

5 STAKEHOLDER PERSPECTIVES

5.1 Current tenants of the study area

SGS engaged an independent survey company to undertake a telephone survey of over 200 business tenants randomly chosen from within the main study area. This survey took place in June 2012. The map below shows the location of each of the surveyed businesses as a green dot.

FIGURE 19. LOCATIONS OF BUSINESSES PARTICIPATING IN PHONE SURVEY



Source: SGS Economics and Planning, 2012

The aims of this task were to:

- identify characteristics of this sample of businesses, such as the length of time they have been located on their site and their supplier and customer bases
- analyse the importance of various factors to the success of these businesses, such as 24 hour operation, truck access and proximity to the airport
- discover the likelihood of particular types of businesses moving out of the study area in the future, and the reasons why this would be considered
- businesses' current operational issues and suggested improvements for the area.

A particular objective of the survey was to identify patterns in the responses to these questions based on businesses' locations; for example, whether businesses in a specific part of the main study area have a particular reliance on separation from sensitive uses, are considering relocating to western Sydney, or would like more parking.

Survey results

The survey found that 60 percent of businesses that were contacted have been established in the area for over five years, with almost a third for over 10 years.

Two thirds of surveyed businesses have no plans to relocate in the next five to 10 years. The main reasons given were that the respondent owns their premises (21 percent), are happy in the area (18 percent), or view their site as a prime location (16 percent).

Of the third of businesses planning to relocate in the next five to 10 years, almost half anticipate moving to the immediate or neighbouring area, and a third are unsure of their next location. Only 3 percent mentioned plans to relocate to Western Sydney. The most common reason for businesses planning to relocate, chosen by more than a quarter of respondents, was for growth or expansion opportunities.

The respondents noted a reliance on national and international supply chains, with the vast majority of their suppliers located outside of the study area and a significant proportion outside of Sydney altogether. Just 11 percent of surveyed businesses have more than half of their suppliers based in Alexandria; 10 percent have more than half of their suppliers based in the rest of the City of Sydney LGA, with a fifth having more than half of their suppliers based elsewhere in metropolitan Sydney.

The customer base of the respondents is concentrated locally to a greater extent: 18 percent have more than half of their customer base in the Alexandria area; the same proportion have more than half of their customer base in the City of Sydney LGA, and 23 percent have more than half of their customer base elsewhere in metropolitan Sydney. Just over 60 percent of respondents service mainly industry (with the remaining 40 percent servicing mainly the public).

When asked to scale a number of factors, with one being 'not important' and 10 being 'essential', the results were as shown in the table below. The most important factors for the businesses surveyed are public transport access, truck access and proximity to customers.

TABLE 9. IMPORTANCE OF VARIOUS FACTORS

	% of respondents ranking factor as:	
	important (7-10)	essential (10)
public transport access	64	22
truck access	63	27
proximity to customers	59	28
proximity to the CBD	41	9
access to shops and services for workers	39	5
proximity to the ports or airport	32	12
proximity to suppliers	31	8
separation from sensitive uses ¹	21	4
24 hour operation	17	5

Source: SGS Economics and Planning, 2012

¹ Note: sensitive uses might include residential development, large retailers or commercial offices

More than a third of respondents noted no operational issues. Of the businesses reporting issues, the most prevalent was parking, accounting for 30 percent of responses, followed by cycle lanes, which was raised by 14 percent of respondents. Inability to expand in their current premises was the next most common, affecting 9 percent of businesses. Truck access, traffic and general access each accounted for 8 percent of responses. The remaining 25 percent of responses were comprised of a variety of other issues (each mentioned by fewer than eight businesses).

Respondents were also asked about potential ways to improve the main study area. By far the most common response was for more parking to be provided (raised by 38 percent of respondents). Around 15 percent of respondents had no suggestions for improvements, followed by 14 percent who would like better roads and traffic

flow, and 6 percent who would like a higher local population. Other suggestions, each accounting for less than 5 percent of the total, made up the remaining third of responses.

Further data from the phone survey is shown in Appendix D.

Spatial patterns

The survey results showed no discernible geographical patterns of responses to any of the questions – an important finding. This may be due to the small size of the main study area. It may also be because particular types of businesses (or those in specific industries) have characteristics or issues in common, but these businesses are spread throughout the main study area rather than located close together. This is likely to be the case, given that the floorspace audit analysis suggested few strong patterns of industry locations.

5.2 Submissions to the City Plan

A review and summary of the City Plan submissions relevant to this study is provided below. The majority are from landowners in the precinct, though other interest groups were among the submitters. Further details are provided in Appendix E.

TABLE 10. SUMMARY OF CITY PLAN SUBMISSIONS

Address	Current zone	Proposed zone	Requested zone	Condensed summary
Southern end of Bourke Road, Alexandria	4 – Industrial	IN1 – General Industrial	B5 – Business Development (Also requests that bulky goods be permissible)	Economic reasons prevent conventional industry being established. Area is constrained due to size of landholdings, land use conflicts, access issues, and traffic volumes. Protecting traditional IN1 uses conflicts with current market forces.
Southern end of Bourke Road (beside canal), Alexandria	10 – Mixed Uses and 4 – Industrial	B7 – Business Park and IN1 – General Industrial	B5 – Business Development and B4 – Mixed Uses	Proposed zoning will constrain revitalisation and redevelopment. Also contrary to previous development consents. Erroneous assumptions about location of employment and industry.
Rosebery Residents Action Group (RRAG)	10 – Mixed Uses	B6 –Enterprise Corridor and IN2 – Light Industrial	IN2 – Light Industrial (Harcourt, Dunning, Hayes and Botany block)	Support introduction of light industrial and protection of employment lands. B6 Zone along Botany Road will destroy character and amenity of nearby low-rise residential areas.
Southern end of O’Riordan Street, Alexandria	4 – Industrial	IN1 – General Industrial	B5 – Business Development, with vehicle sales/ hire premises and bulky goods as permissible	IN1 does not reflect the predominance of bulky goods and vehicle showrooms in the area.
Corner of Gardeners Road and O’Riordan Street, Alexandria	4 – Industrial	IN1 – General Industrial	B5 – Business Development (or B6 Business Corridor)	IN1 will affect the viability and use of this commercial and retail site.
Huntley Street, Alexandria	10 – Mixed Uses	B7 – Business Park	B4 – Mixed Uses	B7 zone, and the restrictions on bulky goods and retail premises, will neither help revitalise the canal nor reflect an existing DA consent.
Southern end of Botany Road, Rosebery	4 – Industrial	IN2 – Light Industrial	B6 – Enterprise Corridor	IN2 will prevent active street frontages and generate lower employment yields. Zone B6 satisfies vision with least impact on adjacent residential.
Botany Road, Rosebery	10 – Mixed Uses	B6 – Enterprise Corridor		An FSR of 2.5:1 is suggested as more appropriate for the site (under proposed zoning, FSR for the site will be 2:1).

Address	Current zone	Proposed zone	Requested zone	Condensed summary
O’Riordan Street near Doody Street, Alexandria	4 – Industrial	IN1 – General Industrial	B5 – Business Development or B6 – Enterprise Corridor to enable bulky goods.	IN1 is a down-zoning of the site compared with places like Moore Park Supa Centa.
Dunning Avenue near Morley Avenue, Rosebery	4 – Industrial	IN2 – Light Industrial		Requests high technology to be included in zoning to allow research-only operations.
O’Riordan Street near Doody Street, Alexandria	4 – Industrial	IN1 – General Industrial	B6 – Enterprise Corridor	Proposed zoning does not preserve rights of existing uses. B6 will permit bulky goods, motor showrooms and light industry.
Botany Road between Hayes Road and Harcourt Parade, Rosebery	10 – Mixed Uses	IN2 – Light Industrial Correction Zone B6 – Enterprise Corridor	B4 – Mixed Uses	IN2 would prohibit a number of existing uses and fail to preserve the heritage of the building.
Mentmore Avenue near Morley Avenue, Rosebery	4 – Industrial	IN2 – Light Industrial	B4 – Mixed Use or B7 – Business Park	Proposed zoning will restrict current commercial use on site and devalue property.
Southern end of O’Riordan Street, Alexandria	4 – Industrial	B6 – Enterprise Corridor	B6 – Enterprise Corridor	Proposed zoning overlooks the consolidation of bulky goods in the O’Riordan Street corridor.
O’Riordan Street near Doody Street, Alexandria	4 – Industrial	IN1 – General Industrial		IN1 zone undermines the economic advantages to the existing bulky goods retailing cluster in the area. Its continued growth and viability needs to be facilitated.
Maddox Street, Alexandria	4 – Industrial	IN1 – General Industrial	B5 – Business Development	Encroachment of non-industrial uses and proximity of urban renewal areas has already undermined viability of traditional industrial uses and increased land values. Higher order uses and flexibility should be permitted.
Canal Road, St Peters	4 – Industrial and Zone 9A – Arterial Road Reservation	IN1 – General Industrial and Zone SP2 – Infrastructure		Proposed zoning limits major urban renewal opportunity for a new multi-use specialised centre.
Birmingham Street, Alexandria	10 – Mixed Uses	B6 – Enterprise Corridor		Support proposed zoning.
Moore Park Supa Centa	3 – Business	B5 – Business Development		Support proposed zoning but request that food and drink premises be permissible.
Mandible Street, Alexandria	4 – Industrial	IN1 – General Industrial	Inclusion of bulky goods in IN1 or extension of B5 – Business Development	Proposed zoning doesn’t allow for trend for different uses, like commercial, warehouse and bulky goods.
McEvoy Street near Bowden Street, Alexandria	10 – Mixed Uses	Deferred		Requests zone which allows commercial, retail and residential components.
Top of O’Riordan Street, Alexandria	10 – Mixed Uses	Deferred		Mixed Use Zone (mainly employment with some residential) will provide a buffer between town centre and industrial core.
Top of Botany Road and O’Riordan Street, Alexandria	10 – Mixed Uses	B5 – Business Development and Deferred	B4 – Mixed Uses	B3 Zone in adjacent Town Centre will undermine viability of commercial uses in this area, and warehouse and distribution

Address	Current zone	Proposed zone	Requested zone	Condensed summary
				centres will be undesirable in the area.
Bourke Road near Maddox Street, Alexandria	10 – Mixed Uses	Deferred	Business zone like B5	IN1 is not the most efficient land use given nearby rail station. A wider range of uses are approved and operating in the area.
Wyndham Street near Mandible Street, Alexandria	5 – Special Uses (Fire Brigade)	B5 – Business Development	B4 – Mixed Uses	Proposed zone devalues the site and reduces redevelopment potential.
Ross Street near Parramatta Road, Glebe	Industrial	IN2 – Light Industrial	B4 – Mixed Uses	Proposed zoning is a down-zoning. Does not reflect current uses on site or adjoining land. Mixed use zone will achieve consistent built form along Parramatta Road and flexibility of use.
The Salvation Army, The Geneva Push, Hillsong Church and Australian Christian Churches	–	–		Requests that places of public worship be included as a permissible use within the industrial zones.
Southern end of Bourke Road (beside canal), Alexandria	Zone 10 – Mixed Uses	B7 – Business Park and part SP2 Road	Inclusion of depots as permissible in zones B7 and SP2	Prohibiting depots is considered incongruous with the objectives and other permissible uses in the zones and the expressed intent of Council.

Source: SGS Economics and Planning, 2012

5.3 Landowner views

The City of Sydney held a number of meetings in June 2012 with landowners and other stakeholders who had made submissions to the Draft City Plan. These meetings were also attended by SGS. The purpose was to discuss the issues faced by owners and tenants of sites in the study area, identify firms and industries interested in locating in the area, and canvass stakeholder opinions of how specific precincts might develop in future. Notes from these meetings are shown in the table below.

TABLE 11. LANDOWNER PERSPECTIVES

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/ constraints	Future plans	Future issues/ suggestions
IN2 zone and Rosebery west							
Mentmore Avenue near Morley Avenue, Rosebery	Zone 4 – Industrial (Clause 54 of SSLEP98 allows for commercial development despite Industrial zoning)	Zone IN2 – Light Industrial	<ul style="list-style-type: none"> Commercial/office buildings developed 10 years ago Over 50 car parking bays Four levels, including 1000sqm warehouse level which accommodates larger users 60% tenanted (six separate tenancies) Operate general office hours (8am-6pm, not much weekend work) 	<ul style="list-style-type: none"> Tenants like the area: increasing amenity; more cafés and facilities Many staff use public transport from Botany Road 	<ul style="list-style-type: none"> Demand is for small tenancies – site needs to fill its larger tenancies On street parking is difficult on weekdays Site surrounded by neighbouring commercial sites 	<ul style="list-style-type: none"> Continued commercial/office use 	<ul style="list-style-type: none"> Restrictions of IN2 zone would restrict future viability of site Evolution of area in recent times – increasing facilities and shift to more creative industries, fashion etc Area lends itself to a creative hub – ‘the next Danks Street’ – given the older, character buildings, sawtooth roofs etc Separate identity to Alexandria – more heavy industrialised buildings Business park zoning may also be appropriate
Dunning Avenue near Morley Avenue, Rosebery	Zone 4 – Industrial	Zone IN2 – Light Industrial	<ul style="list-style-type: none"> 98 year old building Industrial users being targeted through specialist agents, but limited success, due to site constraints Current tenant now vacating for purpose built space – unlimited truck movements and operation hours, 	<ul style="list-style-type: none"> Attractive rents compared to City Space desirable for creative users 	<ul style="list-style-type: none"> Low height clearance (7m) – trucks need 10m+ No lifts Poor loading facilities Vehicles must reverse onto street Large trucks cannot access street No turning bays Adjacent residential limits noise, hours, 	<ul style="list-style-type: none"> Current interest is for creative uses, fashion, cafés, fresh foods, offices etc Owners are not pursuing these tenancies though as can’t get DA consent 	<ul style="list-style-type: none"> Strip shops would not be right for this area (as proposed, under 60sqm, in draft controls) Offices and showrooms would be appropriate

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/constraints	Future plans	Future issues/suggestions
Rosebery Residents Action Group			cheaper rents etc	<ul style="list-style-type: none"> Increasing cafés etc have benefited residents Residents now have amenities within walking distance Employment opportunities in local area No night operation and limited large trucks Good co-existence between users and residents 	<ul style="list-style-type: none"> Increasing residential population on margins of this area to north and west Area infrastructure will affect amount of intensification 	<ul style="list-style-type: none"> Opportunities for positive area improvements 	<ul style="list-style-type: none"> Weekend and evening operation would cause issues with residential neighbours Parking encroachment into residential area would also create issues A mixed use zone which includes residential may increase pressure on roads, parks and parking in area and may undermine viability of businesses through conflicts Would not wish to see increased restrictions on existing users Retain employment opportunities
Deferred lands and Green Square Bowden Street, Alexandria	Zone 10(e) –Mixed Uses	Deferred	<ul style="list-style-type: none"> Currently vacant Short-term interest General decline in tenancies and tenancy values in the area; from \$150-\$170/sqm to \$80/sqm for a long term tenancy 		<ul style="list-style-type: none"> Local roads unsuitable for heavy industrial traffic Cycleway along frontage of site Residential and conservation area across the road 50/50 residential-non residential does not stack up: how can industrial space sit next to residential? 	<ul style="list-style-type: none"> 70-80% residential/20-30% support uses split would work better for this site 	<ul style="list-style-type: none"> Denser residential is appropriate for majority of site given site sits in corridor to Green Square Town Centre (GSTC) Other uses appropriate to rear of site, which sits near strata employment Creative spaces and small offices could work in this locality

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/constraints	Future plans	Future issues/suggestions
Bourke Road near Maddox Street, Alexandria	Zone 10(d) – Mixed Uses	Deferred	<ul style="list-style-type: none"> Relatively modern building ~10-15 years old Office and warehouse use, with large truck deliveries Lessening demand for this type of use 		<ul style="list-style-type: none"> Area changing character to very light industrial now, e.g. crash repairers Industrial no longer viable 	<ul style="list-style-type: none"> Increasing demand for commercial, large format retail, bulky goods warehouses, showrooms etc, which don't fit in GSTC or traditional industrial areas 	<ul style="list-style-type: none"> Need better interpretation of the 10(e) zone – i.e. predominantly residential with a commercial component Higher order uses more appropriate given transition in area Higher order mixed uses with freight etc (e.g. B5 zone) given strategic road corridors and proximity to GSTC, train station and port Wholesale as support role to GSTC
McEvoy Street near Bowden Street, Alexandria	Zone 10(d) – Mixed Uses	Deferred	<ul style="list-style-type: none"> Building is 40 years old, substantial physical and OH&S issues 		<ul style="list-style-type: none"> Traffic conflicts – residential, semi-trailers, B-doubles, shoppers Inability to widen roads Cycleway along Bourke Road Sites on major transport corridors (M4, M7) have cheaper land and better connections 	<ul style="list-style-type: none"> Area is suffering due to lack of residential–neighbouring Hellenic club closing due to lack of patronage 	<ul style="list-style-type: none"> Need mixed use of commercial, residential and retail Residential needed to make things stack up but residential alone will not work either Need employment generation and retail/commercial can act as a buffer to the roads and other uses Area can act as a buffer zone between uses

B5 Zone

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/ constraints	Future plans	Future issues/ suggestions
Top of O'Riordan Street, Alexandria	Zone 10(d) – Mixed Uses	Zone B5 – Business Development	<ul style="list-style-type: none"> Site operates as showroom, manufacture is off-site in Marrickville 	<ul style="list-style-type: none"> Situated 30m from entry to train station Thousands of people now using station – area is booming 	<ul style="list-style-type: none"> Safety issue to access to/from station at grade across the street Waste demolition site nearby – noise, dust and trucks cause problems – not appropriate within 20m of station 	<ul style="list-style-type: none"> B4 closest to station, with B5 in the second street block as a good transition between the B4 and the industrial zones 	<ul style="list-style-type: none"> Proximity to station lends itself to accommodation (hotels, backpackers etc), commercial, restaurants etc Bulky goods should not be next to station – can't carry onto train Suggests B4 closest to station, with B5 in the second street block as a good transition between the B4 and the industrial zones
Top of Botany Road, Alexandria	Zone 10(d) – Mixed Uses	Zone B5 – Business Development	<ul style="list-style-type: none"> Vacant for more than 10 years Discussion with a bulky goods retailer, but no other interest 	<ul style="list-style-type: none"> Unlocking development potential of the area would spur on GSTC 	<ul style="list-style-type: none"> Poor visual character and amenity of area has deterred some interested tenants Significant land contamination to rear Inappropriate appearance and use adjacent to GSTC, which will remain unless sufficient incentive for turnover Road reservations undermine current uses – can't expand, intensify or maximise current potential – leading to limited interest from prospective buyers and roads will therefore not be achieved 	<ul style="list-style-type: none"> Current market, post GFC, is not for office No take-up of rezoning even in booming market during previous 20 years Incentive offered by proposed zoning is insufficient for re-development Theoretical uplift – difficult to realise because no demand for office Unlikely to be demand until GFC plays out, which could be around 20 years 	<ul style="list-style-type: none"> Happy with suggestion to allow hotel and restaurants in B5 zone, but limited demand for hotel with tourism numbers dropping Should be expanded to serviced apartments, backpackers and/or boarding houses – fantastic location next to station

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/ constraints	Future plans	Future issues/ suggestions
Moore Park Supa Centre	Zone 3 – Business	Zone B5 – Business Development	<ul style="list-style-type: none"> 34,000sqm floorspace Bulky goods use for around 20 years, good mix of tenants Recent refurbishment – long term stake, further 20yr horizon 	<ul style="list-style-type: none"> Good demand in locality through redevelopment of Victoria Park and surrounds 	<ul style="list-style-type: none"> Nature of bulky goods retailing changing – becoming more sophisticated and presented more like a traditional shopping centre Comparable centres now contain some 2000sqm of general retail too 	<ul style="list-style-type: none"> Complementary retail uses, such as pharmacies, niche electronics etc are desired Should not compete with GSTC 	<ul style="list-style-type: none"> No issues with proposed zoning, but would like some flexibility in uses to introduce some small scale complementary retail Happy to have restrictions on floorplates and on uses such as groceries and fashion
IN1 Zone Corner of Gardeners Road and O’Riordan Street, Alexandria	Zone 4 – Industrial	Zone IN1 – General Industrial	<ul style="list-style-type: none"> Bulky goods centre – significant investment Not high demand for number or scale of vehicle movements Focus on weekend activity, but weekday patronage too 	<ul style="list-style-type: none"> Good demand, and strong recent growth, given scale of home generation in area, increasing population and good latent demand Well located Semi-trailers are able to access site and drive through it 	<ul style="list-style-type: none"> Planning uncertainty is affecting leasing As tenancies changeover at separate times, hard to utilise existing use rights Intersection of two busy roads – issues with access forces L-in, L-out arrangement 	<ul style="list-style-type: none"> Continued growth in demand for bulky goods in this area Unsure what the building is suited to other than bulky goods Significant write-down of investment (and costs to terminate leases) if must switch to industrial 	<ul style="list-style-type: none"> Where else should bulky goods go? Traffic flow is essential to attracting users and tenants
O’Riordan Street near Doody Street, Alexandria	Zone 4 – Industrial	Zone IN1 – General Industrial	<ul style="list-style-type: none"> Bulky goods 	<ul style="list-style-type: none"> Excellent loading facilities – two levels 	<ul style="list-style-type: none"> Challenge to turn right from Doody to O’Riordan – need right-turn light Impact of internet means less demand for retail space for some product types 	<ul style="list-style-type: none"> Desire for expansion in order to capture future capacity Need new appeal: furniture market is good but only generates weekend trade – need vibrant retail for during week e.g. <i>active</i>: BCF, Cycles, Repco, Babies 	<ul style="list-style-type: none"> Bulky goods uses have very different demands and operating styles to other uses Does not necessarily have to be ‘bulky’ goods showrooms anymore, as products not always that big; can just be a

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/ constraints	Future plans	Future issues/ suggestions
						and <i>non-traditional</i> : service-oriented RACQ, RTA, etc	showroom with connections to larger distribution centres – Do still need a co-location with others and can't pay the rentals in a town centre – Non-traditional service-oriented uses (e.g. RTA) also inappropriate in town centres
Southern end of Bourke Road, Alexandria	Zone 4 – Industrial	Zone IN1 – General Industrial	– Every permissible use in current zone exploited	– Good parking provision on site and on street – all tenants seek high levels of parking	– Business has suffered since b-double ban on Bourke Road – Botany/ Bourke/ Wyndham intersections need upgrading urgently to allow good traffic flow – GSTC should not hold up/preclude development here	– Would like to site Costco, but for traffic restrictions on Bourke Road – On-site power generation? , because such a big user	– What is 'industrial'? Often computer-based now, so how is this different from planners or bankers? – Warehouse uses provide employment for people outside of the area – now that the area is regenerating and the proportion of young tertiary-educated couples is increasing, need to provide different employment opportunities – Wants B7
Southern end of O'Riordan Street, Alexandria	Zone 4 – Industrial	Zone IN1 – General Industrial	– Purpose-designed showrooms – Numerous smaller tenancies which feed off anchor tenant – don't need to be visible	– Good access , in and out – Good parking provision – Good access for trucks – O'Riordan strip provides the bigger	– Building setback creates a challenge – Area still not accessible for walking – Residential frontage opposite the site – re-instating heavy	– More start-up companies – 'Think-tank' area serving interstate customers who fly in, explore ideas and products, leave and	– How to define these 'special' use types? – Not offices, not quite retail, not quite hi-tech, some distribution and warehouse: a

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/ constraints	Future plans	Future issues/ suggestions
IN1 Zone and canal surrounds Maddox Street, Alexandria	Zone 4 – Industrial	Zone IN1 – General Industrial	<ul style="list-style-type: none"> Many mainly operate over the internet, but have a very small showroom on site Some distribution uses – small office with warehouse space 	<ul style="list-style-type: none"> services for Mascot and Green Square which would not be suited in a town centre – critical mass Gardeners Road has bulky goods too – established as a ‘centre’ Area feels clean and attractive (not car yards etc) Some area amenities – e.g. coffee shops 	<ul style="list-style-type: none"> industry on the site would not work now 	<ul style="list-style-type: none"> order online 	<ul style="list-style-type: none"> different retail to town centres and no on-site purchasing Whilst showroom space represents the main use, often smaller in size than the support office Everyone is producing something A ‘creative’ zone
	Zone 4 – Industrial	Zone IN1 – General Industrial	<ul style="list-style-type: none"> Building stood vacant for 25 years until recently Now in hi-tech use – data centre (24/7 operation) 	<ul style="list-style-type: none"> Central fibre-link to USA for internet runs along Gardeners Road key precinct for hi-tech uses Key location near port/airport – good access for international customers Increasing amenity to support changing users Able to allow 24/7 operation because no conflicts with residential neighbours 	<ul style="list-style-type: none"> 6m clearance impossible for freight as can’t rack the space Limited hardstanding area for forklifts and does not work for truck movements/turning Site can’t make warehousing work, which restricts potential commercial/ bulky goods/ retailing Much of ground floor unusable because interrupted by columns Road congestion issues and conflicts with bike lanes have seen freight type uses relocated out west Vehicle movement 	<ul style="list-style-type: none"> Evolution from traditional industry Changing demand for space Manufacturing, distribution and storage not so intensive or large scale Creative bent to some users Still have warehouse need, but with a higher office component – e.g. fashion, magazines Warehousing and office also increasingly split – warehousing out west, offices in this type of ‘funky’ location, not standard town centres 	<ul style="list-style-type: none"> Need a real mix of employment uses in the area to retain its v/b/e Few large contiguous spaces left for traditional operations

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Southern end of Bourke Road (beside canal), Alexandria	Zone 10 – Mixed Uses & Zone 4 – Industrial	Zone B7 – Business Park & Zone IN1 – General Industrial		<ul style="list-style-type: none"> – B-doubles can access site – Scope for users to interface with canal (if canal were improved) 	<p>restrictions often placed on new users now – can't be a successful industrial area with this type of restriction</p> <ul style="list-style-type: none"> – Still have issues with truck access due to poor road connections – Different characters on either side of the canal – power stations etc on the west, unlikely to turnover – Cycle path/10m setback requirement has impacted usability of the site – Some of the site affected by flooding 	<ul style="list-style-type: none"> – Likely to attract smaller traditional warehouses, mixed with office – not straight commercial or industrial – Need flexibility on building envelope and form to enable users to utilise the spaces – Why preclude residential when it's a long-term aim? Can't even market for commercial uses while canal is not improved – Study should determine how long the power stations etc will remain and whether they have growth plans 	<ul style="list-style-type: none"> – Modern industrial/business park – Need flexibility on building envelope and form to enable users to utilise the spaces – Why preclude residential when it's a long-term aim? Can't even market for commercial uses while canal is not improved – Study should determine how long the power stations etc will remain and whether they have growth plans
Southern end of O'Riordan Street, Alexandria	Zone 4 – Industrial	Zone IN1 – General Industrial	Buildings are being recapitalised for bulky goods to reflect the changing demand in the area		<ul style="list-style-type: none"> – Truck access impossible – Significant traffic issues – Rents in area too high – Existing users are moving out – Existing use rights throw further uncertainty into the mix 	<ul style="list-style-type: none"> – Slowly increasing rents have resulted in changeover from industry to bulky goods – Industrial growth is now in 'creative' businesses, not manufacturing 	<ul style="list-style-type: none"> – Few wholly traditional industrial sites left in the area – E-retailing is resulting in smaller depots in more central locations fed through larger distribution centres out west – Shopfront depots required for collection too – 'Industrial' definition

Site/ owner details	Current zone (SSLEP98)	Proposed zone (City Plan LEP)	Current use	Current positives	Current issues/ constraints	Future plans	Future issues/ suggestions
Birmingham Street, Alexandria	Zone 10 – Mixed Uses	Zone B6 – Enterprise Corridor	<ul style="list-style-type: none"> Own the site for the purposes of redeveloping and selling on DA for residential and commercial 	<ul style="list-style-type: none"> 'Funky' and vibrant area – sass & bide, provedores, cafes, Sonoma etc 	<ul style="list-style-type: none"> Having two uses (B6 and IN1) adjacent to each other on the same street undermines both and stops either use working as well as it should 	<ul style="list-style-type: none"> Have done solely residential development in the past, now increasing the amount of commercial/ retail in the mix Retail/ commercial at ground floor and residential above works well 	<ul style="list-style-type: none"> is out of date now Need clarity as to what may be 'ancillary' to the new uses Sees the Birmingham Street strip as a new food hub to rival Danks Street Should extend the B6 zone to the northern side of Birmingham Street, instead of IN1: these are quite shallow sites, 20m deep, not really suitable for industrial The strip will gain critical mass then

Source: SGS Economics and Planning and City of Sydney, 2012

5.4 Key findings

Positive perceptions

- **Increasing amenity** with more cafés and facilities, which are attractive to tenants
- **Good co-existence** between users and residents
- **Public transport** in certain areas, such as along Botany Road and around Green Square
- **Attractive rents** compared to the City and a **desirable space** for creative users
- Strong recent **growth in bulky goods** precinct due to increasing local population and latent demand, with **good access** on some sites for semi-trailers
- Opportunity for improvement of **the canal**

Negative perceptions

- Some sites are having issues filling larger tenancies, and **poor visual character and amenity** has deterred interested tenants in certain areas
- **Neighbouring land uses** can prove problematic for some tenants
- Many sites **not well suited to industrial** use, with low height clearance, poor loading facilities, and lack of turning bays on site; and limits on noise, hours, and truck movements due to adjacent residential uses
- Local **roads are unsuitable** for heavy industrial traffic, and the **B-double ban** on Bourke Road has affected local businesses
- Significant **road congestion** issues
- **Cycle path** exacerbates parking problems, particularly on weekdays, and restricts truck movements
- **Flooding** is a significant constraint
- **Road reservations** undermine current uses as businesses can't expand, intensify or maximise current potential
- **Planning uncertainty** is significantly affecting leasing in some areas, particularly due to difficulties in utilising existing use rights

Summary of issues

Key findings for specific areas within the study area are detailed below. This is a summary of stakeholder views from landowner and tenant meetings held with SGS, as well as through review of submissions to the Draft City Plan. In the next stage of the study, SGS will test some of these assertions using other research inputs, such as employment forecasts and through consultation with organisations with a strategic perspective of the study area's future.

Deferred lands and Green Square, including B5 zone

In the view of stakeholders:

- proximity to the train station may be an appropriate location for **accommodation** (such as serviced apartments, backpackers and/or boarding houses, in addition to hotels if these are commercially viable), as well as **commercial uses and restaurants**. More flexible land use planning may be required.
- the area needs a **mixed use** of commercial, residential and retail uses. Residential is required to ensure development feasibility but employment generation is also necessary. Retail and commercial uses can also act as a buffer to the roads and other uses.
- **higher order uses** than those in those provided for in the proposed zoning in the Draft Sydney LEP are more appropriate given the area's **changing character**, strategic road corridors, and proximity to GSTC, the train station and port.

O'Riordan Street bulky goods corridor

In the view of stakeholders:

- there is **continued growth in demand** for bulky goods in this area. The area's traffic flow is essential to attracting users and tenants, and many buildings currently used for bulky goods retail are unsuitable for other uses.
- Homemaker Centres have very different demands and operating styles to other uses. These aren't necessarily 'bulky' goods showrooms anymore, as products aren't always that big, but can just be a showroom with connections to larger distribution centres. These **uses still need a co-location with others** and can't pay the rentals in a town centre.

