

4 Development potential

4.1 Introduction

This section of the report summarises the statistical information from the Site Tests and estimates development potential for the whole GSRA.

The development potential analysis, with respect to population and employment is also informed by the following documents:

- The Metropolitan Strategy City of Cities – A Plan for Sydney's Future 2005
- Hill PDA Study 2004
- The South Sydney Development Plan 1997- Draft Amendment Green Square town Centre.
- Information supplied by the City of Sydney Research Unit.

Whilst the findings are indicative, the observations in this section aim to assist Council in understanding the development potential arising from the recommended built form controls in terms of resident potential and number of dwellings and number of jobs in comparison to the current planning targets.

4.2 Current population and work force characteristics

The population of the Green Square Redevelopment Area in 2001 was 2,450 people – according to the Census. This is an increase of 638 people or 26% since 1996 as defined by the earlier Census of 1996).

During the five years since 2001 there has been much development particularly in the housing sector. The Census of 2006 (details of which will not be made public until February 2007) is expected to show a doubling of population for the Green Square Redevelopment Area. This is consistent with estimates carried out by the City of Sydney's Research Unit to date.

Development in Green Square since the 1900's has mainly been industrial and remains so today where manufacturing and related light industrial business still constitute for the majority of jobs in the area. The number of people currently employed in the GSRA is estimated to be 12,038 jobs (City of Sydney Research Unit).

The two predominant employment industries in Green Square (as determined by the City of Sydney Research Unit) are manufacturing which constitutes 20.2% and retail which constitutes 20.5%. This is followed by wholesale trade, business and storage and transport industries. (Figure 253)

The existing industrial buildings that can be seen around the area vary in size and bulk to reflect the different use of the individual building (manufacturing, storage, vehicle repair, warehouse, car/furniture showroom, etc). This is relevant in the calculation of existing job numbers and future projections principally as different industrial activities require different employment numbers. For the purposes of this study, floor space designated for employment uses is divided into two categories – industrial uses at an average of one employee / 50sqm GFA and commercial uses

at an average of one employee / 25sqm GFA (source: City of Sydney Research Unit).

