

Part C | Sydney Metro West Stage 1 – continued

16 Business impacts – Stage 1

16 Business impacts – Stage 1

This chapter provides an assessment of the potential impacts on businesses during Stage 1 and identifies mitigation measures to minimise these impacts.

16.1 Secretary’s Environmental Assessment Requirements

The Secretary’s Environmental Assessment Requirements relating to business impacts of Stage 1 and where these requirements are addressed in this Environmental Impact Statement are outlined in Table 16-1.

Table 16-1: Secretary’s Environmental Assessment Requirements – Business impacts Stage 1

Reference	Secretary’s Environmental Assessment Requirements	Where addressed
3. Social and Economic (including property, land use and business impacts)		
3.1	Affected properties, businesses, recreational users and land and water users, including property acquisitions/adjustments, access, amenity and relevant statutory rights.	This chapter

16.2 Legislative and policy context

The *Environmental Planning and Assessment Act 1979* establishes the framework for social and economic impacts to be considered and assessed as part of the environmental planning assessment process. The assessment of business impacts carried out with regard to the aims and objectives of the relevant local environmental plans and strategic plans, are described in Chapter 2 (Strategic need and justification) and Chapter 14 (Property and land use – Stage 1).

The Australian Transport Assessment and Planning Guidelines (Australian Transport Council, 2018) outlines best practice for transport planning and assessment in Australia and has informed the assessment approach as described below.

16.3 Assessment approach

16.3.1 Methodology

This business impact assessment identifies and assesses potential impacts and the extent of these impacts on businesses located within or near Stage 1 construction sites. This includes a qualitative impact assessment of the likelihood and significance of these potential impacts on local businesses. The methodology for the assessment included:

- Defining the local business study area using an approximate 400 metre area around each Stage 1 construction site (i.e. the area within an approximate five minute walk of the construction site). This is consistent with the approach of using Transport Performance and Analytics travel zone data, which generally conforms to an area within a 400 metre radius of existing stations
- Carrying out a desktop survey for each local business study area using NearMap and conducting an on the ground verification to identify business types within 100 metres of each proposed construction site
- Developing a local business profile using Census 2016 data for areas near each construction site. This profiling used the ‘destination zone’ data associated with the Australian Bureau of Statistics ‘Place of Work’ data set as relevant to each local business area. In most cases, more than one destination zone was relevant to a local business study area. This profiling also used information gathered from the desktop review and land use and business survey
- Identifying the types of changes (both positive and negative) that could occur to businesses within each local business study area
- Carrying out a qualitative assessment of business impacts that may occur as a result of Stage 1 using the Objective Impacts Table options rating levels from the Australian Transport Assessment and Planning Guidelines (Australian Transport Council, 2018)
- Identifying measures to manage and mitigate any potential impacts on local businesses as a result of Stage 1.

16.3.2 Types of potential business impacts

While potential impacts to local businesses are anticipated, these would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction, and measures such as lighting and signage to maintain visibility and access to local businesses.

Potential impacts that may arise from Stage 1 include:

- Direct impacts – where there is a loss of business premises within a construction site
- Indirect impacts – for businesses located near a construction site (usually within about 400 metres) potential indirect impacts could affect a business through a reduction in trade or by increasing the costs of doing business. Changes within the local business area related to Stage 1 could also result in increased trade for some businesses or a beneficial redistribution of trade.

The business impact assessment has considered:

- Description and plans for the proposed Stage 1 construction works
- Technical research undertaken to inform the assessment
- Extent of the proposed works at each construction site
- Business and land use characteristics of each individual local business area.

Table 16-2 outlines both potential direct and indirect business impacts that could arise from Stage 1. An analysis of predicted impacts for each local business study area is included in the following sections.

Table 16-2: Potential types of business impacts

Potential impact	Description
Potential indirect impacts	
Property or land acquisition	<ul style="list-style-type: none"> • Businesses located on land to be acquired may experience: • Challenges in finding an alternative premises • Potential disruption to trade due to relocation • If unable to relocate, risk of business extinguishment.
Indirect potential impacts	
Temporary traffic congestion and travel time	<p>Construction works including road closures or diversions, and construction traffic (e.g. deliveries and spoil removal), have the potential to cause traffic congestion, potentially impacting businesses by traffic delays and increased travel times. Although construction would be planned so that direct delivery access to businesses is maintained, reduced or delayed accessibility could potentially interrupt daily business operations and potentially increasing delivery costs.</p> <p>This could also affect employee travel times (particularly when using a car) and may cause changes to vehicular or pedestrian travel routes.</p> <p>Businesses most likely to be potentially affected are those within 100 metres of a construction site or near roads subject to temporary closures.</p>
Loss of parking	<p>Potential loss of car parking resulting from construction work could have a flow-on effect to businesses by reducing accessibility and convenience for customers.</p> <p>Businesses most likely to be potentially affected are those within 100 metres of a construction site.</p>
Loss of goods and services	<p>Some businesses within a local business area may supply goods and services to other local businesses. In areas with many businesses, the cost of sourcing alternative inputs may be minor, but in areas with fewer businesses the cost may be comparatively more.</p> <p>Businesses most likely affected are those in smaller local business areas.</p>

Potential impact	Description
Temporary reduced local amenity (arising from noise, vibration, dust and visual impacts)	Noise, vibration, visual impacts or dust generated at construction sites may impact businesses which are more reliant on a specific type of working environment or external environment. Businesses most likely to be impacted are those that have more sensitive uses such as local cinemas, educational establishments, health and social assistance facilities, and therapists or those that are more reliant on a quiet outside environment such as cafes and restaurants. Businesses most likely to be potentially affected are those within 100 metres of a construction site and mitigation measures would be implemented to minimise these impacts. Amenity impacts are expected to reduce the further a business is located from the construction site.
Temporary power and utility interruptions	In the event of planned or accidental power shutdowns, surrounding businesses may be impacted. Prior notice would be given to business owners by the appropriate utility authority in the event of any planned power shutdowns.
Safety and security	Appropriate mitigation measures including signage and hoarding to divert pedestrians and traffic safely around construction sites would be implemented as necessary so that customer/visitor patronage to local business is maintained. Businesses most likely to be potentially affected are those within 100 metres of a construction site.
Potential opportunities	
Increase in passing trade	Some businesses within the local business area may experience an increase in passing trade from Stage 1 construction workers (anticipated to be 10,000 direct and 70,000 indirect jobs during construction) or from changes in pedestrian and vehicular travel patterns as a result of diversions around construction sites. This would depend on the location of businesses and their proximity to the construction site, the nature of surrounding businesses, and the role and function of the local business area. The types of businesses that could expect a net increase in passing trade as a result of Stage 1 include those that sell goods and services and which are close to the construction site or on the travel path to the construction site.
Redistribution of trade	Redistribution of trade refers to the movement of customers and patronage to alternative businesses within the area. This is a positive impact for businesses that may receive an increase in trade as a result of a similar directly impacted business needing to close or relocate.

16.3.3 Qualitative impact assessment

Each potential impact has been assessed using a qualitative and objective based assessment matrix which evaluates impacts based on the ‘likelihood’ of occurrence (defined in Table 16-3), and the ‘significance’ of the potential impact on local businesses in the event it does occur (defined in Table 16-4).

Table 16-3: Likelihood categories

Likelihood category	Description
Almost certain	<ul style="list-style-type: none"> An estimated greater than 90% chance of occurrence during Stage 1; or The event is expected to occur in most circumstances.
Likely	<ul style="list-style-type: none"> An estimated 75-90% chance of occurrence during Stage 1; or The event will probably occur in most circumstances.
Possible	<ul style="list-style-type: none"> An estimated 50-75% chance of occurrence during Stage 1; or The event could occur.
Unlikely	<ul style="list-style-type: none"> An estimated 25-50% chance of occurrence during Stage 1; or The event could occur but is not expected.
Rare	<ul style="list-style-type: none"> An estimated 10-25% chance of occurrence during Stage 1; or The event may occur only in exceptional circumstances.
Almost unprecedented	<ul style="list-style-type: none"> An estimated less than 10% chance of occurrence during Stage 1; or Not expected to ever occur during Stage 1 (less than once every 100 years).

Table 16-4: Significance categories

Significance category	Description ¹
Large negative	Major negative impacts with serious, long term and possibly irreversible effects leading to serious damage, degradation or deterioration of the physical, economic or social environment. Requires a major re-scope of concept, design, location and justification, or requires major commitment to extensive management strategies to mitigate the effect.
Moderate negative	Moderate negative impact. Impacts may be short, medium or long term and impacts would most likely reduce in response to management actions
Slight negative	Minimal negative impact, probably short-term, able to be managed or mitigated, and would not cause substantial detrimental effects. May be confined to a small area.
Neutral	Neutral – no discernible or predicted positive or negative impact.
Slight positive	Minimal positive impact, possibly only lasting over the short-term. May be confined to a limited area.
Moderate positive	Moderate positive impact, possibly of short, medium or long term duration. Positive outcome may be in terms of new opportunities and outcomes of enhancement or improvement.
Large positive	Major positive impacts resulting in substantial and long term improvements or enhancements of the existing environment.

Source: Australian Transport Assessment and Planning Guidelines (2018)

Note 1: there is no hard and fast definition of short, medium and long term, the following is an indicative guide: short 1-2 years; medium 3-5 years; long - beyond 5 years

16.4 Avoidance and minimisation of impacts

The design development of Stage 1 aimed to avoid or minimise potential business impacts by limiting the amount of privately owned land needed (wherever possible) for construction sites. The design also aimed to maintain customer and vehicular delivery access for existing businesses. Specific design features to avoid or minimise impacts included:

- At Westmead, locating the station box to the south of the existing rail corridor and adopting an east-west orientation. This avoids direct and indirect impacts (such as noise) to the local business centre immediately north of the existing Westmead Station, and minimises potential noise and vibration impacts on nearby noise sensitive businesses that operate medical equipment
- At North Strathfield, adopting a north-south orientation of the station box which aligns parallel with the existing rail corridor and avoids direct impacts to existing businesses fronting Queen Street.

16.5 Project-wide impacts

Property acquisition would result in potential impacts to occupying businesses (or other negotiated arrangements). All property acquisition is managed in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991* and the land acquisition reforms announced by the NSW Government, which can be viewed online at (www.propertyacquisition.nsw.gov.au/).

Sydney Metro has appointed Personal Managers to offer residents and small businesses assistance and support throughout the acquisition process.

16.6 Westmead metro station

16.6.1 Existing environment

Local business profile

The main Westmead business area is immediately north of the existing Westmead Station, within the Westmead town centre. Figure 16-1 shows the key business areas around the Westmead metro station construction site, as well as the relevant destination zones for the local business profile.

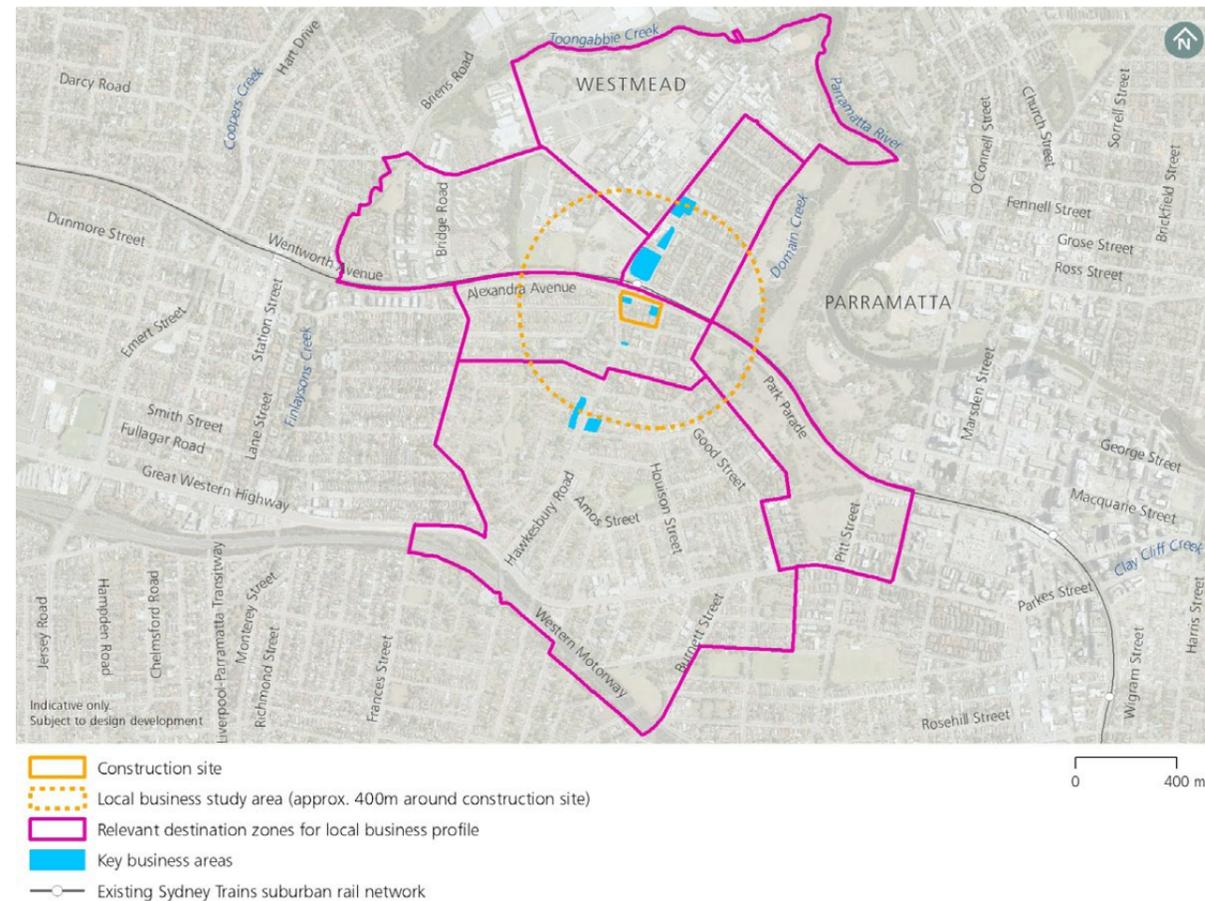


Figure 16-1: Westmead local business study area and relevant destination zones

The Westmead local business study area and surrounding areas has a strong focus on medical and health services and facilities supporting the broader Westmead Health and Education Precinct, one of the largest health, education, research and training locations in Australia and a key provider of jobs for the region. The Westmead local business study area also serves the local population via the Westmead Shopping Village which fronts Railway Parade to the immediate north of Westmead Station, comprising a range of local shops including a supermarket, tavern, cafes and restaurants. The Westmead Shopping Village is about 100 metres north of the construction site. The Western Sydney University Westmead Campus is opposite the Westmead Shopping Village on the western side of Hawkesbury Road.