IN1 – General industrial zoned lands

In the view of stakeholders:

- the **nature of industry is changing**, with industrial growth now in **'creative' businesses**, not manufacturing, and few wholly traditional industrial large sites left in the area. **E-retailing** is resulting in smaller depots in more central locations fed through larger distribution centres out west, and **shopfront depots** are required for collection. Clarity is required as to what may be **'ancillary'** to the new uses.
- **demand for space is changing** as well, with manufacturing, distribution and storage not so intensive or large scale. Some firms (such as fashion or magazines) have a need for some warehousing but with a higher office component; others split their operations and locate warehouses in western Sydney and their offices in Alexandria.
- a real **mix of employment uses** is needed in the area to retain its character and amenity.
- The growing proportion of **young, educated residents** in the area suggests that provision of different employment opportunities are required, rather than traditional industrial.
- **'special' type uses** are appearing, where showroom space represents the main use but is often smaller in size than the support office. These uses can't easily be defined, as they aren't offices, nor fully retail or high-tech, and may include distribution and warehouse facilities. Such uses aren't suitable for town centre retail as they generally offer no on-site purchasing.
- some sites have issues with **truck access** due to poor road connections.

B7 – Business Park along the canal

In the view of stakeholders:

- the areas surrounding the **canal** have different characters, with some unlikely to turnover. The woolsheds to the east require flexibility on building envelope and form to enable users to utilise the spaces. **Commercial uses can't currently be marketed** given the condition of the canal. A study could be undertaken to determine how long the heavier industrial uses will remain. This area is likely to attract **smaller traditional warehouses, mixed with office**, rather than straight commercial or industrial uses.

IN2 – Light Industrial zone and Rosebery west

In the view of stakeholders:

- the area is undergoing an evolution, with increasing facilities and a shift to more creative industries, as well as the opening of fashion offices, provedores, and cafés. Industrial uses are increasingly light, such as crash repairers, and offices and showrooms may be appropriate.
- having two uses (B6 and IN1) adjacent to each on Birmingham Street undermines both and **stops either use working as well as it should**.
- given the older, character buildings, sawtooth roofs and so on, the area lends itself to becoming a creative hub, with the potential for the Birmingham Street strip to become a **new food hub** to rival Danks Street.
- restrictions of proposed zoning may undermine the future viability of sites in the area.
- increasing population density of the area increases the **potential for neighbour disputes** with industrial businesses (weekend and evening operations would cause issues) and a mixed use zone may increase pressure on roads, parks and **parking**.

South Dowling Street site – Supa Centa

In the view of stakeholders:

- the nature of **bulky goods retailing is changing**: becoming increasingly sophisticated and presented more like a traditional shopping centre. Comparable centres now contain some 2000 square metres of general retail, and some **flexibility in uses** may be appropriate to permit some small scale complementary retail, such as groceries and fashion.

6 NEXT STEPS

This background report has detailed the research undertaken to date. It provides the context for the strategy development. The next steps in the study are as follows.

- Generation of base case employment and floorspace forecasts at five year intervals for the next 25 years
- Targeted consultation with institutions or organisations with a perspective on strategic implications of different development futures, which will be used to guide the preparation of employment and floorspace and scenarios
- A strategic assessment at a subregional level, building on the mapping already completed and considering employment land strategies of the State and also in LGAs adjoining the City of Sydney
- Generation of alternative future employment scenarios using the inputs so far, for example by varying growth prospects of particular industry sectors, population growth, and job density
- Analysis of the supply demand gap, which will compare forecast employment and land area requirements under base case and alternative scenarios against the capacity of employment lands
- A strategic assessment of employment lands, using the 'Summary of the Strategic Assessment Checklist' in Action E3.2 of the Metropolitan Plan for Sydney 2036, and assessment of the planning and risk framework
- Preparation of a draft employment lands strategy, which will draw on all components of the study and include recommendations for zoning and detailed planning controls for the study area.

APPENDIX A: STRATEGY AND POLICY CONTEXT

NSW state level

NSW 2021 (2011)

NSW 2021 is a 10 year plan aiming to rebuild the NSW economy, provide quality services, renovate infrastructure, restore government accountability and strengthen the NSW local environment and communities. It is the NSW Government's strategic business plan, setting priorities for action and guiding resource allocation.

The top priority, as set up in the plan – 'Rebuild the Economy: restore economic growth and establish NSW as the 'first place in Australia to do business' – is one of five strategies proposed in *NSW 2021* and has a high relevance to this study. The strategy has six goals, namely to:

- improve the performance of the NSW economy
- rebuild state finances
- drive economic growth in regional NSW
- increase the competitiveness of doing business in NSW
- place downward pressure on the cost of living
- strengthen the NSW skill base.

Each of the *NSW 2011* goals identifies targets. Those relevant to providing more land available for housing and jobs include:

- improving housing affordability and availability, and encouraging facilitation of the delivery of 25,000 new dwellings in Sydney per year.
- growing employment by an average of 1.25 percent per year to 2020.

Industry Action Plans (2012)

The NSW Government is developing industry action plans to position key sectors of the state's economy for strong growth, resilience, improved innovation and productivity, global competitiveness and new investment opportunities over the next decade. These plans are designed to become the road map for industries in NSW up to 2021, ensuring that both government and industry can take best advantage of opportunities and curb the threats to growth. They are due for release later in 2012 and will:

- outline a vision and 10 year development strategy for each industry, with immediate priorities to be addressed in 2012
- identify drivers for, and barriers to, growth and innovation, including those caused by government practices
- detail a program and mechanisms for government and industry to encourage sector growth, competitiveness and innovation
- contain key performance indicators including clear timetables and benchmarks to monitor progress.

They will be driven by industry through the establishment of taskforces led by industry leaders.

Jobs Action Plan (Rebate Scheme) (2011)

The *Jobs Action Plan* targets the creation of 100,000 new jobs in NSW from July 2011 and is one of the key priorities of the NSW Government. Of these new jobs, 60,000 are expected for metropolitan areas of NSW. The plan gives businesses incentives to employ new workers and expand their enterprises. Under the plan, the City of Sydney LGA has been identified as an 'eligible location' for the Payroll Tax Rebate Scheme and this is likely to affect employment levels in the LGA.

Ministerial directions (2009/2010)

There are a number of directions issued by the Minister for Planning and Infrastructure (the Minister), under section 117(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) that are relevant to this study.

Direction 1.1 – business and industrial zones

The objectives of this direction are to:

- (a) encourage employment growth in suitable locations
- (b) protect employment land in business and industrial zones
- (c) support the viability of identified strategic centres.

The direction requires planning proposals to the City of Sydney to:

- (a) give effect to the objectives of this direction
- (b) retain the areas and locations of existing business and industrial zones
- (c) not reduce the total potential floor space area for employment uses and related public services in business zones
- (d) not reduce the total potential floor space area for industrial uses in industrial zones
- (e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning and Infrastructure.

Direction 3.1 – residential zones

The objectives of this direction are to:

- (a) encourage a variety and choice of housing types to provide for existing and future housing needs
- (b) make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services
- (c) minimise the impact of residential development on the environment and resource lands.

The direction requires planning proposals to the City of Sydney to include provisions that encourage the provision of housing that will:

- (a) broaden the choice of building types and locations available in the housing market
- (b) make more efficient use of existing infrastructure and services
- (c) reduce the consumption of land for housing and associated urban development on the urban fringe
- (d) be of good design.

In relation to land to which this direction applies a planning proposal must:

- (a) contain a requirement that residential development is not permitted until land is adequately serviced (or arrangements satisfactory to the council, or another appropriate authority, have been made to service it)
- (b) not contain provisions which will reduce the permissible residential density of land.

Direction 3.4 – integrating land use and transport

The objective of this direction is to ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives:

- (a) improving access to housing, jobs and services by walking, cycling and public transport
- (b) increasing the choice of available transport and reducing dependence on cars
- (c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car
- (d) supporting the efficient and viable operation of public transport services
- (e) providing for the efficient movement of freight.

The direction requires planning proposals to the City of Sydney locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of:

- (a) Improving Transport Choice – Guidelines for planning and development (DUAP 2001)
- (b) The Right Place for Business and Services – Planning Policy (DUAP 2001).

Direction 7.1 – implementation of the Metropolitan Plan for Sydney 2036

The objective of this direction is to give legal effect to the vision, transport and land use strategy, policies, outcomes and actions contained in the *Metropolitan Plan for Sydney 2036*. The direction requires planning proposals to the City of Sydney to be consistent with the plan.

Sydney Airport Master Plan (2009)

The *Sydney Airport Master Plan* (Sydney Airport 2009) was approved by the Australian Government in June 2009, following extensive consultation with the community and other key stakeholders. It provides Sydney Airport's vision for the operation and development of Australia's premier airport to 2029 and the strategies required to sustainably meet Sydney's future air transport needs.

The plan is based on the assumption that Sydney Airport will remain the sole international and domestic airport for Sydney over the next 20 years and must, during this period, accommodate average annual growth rates of 4.2 percent for passengers and 2 percent for passenger aircraft movements.

Sydney Airport provides or generates more than 75,000 jobs and approximately 131,000 jobs indirectly, making a total of around 206,000 full-time equivalent jobs. An estimated 100,000 additional jobs will be generated by Sydney Airport over the next ten years. Many of these jobs and economic benefits will be generated locally in the areas around the airport.

In December 2011 the Sydney Airport Corporation Ltd released its 'New Vision' for Sydney Airport and the work being done to update the current *Sydney Airport Master Plan 2009* due in mid-2014. The New Vision is in the consultation phase and proposes a staged development of the airport to transform it into two common-use terminal precincts, integrating international, domestic and regional services under the one roof. It is expected the development of common terminals would deliver a much improved user experience and would also reduce pressure on the road networks both within the two airport precincts and also on Airport and Qantas Drives by spreading and reducing the intensity of traffic peaks.

In March 2012, the Australian and NSW Governments released a report of the Steering Committee overseeing the Joint Study on Aviation Capacity in the Sydney Region (the Joint Study). The Joint Study was undertaken to inform future infrastructure planning and investment by government and industry in NSW, and to enable the proper integration of future airport operations with surrounding land use planning and surface transport networks.

The Joint Study found that the rail and road transport networks that service the airport urgently require additional investment and recommends that work should commence on planning for surface transport works to improve connections to the airport and improve the surrounding precinct. The Joint Study also found that there is a clear and critical need to take action to identify and secure a second airport in the Sydney basin.

While debate on a second airport for Sydney continues, in June 2012, Minister Albanese issued a direction to Sydney Airport Corporation under the *Airports Act 1996* to expedite the preparation of the next airport Master Plan, bringing forward the due date from mid-2014 to mid-2013.

Sydney metropolitan level

Metropolitan Plan for Sydney 2036 (2010)

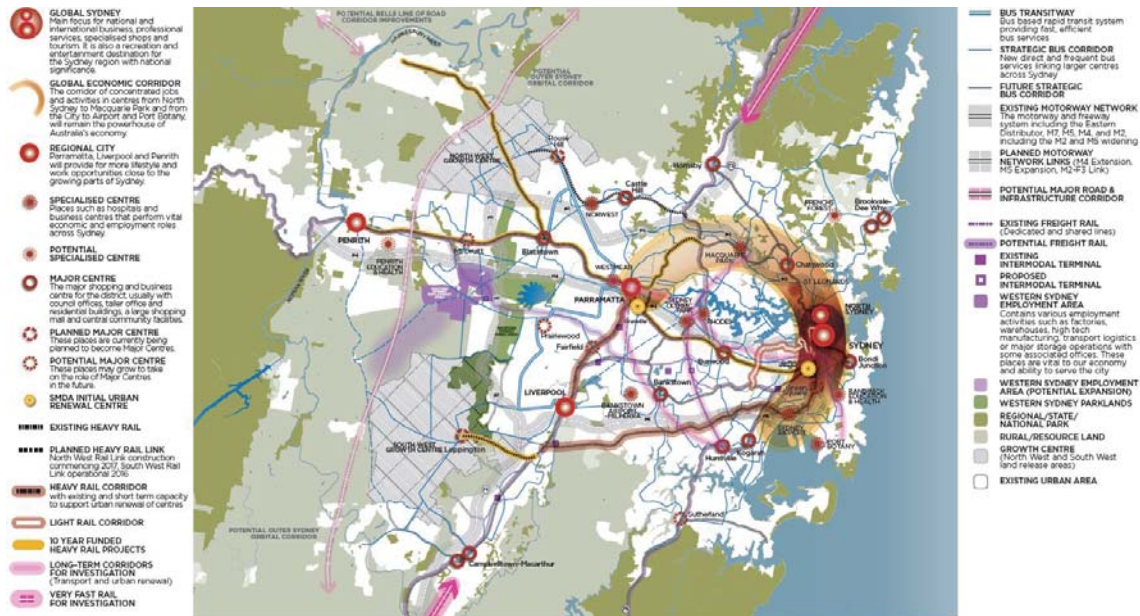
The *Metropolitan Plan for Sydney 2036* (Metropolitan Plan 2036) (Department of Planning and Infrastructure 2010) builds on the strategies and actions of the *Sydney Metropolitan Strategy: City of Cities* (2005).

The Metropolitan Plan 2036 identifies that in 2010, 15,370 hectares of employment land was zoned in the Sydney Region. It is estimated that these employment lands will provide jobs for 20 percent of Sydney's total workforce and they are essential to the city's future competitiveness. Accommodating job growth could require identification, zoning and development of up to 8000 hectares of new employment lands for industrial purposes.

The Metropolitan Plan 2036 notes an employment capacity target for the City of Sydney of 543,000 jobs in 2036. This implies 114,000 new jobs between 2006 and 2036, or 27 percent growth.

The additional dwelling target for the City of Sydney is 61,000 new dwellings from 2006 to 2036. Assuming an average dwelling size of 1.8 persons per dwelling, this target aims to accommodate 109,800 new residents in the City of Sydney by 2036.

FIGURE 20. EMPLOYMENT LANDS IN THE SYDNEY REGION



Source: Department of Planning and Infrastructure, 2010

The Metropolitan Plan 2036 emphasises the importance of protecting existing employment lands and of coordinated planning for future release and servicing of new lands. Key actions under the strategic direction of ‘growing Sydney’s economy’ are:

- E1.2. Establish an Employment Lands Task Force to promote and ensure the orderly development of employment lands. The task force has been established and brings together key government agencies, as well as business, development and local government representatives to assist in the operation of the Employment Lands Development Program (ELDP).
- E3.1. Monitor supply and demand for employment lands, and plan for new employment lands through the ELDP.
- E3.2. Identify and retain strategically important employment lands. The Metropolitan Plan advises that the categorisation of industrially zoned land in the current draft Subregional Strategies will be removed and instead the Subregional Strategies will assess the strategic importance of employment lands. This will be guided by a strategic assessment checklist to provide a more consistent approach and common set of criteria to consider a site’s strategic importance:
 1. Consistency with Subregional Strategies
 2. Current use of the area, and existing transport and infrastructure
 3. Impacts on the long-term viability of the employment land precinct and any industry clusters in the precinct or surrounding area
 4. Whether the employment lands support national or state significant infrastructure
 5. Trends in local land use activity
 6. Suitability and extent of measures implemented to improve an area’s employment lands viability
 7. Potential to redevelop for industrial uses and/or new industrial uses (for example, creative industries)
 8. Impacts on stocks of local employment lands and the ability of remaining stocks to meet future local industrial needs.
- E.3.3. Strengthen existing freight and industry clusters and support emergence of new clusters – including by review of the planning controls for key employment lands along freight transport corridors to ensure adequate capacity for growth and improve infrastructure coordination.
- E5.1. Plan for half of Sydney’s new employment by 2036 to be in Western Sydney.

- E6.2. Build capacity and economic growth in and around Sydney Airport and Port Botany. The Metropolitan Plan envisages that Sydney Airport will continue to serve as Sydney’s major airport and Australia’s major international gateway. Port Botany will continue to be NSW’s main container port and is expanding to cope with significant long-term growth. The Department of Planning and Infrastructure will review planning controls for the nationally significant cluster of businesses located in employment lands around Sydney Airport and Port Botany.

Stakeholder Consultation Draft Paper – Planning principles for industrial lands (2011)

The purpose of this stakeholder consultation draft was to provide guidance for local councils and businesses on implementing the Metropolitan Plan 2036, and ensure stocks of industrial land are available to meet current and future demand across Sydney.

It includes a checklist of five principles, as shown below, which are proposed to be used for identification of strategically significant industrial areas and to assess site-specific proposals to rezone established industrial lands for other uses.

Principle 1	Maintain an adequate supply of appropriately located and serviced industrial lands for current and future demand and to maintain competitive pressures in the market.
Principle 2	Ensure planning for new industrial lands meets the long-term needs of industry growth and growth management directions of the city.
Principle 3	Retain strategically important industrial lands and support renewal of existing industrial lands to meet the changing needs of industry.
Principle 4	Provide capacity to enable the development of specialised industry clusters.
Principle 5	Plan for and maximise use of infrastructure to encourage sustainable development of industrial lands.

Draft Sydney City Subregional Strategy (2008)

The *Draft Sydney City Subregional Strategy* established an employment capacity target of 58,000 additional jobs to 2031, representing an increase of 14 percent over 2001 employment levels. It also establishes a target of 55,000 additional homes within the subregion to accommodate the housing needs of existing and future communities. The Metropolitan Plan 2036 provides revised projections which supersede those in the Draft Subregional Strategy.

The Draft Subregional Strategy envisions the subregion continuing as:

the central conduit between Australia and the global economy. Reinforcing this status into the future will require initiatives to boost the globally competitive industries which are concentrated within the subregion, including advanced business services, tourism, creative industries and high value-adding manufacturing as well as initiatives to ensure on-going affordability and cultural investment in the Sydney City Subregion.

The strategy identifies key directions and actions for the Sydney City subregion, as summarised in the table below.

TABLE 12. DRAFT SYDNEY CITY SUBREGIONAL STRATEGY DIRECTIONS AND ACTIONS

Key directions	Actions
Reinforce global competitiveness and strengthen links to the regional economy	<ul style="list-style-type: none"> – Prepare a Principal LEP which will provide sufficient zoned and serviced land to meet the employment capacity target – Develop and implement an Economic Development Strategy for the subregion – Protect and enhance state significant employment lands within the subregion – Undertake a review of existing employment land/ mixed use zonings at Green Square – Identify opportunities to strengthen industry clusters within the subregion – Investigate options to improve east–west links for freight connections between economic gateways in the east and west of Sydney
Ensure adequate capacity for new office and hotel developments	<ul style="list-style-type: none"> – Promote key tourist and visitor destinations in the subregion, including future visitor accommodation and facilities – Consider future convention space in Sydney City – Complete a Tourism Enhancement Plan to help maintain Sydney’s position as a leading domestic and international tourism destination
Plan for sustainable development of major urban renewal projects	<ul style="list-style-type: none"> – Facilitate the renewal of key sites by leveraging existing and planned public assets – Develop Green Square as a Planned Major Centre – Include potential in local plans for commercial development in city fringe areas and at Green Square
Plan for housing choice	<ul style="list-style-type: none"> – Plan for sufficient zoned land to accommodate the housing target – Provide an appropriate range of residential zonings to cater for changing housing needs – Continue to implement initiatives to provide affordable housing
Develop an improved and increasingly integrated transport system that meets the city’s multiple transport needs	<ul style="list-style-type: none"> – Co–ordinate road upgrades including bus priority measures, walking and cycle access – Improve existing interchanges, stations, bus stops and ferry wharves – Investigate the delivery of increased public transport capacity and protect corridors for high capacity public transport modes
Improve the quality of the built environment and aim to decrease the subregion’s ecological footprint	<ul style="list-style-type: none"> – Reduce greenhouse gases in the Sydney City Subregion – Ensure an integrated approach to planning for tourism – Continue to promote water–sensitive urban design and to implement water recycling and reuse schemes in the subregion’s parks and public places
Enhance the city’s prominence as a diverse global cultural centre	<ul style="list-style-type: none"> – Promote key tourist and visitor destinations in the Sydney City Subregion and identify future visitor accommodation and facility demands – Recognise and enhance Sydney’s cultural and tourism precincts – Continue to upgrade access to the foreshores and to upgrade the public domain at iconic places

Source: Department of Planning and Infrastructure, 2008

It states that:

protecting existing industrial lands, especially in the south of the subregion, will be vital to maintaining the region’s competitiveness. These industrial lands will continue to provide a supporting role to Central Sydney and the economic gateways of Port Botany and Sydney Airport.

At the same time, the draft strategy also notes that the declining availability of major development sites for significant new commercial activity (including office, events, retail and hotels) will also ‘require innovative planning approaches to accommodating economic growth, by ensuring sufficient capacity for commercial areas through setting appropriate incentives and controls’.

Specific actions relevant to the current study include:

A1.1 Provide a framework for accommodating jobs across the subregion:

- SC A 1.1.1 The City of Sydney Council to prepare a Principal LEP which will provide sufficient zoned and serviced land to meet the employment capacity target.
- SC A 1.1.2 The City of Sydney Council, with the support of Department of Planning and Infrastructure and the Department of State and Regional Development, to develop and implement an Economic Development Strategy for the subregion.

A1.2 Plan for sufficient zoned land and infrastructure to achieve employment capacity targets in employment lands:

- SC A 1.2.1 The City of Sydney Council to review the balance of mixed–use zones at Green Square, including measures to address pressure to rezone predominantly employment land to residential areas.

A1.3 Engage with industry regarding employment land stock

A1.4 Contain the rezoning of employment lands to residential zonings across Sydney:

- SC A1.4.1 The Department of Planning and Infrastructure to undertake a metropolitan and subregional review of employment lands, prior to considering any significant rezoning of employment land to non–employment uses within the Sydney City Subregion.

A1.5 Protect and enhance Employment Lands of State Significance:

- SC A1.5.1 The Department of Planning and Infrastructure to investigate measures to protect and enhance State Significant Employment Lands.
- SC A1.5.1 The City of Sydney Council to identify means for the appropriate protection of employment lands within the subregion through:
 - Review of Southern Industrial Lands
 - Review of mixed use zonings at Green Square
 - Containing the expansion of bulky goods retail in Alexandria and Rosebery.

A1.6 Improve planning and delivery of employment lands

A1.7 Monitor supply and demand of employment lands:

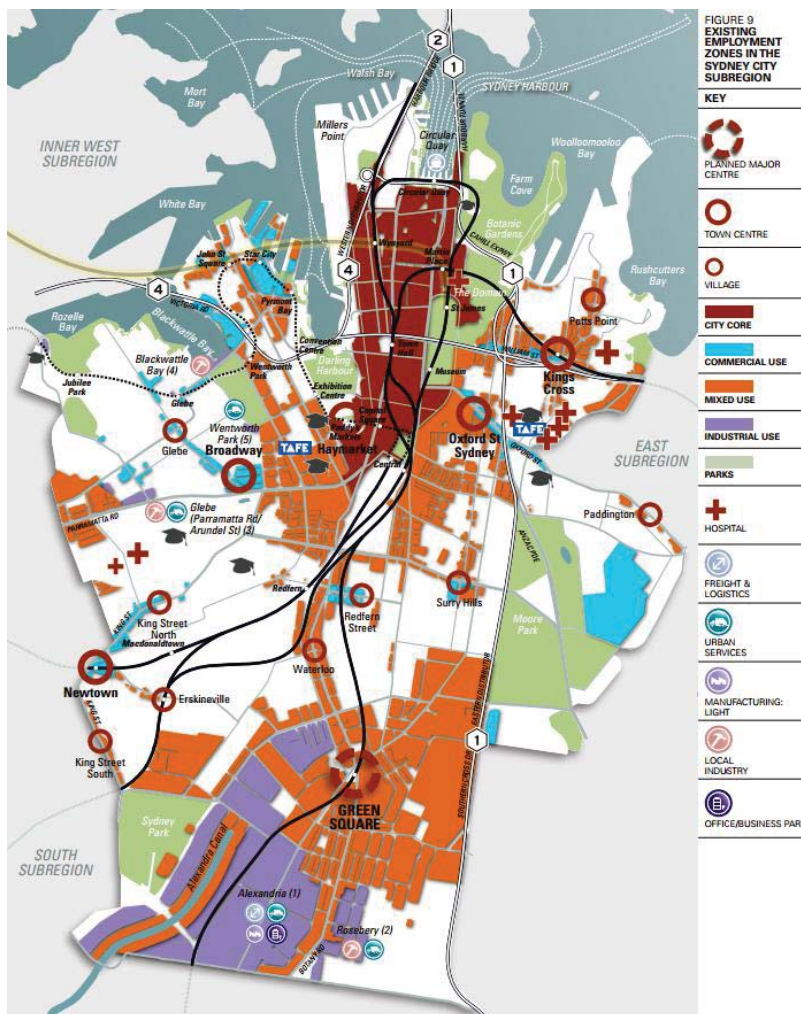
- SC A1.7.1 Establishment of an Employment Lands Development Program, in parallel with the Metropolitan Development Program and under a Sydney Land Supply program, will allow supply and uptake of employment lands in the Sydney City Subregion to be monitored.
- SC A1.7.2 Council to monitor commercial floor space using the Floorspace and Employment Survey and employment lands within the LGA, and ensure adequate future provision to enable the subregion to meet the employment capacity target.

A1.8 Establish a framework for the development of business parks

A1.9 Facilitate the use of old industrial areas:

- SC A1.9.1 The City of Sydney Council to explore opportunities to revitalise strategic employment lands.
- A1.9.2 The Department of Planning and Infrastructure to work with the City of Sydney Council in identifying and implementing measures to manage interface issues between employment and residential land uses.
- SC A1.9.3 The Department of Planning and Infrastructure to work with councils to maximise opportunities to retain employment generating uses, where existing or former employment lands are being renewed.

FIGURE 21. EMPLOYMENT ZONES IN THE SYDNEY CITY SUBREGION



Source: Department of Planning and Infrastructure, 2008

Five employment lands precincts of regional or subregional strategic importance that should be retained for employment purposes were identified in a preliminary review of employment lands in the Sydney City subregion. These include Alexandria and Rosebery precincts, which support Port Botany and Sydney Airport and were identified as being of state significance, as well as a smaller urban support services along Parramatta Road. The employment lands at Alexandria and Rosebery.

TABLE 13. SCHEDULE OF FUTURE ROLE OF EMPLOYMENT LANDS IN THE SYDNEY CITY SUBREGION

Category 1: Land to be retained for industrial purposes

While they may not all be significant employers, collectively these areas are vital to the health of local and regional economies and should be retained to accommodate the future range of economic services to sustain those economies. Some of the smaller sites and operations that host depots, utilities and service trades are vital in sustaining vibrant subregional economies.

Employment lands precinct	Key functions	Ha
Alexandria (1)	Freight and logistics, urban services, manufacturing–light, office/business park	138.2
Rosebery (2)	Local industry, urban services	14.2
Glebe (Parramatta Rd/ Arundel St) (3)	Local industry, urban services	0.5

Source: Department of Planning and Infrastructure, 2008

Alexandria and Rosebery were identified within the Sydney City Subregion as being of strategic importance to be retained for industrial uses. The draft subregional strategy states:

Whilst this precinct has experienced significant transition in uses in recent years it remains predominantly industrial and is one of the most substantial and comparatively intact areas of employment lands within inner areas of Sydney. Consequently there is a strong imperative to retain industrial activity and to protect the area from future rezonings and from increased bulky good retail uses.

No potential Enterprise Corridors or Business Development Zones have been identified through the Sydney City subregion planning process. However, the opportunity may exist for Business Development Zones in support of centres such as Green Square. Opportunities for Enterprise Corridors may also arise as part of future planning investigations.

NSW Business Sector Growth Plan (2010)

The NSW Innovation Council has developed a plan to grow the NSW economy by building on existing strengths, competitive advantage and emerging opportunities. Following extensive consultation with industry the *NSW Business Sector Growth Plan* was released in September 2010.

The plan outlines actions to maintain Sydney's global competitiveness and support the growth of specific industry sectors, including through spatially based development initiatives. The Business Sector Growth Plan sets out the following vision for the NSW economy:

In 2020 the NSW economy will be more than 30 percent larger than it is today, driven by growth in highly skilled, high value-added industries. It will be Australia's leading creative, dynamic and globally engaged economy. The NSW industry base will be internationally recognised for its innovation, productivity, knowledge intensity, and carbon efficiency.

Sector specific strategies have been prepared in partnership with industry for each of the following sectors within the NSW economy:

- Finance, Insurance and Professional Services
- Infrastructure and Construction
- Advanced Manufacturing
- Information and Communication Technology
- Retail
- Education and Research
- Agri-food
- Creative Industries
- Mining
- Tourism
- Health and Allied Services.

Each sector strategy includes a vision for the growth of the sector to 2020, the competitive advantages of the sector in NSW, the opportunities for growth and the actions the NSW Government will take to support the achievement of the vision.

Employment Lands Sydney Action Plan (2007)

The *Employment Lands Sydney Action Plan* was released in 2007 and aimed to address issues raised by a high-level task force of industry and government, who sought to advise the NSW Government on the current situation in regards to employment lands in NSW.

The plan outlined initiatives to advance the planning of employment lands in metropolitan Sydney, including establishment of an Employment Lands Development Program, a commitment to developing a state-wide Employment Lands SEPP, investigation of potential new Employment Lands and existing economic renewal areas, and creation of an ongoing Employment Lands Ministerial Advisory Committee.

The plan calls for more clarity on the future role of employment lands and recommended that Subregional Strategies identify Strategically Important Employment Lands that should be retained for future employment purposes. The plan sets out a range of measures to ensure that State Significant Employment Lands are protected for employment purposes. This includes consideration of an Employment Lands SEPP to recognise and provide the development framework for employment lands across the state.

Five key areas of activity were identified in the plan. These are to:

- establish an Employment Lands Development Program to maintain the balance between demand and supply of employment land.
- release more greenfield land to overcome a shortage of supply.
- develop new policy initiatives to encourage the regeneration of brownfield sites to support new investment and employment opportunities.
- employ more efficient processes for zoning and developing employment lands.
- improve coordination between state departments and agencies, councils and industry to improve economic development opportunities associated with employment lands policy.

The plan provides 18 key recommendations, of which the main objectives are to provide suitable employment lands sites in strategic locations, increase innovation and skills development, and improve opportunities and access to jobs for disadvantaged communities.

The plan identified approximately 81.4 hectares of employment lands within Sydney City LGA (approximately 28 percent of the entire LGA) as of 2006.

Within the City of Sydney LGA, the area known as the Southern Industrial Area (SIA) is the only area identified as providing employment lands. Green Square is identified as an area for which employment lands have been lost due to the rezoning for mixed uses allowing a mix of employment and residential uses, along with Ultimo/Pymont and Wolli Creek.

Employment Lands Development Program 2011 – 2011 Update Report

The Employment Lands Development Program (ELDP) is the NSW Government's key program for managing the supply of employment lands for the Sydney Region and assisting associated infrastructure coordination. The program contributes to the wider objectives of both the Metropolitan Plan to support job creation and economic growth across Sydney as well as the NSW Government State Plan's target of 'jobs closer to home'.

In November 2011, the NSW Government released the *Employment Lands Development Program 2011 Update Report*, which provides a comprehensive assessment of the existing and future supply of employment lands in the Sydney Region and will be used to help implement the Metropolitan Plan.

