

EXHIBITION OF PLANNING PROPOSAL

Masters Home Improvement Centre

Location: 74 Edinburgh Road, Marrickville

Relevant Planning Authority: The Minister for Planning and Infrastructure has appointed the Sydney East Joint Regional Planning Panel as the Relevant Planning Authority for this planning proposal

Local Government Area: Marrickville LGA

The proposal involves:

• The planning proposal seeks to amend the *Marrickville Local Environmental Plan 2011* by allowing *'hardware and building supplies'* and *'garden centre'* as additional permitted uses for the site.

Exhibition

The Planning Proposal and other accompanying documents may be viewed on the Joint Regional Planning Panels website (http://www.jrpp.nsw.gov.au) and may be inspected from **29/01/2014** until **25/02/2014** during regular business hours at:

- Information Centre: Department of Planning & Infrastructure, 23-33 Bridge Street, Sydney NSW 2000;
- Marrickville Council, 2-14 Fisher Street, Petersham, NSW, 2049; and
- Marrickville Library, Marrickville Town Hall, Corner Marrickville and Petersham, Marrickville

Submissions

Any person may make written submissions on the proposal during the exhibition period.

Submissions should be made via email to <u>PlanComment@jrpp.nsw.gov.au</u>, or by post to Regional Panels Secretariat, GPO Box 39, Sydney NSW 2001 clearly marked 'Planning Proposal Submission'.

Your submission must be lodged by 25/02/2014 and must include:

- the planning proposal title clearly marked on the front page;
- a statement on whether you support or object to the proposal; and
- the reasons why you support or object to the proposal.

Persons lodging submissions must declare reportable political donations (including donations of \$1000 or more) made in the previous two years. For more details, and a disclosure form, go to the Joint Regional Planning Panels website (http://www.jrpp.nsw.gov.au).

Submissions or a summary of submissions will be made public. If you do not want your name and address to be made public, please clearly state this on the front page of your submission.

Enquiries

Deewa Baral (02) 85754127

PLANNING PROPOSAL



PLANNING PROPOSAL 74 EDINBURGH ROAD, MARRICKVILLE

Title:

Planning Proposal to amend Marrickville Local Environmental Plan (LEP) 2011

Planning Proposal Number:

PP_2013_MARRI_001_00

1.0 OVERVIEW

This planning proposal seeks to amend the *Marrickville Local Environmental Plan 2011* (Marrickville LEP 2011) by allowing '*hardware and building supplies*' and '*garden centre*' as additional permitted uses for the site. The Planning Proposal will support the subsequent lodgement of a Development Application (DA) for a Masters Home Improvement Centre development.

The Home Improvement Centre will comprise approximately 12,000-13,000sqm including a main floor area for a range of home improvement products, a nursery for landscape and garden products, a trade area for drive-thru sales of all goods, restaurant/café and associated parking. A site of approximately 3 hectares is required to support the Masters building, loading and car parking facilities.

The site is currently zoned IN1 General Industrial under Marrickville LEP 2011. 'Hardware and building supplies' and 'garden centre' are not permissible in the IN1 zone.

The majority of the floor area of the use (approximately 70%) is proposed to be devoted to products that fall within the definition of *'hardware and building supplies'*. The proposed Masters Home Improvement format also has elements that fall into *'garden centre'* which is estimated to comprise up to 25% of the floor area with the remaining 5% being items that would normally fall within the definition of *'bulky goods premises'*.

The Department of Planning and Infrastructure (DPI) has confirmed that the inclusion of the term 'principal purpose' in the new Standard Instrument allows the Masters proposal to be defined as 'hardware and building supplies' and 'garden centre' notwithstanding that the use also comprises a small component of 'bulky goods' use. A number of land uses now include some built-in flexibility recognising there may be a combination of uses. The flexibility has been accommodated by indicating the 'principal purpose' of that premises. This position has been presented in the 'How to Characterise Development' Planning Circular issued by DPI in February 2013.

2.0 LAND TO WHICH THE PLANNING PROPOSAL APPLIES

Site Details

The street address of the subject site is 74 Edinburgh Road, Marrickville. The legal description of the land is Lot 202 in DP 1133999 and has an area of approximately 2.8ha. The site is currently occupied by a number of industrial buildings and associated car parking.

The property has frontages to both Edinburgh Road to the north and Sydney Steel Road to the east and is set on the fringe of an industrial precinct to the south, east and west.

The Marrickville Metro retail development lies immediately to north of the site. Expansion of the Marrickville Metro centre was approved by the Planning and Assessment Commission (PAC) in March 2012, extending the retail area south east to front Edinburgh Road.

A number of easements are registered on the property title including:

- Sewerage easement running diagonally from the eastern corner to the western corner of the site.
- Electricity easement located in the mid-point of the allotment, including a right of way to the western boundary for access.
- Lot 3 DP 318232 and associated access easements run through the site that benefit Sydney Water.

An aerial Locality Map of the site is contained in Appendix 1 to this report.

Surrounding Area

The site is on the northern periphery of the Marrickville/Sydenham industrial area. This forms part of a large industrial precinct approximately bounded by Edinburgh Road to the north, Railway Parade and the railway line to the east, Marrickville Road/the railway line to the south and Meeks Road/Farr Street/Shepherd Street to the west.

The Marrickville Industrial area includes the following buildings and uses:

- Large free stranding industrial buildings.
- Industrial estates as well as smaller buildings.
- Uses such as manufacturing, freight and logistics.

As stated above, the site is located in close proximity to a large landholding comprising Marrickville Metro Shopping Centre on the northern side of Edinburgh Road. The expansion of the retail centre approved by the PAC will see the shopping centre extend further south east, towards the site's frontage on Edinburgh Road.

Residential uses are well separated from the site to the south and east and are separated physically from housing to the north west of the site on the northern side of Edinburgh Road.

3.0 PART 1 – OBJECTIVES OR INTENDED OUTCOMES

The planning proposal seeks to amend the Marrickville Local Environmental Plan (LEP) 2011 to allow the uses that would be required to enable the subsequent lodgement of a Development Application for a Home Improvement Centre at 74 Edinburgh Road, Marrickville.

4.0 PART 2 – EXPLANATION OF PROVISIONS

The planning proposal seeks to make the following amendment:

1. To amend Marrickville LEP 2011 by allowing *'hardware and building supplies'* and *'garden centres'* as additional uses within Schedule 1 – Additional Permitted Uses for the land at 74 Edinburgh Road, Marrickville.

5.0 PART 3 - JUSTIFICATION

Need for the Planning Proposal

Background

- **19 September 2011:** The planning proposal was lodged with Marrickville Council (Council).
- **17 April 2012:** The planning proposal was considered by Council at its meeting resolving that the proposal not be supported.
- **15 October 2012:** The planning proposal was referred to the PAC by the Director General at DPI.
- **19 November 2012:** The PAC assessment found that the planning proposal has strategic planning merit and recommended that it be submitted for a Gateway Determination.
- **9 April 2013:** The Minister for Planning and Infrastructure appointed the Sydney East Joint Regional Planning Panel (JRPP) as the relevant planning authority for the planning proposal. The Minister's direction required that the planning proposal be progressed as a site specific amendment to the Marrickville LEP 2011.
- **21 October 2013:** The planning proposal was the subject of a pre-gateway review application considered by the JRPP, which recommended the matter proceed to gateway determination. The recommendation was subject to a requirement that the additional information regarding traffic provided by the applicant, be submitted to Transport for NSW and that its response be included in the material forming part of any exhibition of the planning proposal.

The additional traffic information provided by the Applicant and the response from Transport for NSW is provided in Appendix 5.