The local business study area continues north of the Westmead Shopping Village, along the eastern side of Hawkesbury Road, with a range of retail, commercial services, and cafes and restaurants, generally aimed at servicing the local population, together with a small number of healthcare service businesses. These businesses are located up to about 400 metres from the construction site. The southern edge of Westmead Hospital is also located about 400 metres north of the construction site.

Fewer businesses are located to the south of the existing Westmead Station. Businesses in this area include a small number of stand-alone healthcare service businesses scattered along Hawkesbury Road within 400 metres, and the Oaks Centre, a neighbourhood business centre about 400 metres south of the construction site (Oakes Centre), with local retail, shops, services, cafes and restaurants, fronting a service road along the western side and parallel to Hawkesbury Road. A service station is located at the Hawkesbury Road/Ralph Street intersection and additional healthcare service businesses are further to the south along Hawkesbury Road.

The proposed Westmead metro station construction site is parallel and to the south of the existing Westmead Station and is separated from the main Westmead business area by the rail corridor.

Table 16-5 identifies the types of existing businesses within the local business study area. A number of vacant retail premises were observed during the land use and business survey and include some premises throughout the Westmead town centre that have been acquired and vacated for the construction of the Parramatta Light Rail project.

Table 16-5: Businesses within Westmead local business study area

Impact area	Types of businesses	Approximate number of businesses
Within construction site	Retail; healthcare services; personal care services; automobile services	Up to 10
Within 100 metres of the construction site	Healthcare services; commercial – service industries	20 to 30
Between 100 and 400 metres of the construction site	Healthcare services, banks, cafes and restaurants	40 to 60

Employment

At the 2016 Census, about 13,450 people were employed within the destination zones relevant to the Westmead local business study area, making it the second largest business precinct. As shown in Figure 16-2, employment within the business precinct was highly concentrated in household services, which accounted for around 11,710 jobs or 90 per cent of all jobs. This indicates the local economy is specialised in providing services for local and regional populations such as education and health care services. A number of businesses within the household services sector are primarily destination businesses and less reliant on passing trade.

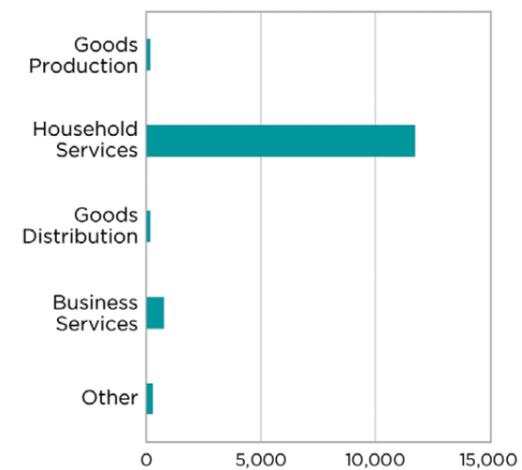


Figure 16-2: Employment by business categories – Westmead destination zones¹

Source: Australian Bureau of Statistics, 2016, Ethos Urban

Note 1: Goods production includes: Mining, Manufacturing; Electricity, Gas, Water and Waste Services; and Construction.

Household Services includes: Accommodation and Food Services; Education and Training; Health Care and Social Assistance; Arts and Recreation Services; and Other Services.

Goods Distribution includes: Wholesale Trade; Retail Trade; and Transport, Postal and Warehousing.

Business Services includes: Information Media and Telecommunications; Financial and Insurance Services; Rental, Hiring and Real Estate Services; Professional, Scientific and Technical Services; and Administration and Support Services.

Other includes: Agriculture, Forestry and Fishing, and Public Administration and Safety.

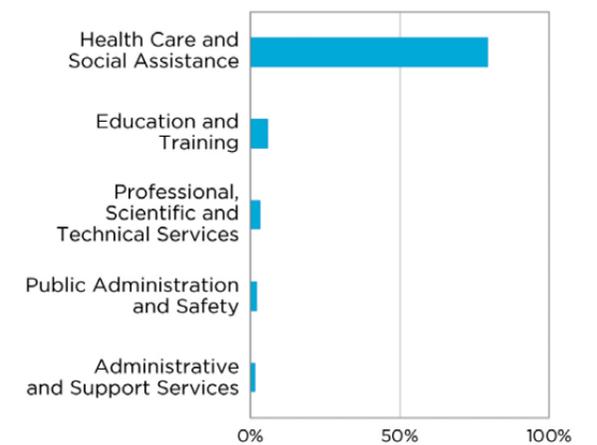


Figure 16-3: Top five industries – Westmead destination zones

Source: Australian Bureau of Statistics, 2016, Ethos Urban

As shown in Figure 16-3, at an industry level, employment within the Westmead local business study area and surrounds is highly concentrated in the health care and social assistance industry. At the 2016 census, employment within this industry comprised 79 per cent of all jobs within the area, reflecting that most of the jobs are associated with Westmead Hospital and its related medical facilities. The second most common industry for employment was education and training, which accounted for five per cent of jobs, with these jobs primarily located north-west of the construction site. Most of the employment in the local business study area is concentrated north of Westmead Station, within and around Westmead Hospital about 400 metres from the construction site.

Travel patterns

Methods of travel to work by workers within the local business study area and surrounding area are highlighted in Table 16-6. Workers within the area are highly dependent on cars to get to and from work, with 71.2 per cent of residents using a car (as driver). Compared to other locations, this proportion is relatively high, suggesting that businesses are dependent on good access to the road network to access labour markets within the region. Despite there being an existing Sydney Trains suburban train station within the precinct, only 15.2 per cent workers used this method of travel.

Table 16-6: Top five methods of travel to work – Westmead destination zones

Methods of travel to work	Number	Proportion
Car, as driver	8,227	71.2%
Train	1,762	15.2%
Car, as passenger	500	4.3%
Walked only	500	4.3%
Bus	403	3.4%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.6.2 Potential impacts

A qualitative assessment of the potential impacts relevant to the Westmead local business study area is provided in Table 16-7. Overall, the highly specialised nature of the Westmead local business study area (focussed on medical and health facilities) suggests that most of the local businesses would be more resilient to potential construction impacts, as demand for health related services is more inelastic and less affected by local changes.

Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16.

This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-7: Westmead – Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
<p>Temporary traffic congestion and increased travel times</p> <p>Potential impacts associated with traffic congestion and increased travel times would be unlikely for the majority of business around the site. Workers within the precinct are highly car dependent. The extent to which they would be affected by construction works would largely depend on which direction they drive from. Workers driving from the north, east or west, would be less affected by temporary construction traffic than workers driving from a southerly direction towards the construction site (along Hawkesbury Road), which is the main construction site haul route. Similarly, temporary traffic and travel time impacts for business servicing deliveries would be minimal for businesses north of the site in the Westmead town centre.</p> <p>About 10-20 businesses would be located along the haul route on Hawkesbury Road, including business within the Oakes Centre about 400 metres south of the construction site. This is a neighbourhood centre generally servicing the local population, and does not require direct access to and from Hawkesbury Road. No road diversions or traffic control measures would be required around these businesses, further minimising any impacts.</p>	<p>Unlikely (north of the construction site)</p> <p>Possible (south of the construction site)</p>	<p>Slight negative</p>

Potential impact	Risk assessment	
	Likelihood	Significance
<p>Loss of parking</p> <p>The potential temporary impact to parking availability for local businesses, from the presence of a construction workforce is expected to be minimal. There is currently no on-street parking on the part of Alexandra Avenue that would be closed, and while some on-street parking may be lost on Hassall Street and Bailey Street, those parking locations would be less important for local businesses within the main town centre north of the existing rail corridor. Construction workers would be encouraged to access the site using nearby public transport options.</p>	<p>Unlikely</p>	<p>Neutral</p>
<p>Loss of goods and services</p> <p>Flow-on impacts to other businesses (from the closure or relocation of directly affected businesses) is expected to be very limited given the small number of directly impacted businesses, and the nature of these businesses being focussed towards providing goods and services primarily to households rather than as inputs to other businesses.</p>	<p>Rare</p>	<p>Neutral</p>
<p>Temporary reduced local amenity</p> <p>Business in the vicinity are generally sufficiently separated from the construction site minimising any potential temporary amenity related impacts. There are no businesses immediately surrounding the construction site which would be affected by temporary amenity impacts.</p> <p>Businesses within 100 metres of the construction site are located within the Westmead Shopping Village and adjacent businesses fronting Railway Parade, north of the existing Westmead Station. Business within the Westmead Shopping Village are mostly located within a partially enclosed centre, providing some protection from the external environment and mitigating temporary amenity impacts. These businesses are also separated from the construction site by the existing rail corridor further mitigating amenity impacts.</p> <p>As the business precinct extends further northwards, away from the construction site and fronting Hawkesbury Road, the distance, positioning and siting of these businesses would help to minimise amenity impacts.</p> <p>The local businesses about 400 metres south of the site (Oakes Centre), fronting a service road parallel to Hawkesbury Road may experience some temporary reduced amenity from the increase in construction heavy vehicles along Hawkesbury Road.</p>	<p>Possible</p>	<p>Slight negative</p>
<p>Temporary power and utility interruptions</p> <p>Given the physical separation between the construction site and the businesses within the business precinct, any significant impact from unplanned power and utility interruptions is very unlikely.</p>	<p>Almost unprecedented</p>	<p>Slight negative</p>
<p>Safety and security</p> <p>Safety and security associated with the construction site is unlikely to affect any businesses north of the existing Westmead Station due to their separation from the construction site by the existing rail corridor.</p> <p>Businesses south of the construction site along Hawkesbury Road are subject to existing impacts (such as from heavy vehicles and buses) associated with being positioned on an arterial road. As such, the use of this road for heavy vehicle movements is unlikely to affect these businesses.</p>	<p>Rare</p>	<p>Neutral</p>
Potential opportunities		
<p>Increase in passing trade</p> <p>Businesses located immediately north of the existing rail corridor and south along Hawkesbury Road (the Oakes Centre) may benefit from an increase in the number of customers (construction workers), buying goods and services from retail, cafes and restaurants.</p>	<p>Possible</p>	<p>Slight positive</p>

Potential impact	Risk assessment	
	Likelihood	Significance
Redistribution of trade Some local customers could redistribute their trade towards similar locally serving businesses within other parts of the business precinct or the surrounding area which would be positive for those businesses that potentially experience an increase in trade.	Possible	Slight positive

16.7 Parramatta metro station

16.7.1 Existing environment

Local business profile

Parramatta is the second largest commercial office centre outside the Sydney CBD. The Parramatta CBD is located north of the existing Parramatta Station. Figure 16-4 shows the key business areas around the Parramatta metro station construction site, as well as the relevant destination zones for the local business profile.