Key findings and trends identified in the report are:

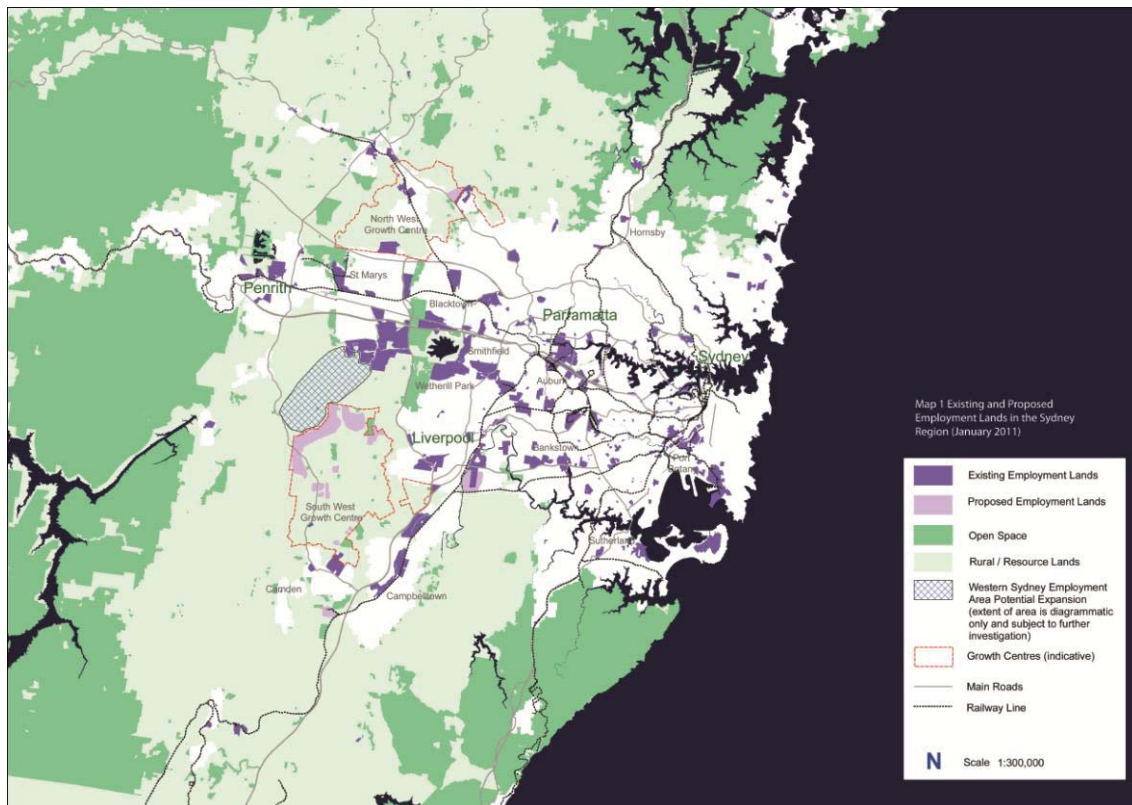
Employment land stocks in the Sydney Region as at January 2011 (see Figure 2221):

- 15,584 hectares of existing zoned employment lands (over two-thirds in Western Sydney)
- 4543 hectares of existing zoned land are undeveloped, of which 892 hectares is serviced
- 86 hectares net of new employment lands were rezoned over 2010
- 20 hectares of existing employment lands were depleted including land in Lane Cove, Rockdale, Canterbury and Marrickville LGAs
- 3337 hectares of unzoned land is identified for potential future employment lands uses.

Employment land activity:

- \$400 million of industrial building activity was approved in the Sydney Region in 2009/10, which is a decrease from the \$575 million approved in 2008/09
- 153 hectares of land were 'taken-up' by industrial development in 2010 (compared to 205 hectares in 2009 and 264 hectares in 2008); with the majority of take-up occurring in Western Sydney
- Based on a moderate take-up rate of 200 hectares per annum, there would be enough potential employment lands (that which has already been identified in planning strategies for future zoning or currently zoned and undeveloped) to last nearly 40 years (7880 hectares). Of this total potential stock, 4543 hectares is already zoned and undeveloped land, providing up to 23 years of supply
- However, based on a moderate take-up rate of 200 hectares per annum, there is currently just 4.5 years of supply of undeveloped zoned and serviced land (892 hectares) which may be ready for development. This falls just under the supply standards adopted interstate for industrial land planning which require a minimum of five to seven years' supply.

FIGURE 22. EMPLOYMENT LANDS IN THE SYDNEY REGION



Source: Department of Planning and Infrastructure, 2011

Examining the LGAs surrounding the City of Sydney, the East Subregion, which includes Botany Bay and Randwick LGAs, has seen an increase of 0.7 hectares of industrial land over 2010. The Leichardt LGA has seen a decrease of 0.1 hectares of employment land (the loss occurred in the Bays Precinct). Marrickville has seen a loss of 0.8 hectares of employment land, which included a loss of 0.7 hectares in Grove Street.

There was no change in the quantity of employment lands in Alexandria, Rosebery or Glebe: Parramatta Road/ Arundell Street between January 2010 and January 2011 – areas within which the study area is located.

Employment Lands Development Program 2010 – Report 1 Sydney City Subregion (2011)

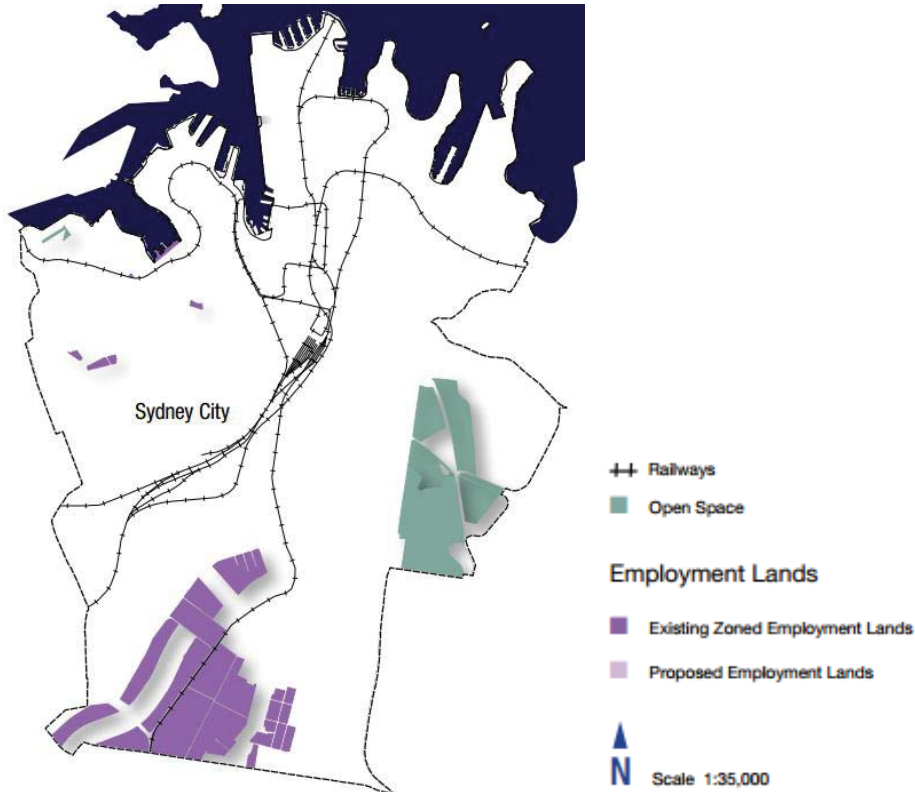
Although based on the 2010 ELDP findings, the Subregional Reports provide information in more detail on the subject areas covered in the *Employment Lands Development Program 2011 – Update Report* for each subregion and the LGAs within each of these.

The *Employment Lands Development Program 2010 – Report 1 Sydney City Subregion* looks at the Sydney City subregion. The report identifies the following key findings and trends for this subregion:

- 154 hectares of existing employment lands (1 percent of the Sydney Region’s total stocks).
- 412 hectares have been rezoned between 1987 and 2006 (much of this rezoning was to mixed-use which continues to support significant industrial activity, such as surrounding the Green Square redevelopment area, but is no longer defined as employment land).
- 3 hectares of undeveloped zoned land (less than 1 percent of Sydney Region’s undeveloped land).
- \$176 million of industrial building approvals between 2001/02 and 2008/09 (3 percent of Sydney Region’s total approvals).
- No take-up of employment lands in 2009 and less than a hectare in 2008.
- 19,800 jobs in employment lands in 2006 (4 percent of all employment lands jobs for the Sydney Region and 5 percent of the subregion’s total jobs). These jobs are concentrated in the Alexandria industrial area (over 16,950 jobs) and the Rosebery industrial area (close to 2800 jobs). Between 2001 and 2006, the subregion experienced a decline of about 1150 jobs in employment lands.

- 131 jobs per hectare – this is significantly higher than the Sydney Region average (43 jobs per hectare) and is the second highest job density after the Inner North subregion. The Rosebery industrial precinct had a job density of 204 jobs per hectare, while the Alexandria industrial area had a job density of 127 jobs per hectare.
- Manufacturing is the main industry located within the Sydney City subregion employment lands precincts, accounting for 21 percent of all jobs (4200 jobs in total), followed by the wholesale trade sector accounting for 17 percent of all jobs (3500 jobs) and the transport, postal, and warehousing sector accounting for 16 percent of all jobs (3100 jobs).

FIGURE 23. SYDNEY CITY EMPLOYMENT LANDS



Source: Department of Planning and Infrastructure, 2010

Employment lands within the Sydney City subregion are highly utilised due to the relatively limited existing supply and proximity to the Global City and economic gateways of the Port and Airport. As a result, there is virtually no undeveloped land remaining (only just over 2.5 hectares of land, predominantly within Alexandria industrial area, currently undeveloped).

Given limited land availability, no future employment lands have been identified for the subregion. However, potential to regenerate existing employment lands, including development in mixed-use precincts around Green Square, provide new opportunities for a range of industrial and related activity within the subregion.

City of Sydney level

Sustainable Sydney 2030 (2008)

Sustainable Sydney 2030 is the vision and strategic plan for the City of Sydney.

Sustainable Sydney 2030 sets ten targets for 2030. These include targets for 48,000 additional dwellings and 97,000 additional jobs by 2030 with an increased share in finance, advanced business services, education, creative industries and tourism sectors. Additionally, it is planned that by 2030 at least 10 percent of City trips will be made by bicycle, 50 percent by pedestrian movement and that every resident will be within a 10 minute (800 metre) walk to fresh food markets, childcare, health services and leisure, social, learning and cultural infrastructure.

Green Square was identified as one of the ten 'activity hubs'. Core elements of an activity hub include transport interchange, primary school, business centres, library, community space, childcare, wi-fi hotspot, fresh food market, bike parking, health and medical, City of Sydney service centre and a range of optional activity centres, dependent on local character and need.

With regards to Green Square, Sustainable Sydney 2030 plans to:

- promote Green Square as an exemplar of sustainable development
- develop as a residential and employment area
 - introduce an economic development strategy to support development controls to attract and support emerging environmental, creative and knowledge oriented industries
 - replicate the small business and residential mix of Surry Hills
- ensure substantial social community and cultural infrastructure is delivered upfront and acts as a catalyst for further development
- encourage investors, designers, owners and occupiers to add diverse character similar to that found in the City's existing Villages
- provide a variety of employment spaces and residential building types
- provide substantial contribution to the 2030 target of increasing access to affordable housing
- improve access from Rosebery to the Green Square activity hub and maintain long term options for an additional activity hub on Botany Road to support growth and change in the corridor.

The 2030 Vision proposes the Green Square Town centre to be strengthened and supported by the addition of residential, retail and business activities and improved public transport connections. It also proposes that the urban design of development adjoining Green Square will adopt the 'fine grain' character of traditional street patterns to evolve naturally into a vibrant and diverse inner urban community. The 'Connecting Green Square' project idea advocates a long term structure for the southern part of the City that preserves future development potential, allows for the City of Sydney to continue to evolve, and establishes open space corridors from Sydney Park through the Green Square Town Centre to Moore Park.

- Alexandra Canal was identified as a long-term investigation area for renewal, including the long-term potential for conversion of the area to mixed uses with a high proportion of residential in the upper reaches of the canal.

Draft City Plan LEP and DCP (2012)

In September 2005, the *Environmental Planning & Assessment Act 1979* was amended requiring, amongst other matters, councils to prepare a single LEP for each LGA; that a state-wide standard template would be the basis for the structure and content for that LEP; and that only one DCP can apply to each parcel of land.

The Draft City Plan includes the *Draft Sydney Local Environmental Plan 2011* (Draft Sydney LEP) and the *Draft Sydney Development Control Plan 2010* (Draft Sydney DCP). The Draft Sydney LEP was adopted by the Council and the Central Sydney Planning Committee (CSPC) in March 2012 and its making by the Minister is imminent. The Draft Sydney DCP will become operational at that time.

The Draft City Plan was informed by comprehensive consultation with the community and businesses and more than 40 studies and reviews. It supports the objectives of *Sustainable Sydney 2030*; however, it is also cognisant of other policy constraints, such as those imposed by the NSW Government through the Standard Instrument.

The Draft Sydney DCP is the product of a comprehensive program of review and rationalisation of the City's existing DCPs and development policies. It responds to Council's strategic directions outlined in *Sustainable Sydney 2030*, as well as strategic directions in the NSW Government's Metropolitan Plan 2036 and the *Draft Sydney City Subregional Strategy*.

In total, 62 DCPs and development-related policies have been reviewed and consolidated into the Draft Sydney DCP where relevant. To assist in this review process, a number of technical studies and reviews have been undertaken. These reviews include a number of urban design studies undertaken for each of the neighbourhoods within the LGA to identify the existing built form and make recommendations about the desired future character and key development controls.

The Draft Sydney DCP supports the provisions in Draft Sydney LEP and provides more detailed planning controls and guidance for development. It includes detailed provisions related to built form, sustainability and the environment, conservation of heritage items, the design and use of the public domain, landscaping and tree preservation

requirements, transport and access, the achievement of residential amenity and the desired future character of the City's neighbourhoods.

The Draft City Plan, once made, will replace the South Sydney LEP 1998 and South Sydney DCP 1997 that currently apply to the study area. The following key changes to the City's planning controls are relevant to this study:

- revised zoning and land-use table and rationalisation of permissible uses to comply with the Standard Instrument
- changes to zone objectives (see table below)
- rezoning of specific sites
- height and floor space ratio (FSR) controls in the LEP rather than a development control plan
- rationalisation and refinement of land use and built form controls for areas outside of Central Sydney, including the Green Square Urban Renewal Area, the Ashmore Street Precinct and Ultimo-Pymont
- revised land use and built form controls for the Southern Industrial Area
- a limit on the size of out-of-centre retail development within the retail catchment of Green Square Town Centre
- new on-site parking controls based on the accessibility of a site
- extension of design excellence requirements to all land covered by the LEP
- introduction of an incentive for the provision of end-of-journey facilities in commercial development
- Rosebery is nominated as a 'Special Character Area'⁸.

⁸ An area with a unique character where development is subject to particular controls to protect that character.

TABLE 14. ZONE OBJECTIVES

Land use	Objectives
Residential zones	
R1 General Residential	<ul style="list-style-type: none"> – Provide for the housing needs of the community – Provide for a variety of housing types and densities – Enable other land uses that provide facilities or services to meet residents' day to day needs
R2 Low Density Residential	<ul style="list-style-type: none"> – Provide for the housing needs of the community within a low density residential environment – Enable other land uses that provide facilities or services to meet day to day needs of residents
Business zones	
B1 Neighbourhood Centre	<ul style="list-style-type: none"> – Provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood
B2 Local Centre	<ul style="list-style-type: none"> – Provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area – Encourage employment opportunities in accessible locations – Maximise public transport patronage and encourage walking and cycling – Allow appropriate residential uses to support the vitality of local centres
B3 Commercial Core	<ul style="list-style-type: none"> – Provide a wide range of retail, business, office, entertainment, community and other suitable land uses that serve the needs of the local and wider community – Encourage appropriate employment opportunities in accessible locations – Maximise public transport patronage and encourage walking and cycling
B4 Mixed Use	<ul style="list-style-type: none"> – Provide a mixture of compatible land uses – Integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling – Ensure uses support the viability of centres
B5 Business Development	<ul style="list-style-type: none"> – Enable a mix of business and warehouse uses, and specialised retail uses that require a large floor area, in locations that are close to, and that support the viability of, centres – Encourage uses that generate employment and provide facilities and services to the community
B6 Enterprise Corridor	<ul style="list-style-type: none"> – Promote businesses along main roads and to encourage a mix of compatible uses – Provide a range of employment uses (including business, office, retail and light industrial uses) and residential uses (but only as part of a mixed use development) – Maintain the economic strength of centres by limiting retailing activity
B7 Business Park	<ul style="list-style-type: none"> – Provide a range of office and light industrial uses – Encourage employment opportunities – Enable other land uses that provide facilities or services to meet the day to day needs of workers – Ensure uses support the viability of nearby centres
B8 Metropolitan Centre	<ul style="list-style-type: none"> – Recognise and provide for the pre-eminent role of business, office, retail, entertainment and tourist premises in Australia's participation in the global economy – Provide opportunities for an intensity of land uses that are commensurate with its global status – Permit a diversity of compatible land uses characteristic with its global status and that serve the workforce, visitors and wider community
Industrial zones	
IN1 General Industrial	<ul style="list-style-type: none"> – Provide a wide range of industrial and warehouse land uses – Encourage employment opportunities – Minimise any adverse effect of industry on other land uses – Ensure uses support the viability of nearby centres
IN2 Light Industrial	<ul style="list-style-type: none"> – Provide a wide range of light industrial, warehouse and related land uses – Encourage employment opportunities and to support the viability of centres – Minimise any adverse effect of industry on other land uses – Enable other land uses that provide facilities or services to meet the day to day needs of workers
Special Purpose Zones	
SP1 Special Activities	<ul style="list-style-type: none"> – Provide for special land uses that are not provided for in other zones – Provide for sites with special natural characteristics that are not provided for in other zones – Facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land
SP2 Infrastructure	<ul style="list-style-type: none"> – Provide for infrastructure and related uses – Prevent development that is not compatible with, or may detract from, infrastructure provision
Recreation zones	
RE1 Public Recreation	<ul style="list-style-type: none"> – Enable land to be used for public open space or recreational purposes – Provide a range of recreational settings and activities and compatible land uses – Protect and enhance the natural environment for recreational purposes

City of Sydney Capacity Study (2008)

In 2008 the City undertook a Capacity Study that measured the 'gap' between the floor space currently available 'as built' and the potential floor space that could theoretically be achieved if the property was developed to the maximum floor space ratio (FSR) control under the prevailing planning instruments. In 2010 the City undertook a supplement study by calculating the additional capacity using the FSR controls proposed under Draft Sydney LEP.

The study demonstrated that after taking into account the anticipated Gross Floor Area for major sites, including the state-controlled Barangaroo, Redfern Waterloo Authority Lands and Carlton United Breweries site, the City's proposed planning controls have the potential to achieve 96 percent of the estimated floor space required to meet the dwelling and workforce targets established under the Draft Sydney City Subregional Strategy and 86.1 percent of the floor space to meet the *Sustainable Sydney 2030* targets. The general approach is to accommodate most growth in the urban renewal areas and in Central Sydney.

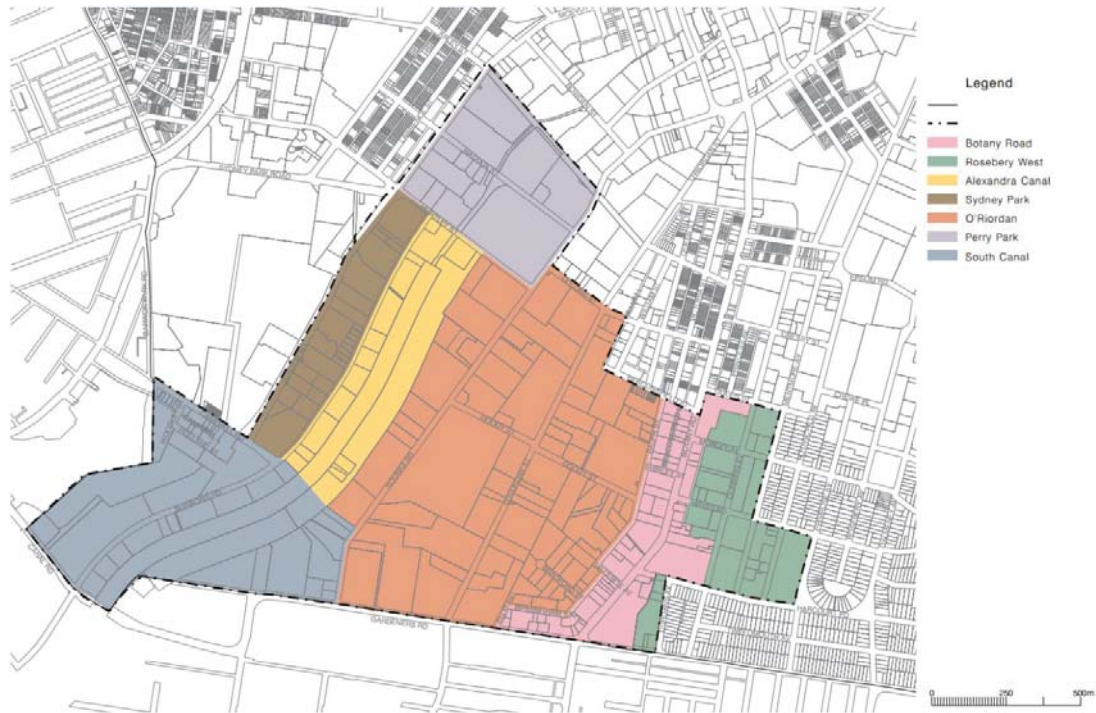
Southern Industrial Area Land Use and Urban Design Review (2008)

The *Southern Industrial Area Land Use and Urban Design Study* (the SIA Study) was publically exhibited by Council in 2008 and its recommendations guided planning controls for the study area in the Draft City Plan. The study recognised the Southern Industrial Area (SIA), which comprises parts of the suburbs of Alexandria, Beaconsfield, Rosebery and St Peters, as a strategically important location between the Sydney CBD, Sydney airport and Port Botany and recommended retaining intact industrial areas, whilst providing better connectivity and amenity in these areas.

The SIA Study considers the past and present land use demands and planning policies which have shaped development in the study area and proposes new zones and consistent with the Standard Instrument (Local Environmental Plans) Order 2006 (the Standard Instrument). A Land Use Structure Plan to fulfil employment and housing objectives for the area was also proposed. The Botany Road corridor was planned to provide for retail and commercial uses to support the existing multi-unit residential character developed under the Mixed Uses zone. Some limited commercial and retail uses were envisioned for the area in the north of the canal corridor. The remainder of the area was proposed to be maintained as industrial land uses with greater controls proposed to restrict commercial and retail development in the area.

The SIA is broken down into seven distinct 'character areas', shown below, with detailed character visions and strategies provided for each of these. This includes consideration of the land use attributable to each area.

FIGURE 24. SIA CHARACTER AREAS



Source: City of Sydney, 2008

The SIA character areas are identified as:

- Botany Road Mix of land uses providing a shopping and commercial strip with six storey building heights.
- Rosebery West Light industrial uses with transition built form between low scale residential Rosebery and Botany Road.
- Alexandra Canal Recreational destination with a mix of uses to revitalise the canal with six storey heights and improved access and linkages.
- Sydney Park Employment uses with high quality built form on Euston Road to better address Sydney Park.
- O’Riordan Continuation of industrial nature but with enhanced permeability for vehicles and pedestrian movements and high quality urban form. Bulky goods retailing and motor showrooms are to be restricted to O’Riordan Street frontages.
- Perry Park Encouragement of creative uses and benefiting from improvements to existing open space and new open space linkages to the canal.
- Canal South Industrial and warehousing character with development turning towards the canal.

Both short and long-term possible land uses for the areas are considered.

Green Square and Southern Areas Retail Study (2008)

The *Green Square and Southern Areas Retail Study* (Jones Lang LaSalle and Hassell, 2008) for Green Square and the southern areas of the City, including parts of the suburbs of Alexandria, Beaconsfield, Rosebery, Waterloo and Zetland, were commissioned to inform the Draft City Plan LEP and DCP.

The *Green Square and Southern Areas Retail Study* (the Retail Study) was commissioned by the City to provide strategic direction for retail development in the southern areas of the City including the Green Square Urban Renewal Area (URA), the SIA and Rosebery. Key recommendations of the Retail Study include: a retail hierarchy that complements and supports the Green Square Town Centre as a major centre; that the allocation of retail floor space in the Green Square Town Centre be increased to an appropriate quantum; and that any retailing within the Green Square URA and the SIA should be of a minor, ancillary nature outside of the proposed retail centres.

The Green Square Town Centre was identified at the top of the retail hierarchy as the business, retail, community and entertainment hub for the south. The Retail Study recognised that a large workforce in the industrial area of Alexandria generates demand for convenience retail development ancillary to industrial uses. A small centre of up to 1000 square meters in retail floorspace was proposed to serve this population without impacting on other centres in

the retail hierarchy. Based on the centre typology in the Metropolitan Strategy, a small village is a cluster of shops for daily shopping needs.

The Retail Study also identified strategies for managing the development of bulky goods retailing, outlet retailing and ancillary retail development in industrial zones. The Study identified that O’Riordan Street provides the main location within the study area for bulky goods, providing for over 55,000 square meters of bulky goods retailing floorspace. The Retail Study recommended that bulky goods uses be consolidated in O’Riordan Street, with additional minor outlets encouraged in the proposed Danks Street/Crown Square village within Green Square.

Following the public exhibition of the Retail Study, in November 2008 the Council and the CSPP noted the recommendations of the Retail Study would inform the Draft City Plan.

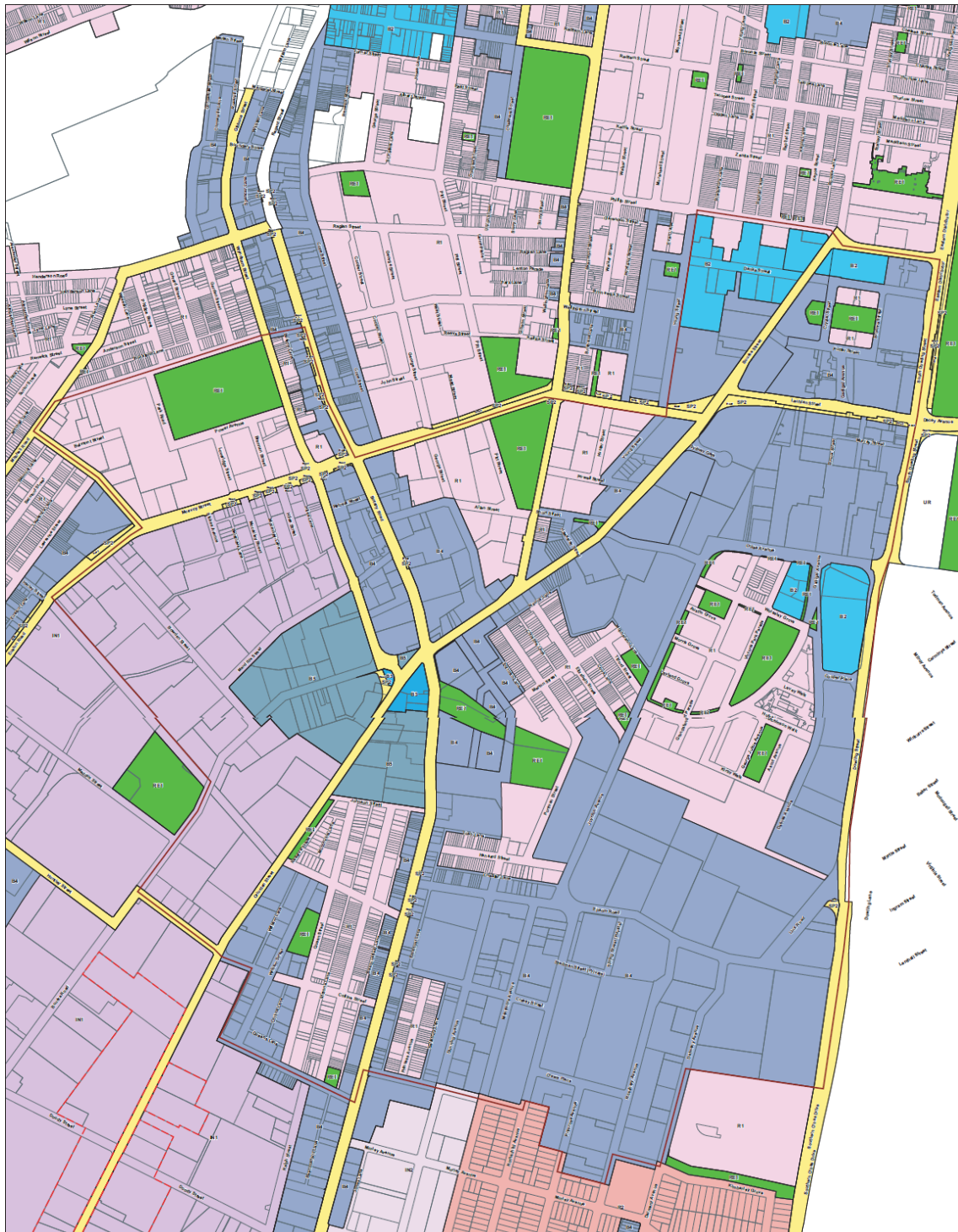
Green Square Urban Renewal Area: Background Paper and City Plan Recommendations report (2008)

The *Green Square Urban Renewal Area: Background Paper* (the Background Paper) collated and reviewed the recommendations of many previous studies relating to the Green Square URA. The proposed controls in the Background Paper, including zoning, height, Floor Space Ratio and DCP controls, are made within the context of *Sustainable Sydney 2030* and evolving state planning policies and directions.

In July 2008 the Council and the CSPP noted the planning controls proposed in the Background Paper and that those controls would inform the Draft City Plan. The Background Paper was placed on non-statutory exhibition between 22 September and 17 October 2008 and submissions were considered in the preparation of the Draft City Plan.

The draft land use recommendations are shown in the following three figures.

