

Minta Farm Precinct Structure Plan Employment Precinct Land Review



October 2017

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1 EXECUTIVE SUMMARY

This report has been prepared by the Victorian Planning Authority in support of an 83 hectare employment precinct, including a local town centre, providing for approximately 11,000 jobs, within the Minta Farm Precinct Structure Plan (PSP) area.

The Minta Farm PSP area is approximately 285 hectares in size and generally bounded by the Princes Freeway to the north, Cardinia Creek to the east, Grices Road to the south, and Soldiers Road to the west. The precinct is located within the City of Casey and 45 kilometres from the Melbourne Central Business District.

The PSP area has been earmarked for employment uses in various forms since 2002 in recognition of the substantial shortfall in local jobs provision within the City of Casey. The PSP area forms part of a larger employment area, which then sits within the broader the Casey-Cardinia growth corridor. The most recent strategic document, the Growth Corridor Plan of 2012, identifies the Minta Farm PSP area broadly as “business with residential” or, in other words, mixed use. The employment land across the growth corridor, earmarked as “business” and “industrial”, are intended to provide for jobs in addition to those that are created incidentally to residential growth as occurs in activity centres, schools and community centres; the intention of the employment land is to close the gap in local job provision.

Various high level strategic documents have provided broad guidance on anticipated job generation for the Minta Farm employment precinct, ranging from approximately 7,000 to 13,600 jobs. These previous reports vary slightly in scope and study areas however the consistent theme is the estimated number of jobs generated as this is the ultimate goal of employment planning and the practical measure of employment potential. Of note, the employment target across all metropolitan growth areas is one job per dwelling, with a preferred pattern of urban development for jobs close to where people live.

As it specifically acknowledges, the purpose of the Growth Corridor Plan was to provide the basis for the more detailed planning that forms part of the PSP process. This report has been prepared in response to this need and provides an updated projection for the Minta Farm employment precinct for 11,000 jobs. This figure is in line with the previous broad estimates and based upon more detailed analysis required for PSP planning including:

- Detailed site context analysis of the PSP area.
- Strategic policy analysis.
- Review of past and anticipated employment trends across the growth corridor.
- Analysis of anticipated employment within the Minta Farm employment precinct and across the larger employment area and broader growth corridor.
- Development potential of the Minta Farm employment precinct.

Previous reports on employment planning for the Minta Farm precinct have relevantly said:

- In 2010, an analysis specific to the Minta Farm employment precinct estimated a base case scenario of 8,575 jobs and an upper estimate of 13,575 jobs for a suggested allocation of 100 hectares and 135 hectares (net) of business land respectively (with the remaining PSP land being residential). Employment uses comprised office, industrial land, niche employment land and an activity centre.
- Estimates from 2009 looked more broadly at employment land across the Casey-Cardinia growth corridor and suggested the Minta Farm employment precinct had the capacity to support 7,000 jobs on 100 hectares through a combination business corporate and campus-style industrial and commercial park.
- A 2002 report identified the Minta Farm employment precinct as the C21 Business Park, a densely developed, high amenity, integrated research, commercial, learning and living place. The C21 Business Park comprises 370 hectares, encompassing the Minta Farm PSP area with some additional land south of Grices Road. The strategy anticipated 10,000 jobs for the Park.

This report builds upon the previous recommendations to provide a more refined projection to inform the PSP.

Key considerations and findings of this report are:

- 1 **Physical context.** The Princes Freeway and the planned intersection with O'Shea Road form unhospitable fronts to north-east of the PSP area. Moving south and west, the land comprises an undulating topography. Established and developing residential land sits directly north-west, west and south of the PSP area. In responding to this context, business land is well suited to the flatter land in the north-east portion fronting and accessing the arterial road network whilst residential is better located on the undulating land which fronts existing and planning residential development.
- 2 **Strategic context.** In the South East Growth Corridor Plan, the Minta Farm PSP is nominated as "business with residential" also coined mixed use and is expected to comprise a combination of office, research and development, as well as manufacturing activities. The larger contiguous employment area in which the PSP area sits comprises a combination of "business with residential" and "industrial" with the latter now identified in state policy as one of five state significant industrial precinct (SSIP) across the metropolitan area. State policy, through Plan Melbourne, has also been revised to identify priority employment sectors that have the potential to attract and deliver significant growth and investment. The sectors include technologies in medical and pharmaceuticals, transport and construction.
- 3 **"Business with residential" mix.** The residential component within the PSP area intrinsically implies that a higher amenity employment type is favoured here than would be expected in an industrial only precinct, such as the SSIP to the east where anticipated industrial uses will likely require off-site amenity buffers. Within the PSP area, the mix of uses should be applied compatibly and mutually beneficially; not only should the land uses be able to sit alongside one another they should also benefit from the co-location. This means providing for synergies of uses between the amenity provided by the residential development, and specifically the open space network and proximate activity centre, to support a higher intensity and quality employment precinct.
- 4 **Critical residential population catchment for the town centre.** A critical population mass is central to a successful town centre and associated amenity. In turn, such a centre is likely to be the key driver for business investment through access to facilities and urban amenity that attracts clients and employees. A catchment of 8,000 to 10,000 people is suggested as the critical population mass required to support a successful local town centre. Of note, the employment population that is expected to utilise the town centre is not calculated in the critical town centre catchment as the associated spending is relatively confined. Rather the employment population is expected to influence the type of retail within the centre and create a strong day time economy to serve retail facilities such as cafes.
- 5 **Existing and future employment profile in the Casey-Cardinia growth corridor.** Australian Bureau of Statistics (ABS) data reveals the level of undersupply of local job provision in the Casey-Cardinia growth corridor, which is particularly prevalent in white collar jobs.
- 6 **Employment land composition across the Casey-Cardinia growth corridor.** Analysis of the Growth Corridor Plan indicates that there is an estimated 3,445 hectares (gross) of dedicated employment land proposed. Previous estimates have suggested that in 2010 there was 27 years' supply of industrial land in the corridor and that across the metropolitan area, demand for industrial land was stronger in the north and west due to access to existing ports, rail and freight routes which is comparably less in the south-east.
- 7 **Evolving industry sector.** Manufacturing in Australia has continually evolved since the declining car industry from 2010, yet remains a large employer. The industrial sector has become more dynamic in terms of land take requirements with demand focused on either larger scaled precincts, of around 200 hectares, to serve as distribution sites at a metropolitan wide level or smaller precincts, of around 20 hectares, to serve local and subregional level needs. As well, the sector continues to evolve towards higher value adding and cleaner activities, typically on more efficient and smaller lots. This gives support for some light, niche industry with smaller footprints and less potential for offsite amenity impacts to establish within mixed employment precincts that comprise residential and other sensitive land uses.
- 8 **Potential catalyst for the SSIP.** Delivery of office floorspace and white collar jobs within the Minta Farm employment precinct could act as a catalyst for development of the SSIP by providing a high amenity and proximate corporate business park that can house headquarters and service facilities for businesses that locate their manufacturing components in the adjoining SSIP.

9 **Case studies.** Other employment precincts across Melbourne have been reviewed to understand the composition and evolution of successful existing modern employment precincts, revealing that:

- In terms of **land size**, successful office and commercial core precincts are typically 15 hectares in size whilst lower density, light industry and niche precincts are around 25 to 30 hectares. Primary and heavy industry required much larger land holdings.
- **Job density** varies significantly between precincts and uses. Commercial uses are increasingly becoming more efficient as employees adapt to new ways of working. Office space per worker has continued to become more efficient from over 20 square metres per to job to around 15 square metres. As a trade-off to individual working space, employment precincts are increasingly being supported by good amenity, such as town centres and open space, which is shifting densities to 200 to 300 jobs per hectare. For industrial precincts, job densities vary depending on uses and the degree to which globalisation has shifted Australian-based activities to transportation and storage and concurrently whether technology has driven demand for new industries.

The recommendations for the Minta Farm employment precinct are to plan for:

- An 83 hectares (net) employment precinct comprising the following sub-precinct areas, uses and locations:
 - 26.2 hectares for office and commercial, located at the gateway to the employment precinct and interfacing with the precinct's key edges
 - 39.3 hectares for technology and niche employment uses, located on relatively level ground and away from residential areas
 - 3.4 hectares for small local enterprises (SLEP), that is, local service industries, located outside but adjacent the town centre
 - 3.6 hectares for a local town centre to accommodate the principal commercial activities, located central to the residential and employment catchments
 - 10.4 hectares of mixed use for both commercial and residential uses, located as transition areas between the commercial and residential area
- Planning provisions which support the following built form outcomes in the sub-precincts:
 - Higher densities in taller building formats in the office area
 - Flexible uses and built form outcomes in the technology and business area to accommodate a mix of uses to attract a range of businesses, particularly growing niche and priority employment growth sectors
 - Smaller lots of office and warehouse development in the SLEP to encourage local service industries
 - Retail, entertainment and service uses within the town centre
 - Ground floor commercial with upper floors of commercial and residential in the mixed use area
- A land use composition as identified in Table 1 below. The recommended composition is similar to 2010 estimates, with exception to the removal of heavy industry which, as guided by state policy, is better located in the adjacent SSIP.
- An estimated job provision of 10,953 jobs. Of note, this figure is approximately the median of the 2010 estimated range of 8,575 to 13,575, and in line the 2002 aim for 10,000 jobs.
- A residential population of 8,000 to 10,000 people.

Table 1 Recommended land use composition of the Minta Farm employment precinct

Estimated Employment Potential	Area (net)	Jobs	Job density
Commercial and Office	26.2 ha	7,322 jobs	280 jobs/ha
Technology and Business	39.3 ha	2,199 jobs	56 jobs/ha
Small Local Enterprise Areas	3.4 ha	536 jobs	158 jobs/ha
Town Centre	3.6 ha	314 jobs	87 jobs/ha
Mixed Use	10.4 ha	582 jobs	56 jobs/ha
Totals	82.8 ha	10,953 jobs	(average) 127 jobs/ha

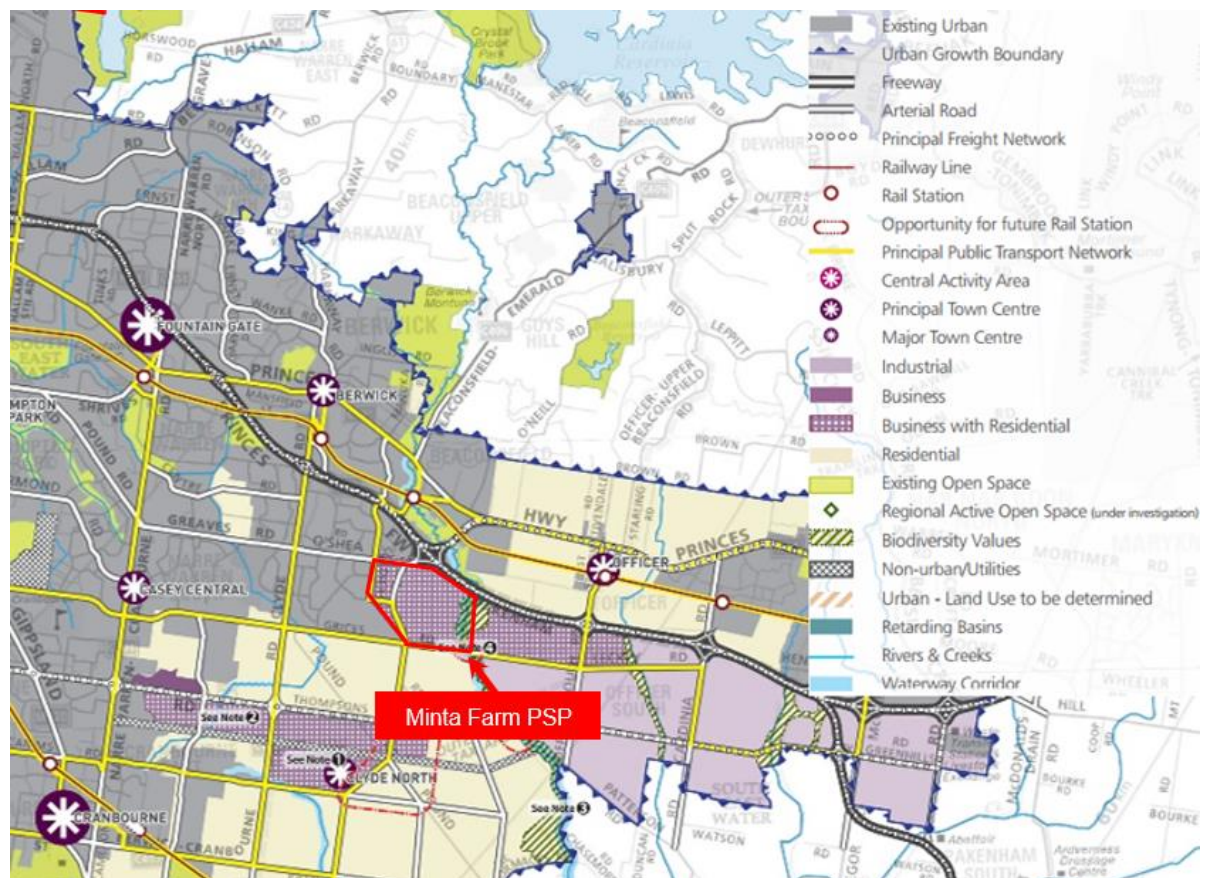
2 PROJECT OVERVIEW

This report has been prepared by the Victorian Planning Authority (VPA) to guide planning of the employment precinct within the Minta Farm PSP area. The purpose of this report is to guide the location, area, composition of land uses, and in turn, the estimated job numbers for the employment precinct.

