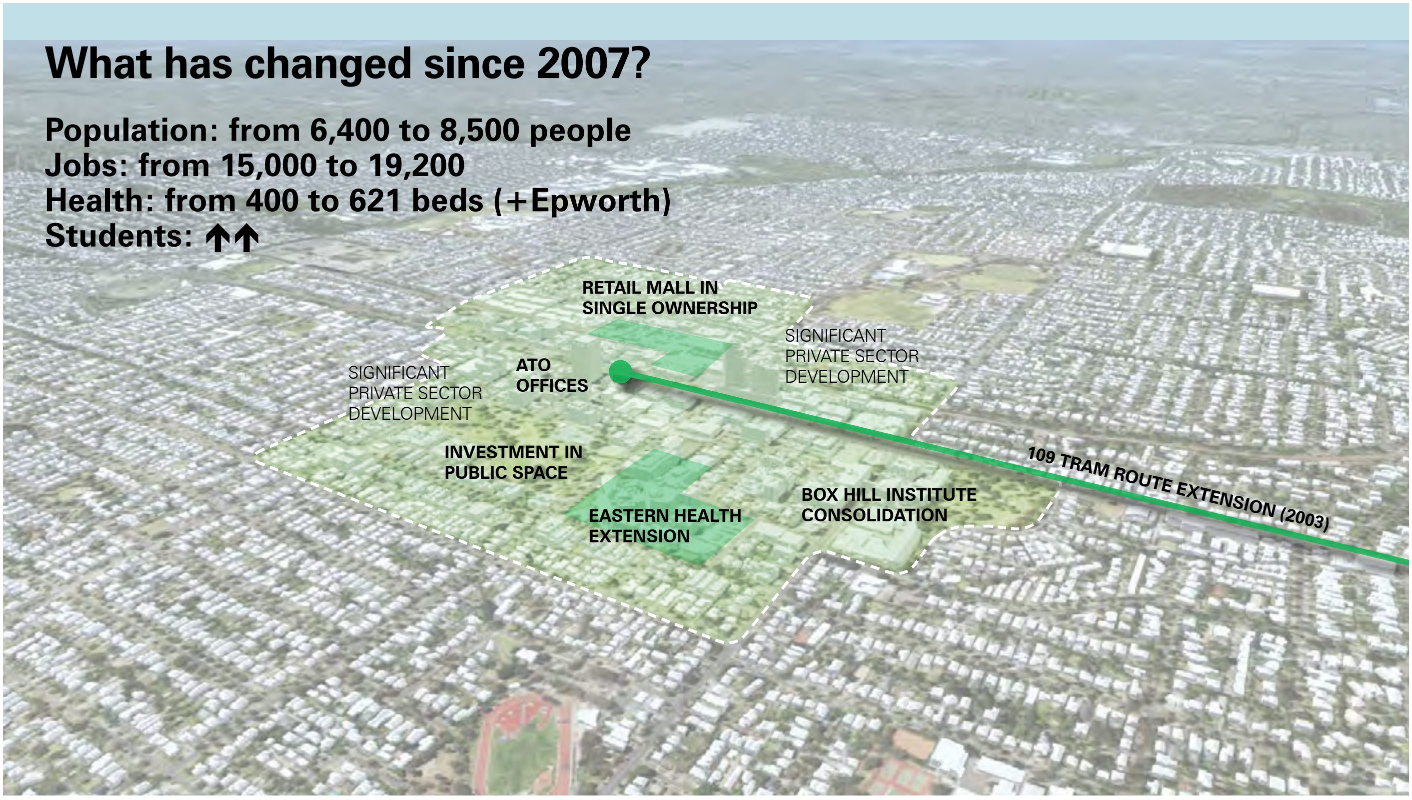
Workshop purpose

- To review the existing strategic vision for Box Hill; and
- To guide the prioritisation and distribution of uses *(such as health, office, community, retail and housing)*

Box Hill MAC Review of Strategic Direction | **MGS Architects / TQ Planning / Movement & Place Consulting / SGS Economics** | **5**

What has changed since 2007?

Population: from 6,400 to 8,500 people
Jobs: from 15,000 to 19,200
Health: from 400 to 621 beds (+Epworth)
Students: ↑↑

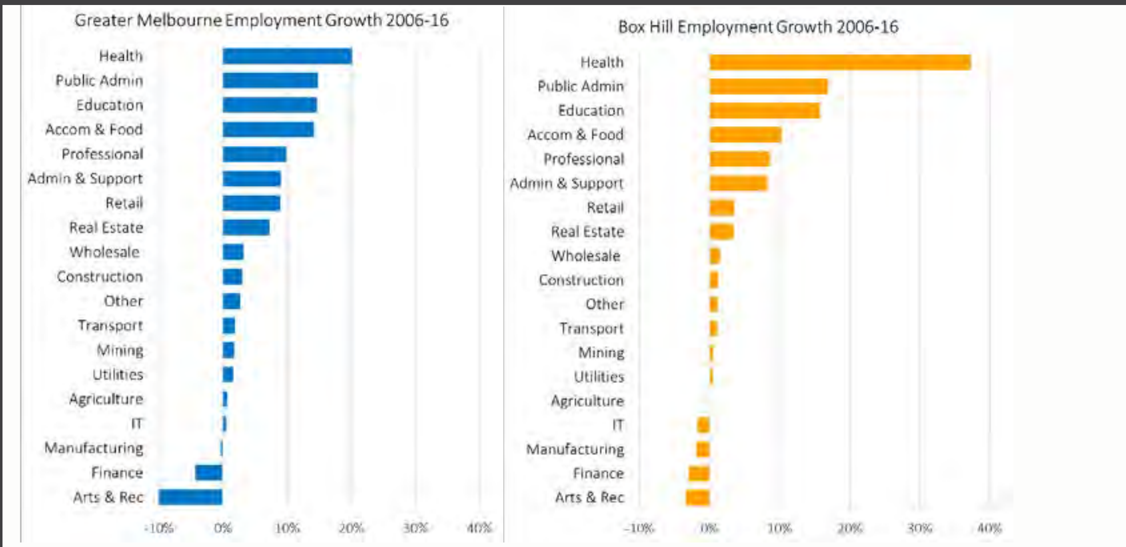


2.0
Key Issues

Economics and demographic findings
Strategic transport
Development trends and planning
Community and stakeholder feedback

Future Box Hill
Economics & Demographics

Employment growth

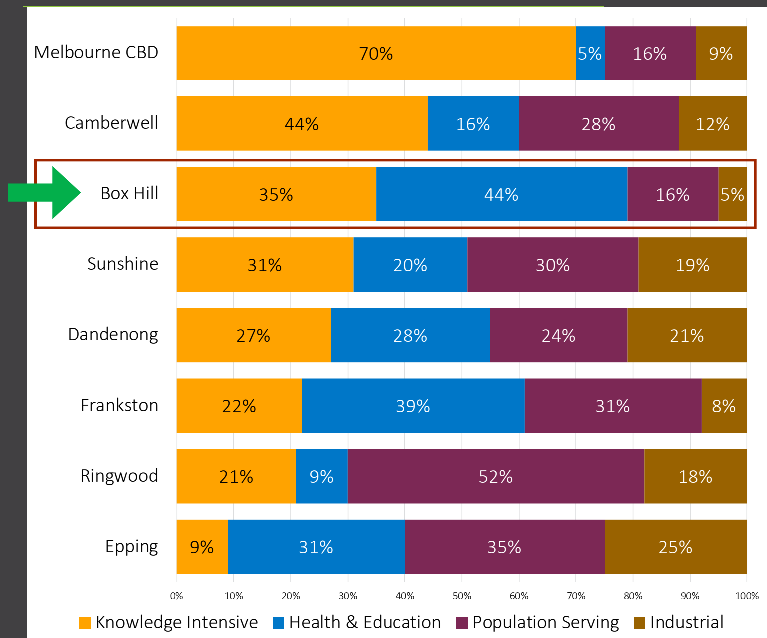


Additional health employment has contributed almost 40% of employment growth.