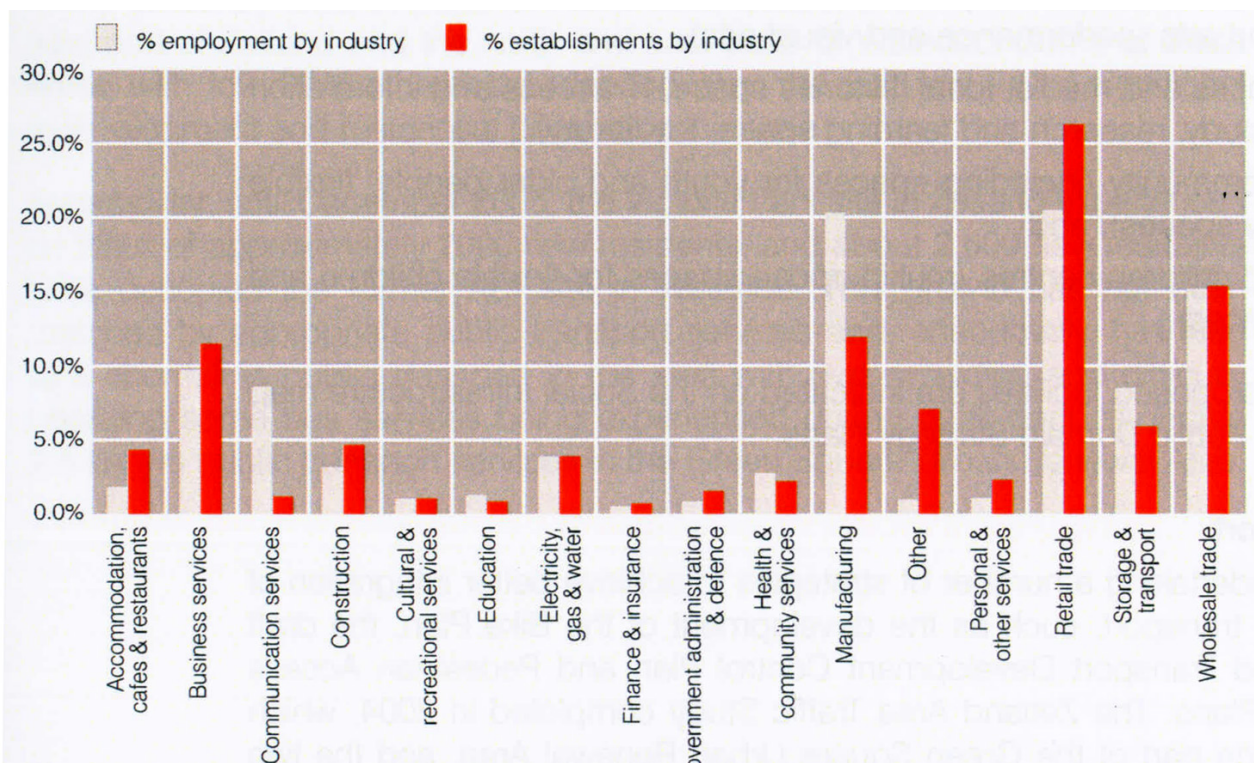


Figure 2.3 - Percentage of Establishments and Employment by Industry of Occupation in Green Square 2006

Source: City of Sydney Research Unit

Figure 253 Diagram showing employment by industry for Green Square 2006

This graph is useful in illustrating the comparative employment types. The industrial uses are dominant with the retail trade descriptive of the large warehouse outlet premises and car showrooms.

Education, health, finance and government administration are amongst some of the lower ranking industries as shown in this table. As population levels increase these industry types are likely to increase as more varied building categories including cultural and civic buildings will be required to provide amenity and service to new residents living and working in the area.

4.3 Urban growth

There has been population rise to date in Green Square that has been largely developer driven and a response to the recent market demand for residential development. The future growth rate and speed of urban redevelopment for employment and residential uses is dependant on a number of factors such as:

- State Government strategies and legislation.
- Council planning controls.
- Government incentives.
- Market forces – market demand and developer supply.
- Land availability and suitability of development sites.
- Local infrastructure improvements and programming.
- Public perceptions on built form urban design quality.

All of the factors above will affect the growth rate of Green Square.

As with any urban redevelopment project an understanding of how and why growth happens in conjunction with amendments to policies and controls is crucial to achieving the best possible built form outcome physically and socially in the long term.

The information gathered in this years Census will be useful in providing a representation of the demographic breakdown that will in part inform changes and policies in the future. The on-going community consultation and supplementary reviews and analysis work undertaken by the City of Sydney to address urban planning and design issues is supported by Architectus.

4.4 Green Square employment and housing targets

Population projections

The current population for the GSRA is 12,224 residents and is projected to increase to 30,000 by 2021 – that is, an increase of 17,776 residents.

The population growth has been:

1996 – 1,786 residents

2001 – 3,335 residents

2006 – 12,224 residents

The estimated number of persons employed in the GSRA at 2006 is 12,038. The number of workers is expected to expand to 33,000 by 2021 – that is, additional 20,962 jobs.

Metropolitan Strategy population targets

The Metropolitan Strategy planning targets for the City of Sydney Local Government Area are for 55,000 new dwellings (i.e. 104,500 new residents) and 58,000 new jobs for 2021.

The allocation of these dwelling targets are not defined although it is envisaged by Council that a high proportion of the housing provision will be provided as part of the redevelopment of Green Square and the Metropolitan Strategy expects 14,000 jobs to be provided at Green Square.

4.5 Green Square Town Centre and development potential

The Green Square Town Centre SS DCP describes the development control guidelines to achieve the Town Centre for Green Square where commercial and retail activities will be concentrated close to the existing train station.

As this study excludes the town centre area, it is necessary to identify the employment and housing development potential of the Town Centre.

The Town Centre comprises 18 nominated sites or development parcels which have corresponding designated uses shown as shown in Figure 254.