This report reviews the following:

- Previous, broad level work undertaken for the PSP area.
- A site context analysis for the PSP area.
- Review of the employment profile of the Casey-Cardinia growth corridor.
- Review of the employment activities underway and anticipated for the wider Casey-Cardinia corridor.
- Review of relevant employment sectors trends.
- Case studies of other employment precincts across metropolitan Melbourne.
- Built form potential of the Minta Farm employment precinct.

Figure 1 South East Growth Corridor Plan (2012)



3 PHYSICAL CONTEXT

The Minta Farm PSP area is approximately 290 hectares in size and generally bounded by the Princes Freeway to the north, Cardinia Creek to the east, Grices Road to the south and Soldiers Road to the west.

Beyond the PSP boundaries are:

- Vacant land on the east side of Princes Freeway.
- Existing residential development to the west and north-west on the opposite sides of Soldiers Road and O'Shea Road respectively.
- Developing residential land to the south of Grices Road.
- Farming land on the east side of Cardinia Creek.

The PSP area is located within the suburb of Berwick and the City of Casey.

The PSP land falls generally west to east towards Cardinia Creek. There is a high point around the homestead in the south-west quadrant and another approximately half way along the western boundary.

Princes Freeway abuts the north-eastern boundary of the PSP land. This road is a four lane arterial that links to the Melbourne Central Business District in the west and continues to Gippsland, east of the PSP area.

Soldiers Road, a two lane connector road, forms the western boundary of the PSP area and continues farther north to intersect with the Princes Freeway. Along the southern boundary is Grices Road, a future four lane arterial road that is currently under construction and extends east beyond the PSP area from its intersection with Soldiers Road. O'Shea Road terminates at Soldiers Road at the north-west corner of the precinct, with a road reservation continuing along the northern boundary of the precinct until a roundabout that forms an east facing entrance ramp for Freeway. O'Shea Road is intended as a primary arterial.

The Cardinia Creek corridor forms a natural east boundary and parallel to this, and within the PSP area, sits a series of constructed lakes. In the south-west quadrant of the precinct is the former homestead with various structures, interspersed with mature native and exotic trees.

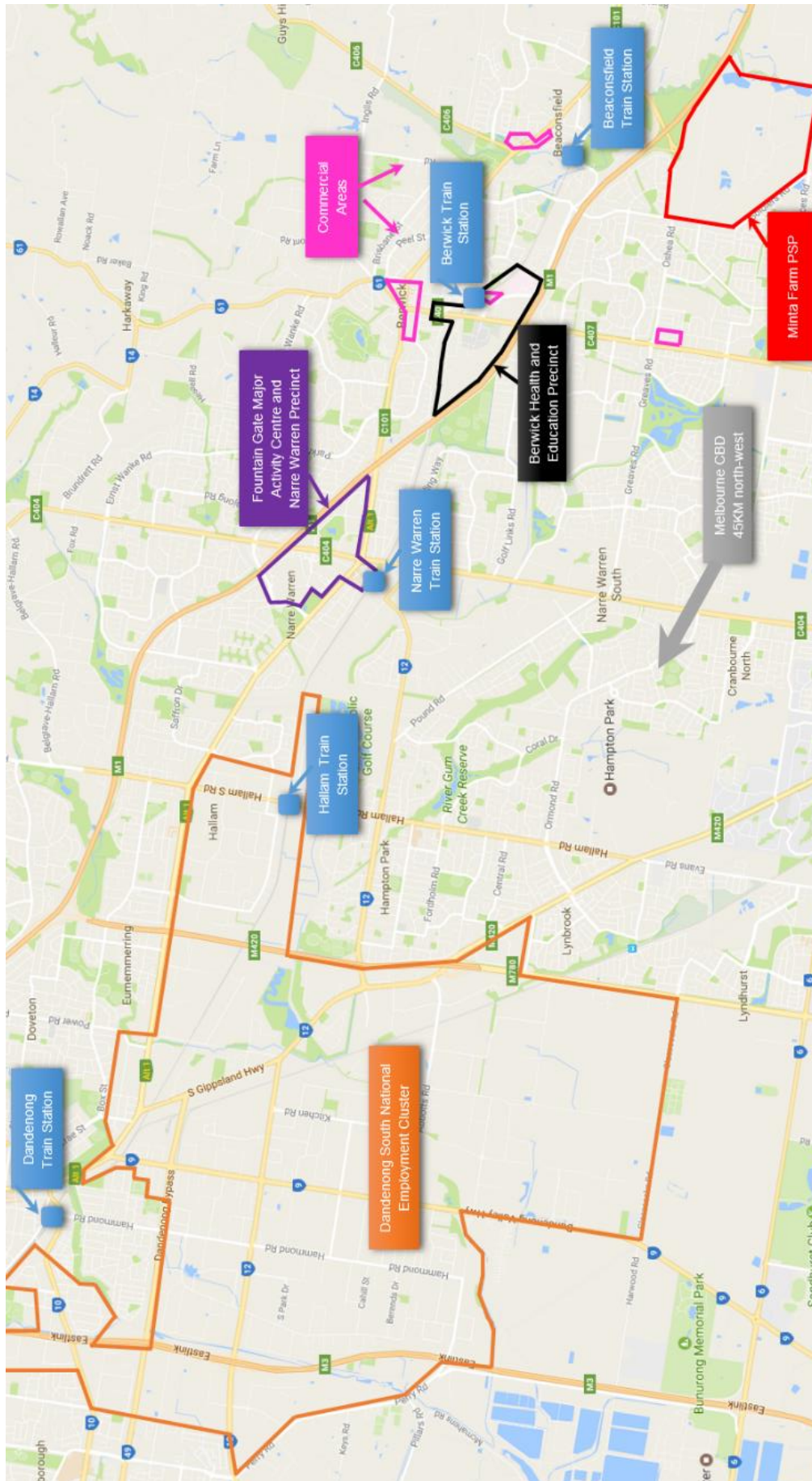
Nearby facilities and employment precincts include (see Figure 3):

- Berwick Health and Education precinct is located approximately 3 kilometres to the north-west.
- Beaconsfield Station is located approximately 1 kilometre to the north.
- Berwick Station and surrounding commercial area is located approximately 3 kilometres to the north.
- Dandenong South National Employment Cluster is approximately 13 kilometres generally west.
- Fountain Gate Major Activity Centre and Narre Warren precinct is located approximately 6 kilometres north-west.
- As well, the Melbourne Central Business District is located 45 kilometres north-west.

Figure 2 Aerial Plan



Figure 3 Location Plan



4 STRATEGIC CONTEXT

The Minta Farm PSP area is situated within the City of Casey and directly adjacent the Shire of Cardinia. It is located in the South East Growth Corridor.

Relevant strategic policy is:

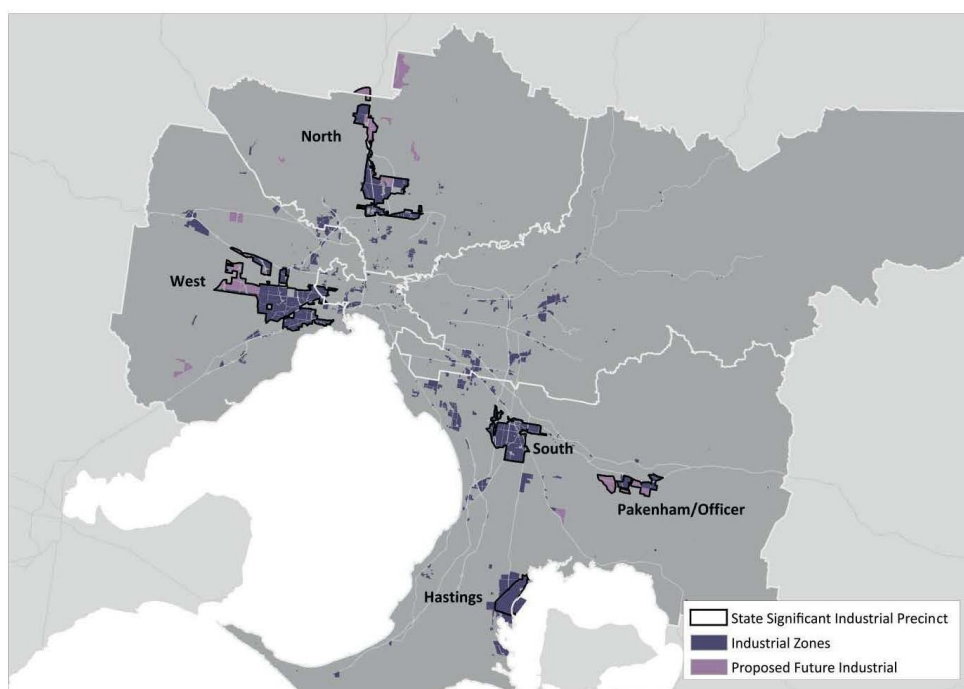
- *Plan Melbourne Refresh 2017-2050*, which provides high level strategic guidance for employment land across the metropolitan.
- At the regional level, the PSP area sits within the South East Growth Corridor (SEGC). This area generally spans the municipalities of Casey and Cardinia and, moving west to east, the suburbs of Cranbourne, Clyde, Berwick, Pakenham and Officer. The key strategic document guiding growth within the corridor is the South East Growth Corridor Plan.
- At the local level, the PSP area sits within the suburb of Berwick. Applicable policy is found at 21.05 of the Casey Planning Scheme and its reference documents and specifically *C21: A Vision for the Future*. The *Casey Cardinia Economic Development Strategy 2016-2017* is also relevant.

4.1 Plan Melbourne Refresh 2017-2050

Plan Melbourne Refresh 2017-2050 was released in March 2017. A relevant and notable shift from the original 2014 document is the focus on ensuring more jobs are available within the suburbs, thereby contributing to '20-minute neighbourhoods'. Outcome 1 is applicable, as noted below with relevant directions and policy:

- **Outcome 1** is for Melbourne to be a productive city that attracts investment, supports innovation and creates jobs.
- **Direction 1.2** aims to improve access to jobs across Melbourne and closer to where people live.
- **Places of State Significance - State-Significant Industrial Precincts.** The purpose of SSIP are to provide strategically located land for major industrial development linked to the Principal Freight Network and transport gateways. They will be protected from incompatible land uses to allow continual growth in freight, logistics and manufacturing investment. There are five locations identified across the metropolitan including that at Officer-Pakenham (see Figure 4).

Figure 4 State Significant Industrial Precincts (Urban Development Program 2016)



- **Employment Priority Sectors.** Priority sectors have been nominated for their potential to attract and deliver significant growth and investment, and make Melbourne and Victoria global leaders. With targeted investment, Plan Melbourne estimates these sectors could drive up to \$70 billion in additional economic output by 2025, creating more than 400,000 new jobs. The priority sectors are:
 - Medical technology and pharmaceuticals;
 - New energy technologies;
 - Food and fibre;
 - Transport technologies;
 - Defence technologies;
 - Construction technologies;
 - International education; and
 - Professional services.
- **Policy 1.1.6** seeks to plan for industrial land in the right locations to support employment and investment opportunities. SSIP, like the Officer-Pakenham Industrial Precinct, will be protected from incompatible land uses to allow for their future growth. Future industrial land will need to be identified in strategic locations to ensure there is sufficient land available for major industrial development linked to the Principal Freight Network and transport gateways and networks.
- **Policy 1.1.7** seeks to plan for adequate commercial land across Melbourne. An adequate supply of commercial land needs to be secured to accommodate commercial growth, as well as a range of services, entertainment and civic activities in suburban locations.
- **Policy 1.2.2** aims to facilitate investment in Melbourne's outer areas to increase local access to employment. There is a need to support investments that create jobs in outer suburbs and growth areas. There is also a need to make it easier for people to access jobs, particularly high-value knowledge jobs. Opportunities exist to support the establishment of start-ups and small and medium enterprises in outer suburbs and growth areas. Facilities such as business incubators can provide tenants with flexible work and meeting spaces where they can access a range of support services and networks to establish and grow their businesses. Planning for outer suburbs and growth areas must ensure there is sufficient zoned land to support future development and job creation. This will provide for strong local economies and ease pressure on transport infrastructure by providing employment close to home.

Plan Melbourne Refresh identifies employment growth of 690,000 jobs between 2015-2031 across Melbourne, with the southern sub-region (in which the Minta Farm PSP area is located) projected to accommodate 105,000 or 15 percent of the jobs growth. No individual Council area job forecasts are provided in Plan Melbourne 2017-2050.

4.2 South-East Growth Corridor Plan, 2012

The Growth Corridor Plans (GCP) were prepared by the VPA (then the Growth Areas Authority) and released by the Minister for Planning in June 2012 to guide growth within the areas included in the urban growth boundary in 2010. These areas were anticipated to accommodate close to half of Melbourne's housing and employment land supply over the subsequent 30 to 40 years. The GCP comprises four subregions: north, west, Sunbury and south-east.