Source: SGS Economics & Planning

Labour markets

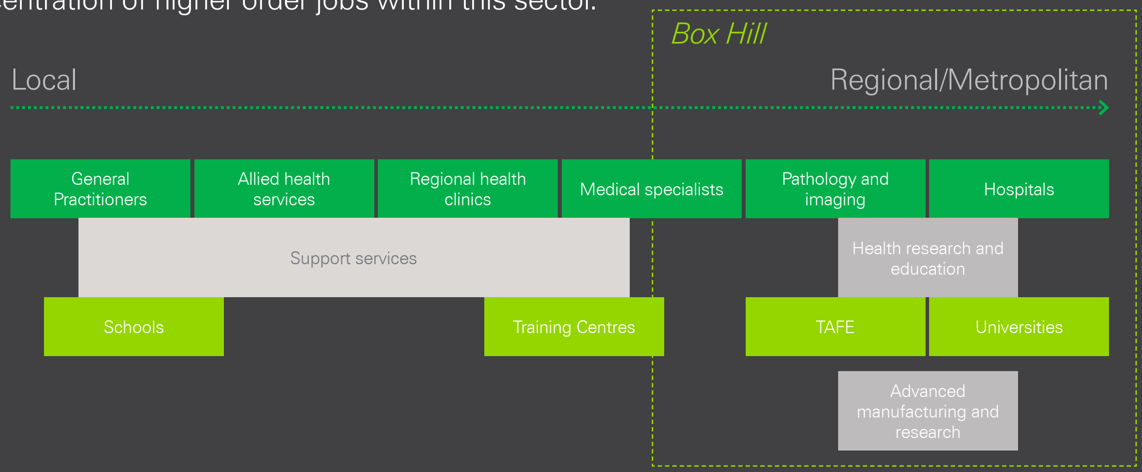
— The mix of jobs and economic activity is more like the CBD than other major centres.



Source: SGS Economics & Planning

Future Trends
Spectrum of health and education

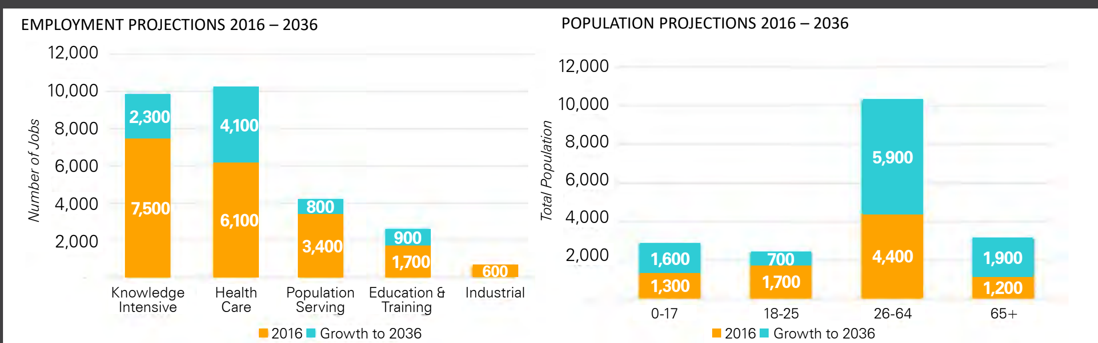
— Even though health and education is growing across Melbourne, Box Hill is distinctive for the concentration of higher order jobs within this sector.



Source: SGS Economics & Planning

Future Trends
Projected Growth

2006	2016	2036	2016–2036 Growth
6,400 Residents 4.3% of LGA population	**8,500** Residents 5.1% of LGA population	**18,600** Residents 9.1% of LGA population	**10,100** New Residents 4.0% AAGR
15,000 Jobs 20% of LGA Jobs	**19,200** Jobs 24% of LGA Jobs	**27,600** Jobs 26% of LGA Jobs	**9,000** New Jobs 1.8% AAGR



Source: SGS Economics & Planning

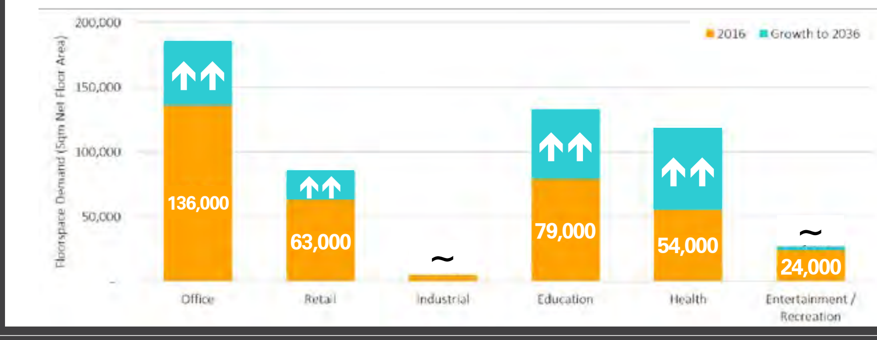
Floorspace demand

PRELIMINARY

2011	2016	2036		2016–2036 Growth
266,000 sqm Residential Floorspace	**324,000** sqm Residential Floorspace	**720,000** sqm Residential Floorspace		**396,000** sqm **4.1%** AAGR
345,000 sqm Commercial Floorspace	**362,000** sqm Commercial Floorspace	Hospital/health floor space; Retail floor space for core area; and Education floor space to be verified		**More than 200,000** sqm

- Knowledge intensive and health care sectors are forecast to experience the strongest employment growth over the next 20 years.
- Floorspace demand is forecast to be strongest for Health, Education and Office uses.

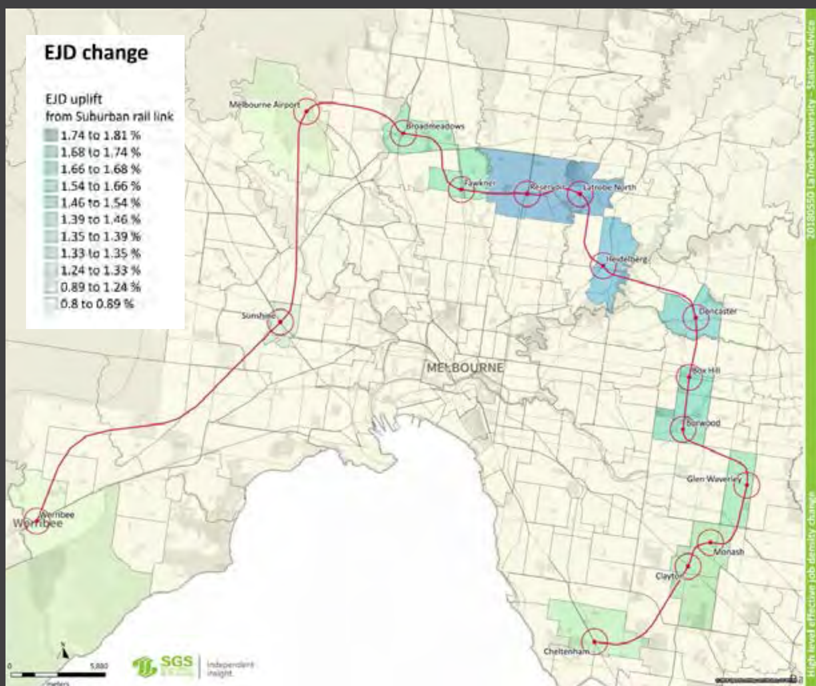
FLOORSPACE PROJECTIONS FOR BOX HILL 2016 – 2036



Source: SGS Economics & Planning

Future transport
Suburban Rail Loop

- These projections do not account for the further opportunities that will be created through the connectivity from the proposed Suburban Rail Loop



Future Box Hill
Strategic Transport

Box Hill has grown.
The transport network needs to catch up.