Lack of Suitable Sites

As outlined in the *Revised Analysis of Potential Alternative Sites* submitted to the JRPP in July 2013 (attached in Appendix 5), there are no alternative suitable sites currently zoned (or proposed to be zoned) under the Marrickville LEP 2011 which permit *'hardware and building supplies'* and *'garden centres'* and are of a sufficient size to support a large Masters Home Improvement Centre. The analysis of alternative sites demonstrated that the limited sites that are large enough are already developed and unlikely to be redeveloped in the short to medium term.

Assessment of potential amalgamation of numerous sites presently tenanted has demonstrated that this is not a realistic or practical option to provide for the proposed development in the medium term.

Decline in Industrial Jobs and Opportunity to Increase Economic Activity and Employment

The Industrial Market Impact Assessment contained in Appendix 5 demonstrates that:

• There has been an overall decline in industrial jobs in the Marrickville LGA between 2006 and 2011 and the surrounding IN1 General Industrial land is suffering from high vacancy rates of 28%.

 The future viability of the precinct will be largely dependent on the capability of existing industrial accommodation, consisting primarily of transport and logistics buildings and warehouses, from adapting to accommodate emerging industrial sectors including construction, transport and postal and warehousing in Marrickville LGA.

The proposed rezoning to facilitate a Home Improvement Centre will support trade and construction industry and therefore offers a land use which is 'highly complementary' to the changing nature of the industrial area.

There are approximately 15 workers employed on the site currently. The Masters Home Improvement Store is expected to result in a net increase of jobs within the precinct including:

- Approximately 180 direct jobs created during construction.
- Approximately 130-150 jobs once open.
- Anticipated additional jobs sustained indirectly through supply-side and multiplier effects.

The positive employment impacts as a result of the Home Improvement Centre are highly consistent with DPI's objective of providing more jobs closer to people's homes.

The *Industrial Market Impact Assessment* also concludes that the Home Improvement Centre would generate more employment than would be generated if another distribution centre occupied the site, with average employment densities for distribution centres/warehouses ranging from 1 job per 110sqm to 1 job per 262sqm of floor space compared to an average of 1 job per 90-105sqm for the Masters Home Improvement Centre.

Compatibility with adjoining Industrial and Retail Land Uses

The land to the north is zoned B2 and is occupied by Marrickville Metro. The expansion of the retail centre was approved by PAC on 19 March 2012 permitting the centre to be extended further south east towards the site's frontage on Edinburgh Road and the IN1 zone. The *Industrial Market Impact Assessment* (Appendix 5) finds that the site's location adjacent to the approved expanded shopping centre and in an area containing a number of trade supplies will group and consolidate uses. This will be convenient and advantageous for both household shoppers and the trade sector.

The subject site will provide an appropriate transition from the existing manufacturing, freight and logistic uses to the south and the retail land to the north. '*Hardware and building supplies*' and 'garden centre' are permissible in the IN2 zone and other land on the fringe of Sydenham Employment lands has been zoned IN2. This includes sites which border Edinburgh Road, Victoria Road and Addison Road.

As demonstrated in the *Industrial Market Impact Assessment*, the site occupies approximately less than 2% of industrial land in Marrickville LGA. The Home Improvement Centre will therefore not erode the core purpose or the economic contribution of the Sydenham Industrial land precinct. Furthermore the site's location on the periphery of the Sydenham Industrial precinct will ensure the integrity of the precinct is maintained.

The planning proposal is site specific, which would limit additional land uses to 74 Edinburgh Road rather than a generic change to all IN1 General Industrial zoned land. For this reason, the planning proposal will not undermine the industrial role of the large Sydenham industrial precinct.

Consistency with Strategic Planning Framework

- On 19 November 2012, the planning proposal was found by PAC to have strategic planning merit recommending that it be submitted for a Gateway Determination. On 9 April 2013 the Minister directed that the Sydney East JRPP be the relevant planning authority and that the planning proposal be progressed as a site specific amendment to the Marrickville LEP 2011. The planning proposal is consistent with these recommendations and the Minister's direction. While the planning proposal is not the result of any strategic study or report, an *Industrial Market Impact Assessment* accompanies the planning proposal in Appendix 5.
- Objective B1 of the Metropolitan Strategy for Sydney 2036 (2010) states that activity should be focussed in accessible centres. The subject site does not lie within any strategic centre and is generally surrounded by other IN1 General Industrial zoned land. The Updated Analysis of Potential Alternative Sites (Appendix 5) demonstrates that there are no alternative sites of sufficient site in existing or planned activity centres or edge of centre locations that could accommodate the proposed large Home Improvement Centre. Further, the site meets the 'site suitability criteria' contained in the Draft Activity Centres Policy (May 2010).
- The planning proposal is consistent with Objective E2 of the Metropolitan Strategy for Sydney (2010) as it enables economic activity, investment and will have a positive employment impact creating approximately 180 direct jobs during construction as well as 130-150 operational jobs. The proposal is also anticipated to result in additional jobs sustained indirectly through supply-side and multiplier effects.
- The Metro Strategy demonstrates a broad perspective on industrial lands reflecting changing needs and employment generation. The *Industrial Market Impact Assessment* (Appendix 5) indicates that the Marrickville LGA has been subject to a large decrease in manufacturing jobs while experiencing an increase in the construction sector. A Home Improvement Centre would service the construction and trade sector and is considered to appropriately reflect the changing nature of the area. The proposal is inconsistent with Objective E3 of the Metropolitan Strategy for Sydney 2036 as it does not retain strategically important industrial land. With consideration to the site's location on the periphery of a larger industrial precinct and an established retail area and its ability to provide employment opportunities, the inconsistency is considered to be acceptable.
- The proposal would offer opportunity to generate an increase in economic activity and employment with 130-150 people expected to be employed by the Masters Home Improvement Centre compared to the 15 workers employed on the site currently. While the proposal is inconsistent with the Objective 13 of the Draft Metropolitan Strategy for Sydney to 2031 by decreasing the supply of industrial land, as indicated in *the Industrial Market Impact Assessment* (Appendix 5) there has been an overall decline in industrial jobs in Marrickville LGA and the industrial area is suffering high vacancy rates (28%). The Market Impact Assessment also finds that the nature of a Home Improvement Centre is highly complementary to the changing industrial structure occurring in Marrickville in recent years and what is expected in the future.
- The Planning Proposal is partially inconsistent with the Draft South Subregional Strategy and Marrickville Urban Strategy (2007) which strategically underpins the Marrickville LEP 2011 and Marrickville Employment Lands Study (2008) as they identify the subject site and the entire core of Sydenham/ Marrickville Industrial Precinct as strategically important industrial land to be retained for industrial purposes. However, considering the sites location on the periphery of the industrial precinct, its close proximity to the expanding Marrickville Metro Shopping Centre and its ability to provide a net increase of construction

and operational jobs, the inconsistency is considered acceptable. Furthermore, the proposal will provide economic growth and employment in the established employment centres of Sydenham Industrial area in proximity to public transport corridors and residential zones.

Although the proposal is partially inconsistent with Metropolitan Strategy for Sydney 2036 (2010), Draft Metropolitan Strategy for Sydney 2031 and Draft South Subregional Strategy (2007), the additional uses proposed are site specific and the proposal will not erode the core purpose of the Sydenham Industrial Land Precinct. The IN1 General Industrial land is in decline and suffering high vacancy rates. The proposed rezoning to support a Home Improvement Centre provides a complementary land use to the changing industrial structure in Marrickville.

Environmental Social Economic Impacts

There are no known critical habitats; threatened species or ecological communities located on the site and therefore the likelihood of any negative environmental impacts are minimal.

The proposal will enable a use which will increase a range of goods and services options in the region. The Home Improvement Centre development will provide increased employment opportunities and highly complementary uses to the existing industrial area as outlined in the Review of Industrial Area contained in the additional information submitted to the JRPP in July 2013 attached in Appendix 5.