Employment planning across the four sub-regions were guided by three reports, commissioned with differing scopes and methodologies to cross reference the data. These were:

- A report by Jones Lang LaSalle which focussed on the drivers of future demand for industrial land in growth areas (that is, business demand).
- Essential Economics reported on land requirements associated with the full range of future employment types in the growth areas based on employment targets (that is, land demand).
- The level of vacant industrial land stocks and recent trends in the take-up of industrial land was reviewed by Spatial Economics (that is, trend-based demand).

The GCP prepared in response to the above reports aimed for an employment target of one job per dwelling. It was anticipated that applying this target would result in:

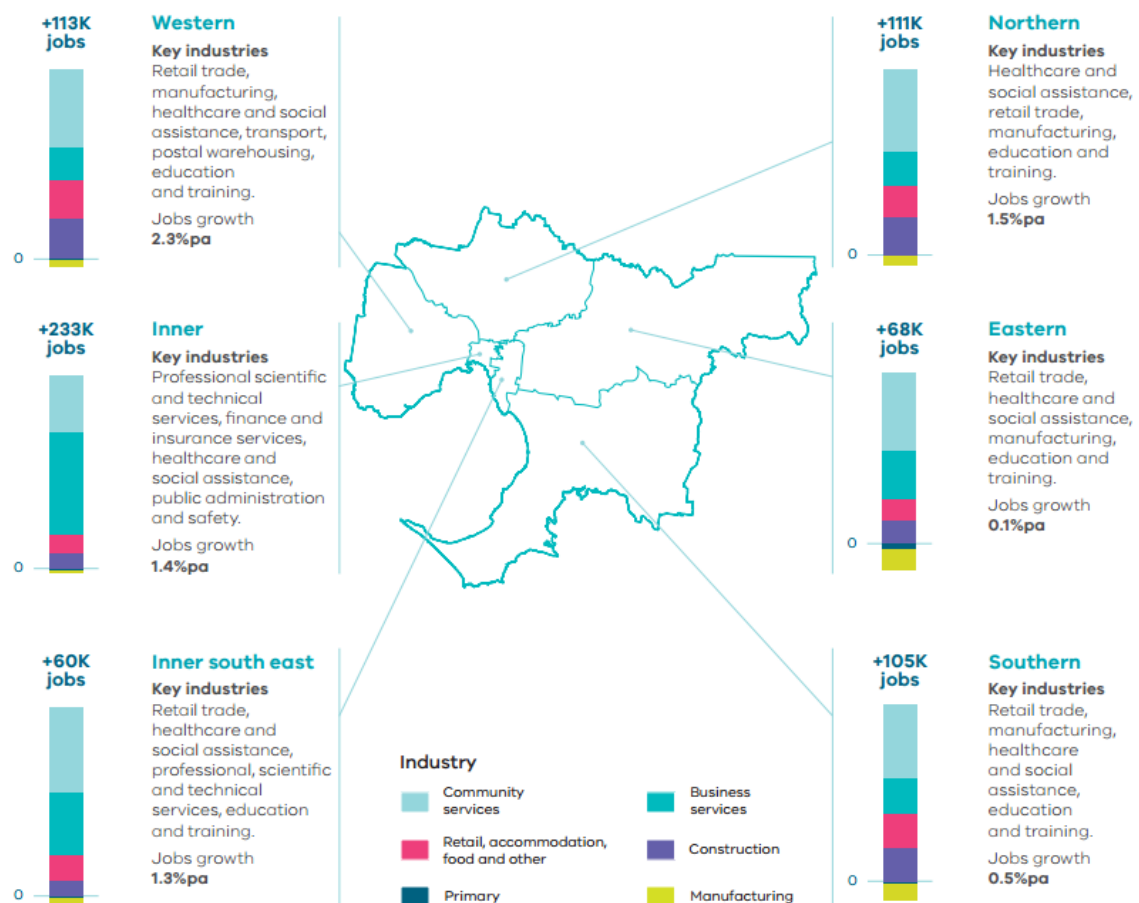
- 40 to 45 percent of jobs within dedicated employment land, being “business” and “industrial” uses.
- 55 to 60 percent of jobs within the residential areas, comprising town centres (25 to 30 percent), community uses (25 to 30 percent) and home-based employment (5 to 10 percent).

The SEGC plan projected (2012 figures):

- 83,000 to 103,000 dwellings
- 230,000 to 291,000 people
- 86,000 to 110,000 jobs

These figures formed the basis for infrastructure and service planning across the corridor.

Figure 5 Planned Employment Growth in Metropolitan Melbourne (Plan Melbourne Refresh 2017)



4.2.1 Employment Land

There are three employment areas identified across the corridor (see Figure 6):

- 1 A combination ‘business with residential’ and industrial land across Berwick and Officer of which the Minta Farm PSP is part. This employment area is larger than the other two, comprising 68% or 2,337 hectares of the total 3,445 hectares (gross) across the broader South East Growth Corridor.
- 2 Industrial land along the South Gippsland Highway
- 3 ‘Business with residential’ land along Thompsons Road within Clyde North

The larger employment area within which the Minta Farm PSP area sits is bounded by the Princes Freeway to the north and the urban growth boundary to the south and east. The western boundary (which is the Minta Farm PSP area western boundary) abuts existing and planned residential development unlike adjoining employment

land which abuts either the Princes Freeway or other employment land. The area spans the municipalities of Casey and Cardinia with the Minta Farm PSP area being the only portion located in City of Casey.

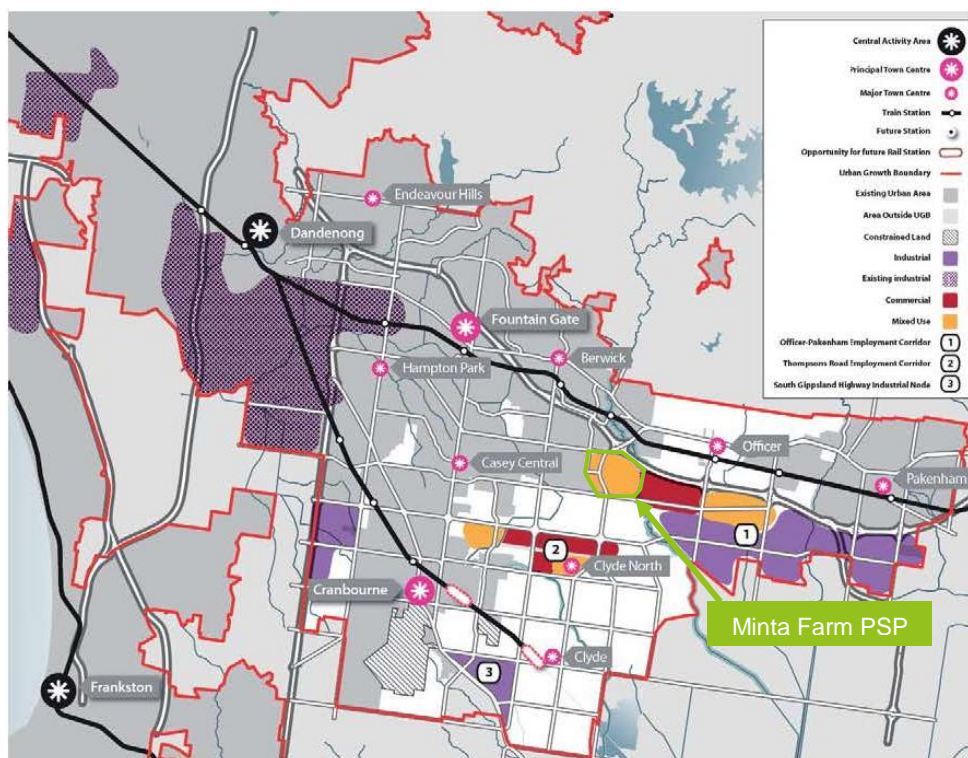
The principal existing transport routes across the corridor in the vicinity of the employment area are the Princes Freeway, which is currently undergoing duplication, and the rail line which sits parallel and north of this. Both these routes extend west to east, from the Melbourne Central Business District and continue eastward beyond the corridor. The Princes Freeway is the key road freight movement within the corridor. Secondary transport routes, which also extend east-west, are the Princes Highway situated north of the rail line and Thompsons Road sitting south of the Princes Freeway. This latter road is being planned as a major freight route, and fittingly traverses the planned employment area.

The SEGC earmarks the Minta Farm PSP area as business with residential, otherwise known as mixed use. The reports prepared in support of the GCP provided two broad classifications for employment land (see Figure 5) as described in the Growth Areas Authority report of 2012 as follows:

- Mixed use for office, research and development and associated manufacturing facilities.
- Industrial areas for industry, logistics and service trades and specifically:
 - Larger industrial estates, typically 200 hectares and more, with very good freeway and arterial road access and designed to provide for metropolitan, national and international markets.
 - Smaller industrial estates, typically around 20 hectares, to provide for service trades and designed to provide for the needs of smaller businesses serving local markets.

Within the SEGC plan, no figures are set on the expected land use ratios within the various mixed use precincts. The figures used to plan for infrastructure at the broader corridor level were a nominal 1:1 ratio of business to residential, with the latter comprising an average density of 15 to 20 dwellings per hectare for standard and higher densities respectively. These figures are high level and subject to industry changes and site specific variations at the PSP level. For example, as planning standards continue to evolve, current practice would be for higher density areas to provide up to 25 dwellings per hectare. Similarly, state policy and technology continues to change sector trends and needs within the employment markets. As acknowledged by the GCP, it is anticipated that the PSP process will entail more detailed land use and infrastructure planning to determine the land use splits suited to each PSP at the time of its preparation.

Figure 6 Proposed Employment Corridor (Growth Areas Authority 2011)



4.3 Local Planning Policy

Relevant local policy of the Casey Planning Scheme is found at Clause 21.05.

4.3.1 Economic Development Policy (Clause 21.05)

The Economic Development policy is based upon the following context:

- Jobs in the future will be based around knowledge
- Knowledge-based jobs are linked to areas of high liveability
- Knowledge-based businesses require other technology-related infrastructure at their core, that is, require support of a technology precinct
- The benefits of the creation of new knowledge-based job opportunities within Casey will have broader flow on effects through the whole community, by diversifying and improving local employment opportunities, encouraging a more skilled and flexible workforce and securing a strong and diverse economic base for the City of Casey well into the future.

The policy includes the following broad objectives and strategies for employment planning:

- To facilitate the creation of knowledge-based jobs in Casey by:
 - Fostering employment and investment opportunities to create knowledge-based jobs.
- To take advantage of Casey's competitive edges to create local employment opportunities across a diverse economic base to secure a sustainable and prosperous future through the following strategies:
 - Enhance economic prosperity through the development of broad, diverse and sustainable business and industrial base to increase business investment and employment opportunities
 - Manage development of Casey's undeveloped urban areas to maximise their development potential

Specific to Minta Farm, a strategy is to:

- Facilitate the development of Minta Farm in Berwick as a high-amenity, integrated employment precinct that incorporates office, research, manufacturing, learning and living components

Reference documents of this policy include *C21: A Vision for our Future* and the SEGC Plan.

4.3.2 C21: A vision for our future, 2002

The C21 Strategy promotes the establishment of the C21 Business Park in response to the identified need to attract knowledge based jobs in high value-add industry sectors. The Park's job potential was estimated at 10,000 jobs, (see Figure 7).