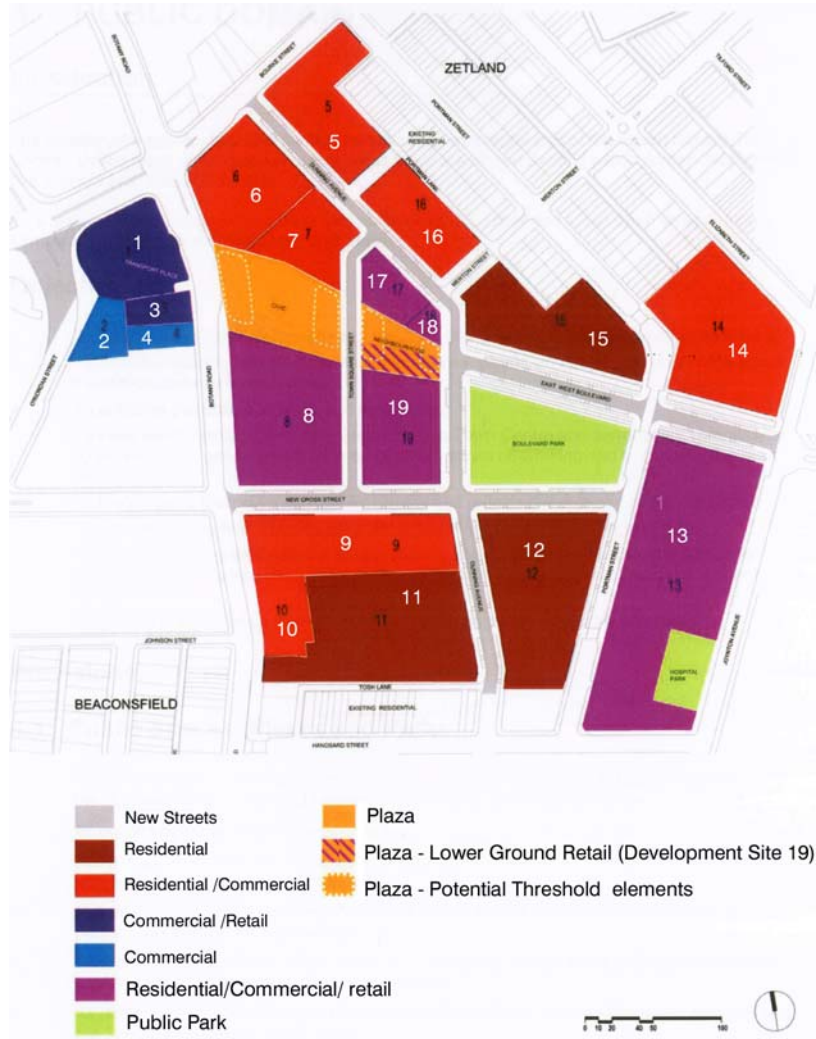


Figure 254 Green Square Town Centre Land Use Plan
 This diagram is copied from page 11 of the South Sydney DCP 1997 Draft Amendment Green Square Town Centre and shows the development site uses and reference numbers for the Town Centre.

Dev. Site No.	Dev. Site Area (m2)	Gross Floor Area	Land Use Mix		
			Commercial & Other Gross Floor Area %	Retail Gross Floor Area %	Residential Gross Floor Area %
1	4,271	41,700	95.0	5.0	-
2	1,378	15,900	100.0	-	-
3	1,062	5,900	98.3	1.7	-
4	839	5,300	100.0	-	-
5	4,911	22,100	13.6	14.0	72.4
6	5,248	35,800	27.9	-	72.1
7	2,939	19,100	31.4	-	68.6
8	7,944	43,900	11.6	3.6	84.8
9	6,461	27,800	6.5	-	93.5
10	2,066	7,200	9.7	-	90.3
11	10,140	21,100	2.4	-	97.6
12	8,712	31,200	-	-	100.0
13	17,067	35,000	6.9	6.9	86.2
14	8,539	22,000	20.9	-	79.1
15	6,158	22,600	-	-	100.0
16	3,360	11,600	11.2	-	88.8
17	1,576	6,800	22.1	5.9	72.0
18	428	4,400	6.8	6.8	86.4
19	4,496	30,600	9.8	21.2	69.0
	97,595	410,000			

Table 3 Green Square Town Centre Development Table
 This table is copied from the current SS DCP and should be read in conjunction with the plan in Figure 254. The plan and the table have been used by Architectus to determine the determine potential for the Town Centre.

An analysis by Architectus of Figure 254 has resulted in a potential employment and residential population yield for the Green Square Town Centre as calculated in Table 4.

It is concluded that the Green Square Town Centre has the following development potential.