6.0 MAPPING

The proposed amendment does not require any mapping changes. Maps to support the planning proposal that seeks to amend Marrickville LEP 2011 are included in Appendix 1-2.

7.0 PART 4 – COMMUNITY CONSULTATION

Community consultation is required under sections 56(2)(c) and 57 of the *Environmental Planning and Assessment Act* 1979 ("EP&A Act") as follows:

- The planning proposal must be made publicly available for a minimum of 28 days (excluding school holiday period); and
- Notification requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 5.5.2 of A Guide to Preparing LEPs (Department of Planning & Infrastructure, 2013).
- Consultation is required with Transport for NSW in terms of the additional information regarding traffic provided by the proponent.
- Consultation is required with Marrickville Council, Sydney Water, Department of Infrastructure and Regional Development and Office of Environment and Heritage.

The agencies are to be provided with a copy of the planning proposal and any relevant supporting material, and given at least 21 days to comment on the proposal.

A public hearing is not required to be held into the matter by any person or body under section 56(2)(e) of the EP&A Act. This does not discharge the Panel from any obligation it may

otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

8.0 PROJECT TIMELINE

Milestone	Timeframe	Estimated Completion Date
Gateway Determination		29 November 2013
Additional information provided by the proponent to be submitted to Transport NSW for comments (condition of Gateway Determination)	4 weeks from Gateway Determination	21 December 2013
Public exhibition	28 days - commence exhibition 28 January 2014	25 February 2014
Consideration of submissions	4 weeks from close of exhibition	25 March 2014
Consideration of draft planning proposal post-exhibition by the JRPP	4 weeks from submissions report being received	22 April 2014
Plan to be made	Includes processing by PC	9 June 2014

The estimated timeframe for this planning proposal is nine (9) months.

APPENDIX 1 - LOCALITY MAP



PP_2013_MARRI_001_00

APPENDIX 2 – LAND USE MAP



General Industrial

PP_2013_MARRI_001_00

APPENDIX 3 – CHECKLIST SEPP

The following SEPPs are relevant to the Marrickville Local Government Area. The Table below identifies which of the relevant SEPPs apply to the Planning Proposal (or not) and if applying, is the Planning Proposal consistent with the provisions of the SEPP.

Title of State Environmental Planning Policy(SEPP)	Applicable	Consistent	Reason for inconsistency
SEPP No 1-Development	YES	YES	
Standards	120	120	
SEPP No 4- Development	YES	YES	
Without Consent and			
Miscellaneous Exempt and			
Complying Development			
SEPP No 6 -Number of Storeys	YES	YES	
in a Building	. 20	120	
SEPP No 14 -Coastal Wetlands	NO	N/A	
SEPP No 21-Caravan Parks	NO	N/A	
SEPP No 22-Shops and	YES	YES	
Commercial Premises	TEO	YES	
SEPP No 26- Littoral Rainforest	NO	A1/A	
		N/A	
SEPP No 30- Intensive	NO	N/A	
Agriculture			
SEPP No 32-Urban	NO	N/A	
Consolidation(Redevelopment of			
Urban Land)			
SEPP No 33-Hazardous and	NO	N/A	
Offensive Development			
SEPP No 44- Koala Habitat	NO	NA	
Protection			
SEPP No 50- CANAL Estate	NO	NA	
Development			
SEPP No 55- Remediation of	YES	YES	The Environmental Site
Land			Assessment Report recommended
			that no further investigation is
			required and the site is deemed
			suitable for the intended land use.
SEPP No 60-Exempt and	YES	YES	
Complying Development			
SEPP No 62- Sustainable	NO	N/A	
Aquaculture			
SEPP No 64-Advertising and	YES	YES	
Signage		[
SEPP No 65- Design Quality of	NO	NA	
Residential Flat Development			
SEPP No 70-Affordable	NO	NA	
Housing(Revised Schemes)			
SEPP No 71-Coastal Protection	NO	NA	
SEPP (Affordable Rental	NO	NA	
Housing) 2009	NU	NA	
SEPP (Building Sustainability	NO	NIA	
ndex BASIX) 2004	NO	NA	
SEPP(Housing for Seniors or	NO	NA	
people with a Disability) 2004			
SEPP(Infrastructure) 2007	YES	YES	The proposal has considered the
			relevant part of the SEPP namely
			traffic generating development and
			is considered consistent.

SEPP(Major Development) 2006	NO	N/A	
SEPP(Mining, Petroleum Production and Excavation Industries) 2007	NO	N/A	
SEPP(Rural Lands) 2008	NO	NA	
SEPP (Temporary Structures) 2007	NO	N/A	
SEPP (Urban Renewal) 2010	NO	NA	

PP_2013_MARRI_001_00

APPENDIX 4 – CHECKLIST s117 Directions

1 Employment and Resources

Direction 1.1 Business and Industrial Zones 1.2 Rural Zones 1.3 Mining, Petroleum Production and Extractive Industries	Applicable YES NO NO	Consistent NO N/A N/A
1.4 Oyster Aquaculture	NO	N/A
1.5 Rural Lands	NO	N/A

Justification

Direction 1.1 Business and Industrial Zones applies to the planning proposal as the subject site is within the existing industrial zone. The proposal represents approximately less than 2% of industrial land in Marrickville and offers a land use which is 'highly complementary' to the changing nature of the precinct. While the planning proposal is partially inconsistency with Direction 1.1 as the outcome of the proposal would reduce potential floor space for industrial uses, the proposal is complementary to the growth in the construction industry in the LGA whilst also providing a net increase of jobs.

The proposal will not significantly undermine the integrity and core purpose of Sydenham Industrial Land as it proposes a site specific change rather than a generic change to all IN1 - General Industrial zoned land with the LGA. This is in line with the justification as set out under 5(a) of 1.1 Direction. The agreement of the Director General is recommended as the inconsistency is of minor significance.

2 Environment and Heritage

Direction	Applicable	Consistent
2.1 Environmental Protection Zones	NO	N/A
2.2 Coastal Protection	NO	N/A
2.3 Heritage Conservation	NO	N/A
2.4 Recreation Vehicle Areas	NO	N/A

Justification

There are no inconsistencies.

3 Housing, Infrastructure and Urban Development

Direction	Applicable	Consistent
3.1 Residential	NO	N/A
3.2 Caravan Parks and Manufactured Home Estates	s NO	N/A
3.3 Home Occupations	NO	N/A
3.4 Integrating Land Use and Transport	YES	NO
3.5 Development Near Licensed Aerodromes	YES	YES
3.6 Shooting Ranges	NO	N/A

Justification

The planning proposal is partially inconsistent with Direction 3.4 Integrated Land Use and Transport. The site exhibits reasonable access to public and private transport and is within reasonable proximity to major arterial road and existing retail services. The traffic assessment has found no change to the level of service of surrounding intersections with consideration of future traffic generation. It does not reduce car dependency and increases travel demand. The agreement of the Director General is recommended as the inconsistency is of minor significance. Further, the proposal will provide additional employment within the Marrickville LGA, which is within close proximity to existing residential areas and services with potential to reduce the extent of travel within and outside the Marrickville LGA.

Direction 3.5 Development Near Licensed Aerodromes is relevant to this site specific planning proposal as it proposes to alter the permissible land use relating to the land in the vicinity of Sydney Airport. The planning proposal is consistent with Direction 3.5 Development Near Licensed Aerodromes as the Australian Standards for building with respect to interior noise levels can be adequately dealt with at

development application (DA) stage. In addition, compliance with Sydney Airport Corporation Obstacle Limitation Surface height restrictions can also be dealt with at the DA stage, as required by clause 6.6 in the Marrickville LEP 2011. Consultation will be required with the Department of Infrastructure and Regional Development prior to the exhibition of the planning proposal.