More specifically, the C21 Strategy describes the following concept for the C21 Business Park:

"This Park is to be ... a high amenity, quality business and elaborately transformed manufacturing park, together with integrated research, commercial, learning and living spaces with freeway access and a focus towards a wide wetlands and parkland space along Cardinia Creek"

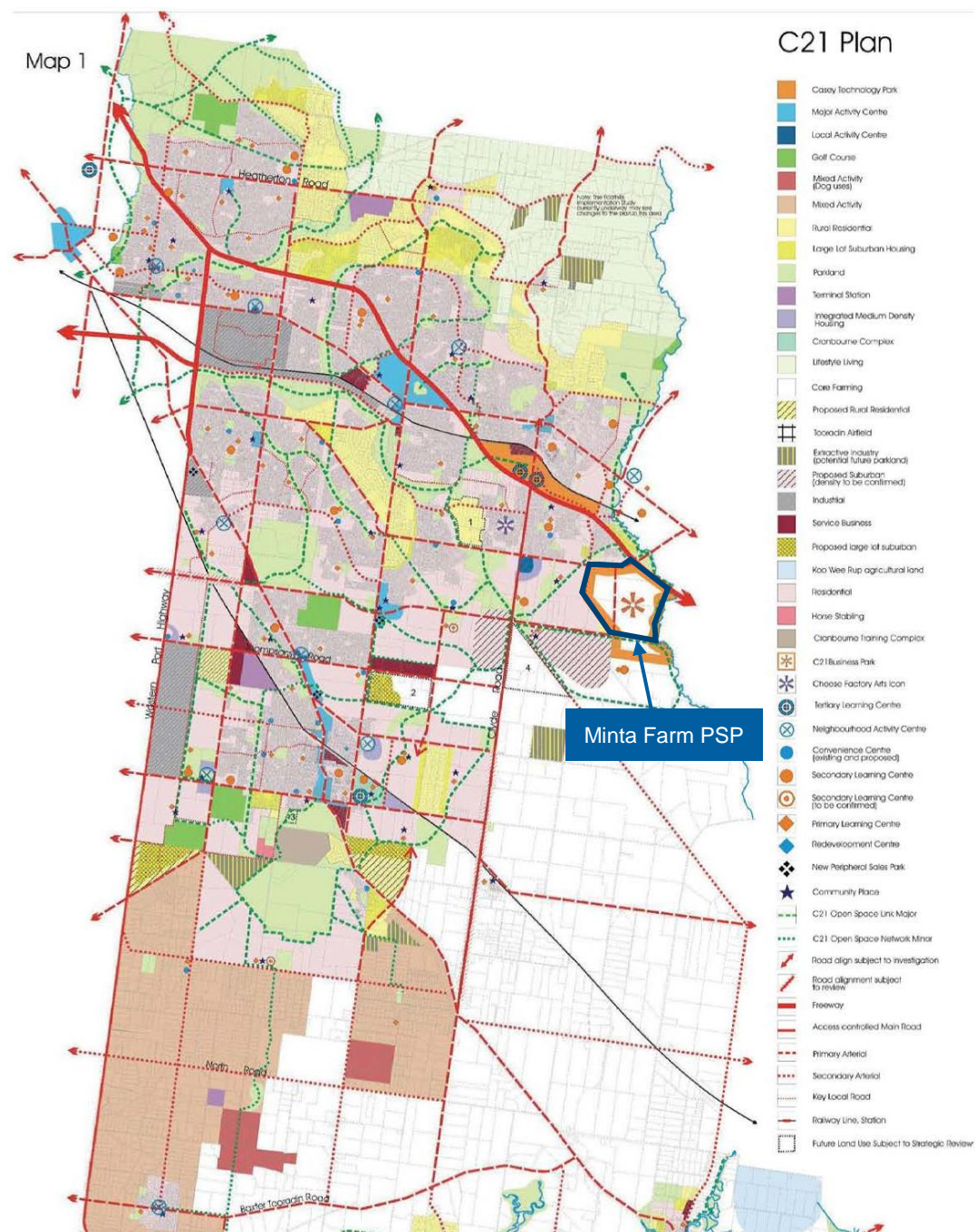
4.3.3 Casey-Cardinia Economic Development Strategy 2016-2017

The purpose of the Casey-Cardinia Economic Development Strategy is to provide strategic context for the economic development activities the Councils will undertake. The report:

- Acknowledges the undersupply of local job provision, with a reported 70 percent of local residents leaving the region for employment
- Identifies that the opportunity for growth is in three key sectors:
 - Manufacturing
 - Professional and business services

- Population and household services
- Sets out broad key actions of:
 - Marketing to attract business investment from desired industries
 - Business development through implementation and analysis of market research of local business activities
 - Investment facilitation through excellent customer services and ensuring land use planning and zoning is aligned with the needs and requirements of key industry sectors.
- Includes the following specific relevant action for planning facilitation across the region:
 - To ensure that there is sufficient employment land to meet the needs of local businesses and a job target of 10,000 for the Minta Farm employment precinct

Figure 7 C21: A Vision for Our Future Master Plan (Casey City Council 2002)



5 ANALYSIS

The PSP planning stage has enabled a more detailed and targeted analysis of the estimated employment capacity for the Minta Farm PSP area as it sits within the wider context. The considerations of this report include:

- Site context
- Existing and future employment profiles
- Employment land composition in Casey-Cardinia growth corridor
- Case studies
- Critical residential population
- Previous reports and current recommendations

5.1 Site Context

Site context analysis forming part of the PSP planning revealed the following for the Minta Farm PSP area:

- The topography of the land, and particularly the highpoints to the west of the site, provide amenity beneficial for residential uses and unproductive for heavy industry that calls for level ground.
- The harsher interface of the Princes Freeway to the north-east is suited to a commercial uses that would benefit from the arterial road visibility.
- Planned residential uses within the PSP area means any proposed employment uses must be compatible and not encroach residential land with off-site amenity buffers. This is particularly a consideration at the interface between the residential and employment land.
- Established residential uses abutting the PSP area to the north, west and south mean industrial uses are not considered suitable at these interfaces.

For the Minta Farm PSP area, this means that residential uses are best suited to the south and west of the PSP area, with employment uses better located north and east, noting that the interface between both will need to be appropriately managed.

5.2 Existing and Future Employment Profile for SEGC

The existing employment profile is provided by the most recent ABS data being 2011. These assist in understanding trends and validating previous estimates as well as forming the basis for predicting future employment profiles.

5.2.1 Existing employment profile (ABS 2011 Census Data)

The ABS Census 2011 identified that within the Casey-Cardinia growth corridor there were:

- 165,022 employed persons
 - 127,023 in the City of Casey
 - 37,999 in the Shire of Cardinia
- 65,000 jobs, of which only 4% were for professional services
- 70 percent of the employed population held 'white collar' jobs, with the most prominent occupations being:

– Technicians and Trades Workers	27,388 people
– Clerical and Administrative Workers	24,515 people
– Professionals	21,586 people
– Labourers	17,313 people
– Managers	16,404 people

The current labour force of 2017 is estimated at:

- 215,150 persons in total
- 51,470 in Cardinia
- 163,680 in Casey

For an aspirational goal of employment self-containment, these figures show a shortfall of 100,002 jobs in the corridor. It can be assumed given the large variance between the corridor and metropolitan average that many of these jobs are white collar jobs. These figures were similar to the 2006 ABS data reported in the Essential Economics 2010 report.

Table 2 Jobs in Casey Cardinia in 2011 (ABS Census)

Industry of Employment	Cardinia (jobs)	Casey (jobs)	Total (jobs)	% of Industry
Agriculture, Forestry and Fishing	1,109	804	1,913	3%
Mining	66	52	118	0%
Manufacturing	1,502	4,582	6,084	9%
Electricity, Gas, Water and Waste Services	221	410	631	1%
Construction	1,960	4,793	6,753	10%
Wholesale Trade	652	2,542	3,194	5%
Retail Trade	2,067	7,746	9,813	15%
Accommodation and Food Services	1,107	3,259	4,366	7%
Transport, Postal and Warehousing	840	2,028	2,868	4%
Information Media and Telecommunications	169	370	539	1%
Financial and Insurance Services	226	693	919	1%
Rental, Hiring and Real Estate Services	291	712	1,003	2%
Professional, Scientific and Technical Services	808	1,884	2,692	4%
Administrative and Support Services	347	1,166	1,513	2%
Public Administration and Safety	518	1,781	2,299	4%
Education and Training	1,796	5,744	7,540	12%
Health Care and Social Assistance	1,466	6,082	7,548	12%
Arts and Recreation Services	297	858	1,155	2%
Other Services	826	2,712	3,538	5%
Total	16,268	48,218	64,486	100%

The area immediately surrounding Minta Farm (identified as the Statistical Area 2 – Berwick South (SA2), identifies the resident population has a higher level of professional residents than the wider corridor, highlighting:

- 2,400 jobs within the area.
- A labour force of around 12,600.
- Unemployment rate of 4.1 percent (as of December 2016).
- Predominant industries were education, retail and hospitality services, comprising over 50 percent of jobs.
- Predominant resident occupations were in professional, sales and community services, comprising more than 50 percent of occupations.

Figure 8 Location Plan for Berwick South SA2 (VPA 2017)

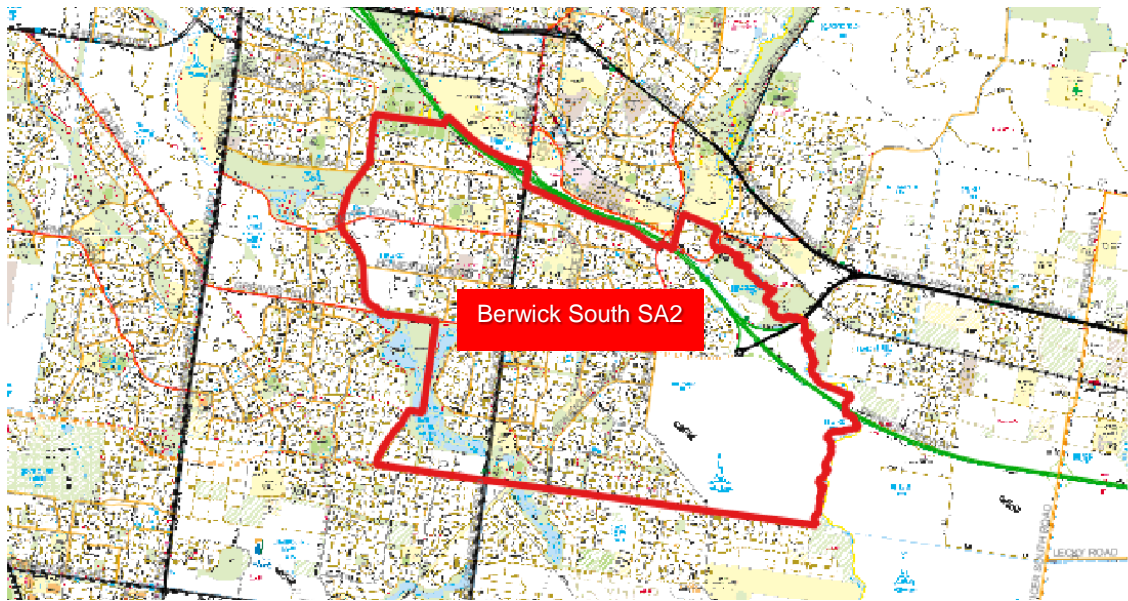
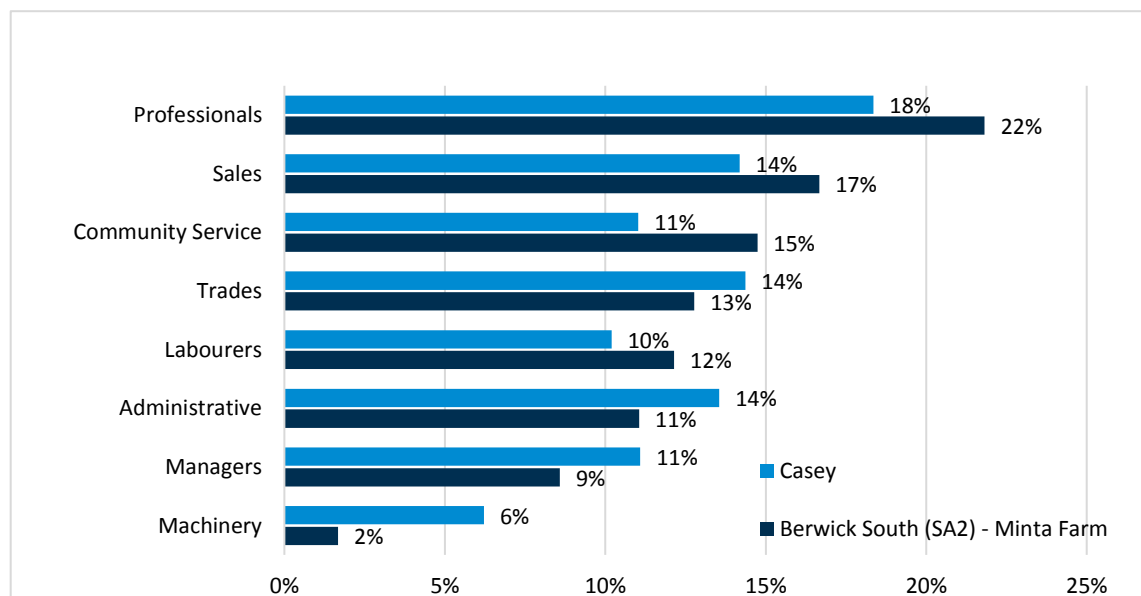


Figure 9 Employment Occupations of Residents in the Berwick South SA2 (ABS 2011)



5.2.2 Future employment structure

The future employment structure and thereby land use needs of the SEGC will continue to evolve and change significantly from current employment land trends; it will look different from today. There will be jobs available in 20 years' time that cannot be thought of at present. Employment planning needs to respond to identified and anticipated employment sector changes.

In essence, there will be growing focus on the knowledge sector and its increasing ability to deliver high job densities and demand amenable settings. This will occur concurrent with a shift for warehousing, freight and logistics industry to prefer large sites located on principal transport routes. Meanwhile light industry is undergoing a knowledge-based shift, such as to data warehousing and incubator hubs as two examples, requiring flexible land use and development conditions. The high growth sector targets are likely to create new markets in:

- Medical technology and pharmaceuticals
- New energy technology
- Food and fibre
- Transport, defence and construction technology
- International education
- Professional services

As well, the mix of activity on employment land is diversifying with an increasing proportion of professional services, clean industry and other amenity providers and is generally being provided on sites with smaller footprints.

Manufacturing, as a whole, has been declining as the industry continuously moves offshore. This change is occurring rapidly and is shifting land supply demand to transport and storage facilities.