FIGURE 25. PROPOSED DRAFT LAND USE ZONES – GREEN SQUARE



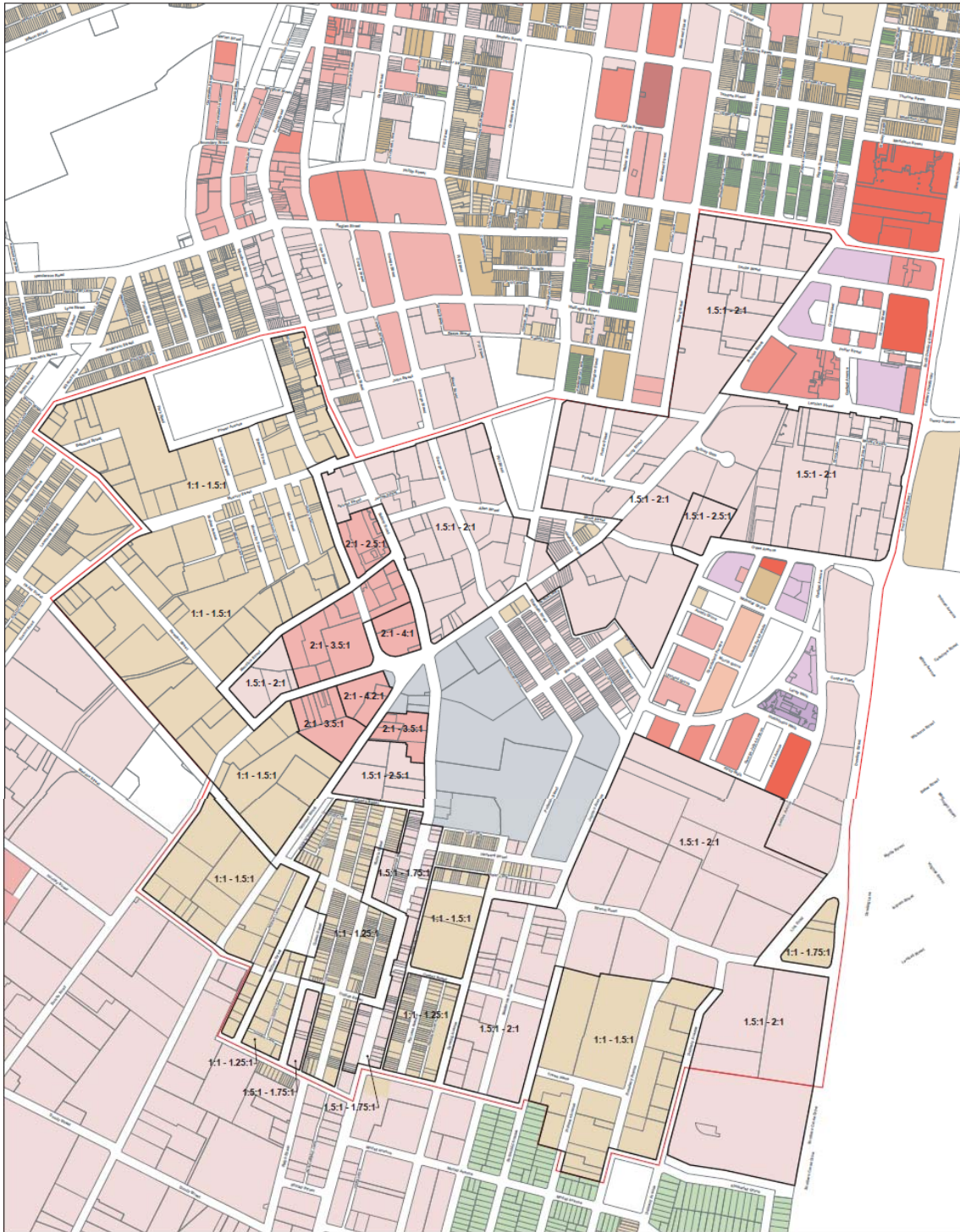
Draft Land Zoning Map LEP 2006 - Green Square

Legend					
	City Centre		General Industrial with Bulky Goods \ Motorbikes		Special Activities
	Neighbourhood Centre		Light Industrial		Infrastructure
	Local Centre		General Residential		Unzoned Land
	Commercial Core		Low Density Residential		Deferred Matter
	Mixed Use		Public Recreation		Zoning under review
	Business Development		Private Recreation		Green Square Boundary
	General Industrial				

0 80 160 320m
NORTH

Source: City of Sydney, 2008

FIGURE 26. PROPOSED DRAFT FSR MAP – GREEN SQUARE

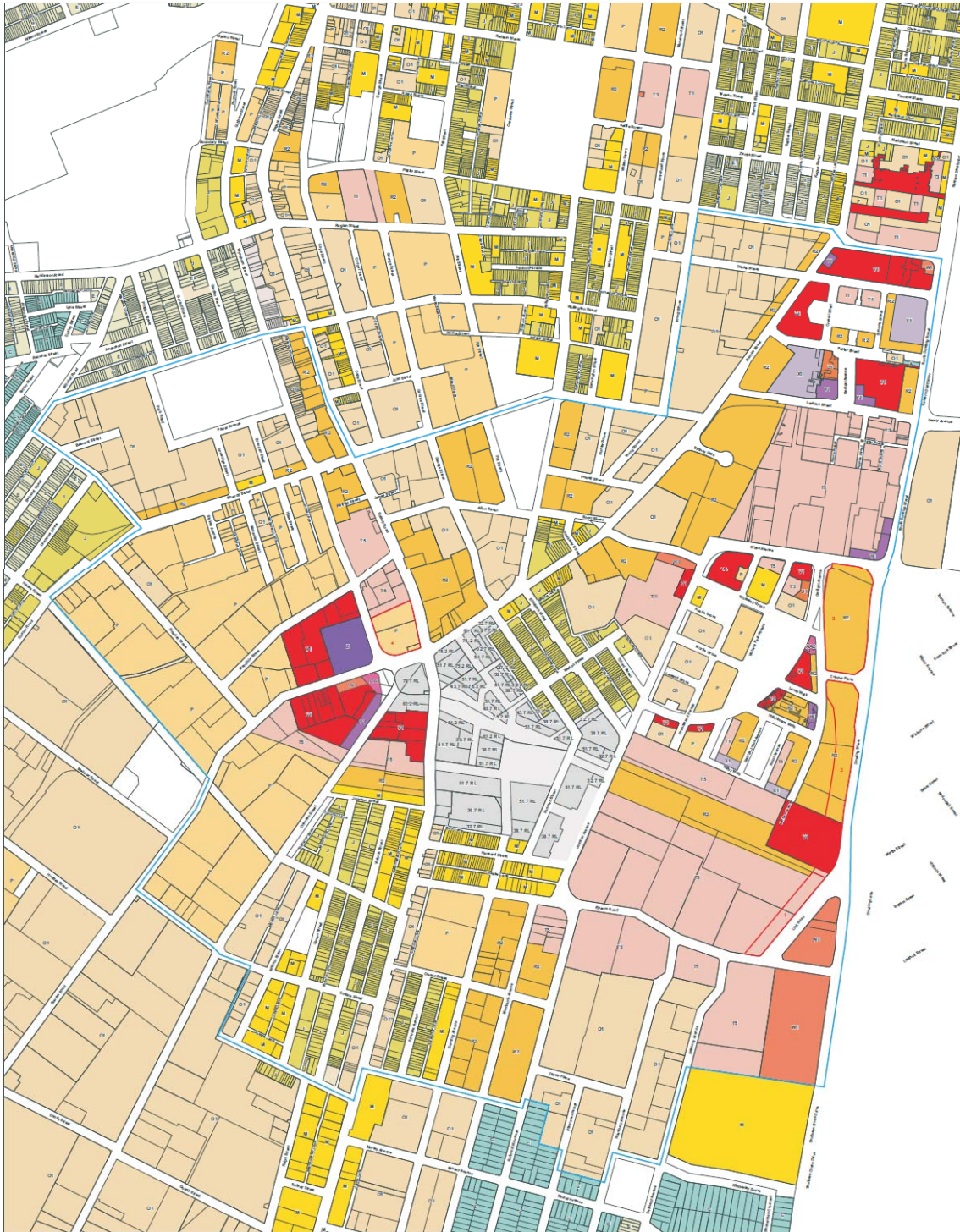


Draft FSR Map LEP 2006 - Green Square



Source: City of Sydney, 2008

FIGURE 27. PROPOSED DRAFT BUILDING HEIGHT MAP – GREEN SQUARE



Draft Building Heights Map LEP 2006 - Green Square

Legend

A 3	O1 15	S2 24	U9 33	X2 46	AA1 70	Green Square Boundary
C 5	O2 16	T1 25	U1 35	X3 48	AB 80	Clause Areas
E 6	P 18	T2 26	U2 36	Y1 50	AC 110	
G 7	Q 20	T3 27	U3 39	Y2 51	AD 130	
J 9	R1 21	T4 28	U4 40	Z 55	AE 150	
M 12	R2 22	T5 29	U5 42	AA1 60	AH 235	
N 14	S1 23.5	U1 30	X1 45	AA2 65	Deferred	

Prepared by SGS
 Planning & Design
 2008
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Source: City of Sydney, 2008

Key planning considerations and directions are as follows:

- Green Square contains warehousing, storage, and other economic functions, including local light industry and urban services, as well as airport and port related activities focused on transport and logistics. Many of these uses support City Centre businesses. Proposed zonings need to recognise this important support role the area plays and ensure availability of developable land for larger footplate form for light industrial buildings.
- A growing residential population is generating demand for retail and other uses that serve or support residential uses, for example, cafes and child care facilities. In addition, Green Square can provide opportunities for new industries and employment compatible with residential development, such as those in Danks Street, Waterloo.
- Residential development in Green Square is likely to place further pressure on industrial uses as amenity expectations in the area change.
- It is important to reinforce residential areas with a land use zone that allows wholly residential use and a small proportion of commercial use and compatible support services. Generally, residential uses should be located in areas of high amenity with easy access to parks where residential development is currently occurring.
- It is important to reinforce existing employment in industrial areas (where there are mainly large lots) with a land use zone that allows light industrial use and business services and a small proportion of commercial use. Retaining industrial employment is important in providing a diverse range of jobs in the area and ensuring that employment targets are achieved. These employment areas should exclude residential uses to avoid future conflicts (often arising from resident objections to truck traffic and 24 hour operations).
- It is important to nominate areas for genuine mixed use of commercial (such as business/residential services and showrooms) and residential development.

Proposed Land Use Zoning Map and Land Use Tables are summarised in Table 1514.

TABLE 15. PROPOSED LAND USE ZONING MAP AND LAND USE TABLES

Zone	Description
Zone B4 Mixed Uses	To be applied across the area but with differing desired outcomes. In the redeveloped residential areas, for example 'Crown Square', the mixed uses zoning has been proposed to enable the continuation of associated non-residential (commercial and retail) uses that have been developed under the existing zoning controls. Areas which have been identified as in transition from industrial to residential uses have also been proposed as mixed uses in order to allow appropriate existing uses to continue in the short term whilst enabling the transformation to more residential land uses. These areas include the 'Mid-Block' area bounded by Lachlan Street, Bourke Street, O'Dea Avenue and South Dowling Street, and 'Precinct E' (as defined in the existing Green Square DCP) to the south of 'Victoria Park', north of Epsom Road. Zone B4 Mixed Uses has also been recommended for sites along the main roads through the area, including Bourke Street and Botany Road, and for the sites within the Green Square Town Centre where a mix of commercial, residential and retail uses are proposed.
Zone B5 Business Development	The sites to the south and west of the Green Square railway station are currently zoned 10(d) Mixed Uses which is a predominantly employment mixed uses zone. The zone currently permits a wide variety of business and commercial uses, with limited residential development (up to 15percent of total floorspace). This business and commercial focus is consistent with the proposed B5 Business Development zone which seeks to support the function of the Town Centre.
Zone IN1 General Industrial	The industrial uses are proposed to be focused on the existing employment lands in the western sector of Green Square. This includes the existing industrially zoned land in east Alexandria and the sites to the south of this area, in the south-west corner of Green Square. It is anticipated the zone will be restricted to the provision of industrial uses with ancillary commercial and retail uses only. The permissible land uses will therefore generally seek to prevent large scale commercial or retail uses in this area.
Additional land use related clauses	Specific additional clauses are proposed for inclusion into the City Plan LEP in relation to development within the Zone B4 Mixed Uses. Within Green Square, these seek to ensure that residential uses introduced into existing employment areas (where the area is in transition) will ensure appropriate levels of amenity for the residential uses and not undermine the viability of the existing non-residential use.

Source: City of Sydney, 2008

Whilst the proposed planning controls support *Sustainable Sydney 2030* they are cognisant of other policy constraints, such as those imposed by the NSW Government through the Standard Instrument.

Traffic studies

Green Square TMAP 2008

In 2008, the City of Sydney worked with State agencies to develop a Green Square Transport Management Accessibility Plan (the Green Square TMAP), which will guide the sustainable development of Green Square and the rollout of transport infrastructure and services by the State Government.

The TMAP notes that major arterial roads within the study area, namely Botany Road, O’Riordan Street and McEvoy Street, are operating close to capacity, with above average levels of heavy vehicles due to the industrial activity occurring between the CBD and Port Botany and Sydney Airport and significant queues occurring at intersections during commuter peak periods. Of a total 46 strategic transport corridors identified by Transport for NSW, the bus corridor running from Sydney Airport to Sydney CBD is classified as one of six with high constraints. Council believes that the issue of traffic congestion in the area could be improved through the construction of an M4 East extension and upgrading of the intersection of Lachlan Street with South Dowling Street.

Aims of the TMAP include achieving a reduction in car based travel (with targets consistent with the *Sustainable Sydney 2030* vision), positively contributing to Green Square as an exemplar of sustainable development, and positively contributing to the viability of future development. It is noted that:

Previous traffic studies identified that future local and regional traffic growth through the Green Square area would result in significant delays to vehicles at many intersections. Increasing the capacity of the local road network through widening or access control would reduce future local amenity. Excessive traffic generation from the Green Square area itself could also reduce the efficiency of movement between the ports and the CBD. To avoid significant road upgrades, which might only provide temporary congestion relief, an objective to minimise car trip generation from current and new residents and businesses is a key part of the Green Square Plan. Walking and cycling trips are to be encouraged and public transport is intended to be the preferred commuting mode for destinations on the network.

A number of transport measures to achieve the mode share targets for the area are identified, and include:

- the continued bus priority investment in the key transit corridor along Botany Road (Strategic Bus Corridor 21: Miranda to CBD) and a new transit corridor connecting Green Square with Central station, as well as changes to bus routes serving Green Square
- considering opportunities for a ‘Green Loop’ concept connecting Green Square, Central, Redfern train station and Surry Hills
- prioritising regional cycling connections and enabling local cycling corridors to become extensions of key, CBD based routes
- allocation of road upgrades based on enhancement in the performance of transit modes
- reinforcement of the preferred road hierarchy in the area by constraining traffic levels on local streets to improve the safety and amenity for pedestrians and cyclists.

Since the adoption of the 2008 TMAP, the City of Sydney and Department of Planning and Infrastructure projections of employment and population have significantly increased. A Botany Road Corridor Action Plan has also been developed. An updated 2012 Green Square TMAP is currently under review and expected to be released within the next quarter. The new TMAP incorporates updated transport demand forecasts which reflect the significant growth expected in the area, specify new targets and identify actions for meeting those targets.

Mascot Town Centre Precinct TMAP 2012

The Mascot area has been identified as a future Town Centre by the Sydney Metropolitan Plan 2036, and ‘large development sites, limited land ownership and proximity to the Mascot Station all combine to provide extensive redevelopment potential in preference to sporadic development elsewhere’. However, the anticipated increase in traffic, coupled with major activities nearby such as Sydney Airport, Port Botany and industrial areas, has the potential to limit growth in the area. As a result, a Transport Management Accessibility Plan (TMAP) was prepared for the Mascot Station Precinct.

The TMAP states that the arterial road network in the area carries high through-traffic volumes to and from the Sydney Airport and Port Botany. Many of the main roads mentioned are within the study area, including Botany Road, Gardeners Road and O’Riordan Street. Of note are the following:

- the Gardeners Road/ Ricketty Street corridor carries an average weekday traffic volume of 32,400 and is operating close to capacity during the evening peak period
- the Bunnings Warehouse on the northeast corner of the Gardeners Road/Bourke Road intersection is a major traffic generator
- O’Riordan Street north of King Street is carrying an average weekday traffic volume of 48,200 vehicles with a heavy vehicle proportion of 11 percent
- heavy vehicle movements raise safety concerns for pedestrians on Bourke Road – a critical pedestrian link.

Given that it would not be cost effective to widen these main roads, higher public transport usage will be necessary.

Development scenarios were modelled and estimate that employment in Mascot could grow by between 58 percent and 82 percent¹⁰, in addition to population increases of 262 to 307 percent. Assuming the implementation of three new high frequency bus routes within the TMAP area and construction of the M5 East Extension by 2021, the recommendations to enable the area to accommodate this growth and achieve the targeted mode share of 57 percent car and 43 percent public transport include the following:

- | | |
|---------------------------------|---|
| Public transport initiatives | <ul style="list-style-type: none"> – Provision of a bus terminal along Bourke Street, close to the Mascot Station – Improvements of bus operations on the City to Miranda bus route, which will run along Botany Road through the study area – Construction of bus lanes along Bourke Street, bus priority lanes at the Gardeners Road/ Bourke Street intersection and long term bus priority measures along Coward Street – Implementation of bus lanes along the section of Bourke Street between Church Avenue and John Street in the medium/long term |
| Pedestrian and cyclist access | <ul style="list-style-type: none"> – Implementation of 40 km/h speed zones, along Bourke Street and Coward Street to facilitate pedestrian amenity – Extension of the Bourke Road/Street cycleway to complete the missing link in the regional cycleway network between Sydney CBD and Sydney Airport – Improvement of existing pedestrian and cyclist provisions and implementation of additional footpath and shared path connections, including provision of improved crossing facilities at key locations to ensure connectivity of the network |
| Road network improvements | <ul style="list-style-type: none"> – Intersection improvements, to increase capacity and provide opportunities for implementation of bus priority measures and provide improved pedestrian/ cyclist crossings at the following intersections: <ul style="list-style-type: none"> – Gardeners Road /Bourke Street including realignment of Bourke Street – Gardeners Road /O’Riordan Street – Gardeners Road/Botany Road – Coward Street/Kent Road – Bourke Street/Coward Street – Reconfiguration of Church Avenue at its intersection with Kent Road |
| Management of on-street parking | <ul style="list-style-type: none"> – Removal of on-street parking at selected locations close to major intersections during peak periods to reduce capacity issues on the road network. Short-stay restricted parking could be introduced outside the peak periods to facilitate future retail and commercial land uses. |
| Measures for new developments | <ul style="list-style-type: none"> – Requirement for new developments to submit and implement Workplace Travel Plans to encourage sustainable travel mode choice to/from the TMAP Study Area – Reduction in parking provision rates for residential and commercial developments |

NSW Transport Masterplan – Discussion Paper 2012

The NSW government is in the process of preparing a long term transport management plan to identify the next set of priorities for transport, identify how the future needs of customers will be met, and ensure a competitive and sustainable transport strategy is in place to support the state’s development over the next 20 years. A discussion paper was released in February 2012 examining key transport issues, challenges and opportunities for Sydney and

¹⁰ Assuming redevelopments to FSR 3:1 and 3.5: 1 respectively

the regions taking into account the need to support population increases, job creation, economic growth and land use strategies.

The government's vision for transport is to:

- ensure that the transport meets the needs and expectations of the customer
- ensure that the transport system of the future is fully integrated by ensuring that planning, policy and regulation occur in one place
- grow patronage on public transport by making it a more attractive choice
- maintain and improve a comprehensive network of smooth-flowing roads in metropolitan, regional and rural NSW
- enable the transport system to support the economic development of the State with a particular focus on improving the coordination of freight
- promote coordination and integration across all transport modes and all stages of decision-making
- provide clean, reliable, safe, efficient and integrated transport services
- ensure that the transport system of the future will be strategic and multi-modal, serving the needs of all customers whatever the purpose of their journey.

Of particular relevance for the study area is the focus on corridor strategies:

Corridor strategies and an interchange strategy are needed to join up and integrate networks. The corridor strategies should consider how the transport system might evolve in a corridor as passenger numbers grows. Major centre and precinct access plans, such as for Port Botany and Sydney Airport as well as the northern end of the Sydney CBD, will assist with planning transport systems within these centres. They will also identify how all the centres can be more effectively connected to each other.

Airport and port

Sydney Airport accounts for around 45 percent of Australia's international passenger movements and airfreight tonnage and Port Botany is Australia's second largest container port. Activity at the airport and port is forecast to double over the period to 2036. The increase in traffic movements from both the airport and port, in addition to increased demand on road and rail corridors due to residential and employment growth, will place additional pressure on the ground transport networks that feed these gateways. Accommodating movements between Sydney Airport, Port Botany and Western Sydney will be particularly difficult on existing networks, but is essential to support growth in the State's economy.

Road networks

Sydney's road system and the motorway network are essential to the economic development of Sydney and NSW; providing access to jobs and links to Port Botany and Sydney Airport, and supporting the major freight task required to service the needs of the wider region. The discussion paper notes that to do this effectively, the motorway network must be well connected to the major traffic generating precincts and have the capacity to meet the demand for trips that can only be made by car. The network currently lacks a motorway connecting the growing employment lands and population along the M4 with the CBD, Port Botany and Sydney Airport.

Duplicating the M5 East would alleviate congestion near Sydney Airport and Port Botany. As the traffic on major arterial roads increases, new measures to manage congestion could include:

- clearways on more roads, operating for longer hours and on weekends
- the removal of parking on major arterial roads and priority for freight vehicles on the main freight corridors
- allocating more road space to buses or light rail to increase the number of people passing through the system
- road pricing, which may discourage car use and increase public transport patronage
- offering priority to vehicles with multiple passengers to increase the efficient use of cars.

Rail

The Southern Sydney Freight line is under construction and will support the development of Port Botany by establishing a dedicated rail link between Port Botany and Macarthur; allowing the movement of freight at any time and providing greater efficiency for both commuter and freight services.

APPENDIX B: FLOORSPACE BY INDUSTRY CATEGORIES

The following industry groupings were used to generate the floorspace by industry maps shown in Section 3.4.

TABLE 16. INDUSTRY CATEGORIES BY SPACE USE CODE

Category	Included uses
Freight and logistics – Transport and storage	Road freight depot Railways goods yard Parcel delivery/mail sorting depot Container depot Rail freight depot Air freight depot Shipping wharf Loading dock Mechanical handling places (lift, elevator, conveyor) Goods terminals n.e.c. Bus station Light rail/monorail/tram station/platform Railway station/platform Ferry wharf Airline terminal Passenger terminals n.e.c. Rail signal box Traffic signal control Air traffic control tower Harbour control tower Turnstyle Light rail/monorail/tram station/platform – external Railway station/platform – external Traffic control devices n.e.c. Bus depot Taxi depot Specialist fleet depot Rail stock/marshalling yard Railway locomotive shed Ferry/water depot Marina Aeroplane hangar Heavy vehicle parking Bonded stores Wharf storage Wholesale and retail goods storage Goods handling/packing Cold storage Liquid storage Petroleum storage Livestock storage Bulk storage Raw materials storage External storage Department store storage
Factories and laboratories	Factory area Industrial/scientific laboratory
Studios and industrial workshops	Printing workshop Film processing

Category	Included uses
	Art/craft studio Electrical building services workshop Building contractors workshop Maintenance workshop Film and video production studio Audio/radio production studio Industrial n.e.c.
Service industrial	Repair service (workshop) Industrial laundry/dry cleaning Motor vehicle/tyre garage Hotel laundry
Office	Administrative offices – partitioned Administrative offices – open plan Shared office ('hot' desk) Drafting/graphics offices Financial – dealing room Stock exchange
Retail – Centre based retail	Variety store Retail shop Business equipment supplier Personal services shop Repair shop (counter-only) Counter Art/craft gallery Laundromat
Retail – Dispersed retail	Retail shop – ancillary use/change rooms Stand/kiosk/stall/booth Restaurant Cafe/coffee lounge Staff canteen Ancillary dining room Function/reception centre Hotel/tavern/bar Outdoor eating/drinking area Pavement eating/drinking area Kitchen – restaurant/cafe Serving counter (with seating) Food court Food counter Vending machine Restaurants n.e.c.
Retail – Retail big box	Department store Supermarket
Retail – Showrooms	Retail – showroom Shop/showroom n.e.c.
Urban services	Electricity regulations substation (within building) Other electricity supply and generation Gas supply/generation Water pumping/regulation/treatment station Sewerage pumping/regulation/treatment Refuse and solid waste disposal centre Liquid waste disposal centre Telephone plant/switch room (within building) Telephone exchange plant Comms room Transmitting/receiving station/radio room Mail centre/delivery room (purpose-built) Utility areas n.e.c.
Vacant	Vacant office

Category	Included uses
	Vacant shop/showroom Vacant storage Vacant entertainment/leisure Vacant restaurant Vacant community Vacant accommodation Vacant industrial Vacant n.e.c.

Source: SGS Economics and Planning, 2012

APPENDIX C: LAND USE SUITABILITY

Spatial requirements of particular land uses

Broad spatial requirements for land uses relevant to the study area are detailed in the table below.

TABLE 17. LAND USE CATEGORIES AND SUITABLE SPATIAL ATTRIBUTES

Land use	Description	Location requirements
Freight and logistics (FL)	Warehousing and distribution activities: includes buildings with a number of docking facilities, 'hard stand' areas with trucks or goods awaiting distribution, and large storage facilities	Warehousing and distribution is a metro level issue with activities preferably locating close to air, sea and inter-modal inland ports, or with access to the motorway system.
Local light industrial (LL)	Car service and repair, joinery, construction and building supplies, and domestic storage	Includes a wide range of businesses that service other business (components, maintenance and support) and subregional populations. Local light industry is drawn towards the populated areas, will require reasonable access to arterial infrastructure and can be found in on the edge of centres of all sizes in industrial zones areas.
Heavy manufacturing (MH)	Large scale production activity: likely to be characterised by high noise emission, emission stacks, use of heavy machinery, and frequency of large trucks	Heavy manufacturing is best positioned in industrial areas away from populated areas given its impacts. It will often require motorway access and access to a rail spur. Heavy manufacturing is in decline in Sydney, but will continue to cluster in some locations. There are strong arguments for collocation in terms of raw material delivery and to concentrate externalities (though impacts on surrounding uses are generally moderate).
Light manufacturing (ML)	Small scale production with lower noise and emission levels than heavy manufacturing	Light manufacturing is less likely to be found in populated areas and requires proximity to motorway on/ off ramps. Suited to industrial areas but with a lower requirement for distance from population than heavy manufacturing.
Office (O)	Office buildings	Office uses are heavily influenced by transport accessibility and as a result the most suitable areas are clustered around designated centres – especially those on transport nodes and with railway stations to provide good accessibility for office workers.
Bulky goods retail (RBG)	Typically large, one-story buildings surrounded by car-parking	Bulky goods retail is generally dependent on arterial road access and high visibility but also requires large lots. Usually located out of centre and in high exposure (main road) locations.

Source: SGS Economics and Planning, 2012

Land ranking criteria

In order to rank the study area according to suitability for particular land uses, SGS used available GIS data to observe (as far as possible) the broad spatial requirements described above. The actual criteria used to rank areas are described in the table below.

A layer of shading is added to the map for each criterion met. For example, for heavy manufacturing, layers of shading are added if land is zoned for industrial uses, or is within 2 kilometres of a motorway ramp or 800 metres of an arterial road. However, land is shown as unsuitable for this use if it is located within 1 kilometre of the edge of a population centre. For office suitability, a layer of shading is added if land is within the boundaries of centres larger than a town centre, if land is zoned for university or hospital uses, and if it is within 800 metres of arterial roads or rail stations.

Land that does not fill any of the criteria for a particular land use will be shaded grey. Land meeting some criteria will be a light green showing some suitability for this use. Where multiple criteria are met, a number of layers of shading are added and the resulting solid green shows strong suitability for the land use being considered.

The maps resulting from this assessment are following.

TABLE 18. LAND RANKING CRITERIA

	Population	Type of centre	Industrial lands	University lands	Hospital lands	Maximum distance from:			
						Motorway ramps	Arterial roads	Rail stations	Airport /port
FL	Minimum: edge of centre, no maximum	Proximate to any centres (except major or above)	Yes	Yes	Yes	2km	800m	800m	3km
LL	Minimum: in centre, maximum: edge of centre	All centres	Yes	Yes	Yes		800m	800m	
MH	Minimum: 1km from edge of centre, no maximum		Yes			2km	800m		
ML	Minimum: in centre, no maximum	All centres	Yes	Yes	Yes	2km	1.5km	800m	
O	Minimum: in centre, maximum: edge of centre	Specialised, regional, major, or town centre		Yes	Yes*		800m	800m	
RBG	Minimum: in centre, maximum: edge of centre	Specialised, regional, major, or town centre, or village					200m	800m	

Source: SGS Economics and Planning, 2012

*Offices in hospital lands are assumed to be related to hospital uses, not stand-alone.

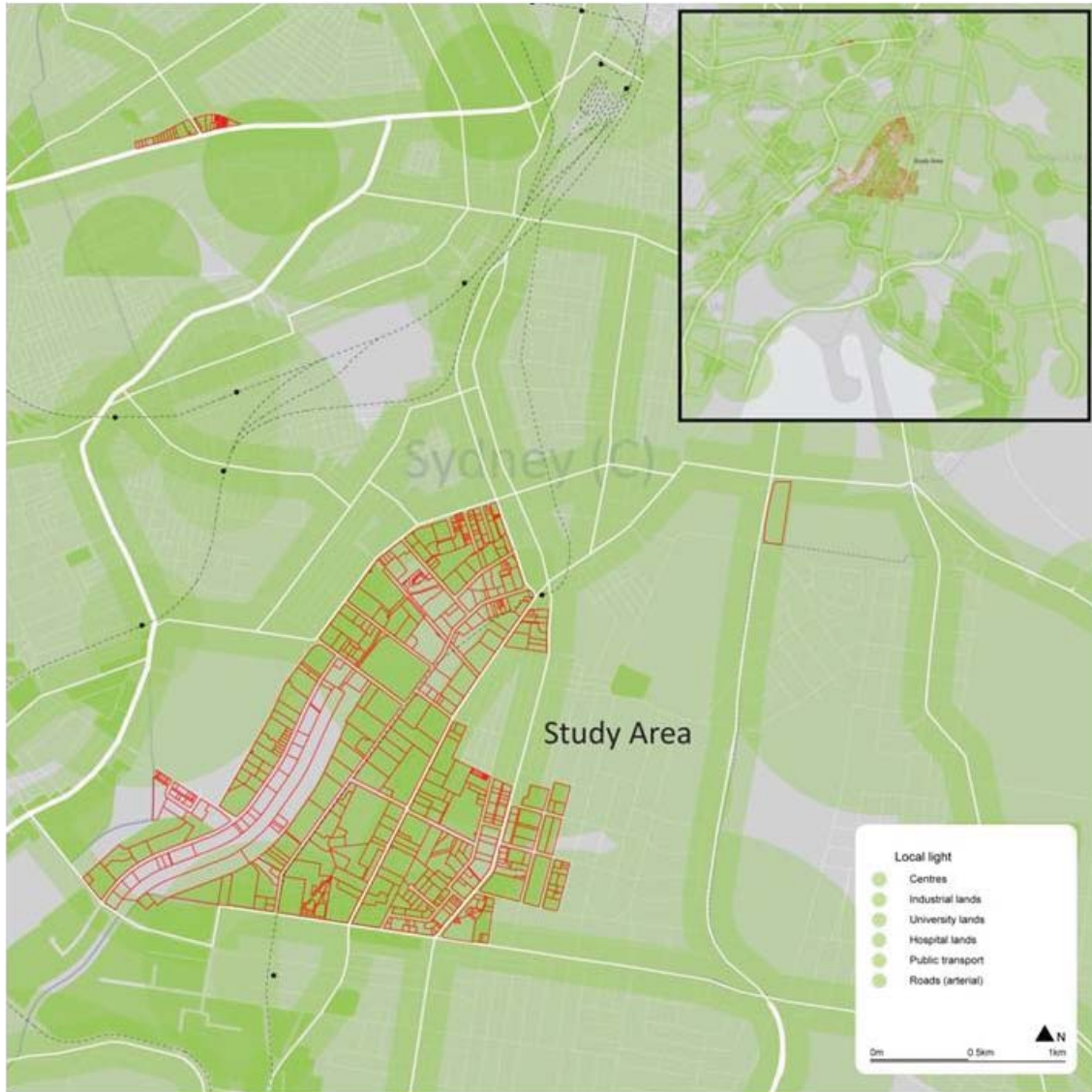
Land use suitability maps

FIGURE 28. LAND SUITABILITY FOR FREIGHT AND LOGISTICS



Source: SGS Economics and Planning, 2012

FIGURE 29. LAND SUITABILITY FOR LOCAL LIGHT INDUSTRY



Source: SGS Economics and Planning, 2012

FIGURE 30. LAND SUITABILITY FOR HEAVY MANUFACTURING



Source: SGS Economics and Planning, 2012

FIGURE 31. LAND SUITABILITY FOR LIGHT MANUFACTURING



Source: SGS Economics and Planning, 2012

FIGURE 32. LAND SUITABILITY FOR OFFICE USES



Source: SGS Economics and Planning, 2012

FIGURE 33. LAND SUITABILITY FOR RETAIL BULKY GOODS



Source: SGS Economics and Planning, 2012

APPENDIX D: PHONE SURVEY RESPONSES

TABLE 19. LENGTH OF TIME ON CURRENT SITE

	% of responses
< 1 year	7.9
2 to 5 years	33.0
6 to 10 years	27.6
11 to 20 years	23.6
> 20 years	7.9
Total	100

Source: SGS Economics and Planning, 2012

TABLE 20. PROPORTIONS OF SUPPLIERS BASED IN SYDNEY (%)

	Alexandria	Elsewhere in City of Sydney LGA	Elsewhere in metropolitan Sydney
0 to 5%	49.8	51.7	41.9
5 to 10%	12.3	8.4	7.4
10 to 20%	7.4	6.9	9.4
20 to 40%	5.9	11.3	10.8
40 to 50%	11.3	8.9	6.9
50 to 60%	1.0	3.0	3.9
60 to 80%	6.4	3.4	8.9
80 to 90%	1.5	0.5	3.0
90 to 100%	2.0	3.0	5.4
No response	2.5	3.0	2.5
Total	100	100	100

Source: SGS Economics and Planning, 2012

TABLE 21. PROPORTIONS OF CUSTOMERS BASED IN SYDNEY (%)

	Alexandria	Elsewhere in City of Sydney LGA	Elsewhere in metropolitan Sydney
0 to 5%	42.4	30.0	29.1
5 to 10%	11.8	13.8	12.8
10 to 20%	9.4	10.3	14.3
20 to 40%	9.9	14.8	10.8
40 to 50%	5.4	9.4	6.4
50 to 60%	3.4	6.4	3.0
60 to 80%	9.4	7.9	6.4
80 to 90%	2.5	1.5	6.4
90 to 100%	2.5	2.5	6.9
No response	3.4	3.4	3.9
Total	100	100	100

Source: SGS Economics and Planning, 2012

TABLE 22. LIKELIHOOD OF RELOCATING IN THE NEXT 5-10 YEARS

	% of responses
Not likely to relocate	65.5
Main reason for decision:	
own business, premises	21.1
happy here/ like it here	18.0
prime position/ location	15.8
cost or hassle of moving	6.8
suits type of business/ services	6.8
don't know	6.8
already established	6.0
have a long term lease	6.0
client base	6.0
just moved to area	3.0
no response	3.0
none/nothing	0.8
Likely to relocate	34.5
To:	
unsure	32.9
immediate area	31.4
neighbouring area	14.3
City	5.7
City of Sydney LGA	4.3
out of the area	4.3
Eastern Sydney	2.9
Western Sydney	2.9
closing	1.4
Main reason for decision:	
growth/ business expansion (require larger premises)	25.7
the lease will expire	11.4
high or increasing rent	11.4
the location	11.4
traffic	5.7
don't like it here	5.7
parking	5.7
don't know	5.7
for a change	4.3
want to buy my own premises	4.3
not enough trade/ business not doing well	2.9
change of business	2.9
downsizing of business (to smaller premises)	2.9

Source: SGS Economics and Planning, 2012

TABLE 23. IMPORTANCE OF VARIOUS FACTORS (% OF RESPONDENTS)

	1 (not at all important)	2	3	4	5	6	7	8	9	10 (essential)
Proximity to port or airport	25	9	11	2	16	5	6	9	3	12
Proximity to the CBD	12	7	7	7	19	6	11	15	6	9
24 hour operation	46	9	7	5	15	0	2	7	2	5
Separation from sensitive uses	24	10	9	4	24	7	8	5	4	4
Access to shops and services	11	7	7	3	22	10	12	18	4	5
Public transport access	8	5	1	2	12	7	10	22	10	22
Proximity to suppliers	20	8	8	5	18	9	11	8	4	8
Proximity to customers	9	2	4	4	16	5	9	16	6	28
Truck access	17	5	3	1	8	3	11	17	8	27

Source: SGS Economics and Planning, 2012

TABLE 24. CURRENT OPERATIONAL ISSUES

	% of responses
No issues	35.0
Issues	65.0
Of these, main issue is:	
lack of parking	29.5
cycle lane	13.6
ability to expand	9.1
truck access	7.6
traffic	7.6
access	7.6
lack of public transport	6.1
neighbour disputes	4.5
lack of work	3.8
no response	2.3
speed humps	1.5
lack of local shops	1.5
other	1.5
staff	0.8
rubbish	0.8
noise	0.8
the area becoming more residential	0.8
don't know	0.8
Total	100

Source: SGS Economics and Planning, 2012

TABLE 25. SUGGESTED IMPROVEMENTS FOR THE AREA

	% of responses
More parking	37.5
None: happy with the area	11.3
Don't know	8.8
Better roads	7.5
Better traffic flow	6.3
Higher local population	6.3
Removal of bike lane	5.0
More shops and cafes	5.0
More public transport	2.5
Cleaner area	2.5
Better security	2.5
Faster internet	1.3
More parks/playground/swimming pool	1.3
More crossings	1.3
No response	1.3
Total	100

Source: SGS Economics and Planning, 2012

APPENDIX E: CITY PLAN SUBMISSIONS

A more detailed summary of the City Plan submissions relevant to this study is provided below.