Very few changes have been made to the road space allocation since 1983.

— Outdated bus network

— Large supply of car parking - more than Chadstone

— Pedestrian network: Strong at the core; poor connections between neighbourhoods and low amenity generally

— Road network close to capacity at times

— Tram patronage exceeded forecasts

Key to success will be balancing space and time allocated to modes

Pedestrians: more space and time

Cyclists: more space

Buses: more space, time and priority

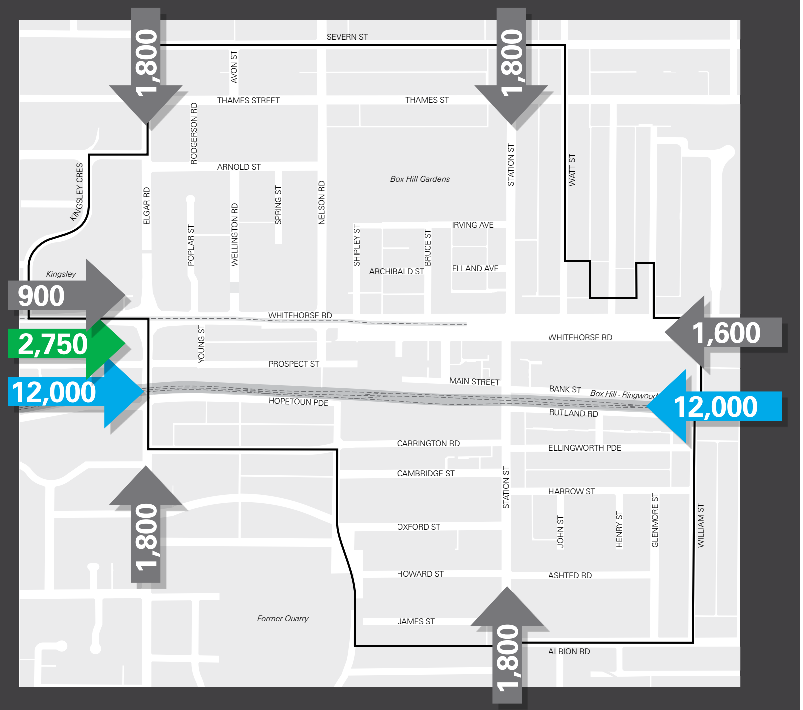
Cars: lower priority at the core

Road network is at capacity & transit has spare capacity

— The Theoretical Maximum Road Capacity in the peak hour for accessing Box Hill is around 9,000 vehicles.

— Much of this is taken up by through traffic.

— There is spare capacity in the public transport network across all modes.



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Connecting neighbourhoods & improving public realm are key issues

Connection between neighbourhoods is relatively poor

— It is difficult to move from the health & education precinct to the retail core

— Railway line and Whitehorse Road continue to be barriers to movement and economic activity

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Future Box Hill

Development Trends & Planning

Review of Development Trends

We analysed development approvals for Box Hill over last 15 years (20% sample)

4 different typologies of development:

— Low rise (3-6 storeys)

— Low-mid rise (7-16 storeys)

— Mid rise (17-23 storeys)

— High rise (24+ storeys)

Matters considered:

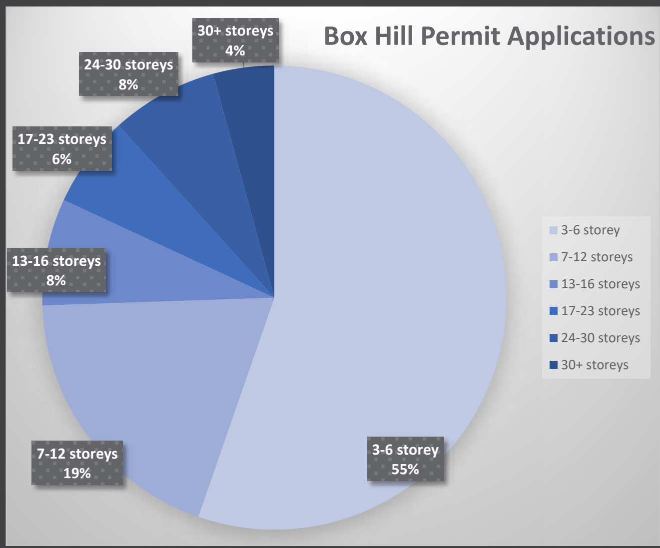
— Strategic directions of Box Hill Structure Plan

— Key planning considerations

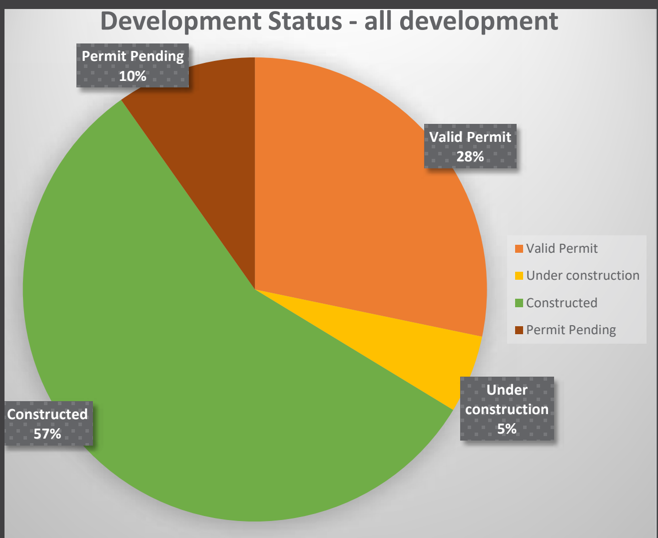
— Any gaps in the planning framework

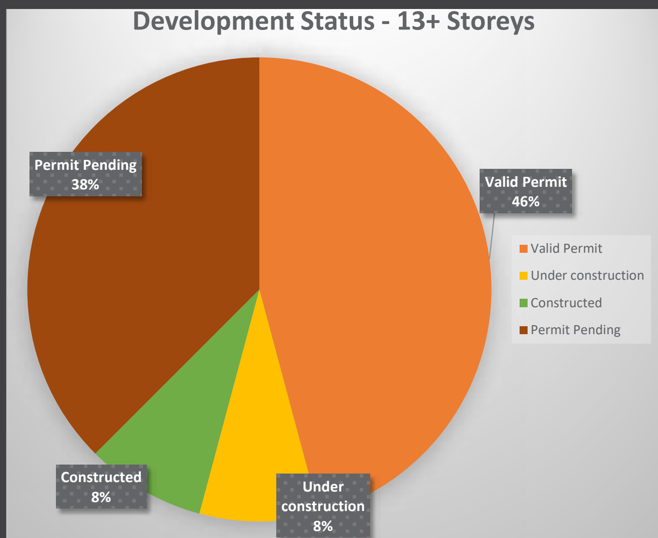
Scale of development

- 75% were low or low-mid rise (<6 storeys or 7-12 storeys)
- 80% were 16 storeys or less
- 4% (1/20) were greater than 30 storeys