The implications for the Minta Farm employment precinct is that it is best suited to a knowledge-based hub given its site context, size and employment needs and trends, as well as local and state policy guidance. In doing so it can provide for office space within an attractive setting for local white collar workers as well as light industry space to accommodate growing industries such as those identified above.

It will be important that the planning provisions for the light industrial area are flexible to encourage business, and particularly new and niche markets, and facilitate a range of land use and development outcomes.

5.3 Employment Land in Casey-Cardinia Growth Corridor

The role and function of the Casey-Cardinia growth corridor will continue to evolve as PSP within the GCP are progressively completed. The employment land allocated for “mixed use”, “commercial” or “industrial” will be continuously refined through the PSP process in response to land analysis and employment trends.

The Minta Farm employment precinct has a long history of being identified for office space to meet the shortfall in locally-based white collar jobs. Other mixed use areas across the corridor will also assist to address this shortfall but the focus has typically been in the Minta Farm PSP area as it benefits from Freeway access.

Heavy industry will be located in the adjacent SSIP as guided by Plan Melbourne Refresh and Urban Development Program (UDP) State Significant Industrial Precincts 2016 report. The UDP reports notes that there is 25,859 hectares (gross) of industrially zoned land across the Melbourne metropolitan area, with 6,874 hectares (27 percent) of this vacant. Two thirds of vacant industrial land is located in the SSIP, chosen for their strategic location.

As depicted in the Figure 10, the SSIP in the west and north of Melbourne will provide for the majority of future metropolitan industrial needs, with the south-east (Pakenham-Officer) SSIP providing less but still considerable amount of future industrial land. This, as acknowledged by the GCP, is because the SEGC has more land available than the other industrial land across the metropolitan area and its uptake is slower. The demand for industrial land is generally volatile, with a decline following the Global Financial Crisis as shown in Figure 11. The Pakenham-Officer SSIP has consistently maintained low levels of land consumption, with the north, west and south the most active industrial land markets. It is likely that there will be some transfer of demand to the Pakenham-Officer SSIP when the 600 hectares in the south SSIP (Dandenong) is absorbed.

The UDP report identifies that in the three largest SSIP, relatively large amounts of traditional industrial uses such as manufacturing, transport and wholesaling make up around 60 percent of workplaces. As well as responding to state planning policy, the location of such uses are guided by the Environmental Protection Agency’s industry guidelines for managing potential land use incompatibilities. The *Recommended Separation Distances for Industrial Residual Air Emissions – Guideline* provides guidance on the separation distances required between industry and sensitive uses, the latter of which includes residential, schools and community uses as well as informal outdoor recreation sites. Depending on the type of industrial use, separation distances range from 100 metres to 2,000 metres. The Minta Farm PSP area is approximately 2,000 metres wide and 1,600 metres long meaning that many industrial uses would be prohibited in relation to the location of existing

and planned residential land. In comparison, the SSIP offers land more accommodating for heavy industry given its location away from residential uses. The Guidelines suggest that light industry can be used as an interface use where no adverse amenity potential and utilities are proposed.

Of note also, it will be important to ensure that residential uses do not limit future development opportunities within and negatively impact upon the potential of the employment precinct, for example imposing land use incompatibilities or environmental nuisances such as noise and operating hours. This could particularly be an issue where residential uses are permitted in the employment precinct and are established prior to commercial uses and consequently place restrictions on certain commercial uses and/or operations.

Figure 10 Zoned vacant industrial land and proposed future industrial land in State Significant Industrial Precincts, 2015/16 (Urban Development Program 2016)

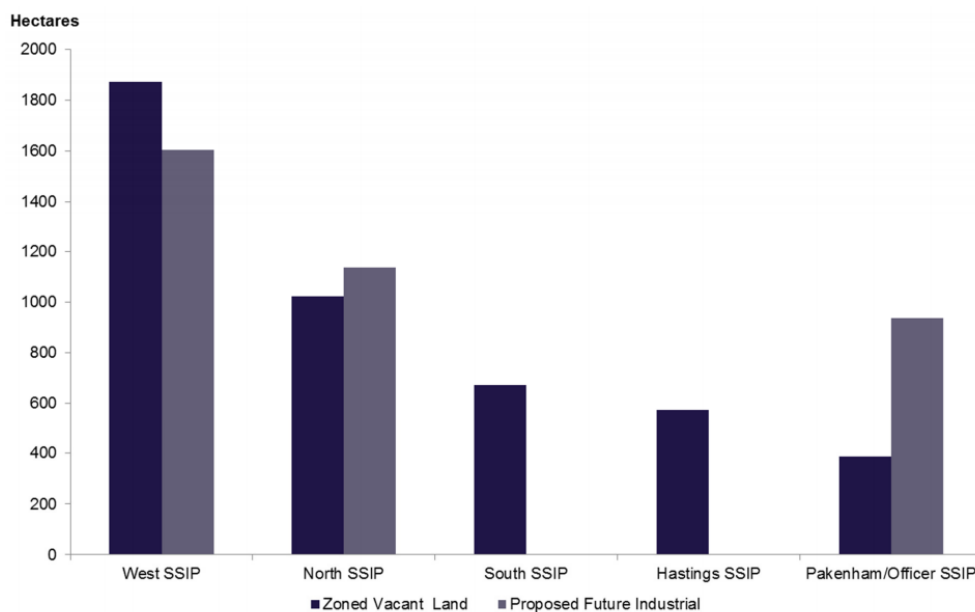
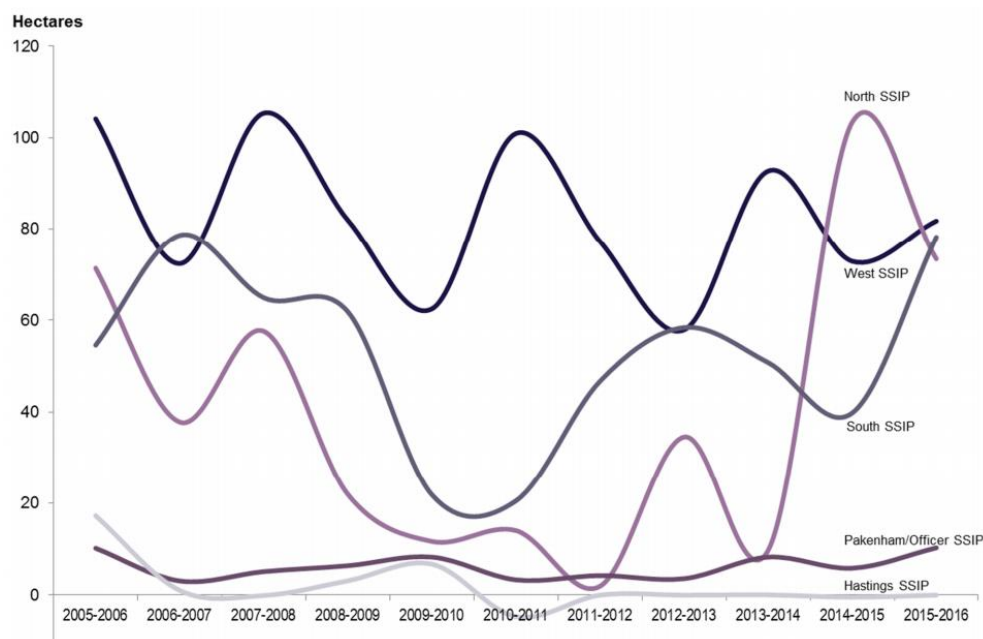


Figure 11 Annual average consumption of industrial land in State Significant Industrial Precincts, 2005-06 to 2015-16 (Urban Development Program 2016)



Within the Minta Farm employment precinct then, a technology sub-precinct would facilitate the development of industry that is compatible within a precinct with residential uses. The technology “light industry” sub-precinct would also enable the Minta Farm employment precinct to fulfil the identified need to encourage the priority sectors of medical, energy, construction and transport technologies. This sub-precinct should comprise a large portion of the overall dedicated employment land and have flexible planning provisions to encourage desired uses and businesses.

5.4 Critical Residential Population

The reports prepared to inform the GCP indicated that a critical residential population mass of 8,000 to 10,000 people is required to sufficiently support a town centre. This is due to the dynamic nature of retail and the need to provide floor space for uses to support businesses. Also noted is the need to maximise residential densities to attract different types of people and capacity for local business investment. A successful town centre is particularly important for the Minta Farm PSP area because, as well as its primary role to serve new residents, it will also play a pivotal role in supporting the viability of the broader employment precinct. The amenity and level of services the town centre will be seen to form part of the role and identity of the employment precinct also. It will also likely serve a catchment wider than the anticipated PSP population to include some existing residents of Berwick and Beaconsfield.

A residential population of 8,000 to 10,000 people is recommended for the Minta Farm PSP area. In terms of land take, anticipated demand for the Minta Farm town centre is based on the assumptions of a current per capita provision of 2.2 square metres of retail floor space. This equates to 17,600 to 19,800 square metres. Not all of this retail need is expected to be delivered within the PSP area due to existing retail facilities available in surroundings areas. The proposed town centre retail provision is 13,000 square metres in addition to 2,600 square metres for other commercial uses.

5.5 Case Studies

A useful guide to employment planning is a review of the evolution of existing modern employment precincts across Melbourne to understand trends of these developments and their success factors. The case studies provide a snapshot of land use metrics to guide the Minta Farm employment precinct. The analysis is summarised in Appendix A and assesses:

- Precinct type
- Status as existing or planned
- Location
- Facilities within and surrounding the development
- Existing and/or expected employment outcomes, including quantum and type of employment
- Methods to attract and retain industries
- Creation of economic and/or physical employment infrastructure
- Site planning – single development site, greenfield or brownfield
- Leased or freehold tenure

The case studies provided guidance for the Minta Farm employment precinct in regard to:

- Land size
- Job density
- Employment quantum
- Building typology

5.5.1 Land size

The total land size across the case study precincts varied depending on land uses:

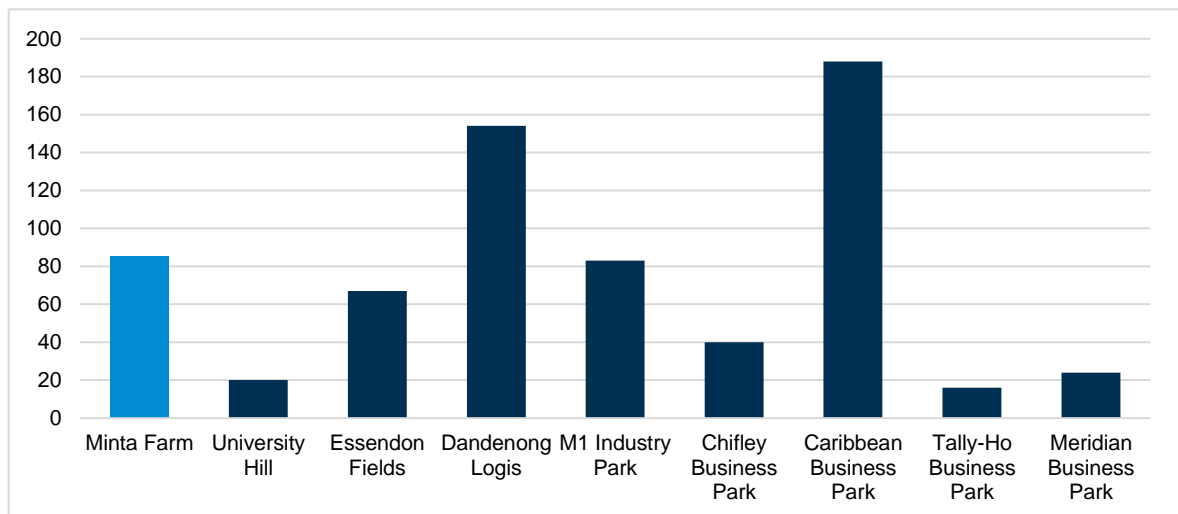
- Precincts with a high proportion of industrial land uses can typically provide up to 150 hectares
- Precincts with a focus on commercial and business land uses were generally around 40 to 70 hectares
- The commercial core with high density employment typically provided in the order of 15 hectares, with supporting lower intensity employment areas ideally providing a further 25 hectares
- Heavy industry requires a much larger land holding in the order of 140 to 180 hectares or more and are typically attracted to major precincts such as a SSIP where they benefit from co-location and sitting away from incompatible uses.

Based on the above findings and the proximity of the adjacent SSIP, an appropriate land requirement within the Minta Farm employment precinct is considered to be:

- Commercial core of around 15 hectares for office uses and additional land for other commercial uses that should not compete with the technology-based precinct (for example, bulky goods).
- Technology and niche employment of around 30 to 40 hectares.

A comparison of the recommended land take and that revealed in case studies is summarised in Figure 12.