Address Southern end of Bourke Road, Alexandria
Current zone Zone 4 – Industrial
Proposed zone Zone IN1 – General Industrial

Summary **Zoning**

The submission indicated that the proposed IN1 General Industrial zone is inappropriate for the precinct, as:

- it is based on poor assumptions concerning the location of industry and ignores local trends
- it does not reflect the area’s changing nature and removes the flexibility required to manage market demand
- conventional industry is unlikely or cannot be established within this site for economic reasons
- it reduces the capacity of the area to increase employment outcomes, and restricts new investment and employment opportunities when compared to a wider range of business and commercial uses.

The submission indicated that B5 Business Development zone would be more appropriate to the precinct as it:

- will maximise employment and opportunities for enterprise growth
- reflects the diversity of activities in the SIA and encourages investment in high value added activities
- will support centres in the area (Green Square and Mascot) as traditional forms of retailing are prohibited.

Public transport: rail link

The submission suggested that the City of Sydney should revisit the potential for new railway capacity around the corner of Doody and Bourke Streets.

Retail floorspace limits

The landowner objects to the imposition of Clause 7.23 (which limits the size of retail premises outside of centres to a gross floor area of 1000 square metres) for the subject site and wider area, as it is inconsistent with competition principles and is not supported with background studies.

DCP: street network and setbacks

The submission objects to the alignment of the proposed street that traverses through South Sydney Corporate Park (SSCP), for which the tenure is unclear. It is suggested that this alignment will significantly impact existing buildings within SSCP, require demolition of a number of buildings, force relocation of current businesses, constrain future development and result in the loss of high voltage infrastructure. The submission recommends an amendment to the dSDCP to remove the proposed street network traversing the Corporate Park.

The landowner objects to the proposed setbacks (build to street alignment requirement along O’Riordan St) and the 10 metre setback along both sides of the existing open drainage channel, as it is argued that these will significantly reduce the amount of developable land on site.

Bulky goods uses on O’Riordan Street

It was argued that prohibiting bulky goods uses will force reliance on existing use rights, which will potentially place at risk the successful continuation and consolidation of existing businesses and services they provide.

Address Southern end of Bourke Road (beside canal), Alexandria
Current zone Zone 10 – Mixed Uses and Zone 4 – Industrial
Proposed zone Zone B7 – Business Park and Zone IN1 – General Industrial

Summary **Zoning**
The landowner has concerns about the adverse implications of the proposed B7 Business Park and IN1 General Industrial zones. It was suggested that the proposed zones prohibit many commercial, retail and residential uses currently permitted under the current No.10 Mixed Uses zone. The landowner indicated that the B4 Mixed Use zone is the most logical and appropriate zone for the site and east of the canal. It is suggested that part of the site be rezoned from IN1 General Industrial to B5 Business Development to reflect the existing land use pattern.

Height and floor space ratio (FSR)
The landowner suggests that the height controls of 18 metres and 22 metres do not correlate with FSR controls for the site. It is argued that the ‘blanket approach’ to height control of four storeys should be revised with a higher built form to be permitted, particularly along the canal.

Active frontages
The submission suggests that the active frontages are considered to be inappropriate for a business or industrial zoned area and should not be mandatory in the area.

Car parking
It is argued that the controls are too inflexible and do not permit merit based assessment, and that the car parking controls should be used as a guide only.

Address Rosebery Residents Action Group (RRAG)
Current zone Zone 10 – Mixed Uses
Proposed zone Zone B6 –Enterprise Corridor and
Zone IN2 – Light Industrial

Summary The RRAG have the concern that the zoning and heights in the SIA and Green Square are being reviewed in isolation from one another.

The RRAG generally supported the following initiatives from the dSLEP:

- retention of light industrial zone and introducing light industrial zone for Rosebery West. Supportive of initiative to maintain employment land adjacent to residential areas
- proposed gentrification and activation of Alexandra Canal
- improved transport access and options throughout the area
- development of a transport corridor utilising industrial roads O’Riordan Street and Bourke Road, in turn reducing heavy traffic along Botany Road
- higher built form along Gardeners Road, west of Botany Road
- appreciation of the value of trees in Mentmore Avenue and Council’s initiatives to ‘unify’ streets with the same species.

Height and FSR controls
The RRAG argue that it is unacceptable that height and FSR increases are based on examples of past breaches of Council’s height and FSR controls. They also have concerns about definition for achieving maximum FSR, suggesting that it is easy to interpret the requirements in multiple ways. They go on to argue that height increase for the Botany Road ‘character area’ and in transition zone in Rosebery West will have unacceptable amenity impacts, although height increases along Gardeners Road, west of Botany Road, were generally supported.

Zoning
The RRAG object to the extension of the B4 Mixed Use zone along the eastern side of Botany Road and the block bound by Hayes, Dunning, Harcourt and Botany, the area adjacent to Gardeners Road Public School, Rosebery Childcare Centre and Durdans Avenue and Rosebery West. They indicate that the proposed mixed use zone might destroy the character and amenity of low-rise residential areas. RRAG suggest that development controls should be created that limit the amount and location of residential development within the mixed use zone. They advocate the IN2 zone.

Road network, traffic and transport
The submission supports a finer road network through the SIA. It suggests that there are existing problems with heavy vehicles travelling through residential areas and that weight restrictions should be implemented on residential roads to ensure access for heavy vehicles is maintained via non-residential corridors. RRAG also express doubts about the logistics and timing of the planned Doody Street extension.

Heritage
They indicate that the City Plan should provide protection for, and retain, heritage and significant buildings. They

suggest that future development on these sites may result in the demolition of these buildings or insensitive additions.

Address Southern end of O’Riordan Street, Alexandria
Current zone Zone 4 – Industrial
Proposed zone Zone IN1 – General Industrial

Summary The landowner is concerned that the IN1 General Industrial zone will prohibit uses that are currently permitted; does not reflect the predominance of bulky goods retailing and vehicle showroom businesses in the area, and will constrain future use and redevelopment and impact employment generation. The B5 Business Development zone is suggested for the site, with ‘bulky goods premises’ and ‘vehicle sales and hire premises’ as permissible uses.

The submission also argues that retail floorspace limits are anti-competitive, given that they prohibit larger retail formats within an extensive area. It also raised the uncertainty surrounding the application of this control.

The submission suggests that the requirement for a 10 metre landscaped stormwater channel setback along the northern edge is unnecessary, inappropriate and will constrain and sterilise the re-development of the rear portion of the site. It argues that there is no adequate compensation contained within Council’s Section 94 plans for providing this public benefit, or FSR and height bonuses to compensate for the loss in development potential.

Address Corner of Gardeners Road and O’Riordan Street, Alexandria
Current zone Zone 4 – Industrial
Proposed zone Zone IN1 – General Industrial

Summary The submission objects to the proposed IN1 General Industrial zone and indicates that the new zone would affect the viability and use of the sites.

Address Huntley Street, Alexandria
Current zone Zone 10 – Mixed Uses
Proposed zone Zone B7 – Business Park

Summary The landowner objects to the proposed B7 Business Park zone, arguing that it constrains the future renewal of the canal; inconsistent with the Sustainable Sydney 2030 vision. It is suggested that a B4 Mixed Use zone will allow a more viable range of uses that will assist with the future renewal of the precinct.

Address Southern end of Botany Road, Rosebery
Current zone Zone 4 – Industrial
Proposed zone Zone IN2 – Light Industrial

Summary The submission argues that the proposed IN2 Light Industrial zone will encourage uses with lower employment yields and fewer opportunities for active street frontages and prevents the site from realising Council’s vision for this area. Similarly, it indicates that the IN1 General Industrial zone is more restrictive than the B6 Enterprise Corridor and that a majority of the prohibited uses are employment generating uses. The landowner therefore suggests that the B6 Enterprise Corridor is a suitable zone as it enables a wide range of employment generating land uses that will have the least impact on adjacent residential development.

Address Botany Road, Rosebery
Current zone Zone 10 – Mixed Uses
Proposed zone B6 – Enterprise Corridor

Summary The landowners agree with proposed 22 metre height control for the site, but suggest that an increase in FSR from 2:1 to 2.5:1 would be more suitable to reflect the development potential of the site, and support a built form that is compatible with the existing and desired future character of the area.

Address O’Riordan Street near Doody Street, Alexandria
Current zone Zone 4 – Industrial
Proposed zone Zone IN1 – General Industrial

Summary The landowners object to the IN1 General Industrial zone for the site. They argue that it represents a ‘down zoning’ of land, is inconsistent with existing character and fails to recognise the imperative for maximising job growth in the global economic corridor. The submission suggests that there has been no strategic justification for the restriction of bulky goods in the industrial zone and propose that the site be zoned to B5 Business Development or B6 Enterprise Corridor to enable continuation of bulky goods premises.

Address Dunning Avenue near Morley Avenue, Rosebery

Current zone Zone 4 – Industrial

Proposed zone Zone IN2 – Light Industrial

Summary The landowner objects to the reduction of land uses currently permitted under the existing Zone 4 Industrial including ‘high technology’. It is highlighted as a use that is associated with enterprises that include research into high technology, geared towards new technologies, products and systems; similar to a business park. It is argued that the dSLEP definition of industry is too limited and does not permit research only. The landowner argues that the term ‘research’ could be applied more generally and that the IN1 General Industrial zone must make provision for all manners of research and include the definitions under SSLEP.

Address O’Riordan Street near Doody Street, Alexandria

Current zone Zone 4 – Industrial

Proposed zone Zone IN1 – General Industrial

Summary The landowners object to the IN1 General Industrial zone as it prohibits bulky goods retailing. The submission suggests that the IN1 General Industrial zone is better suited to parts of the metropolitan area well serviced by the M7 ring road and freight terminals. It is argued that the appropriate zone is B6 Enterprise Corridor, which permits bulky goods retailing, motor showrooms, light industry and would preserve the rights of existing uses in the area.

The submission also argues that the 1000 square metre floorspace limit should be removed.

Address Botany Road between Hayes Road and Harcourt Parade, Rosebery

Current zone Zone 10 – Mixed Uses

Proposed zone Zone IN2 – Light Industrial
Correction
Zone B6 – Enterprise Corridor

Summary The submission argues that the proposed IN2 Light Industrial zone is not a translation of the existing zone and will see a shift in the policy direction for development along Botany Road; prohibiting a number of uses currently permitted under the existing Mixed Use zone. It indicates that the recently approved mixed use development would be prohibited under the IN2 Light Industrial zone and suggests that the site be rezoned B4 Mixed Use.

Address Mentmore Avenue near Morley Avenue, Rosebery

Current zone Zone 4 – Industrial

Proposed zone Zone IN2 – Light Industrial

Summary The landowner objects to the IN2 Light Industrial zone on the grounds that it will reduce the value of the property and make a change in tenancy more difficult; given that the existing commercial use (office buildings) on site will be prohibited under the proposed IN2 Light Industrial zone. The submission proposes a B4 Mixed Use or B7 Business Park, or allowance of ‘business premises and office premises’ on the site.

Address Southern end of O’Riordan Street, Alexandria

Current zone Zone 4 – Industrial

Proposed zone Zone B6 – Enterprise Corridor

Summary The landowner objects to the IN1 General Industrial zone along O’Riordan Street as it is inconsistent with the current uses. It is suggested that the IN1 General Industrial zone should be amended to include approved uses in the list of permissible uses within the zone or that the B6 Enterprise Corridor be applied.

Address O’Riordan Street near Doody Street, Alexandria

Current zone Zone 4 – Industrial

Proposed zone Zone IN1 – General Industrial

Summary The submission objects to the prohibition of bulky goods retail premises in the IN1 General Industrial zone on the basis that planning controls need to facilitate the continued growth and viability of existing bulky goods retail businesses. It is argued that Alexandria is already an established bulky goods retail precinct, and that such a restriction undermines economic advantages of the existing bulky goods cluster (such as the continuation of economies of agglomeration and competitive market benefits of bulky goods retail clustering).

Lastly, the submission indicates that the existing use rights are limited and provide no certainty for existing bulky goods retail to grow and change.

Address Maddox Street, Alexandria

Current zone Zone 4 – Industrial

Proposed zone Zone IN1 – General Industrial

Summary The landowner objects to the proposed IN1 General Industrial zone, which is indicated as a significant down zoning of the site from the existing Industrial 4 zone. The submission argues that the proposed zone will limit employment density and overall yield, and reduce development potential. It indicates that the existing Industrial 4 zone under SSLEP 1998 is more flexible in the range of permissible uses and that the down zoning of the site is not supported or justified by a comprehensive strategic industrial lands study.

The submission argues that the area is evolving and that the B5 Business Development zone is the preferred zone for the site. B5 is suggested as it reflects the existing range of permissible uses, and allows for a range of higher order commercial uses to expand into a mix of other uses as the market changes and surrounding area evolves. The submission also suggests the introduction of a higher FSR for the site to facilitate redevelopment for higher order uses over time.

Address Canal Road, St Peters

Current zone Zone 4 – Industrial and
Zone 9A – Arterial Road Reservation

Proposed zone Zone IN1 – General Industrial and Zone SP2 – Infrastructure (road)

Summary The landowner argues that the site represents a major urban renewal opportunity to plan for a new Specialised Centre (multi-activity) and accommodate a range of modern employment uses and contribute to the local economy. The submission requests for Council officers to commence investigations into the proposed renewal opportunity of the site as a priority post gazettal of the new LEP.

Address Birmingham Street, Alexandria

Current zone Zone 10 – Mixed Uses

Proposed zone Zone B6 – Enterprise Corridor

Summary The submission outlines the landowners' support for the proposed zoning, height (in metres) and FSR controls for the site. However, it argues that the controls within the dSLEP and the UDS are inconsistent and that the proposed building height in metres does not match the proposed height in storeys.

Address Moore Park Supa Centa

Current zone Zone 3 – Business

Proposed zone Zone B5 – Business Development

Summary The submission is generally supportive of the draft Sydney LEP 2011 and the proposed zoning, height and FSR controls that are proposed for the Moore Park Supa Centa. However, it argues against the proposed prohibition on food and drink premises and prescriptive detail proposed in the Sydney DCP 2010 in relation to the minimum bulky goods tenancy size.

The submission suggests that the proposed prohibition on food and drink premises in the B5 Business Development zone is unreasonable, as the majority of bulky goods retailers are not interested in having such facilities within their own tenancies as it is not their core business. By prohibiting this type of development in the B5 zone, Council would be reducing the attractiveness of such zones for business development and their ability to attract new companies to the area.

The submission suggests that the draft planning controls be amended to list 'food and drink premises' as a permissible use within the B5 Zone or list the Moore Park Supa Centa in Schedule 1 of the draft LEP and permit food and drink premises on that land.

In regard to the proposed minimum tenancy size, the landowners argue that a minimum size of 500 square metres for bulky goods tenancies is too restrictive. They cite the Land and Environment Court Case *Homemaker Hub v Strathfield Council* [2009] NSWLEC 1265, where Strathfield Council's proposed condition which required tenancies to have a minimum gross lettable area of 500 square metres was overturned. They indicate the City of Sydney Council could decide at the application level, whether the development proposal is a bulky goods one, rather than having an 'onerous and unnecessary' minimum tenancy size.

Address Mandible Street, Alexandria
 Current zone Zone 4 – Industrial
 Proposed zone Zone IN1 –
 General Industrial

Summary The site is currently zoned '4 Industrial', with surrounding uses zoned mixed use, and the draft LEP proposes an IN1 General Industrial zone. The submission indicates that the proposed controls for the site reduce the permissible uses and development potential of the sites.

Many uses that were permissible (with consent) on the subject site, within Zone No. 4 – Industrial under the SSLEP, are now prohibited, including development for the purposes of bulky goods premises. The landowners indicate that bulky goods premises can be a more viable form of an employment generating land use than traditional industrial land uses, and that the absence of prohibited uses in the current industrial zone has meant that the prevailing character of the subject site and surrounding area is not solely industrial.

Additionally, the submission argues that as well as bulky goods premises, other uses that would be suitable for the subject site and could contribute to generating employment opportunities include retail premises, business premises, function centres, educational establishments, places of public worship, vehicle sales or hire premises, and wholesale supplies. Hence, the landowners consider that the proposed industrial zoning for the subject site does not reflect the existing character of the site and the prevailing character of the locality.

The submission indicates that the DSLEP proposes a reduction in the allowable FSR for the subject site from between 1.5:1 and 2:1 to between 1:1 and 1.5:1 (including the potential 'bonus' FSR provision). It is suggested that the proposed FSR is less than that of the existing building on the subject site and does not represent the prevailing densities of existing buildings within the surrounding area.

The following recommendations are made:

- include 'bulky goods premises' as a permissible use (with consent) allow a consistency of the translation of the current zoning
- amend the proposed zoning for the subject site to be in accordance with the proposed zoning on the southern side of Mandible Street as 'B5 – Business Development'.
- Provide an additional allowance of 'building height' for the subject site (and other sites in the former South Sydney area as Council deems it appropriate) to take into consideration the change in definition of 'building height' from the SSDCP to the DSLEP
- Provide a floor space ratio (FSR) for the subject site that represents the existing allowable FSR on the site of up to 2:1.

Address McEvoy Street near Bowden Street, Alexandria
 Current zone Zone 10 – Mixed Uses
 Proposed zone Deferred

Summary The submission indicated that the owners of this site believe that the current 10(e) Mixed Uses zoning should remain (or the equivalent B4 Mixed Use zone under the SLEP). It argues that re-zoning of the land to IN1 General Industrial would not support the character of this precinct and could contravene specific Council policies including those in the Draft Sydney Development Control Plan 2010. Further, the landowners argue that the current mixed use zone 'is essential to ensure a sensible mix of environmentally compatible land uses in the future'.

The landowners also showed their support for Council's initiative to revitalise Green Square through a coherent urban renewal strategy.

Address Top of O'Riordan Street, Alexandria
 Current zone Zone 10 – Mixed Uses
 Proposed zone Deferred

Summary The landowner's submission argues against the zoning of the site to 'IN1 General Industrial' from '10 (d) Mixed Uses'

The landowners provided submissions in 2008 with recommendations for the future character and use of the site, and the current submission restated these views. They outline that the industrial use would reduce amenity and the amount of potential employment and hinder the vitality required for Green Square centre. Some of the specific arguments restated included the following:

- ‘The existing Mixed Use zoning has purposefully been placed by previous State and Local Governments to create a transition between the future Green Square Town Centre and the core industrial zones to the south to provide a buffer between the future quieter commercial activities of the Green Square Town Centre and the invasive impact of the proposed industrial activities. The proposed zoning of the land to industrial will remove the Mixed Use zone buffer and create a situation that will have a major commercial centre sited immediately adjacent to an industrial area. That scenario would be detrimental to the future residential and commercial uses of the Green Square Town Centre.’
- IN1 General Industrial zoning adjacent to the future Green Square Town Centre will only jeopardise the future success of the centre as a liveable working environment. Industrial use will negatively impact the lifestyle quality, vibrancy and ambience that office occupants, retail shoppers and apartment residents are accustomed to. The landowner also argues that large scale industrial users do not generate the job growth that is essential for the vitality of a viable Town Centre. Industrial distribution operators occupy large areas and require few employees, which does not enhance employment opportunities for potential Green Square residents.’
- Retaining the current zoning would be consistent with the Metropolitan Strategy by retaining the land for employment purposes with the opportunity of supporting the future Green Square Town Centre.

Address Top of Botany Road and O’Riordan Street, Alexandria
 Current zone Zone 10 – Mixed Uses
 Proposed zone Zone B5 – Business Development and Deferred

Summary The properties in this area are currently zoned ‘Mixed Use 10 (d)’ and are generally used for light industrial purposes. The draft LEP proposes to zone the precinct to ‘B5 Business Development’ zone. The submission argues that a number of the properties are vacant and derelict and that no substantive development has occurred on any of the sites under the current zone.

The submission suggests that the proposed zoning is more restrictive than the current zone and that a ‘B4 Mixed Use’ will encourage renewal and underpin the viability of the Green Square centre.

Address Bourke Road near Maddox Street, Alexandria
 Current zone Zone 10 – Mixed Uses
 Proposed zone Deferred

Summary The site is currently zoned No.4 Industrial and proposed to be zoned IN1 General Industrial under the draft LEP. The landowners do not support this proposal, as:

- an IN1 zoning does not reflect the site’s strategic location along a major north-south connector road, and within close proximity to the Green Square Town Centre and railway station
- the narrow objectives and broad range of prohibited uses within the IN1 General Industrial zone removes any flexibility to assess development proposals, other than industrial land uses, on their merits; which contradicts Council’s long standing support for a broader range of commercial uses within the area
- the land is considered to be unsuitable for conventional industrial purposes given the prevailing land values in the locality, the existing pattern of development and the attractiveness of other dedicated employment areas zoned for industry in Sydney’s west and outer areas
- there is no basis for suggesting that the intended IN1 industrial zoning will result in a greater number of local jobs when compared to a wider range of business and commercial uses.

The submission argues that there is no justifiable basis for proposing a restriction on the extent of retail premises in the wider area to 1000 square metres of GFA and that Council should use discretion when considering such applications, as opposed to an outright prohibition.

The submission argues that the B5 zoning for the subject site and wider area would be more appropriate. It is argued that the B5 zone would:

- more accurately reflect the range of uses already approved and successfully operating within the immediate area. It would promote rather than constrain current land use trends in the area
- take better advantage of the site’s strategic location within the ‘Global Economic Corridor’ between the

- airport and the CBD
- maximise employment and opportunities for enterprise growth
- support other centres in the surrounding area including Green Square and Mascot, in addition to Sydney Airport.

Address Wyndham Street near Mandible Street, Alexandria
 Current zone Zone 5 – Special Uses
 Proposed zone Zone B5 – Business Development

Summary The main concern raised in the submission is that the draft LEP ‘down zones’ the site by removing the permissibility of residential uses. The site is currently zoned ‘5 Special Uses’ and the draft LEP proposes the ‘B5 Business Development’ zone. The submission requests that the site be zoned ‘B4 Mixed Use’ to remain consistent with the current surrounding permissible uses.

The submission argues that, although the City of Sydney’s rationale behind the B5 zoning is to create a buffer between existing residential and industrial uses, alternate buffer options could be achieved via specific urban design treatments and principles. Furthermore, the SPA argues that there is little demand for commercial development on the site.

In terms of policy consistency, the landowners argue that the C1.3 of the Sydney City Subregional Strategy requires that increased housing capacity targets support the development of residential uses on site, particularly given the close proximity to Green Square. Additionally, they indicate that Section 117 Directions, specifically 3.1. Residential Zoned (5), states that a draft LEP shall not contain provisions that will reduce the permissible residential density of land. The landowners argue that the B5 zoning of their land contravenes the Section 117 Direction.

Address Ross Street near Parramatta Road, Glebe
 Current zone Industrial
 Proposed zone Zone IN2 – Light Industrial

Summary The site is currently zoned Industrial under the Leichhardt LEP 2000 and the draft LEP proposes an IN2 zone. The submission argues that the proposed industrial zoning is not supported for the following reasons:

- the IN2 zone is inconsistent with the land use objectives of the existing zoning, and therefore may result in a ‘down’ zoning of the site
- the IN2 zone does not reflect current land uses on the site and surrounds
- the IN2 zone is inappropriate for the site and adjacent properties.

The proposed B4 Mixed Use Zone is suggested as it would ‘ensure a consistent built form along Parramatta Road’.

It is argued that the B4 Mixed Use Zone would not restrict the use of these properties as light industrial developments. However, it would provide the opportunity to ‘integrate suitable business, office, residential, retail and other development’, and allow the subject site long term flexibility to grow in line with the surrounding character.

Address The Salvation Army, The Geneva Push, Hillsong Church and Australian Christian Churches
 Current zone –
 Proposed zone –

Summary The Salvation Army, The Geneva Push, Hillsong Church and Australian Christian Churches all object to the prohibition of ‘Places of Public Worship’ in the IN1 General Industrial and IN2 Light Industrial zones. All submissions argue that the prohibition will impact on existing church activities and the future development of churches.

The submissions argue that the large landholdings in the industrial area provide the opportunity to accommodate large numbers of people and better separation from more sensitive land uses, such as residential development, and can assist with activation and safety of an area. The submissions go on to suggest that peak periods for churches and related uses occurs in the evenings and on weekends and will be unlikely to conflict with the traffic and parking demands of industrial operations.

The submissions argue that the dSLEP 2011 should be amended to include places of public worship as a permissible use within the industrial zones.

Address Southern end of Bourke Road (beside canal), Alexandria
Current zone Zone 10 – Mixed Uses
Proposed zone B7 – Business Park and part SP2 Road

Summary Current zone permits depots, while proposed zone prohibits depots. Land owner notes that ‘as depots are permitted under the current instrument and the aim of the rezoning was to reflect the existing zone while prohibiting residential uses, it can be assumed that prohibiting depots was not the intent.’ Requests that depots be included as permissible uses in B7 and SP2 zones.

APPENDIX F: REFERENCE MAP

Travel zones are the spatial base of the Bureau of Transport Statistics' data collection, transport modelling and analysis. The travel zones lining up most closely with the boundaries of the study area were used to undertake economic profiling and are shown below. The shaded area is the study area and the bold blue boundaries indicate the applicable travel zones. The economic profiling task was completed for the main study area only due to data constraints for the smaller sites.