4 Hazard and Risk

Direction 4.1 Acid Sulphate Soils 4.2 Mine Subsidence and Unstable Land 4.3 Flood Prone Land	Applicable YES NO YES	Consistent NO N/A NO
		NO N/A
4.4 Planning For Bushfire Protection	NO	N/A

Justification

Direction 4.1 Acid Sulphate Soils is relevant to the proposal as the subject site lies within a potential Acid Sulphate Soils Area on the Acid Soils Map for MLEP 2011. The proposal is inconsistent with this Direction as the proposed additional uses would result in an intensification of land uses and it requires an acid sulphate soil study assessing the appropriateness of the change of land use given the presence of acid sulfate soils. Clause 6.1 of Marrickville LEP 2011 provides appropriate provisions that can be suitably considered at the Development Application stage prior to any development taking place. Given that the proposal includes a relatively minor intensification of land use as a factory building and car parking is already located on the site and the clause 6.1 provision under MLEP 2011, the agreement of the Director General is recommended as the inconsistency is considered to be of minor significance.

The site is identified as a flood planning area under Marrickville LEP 2011. The proposal's inconsistency with Direction 4.3 Flood Prone Land is considered minor as it only proposes additional uses on the subject site and clause 6.3 of Marrickville LEP 2011 provides appropriate provisions that can be considered and suitably determined at the Development Application stage prior to any development taking place. A full assessment of the land's potential flood hazards is required prior to any development. The agreement of the Director General is recommended is as the inconsistency is of minor significance.

5 Regional Planning

Direction	Applicable	Consistent
5.1 Implementation of Regional Strategies	NO	N/A
5.2 Sydney Drinking Water Catchments	NO	N/A
5.3 Farmland of State and Regional Significance or	n NO	N/A
NSW Far North Coast		
5.4 Commercial and Retail Development along the	NO	N/A
Pacific Hwy, North Coast		
5.5 Development in the vicinity of Ellalong, Paxton	NO	N/A
and Millfield		
5.8 Second Sydney Airport: Badgerys Creek	NO	N/A
0.0 0000ha 0 janoj / inport. Baagor jo ereon		

Justification

There are no inconsistencies.

6 Local Plan Making

Direction	Applicable	Consistent
6.1 Approval and Referral Requirements	NO	N/A
6.2 Reserving Land for Public Purposes	NO	N/A
6.3 Site Specific Purposes	YES	NO

Justification

The proposal is inconsistent with 6.3 Site Specific Provisions as it proposes to add additional uses permissible on the subject site under Schedule 1- Additional Permitted Uses.

The planning proposal was referred to the PAC on 15 October 2012 by the Director General. The PAC assessment dated 19 November 2012 found that the planning proposal has strategic planning merit and recommended that it be submitted for a Gateway Determination.

On 9 April 2013 the Minister for Planning and Infrastructure directed that the Sydney East Joint Regional Planning Panel (JRPP) is to be the relevant planning authority for the planning proposal. The Minister's recommendation specifically identified that the planning proposal be progressed as a site specific amendment to the Marrickville LEP 2011 rather than a generic change to all IN1 General Industrial zoned land across the Marrickville LGA.

The planning proposal was then the subject of a pre-gateway review application considered by the JRPP on 21 October 2013, which recommended the matter proceed to gateway determination.

Following these separate determinations and recommendations, the agreement of the Director General is recommended as the inconsistency is considered to be of minor significance.

7 Metropolitan Planning

Direction

Direction	Applicable	Consistent
7.1 Implementation of the Metropolitan Strategy	YES	NO

Justification

The planning proposal is partially inconsistent with Metropolitan Strategy (2010) and draft Metropolitan Strategy for Sydney to 2031. Whilst development enabled by this proposal would technically result in the loss of strategic industrial land, the development would promote economic activity, investment and generation of job in the local area. Furthermore, the proposed additional uses are site specific and do not affect other industrial land in the region the inconsistency is considered to be minor and entirely acceptable in this instance.

APPENDIX 5 – Revised Documentation to JRPP

PP_2013_MARRI_001_00

SUPPORTING DOCUMENTS







25 July 2013

Dr John Roseth Chair, Sydney East Joint Regional Planning Panel GPO Box 39 SYDNEY NSW 2001

Dear Dr Roseth,

Re: RPA2013SYE002 – Marrickville Local Government Area Masters Home Improvement Centre – 74 Edinburgh Road, Marrickville

At the meeting with of the Sydney East Joint Regional Planning Panel (the JRPP) on 23 May 2013 acting as the relevant planning authority (the RPA) for the Masters Planning Proposal at 74 Edinburgh Road the JRPP made the following resolution:

- The Panel accepts the recommendation of the Department of Planning and Infrastructure to agree to the planning proposal proceeding to gateway determination under s56 of the EPA Act 1979, subject to the Panel being satisfied on the following three matters:
 - a) the Traffic Report being brought up to date by a revised analysis of traffic following the approval of the Metro Shopping Centre Extension;
 - b) the Analysis of Potential Alternative Sites being updated; and
 - c) a review of the industrial area enclosed by Sydenham Road, Victoria Road, Edinburgh Road and the railway line, including an analysis of existing land uses consistent with the zoning, vacancy rates and the implications of the proposed rezoning on the viability of this industrial area.

In response to the resolution of the JRPP, revised information has been prepared by the proponent to address each of the issues raised. This information accompanies this correspondence, and is summarised below:

1 Traffic Implications

The Traffic Report prepared by Colstin Budd Hunt and Kafes which accompanied the Planning Proposal has been updated to include key land uses changes surrounding the subject site since lodgement of the Planning Proposal in September 2011. Most notably, the revised Traffic Report incorporates the road infrastructure upgrade requirements contained in the Planning and Assessment Commission (PAC) determination for the Marrickville Metro expansion.

The conclusions of the revised Traffic Report are summarised below:

 The cumulative impact of the Masters Home Improvement Store traffic with the approved Marrickville Metro approved road upgrades has been modelled using SIDRA and concludes that:

1.02 57 35 9900 F.F., B233 9956, end conductor, by which can be Urbis Pty Ltd ABN 50 the 256-28



- The Edinburgh Road intersection with Victoria Road will have less than 30 seconds wait time per vehicle during peak periods, and that this provides a satisfactory level of service (LoS B/C).
- The Edinburgh Road intersection with Fitzroy Road and Sydney Steel Road will have less than 25 seconds wait time per vehicle during peak periods, and that this provides a good level of service (LoS B).
- The Edinburgh Road intersection with Smitmore Street will have less than 40 seconds wait time per vehicle during peak periods, and that this provides a satisfactory level of service (LoS C).
- Upgrades are proposed to the traffic signals at Edinburgh Road / Smidmore Street intersection, including right turn bays in both directions on Edinburgh Road and a fourth signalised approach to provide access for Masters.
- With the approved and proposed measures, the road network will be able to accommodate the additional traffic from the proposed development.

2 Updated Analysis of Potential Alternative Sites

The Planning Proposal included a detailed analysis of Potential Alternative Sites for a Masters Home Improvement Store in the Marrickville local government area as part of the strategic assessment of the proposal with the *Draft NSW Activity Centres Policy May 2010*. This assessment adopts the 'Sequential Test' which requires the following steps to be completed in order to determine if there are suitable sites in existing or planned activity centres or edge-of-centre locations, and if the proposed site is suitable for the intended use:

- Step 1 Demonstrates there are no suitable sites within existing or planned activity centres.
- Step 2 Demonstrates there are no suitable sites in edge-of-centre locations.
- Step 3 The Masters site meets the suit suitability criteria to support an out-of-centre proposal.

This assessment process is detailed in the revised Section 3.7 of the Planning Proposal Report prepared by the proponent, which is attached as **Attachment 1** to this letter.

The key findings of this analysis have been summarised in the graphic below.