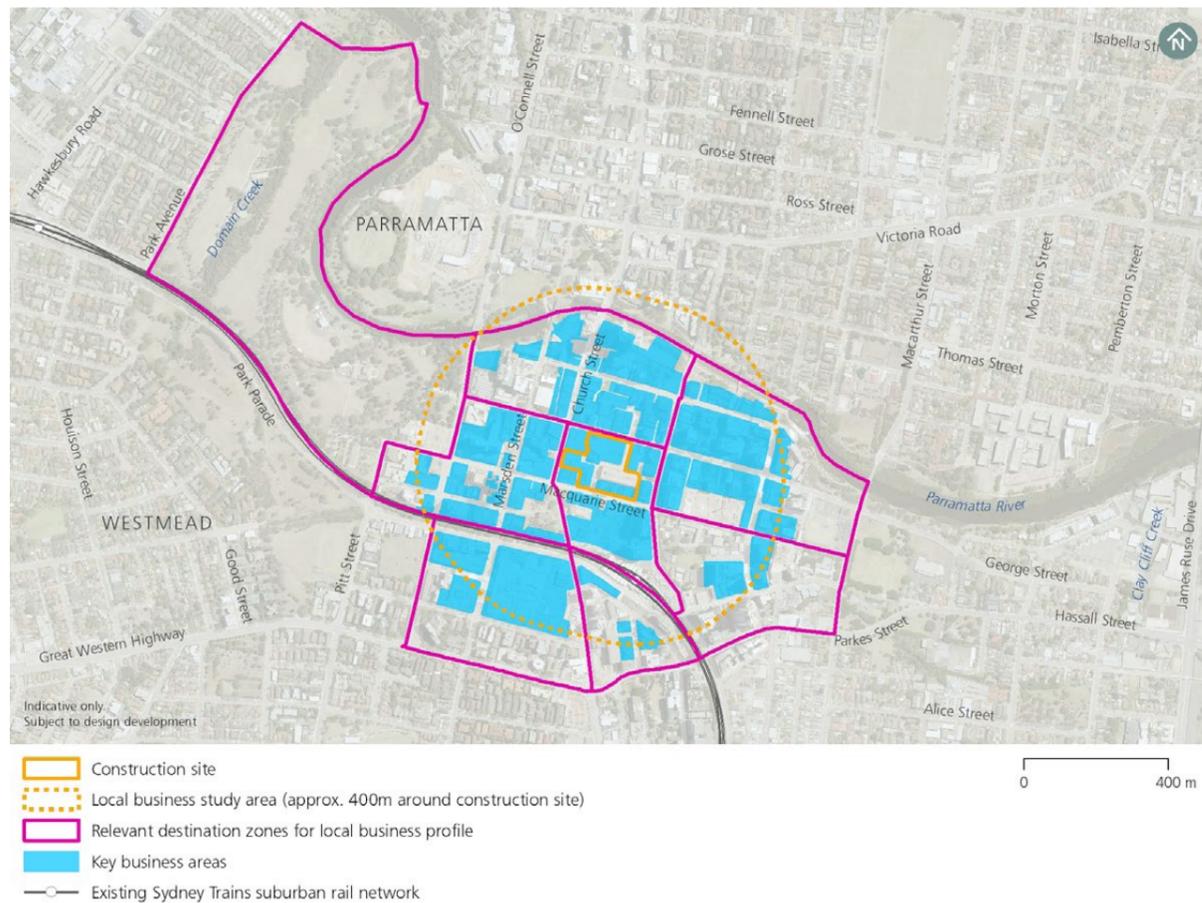


Figure 16-4: Parramatta local business study area and relevant destination zones

The Parramatta local business study area contains the Parramatta CBD, which includes a highly developed commercial core, with a wide range of commercial, retail, health, education, community and government administration uses.

Within 400 metres of the construction site businesses remain primarily involved in commercial, retail and education activities, with a number of cafes and restaurants located along the retail strips of Church Street (known as 'Eat Street') and George Street. The frontage along Macquarie Street contains more commercial office premises with businesses such as tax accountants, lawyers, real estate agents, and banks as well as health care consulting rooms and education/training premises.

In addition to the ground level retail and restaurant businesses, higher density commercial office buildings are also located around the construction site, particularly to the north-east. Westfield Shopping Centre is the largest shopping mall for Parramatta and is situated around 220 metres south of the proposed Parramatta metro station.

The large number and diverse range of businesses reflect Parramatta's status as a metropolitan centre and Sydney's second CBD.

Businesses within the proposed Parramatta metro station construction site primarily provide commercial, retail and educational/training services from two to three storey business premises. A number of cafes and restaurants, a gym and a Council owned multi storey car park are also located within the proposed construction site. Two retail shopping malls, servicing customers in the northern part of Parramatta, are located within the proposed construction site:

- Parramall Shopping Centre (55-67 George Street), includes around 30 retail businesses with a diverse range of businesses including restaurants and cafes, health and beauty, speciality shops, and business / administration services
- Greenway Plaza (222 Church Street), includes around 40 retail businesses with a diverse range of services including restaurants and cafes, health and beauty, clothing and accessories, and business / administration services.

The land use and business survey identified there are a significant number of businesses located within the construction site, and potentially up to 500 businesses within a 400 metre radius of the site as shown in Table 16-8.

Table 16-8: Businesses within the Parramatta local business study area

Impact area	Types of businesses	Approximate number of businesses
Within construction site	Commercial, retail, cafes and restaurants, education, commercially operated car park	80 to 100
Within 100 metres of the construction site	Commercial, retail, cafes and restaurants, commercial services, government administration, education	150 to 200
Between 100 and 400 metres of the construction site	Commercial, retail, commercial services, government administration, education	150 to 200

Employment

At the 2016 Census some 41,340 people were working in the destination zones relevant to the Parramatta local business study area, making it by far the largest business area along Stage 1 and reflecting the role of Parramatta as a metropolitan centre. As shown in Figure 16-5, most of these jobs were located in business services, which accounted for 15,080 jobs, the next largest sector was the 'other' sector which had some 13,600 jobs and mostly comprised jobs in public administration and safety. Jobs in the business services sector and 'other' category are primarily office jobs that provide services for businesses.

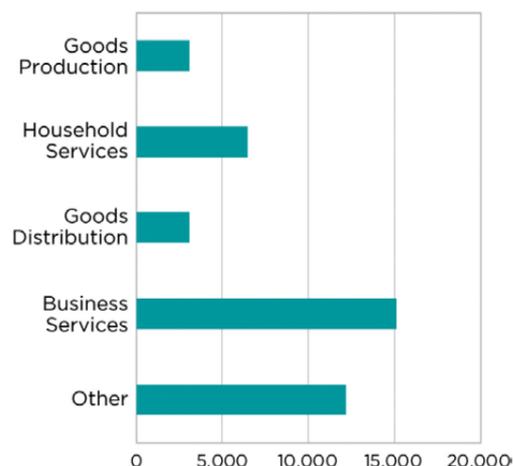


Figure 16-5: Employment by business categories - Parramatta destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

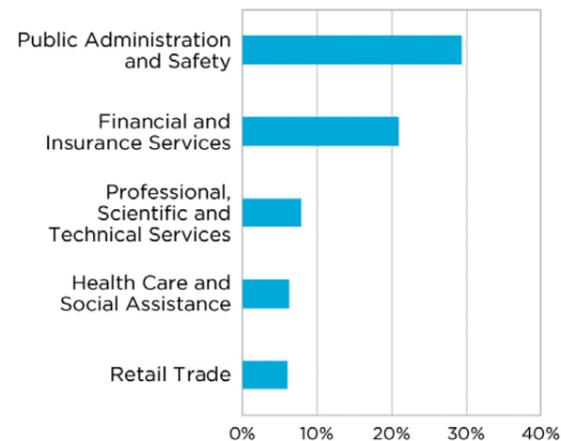


Figure 16-6: Top five industries - Parramatta destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

Figure 16-6 shows the top five industries of employment at the 2016 census including public administration and safety (29.4 per cent) and financial and insurance services (20.9 per cent), which together comprise 50 per cent of the top five industries.

Most jobs were located in the north-east of the local business study area, with retail being primarily located across a number of shopping malls, including the largest, Westfield Parramatta shopping centre, about 220 metres south of the construction site.

Travel patterns

The local business area has a strong connection to public transport, particularly via the existing Parramatta Station. As shown in Table 16-9, despite the strong connection to rail, travel via car (as a driver) is the preferred method of travel to work by local workers at 43.3 per cent with some 16,100 workers choosing this method of travel. Most workers using this method of travel worked in the north-east of the Parramatta destination zones.

Table 16-9: Top five methods of travel to work - Parramatta destination zones

Methods of travel to work	Number	Proportion
Car, as driver	16,107	43.3%
Train	13,026	35.0%
Bus	4,238	11.4%
Car, as passenger	1,664	4.5%
Walked only	1,563	4.2%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

Train was the second largest method of travel to work with 35.0 per cent of workers using this method to get to work. Workers using this mode of travel would enter and leave the area via Parramatta Railway Station and disperse to jobs in and around the construction site. The next largest method of travel to work was via bus (11.4 per cent) and travel by car as a passenger and walking, both of which recorded just over four per cent.

16.7.2 Potential impacts

An assessment of the potential impacts relevant to the Parramatta local business study area is provided in Table 16-10. Overall, the Parramatta CBD local business study area is a diverse and dynamic area with a large number of businesses, and a high capacity to absorb and adapt to construction impacts that may change the localised trading environment around the construction site.

Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-10: Parramatta - Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
<p>Temporary traffic congestion and increased travel times</p> <p>Potential temporary impacts to businesses associated with construction traffic are generally unlikely due to the diversity of employment types and availability of multiple access routes into and out of the Parramatta CBD</p> <p>The extent to which workers and customers would be affected by temporary construction works would be largely dependent on their proximity to the construction site, and whether they travel on roads that are part of the construction haul route.</p> <p>Similarly, potential temporary traffic and travel time impacts for servicing deliveries would be greatest for businesses immediately adjacent to the construction site.</p>	Unlikely	Slight negative
<p>Loss of parking</p> <p>While impacts to on-street car parking would be minimal, the Parramatta metro station construction site would require the demolition of the City Centre car park and some off-street parking spaces – a loss of about 850 parking spaces. The demolition of the City Centre car park was previously identified in the Draft Parramatta CBD Public Car Parking Strategy (City of Parramatta, 2017), which identifies measures to offset potential loss of car parking. The removal of the City Centre car park is likely to reduce convenience for employees and customers visiting businesses within the local business area in the short-term.</p>	Almost certain	Moderate negative
<p>Loss of goods and services</p> <p>Noting that a number of businesses would be directly impacted by the construction site, there are unlikely to be flow on effects to businesses throughout the local business area that rely on goods and services from some of these directly impacted businesses.</p> <p>Some businesses may need to find alternative businesses to provide goods and services. However, given the overall scale of the Parramatta CBD, it is likely that substitution by other businesses capable of providing the same goods or performing the same services would be possible, minimising overall impacts.</p>	Unlikely	Slight negative
<p>Temporary reduced local amenity</p> <p>A range of businesses near the construction site may potentially be temporarily impacted by amenity, although this would be minimised through measures such as hoardings around the site.</p> <p>Businesses potentially affected would primarily be those located closest to the construction site and those more reliant on a pleasant urban amenity. Impacts on Church Street (Eat Street) would be mitigated by the relatively small direct frontage of the construction site to Church Street, and because the construction works would generally be set back from Church Street and be carried out behind hoardings.</p>	Almost certain	Slight negative
<p>Temporary power and utility interruptions</p> <p>Given the location of the construction site in the centre of the Parramatta CBD, unplanned power and utility interruptions could potentially result in temporary impacts to surrounding business during interruptions.</p>	Unlikely	Slight negative
<p>Safety and security</p> <p>Appropriate mitigation measures including lighting, signage and hoarding to divert pedestrians and traffic safely around construction sites would be implemented as necessary so that customer/visitor patronage to local business is maintained.</p> <p>Potential temporary impacts are likely to be limited to retail and cafes and restaurants located near the construction site that would normally continue trading into the evening.</p>	Rare	Slight negative

Potential impact	Risk assessment	
	Likelihood	Significance
Potential opportunities		
Increase in passing trade Businesses located around the construction site may benefit from an increase in the number of customers as a result of construction workers buying goods and services from retail, cafes and restaurants.	Likely	Slight positive
Redistribution of trade Some local customers could redistribute their trade towards similar locally serving businesses within other parts of the local business area or the surrounding area which would be positive for those businesses that potentially experience an increase in trade.	Likely	Slight positive

16.8 Clyde stabling and maintenance facility

16.8.1 Existing environment

Local business profile

Clyde is an industrial area that straddles the M4 Western Motorway and the Great Western Highway, and is located adjacent to the Rosehill industrial area. Figure 16-7 shows the key business areas around the Clyde stabling and maintenance facility construction site, as well as the relevant destination zones for the local business profile.

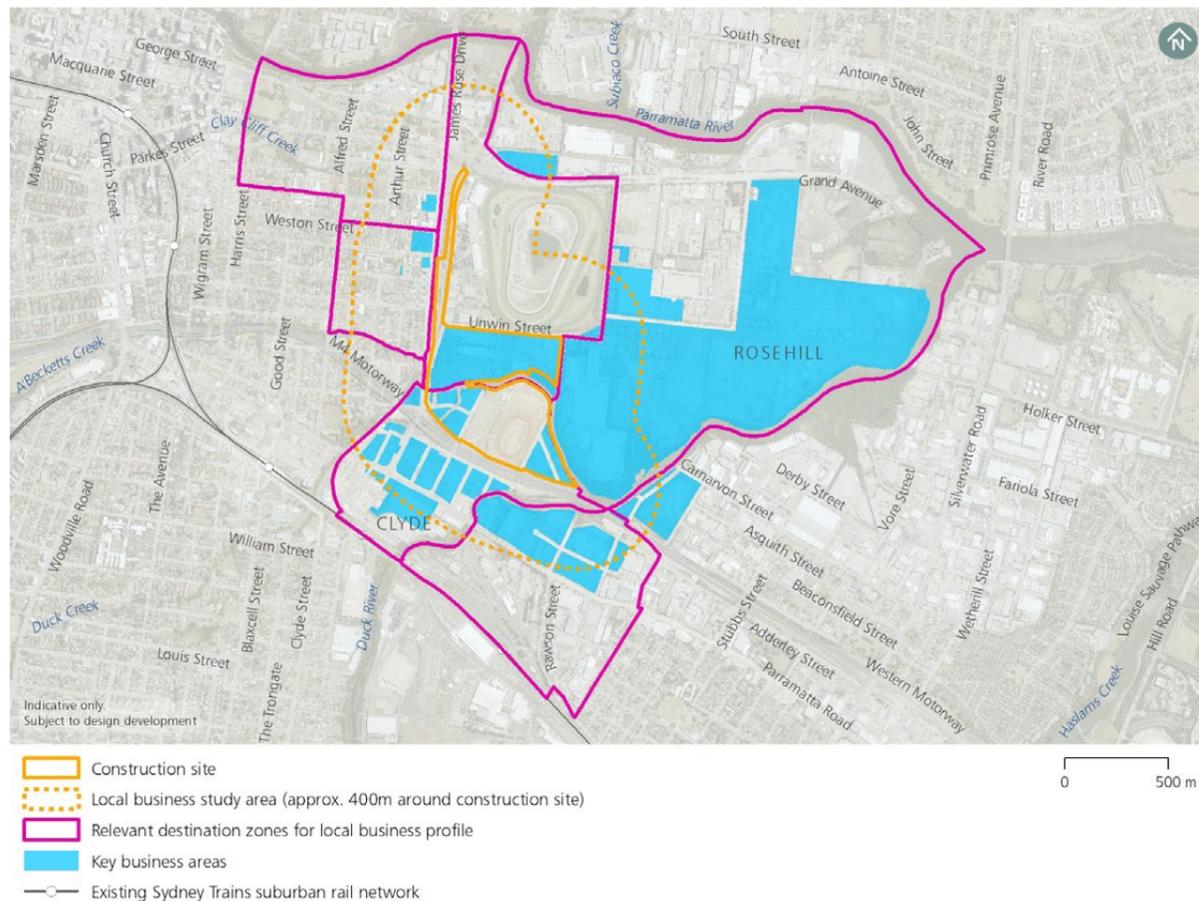


Figure 16-7: Clyde local business study area and relevant destination zones

The Clyde local business study area is primarily industrial with a large proportion of manufacturing, warehousing and industrial businesses, as identified in Table 16-11.