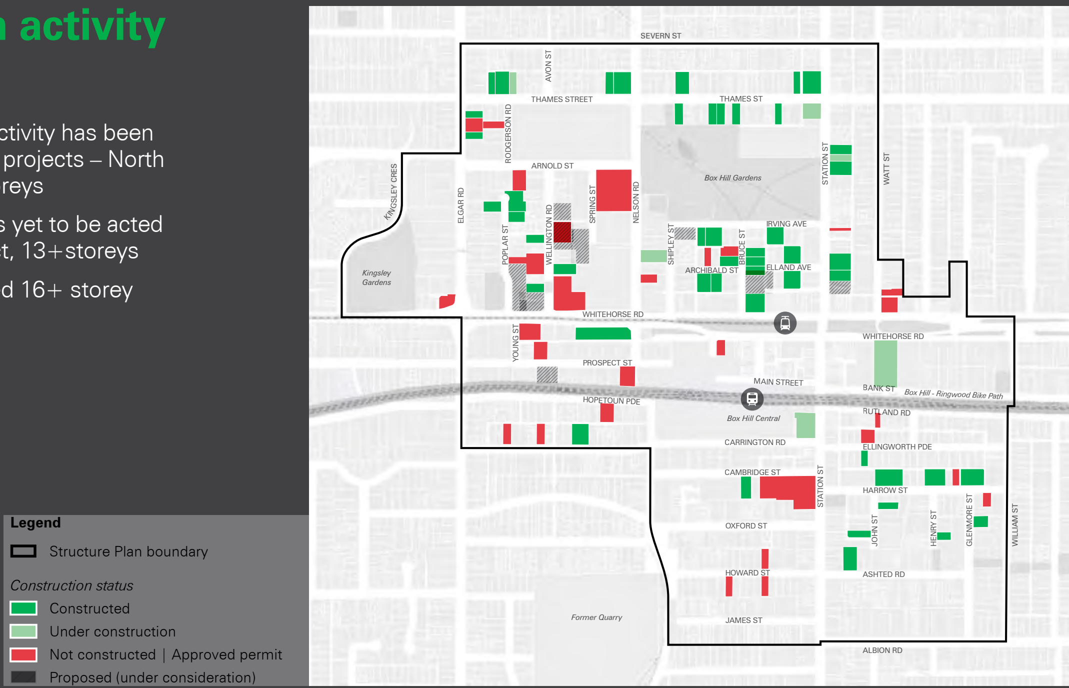
Development status





Construction activity

- Most development activity has been low and low-mid rise projects – North precinct, up to 10 storeys
- Approx 1/3 of permits yet to be acted upon –Health precinct, 13+storeys
- Only 20% of approved 16+ storey developments built



Box Hill MAC Review of Strategic Direction | **MGS Architects / TQ Planning / Movement & Place Consulting / SGS Economics** | **23**

Box Hill today

Current development inclusive of developments under construction:

4012 dwellings* + **596** dwellings under construction**

An estimated total of **4600** dwellings

*HDD STOCK 2016 & Planning Permit Approvals
** Planning Permit Approvals

Potential future change through approved development

If all valid permits were constructed, there would be:

4600 dwellings
+ **2453** apartment units

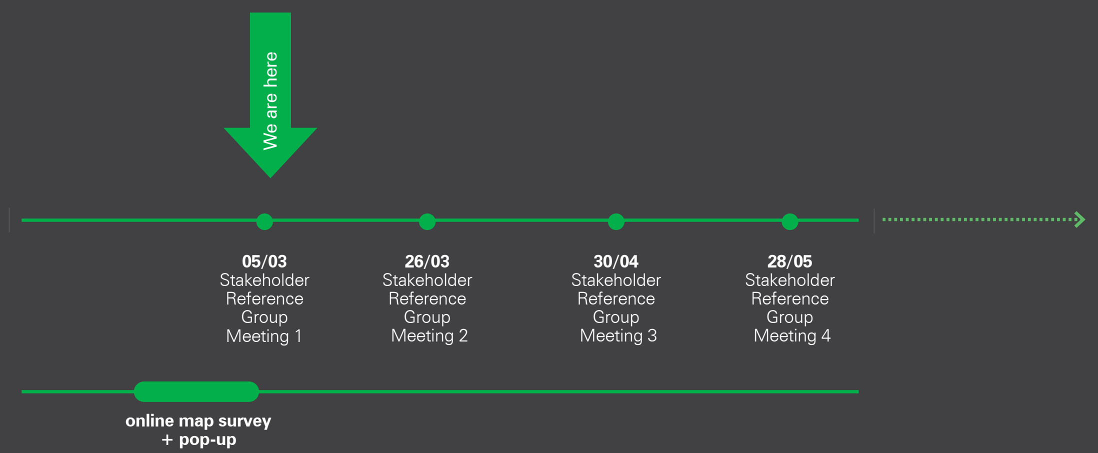
Potential future change through approved and proposed development

If all permits under consideration were constructed along with valid permits, there would be:

4600 dwellings
+ **3948** apartment units

Future Box Hill
Community & Stakeholder Feedback

Consultation Approach

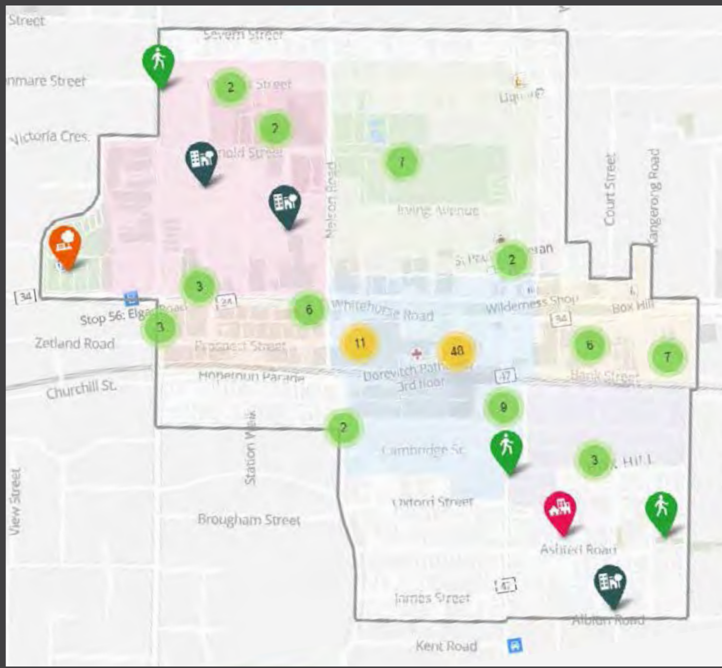


Initial Public Engagement

- 70+ Conversations at pop-up event
- 771 unique visitors to map survey
- 122 pins provided by 54 authors
- 63 votes provided by 13 voters

Top voted ideas:

- "The Box Hill Bus Interchange is old, tired and desperately needs a wholesale upgrade"
- "Very dark in the evening in Main Street. Needs more lighting"
- "The Box Hill to Ringwood Trail ends here. It needs to continue all the way into the central area"



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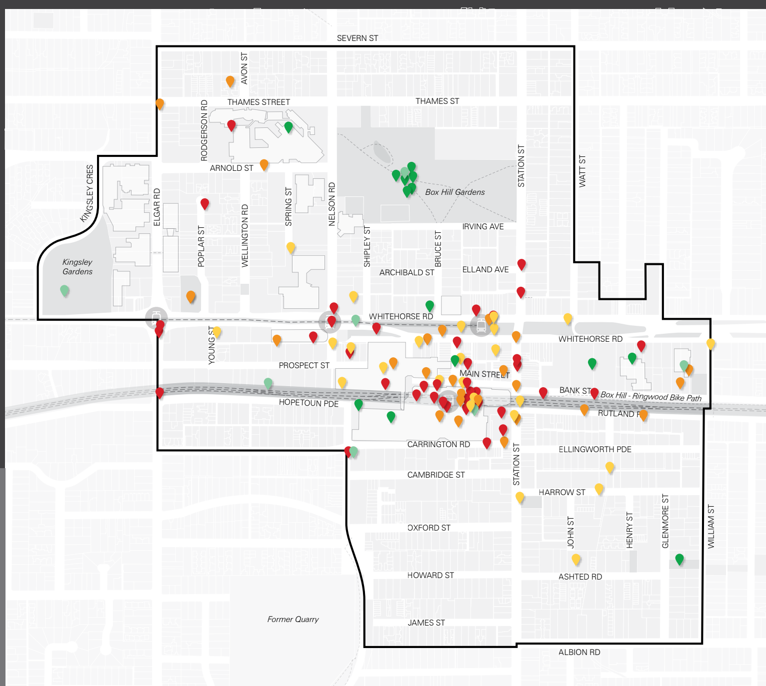
Preliminary analysis