As illustrated in the graphic above, the assessment of activity centres identified all sites within B2 and B4 zones (noting that Marrickville do not adopt the B3 zone in the *Marrickville LEP 2011*), and concludes through a lot size analysis that there are no sites of sufficient size to support a Masters in existing activity centres.

The assessment of edge-of-centre locations identified two precincts where a Masters would be permissible, being:

- Tempe Precinct; and
- Unwins Bridge Road Precinct.

However each of these precincts contain substantial existing tenancy operations, with the balance of the Tempe Precinct which has potential for redevelopment not having sufficient size, even if amalgamated, to support a Masters Home Improvement Store.

Two additional precincts were also identified as being proposed edge-of-centre locations which would permit a Masters Home Improvement Store. These precincts are:



- St Peters Precinct; and
- Victoria Road Precinct.

Similarly with the current edge-of-centre precincts, these sites also do not have sufficient size to support a Masters Home Improvement Store, or offer opportunity for amalgamation to create sites of a sufficient scale.

Accordingly, the subject site of this Planning Proposal was considered against the 'Site Suitability Criteria'. This assessment is contained in **Table 1** of **Attachment 1** and shows that the Masters site is consistent with each of the relevant criteria.

3 Review of Industrial Area

An *Industrial Market Impact Assessment* of the industrial precinct bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line has been undertaken by Urbis' Property Economics and Valuations division. This study accompanies this letter as **Attachment 2**. In preparing the *Industrial Market Impact Assessment*, information was sourced from:

- External inspections of properties in the precinct; and
- Information collated with the use of Urbis' Geographic Information System (GIS) tools.

In summary, the key findings of the review of the industrial area are:

- There has been an overall decline in industrial jobs in the Marrickville LGA between 2006 and 2011, however in some industrial sectors there was growth:
 - Transport, postal and warehousing gained 250 jobs.
 - Construction gained 138 jobs.
- The nature of a Masters Home Improvement Store is considered to be highly complementary to the changing industrial structure which has occurred in Marrickville in recent years, and what is expected in the future.
- The decline in freight and logistics in the precinct between 2005 and 2011 offers opportunity for adaptive uses better suited to the current industrial structure of the precinct to enter the precinct, which can offer enhanced employment opportunities.

The study concludes that the expected overall economic impacts to be generated from the redevelopment of the site for a Masters Home Improvement Store are:

- the Masters Home Improvement Store is expected to compliment the adjoining industrial precinct by increasing access and choice of building and construction materials to the construction sector, which increased its prevalence in the precinct between 2006 and 2011, and is expected to continue to become more prevalent in Marrickville LGA in the future;
- the 2.75 hectare subject site represents just 1.3% of all industrial zoned land in the draft Marrickville LEP 2010 (214.6 hectares), and 7% of industrial zoned land in the Study Area. Therefore, the rezoning will not have a material impact on industrial land supply in Marrickville or the Study Area;



- The Masters Home Improvement Store is expected to result in a net increase in jobs in the precinct, with 130 to 150 people expected to be employed at the Masters Home Improvement Store, compared to 15 workers employed on the site currently. It is also expected to generate more employment than what could be generated if another distribution centre occupied the site, with average employment densities for distribution centres / warehouses ranging from 1 job per 110 sq.m (universal average according to Urbis internal benchmarks) to 1 job per 262sq.m. of floorspace (average for the study area, as quantified through Urbis Study Area site Surveys), compared to an average 1 job per 110 sq.m for the Masters Home Improvement Stores.
- The Masters Home Improvement Store will increase the provision of retail jobs in Marrickville LGA, which actually declined between 2006 and 2011, while the number of Marrickville residents employed in retail jobs increased between 2006 and 2011, resulting in an increase in the size of the retail jobs deficit in Marrickville to 643 jobs by 2011. Such divergence between jobs and resident employment causes people to have to travel longer distances to work, and this has a range of adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.
- Increased competition within the home improvement sector which should result in greater choice and price savings for customers;
- The site's location adjacent to Marrickville Metro shopping centre provides a convenient location for household shoppers, whilst its location close to other trades suppliers within Marrickville is also advantageous to the trades sector. Both factors have the potential to reduce overall travel distances for customers.
- Accordingly, there may be potential vehicle emission savings (particularly from trades vehicles) by minimising the need for customers to travel greater distances to make purchases; and
- Increased expenditure retention within the Main Trade Area reducing the amount of expenditure that is leaked to other LGAs.

Accordingly, the *Industrial Market Impact Assessment* demonstrates that the precinct has been in decline between 2006 and 2011, suffering from high vacancy rates of 28% for IN1 General Industrial land and that the proposed rezoning to support a Masters Masters Home Improvement Store provides a complementary land use to support areas of the industrial sector experiencing growth, while also delivering jobs to the retail sector which has recently experienced decline in the Marrickville LGA.

4 Conclusion

We trust this information satisfactorily addresses the concerns of the JRPP and demonstrate that:

- That the cumulative impact of the Masters proposal and the Marrickville Metro expansion, with the approved and proposed road upgrades will provide good or satisfactory levels of service at the surrounding intersections;
- That the road network will be able to accommodate the additional traffic from the proposed Masters development.
- There are no alternative sites in existing or planned activity centres, or existing or proposed edge of centre locations;



- That the site meets the 'Site Suitability Criteria' contained in the draft Activity Centres Policy (May 2010);
- That the proposals offers a land use which is 'highly complementary' to the changing nature of the precinct, and delivers jobs which will complement the growth in the construction industry within the LGA, while also providing retail jobs within the LGA which have seen decline between 2006 and 2011; and
- Deliver a net increase in jobs within the precinct, with Masters employing 130 to 150 people, on a site that currently provides employment for 15 workers.

Yours sincerely,

Danielle Pinkerton Associate Director



TABLE OF CONTENTS

TABLE OF CONTENTS

۱.	INTRODUCTIONI
2.	TRANSPORT ASPECTS OF PLANNING PROPOSAL

Appendix A - Marrickville Metro approved measures Appendix B - RMS survey results Appendix C - SIDRA output summaries Colston Budd Hunt & Kafes Pty Ltd

I. INTRODUCTION

- 1.1 Colston Budd Hunt and Kafes Pty Ltd has been commissioned by Hydrox Nominees Pty Ltd to assess the transport aspects of a planning proposal to permit a new Masters store on the corner of Edinburgh Road and Sydney Steel Road at Marrickville. The site location is shown in Figure 1.
- 1.2 It is currently occupied by industrial development, including distribution and warehouse uses. The planning proposal would provide for a Masters home improvement centre of approximately 13,500m², with vehicular access from Edinburgh Road and Sydney Steel Road.
- 1.3 On 23 May 2013, the Sydney East Joint Regional Planning Panel resolved the following in relation to the development:
 - 1) The Panel accepts the recommendation of the Department of Planning and Infrastructure to agree to the planning proposal proceeding to gateway determination under s56 of the EPA Act 1979, subject to the Panel being satisfied on the following three matters:
 - a) The Traffic Report being brought up to date by a revised analysis of traffic following the approval of the Metro Shopping Centre Extension;
 - b) The Analysis of Potential Alternative Sites being updated; and
 - c) A review of the industrial area enclosed by Sydenham Road, Victoria Road, Edinburgh Road and the railway line, including an analysis of existing land uses consistent with the zoning, vacancy rates and the implication of the proposed rezoning on the viability of the industrial area.
- 1.4 This report assesses transport aspects of the proposed development in the following chapter, as requested by the JRPP in point a) above.

2. TRANSPORT ASPECTS OF PLANNING PROPOSAL

- 2.1 Transport aspects of the planning proposal are set down through the following sections:
 - site location and road network;
 - scale of development;
 - Marrickville Metro development;
 - policy context;
 - public transport, walking and cycling;
 - o parking provision;
 - o access, servicing and internal layout;
 - traffic generation and road works;
 - o consultation with authorities; and
 - o summary.