The northern part of the local business study area includes the Rosehill Gardens racecourse, and beyond to the future Camellia town centre, which currently contains a mix of retail outlets, light industries, urban services and warehouses. The future Camellia town centre is about 750 metres north of the construction site, and currently includes a supermarket, child care centre, and a café.

The eastern part of the local business study area is dominated by the Viva Energy Clyde and Parramatta Terminals that store and distribute fuels. North of the Viva Energy site are a number of heavier industries, including building material manufacturing and distribution facilities, and waste management facilities.

The western part of the local business study area is located to the west of James Ruse Drive, and includes several hotels and overnight accommodation that are reliant to some degree on the Rosehill Gardens racecourse, the shopping and restaurant district near the Hassall Street intersection which provide conference and event services to a broad customer base.

Businesses within the local business area are primarily destination businesses and while generally not likely to be reliant on passing trade, require access to the road network to access labour markets and customers, and to distribute goods and services.

The construction site is located across the Rosehill and Clyde industrial areas, and includes a range of businesses within the footprint, including warehouses, manufacturing facilities, urban services, and industrial or speciality retail outlets, as well as the Rosehill Heliport (Sydney Helicopters) and the Sydney Speedway (location on NSW Government owned land).

Table 16-11: Businesses within Clyde local business study area

Impact area	Types of businesses	Approximate number of businesses
Within construction site	Educational; Industrial; Arts and Recreation; Manufacturing; Retail; Warehousing; Urban Services	20 to 30
Within 100 metres of the construction site	Educational; Industrial; Arts and Recreation; Manufacturing; Retail; Warehousing	20 to 30
Between 100 and 400 metres of the construction site	Educational; Industrial; Arts and Recreation; Manufacturing; Retail; Warehousing; Childcare	10 to 20

Employment

At the 2016 census 8,530 people were employed within the destination zones relevant to the Clyde local business study area. As shown in Figure 16-8, employment within the local business study area tended to be in the goods production and goods distribution sectors, which accounted for 2,470 and 2,770 jobs respectively. Jobs in these sectors are traditionally located within industrial areas. Jobs in the household services sector were also well represented, which were primarily related to arts and recreation and other services. Recreational sector jobs are likely related to businesses providing entertainment services in association with the Rosehill Gardens racecourse.

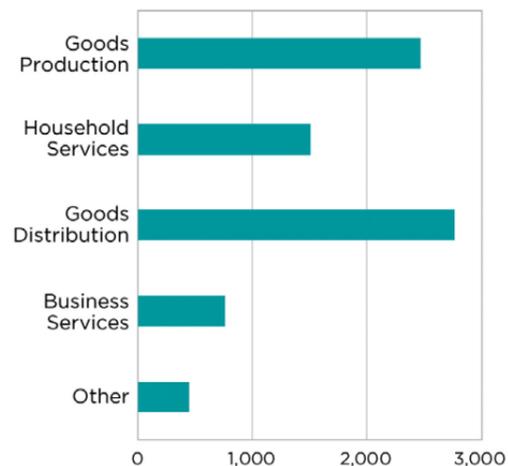


Figure 16-8: Employment by business categories – Clyde destinations zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban



Figure 16-9: Top five industries – Clyde destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

Figure 16-9 above shows the top five industries for employment within the destination zones relevant to the study area at the 2016 census which accounted for more than 50 per cent. Jobs in the construction industry had the highest share, accounting for 13.1 per cent of jobs, followed by jobs in the manufacturing industry which accounted for 12.6 per cent of jobs, and the transport, postal and warehousing industry at 11.6 per cent of jobs. Compared to other local business study areas, Clyde had a very high concentration of jobs in these industries reflecting its nature as an industrial area.

Travel patterns

As highlighted in Table 16-12 below, the Clyde local business study area had one of the highest levels of car dependency across all the study areas, with 81.5 per cent of workers travelling to work using a car (as a driver), reinforcing that businesses are highly dependent on the road network to access the labour markets. Although there were train stations within the study area (Rosehill and Camellia which closed in January 2020), only 7.5 per cent of workers use this method of travel, with most of these likely to have their place of employment near the stations. The Clyde local business study area is particularly large, and includes many areas that are a significant distance away from the former train stations, explaining the low use of train as a method of travel to work.

Table 16-12: Top five methods of travel to work – Clyde destination zones

Methods of travel to work	Number	Proportion
Car, as driver	6,469	81.5%
Train	594	7.5%
Car, as passenger	345	4.3%
Truck	134	1.7%
Bus	132	1.7%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.8.2 Potential impacts

An assessment of the potential impacts relevant to the Clyde local business study area is provided in Table 16-13. Businesses located in the future Camellia town centre area and west of James Ruse Drive are unlikely to be affected as they are well separated from the construction site.

Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-13: Clyde – Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
<p>Potential traffic congestion and increased travel times</p> <p>Potential temporary impacts to businesses associated with construction traffic would be minimised through measures such as reducing movements in network peak periods. Workers and businesses in this area already experience a congested road network during some periods of the day and the addition of construction traffic is expected to result in a relatively minor impact. Workers within the precinct are highly car dependent and temporary increases in traffic congestion and travel times around the local business area could potentially affect journey to work time. It is also expected that a high proportion of customers would access businesses within the area by car, meaning potential temporary increases in traffic congestion and travel times could also impact business accessibility.</p> <p>The Camellia peninsula is accessible by only two routes (Unwin Street and Grand Avenue), meaning businesses in the Camellia town centre, and throughout the Clyde and Rosehill industrial areas, are particularly susceptible to temporary increases in traffic congestion and travel times around the precinct, as there are no access alternatives available for workers, customers and servicing and deliveries.</p>	Likely	Slight negative
<p>Loss of goods and services</p> <p>Businesses within the construction site generally provide goods and services to a wider catchment and do not provide local business-to-business services. As such, there are unlikely to be flow on effects to other nearby businesses.</p>	Rare	Neutral
<p>Temporary reduced local amenity</p> <p>Temporary reduced amenity from noise, vibration, dust and visual impacts from construction works is unlikely to result in lower customer experience for surrounding businesses. Surrounding businesses are primarily industrial and would generally already experience comparatively lower amenity from surrounding industrial premises and existing infrastructure.</p>	Unlikely	Slight negative
<p>Temporary power and utility interruptions</p> <p>Given the large size of the construction site and the nature of surrounding businesses, unplanned power and utility interruptions could result in temporary impacts during interruptions.</p>	Unlikely	Slight negative
<p>Safety and security</p> <p>The industrial parts of the precinct already have relatively low levels of street activity and surveillance. Elsewhere, reduced business activity around the construction site is unlikely to result in any reduction in customer safety and security.</p>	Rare	Slight negative
Potential opportunities		
<p>Increase in passing trade</p> <p>Businesses may experience an increase in business trade and custom from construction workers. Local population servicing businesses such as retail and cafés and restaurants are the most likely to experience an increase in customers as a result of Stage 1 construction works.</p>	Likely	Slight positive
<p>Redistribution of trade</p> <p>Some local customers could redistribute their trade towards similar locally serving businesses within other parts of the local business study area which would be positive for those businesses that potentially experience an increase in trade.</p>	Possible	Slight positive

16.9 Silverwater services facility

16.9.1 Existing environment

Local business profile

Silverwater is an extensive industrial area generally located around Silverwater Road. Figure 16-10 shows the key business areas around the Silverwater services facility construction site, as well as the relevant destination zones for the local business profile.

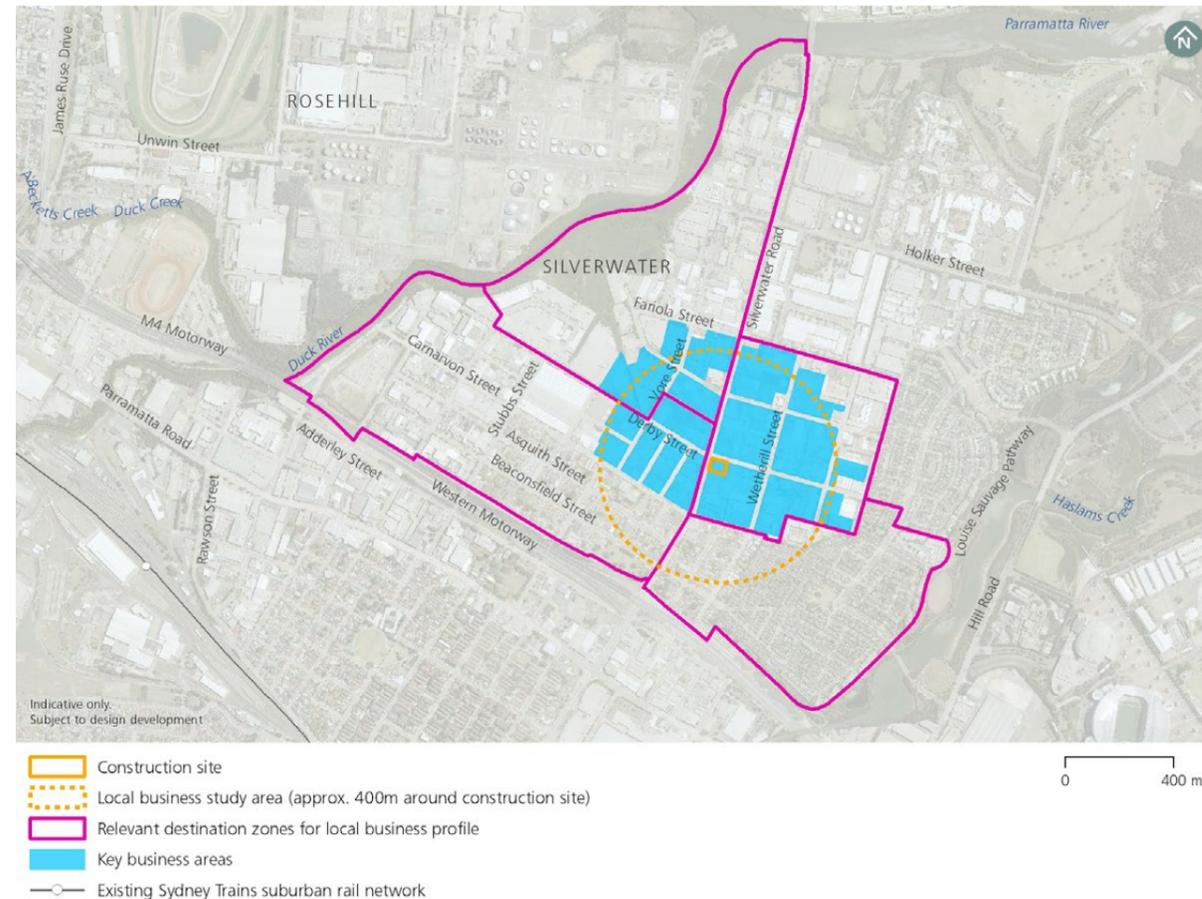


Figure 16-10: Silverwater local business study area and relevant destination zones

The Silverwater local business study area is primarily industrial with a large number of businesses specialising in manufacturing, urban services, and other industrial uses.

As highlighted in Table 16-14 below, there are no businesses currently located within the construction site footprint. However, there are a large number of businesses adjacent to the construction site and within 400 metres. Most of these businesses are industrial with a mix of manufacturing and urban services. There are also several child care services, cafes and restaurants, gyms and recreational facilities, and commercial premises within the local business area.