More detailed sentiment analysis and key themes will be undertaken



Legend

- Structure Plan boundary
- Very Good
- Good
- OK
- Bad
- Very Bad

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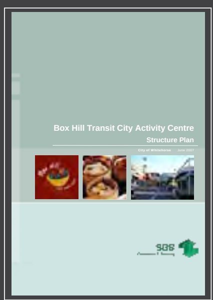
3.0
Workshop Discussion: Testing the Vision

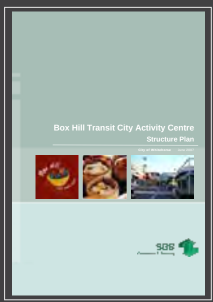
Testing the Vision
What does the existing vision say?



"Box Hill will be sustainable, safe and accessible to all. It will be a distinctive, vibrant, diverse, inclusive, participatory, caring and healthy community where you live, work and enjoy – day and night."

Is this statement still valid and useful?

Testing the Vision

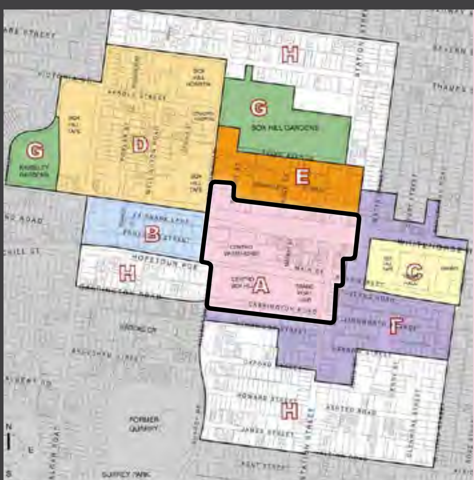


...Doncaster
Glen Waverley
Ringwood...

"~~Box Hill~~ will be sustainable, safe and accessible to all. It will be a distinctive, vibrant, diverse, inclusive, participatory, caring and healthy community where you live, work and enjoy – day and night."

Does this statement capture the unique characteristics of Box Hill?

Testing the Vision
Precinct A: Box Hill Transport and Retail Precinct



2007 Statement:

"Retail sustained throughout the area complemented by entertainment, hospitality, commercial and other uses with extended hours of activity creating a central focus for Box Hill."

Today

— Largest single land holding and major investment opportunity.

— Current retail focus

— How to maximise opportunity for diversification and community 'heart' of Box Hill.

Testing the Vision
Precinct B: Prospect Street Precinct

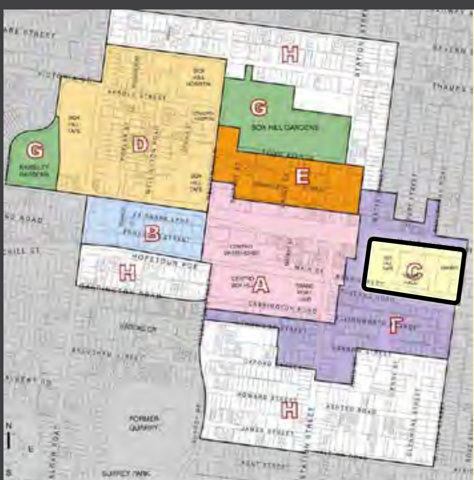
2007 Statement:

"Consolidation as the primary office precinct in the activity centre."

Today

— Major residential and hotel developments approved/ constructed.

Testing the Vision
Precinct C: Civic and Eastern TAFE Precinct



2007 Statement:

"Consolidation as cultural, community and educational facilities."

Today

— Consolidation and enhancement of council, and community assets.

— Focus for TAFE has shifted towards the west

Testing the Vision
Precinct D: Hospital and Western TAFE Precinct

2007 Statement:

"Growth and enhancement of educational and medical institutions and support for related businesses and services, plus high density residential (including student housing)"

Today

- All construction to date has been less than 8 storeys
- A cluster of approved but not yet activated permits (mid to high rise) - are they speculative or 'real'?
- Mostly 'high density residential' permits – cumulative impact on policy directions for supporting growth of education and medical related uses.

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Testing the Vision
Precinct E: Box Hill Gardens Precincts

2007 Statement:

"Provision for significant high to medium density residential growth with small scale offices, limited retail and community services and retail to activate ground level street frontages."

Today

- Focus of development activity to date (low, and low-mid rise – up to 10 storeys).
- Character has changed
- Limited development opportunities remain.

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Testing the Vision
Precinct F: Southern and Eastern Precincts

2007 Statement:

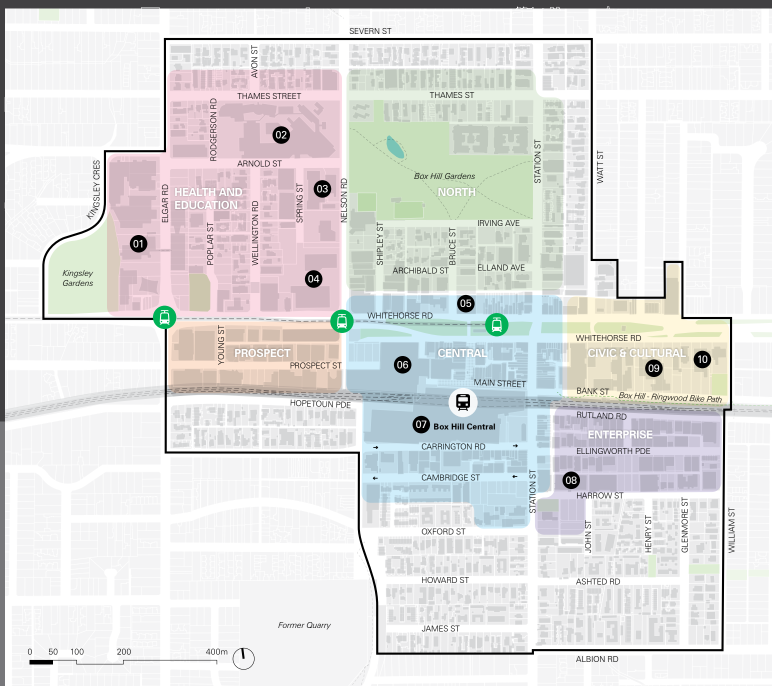
"Mix of office and retail uses responding to prominent Whitehorse Road and Station Street frontages, and mixed use (residential) as transition to purely residential precincts."

Today

— Residential 'transition' (eg Harrow St) but pressure from residential development on mixed use role of precinct

Developing a Network of Distinctive Neighbourhoods

What role does each neighbourhood play in the overall vision?