Site Location and Road Network

- 2.2 The site is on the south-western corner of the intersection of Edinburgh Road/ Sydney Steel Road at Marrickville, as shown in Figure 1. It is occupied by industrial development, including distribution and warehouse uses. Vehicular access to the site is provided from Edinburgh Road and Sydney Steel Road.
- 2.3 The site is in an area which is largely industrial. There is residential development west of the site on Edinburgh Road. Marrickville Metro shopping centre is north of the site on Smidmore Street.

- 2.4 Adjacent the site, Edinburgh Road provides one traffic lane and one parking lane in each direction, clear of intersections. It has a shared pedestrian and cycle path along the site frontage. It provides access to industrial properties and residential properties. There are bus stops on both sides of the road, close to the site.
- 2.5 Sydney Steel Road runs south from Edinburgh Road at an unsignalised tintersection controlled by give way signs, with Edinburgh Road having priority. Sydney Steel Road is a dead end south of Edinburgh Road. It provides access to industrial properties and provides for two-way traffic with parking permitted on both sides. It is signposted as a bicycle route.
- 2.6 Smidmore Street runs north from Edinburgh Road, opposite the site. It has a signalised intersection with Edinburgh Road, with all turns permitted and pedestrian crossings on all approaches. Smidmore Street provides access to industrial properties and Marrickville Metro shopping centre. It provides for one traffic lane in each direction with parking permitted on both sides, clear of intersections. There are bus stops and taxi zones adjacent to the shopping centre.
- 2.7 West of the site, Fitzroy Street runs south from Edinburgh Road at a t-intersection controlled by a roundabout. Fitzroy Street provides access to industrial development and provides for one traffic lane and one parking lane in each direction, clear of intersections.

Scale of Development

2.8 The planning proposal would provide for a Masters of approximately 13,500m². Vehicular access is proposed from Edinburgh Road (through a fourth approach to the signalised intersection of Edinburgh Road with Smidmore Street, with all turns permitted) and Sydney Steel Road.

Marrickville Metro Development

- 2.9 As previously discussed, the Marrickville Metro shopping centre is north of the site on Smidmore Street. The shopping centre has been approved for an extension of 16,767m² plus additional on-site car parking.
- 2.10 The approved redevelopment of Marrickville Metro includes the following changes to the road network in association with the redevelopment of the shopping centre:
 - new left in/left out car park entry entry/exit point on Edinburgh Road, west of Sydney Steel Road (opposite the site);
 - median in Edinburgh Road in front of the new car park access (adjacent to the site), between Sydney Steel Road and Smidmore Street;
 - o roundabout at the intersection of Edinburgh Road and Sydney Steel Road;
 - o new bus stops on Edinburgh Road, east of Sydney Steel Road.
- 2.11 These measures are shown in drawings for the approved development, in Appendix A.

Policy Context

2.12 There are a number of strategic state policies which are relevant to future development in the Sydney metropolitan area. The policies include NSW 2021, the draft Metropolitan Strategy for Sydney to 2031 and The NSW Long Term Transport Master Plan. These policies are discussed below.

NSW 2021

- 2.13 NSW 2021: A Plan to Make NSW Number One sets targets to increase the proportion of commuter trips made by public transport for various areas within Sydney by 2016, including:
 - 80 per cent in the Sydney CBD;
 - 50 per cent in the Parramatta CBD;
 - o 20 per cent in the Liverpool CBD; and
 - o 25 per cent in the Penrith CBD.
- 2.14 It also has targets to:
 - o improve road safety, reduce fatalities to 4.3 per 100,000 population by 2016;
 - double the mode share of bicycle trips made in the metropolitan area by 2016; and
 - increase the proportion of the population living within 30 minutes by public transport of a city or major centre in the metropolitan area.
 - Draft Metropolitan Strategy for Sydney to 2031
- 2.15 The draft Metropolitan Strategy for Sydney to 2031 provides a strategic plan to accommodate an additional 1.3 million people, 545,000 houses and 625,000 jobs.
- 2.16 It identifies a Global Economic Corridor for provision of much of the new employment, encompassing Port Botany, Sydney Airport, the CBD, North Sydney, St Leonards, Chatswood and Macquarie Park, with extension towards Norwest and Parramatta. A number of Urban Activation Precincts will be provided in this area.

- 2.17 Other key areas in the strategy include Sydney Harbour, Parramatta, the Parramatta Road Corridor, Anzac Parade Corridor, North West Rail Link Corridor, Western Sydney Employment Area and the Metropolitan Rural Area.
- 2.18 The draft strategy identifies the following objectives for housing, employment and transport:
 - provide 27,500 new houses per year, across all of Sydney's six sub-regions;
 - provide higher densities closer to major centres;
 - provide appropriate land to support jobs growth, including new business parks and industry clusters and hubs;
 - provide cross-city transport connections;
 - provide appropriate infrastructure to facilitate business growth, including an efficient port, airport and freight network, telecommunications and educational facilities;
 - use of the Urban Activation Precincts to demonstrate greater use of public transport, walking and cycling, and integrating land use and transport;
 - improve travel times and reduce congestion through improvements to six high priority transport corridors (Parramatta – CBD via Strathfield, Parramatta – CBD via Ryde, Liverpool – Sydney Airport, Sydney Airport – CBD, Mona Vale – Sydney CBD and Rouse Hill – Macquarie Park);
 - key transport measures, as outlined in the NSW Long Term Transport Master Plan) to support the strategy;
 - provision of other infrastructure, including schools and hospitals, to support the identified growth; and
 - improved environmental management by use of resources and energy more efficiently, better planning for natural disasters and increased green space.

6
- NSW Long Term Transport Master Plan
- 2.19 The NSW Long Term Transport Master Plan has been developed, in association with the Sydney Metropolitan and Regional Strategies and State Infrastructure Strategy, to support NSW 2021. The key measures identified are as follows:
 - providing a fully integrated transport system;
 - providing a modern railway system and increase capacity by 60 per cent;
 - providing a modern light rail system in the CBD;
 - providing a modern bus system to complement the rail networks;
 - o connect the motorway network, including WestConnex, F3/M2 link and F6;
 - reduce congestion in the CBD, including removing the monorail, increasing light rail, improving pedestrian links, increasing ferry use, providing increased capacity on the rail system and improved walking and cycling infrastructure;
 - support the growth of new economic centres including the north west and south west rail links, new roads in growth areas and new bus infrastructure;
 - connect regional communities through major highway upgrades, and improved rail, bus and air services;
 - improve freight efficiency and productivity;
 - improve access to Sydney Airport and Port Botany;
 - o boost walking, cycling and its integration with public transport; and
 - preserve future transport corridors,

Public Transport, Walking and Cycling

2.20 Local bus services are provided by Sydney Buses. The site is adjacent to bus services which operate along Edinburgh Road. Services also operate along Victoria Street, west of the site. Services include:

- route 308 Marrickville Metro, St Peters, Alexandria, Redfern, city;
- route 352 Marrickville Metro, Newtown, Sydney University, Chippendale, Surry Hills, Darlinghurst, Paddington, Bondi Junction; and
- route 355 Marrickville Metro, Enmore, Newtown, Erskineville, Alexandria, Waterloo, Surry Hills, Moore Park, Bondi Junction.
- 2.21 There are existing on and off-road cycle paths on Sydney Steel Road and Edinburgh Road, adjacent to the site.
- 2.22 Existing public transport services will provide for people to access the development by public transport, walking and cycling, particularly for employees. To support accessibility by bicycles, appropriate bicycle parking, in accordance with Council requirements, is proposed to be provided.
- 2.23 The development will therefore satisfy the objectives of NSW 2021, the draft Metropolitan Strategy for Sydney to 2031 and the NSW Long Term Transport Master Plan as follows:
 - enabling employees to readily access buses close to the site;
 - providing an appropriate level of on-site parking, with reference to appropriate Council and RMS requirements, to encourage public transport use and increase the proportion of trips by public transport; and
 - providing employment and retail facilities close to residential areas nearby to reduce the need for travel.