Table 16-14: Businesses within Silverwater local business study area

Impact area	Types of businesses	Approximate number of businesses
Within construction site	Nil	0
Within 100 metres of the construction site	Cafes and Restaurants; Child Care; Urban Services; Commercial; Manufacturing; Industrial	30 to 40
Between 100 and 400 metres from the construction site	Cafes and Restaurants; Urban Services; Commercial; Manufacturing; Industrial	20 to 30

Employment

At the 2016 census there were around 9,610 jobs within the destination zones relevant to the Silverwater local business study area. As shown in Figure 16-11, the majority of these were within the goods production sector which accounted for some 39.8 per cent (3,830) of jobs. The second largest sector was the goods distribution sector which contained 2,190 jobs. Businesses within both sectors rely on good access to the road network to access and distribute goods.

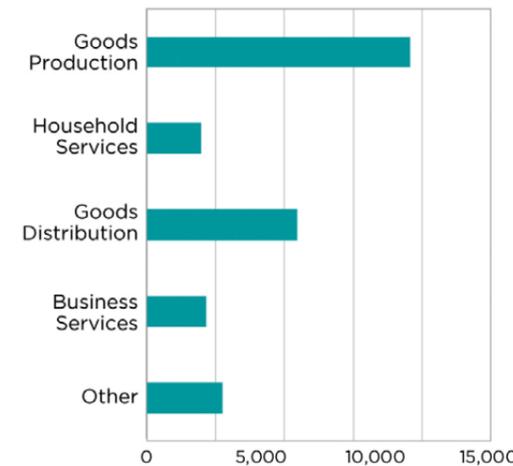


Figure 16-11: Employment by business categories – Silverwater destination zones

Source: Australian Bureau of Statistics, 2016, Ethos Urban



Figure 16-12: Top five industries – Silverwater destination zones

Source: Australian Bureau of Statistics, 2016, Ethos Urban

Figure 16-12 shows the top five industries of employment within the local business area, highlighting that there is a significant concentration of jobs within the manufacturing sector, which accounted for 22.3 per cent of all jobs in the local business area. Compared to other local business study areas, Silverwater had the highest overall share of jobs across the total from the manufacturing, construction and wholesale trade industries.

Travel patterns

As shown in Table 16-15, Silverwater is relatively well serviced by the road network, with good access to major arterial roads that lead north-south and east-west. In contrast, the local business study area is not accessible by train, and as a result, workers are highly dependent on cars to get to work, with 84.7 per cent of all journeys to work being by private motor vehicle. By comparison, only 5.4 per cent of workers used the train to get to work. Given the high levels of car use, businesses are reliant on the road network to access regional labour markets.

Table 16-15: Top five methods of travel to work – Silverwater destination zones

Methods of travel to work	Number	Proportion
Car, as driver	7,574	84.7%
Train	480	5.4%
Car, as passenger	379	4.2%
Truck	121	1.4%
Bus	135	1.5%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.9.2 Potential impacts

An assessment of the potential impacts relevant to the Silverwater local business study area is provided in Table 16-16. Impacts to businesses within the Silverwater local business study area are expected to be minimal as the construction site is relatively small and it is set within an existing industrial area.

Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-16: Silverwater – Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
<p>Temporary traffic congestion and increased travel times</p> <p>Increased congestion is not predicted with the exception of the Derby Street approach to its intersection with Silverwater Road. As there are numerous alternative access routes into this part of the industrial area, temporary traffic congestion is unlikely to impact local businesses. These impacts are further mitigated by the relatively small scale of construction works at the construction site and the short duration of works.</p> <p>Workers within the local business area are highly car dependent and potential temporary increases in traffic congestion and travel times could affect workers journey times to work. It is also expected that a high proportion of customers would access local businesses by car, meaning potential temporary increases in traffic congestion and travel times could also impact businesses. Servicing and deliveries could also be affected by potential temporary increases in traffic congestion and travel times around the precinct.</p>	Unlikely	Slight negative
<p>Temporary reduced local amenity</p> <p>Temporary reduced amenity is not expected to impact surrounding businesses. Businesses currently experience amenity levels consistent with an industrial area which could include comparatively higher levels of noise, vibration, dust and visual impacts from surrounding premises.</p>	Rare	Neutral
<p>Temporary power and utility interruptions</p> <p>Unplanned power and utility interruptions could result in temporary impacts during interruptions.</p>	Unlikely	Slight negative
<p>Safety and security</p> <p>The business area already has a relatively low level of street activity and surveillance. Further, surrounding businesses are not expected to generate night-time pedestrian activity.</p>	Rare	Slight negative
Potential opportunities		
<p>Increase in passing trade</p> <p>Businesses may experience an increase in business trade and customers from construction workers. Local population servicing businesses such as retail, cafés and restaurants are the most likely to experience an increase in customers as a result of Stage 1 construction works.</p>	Likely	Slight positive

16.10 Sydney Olympic Park metro station

16.10.1 Existing environment

Local business profile

The main business area is located south of the existing Sydney Olympic Park Station. Figure 16-13 shows the key business areas around the Sydney Olympic Park metro station construction site services facility, as well as the relevant destination zones for the local business profile.



Figure 16-13: Sydney Olympic Park local business study area and relevant destination zones

The Sydney Olympic Park local business study area has a diverse mix of commercial, education, tourism, hotel and retail uses, with some cafes and restaurants.

Businesses located within the local business study area also include a range of commercial businesses, education and technical engineering businesses. Reflecting the surrounding context of Sydney Olympic Park, many of the commercial offices are sports related organisations and businesses. Within the local business study area, Sydney Olympic Park has low-rise commercial office buildings and generally provides campus style commercial office space for a range of large businesses.

The northern part of the local business study area, near Dawn Fraser Avenue contains the main retail areas and includes a convenience store, retail, cafes and restaurants. The western part of the study area contains several large hotels. Hotels, cafes and restaurants are mostly aimed at serving the needs of patrons attending major sporting and entertainment events, at which time there is also a range of temporary or mobile business facilities (e.g. mobile food outlets) present in the local business area.

The Sydney Olympic Park metro station construction site is located south of the existing Olympic Park Station, and generally within the commercial part of the local business study area. The construction site contains three large warehouse style buildings used for commercial and educational purposes.

Table 16-17 below highlights the existing types of businesses within the local business study area.

Table 16-17: Businesses within the Sydney Olympic Park metro station local business study area

Impact area	Types of businesses	Approximate number of businesses
Within construction site	Commercial, education	10 to 20
Within 100 metres of the construction site	Commercial, education, retail, hotels, cafes and restaurants	20 to 30
Between 100 and 400 metres of the construction site	Commercial, education, retail, hotels, cafes and restaurants	50 to 80

Employment

Sydney Olympic Park is a known sports and events precinct with associated commercial/office facilities and food and retail services. There are also hotels to cater for the visitors to sporting and other events. Sydney Olympic Park is therefore characterised by a diverse mix of employment uses.

At the 2016 Census about 9,800 people were employed within the destination zones relevant to the Sydney Olympic Park local business study area, making it a relatively large business area. As shown in Figure 16-14, a high number of these workers (4,830 jobs) were employed in business services, accounting for almost 50 per cent of all jobs. Workers in these jobs are likely to be drawn to working in Sydney Olympic Park due to the convenience of getting to work and the campus style office building accommodation.

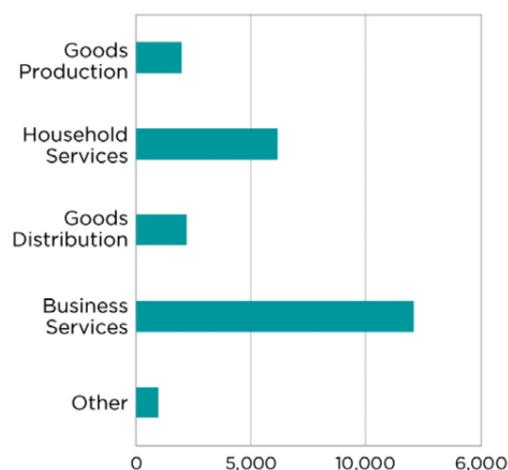


Figure 16-14: Employment by business categories – Sydney Olympic Park destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

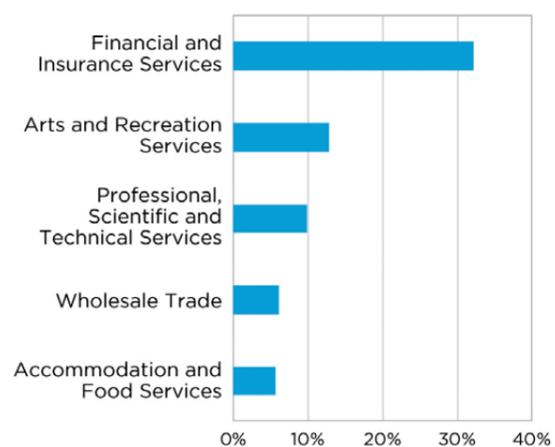


Figure 16-15: Top five industries – Sydney Olympic Park destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

The largest employers are financial and insurance services (3,170 jobs) and arts and recreation services (1,270 jobs), which are primarily associated with the sporting and event functions (see Figure 16-15). The contrast between the two largest industries is reflective of the mixed-use nature of the local business study area.

Travel patterns

As shown in Table 16-18, the highest proportion of commuters travel to work by car (as a driver) with about 57.9 per cent of the local workforce, (5,710 workers), preferring this method of travel. Public transport accounted for the second and third greatest mode of travel to work with 2,160 workers choosing to travel by train and 431 using the bus. Commuters are more likely to use public transport when their travel is related to attending major sporting and entertainment events.

As the local business study area is not well connected to surrounding residential areas, mainly due to barriers associated with sporting stadia and facilities, arterial roads (e.g. Homebush Bay Drive and the Western Freeway), and waterways, only a small proportion of the local workforce choose walking as the preferred mode of travel to work (139 people).

Table 16-18: Top five methods of travel to work – Sydney Olympic Park destination zones

Methods of travel to work	Number	Proportion
Car, as driver	5,709	63.7%
Train	2,160	24.1%
Bus	431	4.8%
Car, as passenger	324	3.6%
Walked only	139	1.6%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.10.2 Potential impacts

An assessment of the potential impacts relevant to the Sydney Olympic Park local business study area is provided in Table 16-19. Overall, the highly specialised nature of Sydney Olympic Park indicates that most of the businesses should be more resilient to construction impacts, as customers are attracted by destination businesses serving a wider regional catchment, or for major events and sporting activities. Sydney Metro would work with the Department of Planning, Industry and Environment in relation to managing construction impacts during major events throughout the precinct. As such, temporary or mobile businesses associated with major events would generally not be impacted.

Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-19: Sydney Olympic Park – Local business impact matrix

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
Temporary traffic congestion and increased travel times Businesses within the local business study area are familiar with operating in the context of major events and therefore may be capable of absorbing changes in vehicle movements associated with Stage 1 construction. Events would continue to be a major attraction for customers and it is anticipated that any temporary increase in traffic congestion and travel times would not affect the numbers of customers accessing local businesses during these events. Workers are highly car dependent and potential temporary increases in traffic congestion and travel times around the precinct could affect workers journey to work time. Servicing and deliveries could also be affected by temporary increases in traffic congestion and travel times around the construction site.	Rare	Slight negative
Loss of goods and services The types of businesses within the construction site footprint do not generally provide goods and services to other local businesses within the precinct. As such, businesses within the local business precinct are unlikely to need to find alternative goods and services providers.	Unlikely	Neutral
Temporary reduced local amenity A range of businesses near the construction site may be temporarily impacted by amenity although this would be minimised through measures such as hoardings around the site and acoustic sheds. Businesses potentially affected would primarily be those located closest to the construction site and those more reliant on a pleasant urban amenity.	Likely	Slight negative
Temporary power and utility interruptions Unplanned power and utility interruptions could result in temporary impacts during interruptions.	Unlikely	Slight negative
Safety and security Appropriate mitigation measures including lighting, signage and hoarding to divert pedestrians and traffic safely around construction sites would be implemented as necessary so that customer/visitor patronage to local business is maintained. Temporary impacts are likely to be limited to a small number of cafes and restaurants located near the intersection of Showground Road and Dawn Fraser Avenue that would normally continue trading into the evening. However, these businesses are all connected to the hotels and much of their trade would either be event based or linked to hotel patronage, reducing the likelihood of impacts.	Rare	Slight negative
Potential opportunities		
Increase in passing trade Shops, cafés and restaurants are most likely to experience an increase in customers as a result of Stage 1 construction works.	Likely	Slight positive
Redistribution of trade Directly impacted businesses are not local population serving in nature, meaning that surrounding businesses are unlikely to benefit by providing comparable goods and services.	Rare	Slight positive

16.11 North Strathfield metro station

16.11.1 Existing environment

Local business profile

North Strathfield has a number of business areas, generally located along the existing rail line and Concord Road. Figure 16-16 shows the key business areas around the North Strathfield metro station construction site, as well as the relevant destination zones for the local business profile.