Figure 12 Case Study Results for Employment Precinct Land Takes (VPA 2017)



5.5.2 Job density

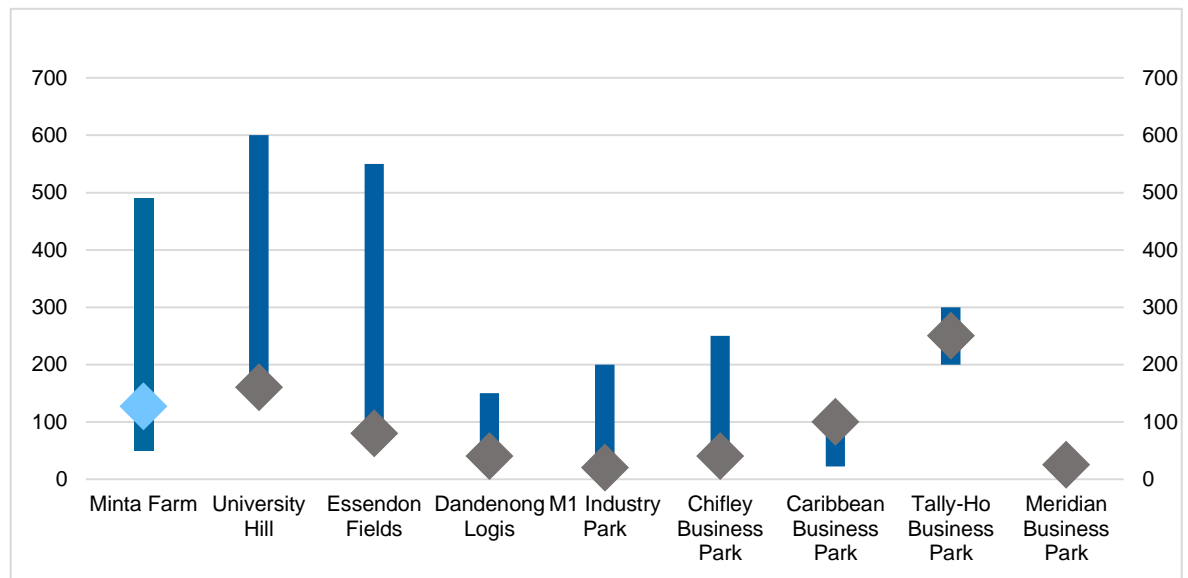
The job densities varied within and across precincts depending on land use types:

- Industrial precincts typically provided between 20 and 40 jobs per hectare.
- Business and commercial precincts typically provided between 150 and 300 jobs per hectare.
- Technology or light industrial precincts provide 50 to 100 jobs per hectare.
- Modern precincts with a broader range of land uses such as University Hill and Essendon Fields, demonstrated a more varied employment density with retail and office precincts providing 200 to 500 jobs per hectare.

Applying this to the Minta Farm employment precinct:

- An average job density of over 100 jobs per hectare is achievable, balancing employment land uses between more traditional densities with modern precincts.
- The highest densities will be in the commercial areas surrounding the town centre.
- The lowest densities will be in the technology and niche employment areas.
- Densities within the town centre, SLEP and mixed uses would be relatively comparable.

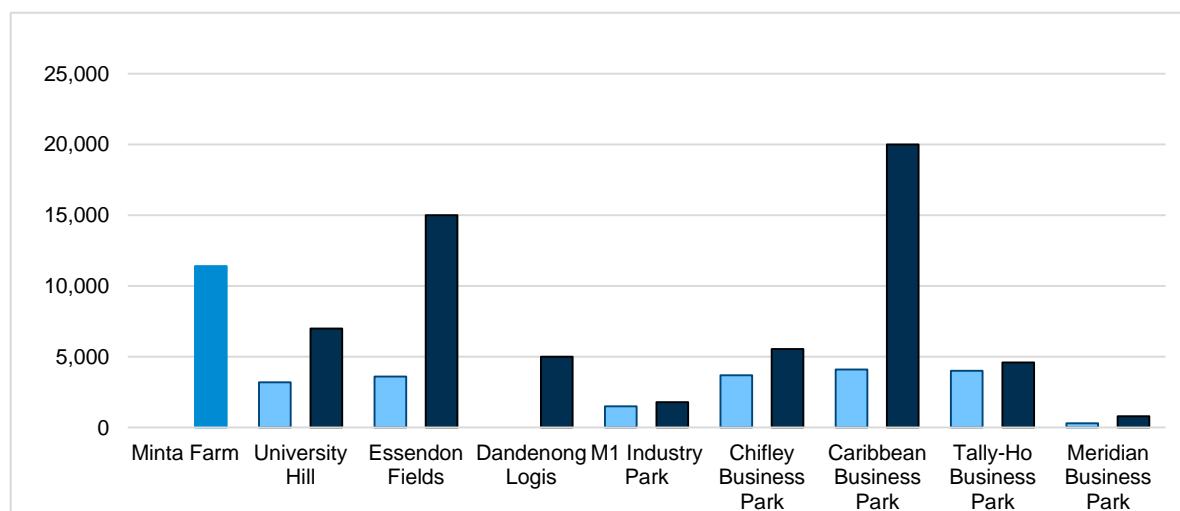
Figure 13 Case Study Results for Employment Precincts Job Density (VPA 2017)



5.5.3 Employment quantum

The total employment number within the case study precincts depended on a wide range of factors, including the population catchment, location and industry attracted to an area. Comparable examples of modern and developing precincts are University Hill, Essendon Fields and Caribbean Business Park which have easily accessible road infrastructure and an established population catchment. These provide a total job number of between 7,000 and 20,000 jobs. The case studies showed that these levels of employment achieve a critical mass of jobs, businesses and industries, particularly for outer suburban contexts. These are also of sufficient size to support essential business services such as cafes, restaurants and formal and informal meeting places.

Figure 14 Case Study Results for Employment Precincts Estimated Jobs (VPA 2017)



5.7 Post-PSP Implementation

Planning for the Minta Farm employment precinct through the PSP will be the first step towards the precinct's success. Following the PSP approval and zoning changes it will also be important to support the development of the precinct through implementation measures such as appropriate governance structure, partnerships, monetary incentives and business marketing. These types of measures are acknowledged and guided by the actions of Council's Economic Development Strategy 2016-17 which include:

- Investment facilitation by identifying the need for fast track planning but also streamlining business investment processes
- Developing the innovation, science and technology sector and specifically enhancing the region's digital performance through training, employment and business development programs
- Advocating for business and economic growth through physical infrastructure construction and specifically upgrades to the Monash Freeway. The extension of O'Shea Road will also be important for the Minta Farm precinct.
- Business leadership and continued networking and relationship building with businesses.

5.8 Previous Reports

The Minta Farm PSP area has been earmarked for employment uses for 15 years, corresponding with the release of Melbourne 2030 and four years before the establishment of the VPA (under its original name of the Growth Areas Authority).

Casey City Council nominated the PSP area for the C21 Business Park in 2002. The GCP subsequently identified the PSP area as 'business with residential'.

More recently and specifically, a 2010 report by Essential Economics prepared for the VPA suggested that the Minta Farm employment precinct could be a mixed use office and industrial precinct providing between 8,575 and 13,575 jobs on 100 and 135 hectares of land, respectively.

This current report fine tunes the previous estimates, based on more detailed analysis and the release of Plan Melbourne Refresh, to provide the level of detail required to guide the PSP. A comparison between the broad level land take estimates of 2010 and the recommendations of this report are summarised in Table 3. Overall, the current recommendations, as are further explained in Section 6, are similar to the 2010 estimates. The principal difference is a revised and reduced recommended land take for industrial uses within the Minta Farm employment precinct, due to sector trends and the designation of the SSIP on adjacent land. More specifically, the current recommendations differ from previous estimates as follows:

- Commercial and office space recommendations are slightly higher than previous estimates in terms of area and similar in jobs per square metre. Commercial and office space will continue to be important to meet the white collar job shortfall in the local job market. The increase in land take responds to the need for the commercial and office sub-precinct to also accommodate commercial uses that have the potential to compete and uptake within the technology precinct, such as bulky goods retailing.
- Town centre recommendations are similar to previous estimates to reflect analysis on the critical residential population mass required to support a successful centre and also recognises the importance the town centre has in providing urbanity and amenities for the employment precinct.
- The small local enterprise and mixed use areas, totalling around 12 hectares, will provide spaces for services and commercial opportunities that serve predominantly local markets and are beneficially located closer to residents and residential land as "interface" uses.
- The technology and business sub-precinct is now classified as 'light' as opposed to 'heavy' industry and land take recommendations are the same as previous estimates, taking into consideration:
 - Site context analysis which precludes the western portion of the PSP area for large warehouses due to unfavourable undulating topography.
 - 'Business with residential' defined as mixed use, being for office and research and activities associated with manufacturing, and ideally located adjacent town centres.

- State policy which identifies the SSIP to the east of Cardinia Creek (one of five such precincts across the metropolitan area) and therefore the focus for heavy industry for the region. This designation also means greater certainty for the future use of the SSIP land as industrial.
- Growing business preference for warehousing and logistics uses on large industrial sites of around 200 hectares which the PSP area precludes due to its size and existing and planned residential interfaces.
- Industrial land in the south-east region is not expected to be limited in the immediate future given the 2010 estimate of 27 years' land supply. The GCP noted that comparatively less additional industrial land is identified in the SEGC than other growth areas due to existing supply. It is acknowledges that this could change if the Hasting Port channel is deepened, increasing the area's access to ports and thereby attractiveness to new business and as the land in the south SSIP is developed.
- Plan Melbourne Refresh which plans for modern dynamic employment trends by supporting start-ups and small and medium enterprises, through facilities such as business incubators.

Table 3 VPA Recommendations and Essential Economics Employment Land Allocation (VPA 2017 and Essential Economics 2010)

VPA Report	Recommendation	Job Density	2010 Report	Lower Case	Higher Case	Job Density
Commercial/Office	26.1 ha	20 sqm/job	Commercial/Office	10 ha	20 ha	20 sqm/job
Technology	39.3 ha	60 sqm/job	Niche	40 ha	50 ha	75 sqm/job
SLEP	3.4 ha	40 sqm/job	Industrial	45 ha	60 ha	150 sqm/job
Mixed Use	10.4 ha	50 sqm/job				
Town Centre	3.6 ha	30 sqm/job	Town Centre	3-5 ha	5 ha	40 sqm/job
Total Area (net)	82.8 ha	-	Total Area (net)	100 ha	135 ha	-
Job Density (ave)	-	127 jobs/ha	Job Density (ave)	85 jobs/ha	100 jobs/ha	82.5 jobs/ha
Total Jobs	10,953 jobs	-	Total jobs	8,575 jobs	13,575 jobs	(ave) 11,075

ave = average

6 DEVELOPMENT POTENTIAL FOR THE MINTA FARM EMPLOYMENT PRECINCT

Section 6 provides an overview of the development potential used to estimate land take and associated efficiency, job density and employment quantum recommended for the Minta Farm employment precinct. These are summarised in Table 4 and explained below.

6.1 Land Take and Built Form

An area of 83 hectares (net) is recommended for the Minta Farm employment precinct.

Calculating the potential floor space for each sub-precinct was achieved using industry standards of:

- 70 percent of land would be developable, with the remaining 30 percent uses for local roads as per current PSP practice.
- 45 to 50 percent building site coverage, as per current average industry practice.
- Average building heights of 1 to 4 storeys and specifically:
 - 2.0 storeys in the office sub-precinct (up to 6 storeys is encouraged with 2 storeys considered as average)
 - 1.2 storey for light industry
 - 2.0 storeys for SLEP
 - 1.0 to 1.1 storeys for both the mixed use and town centre areas (upper levels are expected to be residential and not included in the calculation)
- 75 to 90 percent building floor space efficiency, allowing for internal circulation and public floor areas.

6.2 Jobs Density

An indicative job density for the Minta Farm employment precinct, as based on previous reports and case studies, is as follows:

- Commercial and office 20 square metres per job
- Light industrial 60 square metres per job
- Small local enterprise precinct 40 square metres per job
- Town centre 30 square metres per job
- Mixed use 50 square metres per job

6.3 Employment Quantum

The employment quantum, including the town centre and mixed use area, is estimated to provide:

- 10,952 jobs (comprising 10,177 in the employment precinct, 314 in the town centre and 461 in mixed use)
- 127 jobs per hectare density average

The total job number achieves Casey's target for 10,000 jobs in the Minta Farm PSP area and is directly in line with the analysis of 2010 that projected a range of 8,757 to 13,575 jobs. There is also potential for the total job number to increase for the office component, should workplaces continue to improve in efficiency and flexible working arrangements.

The projected job number is consistent with the 2010 estimates (and slightly closer to the upper end), with the expected land take 12 to 47 hectares less for the lower and upper estimates respectively. This is explained by the 45 to 60 hectares of industrial land assumed by the 2010 report. The site context and “business with residential” classifications do not support heavier industrial land uses, nor does the small land size and more notably state policy which preferentially supports such uses in the adjacent SSIP. For this reason, the industrial sub-precinct has been allocated for technology and business (“light industry”) with reduced land take to reflect smaller scale, less offensive (that is, less offsite amenity impact) businesses that are suited to this precinct.