Parking Provision

2.24 Marrickville Development Control Plan No. 19 (Parking Strategy) does not include parking rates for home improvement centres.

CHAPTER 2

- 2.25 By comparison, RMS has undertaken recent surveys of the parking demands of home improvement centres. The results of these surveys are shown in Appendix
 B. Two of the centres (Bankstown and Minchinbury) have areas (14,111m² and 11,915m² respectively) similar in size to the proposed Marrickville Masters.
- 2.26 These stores provide some 472 and 403 parking spaces respectively, which represents rates of some 3.3 to 3.4 spaces per 100m².
- 2.27 The RMS parking demand surveys found peak parking demands of 318 and 264 spaces at Bankstown and Minchinbury respectively. These demands represent rates of some 2.2 to 2.3 spaces per 100m² at peak times.
- 2.28 Based on these rates, the proposed Masters would have parking demands of some 300 to 310 spaces. It is proposed to provide approximately 313 spaces for the proposed development, which will cater for these demands.
- 2.29 Appropriate disabled and bicycle parking should be provided in accordance with Council requirements.

Access, Servicing and Internal Layout

- 2.30 Access to the development is proposed from Edinburgh Road and Sydney Steel Road. The main access to the site is proposed via a fourth signalised approach to the Edinburgh Road/Smidmore Street intersection. Access is also proposed from Sydney Steel Road.
- 2.31 The main access location, as a new signalised approach to the Edinburgh Road/Smidmore Street intersection, would include provision for new right turn bays in both directions on Edinburgh Road, for turns into the site and Smidmore

Street. Land is available to accommodate the right turn bays and two through lanes on Edinburgh Road, should it be required.

- 2.32 Appropriate queuing will be provided within the site for entering and exiting vehicles.
- 2.33 The access from Sydney Steel Road will be provided to accommodate turns by service vehicles. As previously discussed, there is a roundabout proposed for the intersection of Sydney Steel Road with Edinburgh Road, in association with the redevelopment of Marrickville Metro.
- 2.34 The detailed design of the service vehicle access and loading dock arrangements will be undertaken at the development application stage. However, the design will be provided to accommodate 19 metre semi-trailers and 12.5 metre large rigid trucks entering the development, manoeuvring into the loading docks and exiting in a forward direction.
- 2.35 Within parking areas, parking space dimensions, aisle widths, ramp grades and transitions should be provided in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking), AS 2890.1:2004 at the time that a development application is made.

Traffic Generation and Road Works

2.36 In order to gauge traffic conditions, counts were undertaken during Thursday afternoon and Saturday peak periods at the following intersections:

- Edinburgh Road/Victoria Road;
- Edinburgh Road/Fitzroy Street;
- o Edinburgh Road/Smidmore Street; and
- Edinburgh Road/Sydney Steel Road.
- 2.37 The results of the surveys are shown in Figures 2 and 3, and summarised in Table 2.1. Victoria Road carried some 1,000 to 1,600 vehicles per hour two-way during the surveyed weekday afternoon and Saturday peak periods. Edinburgh Road carried lower flows of some 450 to 1,250 vehicles per hour two-way. Fitzroy Street and Smidmore Street carried some 400 to 900 vehicles per hour two-way and Sydney Steel Road carried less than 100 vehicles per hour two-way.

North of Edinburgh Road South of Edinburgh Road East of Victoria Road	1,220 1,565 1,035	I,005 I,390	
		١,390	
East of Victoria Road	1.035		
	1,035	965	
East of Fitzroy Street	1,210	ا ,220	
East of Smidmore Street	725	480	
East of Sydney Steel Road	710	470	
South of Edinburgh Road	425	445	
North of Edinburgh Road	625	880	
South of Edinburgh Road	55	40	
	South of Edinburgh Road North of Edinburgh Road	South of Edinburgh Road425North of Edinburgh Road625	

2.38 The operations of the surveyed Edinburgh Road intersections have been analysed using the SIDRA program. SIDRA provides a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

CHAPTER 2

 For traffic signals, the average delay per vehicle in seconds is calculated as delay/(all vehicles), for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:

0 to 14	=	"A"	Good							
15 to 28	=	"B"	Good with minimal delays and spare capacity							
29 to 42	=	"C"	Satisfactory with spare capacity							
43 to 56	=	"D"	Satisfactory but operating near capacity							
57 to 70	=	"E"	At capacity and incidents will cause excessive							
			delays. Roundabouts require other control mode.							
>70	=	"F"	Unsatisfactory and requires additional capacity							

 For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

2.39 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all

movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

- 2.40 The analysis found that the signalised intersections of Edinburgh Road with Victoria Road and Smidmore Street are operating with average delays of less than 25 seconds per vehicle during Friday afternoon and Saturday peak periods. This represents LOS B, a good level of service.
- 2.41 The roundabout at the intersection of Edinburgh Road with Fitzroy Street is operating with average delays for the highest delayed movement of less than 20 seconds per vehicle during peak periods. This represents level of service B, a good level of service.
- 2.42 The unsignalised intersection of Edinburgh Road with Sydney Steel Road is operating with average delays for the highest delayed movement of less than 15 seconds per vehicle during peak periods. This represents level of service A/B, a good level of service.
- 2.43 The RMS surveys of similar home improvement centres (Appendix B) found the following two-way (sum of both directions) peak hour traffic generations for the home improvement centres at Bankstown and Minchinbury:
 - 289 and 338 vehicles per hour two-way during the afternoon peak hour (representing rates of some 2.05 and 2.84 vehicles per hour per 100m² respectively); and

CHAPTER 2

- 844 and 754 vehicles per hour two-way during the weekend peak hour (representing rates of some 5.98 and 6.33 vehicles per hour per 100m² respectively).
- 2.44 Using an average of the above rates, the proposed Masters home improvement centre would have the following two-way peak hour traffic generations:
 - weekday afternoon peak hour: some 330 vehicles; and
 - weekend peak hour: some 830 vehicles.
- 2.45 The RMS guidelines indicate that some 20 per cent of retail traffic is passing trade, i.e. traffic which would have driven past the site regardless of its visit to the site. On this basis, the proposed home improvement centre would have the following additional two-way traffic generations on the surrounding road network:
 - weekday afternoon peak hour: some 260 vehicles; and
 - weekend peak hour: some 660 vehicles.
- 2.46 The additional Masters development traffic has been assigned to the road network, including an allowance for 20 per cent passing trade. Existing flows plus the additional development traffic are summarised in Table 2.2. Traffic increases on Edinburgh Road, from where access is proposed, would be some 80 to 130 and 200 to 320 vehicles per hour two-way during weekday afternoon and Saturday peak hours respectively. Increases on Victoria Road, Fitzroy Street and Smidmore Street would be lower at some 40 to 60 and 100 to 150 vehicles per hour two-way during weekday afternoon and Saturday peak hours respectively.