FIGURE 34. TRAVEL ZONE BOUNDARIES USED FOR ECONOMIC PROFILING



Source: SGS Economics and Planning, 2012

APPENDIX G: BIBLIOGRAPHY

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Contact us

BRISBANE

PO Box 117
Level 1, 76 McLachlan Street
Fortitude Valley QLD 4006
+61 7 3124 9026
sgsqld@sgsep.com.au

CANBERRA

Level 1, 55 Woolley Street
Dickson ACT 2602
+61 2 6262 7603
sgsact@sgsep.com.au

HOBART

Unit 2, 5 King Street
Bellerive TAS 7018
+61 (0)439 941 934
sgstas@sgsep.com.au

MELBOURNE

Level 5, 171 La Trobe Street
Melbourne VIC 3000
+61 3 8616 0331
sgsvic@sgsep.com.au

SYDNEY

Suite 12, 50 Reservoir Street
Surry Hills NSW 2010
+61 2 8307 0121
sgsnsw@sgsep.com.au

APPENDIX 2: SUBMISSIONS

Submissions to background report

TABLE 16. SUBMISSIONS TO BACKGROUND REPORT

Interest	Area	Comments / Issues raised
Business operator (land owner)	IN1 zone – Alexandria	Operates a local catering service with clients mainly in CBD. The location is crucial so that they are close to suppliers and well as their customers. It is also a convenient locations for many employees (many who come from Green Square train station). The Employment Lands Study (the Study) should consider the need for their business to operate both day and night.
Business operator (land owner)	IN1 zone – Alexandria	The site was purchased specifically for its location and its relative affordability. The business, and others like it in the area, must be located close to the City for logistical reasons as it would not be a cost effective and efficient service if based in Botany Bay, Ryde or Campbelltown. The industrial zoned areas of Alexandria, Beaconsfield, Rosebery and Glebe should be preserved.
Consultant on behalf of the land owner	IN2 zone, adjacent to R2 zone	The IN2 zone in the Sydney LEP 2012, which does not identify business premises or office premises as permissible, will force owners to rely upon existing use rights for future development. These uses should be made permissible in future land use controls.
Stakeholder	R2 zone, adjacent to IN2 zone	<p>The small IN2 parcel of land in southern Rosebery has failed in terms of employment generation. Many sites have lay vacant for many years as industries increasingly grow in scale and move west or offshore.</p> <p>The current light industrial zoning restricts positive change. It is surrounded by houses, and new apartments and the IN2 zone is incompatible with those uses.</p> <p>Botany contains significant industrial land to the south, under the flight path.</p> <p>Zoning should be changed to allow more suitable uses. This will in turn generate more employment opportunity.</p>
City of Botany Bay	LGA adjacent to study area	<p>Supports the Background Report noting that:</p> <ul style="list-style-type: none"> – it is generally consistent with the desired future development pattern and growth of the Botany Bay LGA – it acknowledges state, regional and local strategies to protect and enhance the roles and supporting land uses of the airport and the port – any future development must consider amenity impacts on the Mascot Town Centre – the types of industrial uses along Gardeners Road should not adversely impact on adjoining lands to the north.
Stakeholder	Main study area	Car parking will become even more difficult once businesses expand in the area. It is recommended that businesses provide sufficient parking or perhaps even some transport from the local train station.
Consultant on behalf of the land owner	IN1 zone to the north of deferred lands	<p>Demographic analysis shows about 20% population increase (from 2006) in Alexandria and significant increase in ‘while collar’ residents between 2001 and 2006</p> <p>Industrial assessment shows decline in ‘traditional industry’ toward more modern industrial uses and commercial and retail uses.</p> <p>Target analysis shows additional capacity in the Sydney LEP 2012 will not guarantee additional supply and that for the last five years dwelling supply has not achieved targets. It is also concluded that lack of housing supply will affect affordability in Sydney.</p> <p>The site and its locality play a critical role in employment generation and should be seen as a transitional area from higher concentration of residential uses in Green Square to the traditional uses in the Southern Industrial Area (SIA).</p>

Interest	Area	Comments / Issues raised
		<p>The height and FSR controls applying to the site should be reviewed and the zoning made more flexible (such as B4 – Mixed use)</p> <p>More flexible controls and zoning are recommended to: promote a more efficient use of land encourage employment growth incentivise redevelopment and be compatible with surrounding uses.</p>
Marrickville Council	LGA adjacent to study area	<p>Generally agree with the information in the Background Report. Notes that the City's consultants met with Marrickville Council planning officers. Addition issues above this discussed in that meeting include:</p> <ul style="list-style-type: none"> – Amendment No.1 to <i>Marrickville LEP 2011</i> (currently underway) will rezone a number of industrial sites including sites along the south-eastern side of the Princes Highway to allow for a wider range of uses, including bulky goods (it is noted this does not extend to the border of the City of Sydney LGA). – Council has resolved to investigate the rezoning of 314 Princes Hwy, St Peters (the former landfill site). This large industrial site traverses the Marrickville and City of Sydney border. – during its deliberations for Amendment 1, Council also considered initial proposals to rezone a range of industrial sites, including: the Carrington Road precinct the Victoria Road corridor and the proposed Masters Homemakers outlet site. The first of these sites are consistent with the Marrickville Urban Strategy while the latter two are not. – a portion of the study area is on low-lying land which may experience the impacts of acid sulphate soils, flooding and inundation from sea level rise. Hence contamination impacts should also be considered given the study area's long history of industrial use.
Consultant on behalf of the land owner	IN1 zone, adjacent to the B7 zone on the eastern side of Alexandra Canal	<p>The Background Report overlooks the:</p> <ul style="list-style-type: none"> – existing special commercial, service and recreational attributes of the pocket of employment-related land centred around Bourke Road, defined by the area of the Sydney Corporate Park (SCP) and the B7 Business Park Alexandria Canal estate. – changed role of Bourke Road, from that which formerly existed, being a former arterial road. The road has been subject to streetscape improvements, including a new cycle lane, and a truck ban. Its current role is now as a linear service link between the two emerging populations growing around Mascot and Green Square Stations. – former industrial lands around Mascot have been rezoned for residential and employment purposes, so that Bourke Road is now a link to that centre. <p>Amount of vacant land is a significant finding and indicates that the permissible uses (in the former 4 Industrial zone) no longer reflect the changing expectations or requirements of industrial users.</p> <p>The IN1 zoning will not allow regeneration of these lands. It does not reflect the current, emerging and future desired employment character of the immediately surrounding area.</p> <p>The future Study needs place greater emphasis upon the role the nucleus of employment land along Bourke Road, as defined by the eastern boundaries of the SCP and the western boundary of the B7 land. Ongoing retention of industrial uses in this area is counter to the current situation in this locality.</p> <p>Recommends that future zoning for the site and the immediate precinct area, including SCP, should be Zone B5 to complement the existing adjacent B7 land (which does not have main road frontage). The B5 zone best reflects current uses within the surrounding precinct, and complements the changed function of Bourke Road. It also includes provision for current existing industrial uses that remain in the precinct.</p>
Resident	Boundary between the IN1 and B6 zone in the south east of the main study area	<p>The Background Paper highlights a number of issues that face residents near Birmingham Street. There are also a number of positive aspects to the mix of residential and light industrial that has begun to develop on the area.</p> <p>Many problems, such as traffic and health and safety impacts, come from heavier industrial businesses operating beyond their development approvals.</p> <p>There is a need for better planning to address: sometimes out dated operating guidelines of businesses that lead to friction and incompatibilities with other residents and businesses the activities of businesses that continue to pollute or disrupt or endanger the environment of residents and other businesses and existing or outstanding complaints and tensions.</p>

Interest	Area	Comments / Issues raised
Land owner	IN1 zone – west of canal	The site operates as a non-putrescible waste landfill, waste transfer and recycling depot. The surrounding area is largely industrial in nature although commercial, retail and residential developments do exist in the locality. As the City and DPI projections for employment and population have significantly increased, the need to provide adequate and continuous employment lands should also continue. There should continue to be an emphasis on providing and encouraging commercial and industrial development. The demand for industrial and commercial land in the suburb of Alexandria will continue to grow.
Consultant on behalf of multiple land owners	IN1 zone	<p>Submission was prepared on behalf of four landowners.</p> <p>A number of key issues have been identified and comments and recommendations made, including:</p> <ul style="list-style-type: none"> – it is focussed on the existing supply of employment lands rather than the demand for employment lands now or into the future – it should provide more analysis of demand and suitability for large format retail – local demand analysis is limited and flawed because they were assessed under the conditions of the more flexible framework of South Sydney Local Environmental Plan 1998 – it identifies a high vacancy rate but does not adequately discuss it. The high vacancy rate is an indication for demand for employment generating uses as permitted under the planning framework – it does not demonstrate the demand for any specific land use and does not establish particular land use needs to be located in the precinct – the Employment and Floorspace Profile section relies on outdated census data and should be updated to 2011 census data – it does not identify any capabilities or limitations of the existing built form within the main study area to accommodate employment generating land uses. Feasibility analysis should be undertaken of a scenario where existing stock is required to be demolished and new industrial and warehousing buildings erected – industry profile analysis does not identify jobs by occupation. Analysis of 2011 census data shows number of workers in the manufacturing industry in South Sydney are not necessarily required to be accommodated in an industrial environment – employing local workers should be encouraged to reduce travel time and distance – land suitability mapping is arbitrary and limited, being very high level and focusing on distance from or to infrastructure – it does not specifically identify the role of the main study area within the context of major employment lands across Sydney and Subregional assessment does not acknowledge key competing areas. The analysis of other industrial precincts in wider Sydney is needed – it does not sufficiently analyse the relationship of the study area with Green Square – it would benefit from a comparison of rent and sales price, road access and land size of other industrial precincts that are most likely to attract businesses away from the main study area – the future strategy should not rely on the existing studies and strategies identified in the strategic framework outlined in the Background Paper, rather it should be viewed as an opportunity to start from scratch – land use tables should be more flexible allow a broader range of uses. Landowners who are party to submission indicate the following uses are in high demand in the study area: high tech industries large format retail car showrooms education facilities bulky goods retail showrooms offices places of public worship and recreational facilities. These uses should be permissible in the future planning framework. Facilitating these uses would be beneficial because they would generate more jobs than the 'traditional industries', in particular warehousing and logistics they are attracted to the area due to proximity to residents (i.e. customers and working population) existing infrastructure make it ideal for uses that require physical and technological connections to Sydney CBD, Airport and Port and they rely less on the road network which struggles to accommodate large trucks and existing traffic – the future demand analysis should not rely on Bureau of Transport Statistics (BTS) employment forecasts over the next 25 years. Although BTS prepare an in-depth set of projections, they cannot be used as the sole source of projections.
Stakeholder	Not specific	<p>The study looks for evidence to support the application of the existing zoning and is lacking discussion about whether the study area remains a vitally important industrial area that needs to be 'protected' through the application of IN1 and IN2 zonings.</p> <p>The Background Paper suggests area needs to be protected from retail uses, despite significant vacancies and significant limitations in the study area with respect to truck access, traffic congestion, and undersupply of car parking. The question must be asked and discussed in the</p>

Interest	Area	Comments / Issues raised
		<p>Background Report whether this area remains suited to and can actually support modern industrial growth.</p> <p>The Background Report is constrained in its review by the perceived need to preserve industry. Justification for this seems to rely on current metropolitan planning, subregional strategy and section 117 directions. The Study should question these strategies and directions.</p> <p>The study area is strategically important, not only to traditional industry and logistics, but also to business, all forms of retail and some residential uses. Maintaining the IN1 and IN2 zones and limiting B6, B5 and B7 is not keeping pace with contemporary thinking on employment generation. Consideration of the applicability of the Government's new Enterprise Zone should be considered.</p> <p>Planning must be directed towards employment generation not industry.</p> <p>The Background Report should seek to determine why there is a high vacancy rate.</p> <p>Further analysis is required of: market demand that articulates what the market is doing in the study area and why the market is acting in the way that it is rental market demand and, supply analysis.</p> <p>If the Background Report and future Employment Lands Study is to recommend regulation including zoning and development controls, it should also set out the externalities that justify land use regulation designed to prevent normal market activity from occurring.</p>
Landowner	IN1 zone	<p>A number of key issues, comments and resulting recommendations have been identified with the Background Report, including:</p> <ul style="list-style-type: none"> – it seeks to retrospectively justify planning controls that apply under <i>Sydney LEP 2012</i>. It should focus on justifying the need for supply of industrial land rather than demand for industrial land – it does not accurately identify the existing situation in the study area – it does not address key policy drivers for land use demand in the SIA, being the 'Global Economic Corridor' which aims to create an area of economic importance in the state and national economy – it does not address current land use trends at SCP <ul style="list-style-type: none"> – the land suitability maps are detached from the reality of SCP – conventional industrial activities are unlikely to be established within SCP for economic reasons – current uses are predominantly mixed use employment activities including bulky goods, retailing, commercial offices, warehouse and distribution facilities, vehicle sales and showrooms, smaller retail shops – printing operations that have recently moved off site have left 80,000m2 of vacant space, which would be highly sought after but for the planning controls in Sydney LEP 2012 – current planning controls minimise employment and investment opportunities and ignore structural changes in industrial activity – it does not understand drivers or categories of land use that drive long term demand at SCP – it does not identify what business can afford to pay for their facilities. To meet the market and attract currently permissible industrial tenants, landowners would be expected to receive zero income for their investment – this is unsustainable, but a reality given the high vacancy rate – not allowing for office uses forces administrative businesses to pay higher rents stifles small business – it fails to interpret the change in residential development in the immediate vicinity – the residents in the locality are not looking for traditional industrial roles – 'large format retail' should be considered an appropriate land use for the study area.
Consultant on behalf of the land owner	IN2 zone – Parramatta Road precinct	<p>The need to retain 'industrial' lands in the Parramatta Road precinct is less obvious than in the main study area. The Parramatta Road precinct is a remnant industrial fragment that does not require protection. Contrary to the substantially different and much larger main study area and even the South Dowling Street site, the Parramatta Road precinct is adjacent to existing residential uses and B4 Mixed Use and SP2 Educational Establishment (University of Sydney) zones, and in the vicinity of a B2 Local Centre zone (Glebe Point Road). Consequently the precinct should be rezoned B4 Mixed Use. This is consistent with the findings of the Background Report. Such a zoning would not only retain the existing employment uses, given the precinct's location on a major arterial road, but also ensure the permissibility of those uses in the long term.</p>
Consultant on	Main study	<p>The character of the SIA has changed over the past decade from a traditional industrial area to a</p>

Interest	Area	Comments / Issues raised
behalf of the land owner	area	<p>mixed use business precinct providing for a variety of uses. The Background Paper needs to consider financial feasibility and the changing needs of industry and business.</p> <p>The Background Report should adopt a contemporary approach to planning for employment generating development for the CoS - global and national trends indicate that the current approach to employment lands planning in NSW is outdated and perpetuating this approach may lead to suboptimal outcomes in terms of the productivity and efficiency.</p> <p>A more flexible approach to the regulation of development of employment lands will create an environment more conducive to investment which can better accommodate hybrid employment precincts more suitable for 'new economy' jobs and which can deliver jobs at far greater densities than those achieved in more traditional industrial zones. The benefits of this approach are recognised internationally and nationally. See recent Victorian reforms that lift floor space caps for office and retail.</p> <p>Industrial accommodation within the SIA varies considerably in age and scale with more recent development being representative of the characteristic shift away from more traditional industrial warehousing facilities i.e. low rise commercial office buildings, strata office suites, showrooms and adaptive re-use of former industrial facilities for quasi retail / commercial / industrial uses. This is reflective of the fact that refurbishment or redevelopment of sites in the SIA for lower value industrial uses is generally not economically viable</p> <p>There has been a substantial increase in the price of land in the SIA since 2000 which has led to traditional industrial and warehousing operations moving towards the outer. With increased land values and rental values broadly the same as competing areas, it is increasingly difficult for landowners to achieve adequate returns and often not economically feasible.</p> <p>It is critical that decisions around the future of the SIA be made and implemented in a timely fashion to ensure that opportunities are not lost and that further inefficiencies and productivity losses are avoided.</p> <p>There is a concern that the Background Report provides little in the way of new and up to date information, but rather establishes a framework for the maintenance of the status quo.</p> <p>Subsequent stages of the Study should consider the key themes and principles of the NSW Green Paper on planning reform and consider the application of certain mechanisms documented in the Green Paper for their potential application to the study area.</p>
Resident	The area between Epsom Road and Gardeners Road	<p>Zoning in the area between Epsom Road and Gardeners Road should not allow late night drive through fast food outlets, such as the McDonalds proposal that council recently rejected.</p> <p>Agrees with the Rosebery Residents Action Group [Draft Sydney LEP 2011 submission] with regards to: objections to the extension of the B4 Mixed use zone along the eastern side of Botany Road support for a finer road network through the SIA and endorsement for the positive suggestions including increasing amenity promoting good co-existence between users and residents improving public transport facilitating attractive rents compared to the City and a desirable space for creative users.</p>
Road and Maritime Services	Main study area	<p>It is important that the study takes into consideration and contributes to the achievement of transport objectives contained in high level government strategies such as the Metropolitan Strategy, State Plan and NSW Transport Masterplan. The policies share the aim of promoting non-car forms of transport and co-locating new development with existing and improved transport services.</p> <p>The study must assess the implications of proposed development for non-car travel modes (including public transport use, walking and cycling) the potential for implementing a location-specific sustainable travel plan (e.g. 'Travelsmart' or other travel behaviour change initiative) and the provision of facilities to increase the non-car mode share for travel to and from the study area. This will entail an assessment of the accessibility of development sites by public transport.</p> <p>A Traffic Management and Accessibility Plan (TMAP) for the study area needs to be undertaken to properly ascertain the cumulative regional traffic and transport impacts associated with development. The TMAP process provides an opportunity to identify a package of traffic and transport infrastructure measures required to support future development. Regional and local intersection and road improvements, vehicular access options for adjoining sites, public transport needs, the timing and cost of infrastructure works and the identification of funding responsibilities associated with development should be identified. The TMAP is to take into</p>

Interest	Area	Comments / Issues raised
		consideration the Green Square TMAP 2008, the Mascot Town Centre TMAP 2012 and other relevant studies and strategies.

APPENDIX 3: CONSTRAINTS

Based on the available information on aircraft noise, strata titles, and heritage, there are modest constraints to additional development in the study area from a land development perspective.

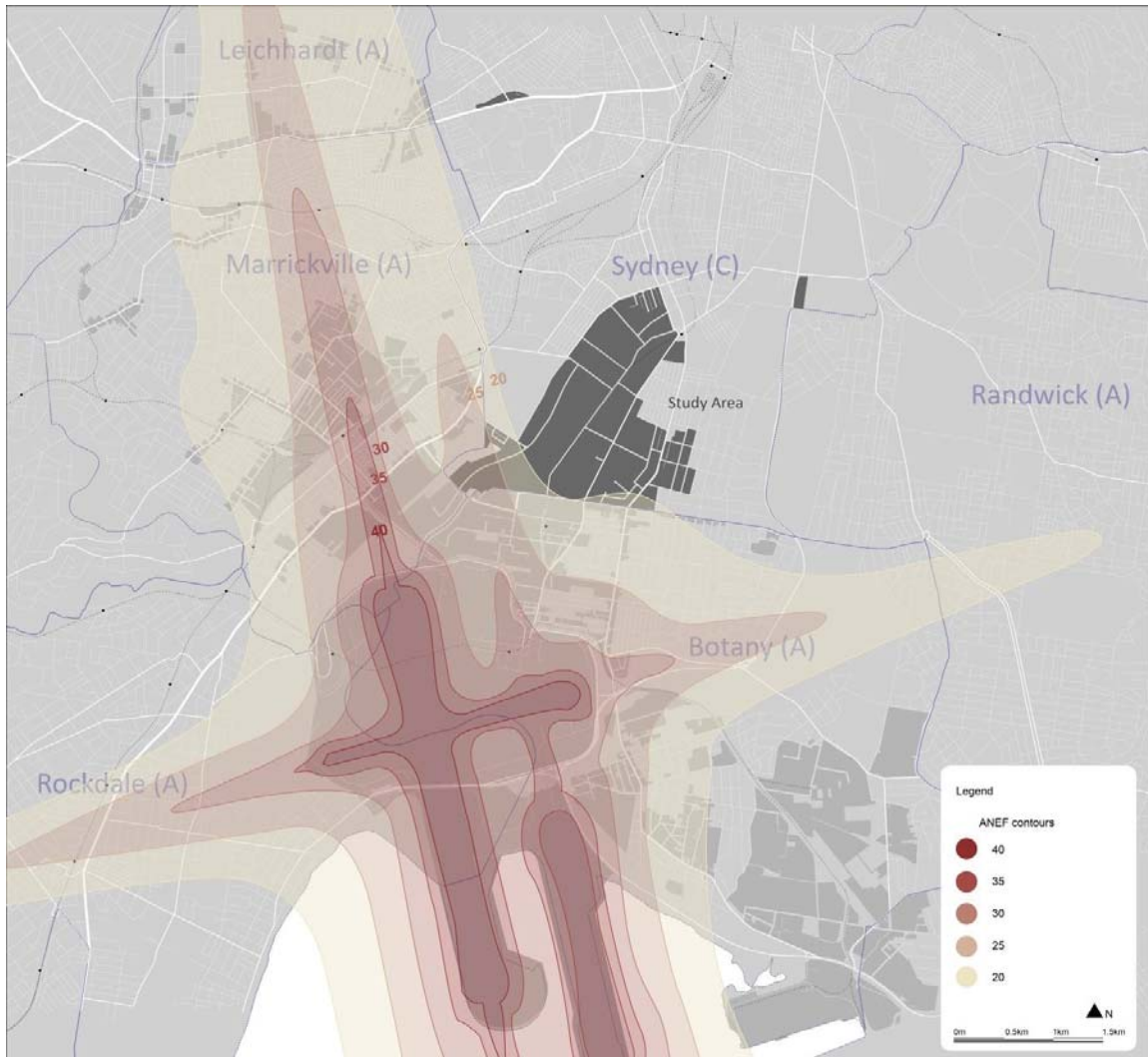
Flooding and groundwater constraints to development are known to be more extensive near the canal and the central part of the main study area. These, and potential site contamination issues, are likely to be the biggest barrier to more intensive development; residential development in particular. Extensive contamination of the Alexandra Canal itself will continue to be an issue until such time as a commitment is made to address the issue.

Flooding and groundwater constraints to development are known to be more extensive near the canal and the central part of the main study area but no maps have been provided showing the extent of these issues. These and potential site contamination issues are likely to be the biggest barrier to more intensive development, residential development in particular. Extensive contamination of the Alexandra Canal itself will continue to be an issue until such time as a commitment is made to address the issue.

However, by any measure, traffic and transport issues are likely to be the biggest long term brake on development across the precinct, which is discussed in some detail in section 3 of this study.

Figure 31 shows the Australian noise exposure forecast (ANEF) contours. Only the south west corner is affected by contours above 25; those which significantly constrain development.

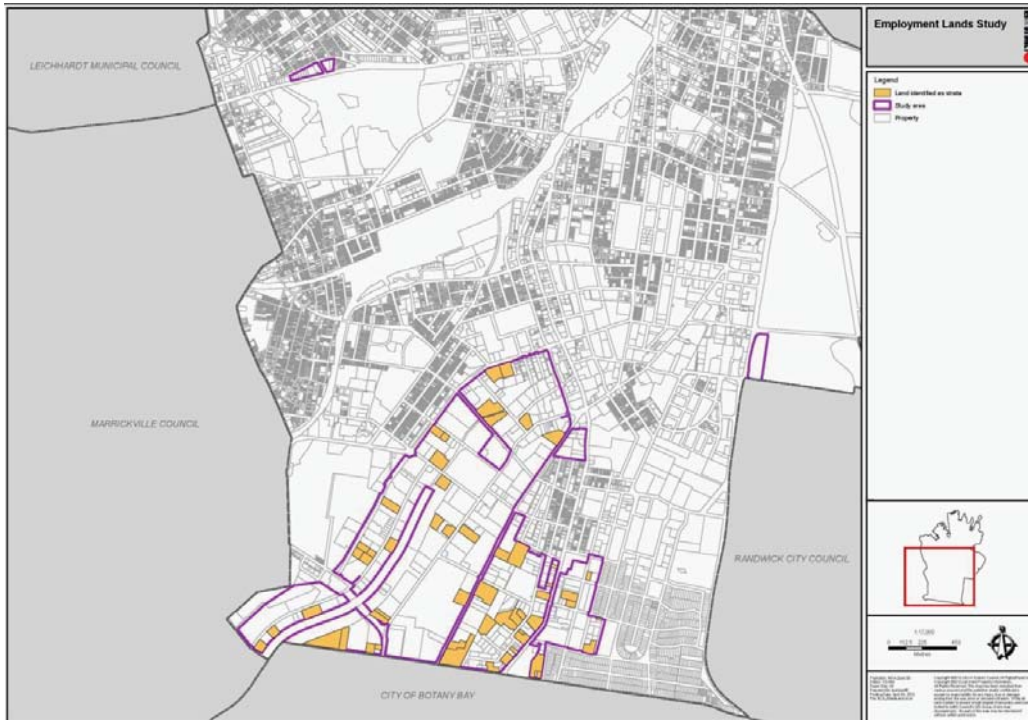
FIGURE 31. AUSTRALIAN NOISE EXPOSURE FORECAST (ANEF) CONTOURS



Source: SGS Economics and Planning, 2012, adapted from Sydney Airport 2033 ANEF contours (airservices Australia) provided by City of Sydney

Figure 32 shows that there are a few strata titled sites in the main study area.

FIGURE 32. STRATA-TITLED SITES



Source: City of Sydney, 2012

Figure 33 shows that there are a number of sites, buildings and features in the study area with heritage listing.

FIGURE 33. HERITAGE LISTINGS



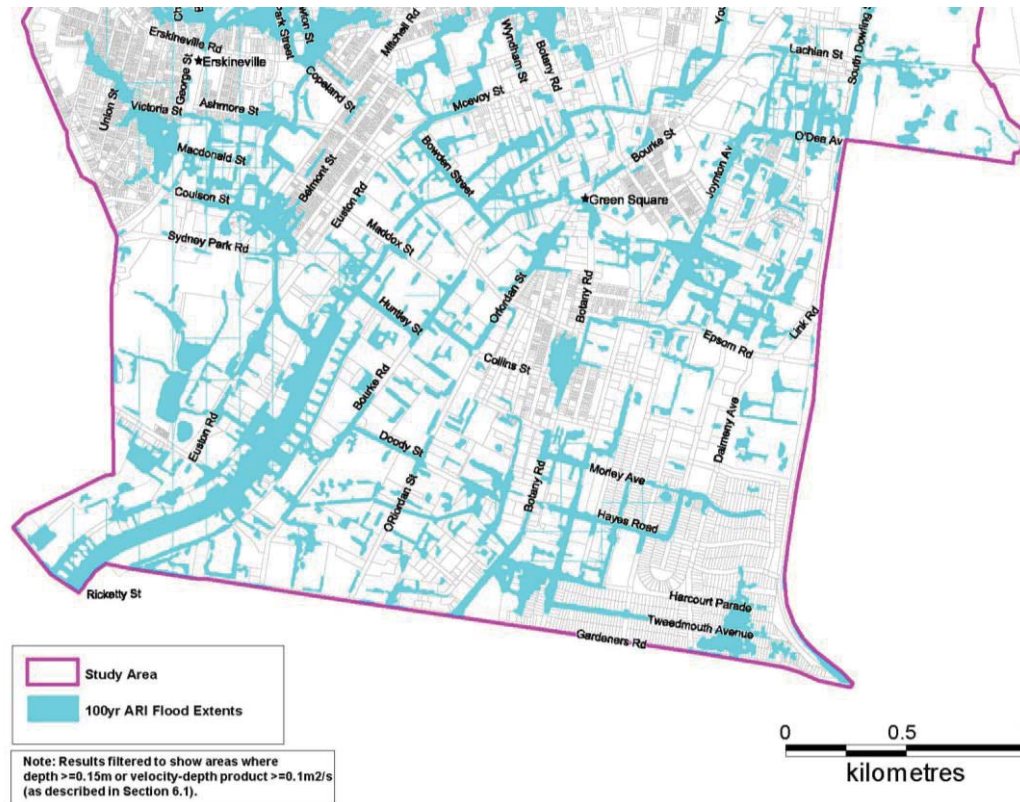
Source: Sydney Local Environmental Plan, 2012. Figure derived by SGS Economic and Planning, 2013

In 2011, the City exhibited the Alexandra Canal Catchment Flood Study, which includes the study area. The flood study is the first stage of the management process for the catchment. Based on its findings, the City is currently developing the Floodplain Risk Management Study (FRMS), which will investigate

various management and flood mitigation options for the existing catchment conditions and will assist in evaluating long term flood management strategies.

Figure 34 is taken from the flood study and shows the flood extent in the study area for the 100 year flood event.

FIGURE 34. DRAFT FLOODING MAP SHOWING 100 YEAR ARI PEAK FLOOD DEPTHS



Source: Cardno, 2011

Figure 35 shows stormwater detention areas in the main study area at Green Square Business Park and Perry Park.

FIGURE 35. STORMWATER DETENTION

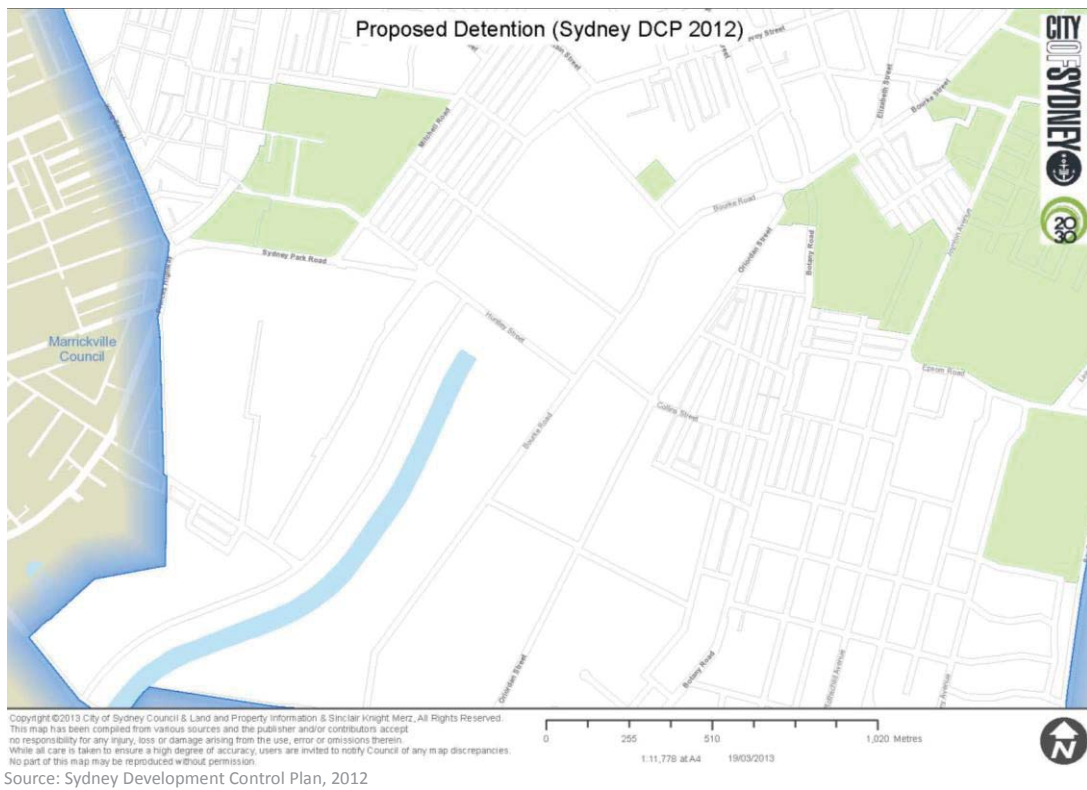
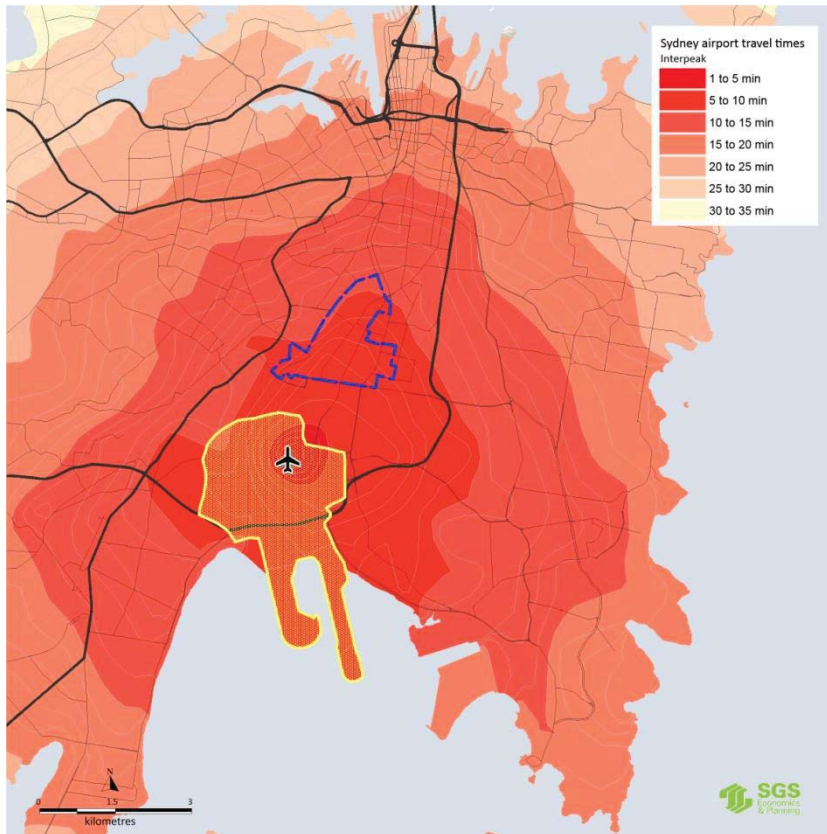


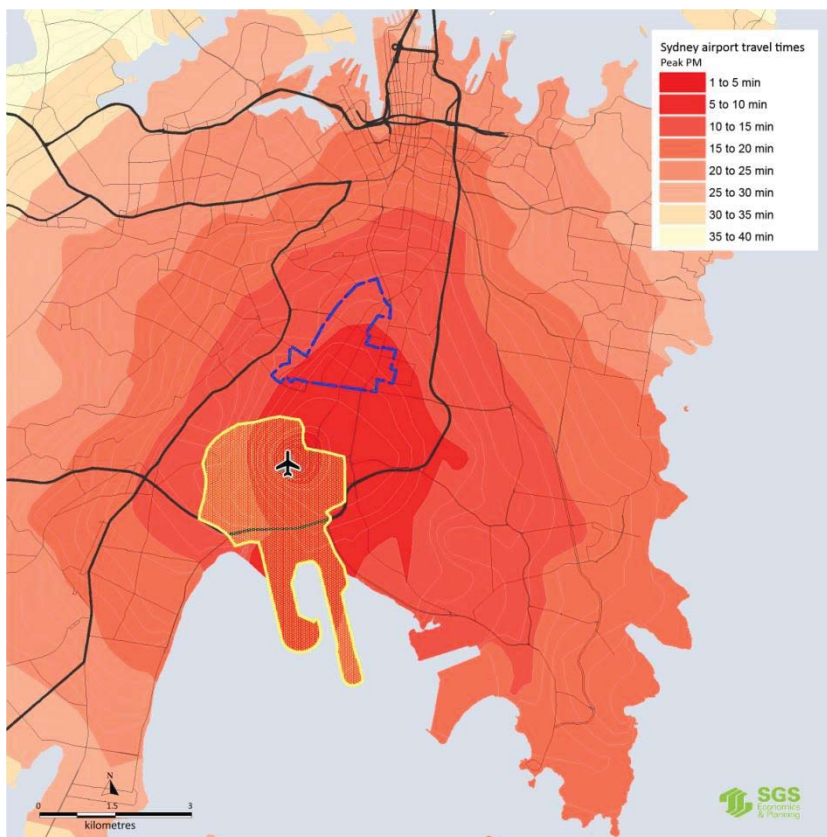
Figure 36 and Figure 37 show that the majority of the main study area is accessible within 10 minutes of Sydney airport domestic terminal in the interpeak period, with reduced accessibility during the evening peak traffic period.