Legend

Structure Plan boundary

Neighbourhoods

- Health & Education
- Prospect
- North
- Central
- Civic & Cultural
- Enterprise

Key Places

01 Box Hill Institute | Elgar campus
02 Box Hill Hospital
03 Epworth Hospital
04 Box Hill Institute | Nelson campus
05 Australian Tax Office
06 Box Hill Central North
07 Box Hill Central South
08 Centrelink & Medicare
09 Box Hill Town Hall
10 Box Hill Library

4.0
Key Questions

Community Places and Spaces for People in Box Hill

—As population grows, what new public places or spaces are needed?

Living in Box Hill

—What parts of Box Hill could accommodate new apartment development or taller buildings; and

—What parts should be townhouses or buildings of up to 3 or 4 storeys? Why?

Working and learning in Box Hill

—What main opportunities for employment growth exist in Box Hill?

—How can Box Hill be improved to attract employment?

Buildings, character, and image

—What makes Box Hill 'special' or 'unique'? What is needed to improve or enhance the character or image of Box Hill?

5.0 Next steps

- —Addressing key planning gaps
- —Managing car parking and integrated transport
- —Clearer built form guidance linked to strategic vision
- —Identifying key interventions
- —Identifying funding approaches

Appendix 4
Whitehorse Planning Scheme Amendment C175: Planning Panel Report—Executive Summary

Planning and Environment Act 1987

Panel Report

Whitehorse Planning Scheme Amendment C175

Box Hill Metropolitan Activity Centre

6 October 2017

Planning Panels Victoria

Planning and Environment Act 1987

Panel Report pursuant to section 25 of the Act

Whitehorse Planning Scheme Amendment C175

Box Hill Metropolitan Activity Centre

6 October 2017

Lester Townsend, Chair

Jennifer Fraser, Member

John Roney, Member

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Appendix A Submitters to the Amendment

Appendix B Parties to the Panel Hearing

Appendix C Document list

List of Abbreviations

ACZ	Activity Centre Zone
C1Z	Commercial 1 Zone
DDO	Design and Development Overlay
DELWP	Department of Environment, Land, Water and Planning
DTPLI	Department of Transport, Planning and Local Infrastructure (former)
EPA	Environment Protection Authority
GRZ	General Residential Zone
Guidelines	Box Hill Metropolitan Activity Centre Built Form Guidelines, Hansen Partnership, 2016
LPPF	Local Planning Policy Framework
MAC	Metropolitan Activity Centre
MSS	Municipal Strategic Statement
MUZ	Mixed Use Zone
NRZ	Neighbourhood Residential Zone
PDZ	Priority Development Zone
PUZ	Public Use Zone
RGZ	Residential Growth Zone
SPPF	State Planning Policy Framework
Structure Plan	Box Hill Transit City Activity Centre Structure Plan, June 2007
SUZ	Special Use Zone
VPP	Victoria Planning Provisions

Overview

Amendment summary	
The Amendment	Whitehorse Planning Scheme Amendment C175
Brief description	The Amendment proposes to give effect to the *Box Hill Metropolitan Activity Centre Built Form Guidelines* (2016)
Subject site	Box Hill Metropolitan Activity Centre
Planning Authority	Whitehorse City Council
Authorisation	On 3 November 2016, a delegate of the Minister for Planning authorised Council to prepare the Amendment. The authorisation was subject to a number of conditions
Exhibition	16 February to 17 March 2017
Submissions	117 submissions were received together with 84 proforma submissions – See Appendix A

Panel Process	
The Panel	Lester Townsend (Chair), Jennifer Fraser and John Roney
Directions Hearing	Box Hill, 16 June 2017
Panel Hearing	Box Hill, 24, 25, 27, 28 and 31 July and 1 and 2 August 2017
Site Inspections	Unaccompanied, various dates
Appearances	See Appendix B
Date of this Report	6 October 2017

Planning Panels Victoria

Executive Summary

(i) The Amendment

In June 2007, Council adopted the *Box Hill Transit City Activity Centre Structure Plan, June 2007* (the *Structure Plan*) to guide development in the Box Hill Metropolitan Activity Centre (the MAC). On 23 July 2009, Amendment C100 amended Clause 22.07 to implement the *Structure Plan*.

The strategic groundwork for Amendment C175 commenced in June 2016 when Council commissioned Hansen Partnership to prepare the *Box Hill Metropolitan Activity Centre Built Form Guidelines, Hansen Partnership, 2016 (*the *Guidelines)*.

Whitehorse Planning Scheme Amendment C175 (the Amendment) seeks to:

- update Clause 21.07 to reference the *Guidelines*
- update Clause 22.07 to reference the *Guidelines*
- rezone land
- apply a new DDO Schedule to parts of the activity centre to implement the *Guidelines.*

The rezonings

The rezoning proposals were relatively uncontroversial and are supported by current policy in the scheme.

Conflict between the *Structure Plan* and the *Guidelines*

A number of conflicts were identified between the *Structure Plan* and the *Guidelines;* and because both will remain referenced by the scheme and there are no plans to update the *Structure Plan,* this will result in inconsistency in planning requirements for some aspects of development on some land.

The Design and Development Overlay

The harshest critics saw the Design and Development Overlay (DDO) as an arbitrary imposition of controls; in their view it was a poorly drafted product of a deficient process that had no strategic justification.

Others saw it as permitting a level of development that had no community support and would transform Box Hill into a 'hill of boxes'.

As a designated Metropolitan Activity Centre, Box Hill's stakeholders range from individual users of the centre, local community groups, land owners and developers, a TAFE and a hospital, shopping centre operators and government agencies. As might be expected there were a range of views on what constituted appropriate development in the centre. In its closing submission Council said that it had sought to 'balance' the competing views about the future of the centre.

Strategic justification: the need for controls

The justification for introducing built form controls rested on two claims: first that there was a 'gap' in the built form controls in the *Structure Plan* in relation to Precinct F and second, the *Structure Plan* called for a DDO.

The notion that there was a gap in the *Structure Plan* is misconceived – the *Structure Plan* did not omit to form a view on heights in Precinct F: it explicitly concluded no height limits were necessary.

The claim that there is a gap in the *Structure Plan* is really a claim that the built form approach in the *Structure Plan* is now out-dated, in particular, it was now seen as appropriate to impose a height limit in Precinct F where the *Structure Plan* explicitly stated that no height limit was to be imposed. As far as the Panel can tell, the issue with the lack of height controls was that applicants were applying for tall buildings.

It is of course open to Council to review the *Structure Plan* and to completely change its approach, but it is not helpful to anyone for the planning scheme to list an explicit strategy at 21.07-4 to *"Facilitate development within the Box Hill MAC in accordance with the Box Hill Transit City Activity Centre Structure Plan, June 2007"*, and then seek to introduce contradictory controls, in another part.

The Panel agrees that there is strategic support for application of a DDO with discretionary controls and that a well-crafted DDO may well assist in managing development in the centre. But no DDO is better than a flawed DDO; the central issue for the Panel is whether the specific controls in the DDO are justified and whether the DDO is a well-crafted implementation of that strategic justification.

Strategic justification for the proposed controls

In terms of the work to develop the height controls, there are clear failings in the justification of particular height limits and built form controls. This is particularly troubling for the major sites:

- the Box Hill centro shopping centre and transport exchange
- the Epworth Hospital
- the TAFE.

The *Guidelines* do not document why certain design choices have been made, and the Panel could find no identifiable rationale for the heights proposed in the *Guidelines*.

The Panel concludes:

- The proposed preferred heights are not based on a well-founded understanding of the future urban form for the centre and the needs of key stakeholders in the activity centre.
- The *Guidelines* lack strategic rigour.
- The *Guidelines* are not an appropriate basis for an amendment.