Table 4 Projected Employment Quantum (VPA 2017)

		Commercial /Office	Light Industry	SLEP	Town Centre	Mixed Use	Summary
Land take	Net Developable Area (ha)	26.15	39.26	3.40	3.62	10.40	82.83
	Internal Road Area (%)	30	30	30	30	30	30
	Net Lot Area (Ha)	18.31	27.48	2.38	2.53	7.28	57.98
Built form	Built Form Coverage (%)	50	50	50	45	50	45 to 50
	Average Storeys	2.00	1.20	2.00	1.10	1.00	1.0 to 2.0
	Floor Space Efficiency (%)	80	80	90	75	80	75 to 90
	Net Floor Space (sqm)	146,440	131,914	21,420	9,407	29,120	338,301
Jobs	Job Density (sqm/job)	20	60	40	30	50	20 to 60
	Job Density (jobs/ha)	280	56	158	87	56	56 to 294
	Projected Job Number	7,322	2,199	536	314	582	10,953

7 RECOMMENDATIONS

The Minta Farm PSP employment precinct has been earmarked as a dedicated employment area for some 15 years. There have been various high level strategic reports that sought to make estimates on the employment potential of the precinct. Building upon these previous documents, and through a site context analysis, employment profiling and drawing upon the trends of similar precincts across the metropolitan, the following is recommended for the Minta Farm employment precinct:

- Plan for an employment precinct of 83 hectares (net).
- Plan for a mix of land uses comprising:
 - Office and corporate business park of 26 ha hectares forming the gateway to the employment precinct.
 - Light industrial and niche employment of 39 hectares on flatter land with Freeway frontage.
 - A small local enterprise area of 3.4 hectares outside of but adjacent to the town centre.
 - Town centre of 3.6 hectares and located at centrally between the employment and residential uses.
 - Mixed use areas at the residential interfaces for a total area of 10.4 ha.
- Plan for a projected job total of 10,953.
- Prepare planning provisions that encourage and facilitate:
 - Higher densities in the office areas to facilitate higher job densities.
 - Flexible use and development outcomes in the technology sub-precinct to encourage investment and support new businesses and industries.
 - Smaller lots of mixed office and warehouse type uses in the small local enterprise areas.
 - Retail, entertainment and local service uses in the town centre, and reduce potential competition to the town centre in other sub-precincts.
 - Commercial ground floors and upper floors of both commercial and residential in the mixed use areas.
- Locate the employment precinct in the northern and north-eastern portion of the precinct, fronting the Princes Freeway and the future O'Shea Road extension. This will provide an address to the unhospitable arterial road interface with a uses that benefits from this exposure. As well, plan for appropriate interfaces uses to existing and planned residential land.
- Plan for a regionally-significant employment precinct supported by an image and presentation that support this designation.
- Plan for post-PSP implementation measures to support development of the employment precinct such as through an appropriate governance structure and business leadership.
- Provide a north-south arterial connection through the PSP area and situate the employment precinct at its intersection with O'Shea Road, establishing an entry statement for both the employment precinct and wider Minta Farm PSP area.
- Plan for internal vehicle and pedestrian east-west connections from Cardinia Creek westwards to the planned and established residential areas.
- Guide a consistent character theme from the town centre through to the employment precinct. Establish a community 'heart' in the town centre and provide a series of integrated public spaces for the benefit of both the resident and worker population.
- Deliver a residential population of 8,000 to 10,000 people to facilitate an optimal town centre, which in turn will provide services and amenity to build the success of the employment precinct and serve its worker population.

8 REFERENCES

- Casey City Council, *A Vision for our Future*, September 2002
- Casey City Council and Cardinia Shire Council, *Economic Development Strategy 2016-2017*, 2017
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- Growth Areas Authority, *Planning for Employment and Industry in Melbourne's Growth Areas*, October 2011
- Jones Land LaSalle, *A Study into the Take-Up of Industrial Land and Future Land Requirements in Melbourne*, July 2010
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9 APPENDIX 1 – CASE STUDIES

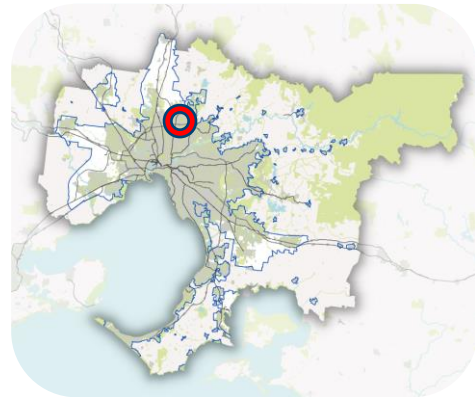
UNIVERSITY HILL, BUNDOORA

Location

Address Junction of Plenty Road and Western Ring Road, Bundoora

Council Whittlesea City Council

Overview Located 18 kilometres from Melbourne CBD, University Hill is set on 104 hectares and provides a mixed-use precinct including commercial, light industrial, residential, town centre retail and community uses. The total project value is estimated at \$1 billion upon completion.



Precinct Status

Developer MAB Corporation

Businesses 155

Job number 3,200 jobs (estimated 2016)
4,000 jobs (estimate for completion)

Job density 130 to 400 jobs/ha (estimate)

Key tenants RMIT, Quest Apartments, Uni Hill Factory Outlets, Department of Economic Development, BMW

Size 104 ha total
25 ha employment

Floor space 45,000 sqm commercial
27,000 sqm retail

Built form 1 to 4 storeys



Success Factors

- Awards**
- Council 2011 Group GSA Award for Best Master Planned Community
 - UDIA 2010 Master Planned Development



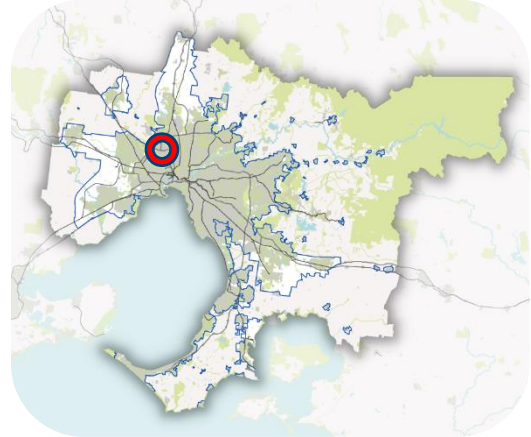
University Hill Masterplan

- 2 Enterprise Drive. Offers 29 office suites between 50 and 500 sqm. Project value \$20 million. Built in 2016
- 30 Janefield Drive. Occupied by RMIT Health Science and Royal District Nursing Service. Over 4 storeys. Project value \$20 million. Built in 2015
- 40 Janefield Drive. Occupied by Quest Apartments. 4.5 star with 71 apartments. Built in 2016

ESSENDON FIELDS, ESSENDON

Location

Address	Tullamarine Freeway, Essendon
Council	Moonee Valley
Overview	Located 20 kilometres from Melbourne CBD, Essendon Fields is set on an estimated 67 hectares and provides a suburban mixed use precinct of retail, commercial and other business. Current market value is around \$1 billion and is increasing.



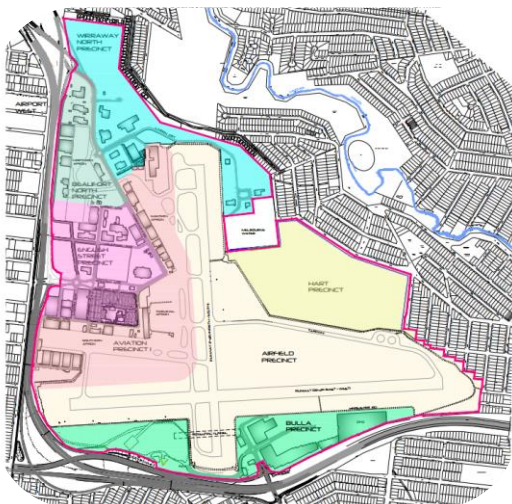
Precinct Status

Developer	Linfox and Beck Groups
Businesses	639 business in total including 170 in business district, 14 in Auto Centro and 41 in DFO
Job number	3,600 jobs (estimated 2011) 15,000 jobs (estimated 2031)
Job density	Average across precinct at 50 jobs/ha
Key tenants	DFO, major town centre retail such as LaManna Direct, Coles & Auto Centro. Hyatt Place hotel (under construction)
Size	67 ha
Built form	1 to 4 storeys



Success Factors

- Connectivity to Melbourne airport and Melbourne CBD via major roads, including Tullamarine and Calder Freeways
- Excellent amenity including hotels, retail, health service and gym
- Ability to masterplan large precinct in well-established area with large catchment



Essendon Fields Masterplan



- Hyatt Place. 166 guest rooms. Flexible meeting spaces for small meetings and conferences
- Essendon Fields Private Hospital. 300 beds. Excellent links to Tullamarine freeway. 10 kilometres from CBD
- 6 English Fields, Essendon Fields. Commercial office building in business district. Linfox and Australia are other major tenants

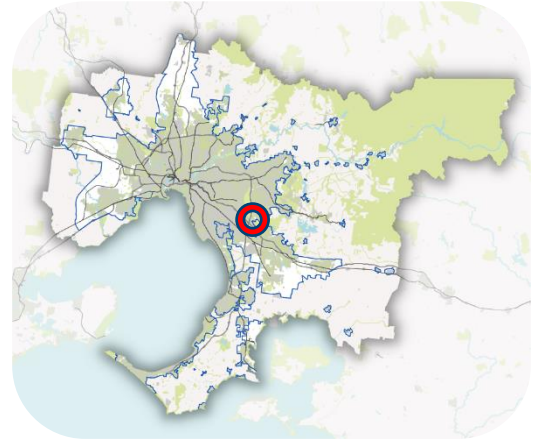
DANDENONG LOGIS, DANDENONG

Location

Address Dandenong Southern Bypass

Council City of Greater Dandenong

Overview Located 40 kilometres from Melbourne CBD, Dandenong Logis is set on 154 hectares and provides a mixed-use precinct including commercial, and industrial business. The total project value is estimated at \$480 Million upon completion.



Precinct Status

Developer Places Victoria

Businesses Numerous (120 lots)

Job number 5,000 jobs (estimated 2011)

Key tenants Kraft Foods (Mondelez), Cabrini Health, Paperlinks, Sistema Plastics

Size 154 ha total

Floor space 463,000 sqm

Built form 1 to 4 storeys



Dandenong Logis

Success Factors

Awards

- 2014 Property Council of Australia's best business or industrial park award
- 2013 Victorian Urban Development Institute of Australia's environmental excellence award

Features

- Connected with by public transport services with a bus service connecting to and from Dandenong and Frankston train lines
- Service Retail Precinct with restaurants, cafes and express supermarket centrally located for LOGIS workers
- Adaptive industrial precinct with quality parks and reserves for recreation and relaxation
- A range of sustainability initiatives: recycled water pipeline, network of bike paths, green corridors connecting with the rehabilitated Dandenong Creek
- Easy connections to the Dandenong Creek bike trail



- Cabrini Linene Services. 4 star, green star laundry service
- Contemporary building designs

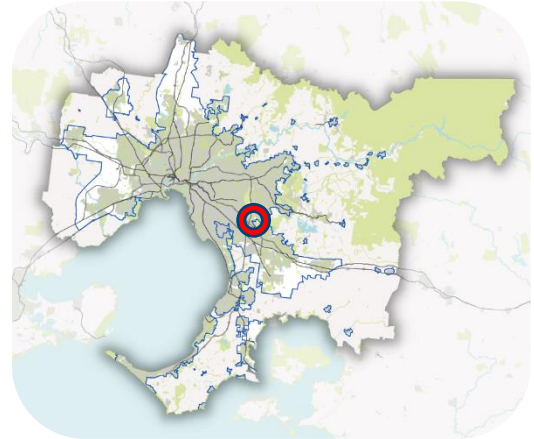
FOUNTAIN GATE, VICTORIA

Location

Address Princes Highway, Fountain Gate

Council Casey City Council

Overview Located 40 kilometres from Melbourne CBD, Fountain Gate East consists of Westfield Fountain Gate, Casey City Council office buildings and the Casey Business Park. Fountain Gate East is set on around 20 hectares of land and provides a mixed use precinct including strong retail, commercial and business. The total redevelopment project of Westfield Fountain Gate is estimated at \$320 million.



Precinct Status

Developer Westfield Fountain Gate: Scentre Group
Casey Business Park: Lettieri Property Group

Businesses Westfield Fountain Gate: 454 retailers
Casey Business Park: 9 offices

Job number 5,000 jobs (estimated 2011)

Job density Average across precinct at 50 jobs/ha

Key tenants Westfield Fountain Gate, Casey Business Park

Size 40 ha approximate

Floor space Westfield Fountain Gate: 178,131 sqm
Casey Business Park: 5,946 sqm
Casey Council: 3,784 sqm

Built form 1 to 3 storeys



Success Factors

- Excellent amenity, including hotel, significant retail/town centre and commercial uses including the Case Council offices
- Diversity of tenure and lots for rental/purchase, including shared office spaces and employment hubs
- Range of office sizes between 8 to 642 sqm



Fountain Gate Masterplan

- 66 Victor Crescent, Narre Warren. Flexible floor space. Floor to ceiling double glazed glass windows for maximum natural light
- Westfield Fountain Gate. 3 levels, 454 retailers, 6,493 car parks, 16,300,000 annual customer visits
- 4-star Quest Narre Warren. Serviced apartments

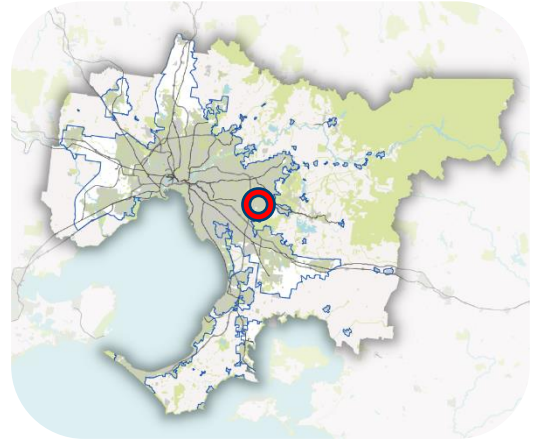
M1 INDUSTRY PARK, DANDENONG SOUTH

Location

Address Abbots Road Dandenong South

Council City of Greater Dandenong

Overview Located 40 kilometres from Melbourne CBD, M1 Industry Park is set on 83 hectares and provides a mixed-use precinct including commercial and industrial businesses. The total project value was estimated at \$25 million in 2014.