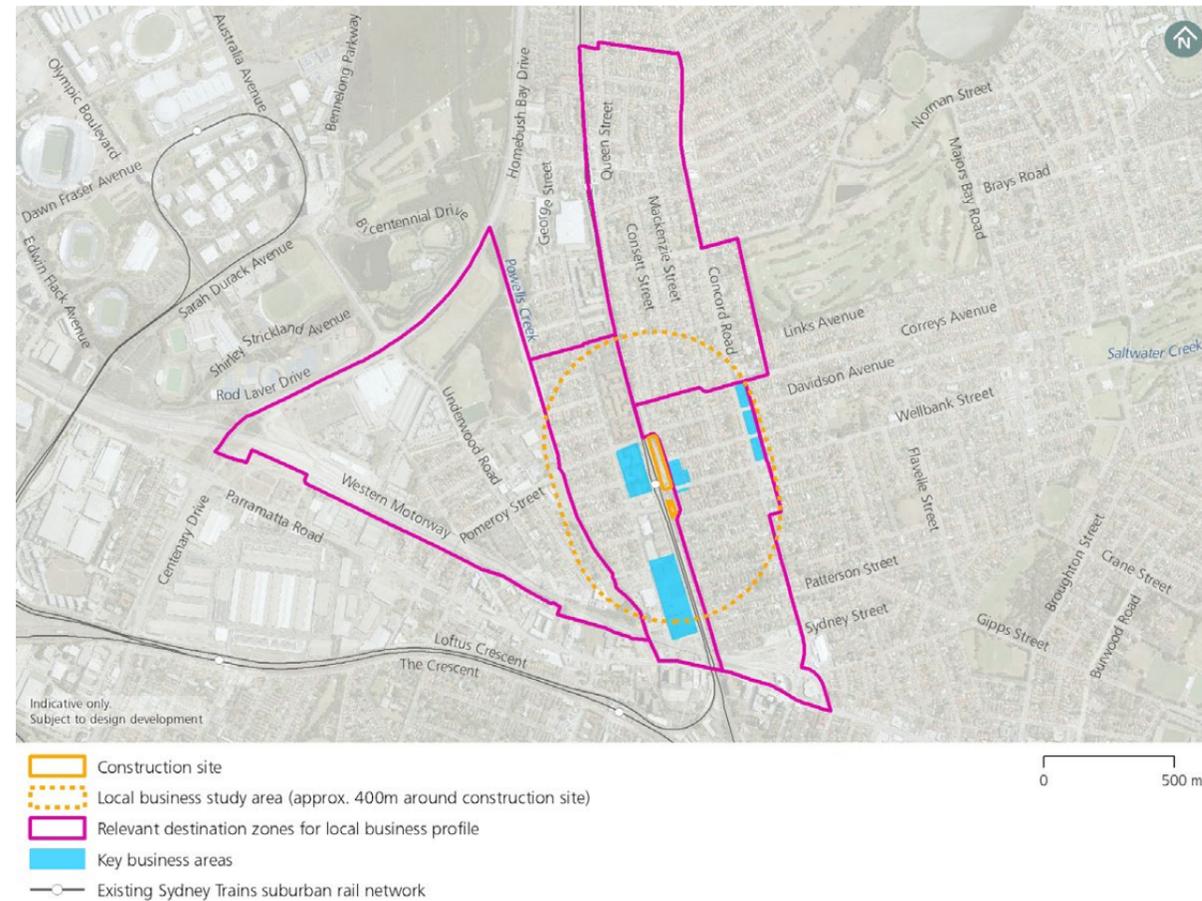


Figure 16-16: North Strathfield local business study area and relevant destination zones

The North Strathfield local business study area contains a mix of commercial, retail, education, health, cafes and restaurants across a number of business areas.

Several businesses are located along the eastern side of Queen Street, which comprises a local shopping area with a mix of local commercial services, health consulting rooms, shops and cafes.

A larger more varied neighbourhood shopping district is located along the eastern side of Concord Road, about 350 metres east of the North Strathfield metro station construction site. This retail strip provides a more diverse range of local population serving businesses, including a large number of restaurants, a petrol station, supermarket, and veterinary hospital.

About 150 metres to the south-west, located on George Street on the western side of the rail corridor, is a predominantly educational area also comprising a small local supermarket, a gym, and child care centres. Further south-west along George Street about 400 metres from the construction site is the Bakehouse Quarter, a mixed use area including offices, retail, cafes and restaurants, and entertainment venues.

There are no businesses within the construction footprint, although it is located directly opposite businesses along Queen Street.

Table 16-20 highlights the existing types of businesses within the North Strathfield local business study area.

Table 16-20: Businesses within North Strathfield local business study area

Impact classification	Types of businesses	Approximate number of businesses
Within construction site	Nil	0
Within 100 metres of the construction site	Commercial, retail, education, cafes and restaurants	20 to 30
Between 100 and 400 metres of the construction site	Commercial, retail, education, cafes and restaurants	60 to 90

Employment

The North Strathfield local business study area contains a diverse mix of employment uses in terms of both industry and building use.

The eastern side of the study area is characterised by small businesses associated with food and beverage, retail and local commercial services, while land to the west is occupied by the McDonald College and surrounding educational facilities, which is situated directly adjacent to the existing North Strathfield Station. The wider area is mainly residential, with the employment figures reflecting this mix of uses focused on local population serving businesses.

At the 2016 Census about 5,500 people were employed within the destination zones relevant to the North Strathfield local business study area, making it moderately sized. As highlighted in Figure 16-17, employment within the local business study area is fairly evenly distributed across sectors, with the two largest sectors being household services and goods distribution. Together these sectors make up over 60 per cent of all jobs with 1,660 and 1,650 jobs respectively at the 2016 census. A number of the jobs within the household sector were in other services, which includes a broad range of personal services; religious, civic, professional and other interest group services; selected repair and maintenance activities; and private households employing staff.

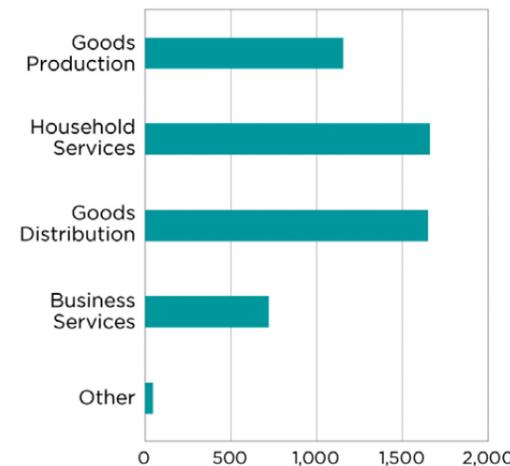


Figure 16-17: Employment by business categories – North Strathfield destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

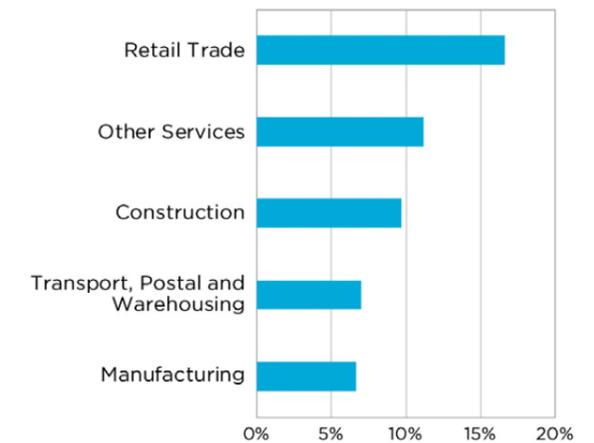


Figure 16-18: Top five industries – North Strathfield destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

Retail trade employed a total of 920 workers while other services accounted for some 617 workers, representing the two largest employing industries in the study area. As shown in Figure 16-18, manufacturing, construction and transport, postal and warehouse services complete the top five employment industries within the local business study area.

These prominent industries reflect the role of North Strathfield as a predominantly residential area supported by a local centre and small businesses that serve the surrounding community.

Travel patterns

Table 16-21 shows the method of travel to work for people employed in the North Strathfield local business study area. The local business area is within walking distance to the existing North Strathfield and Concord West stations, both of which provide connections to the Sydney CBD, North Shore and Parramatta. Despite this, only 784 commuters choose to use the train as the preferred method of transport to work, accounting for 14.2 per cent of all commuters.

There are existing bus services throughout the local business study area, however only a small portion of workers choose these services as the preferred method of travel to work (2.1 per cent).

North Strathfield local business study area is also well connected by major arterial roads such as the M4 Western Motorway, allowing easy access by car. Accordingly, travelling to work by car as a driver and/or as a passenger represents the preferred method of travel for 68.5 per cent of work trips. This use of private transport indicates the existing public transport system (both bus and train) does not meet the needs of workers in local businesses.

Table 16-21: Top five methods of travel to work – North Strathfield destination zones

Methods of travel to work	Number	Proportion
Car, as driver	3,593	71.9%
Train	784	15.7%
Bus	201	4.0%
Car, as passenger	170	3.4%
Walked only	116	2.3%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.11.2 Potential impacts

An assessment of the potential impacts relevant to the North Strathfield local business study area is provided in Table 16-22. The construction site is unlikely to result in reduced customers or passing trade for surrounding Queen Street businesses. Business on Concord Road and the Bakehouse Quarter are unlikely to be affected as they are well separated from the construction site.

Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-22: North Strathfield – Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
Temporary traffic congestion and increased travel times Traffic and travel time impacts are not predicted around key business areas within the local business study area.	Rare	Slight negative
Temporary loss of parking Spare capacity on nearby streets would be used to accommodate as many as possible of the 20 on-street parking spaces (time-restricted to one or two hours) which would be temporarily lost during construction on the western side of Queen Street between Wellbank Street and Pomeroy Street. Some of these spaces are likely to be currently used by customers of businesses on Queen Street. This would temporarily affect convenience of and access to businesses on Queen Street.	Likely	Slight negative
Temporary reduced local amenity Potential noise, vibration, dust and visual impacts from construction works may temporarily result in reduced local amenity for some businesses along Queen Street although this would be minimised through measures such as hoardings around the site. Businesses closest to the construction site would be the most affected, particularly businesses such as cafes that are more reliant on a pleasant local urban amenity.	Likely	Slight negative
Temporary power and utility interruptions Unplanned power and utility interruptions could result in temporary impacts during interruptions.	Unlikely	Slight negative
Safety and security Safety and security associated with the construction site is unlikely to affect any businesses on Queen Street or further afield due to their separation from the construction site.	Rare	Slight negative
Potential opportunities		
Increase in passing trade Businesses along Queen Street may benefit from an increase in the number of customers from construction workers on site, including retail and cafes.	Possible	Slight positive

16.12 Burwood North Station

16.12.1 Existing environment

Local business profile

The main business areas around Burwood North are focussed around the Parramatta Road corridor. Figure 16-19 shows the key business areas around the Burwood North Station construction site, as well as the relevant destination zones for the local business profile.

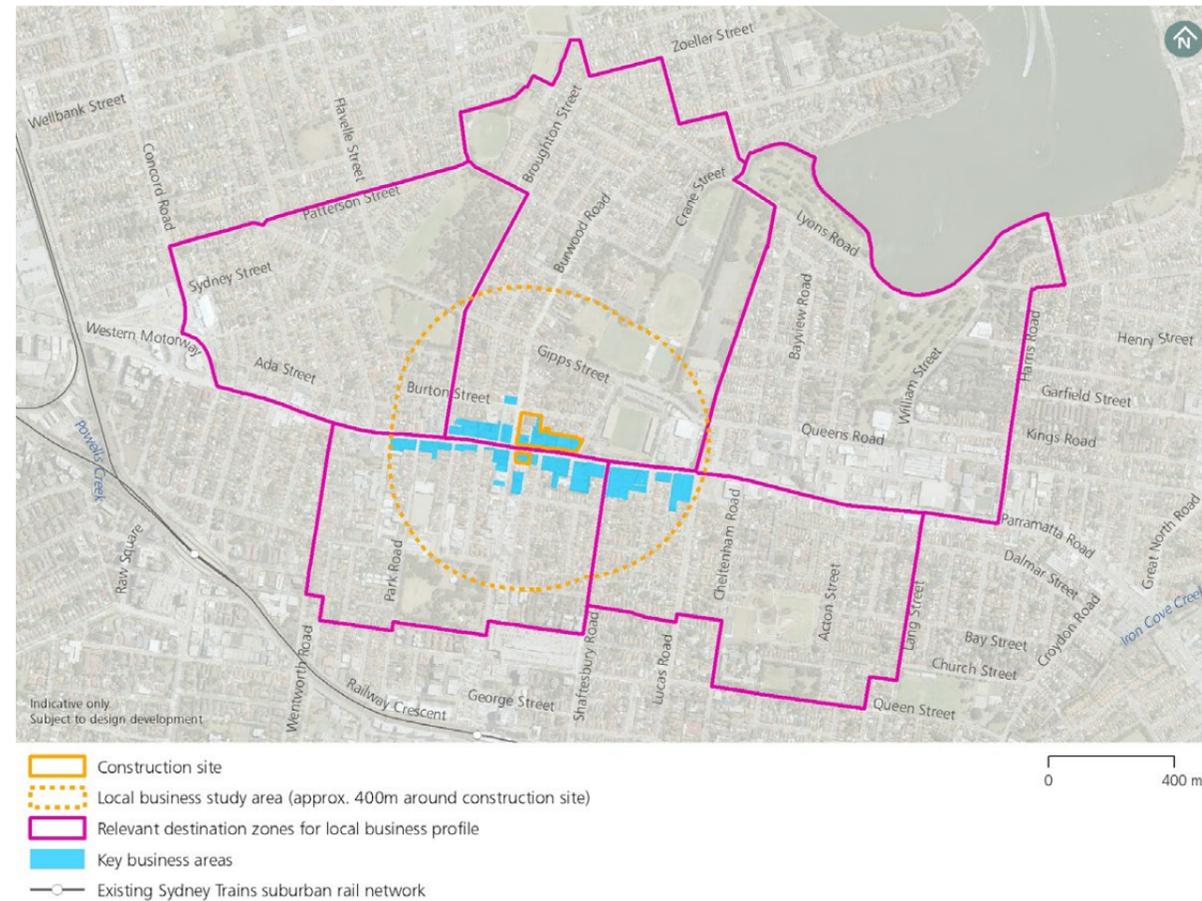


Figure 16-19: Burwood North local business study area and relevant destination zones

The Burwood North local business study area provides for a wide range of businesses including retail, motor repairs and showrooms, light industries, industrial retail outlets, commercial offices, cafes and restaurants. This diversity of businesses is generally continued along Parramatta Road and Burwood Road, which are attractive locations for business operators due to the high level of exposure to passing traffic.