It was suggested that a permit to exceed the discretionary heights in the DDO could be issued in return for a public benefit. There are a number of issues that emerge from such an approach, including:

- Ensuring any such requirement is clear and transparent in its meaning and outcome to be achieved.
- That the requirement is fair and equitable to all parties.
- That there is sound strategic justification for the requirement rather than as an arbitrary inclusion.
- There is a genuine nexus between the requirement and the objectives of the DDO.
- The implications for exercising discretion on sites not covered by such requirements are fully understood.

The Amendment did not address these issues.

Drafting of the DDO

Finally, the drafting of the Amendment is poor. Leaving aside the inconsistencies and ambiguities in the numbers in the controls that need to be fixed, there is the fundamental wisdom of applying a control with:

- 51 general objectives
- 80 precinct objectives across nine sub-precincts
- 51 general requirements
- 108 precinct requirements across nine sub-precincts.

The DDO has been drafted by 'translating' the *Guidelines* into a DDO. It is not clear to the Panel why anyone tasked with preparing a DDO would first prepare a set of *Guidelines* and not simply commence with drafting a DDO. Some of the drafting issues may stem from the fact that the text in the DDO did not begin as purposely written planning controls suitable for inclusion in a planning scheme, with due care taken in the choice of language.

For example, taken at face value some requirements such as "*incorporate landscaping elements within the building facade where possible*" show a lack of understanding as to what is 'possible' as opposed to 'practicable' or 'appropriate'.

The Panel has identified specific concerns with almost every aspect of the DDO that make it unsuitable for inclusion in the planning scheme without significant redrafting. These include:

- The four revised design objectives prepared by Council at the conclusion of the Hearing are inappropriate.
- The drafting of the buildings and works requirements do not make it clear whether a permit may be granted to construct a building or construct or carry out works that are not in accordance with any requirement of the schedule to the overlay.
- The general requirements in Clause 2 of the DDO schedule including Table 1 and Table 2 should not proceed in their current form.
- The Built Form Responses regarding Subdivision pattern should not proceed in their current form.
- Further work is required in order to explain any site coverage controls for the activity centre.
- Further work is required in order to justify and explain any plot ratio approach to development in the activity centre.
- The proposed preferred height controls should not proceed in their current form.

- The proposed street walls and setback controls should not proceed in their current form.
- The Built Form Responses regarding Heritage should not proceed in their current form.
- The Built Form Responses regarding Key views should not proceed in their current form.
- The Built Form Responses regarding 'Additional street/laneway address' should not proceed in their current form.
- The Objective regarding 'Amenity/access to daylight' should not proceed in its current form.
- It is unclear whether the controls are meant to relate to access to daylight or shadowing.
- The Objectives and Built Form Responses regarding 'Landscape' should not proceed in their current form.
- The Decision *Guidelines* contained in Clause 4.0 of DDO6 should not proceed in their current form.
- The exhibited version of the Amendment is not in accordance with the Ministerial Direction on The Form and Content of Planning Schemes.

Any future controls need to be drafted with a greater degree of care and precision to ensure the intended outcomes are achieved.

Process

The process of developing the DDO did not engage with relevant stakeholders who control land uses that are specifically identified in metropolitan policy for change, and imposes height limits and other built form controls that would work against metropolitan policy.

The proposed controls were not subject to peer review though such a review had been suggested to Council before exhibition.

Council said that the Panel was the peer review. A Panel is not a 'peer review'. It is not an opportunity to massage poorly drafted controls: it is statutory process based around protecting peoples' rights.

In the absence of a clear rationale of what the DDO is trying to achieve, redrafting the Amendment as part of this Amendment process is simply not possible.

(ii) Recommendations

Based on the reasons set out in this Report, the Panel recommends that Whitehorse Planning Scheme Amendment C175 be adopted as exhibited subject to the following changes:

1. **Abandon the changes to Clause 21.07 and Clause 22.07.**
2. **Abandon the Design and Development Overlay.**

Appendix 5
List of planning permit applications 2013–2019

APPLICATION NUMBER	ACTIVITY PRE	BUILT FORM PR	ADDRESS	HEIGHT	STATUS	VALID PERMIT	COND 1
			WHITEHORSE ROAD				
WH/2016/1109	D	F	813-823 Whitehorse Road	16 storeys	VCAT issued permit (Refused by delegation)	Yes	No
WH/2016/68/A	B	F	820-824 Whitehorse Road	29 storeys	VCAT issued permit	Yes	Yes
WH/2014/763/F	B	F	836-850 Whitehorse Road	36 & 29 storeys	Council issued permit 16/03/2015	Constructed	Yes
WH/2017/313	D	F	3-5 Poplar Street & 837 Whitehorse Road	29 storeys	Under consideration		
WH/2017/819	D	F	843 Whitehorse Road	37 & 36 storeys	Under consideration		
WH/2014/1223/A	D	F	845-851 Whitehorse Road	37, 30 & 18 storeys	Council issued permit 19/09/2016	Yes, currently subject to a	No
WH/2016/1105/A	A	F	874-878 Whitehorse Road	23 storeys	VCAT issued permit (Refused by delegation)	Yes	No
WH/2011/688/C	A	F	913 Whitehorse Road	19 storeys	Council issued permit 28/05/2012	Constructed	Yes
WH/2015/405/B	F	B	997-1003 Whitehorse Road	12 storeys	VCAT issued permit	Yes	Yes
WH/2018/186	C	E	1000 Whitehorse Road	3 storeys	Delegation permit issued	Yes	No
			STATION STREET				
WH/2016/1196	F	F	517-521 Station Street	18 storeys	Ministerial permit issued (With Amendment C19	Yes	No
WH/2011/986/B	A	F	545-563 Station Street	36 storeys	VCAT issued permit	Under construction	Yes
WH/2018/1047	E	F	702-706 Station Street	15 storeys	Under consideration		
WH/2012/300	E	F	710 Station Street	10 storeys	VCAT issued permit (Mediated at VCAT)	Constructed	Yes
WH/2012/146/G	E	F	712-714 Station Street	9 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2014/1081	E	B	722 Station Street	5 storeys	Delegation permit issued	Yes	No
WH/2013/743/A	H	B	740 Station Street	4 storeys	VCAT issued permit (Mediated at VCAT - Failure	Constructed	Yes
WH/2013/230	H	B	744 Station Street	3 storeys	VCAT issued permit (Refused by delegation)	Under construction	Yes
WH/2011/195	H	B	746-750 Station Street	4 storeys	Council issued permit 19/09/2011	Constructed	Yes
WH/2015/1150	H	B	757 Station Street	5 & 3 storeys	Delegation permit issued	Under construction	Yes
WH/2012/699	H	A	761-771 Station Street	6 & 4 storeys	Delegation permit issued	Constructed	Yes
			PROSPECT STREET				
WH/2015/1089/A	B	F	9-11 Prospect Street	25 storeys	Delegation permit issued	Yes	Yes
WH/2018/1996	B	F	31-35 Prospect Street	25 storeys	Under consideration		
WH/2016/1156/A	B	F	34-36 Prospect Street	30 storeys	VCAT issued permit	Yes	No
			WELLINGTON ROAD				
WH/2007/202	D	F	1 Wellington Road	5 & 4 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2015/1116	D	F	5-9 Wellington & 7 Poplar	16, 14 & 6 storeys	VCAT issued permit	Yes	No
WH/2018/856	D	F	14-22 Wellington Road	28 & 26 storeys	Under consideration		
WH/2013/203	D	F	19 Wellington Road	6 & 5 storeys	Delegation permit issued	Constructed	Yes
WH/2018/743	D	F	26-28 Wellington	20 storeys	Under consideration		
WH/2012/683/A	D	F	6-8 Wellington Road	9 storeys	VCAT issued permit	Constructed	Yes
WH/2016/202	D	F	16-22 Wellington Road	14 storeys	Delegation permit issued	Yes - however there is a c	No
			POPLAR STREET				
WH/2017/313	D	F	3-5 Poplar Street & 837 Whitehorse Road	29 storeys	Under consideration		
WH/2013/859/A	D	F	17 Poplar Street	7 storeys	Delegation permit issued	Constructed	No
WH/2013/495	D	F	19-21 Poplar Street	8 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2009/284	D	F	20 Poplar Street	7 & 6 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
			ARNOLD STREET				
WH/2016/1163	D	F	1 Arnold Street & 25 Nelson Road	15 storeys (140m)	VCAT issued permit (Refused by delegation)	Yes	No
WH/2016/724	D	F	17-19 Arnold Street	14 storeys	VCAT issued permit	Yes	No