Precinct Status

Developer Pellicano

Businesses M1- approximately 60 businesses

Job number 1,500 jobs (estimated 2011)

Job density Average across precinct at 20 jobs/ha

Key tenants Arco Restaurant and café, Monash Drive Early Learning and Kinder, Crocs Play Centre

Size 83 ha total

Built form 1 to 4 storeys



Success Factors

- Central to Dandenong's industrial and business precinct
- Includes business and worker servicing precinct that includes walking paths, restaurants, cafes and childcare services
- Offers excellent access to high volume roads such as the Monash Freeway, South Gippsland Highway, Abbots Road, Eastlink and the Frankston- Dandenong Road



M1 Industry Park



- Amenity services: Arco Restaurant and café
- M1 Hub. Two level mixed use development co-located with childcare centre
- M1 Industry Park. Modern office warehouses

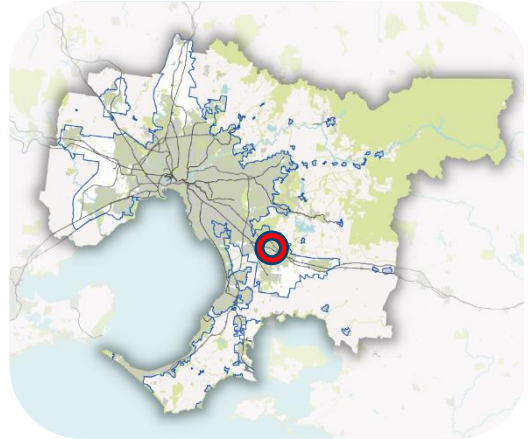
CHIFLEY BUSINESS PARK, MOORABIN AIRPORT

Location

Address 3 Joseph Avenue, Moorabbin

Council City of Kingston

Overview Located 30 kilometres from Melbourne CBD, Chifley Business Park is set on 40 hectares and provides a mixed-use precinct including commercial and industrial businesses. The total project investment value is estimated at \$106 million (2010).



Precinct Status

Developer Goodman

Businesses Numerous within 16 buildings

Job number 3,700 jobs (estimated 2011)

Job density Average across precinct at 40 jobs/ha

Key tenants Simplot Australia PTY. Ltd, Remington Products Australia, Star Packing Solutions, Visy Moorabbin Airport and Joseph Avenue Early Learning and Kinder

Size 40 ha total

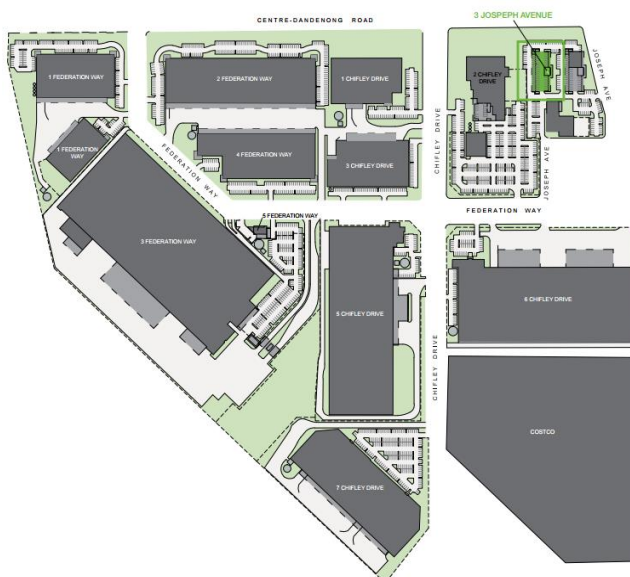
Floor space Industrial floor space - 120,000 sqm
Office space - 12,000 sqm

Built form 1 to 4 storeys



Success Factors

- Contemporary estate with flexible office space and quality amenities such as onsite café, gym and childcare
- Convenient access to major roads and public transport nodes



- Chifley Business Park close to major arterial roads such as: Nepean Highway, Monash Freeway and Warrigal Road
- Architecturally designed campus providing on-site amenities and facilities
- Office precinct comprises of 2 separate 3 storey office blocks

Chifley Business Park Masterplan

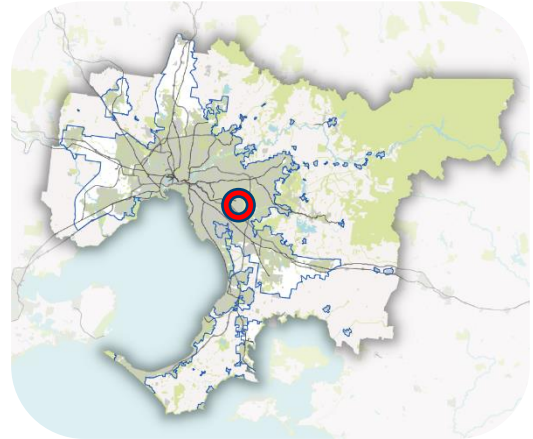
CARIBBEAN BUSINESS PARK, VICTORIA

Location

Address Ferntree Gully Road, Scoresby

Council Knox City Council

Overview Located 30 kilometres from Melbourne CBD, Caribbean Business Park is set on 188 hectares and provides a commercial, industrial and parkland precinct.



Precinct Status

Developer Spooner Family

Businesses Numerous within 40 buildings

Job number 20,000 jobs (estimated on completion)

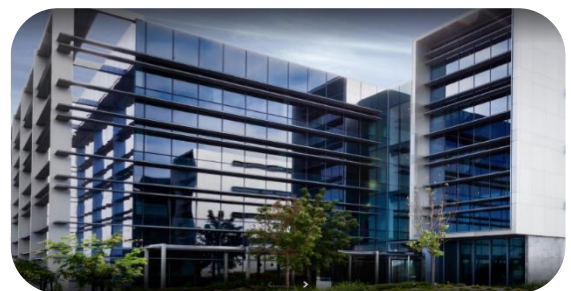
Job density Average across precinct at 50 jobs/ha

Key tenants Westfarmers, Target, AGFA, Hallmark, Russell Athletic, Random House and Thermo Fisher

Size 188 ha total

Floor space 230,000 sqm office buildings

Built form 1 to 4 storeys



Success Factors

Awards Caribbean Park office buildings awarded 5 green star rating

- Features**
- Freeway access to Eastlink for establishing commercial precinct
 - Excellent amenity, including office buildings and parkland
 - Diversity of tenure and lots for rental and purchase
 - Large flexible floor plates for open plan or office configurations
 - 275 acres of green space (3 times larger than the Melbourne Botanical Gardens)



Essendon Fields Masterplan

- Sustainable landscaping is undertaken by actively re-using rain water in all landscaping activities throughout the park
- Within the precinct area there is the Caribbean Rollerama and the Caribbean Markets, which has over 1,000 stall sites
- Office buildings orientated for optimal solar benefits

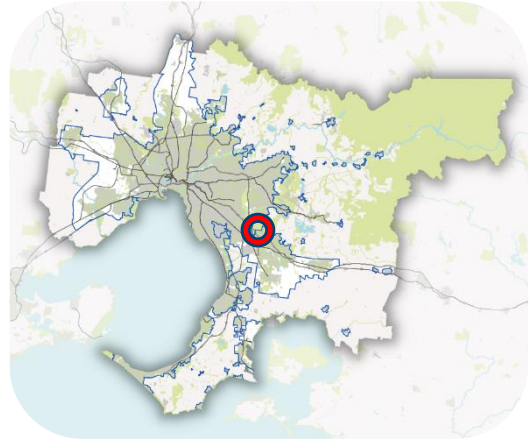
TALLY-HO BUSINESS PARK

Location

Address Corner of Burwood Hwy and Springvale Road, East Burwood

Council City of Whitehorse

Overview Located 30 Kilometres from Melbourne CBD, Tally-Ho Business Park is a well established precinct set on 26 hectares and provides around 16 hectares of developed suburban business land.



Precinct Status

Developer	Various
Businesses	Numerous located within its 15 office buildings
Job number	4,000 jobs (estimated 2016) 4,700 jobs (estimated 2031)
Job density	Average across precinct at 150 jobs/ha
Key tenants	MYOB, Motorola, Hewlett Packard, Pronto Software and Fujitsu, VicRoads Burwood Customer Service Centre, Praktika, Zimmer Biomet
Size	26 ha total
Floor space	70,700 sqm
Built form	1 to 4 storeys



Success Factors

- Extended development timeframe, adapting to business' changing needs
- Established a reputation as the innovation and technological hub in the south-eastern suburbs
- Access to transport infrastructure, including highway, bus and tram services



Tally-Ho Business Park



- 378 Burwood Highway. 4 level commercial office building. Floor area 2,988 sqm. Sold for \$7.9 million August 2014
- 10 Wesley Court. 8,442 sqm commercial 1 zoning in the technology precinct
- 12 Lakeside Drive. Occupied by VicRoads. Floor area 4,509 sqm. Sold for \$16 million in 2013

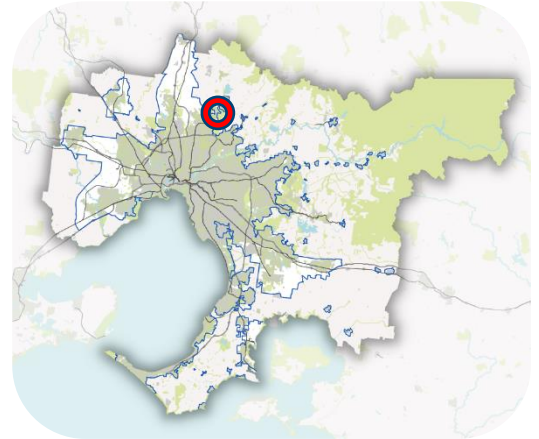
MERIDIAN BUSINESS PARK, THOMASTOWN

Location

Address Between High Street and Dalton Road, Thomastown

Council City of Whittlesea.

Overview Located 17 kilometres from Melbourne CBD, Meridian Business Park is set on approximately 24 hectares and provides a mixed-use precinct including commercial and industrial.



Precinct Status

Developer Meridian Business Park Pty Ltd which is part of the Stockwell View Pty Ltd

Businesses Over 60 warehouses, a two level office complex and a premium catering retail facility

Job density Average across precinct at 40 jobs/ha

Key tenants Tyremax PTY, Wedderburn Melbourne, Plastermart, ISeekBlinds, Kab Windows, Alumach and Victorian Party Hire

Size 24 ha total

Floor space Boutique offices: 140-155 sqm
2 storey office complex: 140-375 sqm
Variation in warehouse sizes: Up to 3,600 sqm

Built form 1 to 4 storeys



Success Factors

- 20 minutes' drive to Melbourne Ports and CBD
- 15 minutes to Melbourne Airport
- Close to Thomastown Train Station
- Adjoining the retail and commercial strip off High Street



Meridian Business Park Plan Subdivision

- Boutique Office. Close to public transport. Maintained landscape areas
- Two storey office complex. Undercover car parking
- Large warehouse. Clear span warehouse with multiple roller doors

BUILDING TYPOLOGY EXAMPLES

Building typology depends on the type of employment use. The case studies shown in this document illustrates that building design, form and layout vary greatly across development sites. The below examples highlight the potential for the Minta Farm precinct to deliver a considerable variance in employment densities across precincts and land parcels.

Commercial and Office - 6 storey		
Built form	Net Lot Area (ha)	0.30
	Built Form Coverage (%)	50
	Average Storeys	6.0
	Floor Space Efficiency (%)	80
	Net Floor Space (sqm)	7,200
Jobs	Job Density (sqm/job)	20
	Job Density (jobs/ha)	1,200



Caribbean Park – 35 Dalmore Drive, Scoresby

Commercial and Office - 4 storey		
Built form	Net Lot Area (ha)	0.30
	Built Form Coverage (%)	50
	Average Storeys	4.0
	Floor Space Efficiency (%)	80
	Net Floor Space (sqm)	4,800
Jobs	Job Density (sqm/job)	20
	Job Density (jobs/ha)	800



66 Victor Crescent, Narre Warren

Commercial and Office - 4 storey		
Built form	Net Lot Area (ha)	200
	Built Form Coverage (%)	50
	Average Storeys	2.0
	Floor Space Efficiency (%)	80
	Net Floor Space (sqm)	160
Jobs	Job Density (sqm/job)	20
	Job Density (jobs/ha)	400



University Hill, Bundoora