The Burwood North Station construction site is reflective of this diversity with a number of businesses located within the footprint, comprising health and education related businesses, automotive, construction and business services, as well as a hotel, cafes and restaurants.

Table 16-23 highlights the existing types of businesses within the local business study area, identifying those that would be directly affected by the proposed construction works, and those near the construction site.

Table 16-23: Businesses within Burwood North local business study area

Impact area	Types of businesses	Approximate number of businesses
Within construction site	Commercial, automotive, retail, education, health, cafes and restaurants	20 to 30
Within 100 metres of the construction site	Commercial, retail, education, health, cafes and restaurants	30 to 50
Between 100 and 400 metres of the construction site	Health, commercial, retail, education, health, cafes and restaurants	20 to 40

Employment

At the 2016 census about 5,230 jobs were located within the destination zones relevant to the Burwood North local business study area. As shown in Figure 16-20, the majority of these jobs are in household services, which include jobs in the education and health care industries.

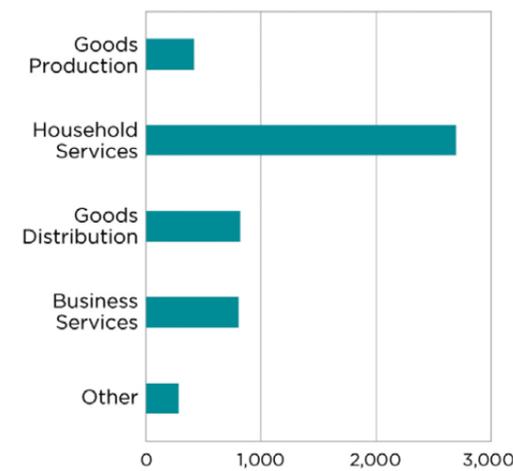


Figure 16-20: Employment by business categories – Burwood North destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

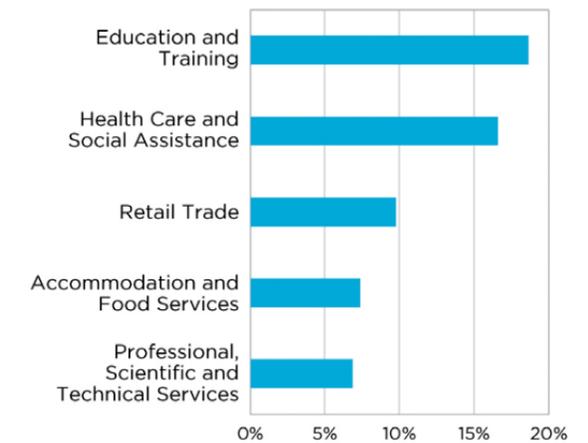


Figure 16-21: Top five industries – Burwood North destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

The top five industries of employment in the local business study area are shown in Figure 16-6. Education and training is the highest employing industry in the precinct, accounting for 18.6 per cent of total employment, followed by health care and social assistance (16.6 per cent). Retail trade, accommodation and food services and professional, scientific and technical services are also prominent employing industries in the local business area.

Travel patterns

As shown in Table 16-24, workers within the destination zones relevant to the Burwood North local business study area were highly dependent on cars to get to work. At the 2016 census, 69.5 per cent of workers used a car (as a driver) to get to work, this proportion was high compared to some of the other local business study areas. Major arterial roads including Parramatta Road and Liverpool Road provide good connections to labour markets and support the use of car as a method of travel. While the local business study area does not have a train station located within, travel by train was the second highest recorded method of travel to work (687 people or 14.9 per cent of all commutes). This percentage reflects the relatively close proximity of the study area to existing train stations at Strathfield and Burwood. Bus travel was the third most popular method of travel, however this only accounted for 230 or 5.0 per cent of commutes to work.

Table 16-24: Top five methods of travel to work – Burwood North destination zones

Methods of travel to work	Number	Proportion
Car, as driver	3,214	69.5%
Train	687	14.9%
Bus	230	5.0%
Car, as passenger	197	4.3%
Walked only	171	3.7%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.12.2 Potential impacts

An assessment of the potential impacts relevant to the Burwood North local business study area is provided in Table 16-25. Overall, the nature of the businesses within the Burwood North local business study area and the existing environment suggests that most of the businesses would be more resilient to construction impacts.

Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-25: Burwood North – Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
<p>Temporary traffic congestion and increased travel times</p> <p>Businesses in this location are generally situated along major regional roads such as Parramatta Road and Burwood Road. Businesses along these corridors would be accustomed to large volumes of traffic and traffic congestion. As such, potential temporary increases in traffic congestion and travel times would not be expected to affect the numbers of customers accessing businesses within the local business study area.</p>	Unlikely	Slight negative
<p>Temporary loss of parking</p> <p>About six time-restricted on-street parking spaces would be temporarily removed on the western side of Loftus Street adjacent to the Burwood North Station northern construction site boundary. Impacts would be minimal given the location and low number of lost parking spaces, and the availability of parking on nearby streets.</p>	Unlikely	Slight negative
<p>Loss of goods and services</p> <p>Remaining businesses within the precinct are unlikely to need to find alternative providers of goods and services. The types of businesses within the construction site are destination businesses servicing a wider catchment or local household services and are unlikely to provide goods and services to local businesses within the study area.</p>	Unlikely	Slight negative
<p>Temporary reduced local amenity</p> <p>Impacts to businesses from temporary reduced amenity are unlikely. Nearby businesses are generally located on Burwood Road and Parramatta Road which are already subject to reduced amenity from being located on busy major roads, and would mostly be separated from the construction site by existing roads. Most of these businesses are also generally not of a type that are dependent on urban amenity.</p>	Unlikely	Slight negative
<p>Temporary power and utility interruptions</p> <p>Unplanned power and utility interruptions could result in temporary impacts during interruptions.</p>	Unlikely	Slight negative

Potential impact	Risk assessment	
	Likelihood	Significance
<p>Safety and security</p> <p>The business area, particularly along Parramatta Road, already has a relatively low level of street activity. Further, surrounding businesses are not expected to generate night-time pedestrian activity.</p>	Unlikely	Slight negative
Potential opportunities		
<p>Increase in passing trade</p> <p>Local population servicing businesses such as retail and cafés and restaurants are the most likely to experience an increase in customers as a result of Stage 1 construction works.</p>	Likely	Slight positive
<p>Redistribution of trade</p> <p>Some local customers may redistribute their trade towards similar locally serving businesses within other parts of the business precinct or the surrounding area.</p>	Possible	Slight positive

16.13 Five Dock Station

16.13.1 Existing environment

Local business profile

The main business areas around Five Dock are generally located within the Five Dock town centre, extends along Great North Road. Figure 16-22 shows the key business areas around the Five Dock Station construction site, as well as the relevant destination zones for the local business profile.



Figure 16-22: Five Dock local business study area and relevant destination zones

The Five Dock local business study area provides a wide range of local businesses offering goods and services to the local community, including retail, health, education, banks, commercial offices, cafes and restaurants.

The Five Dock Station construction site is located in the middle of the Five Dock town centre, and the footprint includes a cafe, a gym, a pharmacy, a bank, and retail, education and commercial office premises. Table 16-26 highlights the existing business types in the local business study area.

Table 16-26: Businesses within Five Dock local business study area

Impact area	Types of businesses impacted	Approximate Number of Businesses
Within construction site	Retail, commercial services, educational, health	10 to 20
Within 100 metres of the construction site	Retail, commercial services, educational, health	80 to 120
Between 100 and 400 metres of the construction site	Retail, commercial services, educational, health	100 to 150

Employment

At the 2016 census around 3,060 jobs were located within the destination zones relevant to the Five Dock local business study area, making it relatively small. As shown in Figure 16-23 about 44.1 per cent of these jobs were in the household services sector, with a large number of these jobs associated with the provision of health care services.

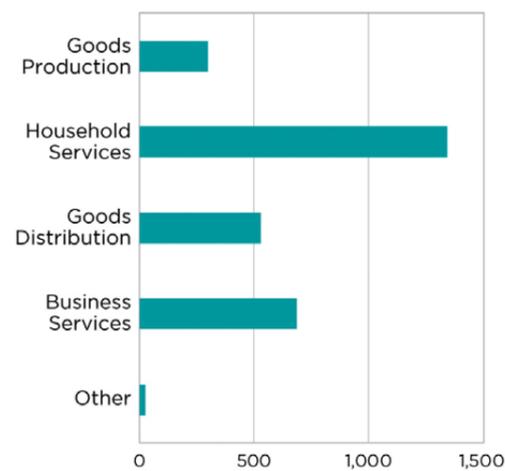


Figure 16-23: Employment by business categories – Five Dock destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

Jobs within the local business study area are evenly distributed across a range of industries, with no particular industry recording a dominant concentration of jobs as illustrated in Figure 16-24. Health care and social assistance accounted for the highest number of jobs in the local business study area with a total of 498 employing jobs, representing 16.3 per cent of the total jobs. This is followed by retail trade and professional, scientific and technical services which accounted for 364 and 322 jobs respectively.

Travel patterns

As shown in Table 16-27, travel patterns recorded in the 2016 census indicate that workers within the local business study area are highly dependent on car (as a driver) as the main method of travelling to work. Around 1,960 workers travelled to jobs within the local business area by private vehicle, accounting for 75.7 per cent of all travel to work. Other methods of travel to work were quite low, with train and bus only recording 6.4 and 6.3 per cent of all methods of travel to work (respectively), and walking only 4.4 per cent.

Table 16-27: Top five methods of travel to work – Five Dock destination zones

Methods of travel to work	Number	Proportion
Car, as driver	1,963	75.7%
Train	166	6.4%
Bus	164	6.3%
Car, as passenger	144	5.6%
Walked only	114	4.4%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.13.2 Potential impacts

An assessment of the potential impacts relevant to the Five Dock local business study area is provided in Table 16-28. Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-28: Five Dock – Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
Temporary traffic congestion and increased travel times Potential temporary impacts to businesses associated with construction traffic would be minimised through measures such as reducing movements in network peak periods. Temporary increases in traffic congestion and travel times could affect workers journey to work times. Servicing and deliveries for businesses within the local business area may also be affected by temporary increases in traffic congestion and travel times around the precinct.	Likely	Slight negative
Loss of parking Around 12 on-street parking spaces may be temporarily removed along Great North Road to the north of Fred Kelly Place, adjacent to the Five Dock Station western construction site. The Five Dock Station eastern construction site would involve permanent removal of an off-street parking area (about 12 parking spaces) accessed via Second Avenue and the temporary removal of about 10 on-street parking spaces near the site access and egress points along Waterview Street (unrestricted parking) and Second Avenue (time-restricted parking). The loss of parking could reduce convenience for some customers visiting businesses within the business precinct.	Almost certain	Slight negative
Loss of goods and services Some local businesses may need to find alternative providers of goods and services, which are likely to be available in the local area.	Likely	Slight negative
Temporary reduced local amenity Businesses located close to the construction site may temporarily experience reduced amenity although this would be minimised through measures such as hoardings around the site and acoustic sheds. As a local neighbourhood centre, amenity is an important attribute for some local businesses particularly the nearby childcare, library, church, and cafes and restaurants around Fred Kelly Place. Further assessment of these potential impacts is provided in Chapter 16 (Social impacts – Stage 1).	Almost certain	Moderate negative
Temporary power and utility interruptions Unplanned power and utility interruptions could result in temporary impacts during interruptions.	Unlikely	Slight negative

Potential impact	Risk assessment	
	Likelihood	Significance
Safety and security Appropriate mitigation measures including lighting, signage and hoarding to divert pedestrians and traffic safely around construction sites would be implemented as necessary so that customer/visitor patronage to local business is maintained.	Unlikely	Slight negative
Potential opportunities		
Increase in passing trade Local population servicing businesses such as retail and cafés and restaurants located close to the construction site are the most likely to experience an increase in customers as a result of Stage 1 construction works.	Possible	Slight positive
Redistribution of trade Some local customers may redistribute their trade towards similar locally serving businesses within other parts of the business precinct or the surrounding area.	Unlikely	Slight positive

16.14 The Bays Station

16.14.1 Existing environment

Local business profile

Business areas around The Bays are dominated by the Glebe Island and White Bay Port, but also include industrial areas adjoining the port, and retail areas along Victoria Road and Darling Street. Figure 16-25 shows the key business areas around The Bays Station construction site, as well as the relevant destination zones for the local business profile.