- 2,867 dwellings
- 5,447 residents (based on 1.9 people per dwelling)
- 4,931 jobs

GREEN SQUARE TOWN CENTRE DEVELOPMENT POTENTIAL							
Development Site name	Gross Floor Area sqm	Commercial Use GFA sqm	Retail Use GFA sqm	Total of retail and commercial floor space GFA sqm	No. of Retail and Commercial jobs at 25sqm GFA per person	Residential Use GFA sqm	Number of dwellings at 100sqm GFA per dwelling
Site 1	41,700	39,615	2,085	41,700	1,668	-	-
Site 2	15,900	15,900	-	15,900	636	-	-
Site 3	5,900	5,798	102	5,900	236	-	-
Site 4	5,300	5,300	-	5,300	212	-	-
Site 5	22,100	3,006	3,094	6,100	244	16,000	160
Site 6	35,800	9,988	-	9,988	400	25,812	258
Site 7	19,100	5,998	-	5,998	240	13,102	131
Site 8	43,900	5,092	1,581	6,673	267	37,227	372
Site 9	27,800	1,807	-	1,807	72	25,993	260
Site 10	7,200	699	-	699	28	6501	65
Site 11	21,100	506	-	506	20	20,594	206
Site 12	31,200	-	-	0	0	31,200	312
Site 13	35,000	2,415	2,415	4,830	193	30,170	302
Site 14	22,000	4,598	-	4,598	184	17,402	174
Site 15	22,600	-	-	0	0	22,600	230
Site 16	11,600	1,299	-	1,299	52	10,301	103
Site 17	6,800	1,503	401	1,904	76	4,896	49
Site 18	4,400	299	299	598	24	3,802	38
Site 19	30,600	2,999	6,487	9,486	379	21,114	211
Total	410,000	106,822	16,464	123,286	4,931	286,714	2,867

Table 4 Green Square Town Centre employment and population analysis

This table shows the gross floor areas derived from the percentage mix of Table 3 and total jobs and dwellings arising from the potential floor space for each of the development sites in the Town Centre as expressed on the previous table.

4.6 Study Area development potential

Development potential for the study area is derived from:

- The site tests in Section 3 (referenced by numbers 1 – 12 in Figure 255).
- Estimate of the balance of the study area (referenced by letters A – E in Figure 255) see below.
- Allowance for existing resident and worker population as provided by the City of Sydney Research Unit.

Each is addressed below:

Site tests

Table 5 provides the development potential information for each of the site tests carried out by this study.

Estimates for the balance of the Study Area

Figure 255 shows the balance of the Study Area in Letters A – E. Development potential for Areas A – E have been estimated by Architectus with the following assumptions:

- Heritage conservation areas and small scale residential areas are excluded because these areas are considered unlikely to produce a significant amount of new development.
- Area A – Victoria Park is calculated with an FSR of 1.8:1 for 30% of the land which is undeveloped. The land use mix for the potential floorspace is determined at 80% residential and 20% employment/commercial for calculations for both existing and new development control. This is consistent with the master plan approval.
- Area B – The Meriton Development Site is calculated with an FSR 2:1 for 20% of the land which is underdeveloped. The land use mix is calculated at 80% residential and 20% employment/commercial.
- Area C – This area north of Danks Street is based on the assumption that 30% of this land is potential new development or adaptive reuse. FSR of 1.5:1 has been assumed with a land use mix of 75% residential and 25% commercial for calculations of both existing and new development controls.
- Area D – This area surrounding Waterloo Park is based on the assumption that 40% of the development will be new. The land use mix is calculated at 75% residential and 25% commercial using 1.5:1 FSR.
- Area E – This area north of Beaconsfield is based on the assumption that 50% of the development will be new or adaptive reuse of existing buildings. The land use mix is calculated at 70% residential and 30% commercial/retail using an FSR of 1.5:1
- Area F – This area relates to an approved development application for mixed uses. The approved housing unit and commercial floor space mix is used.



Figure 255 Development potential areas
 This plan references the site tests (1-12) and the areas (A-E) which are included in the development potential assessment of the study area.

Table 5 shows the indicative development potential under **existing controls**. Table 6 shows the indicative development potential under the **proposed controls**.