FIGURE 36. TRAVEL TIMES FROM DOMESTIC TERMINAL: INTERPEAK



Source: SGS Economics and Planning, 2013, based on BTS 2011 car travel times

FIGURE 37. TRAVEL TIMES FROM DOMESTIC TERMINAL: EVENING PEAK



Source: SGS Economics and Planning, 2013, based on BTS 2011 car travel times

APPENDIX 4: FORECASTING AND GAP ANALYSIS

The supply-demand gap analysis compares forecast employment and land area requirements under the base case of the current zoning, against the capacity of employment lands as recorded in the land and floorspace database. Considering gaps or overprovision in supply for precincts and zones in this way will lead naturally to consideration of the current zoning framework, as well as its capacity to adequately provide for future employment, given the economic development vision for the City of Sydney and the policy framework.

A key input into the gap analysis is employment projection data from the Bureau of Transport Statistics (BTS). As noted in section 5.1, these projections are prepared for Sydney at five yearly intervals to 2031 using a forecasting model. This model:

- estimates total Greater Metropolitan Area (GMA) employment for each historical and forecast year
- analyses trends in employment by industry, geographic subregion and specific job node
- distributes GMA total employment forecasts using forecast shares derived from trend analysis
- adjusts for major new developments (BTS, 2013).

Although the model is not publically available, it appears to be principally driven by historical trends with some adjustment for large scale developments that have been announced. This implies that there is little, if any, consideration given to strategic opportunities to increase employment across Sydney, or potential to intensify employment in underutilised areas above trend forecasts. In addition, the model does not factor in the way various land uses may change over time (for example, in terms of becoming more space efficient or requiring more or fewer staff), above that observed in historical trends and projected on that basis. However, these are the official government forecasts and, despite their significant limitations, are the best available data.

This section provides an overview of the method and results, with further detail and full results for each precinct in the study area detailed in appendix 3a. These projections and results are based on trends alone.

Overview of method

Employment and floorspace demand

Employment and floorspace demand forecasts are provided in five yearly periods to 2036 for the main study area, Parramatta Road precinct and South Dowling Street site, broadly assuming a continuation of past trends. The capacity of employment zoned land to accommodate the projected jobs and the associated floorspace was then assessed.

In order to calculate floorspace demand, the percentage growth in employment (forecasted by the Bureau of Transport Statistics [BTS]) was applied to the database of floorspace for the study area precincts, provided by the City of Sydney from the 2012 land audit¹⁵. We assumed that:

¹⁵ Given that the floorspace audit was conducted in 2012, to remain consistent with time frame of five-yearly BTS employment projections, it is assumed that floorspace in 2011 is largely similar to floorspace in 2012.

- the relationship between employment, floorspace and land area remains constant for each industry category into the future
- there will be no major change to the current profile of land uses within each precinct
- each additional job requires additional floorspace, and that this proportional relationship remains unchanged over time (that is, there are constant returns to scale).

Floorspace supply potential

The floorspace capacity in the study area is estimated, acknowledging that the maximum development allowed under the Local Environmental Plan (LEP) and relevant Development Control Plans (DCPs) is unlikely to occur.

An achievable floorspace capacity value was estimated as being between the average capacity – where the average floorspace ratio for each zone was applied to each lot within that zone – and the maximum capacity permitted under the development controls for the area, as follows:

$$\text{Floorspace capacity} = \text{Average capacity} + 80\% \times (\text{Maximum capacity} - \text{Average capacity})$$

Employment and floorspace demand forecasts

Employment

Employment across the study area is projected to grow the most in the wholesale trade, and professional services sectors, with the highest decline in employment expected in the manufacturing industry. By 2036, given current trends, the sectors employing the most workers in the study area will be wholesale trade, transport, postal and warehousing, and professional services.

Floorspace by industry

Driven principally by projected employment for the main study area, the wholesale trade, retail trade, and professional services sectors are expected to require the most additional floorspace across the study area by 2036. The highest growth rate (from 2011 data) is expected for professional services. Declining employment in manufacturing and utilities leads to a fall in floorspace requirements for these industries by 2036. Overall, the industries requiring the most floorspace at 2036 are projected to be wholesale trade, retail trade, transport, postal and warehousing, and manufacturing.

Floorspace by land use

Given the current relationship between ANZSIC industry categories and broad land uses, across the study area, freight and logistics, other, and office uses are expected to have the highest growth in floorspace requirements (with the highest percentage growth rate in local light industrial, bulky goods retail, and factory outlets). This is in line with strong demand for wholesale trade, retail trade, and professional services industries. Floorspace requirements for urban services, heavy manufacturing, and light manufacturing are expected to decline given contractions in the manufacturing and utilities sectors.

In total, it is projected that the study area will require an additional 250,000 square metres of floorspace to 2036 (Table 17).

TABLE 17. BLC FLOORSPACE FORECAST – TOTAL ('0,000 SQM)

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR 2011-31
Other	115.6	116.7	117.2	119.2	121.5	124.5	9.0	0.3%
Retail: main street	12.1	12.7	12.9	13.2	13.6	14.0	1.9	0.6%
Freight and logistics	77.9	79.2	80.1	81.9	83.9	86.4	8.5	0.4%
Heavy manufacturing	16.7	15.3	14.1	13.8	13.6	13.6	-3.1	-0.8%
Light manufacturing	4.4	4.3	4.2	4.2	4.2	4.3	-0.1	-0.1%
Local light industrial	7.1	7.4	7.6	7.9	8.2	8.6	1.5	0.8%
Office	42.8	43.9	44.7	45.9	47.1	48.5	5.7	0.5%
Retail: factory outlets	0.5	0.5	0.5	0.5	0.6	0.6	0.1	0.8%
Retail: big box	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2%
Retail: bulky goods	10.8	11.4	11.8	12.3	12.7	13.2	2.5	0.8%
Urban services	2.7	2.1	1.9	1.8	1.8	1.7	-1.0	-1.7%
Total	290.5	293.7	295.1	301.0	307.2	315.5	25.0	0.3%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates

Note: 'Other' includes land-uses not captured by standard SGS land-use categories, for example cinemas, fitness studios, and casinos.

Floorspace capacity

As shown in Table 18, the estimated achievable total capacity figure for the study area is 1,190,000 square metres (made up of 752,000 square metres of potential new floorspace and 438,000 square metres of vacant floorspace). This excludes road reservation areas noted in the DCP.

TABLE 18. FINAL FLOORSPACE CAPACITY ('0,000 SQM)

Zone	Average potential floorspace	Existing floorspace	Average potential capacity	Maximum potential floorspace	Average potential floorspace	Maximum potential capacity	Potential capacity	Existing vacant FS and land	Capacity
B5	17.5	19.5	-	23.0	2.8	3.6	2.8	1.7	4.5
B6	12.6	12.1	0.5	21.3	7.5	9.2	7.5	1.2	8.6
B7	12.6	6.6	6.0	28.6	18.8	21.9	18.8	9.6	28.4
IN1	187.2	205.1	-	252.4	37.8	47.3	37.8	21.8	59.6
IN2	27.0	25.2	2.2	34.7	7.9	9.4	7.9	7.8	15.7
Deferred	24.2	22.4	1.8	22.4	0.4	-	0.4	1.7	2.1
Total	281.2	292.6	10.6	384.0	75.2	91.4	75.2	43.8	119.0

Source: SGS Economics and Planning, 2013 using data provided by the City of Sydney

Gap analysis

Overall, estimated demand is for an additional 250,000 square metres of floorspace in the study area between now and 2036, and capacity is an additional 1,190,000 square metres of floorspace. This gives an excess of potential supply of 940,000 square metres of floorspace. As a result, this analysis shows no constraints to the forecast growth of floorspace demand across the study area in total, with current vacant floorspace alone sufficient to accommodate projected demand to 2036.

By precinct, there is sufficient capacity in the main study area and Parramatta Road precinct. However, there is a projected shortage of floorspace on the South Dowling Street site of 6000 square metres (Table 19), which may imply a role for the main study area in supporting some demand for B5 zoned land to accommodate this spillover.

TABLE 19. GAP ANALYSIS ('0,000 SQM)

Precinct	Supply (final capacity)	Demand (forecast additional floorspace)	Gap
Main study area	117.3	22.7	94.6
Parramatta Road precinct	1.1	1.0	0.1
South Dowling Street site	0.6	1.2	- 0.6
Total	119.0	25.0	94.1

Source: SGS Economics and Planning, 2013

In terms of the match between current zoning and demand by broad land use category, it appears from Table 20 and Table 21 that:

- while there is sufficient business zoned land to accommodate the non-industrial uses in the main study area, there is a significant over-provision of industrial land. An increase in demand of 52,000 square metres of floorspace to accommodate industrial land uses¹⁶ is expected to 2036, with capacity in industrial zones of 743,000 square metres.
- The industrial zoning in the Parramatta Road precinct does not align with projected growth in mainly the 'other' and office land use categories.
- The B5 zoning of the South Dowling Street site fits well with the projected growth in demand for mainly the 'other' and retail categories.

TABLE 20. CHANGE IN FLOORSPACE DEMAND, 2011-2036 ('0,000 SQM)

BLC	Main study area	Parramatta Road precinct	South Dowling Street site
Other	8.1	0.5	0.3
Retail: main street	1.4	0.0	0.4
Freight and logistics	7.9	0.1	0.4
Heavy manufacturing	-3.1	0.0	0.0
Light manufacturing	-0.1	0.0	0.0
Local light industrial	1.5	0.0	0.0
Office	5.4	0.3	0.0
Retail: factory outlets	0.1	0.0	0.0
Retail: big box	0.0	0.0	0.0
Retail: bulky goods	2.4	0.0	0.1
Urban services	-1.0	0.0	0.0
Total	22.7	1.0	1.2

Source: SGS Economics and Planning, 2013

TABLE 21. CAPACITY BY ZONE BY SITE ('0,000 SQM)

	Main study area			Parramatta Road precinct			South Dowling Street site		
	Capacity	Vacant	Total	Capacity	Vacant	Total	Capacity	Vacant	Total
B5	2.3	1.6	3.9	-	-	-	0.6	0.1	0.7
B6	7.5	1.2	8.7	-	-	-	-	-	-
B7	18.8	9.6	28.4	-	-	-	-	-	-
IN1	37.8	21.8	59.6	-	-	-	-	-	-
IN2	7.1	7.6	14.7	0.9	0.2	1.1	-	-	-
Deferred	0.4	1.7	2.1	-	-	-	-	-	-
Total	73.8	43.5	117.3	0.9	0.2	1.1	0.6	0.1	0.6

Source: SGS Economics and Planning, 2013

¹⁶ Namely, freight and logistics, heavy manufacturing, light manufacturing, local light industrial and urban services.

APPENDIX 4A: FORECASTING AND GAP ANALYSIS DETAIL

This section provides further detail on the method used in the preceding forecasting and supply-demand gap analysis tasks.

The supply-demand analysis involves the following steps for *each* precinct:

- Step 1: Calculate the forecast employment growth rate by industry (ANZSIC) between 2011 and 2036 using BTS projections
- Step 2: Convert employment projections to floorspace demand
- Step 3: Calculate floorspace capacity
- Step 4: Compare estimated floorspace capacity to projected demand.

Step 1: Employment growth rates by industry

The employment forecasts (by ANZSIC industry) for each precinct are sourced from the Bureau of Transport Statistics (BTS). The forecasts provide an indication of the magnitude and distribution of future employment and account for future trends by industry. It is important to note that these projections are trend based and broadly speaking, assume that the historical patterns persist. They therefore do not account for any unforeseen structural changes and their applicability to the main study area in particular is limited as a result.

For each precinct and in total, the adjusted five-yearly employment forecast from 2011 to 2036 is shown (Table 22 to Table 25), as well as the change in employment and the compound annual growth rate (CAGR) for this period. Coloured text in the tables shows the highest and lowest growth levels.

TABLE 22. EMPLOYMENT FORECASTS – MAIN STUDY AREA

ANZSIC industry	2011	2016	2021	2026	2031	2036	Change 2011-36	CAGR 2011-36
Agriculture, forestry and fishing	14	12	12	12	12	12	-2	-0.5%
Mining	30	40	44	48	51	54	23	2.3%
Manufacturing	4,443	3,717	3,094	2,869	2,684	2,596	-1,847	-2.1%
Electricity, gas, water and waste services	217	142	118	105	96	90	-127	-3.5%
Construction	979	1,107	1,176	1,173	1,193	1,229	250	0.9%
Wholesale trade	3,955	4,221	4,534	4,849	5,114	5,385	1,431	1.2%
Retail trade	1,717	1,882	1,929	1,996	2,058	2,141	424	0.9%
Accommodation and food services	330	327	314	311	310	315	-15	-0.2%
Transport, postal and warehousing	4,381	4,387	4,438	4,316	4,358	4,408	27	0.0%
Information media and telecommunications	822	863	848	842	834	830	8	0.0%
Financial and insurance services	212	211	223	226	231	234	22	0.4%
Rental, hiring and real estate services	333	327	313	297	286	278	-54	-0.7%
Professional, scientific and technical services	1,779	2,025	2,326	2,594	2,799	2,964	1,185	2.1%
Administrative and support services	577	644	651	662	667	675	98	0.6%
Public administration and safety	413	413	388	369	352	340	-74	-0.8%
Education and training	261	265	291	312	326	338	77	1.0%
Health care and social assistance	328	359	387	410	426	439	111	1.2%
Arts and recreation services	294	310	326	354	378	402	108	1.3%
Other services	1,272	1,353	1,411	1,479	1,546	1,619	347	1.0%
Unclassified	979	1,035	1,090	1,148	1,199	1,251	271	1.0%
Total	23,335	23,640	23,916	24,371	24,919	25,599	2,263	0.4%

Source: BTS (2012), SGS calculations

TABLE 23. EMPLOYMENT FORECASTS – PARRAMATTA ROAD PRECINCT

ANZSIC industry	2011	2016	2021	2026	2031	2036	Change 2011-36	CAGR 2011-36
Agriculture, forestry and fishing	3	2	2	2	2	2	-1	-1.7%
Mining	0	0	0	0	0	0	0	0.0%
Manufacturing	99	84	71	65	60	58	-40	-2.1%
Electricity, gas, water and waste services	8	5	5	4	4	3	-5	-3.4%
Construction	353	434	493	522	558	601	248	2.2%
Wholesale trade	86	84	83	82	81	80	-5	-0.3%
Retail trade	171	178	174	173	172	173	2	0.1%
Accommodation and food services	179	179	176	177	179	183	4	0.1%
Transport, postal and warehousing	4	3	1	0	0	0	-4	-100.0%
Information media and telecommunications	239	287	316	346	374	402	163	2.1%
Financial and insurance services	37	37	40	41	41	42	5	0.5%
Rental, hiring and real estate services	27	25	23	21	20	19	-9	-1.5%
Professional, scientific and technical services	270	308	354	395	427	452	182	2.1%
Administrative and support services	46	51	50	51	50	51	5	0.4%
Public administration and safety	52	57	58	59	60	61	9	0.7%
Education and training	228	239	269	294	314	331	103	1.5%
Health care and social assistance	213	239	262	281	295	306	93	1.5%
Arts and recreation services	120	116	114	116	116	117	-3	-0.1%
Other services	246	251	253	257	260	264	18	0.3%
Unclassified	61	64	68	71	74	77	17	1.0%
Total	2,441	2,644	2,812	2,955	3,086	3,222	781	1.1%

Source: BTS (2012), SGS calculations

TABLE 24. EMPLOYMENT FORECASTS – SOUTH DOWLING STREET SITE

ANZSIC industry	2011	2016	2021	2026	2031	2036	Change 2011-36	CAGR 2011-36
Agriculture, forestry and fishing	3	3	3	3	3	3	0	-0.3%
Mining	0	0	0	0	0	0	0	0.0%
Manufacturing	5	4	4	3	3	3	-2	-2.3%
Electricity, gas, water and waste services	0	0	0	0	0	0	0	0.0%
Construction	0	0	0	0	0	0	0	0.0%
Wholesale trade	0	0	0	0	0	0	0	0.0%
Retail trade	274	294	297	303	309	317	43	0.6%
Accommodation and food services	19	19	19	19	20	21	2	0.4%
Transport, postal and warehousing	4	4	4	3	3	3	-1	-1.2%
Information media and telecommunications	0	0	0	0	0	0	0	0.0%
Financial and insurance services	0	0	0	0	0	0	0	0.0%
Rental, hiring and real estate services	0	0	0	0	0	0	0	0.0%
Professional, scientific and technical services	4	4	5	5	5	6	2	1.4%
Administrative and support services	0	0	0	0	0	0	0	0.0%
Public administration and safety	0	0	0	0	0	0	0	0.0%
Education and training	0	0	0	0	0	0	0	0.0%
Health care and social assistance	0	0	0	0	0	0	0	0.0%
Arts and recreation services	0	0	0	0	0	0	0	0.0%
Total	309	328	331	337	343	352	43	0.5%

Source: BTS (2012), SGS calculations

TABLE 25. EMPLOYMENT FORECASTS – TOTAL STUDY AREA

ANZSIC industry	2011	2016	2021	2026	2031	2036	Change 2011-36	CAGR 2011-36
Agriculture, forestry and fishing	20	18	16	16	17	17	-3	-0.7%
Mining	30	40	45	48	51	54	24	2.3%
Manufacturing	4,546	3,805	3,169	2,937	2,747	2,657	-1,889	-2.1%
Electricity, gas, water and waste services	226	148	123	109	99	93	-132	-3.5%
Construction	1,332	1,541	1,669	1,695	1,752	1,830	498	1.3%
Wholesale trade	4,040	4,305	4,617	4,931	5,195	5,465	1,425	1.2%
Retail trade	2,162	2,355	2,401	2,472	2,538	2,631	469	0.8%
Accommodation and food services	527	524	509	507	509	518	-9	-0.1%
Transport, postal and warehousing	4,389	4,393	4,442	4,320	4,361	4,411	21	0.0%
Information media and telecommunications	1,061	1,150	1,164	1,189	1,208	1,232	171	0.6%
Financial and insurance services	248	248	262	267	272	276	28	0.4%
Rental, hiring and real estate services	360	352	336	318	305	297	-63	-0.8%
Professional, scientific and technical services	2,053	2,337	2,685	2,994	3,231	3,421	1,369	2.1%
Administrative and support services	623	695	702	713	718	725	103	0.6%
Public administration and safety	465	470	446	427	412	401	-64	-0.6%
Education and training	489	503	560	606	640	669	180	1.3%
Health care and social assistance	541	599	649	691	720	744	204	1.3%
Arts and recreation services	414	427	440	469	494	519	105	0.9%
Other services	1,519	1,604	1,664	1,736	1,806	1,883	364	0.9%
Households	0	0	0	0	0	0	0	0.0%
Unclassified	1,040	1,099	1,158	1,220	1,273	1,328	288	1.0%
Total	26,085	26,612	27,059	27,664	28,349	29,173	3,088	0.4%

Source: BTS (2012), SGS calculations

Step 2: Floorspace demand

The floorspace audit (provided by City of Sydney) was conducted using both ANZSIC industry categories and City of Sydney land-use categories. For the purposes of the modelling undertaken here the ANZSIC categories were used, but the City of Sydney land-use categories were converted to line-up with SGS's

standard broad land-use categories as closely as possible. Applicable ancillary uses within standard land uses (such meetings rooms, and corridors) were pro-rata allocated to the ANZSIC industry categories and SGS land-use categories. Land-uses not captured by standard SGS land-use categories (such as cinemas, fitness studios, casinos and so on) are grouped as ‘Other’ BLCs.

Floorspace demand is derived by applying each precinct’s BTS employment growth rates (by ANZSIC industry) to each precinct’s recorded floorspace (by ANZSIC industry)¹⁷. This assumes there is a proportional relationship between jobs and floorspace and that this remains unchanged over time.

Floorspace demand by ANZSIC and SGS broad land use (BLC) are reported for each precinct on the following page. BLC categories are detailed in Table 26. They provide a better indication of land-use needs than ANZSIC industry categories because many industries are likely have similar land uses or multiple land-uses.

TABLE 26. BROAD LAND USE CATEGORIES

Land use	Description
Freight and logistics (FL)	Warehousing and distribution activities: includes buildings with a number of docking facilities, ‘hard stand’ areas with trucks or goods awaiting distribution, and large storage facilities.
Local light industrial (LL)	Includes a wide range of businesses that service other business (components, maintenance and support) and subregional populations. For example, car service and repair, joinery, construction and building supplies, and domestic storage.
Heavy manufacturing (MH)	Large scale production activity: likely to be characterised by high noise emission, emission stacks, use of heavy machinery, and frequency of large trucks.
Light manufacturing (ML)	Small scale production with lower noise and emission levels than heavy manufacturing. For example, clothing manufacturing, boat building.
Urban services (US)	Concrete batching, waste recycling and transfer, construction and local and state government depots, sewerage, water supply, electricity construction yards.
Office (O)	Administration, clerical, business services, research.
Business / office parks (BP)	Integrated warehouse, storage, R&D, ‘back-room’ management and administration with typically a higher office component.
Retail – main street (RM)	Retailing services traditionally found in main street locations (such as supermarkets) and small cluster or strips of stores located next to a street or road.
Retail – big box (RB)	Large shopping complexes, including Westfield.
Retail – bulky goods (RBG)	Typically large, one-story buildings surrounded by car-parking, usually located out of centre and in high exposure (main road) locations.
Special Activities (S)	Tertiary level education, health, and community services.
Dispersed Activities (D)	Primary and secondary education, lower level health, social and community services, trades construction, other ‘nomads’.
Residential (RES)	Residential development.
Accommodation (short term) (AST)	Hotels and motels (not including pubs), backpacker establishments.
Car park (CP)	Stand-alone car parking stations.
Vacant sites/lots (VSI)	Vacant sites.
Vacant buildings (VBL)	Vacant buildings.

Source: Developed by SGS Economics and Planning, 2013 for purpose of study

Table 27 and Table 28 show that in the main study area, consistent with the employment projections in step 1, floorspace demand is strongest for wholesale and retail trade industries. Floorspace demand for professional services is expected grow the fastest. With declining employment in manufacturing, the utilities sector, and rental and real estate services; it is expected that floorspace in these sectors should free up for alternative industries. In terms of broad land uses, demand is strongest for freight and logistics, other, and office uses. Contractions in the manufacturing and utilities sectors imply

¹⁷ The BTS employment growth rates were applied to building-level ANZSIC category floorspace from the audit. We then apply the current land-use (BLC) profile to the ANZSIC floorspace for that building to derive its land-use distribution. As such, the current land-use profile of each building is assumed to remain unchanged over time. Lastly, buildings within a precinct are aggregated to derive precinct floorspace demand.

contractions in heavy manufacturing, light manufacturing, and urban services land-uses. In total, it is projected that the main study area requires 226,975 additional square metres of floorspace by 2036.

Table 29 and Table 30 show that in the Parramatta Road precinct, floorspace demand is strongest for professional services, and education and training industries, with professional services floorspace demand expected grow the fastest. In terms of broad land uses, demand is strongest for office, freight and logistics, and other uses. Given current land-uses, no floorspace contractions are expected for this precinct. In total, it is projected that the Parramatta Road precinct requires 10,149 square metres of floorspace by 2036.

Table 31 and Table 32 show that for the South Dowling Street site, floorspace demand is strongest for the retail trade sector. By broad land use category, demand is strongest for retail main street, and freight and logistics uses. Given current land-uses, no floorspace contractions are expected for this precinct. In total, it is projected that South Dowling Street site requires 12,413 square metres of floorspace by 2036.

Total demand by floorspace and broad land use category is given in Table 33 and Table 34.

TABLE 27. ANZSIC FLOORSPACE FORECAST ('0,000 SQM) – MAIN STUDY AREA

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Manufacturing	57.6	48.2	40.1	37.2	34.8	33.7	-23.9	-2.1%
Electricity, gas, water and waste	4.5	2.9	2.4	2.2	2.0	1.9	-2.6	-3.5%
Construction	5.6	6.3	6.7	6.7	6.8	7.0	1.4	0.9%
Wholesale trade	69.4	74.1	79.5	85.1	89.7	94.5	25.1	1.2%
Retail trade	36.6	40.1	41.1	42.5	43.8	45.6	9.0	0.9%
Accommodation and food services	2.6	2.5	2.4	2.4	2.4	2.4	-0.1	-0.2%
Transport, postal and warehousing	30.7	30.8	31.1	30.3	30.6	30.9	0.2	0.0%
Information media and telecom	15.6	16.4	16.1	16.0	15.8	15.8	0.2	0.0%
Financial and insurance services	1.4	1.4	1.5	1.5	1.5	1.6	0.1	0.4%
Rental, and real estate services	9.3	9.1	8.7	8.3	8.0	7.8	-1.5	-0.7%
Professional/technical services	10.4	11.9	13.6	15.2	16.4	17.4	6.9	2.1%
Administrative services	6.6	7.4	7.5	7.6	7.7	7.7	1.1	0.6%
Public administration and safety	3.6	3.6	3.4	3.2	3.1	2.9	-0.6	-0.8%
Education and training	3.2	3.2	3.5	3.8	4.0	4.1	0.9	1.0%
Health care and social assistance	4.7	5.1	5.5	5.8	6.1	6.2	1.6	1.2%
Arts and recreation services	5.9	6.2	6.5	7.1	7.6	8.0	2.2	1.3%
Other services	10.1	10.7	11.2	11.7	12.3	12.8	2.7	1.0%
Total	277.6	279.8	281.0	286.5	292.4	300.3	22.7	0.3%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates. * AAGR is average annual growth rate.

TABLE 28. BLC FLOORSPACE FORECAST ('0,000 SQM) – MAIN STUDY AREA

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Other	111.4	112.3	112.6	114.5	116.6	119.5	8.1	0.3%
Retail: main street	9.1	9.5	9.7	10.0	10.2	10.6	1.4	0.6%
Freight and logistics	74.2	75.3	76.1	77.8	79.7	82.1	7.9	0.4%
Heavy manufacturing	16.7	15.3	14.1	13.8	13.6	13.6	-3.1	-0.8%
Light manufacturing	4.4	4.3	4.2	4.2	4.2	4.3	-0.1	-0.1%
Local light industrial	7.0	7.3	7.5	7.8	8.1	8.5	1.5	0.8%
Office	41.9	43.0	43.7	44.8	45.9	47.3	5.4	0.5%
Retail: factory outlets	0.5	0.5	0.5	0.5	0.6	0.6	0.1	0.8%
Retail: big box	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2%
Retail: bulky goods	9.8	10.3	10.7	11.2	11.7	12.2	2.4	0.9%
Urban services	2.7	2.1	1.9	1.8	1.7	1.7	-1.0	-1.8%
Total	277.6	279.8	281.0	286.5	292.4	300.3	22.7	0.3%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates * AAGR is average annual growth rate.

TABLE 29. ANZSIC FLOORSPACE FORECAST ('0,000 SQM) – PARRAMATTA ROAD PRECINCT

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Electricity, gas, water and waste	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Retail trade	2.3	2.4	2.3	2.3	2.3	2.3	0.0	0.1%
Accommodation and food services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Transport, postal and warehousing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Information media and telecom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Financial and insurance services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Rental, and real estate services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Professional/technical services	0.8	0.9	1.0	1.1	1.2	1.3	0.5	2.1%
Administrative services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4%
Public administration and safety	0.7	0.7	0.8	0.8	0.8	0.8	0.1	0.7%
Education and training	0.7	0.7	0.8	0.9	0.9	1.0	0.3	1.5%
Health care and social assistance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5%
Arts and recreation services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Other services	0.5	0.5	0.5	0.6	0.6	0.6	0.0	0.3%
Total	5.0	5.3	5.5	5.7	5.8	6.0	1.0	0.7%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates * AAGR is average annual growth rate.

Note that there are instances where BTS projects employment in an industry that has no recorded floorspace. Given that employment growth rates are applied to audited floorspace, there is no floorspace projected for industries that have no audited floorspace (e.g. construction). This is likely to be a mis-classification in the audit process with floorspace allocated to a different industry. This anomaly is unlikely to impact the overall projections since only employment growth rates are applied, and because the land-audit fully accounts for all floorspace in the precinct regardless of the classification.

TABLE 30. BLC FLOORSPACE FORECAST ('0,000 SQM) – PARRAMATTA ROAD PRECINCT

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Other	2.2	2.4	2.5	2.6	2.7	2.8	0.5	0.9%
Retail: main street	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.1%
Freight and logistics	0.9	1.0	1.0	1.0	1.0	1.0	0.1	0.5%
Heavy manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Light manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1%
Local light industrial	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1%
Office	0.9	1.0	1.0	1.1	1.2	1.2	0.3	1.2%
Retail: factory outlets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Retail: big box	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Retail: bulky goods	0.6	0.7	0.7	0.7	0.7	0.7	0.0	0.1%
Urban services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4%
Total	5.0	5.3	5.5	5.7	5.8	6.0	1.0	0.7%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates * AAGR is average annual growth rate.

TABLE 31. ANZSIC FLOORSPACE FORECAST ('0,000 SQM) – SOUTH DOWLING STREET SITE

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Electricity, gas, water and waste	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Retail trade	7.9	8.5	8.6	8.7	8.9	9.1	1.2	0.6%
Accommodation and food services	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.4%
Transport, postal and warehousing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Information media and telecom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Financial and insurance services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Rental, and real estate services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Professional/technical services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Administrative services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Public administration and safety	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Education and training	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Health care and social assistance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Arts and recreation services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Other services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Total	8.0	8.5	8.6	8.8	9.0	9.2	1.2	0.6%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates * AAGR is average annual growth rate.

Note that there are instances where BTS projects employment in an industry that has no recorded floorspace. Given that employment growth rates are applied to audited floorspace, there is no floorspace projected for industries that have no audited floorspace (e.g. construction). This is likely to be a mis-classification in the audit process with floorspace allocated to a different industry. This anomaly is unlikely to impact the overall projections since only employment growth rates are applied, and because the land-audit fully accounts for all floorspace in the precinct regardless of the classification.