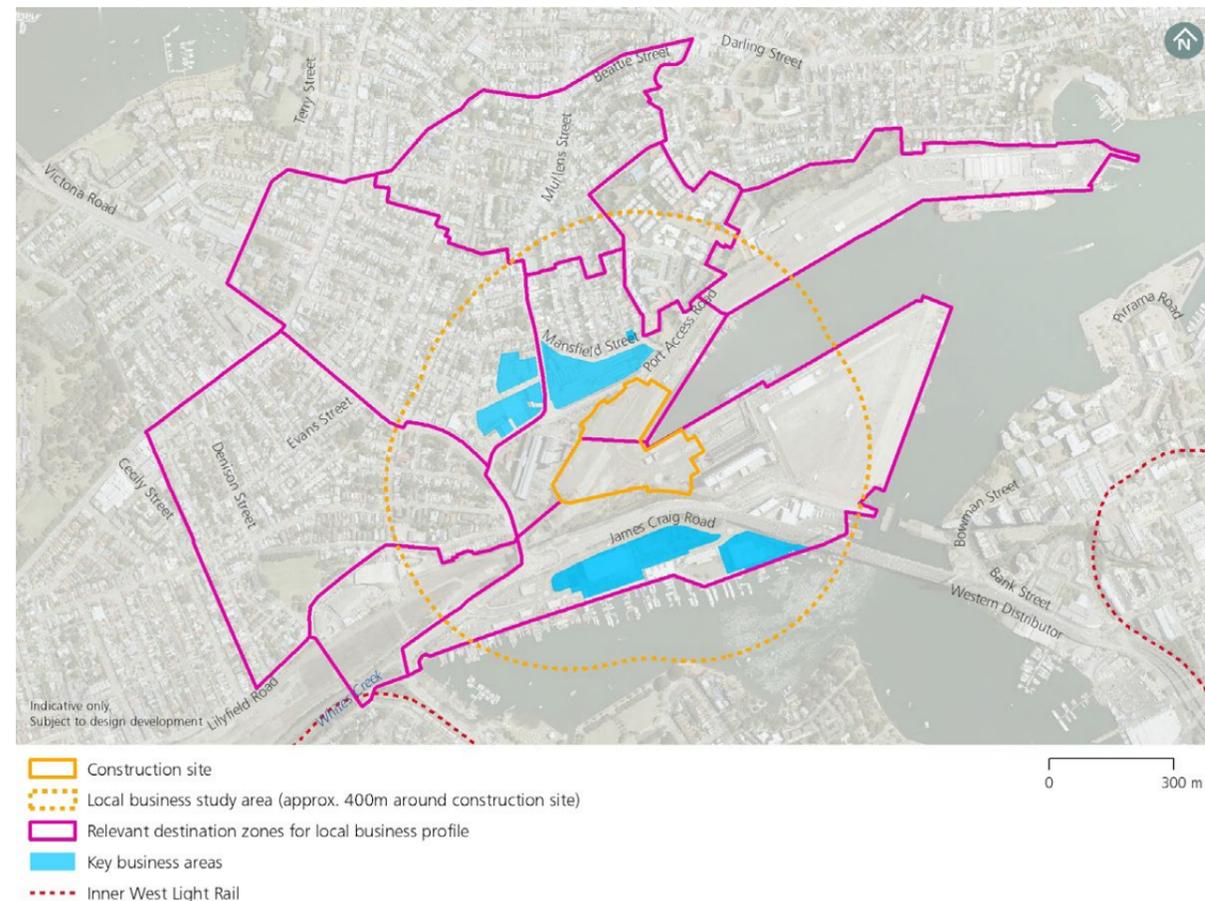


Figure 16-25: The Bays local business study area and relevant destination zones

The Bays local business study area contains a range of businesses that include retail, commercial, or industrial. In the southern part of the local business study area is the Sydney Boathouse and Rozelle Bay marina supporting a range of businesses that provide boat and marine services.

In the northern part of the local business study area businesses generally comprise urban services and light industries within the existing warehouse buildings along Robert Street and Mullens Street, Rozelle. These existing warehouse buildings extend from immediately opposite the site at Robert Street to approximately 300 metres to the north-west. Businesses in this part of the study area include a pub, gyms, a church, specialised retail outlets and wholesale. More broadly, a large number of retail and commercial businesses are located along Victoria Road and Darling Street, to the site's north-west.

The eastern part of the local business study area contains the port related businesses associated with White Bay and Glebe Island Port, including the Cement Australia and Sugar Australia facilities operation from the Glebe Island Silos.

Table 16-29 below highlights the existing types of businesses within 400 metres of the construction site. The Bays Station construction site is located within the Glebe Island and White Bay Port, but would occupy land that is not currently leased for port related development.

Table 16-29: Businesses within The Bays local business study area

Impact area	Types of businesses	Approximate number of businesses
Within construction site	Nil	0
Within 100 metres of the construction site	Commercial; Retail; Wholesale; Industrial; Port	20 to 30
Between 100 and 400 metres of the construction site	Commercial; Retail; Wholesale; Industrial; Port	20 to 30

Employment

The local business study area comprises a mix of uses which includes the industrial and port facility areas, with a variety of service based industrial and commercial businesses. At the 2016 census some 3,280 jobs were located within the destination zones relevant to The Bays local business study area. As shown in Figure 16-26, jobs in business services have the largest representation, accounting for 32.5 per cent of all jobs (or 1,070 jobs) followed by household services at 25.9 per cent of all jobs. The location of these jobs reflects the diverse nature of the local business study area.

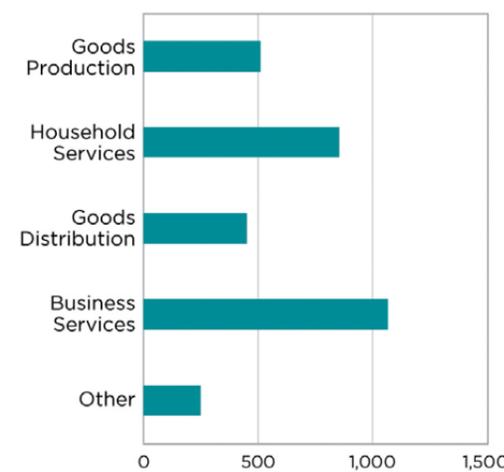


Figure 16-26: Employment by business categories – The Bays destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

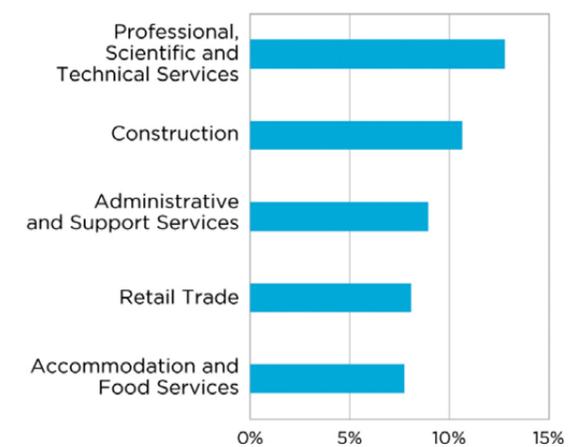


Figure 16-27: Top five industries – The Bays destination zones

Source: Australian Bureau of Statistics, 2016; Ethos Urban

As shown in Figure 16-27, employment by industry tended to be diverse with no single industry being dominant. Professional, scientific and technical services was the most represented employment industry with 420 jobs, representing 12.8 per cent of all jobs. Construction made up the second highest portion of jobs with around 350 jobs and accounting for 10.7 per cent of all jobs.

Travel patterns

The Bays local business study area is highly accessible by road including via the major arterial roads of Anzac Bridge and Victoria Road. The most preferred method of travel to work was by car as a driver, which accounted for a total of 1,814 of commutes, representing 64.6 per cent of all journey to work trips to the local business area. Public transport via bus and train represented 9.9 per cent and 8.9 per cent of all journey to work commutes respectively.

There are little to no train networks connecting workers to The Bays local business study area or surrounding areas. There are however frequent and regular bus services. The top five methods of travelling to work are shown in Table 16-30 below.

Table 16-30: Top five methods of travel to work – The Bays destination zones

Methods of travel to work	Number	Proportion
Car, as driver	1,814	64.6%
Train	278	9.9%
Bus	251	8.9%
Walked only	229	8.2%
Care, as passenger	92	3.3%

Source: Australian Bureau of Statistics, 2016; Ethos Urban

16.14.2 Potential impacts

An assessment of the potential impacts relevant to The Bays local business study area is provided in Table 16-31. Potential impacts to local businesses would be minimised through the implementation of mitigation measures for amenity related issues (such as noise, traffic, visual and air quality) and those identified in Section 16.16. This would include a small business owner’s support service to assist small business owners adversely impacted by construction.

Table 16-31: The Bays – Local business impacts

Potential impact	Risk assessment	
	Likelihood	Significance
Potential indirect impacts		
Temporary traffic congestion and increased travel times Potential temporary impacts to businesses associated with construction traffic would be minimised through measures such as reducing movements in network peak periods. Temporary increases in traffic congestion and travel times around the precinct could affect workers journey times to work. Road networks around the port are highly constrained, so temporary increases in traffic congestion and travel times could also impact the ability of businesses to efficiently receive deliveries and service vehicles. It is also expected that a high proportion of customers would access businesses within the precinct by car, meaning temporary increases in traffic congestion and travel times could also impact businesses trade.	Likely	Moderate negative
Temporary reduced local amenity Temporary reduced amenity from noise, vibration, dust and visual impacts from construction works is unlikely to result in lower customer experience for surrounding businesses Nearby businesses are primarily industrial in nature and already experience comparatively lower amenity levels from surrounding industrial premises and port related activities.	Unlikely	Slight negative
Temporary power and utility interruptions Unplanned power and utility interruptions could result in temporary impacts during interruptions.	Unlikely	Slight negative
Potential opportunities		
Increase in passing trade Businesses within The Bays local business area are unlikely to benefit from construction workers at the site, except potentially for nearby food and beverage outlets.	Unlikely	Slight positive

16.15 Cumulative impacts

Potential cumulative impacts were considered for assessment based on the likely interactions of Stage 1 with other projects and plans that met the adopted screening criteria. The approach to assessment and the other projects considered are described further in Appendix G (Cumulative impacts assessment methodology – Stage 1).

Measures to avoid, reduce, or mitigate the potential impacts of Stage 1 are collated in Chapter 27 (Synthesis of the Environmental Impact Statement). These measures would reduce the likelihood and magnitude of cumulative impacts should they occur. Construction planning and co-ordination would aim to ensure that Stage 1 is scheduled and managed to minimise the potential for cumulative impacts to occur.

Potential cumulative impacts to businesses around Parramatta metro station construction site as a result of other projects being undertaken concurrently in the surrounding area could include:

- Temporary changes and general disruption to traffic and transport services
- Potential temporary interruption of utilities
- Potential temporary increased travel times for workers
- Temporary reduction in amenity (as a result of construction noise, traffic congestion, changes to visibility, and dust).

The Westmead metro station construction site and The Bays station construction site would have some interactions with other projects, however the risk of cumulative impacts on respective local business precincts is considered to be minimal.

16.16 Management and mitigation measures

16.16.1 Approach

Business impacts would be managed in accordance with Sydney Metro's Construction Environmental Management Framework described in Chapter 27 (Synthesis of the Environmental Impact Statement) and the mitigation measures described below in Section 16.16.2. The Construction Environmental Management Framework includes a requirement for proactive consultation with business regarding the management of impacts.

The Construction Environmental Management Framework also specifies that a Community Communication Strategy would be prepared and implemented during construction. The Strategy would define the location specific measures and strategies to minimise impacts on individual businesses during construction, with particular consideration of the commercial character of the locality, its general trading profile (daily and annually), and information gained from the business profiling.

16.16.2 Mitigation measures

Mitigation measures that would be implemented to address potential business impacts are listed in Table 16-32.

Table 16-32: Mitigation measures – Business impacts Stage 1

ID	Impact / issue	Mitigation measures	Applicable location(s) ¹
BI1	General business impacts	Small business owner engagement would be undertaken to assist small business owners adversely impacted by construction.	All
BI2	Power and utility interruptions	Planned power and utility interruptions would be scheduled to before or after typical business hours where feasible and reasonable. Prior notice would be provided to all affected business owners of the interruptions.	All
BI3	Business visibility and accessibility	Hoarding and screening impacting the visibility of business would be minimised where feasible and reasonable, without compromising public safety or the effective management of construction airborne noise. Clear pathways and signage would be implemented around construction sites to maximise visibility of retained businesses, including sufficient lighting along pedestrian footpaths during night-time where relevant.	All

Note 1: WMS: Westmead metro station; PMS: Parramatta metro station; CSMF: Clyde stabling and maintenance facility; SSF: Silverwater services facility; SOPMS: Sydney Olympic Park metro station; NSMS: North Strathfield metro station; BNS: Burwood North Station; FDS: Five Dock Station; TBS: The Bays Station; Metro rail tunnels: Metro rail tunnels not related to other sites (eg tunnel boring machine works); PSR: Power supply routes.

16.16.3 Interactions between mitigation measures

Mitigation measures in other chapters of this Environmental Impact Statement that are relevant to the management of potential business impacts include:

- Chapter 10 (Transport and traffic – Stage 1) – all measures
- Chapter 11 (Noise and vibration – Stage 1) – all measures
- Chapter 14 (Property and land use – Stage 1) – all measures
- Chapter 15 (Landscape character and visual amenity – Stage 1), specifically measures related to minimising landscape character and visual impacts
- Chapter 17 (Social impacts – Stage 1) – all measures
- Chapter 23 (Air quality – Stage 1) – all measures.

Together, these measures would minimise the potential business impacts of Stage 1.

There are no mitigation measures identified in the assessment of other environmental aspects that are likely to affect the assessment of business impacts.

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