APPLICATION NUMBER	ACTIVITY PRE	BUILT FORM PR	ADDRESS	HEIGHT	STATUS	VALID PERMIT	COND 1
			NELSON ROAD				
WH/2016/1163	D	F	1 Arnold Street & 25 Nelson Road	15 storeys (140m)	VCAT issued permit (Refused by delegation)	Yes	No
WH/2016/991/A	D	F	6 Nelson Road	11 storeys	Delegation permit issued	Yes, currently subject to a	No
WH/2015/715/C	D	F	12-14 Nelson Road	20 & 19 storeys	Delegation permit issued	Under construction	Yes
			SPRING STREET				
WH/2018/1009	D	F	16 Spring Street	29 & 25 storeys	Under consideration (fast track amendment)		
			ELGAR ROAD				
WH/2008/503/A	D	F	484 Elgar Road	5 storeys	Delegation permit issued	Constructed	Yes
WH/2011/413	D	F	486-488 Elgar Road	6 storeys	VCAT issued permit	Yes	Yes
WH/2010/389	D	F	490 Elgar Road	6 storeys	VCAT issued permit	Constructed	Yes
			RODGERSON ROAD				
WH/2012/765	D	F	5 Rodgerson Road	7 & 6 storeys	VCAT issued permit	Yes	Yes
			ARCHIBALD STREET				
WH/2010/453	E	F	1 Archibald Street	10 & 9 storeys	VCAT issued permit (Mediated at VCAT)	Constructed	Yes
WH/2006/777	E	F	5 Archibald Street	5 storeys	Delegation permit issued	Constructed	Yes
WH/2003/13722/E	E	F	7-9 Archibald Street	4 storeys	Council issued permit 23/02/2004	Constructed	Yes
WH/2009/620	E	F	8 Archibald Street	4 storeys	Delegation permit issued	Constructed	Yes
			BRUCE STREET				
WH/2018/193	E	F	2-4 Bruce Street	19 & 10 storeys	Under consideration		
WH/2011/1038	E	F	5-7 Bruce Street (2 Archibald Street)	9 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2003/14185	E	F	6 Bruce Street	5 storeys	VCAT issued permit	Constructed	Yes
WH/2007/99/A	E	F	8 Bruce Street	5 storeys	Delegation permit issued	Constructed	Yes
WH/2009/513	E	F	10 Bruce Street	4 storeys	VCAT issued permit	Constructed	Yes
WH/2014/1251	E	F	9-11 Bruce Street	9 storeys	VCAT issued permit (Refused by delegation)	Yes	No
			ELLAND AVENUE				
WH/2011/895	E	F	1-3 Elland Avenue	9 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2013/685/A	E	F	2-4 Elland Avenue	10 & 9 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
			IRVING AVENUE				
WH/2014/658/A	E	F	5-7 Irving Avenue	9 Storeys	VCAT issued permit (Failure to make a decision)	Constructed	Yes
WH/2014/439/A	E	F	15-17 Irving Avenue	9 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2013/563/A	E	F	19 Irving Avenue	7 storeys	Delegation permit issued	Constructed	Yes
WH/2017/686	E	F	21-23 Irving Avenue	15 storeys	Under consideration		
			ELLINGWORTH PARADE				
WH/2011/128/A	F	D	8 Ellingworth Parade	5 & 4 storeys	Delegation permit issued	Constructed	Yes
WH/2014/43	F	F	9-11 Ellingworth Parade	12 storeys	VCAT issued permit (Refused by delegation)	Yes	Yes
			RUTLAND ROAD				
WH/2013/559	F	F	22 Rutland Road	6 storeys	Delegation permit issued	Yes	Yes
			WATTS STREET				
WH/2015/1005	F	B	4 Watts Street	9 storeys	Delegation permit issued	Yes	No
			CAMBRIDGE STREET				
WH/2003/14214	F	D	21 Cambridge Street	4 storeys	Delegation permit issued	Constructed	Yes

APPLICATION NUMBER	ACTIVITY PRE	BUILT FORM PR	ADDRESS	HEIGHT	STATUS	VALID PERMIT	COND 1
			HARROW STREET				
WH/2009/250/A	F	D	15-21 Harrow Street	5 storeys	Delegation permit issued	Constructed	Yes
WH/2011/566 (search #001 to a	F	D	31-35 Harrow Street	5 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2014/648	H	B	36 Harrow Street	3 storeys	VCAT issued permit (Refused by delegation)	Yes	Yes
WH/2015/1148	F	D	39 Harrow Street	4 storeys	Delegation permit issued	Yes	No
WH/2003/14225	F	D	41 Harrow Street	4 storeys	Unclear who issued permit	Constructed	Yes
WH/2010/649	F	D	43-47 Harrow Street (Previously 43-47 William Str	3 storeys	Delegation permit issued	Constructed	Yes
			JOHN STREET				
WH/2004/14815/A	H	B	1 John Street	3 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2008/309	F	D	6 John Street	4 storeys	Council issued permit 16/02/2009	Constructed	Yes
			THAMES STREET				
WH/2012/700/B	H	A	66 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
WH/2014/995	H	B	71 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
WH/2011/1022	H	B	81 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
WH/2014/788/A	H	B	85 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
WH/2014/6	H	B	87 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
WH/2010/851/B	H	B	95 Thames Street	4 & 3 storeys	Delegation permit issued	Constructed	Yes
WH/2011/629/A	H	A	100-102 Thames Street	3 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2005/445/G	H	A	116-118 Thames Street	4 storeys	Council issued permit 18/04/2006	Constructed	Yes
WH/2013/279/B	H	A	120 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
WH/2016/564	H	A	140 Thames Street	3 storeys	Delegation permit issued	Under construction	Yes
WH/2015/340	H	A	142-144 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
WH/2011/1021/B	H	A	146 Thames Street	3 storeys	Delegation permit issued	Constructed	Yes
			HOPETOUN PARADE				
WH/2016/138	H	A	11-13 Hopetoun Parade	5 storeys	Delegation permit issued	Yes	No
			CARRINGTON ROAD				No
WH/2008/424	H	A	98-100 Carrington Road	3 storeys	VCAT issued permit (Refused by delegation)	Constructed	Yes
WH/2008/160	H	A	108 Carrington Road	4 storeys	VCAT issued permit (Refused by delegation)	Yes	Yes
WH/2014/1117	H	A	116 Carrington Road	3 storeys	VCAT issued permit (Refused by delegation)	Yes	No
			ASHTED ROAD				
WH/2011/174/A	H	A	1-3 Ashted Road	4 storeys	Delegation permit issued	Constructed	Yes
			HOWARD STREET				
WH/2017/40	H	A	12 Howard Street	3 storeys	Delegation permit issued	Yes	No
			GLENMORE STREET				
WH/2009/270/A	H	A	28 Glenmore Street	3 storeys	Delegation permit issued	Constructed	Yes
			HENRY STREET				
WH/2010/571/B	H	A	5 Henry Street	3 storeys	Delegation permit issued	Constructed	Yes

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