INDICATIVE DEVELOPMENT POTENTIAL UNDER EXISTING CONTROLS							
Site Name	Total Commercial Floor Space	No. of Jobs based on 25sqm per person (Commercial)	Industrial + warehouse floor space	No. of jobs based on 50sqm per person (Industrial)	Total No. of jobs	Residential Floor Space	No of Apartments based on 100sqm per unit
Site 1 (a)	0	0	37,185	7,487	7,487	334,672	3,347
Site 2	13,687	547	87,802	1,756	2,303	18,882	189
Site 3 (b)	71,978	2,879	215,934	4,318	7,197	31,990	320
Site 4	18,918	757	56,755	1,135	1,892	13,354	133
Site 5	160,806	6,432	53,602	1,072	7,504	37,837	378
Site 6	96,482	1,930	32,161	643	2,573	14,293	142
Site 7	29,515	1,181	88,546	1,770	2,951	20,834	208
Site 8	0	0	214,533	4,290	4,290	0	0
Site 9	10,515	420	0	0	420	94,635	946
Site 10	25,950	1,038	0	0	1,038	2,880	28
Site 11	144,194	5,767	0	0	5,767	101,586	1,015
Site 12	16,710	688	0	0	688	50,130	501
Area A	27,720	1,109			1,109	110,880	1,108
Area B	5,710	228			228	22,838	228
Area C	2,948	118			118	8,843	88
Area D	25,500	1,020			1,020	76,500	765
Area E	3,615	145			145	8,435	84
Area F (c)	240	10				55,000	550
TOTAL					46,730 jobs		10,030 apartments 19,057 residents

Table 5 Indicative development potential for the Study Area under existing controls

Notes:

- a) Car showrooms account for much for the commercial uses on Site 1. The calculation of jobs at the industrial use rate of 80sqm per person is considered a more realistic projection.
- b) The land use for Site 3 is 10 (e) is predominantly employment based. As there has been a recent increase in Development applications for predominantly residential uses, the industrial floor space is calculated at 70% of total floorspace whilst the residential component makes up the remaining 30% of floor area.

INDICATIVE DEVELOPMENT POTENTIAL UNDER PROPOSED CONTROLS							
Site Name	Total Commercial Floor Space	No. of Jobs based on 25sqm per person	Industrial warehouse floor space	No. of jobs based on 50sqm per person	Total Number of jobs	Residential Floor Space	No of Apartments based on 100sqm per unit
Site 1	29,748	1,190	0	0	1,190	267,735	2,677
Site 2	0	0	114,668	2,293	2,293	0	0
Site 3	0	0	203,972	4,079	4,079	86,798	867
Site 4	68,383	2735	0	0	2735	12,068	121
Site 5	89,023	3,561	60,468	1,209	4,770	15,713	157
Site 6	35,734	1,429	107,202	2,144	3,573	0	0
Site 7	105,385	4,215			4,215	65,866	263
Site 8	0	0	156,408	3,128	3,128	0	0
Site 9	5,258	210	0	0	210	99,893	999
Site 10	2,880	115	0	0	115	25,950	259
Site 11	19,237	722	0	0	722	173,913	1,739
Site 12	5,388	216	2,000	40	256	66,492	665
Area A	27,720	1109			1109	110,880	1,108
Area B	5,710	228			228	22,838	228
Area C	2,948	118			118	8,843	88
Area D	25,500	1,020			1020	76,500	765
Area E	3,615	145			145	8,435	84
Area F (c)	240	10				55,000	550
TOTAL					29,906 jobs		10,570 apartments 20,083 residents

Table 6 Indicative development potential for the Study Area under the proposed controls

Note:

- a) Under the existing controls 40,632 jobs and 19,057 residents were indicated. However, Architectus considers these numbers unrealistic for the reasons stated in Section 4.7.

4.7 Development potential and targets for the GSRA

The development potential for the GSRA comprises:

	Jobs	Residents
Total development potential for Study Area under the proposed controls (a)	29,906	20,083
Plus the Town Centre	4,931	5,447
Sub Total	34,837	25,530
Less existing employment	12,038	NA
Total development potential	22,799	25,530

The total development potential compared to the targets is:

	Jobs	Residents
Development potential under proposed controls	22,799	25,530
Metro Strategy target for 2021	14,000	>50,250 (a)
City of Sydney Research Unit projections for 2021	6,743	17,776

- a) The Metro Strategy targets 55,000 dwellings for the LGA and Council expects the major share to be in the GSRA at 1.9 residents/dwellings and 50% of dwellings = >50,250 residents.

4.8 Architectus comments

1. Development potential under the existing controls at 46,730 jobs is unrealistic because employment potential is vastly overstated due to high floor space ratios that are inappropriate for light industrial uses.
2. The numbers indicate that employment will significantly exceed the Metropolitan Strategy targets.
3. The majority (i.e. more than 50%) of the metropolitan planning target of 55,000 new dwellings or 104,500 new residents for the LGA being met in the GSRA is not possible. About 25% of the metro target for new resident population in the LGA could be achieved in the GSRA.
4. From experience, it is important to factor about 20% shortfall in the planned development potential to allow the sites that don't reach their full potential during the planning period of 20-25 years.