TABLE 32. BLC FLOORSPACE FORECAST ('0,000 SQM) – SOUTH DOWLING STREET SITE

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Other	1.9	2.1	2.1	2.2	2.2	2.3	0.3	0.6%
Retail: main street	2.8	3.0	3.1	3.1	3.2	3.3	0.4	0.6%
Freight and logistics	2.8	3.0	3.0	3.1	3.2	3.2	0.4	0.6%
Heavy manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Light manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Local light industrial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Office	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6%
Retail: factory outlets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Retail: big box	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Retail: bulky goods	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.6%
Urban services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6%
Total	8.0	8.5	8.6	8.8	9.0	9.2	1.2	0.6%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates * AAGR is average annual growth rate.

TABLE 33. ANZSIC FLOORSPACE FORECAST ('0,000 SQM) – TOTAL

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Manufacturing	57.6	48.2	40.1	37.2	34.8	33.7	-23.9	-2.1%
Electricity, gas, water and waste	4.5	2.9	2.4	2.2	2.0	1.9	-2.6	-3.5%
Construction	5.6	6.3	6.7	6.7	6.8	7.0	1.4	0.9%
Wholesale trade	69.4	74.1	79.5	85.1	89.7	94.5	25.1	1.2%
Retail trade	46.8	51.0	52.0	53.6	55.0	57.1	10.3	0.8%
Accommodation and food services	2.6	2.6	2.5	2.5	2.5	2.5	-0.1	-0.2%
Transport, postal and warehousing	30.7	30.8	31.1	30.3	30.6	30.9	0.2	0.0%
Information media and telecom	15.6	16.4	16.1	16.0	15.8	15.8	0.2	0.0%
Financial and insurance services	1.4	1.4	1.5	1.5	1.5	1.6	0.1	0.4%
Rental, and real estate services	9.3	9.1	8.7	8.3	8.0	7.8	-1.5	-0.7%
Professional/technical services	11.2	12.7	14.6	16.3	17.6	18.7	7.5	2.1%
Administrative services	6.7	7.4	7.5	7.6	7.7	7.8	1.1	0.6%
Public administration and safety	4.3	4.3	4.1	4.0	3.8	3.7	-0.5	-0.5%
Education and training	3.8	3.9	4.3	4.6	4.9	5.1	1.2	1.1%
Health care and social assistance	4.7	5.1	5.5	5.8	6.1	6.3	1.6	1.2%
Arts and recreation services	5.9	6.2	6.5	7.1	7.6	8.0	2.2	1.3%
Other services	10.6	11.3	11.7	12.3	12.8	13.4	2.8	0.9%
Total	290.5	293.7	295.1	301.0	307.2	315.5	25.0	0.3%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates * AAGR is average annual growth rate.

TABLE 34. BLC FLOORSPACE FORECAST ('0,000 SQM) – TOTAL

	2011	2016	2021	2026	2031	2036	Change 2011-31	AAGR* 2011-31
Other	115.6	116.7	117.2	119.2	121.5	124.5	9.0	0.3%
Retail: main street	12.1	12.7	12.9	13.2	13.6	14.0	1.9	0.6%
Freight and logistics	77.9	79.2	80.1	81.9	83.9	86.4	8.5	0.4%
Heavy manufacturing	16.7	15.3	14.1	13.8	13.6	13.6	-3.1	-0.8%
Light manufacturing	4.4	4.3	4.2	4.2	4.2	4.3	-0.1	-0.1%
Local light industrial	7.1	7.4	7.6	7.9	8.2	8.6	1.5	0.8%
Office	42.8	43.9	44.7	45.9	47.1	48.5	5.7	0.5%
Retail: factory outlets	0.5	0.5	0.5	0.5	0.6	0.6	0.1	0.8%
Retail: big box	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2%
Retail: bulky goods	10.8	11.4	11.8	12.3	12.7	13.2	2.5	0.8%
Urban services	2.7	2.1	1.9	1.8	1.8	1.7	-1.0	-1.7%
Total	290.5	293.7	295.1	301.0	307.2	315.5	25.0	0.3%

Source: SGS Economics and Planning, 2013, using BTS employment growth rates * AAGR is average annual growth rate.

Step 3: Floorspace capacity

The floorspace capacity calculation considers the potential amount of floorspace permissible under existing controls as a base. The principal controlling documents for this study are the Local Environmental Plan (LEP) and Development Control Plans (DCPs) that apply to the study areas. These documents outline permitted and prohibited uses on certain land as well as the amount and structure of the urban form. The key control when determining maximum potential floorspace is the Floorspace Ratio (FSR). FSRs limit the amount of floorspace permitted on a lot based on the ratio of floorspace to lot size. Table 35 shows which zone and FSR controls apply within each precinct. Applying the relevant FSRs to each lot calculates a maximum floorspace value.

TABLE 35. FLOORSPACE RATIOS

Precinct and zone	-	1:1	1.5:1	1.75:1	2:1	2.5:1	3:1
Main precinct							
B5	-	-	X	-	X	-	X
B6	X	X	-	-	X	-	-
B7	-	-	-	-	X	-	-
IN1	-	X	X	X	-	-	-
IN2	X	-	X	X	-	-	-
Deferred	X	-	-	-	-	-	-
-	X	-	-	-	-	-	-
Parramatta Road							
IN2	-	-	X	X	-	-	-
-	X	-	X	X	-	-	-
South Dowling Street							
B5	-	-	-	-	-	-	X

Source: SGS Economics and Planning, 2013, using data provided by the City of Sydney

Using the maximum floorspace achievable under current controls in the modelling would be unrealistic, however, and would represent a significant change to the existing urban form. The first step to achieve a more defensible capacity figure was to create a capacity range for each lot. This involved calculating the average FSR for each zone from the land audit data (Table 36), and applying it to each lot under that zone. This was determined to be the low end of the capacity range. The maximum capacity as shown in Table 37 was the upper limit.

TABLE 36. AVERAGE EXISTING FSR

Precinct	FSR
Main precinct	
B5	1
B6	1.1
B7	0.8
IN1	1.1
IN2	1.3
Deferred	1.3
-	-
Parramatta Road	
IN2	2.4
-	0.1
South Dowling Street	
B5	1

Source: SGS Economics and Planning, 2013, using data provided by the City of Sydney.

An achievable final capacity value was estimated to be towards to maximum end of the range (by zone) and was calculated using the following formula:

Floorspace capacity = Average capacity + 80% x (Maximum capacity – Average capacity)

Descriptive results for the calculation of the final floorspace capacity can be seen in Table 37, which shows that the current total capacity for the whole study area is 1,190,000 square metres; made up of 752,000 square metres of potential floorspace and 438,000 square metres of vacant floorspace.

TABLE 37. FINAL FLOORSPACE CAPACITY ('0,000 SQM)

Zone	Average potential floorspace	Existing floorspace	Average potential capacity	Maximum potential floorspace	Average potential floorspace	Maximum potential capacity	Potential capacity	Existing vacant FS and land	Capacity
Main study area									
B5	9.5	11.5	-	14.4	2.3	2.9	2.3	1.6	3.9
B6	12.6	12.1	0.5	21.3	7.5	9.2	7.5	1.2	8.6
B7	12.6	6.6	6.0	28.6	18.8	21.9	18.8	9.6	28.4
IN1	187.2	205.1	-	252.4	37.8	47.3	37.8	21.8	59.6
IN2	22.5	20.3	2.2	28.6	7.1	8.3	7.1	7.6	14.7
Deferred	24.2	22.4	1.8	22.4	0.4	-	0.4	1.7	2.1
-	-	1.7	-	1.7	-	-	-	-	-
Total	268.7	279.7	10.6	369.3	73.8	89.6	73.8	43.5	117.3
Parramatta Road precinct									
IN2	4.5	5.0	-	6.1	0.9	1.1	0.9	0.2	1.1
South Dowling Street site									
B5	8.0	8.0	-	8.7	0.6	0.7	0.6	0.1	0.6
Total	281.2	292.6	10.6	384.0	75.2	91.4	75.2	43.8	119.0

Source: SGS Economics and Planning, 2013 using data provided by the City of Sydney

It is noted in 2008 the City of Sydney prepared a capacity study which measured the gap between the floorspace available under the 2008 planning controls 'as built', and the potential floorspace that could theoretically be achieved under the then proposed City Plan controls (City of Sydney, 2008). In 2010 the capacity study was updated to reflect some proposed changes to the draft controls. The capacity study did not count the capacity of sites that were unlikely to be redeveloped (City of Sydney, 2010).

The 2008 capacity study found the capacity of the southern industrial area was 1,133,630 square metres of floorspace if included sites were developed to their full potential. This was only slightly altered in the 2010 capacity study to about 1,014,000 square metres.

While the study areas of the capacity study and this employment lands study vary slightly (some land to the north of the employment lands study area is not included in the capacity study area), the capacity study broadly supports the conclusions of the above analysis.

Step 4: Gap analysis

To assess whether there is enough floorspace capacity available in the study area to accommodate forecast floorspace demand to 2036, the capacity (supply) data was compared to the demand analysis to identify the gap. This gap can be seen in Table 38, which shows that there is an excess of potential supply in the order of 941,000 square metres of floorspace (under existing planning controls and using the floorspace capacity reduction in the formula above).

TABLE 38. GAP ANALYSIS ('0,000 SQM)

Precinct	Supply (final capacity)	Demand (forecast additional floorspace)	Gap
Main study area	117.3	22.7	94.6
Parramatta Road precinct	1.1	1.0	0.1
South Dowling Street site	0.6	1.2	- 0.6
Total	119.0	25.0	94.1

Source: SGS Economics and Planning, 2013

APPENDIX 5: INDUSTRIAL FEASIBILITY MODELLING

Overview

The background report at appendix 8 notes that the City of Sydney Floorspace Employment Survey found large amounts of vacant land and vacant floorspace in the main study area. Local landowners and commercial property market agents also discussed the high vacancy rates during consultation.

To explore the relationship between vacancies, demand for land/ floorspace in the area, and the viability of development indicative feasibility modelling has been conducted. As a case study, the feasibility of a typical industrial development (a warehouse) within the existing planning controls has been modelled.

Proposed site and building characteristics

A 1600 square metre (gross) warehouse with a net leasable floor area of 1440 square metres was modelled on two sites, both of which were 2500 square metres. The two sites differed in that the first has an existing industrial building that would require demolition, whilst the second is a vacant site. The proposed developments were consistent with the planning controls for the IN1 zone found in the *Sydney Local Environmental Plan 2012*. The sites are in the vicinity of Gardeners Road, O’Riordan Street and Bourke Road.

The building type chosen was a modern High Bay warehouse, reflective of much of the development in the area and consistent with the freight and logistics industries which dominate the industrial landscape. The High Bay ceiling is to allow for 10m+ shelf stacking as is generally required in a modern warehouse. Table 39 shows the specific site attributes.

TABLE 39. SITE AND BUILDING ATTRIBUTES

Site	Development 1	Development 2
Site area (sqm)	2500 sqm	2500 sqm
Gross building area (sqm)	1600 sqm	1600 sqm
Net leasable floor area (sqm)	1440 sqm	1440 sqm
Site coverage (%)	64%	64%
Car space requirement	1 space/300 sqm	1 space/300 sqm
Total car spaces	5	5
Roof type	High Bay	High Bay
Height	11m	11m
Structure	Pre-cast	Pre-cast
Existing site use	Existing industrial building	Vacant

Source: SGS Economics and Planning, 2013 and Rawlinsons, 2012

Feasibility inputs

A residual land value (RLV) model was run to test development feasibility.

RLV method

The RLV model calculates the residual value of a development after deducting all the development costs from the sales revenues, in the current market. The development costs include construction costs and contingencies, external works and other site works, professional fees, developer's profit margin, infrastructure levies or contributions and other council fees.

$$\begin{array}{rcl} \text{Sales} & & \\ \text{revenue} & & \\ & - & \text{development cost (including} \\ & & \text{construction cost, professional} \\ & & \text{fees, profit, risk, and DA)} \\ & & \\ & = & \text{Residual} \\ & & \text{land value} \end{array}$$

The development is considered feasible when the residual land value is greater than the cost to acquire the land. This is given as a ratio in the model where a feasibility ratio >1 translates to a feasible development. The cost and revenue assumptions and other model inputs are discussed in detail below.

Land acquisition costs

The land acquisition costs are based on current on-the-market listings, recent transactions in the area through extensive analysis of market data (using RP Data), commercial real estate listings and property market research reports. The data analysis has been sense checked with commercial property market agents with listings in the area.

Construction costs

The building costs per square metre have been sourced from Rawlinsons Australian Construction Handbook 2012. This includes the construction costs of the warehouse, parking, demolition costs (where required), site preparation and external works for the second development. As a general rule, the construction costs of a warehouse development are significantly lower than many other building types due to the relatively simplistic nature of the buildings and lack of internal finishings.

Professional costs and other development costs

The professional costs for warehouse development are lower than those for many other types of development; again this is due to the fairly simple structural and design requirements. Rawlinsons gives a range of professional costs for warehouse developments which range from 6.5-9.5 percent, however there is a disclaimer pointing out the fact that costs are often substantially lower than those given in the handbook. For this exercise a total project fee cost of 6.2 percent has been estimated. The low figure is based on fairly low fees for architecture and design as well as project management, consistent with the nature of the development. Table 40 shows the estimated breakdown of professional fees.

TABLE 40. PROFESSIONAL FEES

Professional Service	% of building costs	
Architect	1.0%	
Structural engineer	1.0%	
Mechanical engineer	0.5%	
Hydraulic engineer	0.5%	
Electrical engineer	0.5%	
Survey fees	0.2%	
Quantity surveyor	0.5%	
Project management	2.0%	
Professional fees total	6.2%	

Other development costs	Proportion (%)	of cost
External works and services	3%	of building cost
Construction contingency	10%	of building cost + external wks
Professional fees	6.2%	of building cost + external wks + const. contingency
Development charge (section 94.etc)	2%	of all construction costs
Developer's profit margin	15%	of all construction costs

Source: Rawlinsons, 2012 and SGS Economics and Planning, 2013

GST

GST is payable on the revenue from the sale of each dwelling. It is calculated at 10 percent GST of the revenue from each dwelling. To ensure GST is not over-counted, GST for construction costs and land purchase is excluded and considered an input credit. The difference between the 10 percent revenue of the dwelling sales minus the input credits (GST on property purchase and construction costs) is payable. If GST payable on the input credits (development costs and property purchase) is greater than the GST from the sales revenue, then the difference can be claimed as a tax deduction.

Stamp duty

Stamp duty is costed at the rate as dutiable by the NSW Government. There is a lump sum fee plus proportional rate for any dollars over the threshold the lump sum is charged for. The proportional rate and lump sum vary according to the property value.

Revenue costs

Revenue costs are those which are taken as a proportion of the revenue (income) from sale or leasing of the property (Table 41). The costs are based on Rawlinsons Handbook as well as similar development types.

TABLE 41. SALE EXPENSES (AS A PROPORTION OF REVENUE)

Sales expenses	% of sales values
Commission on sales	3.0%
Legal fees	0.5%
Marketing	0.5%
Other	0.0%
Total sales expenses	4.0%

Source: Rawlinsons, 2012

Revenue

The revenue assumptions for modelling the feasibility of a warehouse development in Southern Sydney are based on both data analysis and consultation with commercial property market agents. The data analysis involves extracting recent sales and leasing transactions from a number of sources including RP Data, commercial property websites as well as commercial real estate market research

reports from major brokers including Colliers and CBRE. The consultation with local property market agents is used to sense check the achievable revenue estimates.

The revenue assumptions take into account both achievable leasing and sale prices (\$) per square metre. The market yields for industrial land in the main study area are slightly lower than other areas; as of 2012, around 7.5 to 10 percent according to Colliers. This indicates that there is a longer cost recovery period than other industrial areas in Sydney and this may be affecting its competitiveness in the market.

Results of feasibility of current zoning

The results in Table 42 show that both development scenarios tested: a modern High Bay warehouse development on 1) an existing industrial building that would require demolition, and 2) a vacant site, return a negative feasibility value (that is, less than 1). This has occurred as the revenue from a warehouse development (capital property value) is less than the combined costs of constructing the development and purchasing the land.

Both development scenarios return a positive residual land value, indicating that the estimated revenue is greater than the development costs, however when combining the development costs with property purchase costs, the revenue is substantially lower than the combined costs, which precipitates a feasibility ratio less than 1.

This may indicate that there are several factors affecting the industrial market, which are likely linked to the considerable vacancy in the area. The demand for warehousing space and resultant income is not consistent with the relatively high land values. Although this should encourage a reduction in the cost of land in the area, at present it remains high and thus would require a considerable increase in demand to achieve revenue sufficient to make warehousing development feasible.

TABLE 42. SUMMARY OF INDICATIVE FEASIBILITY FOR WAREHOUSE DEVELOPMENT

Attribute	Development scenario 1	Development scenario 2
Current land value	\$3,750,000	\$3,200,000
Stamp duty payable on land	\$191,740	\$161,490
Land financing cost	\$221,723	\$189,084
Total land costs	\$4,163,463	\$3,550,574
Total construction costs	\$1,713,243	\$1,451,970
Developer's profit margin (incl. interest)	\$256,986	\$217,796
Other Costs	\$34,265	\$29,039
Total development costs	\$2,004,494	\$1,698,805
Capital land value/sqm	\$2,400	\$2,400
Total sales revenue	\$3,317,760	\$3,317,760
GST credit	\$496,658	\$422,906
Residual land value	\$1,313,266	\$1,618,955
Feasibility ratio	0.43	0.58

Source: SGS Economics and Planning, 2013

This implies that in order to reduce vacancies in the main study area and facilitate renewal, zoning changes are required that will increase feasibility and encourage development. The following section details SGS's recommendations for planning controls that will help achieve the vision proposed by our preferred strategy.

APPENDIX 6: POPULATION SERVING INDUSTRY TEST

The proposed changes to the zonings have implications for the space available for population servicing industries, comprising the Local Light¹⁸ industrial and Urban Services¹⁹ land use categories. It is therefore necessary to test whether rezoning of industrial land proposed in the scenarios would ensure sufficient quantity is retained to service the current and projected local population.

Even though some locals are likely to travel to adjacent LGAs for some uses located on industrial land, we assume that the study area generally needs to have the ability to service the needs of the residents in the City of Sydney LGA. That is, we assume that the City of Sydney is largely self-contained in its ability to service its local population's employment land demand.

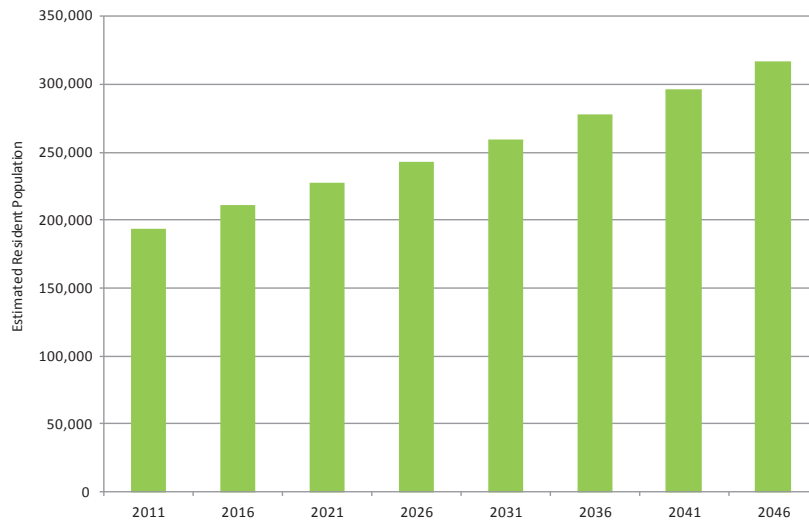
To calculate the population driven jobs and floorspace for the LGA, we apply ratios of jobs per person (estimated by SGS using regressions from land audits across Sydney) to BTS population projections in Figure 38 for the LGA. The jobs are then converted to floorspace using SGS ratios of floorspace per job.

This process assumes constant returns to scale, and a fixed relationship between population, jobs, and floorspace. In practice, these assumptions are unlikely to hold true, particularly given that services in the Local Light industrial category are changing and intensifying (for example, with large integrated sales and service operations in the car industry), and given scope in the Urban Services category for scale economies (where significant increases in activity do not necessarily create a demand for additional land). As such, the estimates of required floorspace for population serving industries given below are conservative on the high side for population related service industry land. This is appropriate in providing a 'buffer' in the stock of this land.

¹⁸ Includes a wide range of businesses that service other business (components, maintenance and support) and subregional populations. For example, car service and repair, joinery, construction and building supplies, and domestic storage.

¹⁹ Concrete batching, waste recycling and transfer, construction and local and state government depots, sewerage, water supply, electricity construction yards.

FIGURE 38. ESTIMATED RESIDENT POPULATION, CITY OF SYDNEY LGA



Source: BTS, 2012

In 2036, it is estimated that the total population of the City of Sydney LGA would require around 190,000 square metres of floorspace for Local Light industrial uses, and around 147,000 square metres of Urban Services floorspace. This amounts to around 339,000 square metres of population-driven floorspace demand in 2036 (Table 43).

TABLE 43. POPULATION DRIVEN JOBS AND FLOORSPACE – PROJECTIONS

Industrial land use	Jobs per resident	Fsp per job (sqm)	2011 jobs	2036 jobs	2011 fsp (sqm)	2036 fsp (sqm)	Additional jobs	Additional floorspace (sqm)
Local Light	0.0115	60	2,229	3,191	133,717	191,487	963	57,770
Urban Services	0.0053	100	1,027	1,471	102,710	147,084	444	44,374
Total	0.0914	0	3,256	4,662	236,427	338,571	1,407	102,143

Source: SGS Economics and Planning, 2013

The preferred mixed economy scenario allocates around 490,000 square metres of land for industrial use. If an FSR of 1:1 is assumed for population serving industries, this results in an additional land being available for strategic uses. It is worth noting that although this is lower than the current permitted FSR of 1.5:1 in IN1 zones, it may be higher than the average FSR of existing firms. Some intensification of uses would be expected, however, as uses consolidate in the proposed industrial area.

The residential and commercial scenarios allocate around 370,000 square metres of land for industrial use; sufficient to accommodate the projected population-driven industrial demand alone with a small amount left over if assuming a floorspace ratio of 1:1.

APPENDIX 7: STRATEGIC ASSESSMENT OF EMPLOYMENT LANDS

SGS has undertaken an assessment of the scenarios using the Summary of Strategic Assessment Checklist in Action E3.2 from the Metropolitan Plan for Sydney 2036, on assessing proposals for employment land (from the Department of Planning and Infrastructure).

Objective E3 ('To provide employment lands to support the economy's freight and industry needs') and Action E3.2 ('Identify and retain strategically important employment lands') provide the strategic context for the rezoning of employment lands.

Under these headings, the Metropolitan Plan notes (p.141) that in many older employment areas there 'is a declining level of activity due to factors such as obsolete building stock and subdivision patterns' and that in these areas options for renewal need to be considered. The document proposes the replacement of the subregional strategy categorisation of industrial lands with a 'strategic assessment checklist', which will be more fully developed in the next round of subregional strategies. Although the future of these is now unclear following the change in government, the 'summary' checklist in Figure 39 remains adopted policy.

FIGURE 39. METROPOLITAN PLAN ACTION E3.2



Source: Department of Planning and Infrastructure, 2010

The document notes that 'the NSW Government continues to support the retention of existing strategically important employment lands across the Sydney region. Only areas that are not strategically important will be considered for rezoning.'

For each of these criteria, the role or impact of the proposed scenarios is considered in broad terms in Table 44 with a score given between -1 and 1. The totals show that the mixed economy scenario performs best in this assessment.

TABLE 44. STRATEGIC ASSESSMENT CHECKLIST

Checklist item	Residential scenario	Score	Commercial scenario	Score	Mixed economy scenario	Score
Consistency with Subregional Strategies	No new subregional strategies but is inconsistent with the Sydney City draft Subregional Strategy because limited land is maintained for employment purposes to support the position of the study area within the Global Economic Corridor.	-1	No new subregional strategies but remains fairly consistent with the Sydney City draft Subregional Strategy by establishing commercial uses as the focus, in line with the position of the study area within the Global Economic Corridor.	0	No new subregional strategies but is consistent with the Sydney City draft Subregional Strategy through providing additional employment lands greater than what is required for population serving demand, and promoting a mixed economy in line with the role of the study area as part of the Global Economic Corridor.	1
Current use of the area, and existing transport and infrastructure	Residential focus is inconsistent with current land uses in the area.	-1	Relatively consistent with current uses of the area although shifts focus from industrial lands towards commercial uses.	0	Supports the current mix of freight and logistics, urban services, light manufacturing and office/business park uses through providing precincts which continue to support these activities.	1
Impacts on the long term viability of the employment land precinct and any industry clusters in the precinct or surrounding area	The scenario provides for clusters; however, their viability may be negatively impacted by residential uses and associated traffic and interface zone impacts.	-1	Clustering is facilitated and the viability of the area is likely to be improved through greater flexibility in permitted uses; however, the concentration of business park activities within the study area has the potential to compete with the neighbouring Green Square town centre.	1	Caters for clusters of creative, mixed, bulky goods and industrial uses to improve the viability of the area through reduced vacancies and flexibility permitting a greater variety of land uses.	1
Whether the employment lands support national or state significant infrastructure	Involves considerable depletion of land currently housing industrial and business tenants, some of which may support the functioning of the airport.	-1	Provides land for a range of commercial uses that can support Sydney Airport; however, there may be insufficient industrial land available for uses such as freight.	0	Provides land for a range of commercial and industrial uses that can support Sydney Airport.	1
Trends in local land use activity	Consistent with increasing residential density in the local area and reduction in need for industrially zoned land, although does not facilitate creative industries, which are growing in the area.	1	Consistent with trend of business parks and increasing focus on commercial office employment rather than traditional manufacturing and industrial. Permits some mixed use, likely to attract further creative uses.	1	Consistent with emerging trend of knowledge economy, creative uses, and business park activity; integrating these into a mixed economy scenario that permits some residential activity in defined areas.	1
Suitability and extent of measures implemented to improve an area's employment lands viability	The residential focus is likely to undermine the viability for some industrial activities, given possible traffic implications and interface issues.	-1	Industrial zoning does not permit sufficient flexibility and may have contributed to high vacancies in the area. Proposed changes to zoning are likely to increase the area's viability for a range of	1	Industrial zoning does not permit sufficient flexibility and may have contributed to high vacancies in the area. Proposed changes to zoning are likely to increase the area's	1

Checklist item	Residential scenario	Score	Commercial scenario	Score	Mixed economy scenario	Score
			uses, including industrial.		viability for a range of uses, including industrial.	
Potential to redevelop for industrial uses and/or new industrial uses (e.g. creative industries)	Maintains some potential for industrial uses and the redevelopment of new industrial uses, although in a limited area.	0	Allows for the redevelopment for industrial uses and new industrial uses over a wide area, with greater flexibility in permitted uses.	1	Improves the ability of the study area to redevelop for new industrial uses such as creative industries, while maintaining considerable space for traditional industrial uses that may require buffering.	1
Impacts on stocks of local employment lands and the ability of remaining stocks to meet future local industrial needs	Reduction in the stock of industrially-zoned land in the City of Sydney; however, maintains a sufficient amount to accommodate population serving uses.	1	Reduction in the stock of industrially-zoned land in the City of Sydney; however, maintains a sufficient amount to accommodate population serving uses.	1	Reduction in the stock of industrially-zoned land in the City of Sydney, but provides additional amount above what is required for population serving demand – this will provide for strategic uses supporting the airport and CBD and permit future growth.	1
Total		-3		5		8

Source: SGS Economics and Planning, 2013

APPENDIX 8: RISK ASSESSMENT

TABLE 45. RISK ASSESSMENT

Risk	Likelihood of occurring	Significance	Mitigation strategies
Significant increase in traffic congestion resulting from increased employment densities and incoming residents	Medium	Medium	Traffic modelling should be conducted to test the carrying capacity of the roads within the study area given the recommended change in land uses and in the context of infrastructure development in the subregion.
Higher than predicted population growth leading to bigger than expected demand for population serving industrial land	Low	Medium	The requirements for population-serving industrial land have been calculated. Allowance has been made to meet the population driven requirements out to 2036 (339,000 square metres) plus a buffer of 150,000 square metres has been included.
Incoming bulky goods retail operations will be the quickest to move into the main study precinct – taking advantage of relatively low land values. This will jeopardise lower value industrial activity and set the tone as a bulky goods precinct	High	Medium	It is envisaged that bulky goods operations will be limited to defined corridors along Bourke Road and O’Riordan Street through the application of appropriate planning controls.
Increasing residential development hinders business operations e.g. limiting truck movements or operating hours and so on; or airport operations (such as extending the flight curfew)	Medium	Low	Traditional industrial operations will be accommodated in the industrially zoned area in the south western portion of the main study precinct. This area has no adjoining residential areas and is expected to have minimal interface issues with planned ‘mixed business’ to the north.
Key strategic drivers for the Subregion (such as the Port and Airport) change their development trajectory resulting in a changed relationship with the main study precinct.	Low	Medium	A subregional employment lands review suggests that there is ample land for port related activity in the Ports SEPP. Beyond this land, demand is likely to be stronger for the remaining industrial precincts within Botany Bay LGA than the City of Sydney LGA precincts. In this sense it is important to recognise the strategic importance of Botany Bay LGAs industrial areas for port expansion. Pressure for land for airport related activity is expected to increase. 150,000 square metres of industrial land has been allowed for strategic industrial uses within the main study precinct. In addition, there is opportunity for development of land for airport related business in Tempe and Matraville.
Proposed industrially-zoned areas are unsuitable for these uses, leaving little space for essential population serving or strategic industries	Low	Medium	The areas zoned for industrial purposes already have general industrial and urban service activity. These areas are demonstrably suitable for industrial activity. They have no neighbouring residential use, have good access and can offer large sites.
Upzoning of land prices out firms requiring space within the study area	Medium	Medium	When land areas are upzoned and as development occurs within the new zones it is probable that land values will rise. This may mean that some of the lower density/ lower value uses will no longer be able to operate from their current locations.

Risk	Likelihood of occurring	Significance	Mitigation strategies
Funding from development is insufficient to pay for public domain improvements and new infrastructure	Medium	Medium	Sufficient industrial land area has been allowed to accommodate demand driven by population growth plus a buffer of 150,000 square metres for strategic industries. Land within the new industrial zone will be able to accommodate some dislocated uses from other zones. We accept however that some uses will look to relocate elsewhere, outside the study area. Through discussion with neighbouring Councils we understand that Marrickville LGA is well positioned to accommodate additional light industrial uses.
Insufficient industrial land retained	Low	Medium	The extent of public domain improvements will depend upon the results of further studies. The City of Sydney should consider the potential to ensure that part of any increase in land values is directed towards infrastructure provision in the study area, and towards initiatives that will assist in meeting objectives outlined in Sydney2030.
			Analysis shows that the proposed retained industrial land is sufficient to accommodate population servicing industrial uses as well as some strategic industrial uses such as those relating to the airport. The mixed economy areas will also be able to support a number of uses that may have traditionally located in industrial zones, for example if there are firms which require sites closer to the city.

Source: SGS Economics and Planning, 2013

Contact us

BRISBANE

PO Box 117
Level 1, 76 McLachlan Street
Fortitude Valley QLD 4006
+61 7 3124 9026
sgsqld@sgsep.com.au

CANBERRA

Level 1, 55 Woolley Street
Dickson ACT 2602
+61 2 6262 7603
sgsact@sgsep.com.au

HOBART

Unit 2, 5 King Street
Bellerive TAS 7018
+61 (0)439 941 934
sgstas@sgsep.com.au

MELBOURNE

Level 5, 171 La Trobe Street
Melbourne VIC 3000
+61 3 8616 0331
sgsvic@sgsep.com.au

SYDNEY

Suite 12, 50 Reservoir Street
Surry Hills NSW 2010
+61 2 8307 0121
sgsnew@sgsep.com.au