CHA	NPT	ER 2
-----	------------	------

Road	Location	Weekd	ay afternoon	Saturda	ay lunchtime
		Existing	Plus	Existing	Plus
			development		development
Victoria Road	North of Edinburgh Road	1,220	+40	1,005	+100
dinburgh Road	South of Edinburgh Road	1,565	+50	1,390	+110
Edinburgh Road	East of Victoria Road	1,035 +90 965	+210		
	East of Fitzroy Street	1,210	+130	1,220	+320
	East of Smidmore Street	725	+80	480	+200
	East of Sydney Steel Road	710	+80	470	+200
Fitzroy Street	South of Edinburgh Road	425	+40	445	+110
Smidmore Street	North of Edinburgh Road	625	+60	880	+150
Sydney Steel Road	South of Edinburgh Road	55	π,	40	

- 2.47 As previously discussed, it is proposed to upgrade the signalised intersection of Edinburgh Road with Smidmore Street to provide for access to the site. A roundabout is also approved at the Edinburgh Road/Sydney Steel Street intersection in association with the Marrickville Metro development.
- 2.48 The Edinburgh Road intersections have been reanalysed with SIDRA for the additional development traffic flows, including the upgrades discussed above. The upgrade to the Edinburgh Road/Smidmore Street intersection has included right turn bays in both directions on Edinburgh Road.
- 2.49 The analysis has also included traffic from the approved Marrickville Metro development.
- 2.50 The analysis found that with the additional Masters development traffic, plus the additional traffic from Marrickville Metro, the intersection of Edinburgh Road with

Victoria Road would operate with average delays of less than 30 seconds per vehicle during peak periods. This represents level of service B/C, a satisfactory level of service.

- 2.51 The roundabouts at the intersections of Edinburgh Road with Fitzroy Street and Sydney Steel Road would operate with average delays for the highest delayed movements of less than 25 seconds per vehicle during peak periods. This represents level of service B, a good level of service.
- 2.52 The proposed upgraded signalised intersection at Edinburgh Road/Smidmore Street would operate with average delays of less than 40 seconds per vehicle during peak periods. This represents level of service C, a satisfactory level of service. The SIDRA output summaries are provided in Appendix C.

Consultation with Authorities

- 2.53 In a meeting with Council on 12 November 2010, Council's traffic engineer (George Tsaprounis) agreed that access through the signalised Smidmore Street intersection would be the most appropriate access to the site.
- 2.54 At the RMS Regional Development Committee meeting on 2 December 2010, RMS generally accepted that access may be possible through the signalised intersection. This would be subject to the application and approval processes, including traffic analysis at the development application stage.

<u>Summary</u>

- 2.55 In summary, the main points relating to the transport aspects of the planning proposal are as follows:
 - the proposed development will be readily accessible by existing public transport services;
 - ii) the planning proposal would provide for a Masters store of approximately 13,500m²;
 - iii) an extension has been approved for the Marrickville Metro shopping centre, north of the site;
 - iv) a number of road and transport measures are approved in association with the Marrickville Metro development, including a roundabout at Edinburgh Road/Sydney Steel Road;
 - v) the proposed parking provision is considered appropriate;
 - vi) the proposed access arrangements Edinburgh Road and Sydney Steel Road are considered appropriate;
 - vii) appropriate arrangements for service vehicles will be provided;
 - viii) an upgrade is proposed to the traffic signals at Edinburgh Road/Smidmore
 Street, including right turn bays in both directions on Edinburgh Road and a fourth signalised approach to provide access for Masters;
 - ix) with the approved and proposed measures, the road network will be able to accommodate the additional traffic from the proposed development.

8053 - Marrickville Masters



Location Plan

Colston Budd Hunt & Kafes Pty Ltd DRAWN BY CBHK Pty Ltd_hs Ref: 8053 02 July 2013

Figure 1



8053 - Marrickville Masters

Figure 2

02 July 2013

DRAWN BY CBHK Ply Ltd_hs Ref. 8053



=

APPENDIX A

APPENDIX A

MARRICKVILLE METRO APPROVED MEASURES





APPENDIX B

APPENDIX B

RMS SURVEY RESULTS

רמאההפינווץ
911 - 50
ted Sit
10 5 0 eC
ींड र्ल th
215 D F12
전 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

ÿ

÷

Suburth North Paramata Sanistown Arpoin Suburth North Paramata Sanistown Arpoin (artwork Peak Hours Sydney	aramana, aramana, 2aniste Sydney 2007 2007 2007 200-1300 200-1300	own Atron 2200 Sydn≥y 2105	Windsor 2766	Afficeh Thurs	NSTeriu	Ntara 10	Mirro10	Bunnings	Abreto
C nkk Peast Hours A Network Survey Lak - Wenktuys Lak - Wenktuys Lak - Buiky Cocclaftiard Morension (m ³) finor area (m ³)	ander Habey 1000 1000 1000 1000 1000 1000	own Attport 2200 Sydney 2005 Loffspro	Windsor 2756	Milects in hume				•	
n Alk Pesk Noum Alktwork Survey Bak - Wenkdays Bak - Wenkdays Bak - Wenkdays Bak - Wenkends Moretails - Bulky Coccle/Hardware Moretails - Bulk	152 1067 1000 300 300	2200 Sydney 전한 문제 전	27.56	I share a second	Neuropa	10400012 10400012	Picton	South Vours	C marte
n oft Peak Hours A Network Survey Eak - Wenkdays 1200 124 - Wenkdays 1200 124 - Bulky Coccle/Hardware 1200 124 120 120 120 120 120 120 120 120 120 120	10ey 100 300 \$00	Sydney Sydney Stores States		2770	2507	2264	2571	2541	2800
ok Peak Hours 8 Network Survey alk - Weekdays 1700 184 - Wenkbrys 1700 184 - Buky Coods friardware - Moekends Minersion (m ³) finor area (m ³)	2007 300 300 300 800	いたが、たち	Sydney	Stdnov	Statest	Machen	Monthesen	Al configuration	
a fractwork survey ark - Waekdays 0800 1864 - Wenklays 1700 1864 - Buky Coods friandware - Maekends (m ³) fran area (m ³) fron picyse (rotal) employee (at one	00.7 300 300 800	1000	「「「「「「「」」	「日本のない」にはないための	Control of States	とうにいたないないののため	Contraction of Second		Lia nooc
auk - Waeekolaya 0800. Iak - Waeekends 1700. - Weekends 2000- - Maeekends 1200. - Maerica (m [*]) finor area (m [*])	900 300 300 500		2962	2007	2002	5004	2009	2000	2005
atk - Wentkarys (700) - Weekends (200) - Lesia - Bujky Coccle/Hardwarc (200) Martston (m ³) finor area (m ⁵) finployee (10tal) employee (at one	100 200 200	0000 0020	0000 0000				5,4-12,4	18/3-24/3	
Moekends (200 ±sils = Buiky, Cocds/Hardware (200 Miner≞ion (m ³) finor area (m ⁴) Employee (Total) Employee (10tal) employee (at one	800 800		1020-0120	0060-0000	0060-0380	050-560	0901-0060	0060-0080	0060-0080
	SCD SCD	. 664-7700	1500-1600	1703-1890	1600-1700	1803-1700	1500-1700	1500-1500	1500-1700
actus - ສະຫວ່າ, ເວດດູດ: inter ແພລາວ ນິຕາຍ - ສະຫວຸ (ຫວັ) ກິດດາ ສາອລ (ຫວັ) ໂຕກຸມດັ່ງຈະຍຸ (Total) ຍາກຸມດັ່ງຈະຍຸ (at one	SCG	1200-1300	1130-1200	1100-1200	100,1200	1103-1200	1200-1300	1100-1200	1100-1200
ລັດກະ⊨ະລະໄດາ (ເຕັ້) finor area (ເກ") Γ΄-ກຸມໄວງຈະຣ (Tic⊡i) ຂຸມຖຸມີດງຈະຣ (ລະ ດາອ	,800		「「「「「「「「「」」」」	の解放した時間の	日本語言語をおけた	「おい」」「おい」が「「「おい」」」	うなにになったあるいろ	The second s	- L
floor area (m*) F mployee {Totel) employee (at one	,SC0		5,760		3,500		3,630		
. வீ டோறப்றுடை (Total) . வீ சாரப்றுடி (at one 14)		14,115	1,500	11,915	2,430	2,000	1.600	NY DO	100 1
. vî empicyee (at one Ie)			42	р.,	02			1 1 1 1	490° I
14]			9 E		1/2	12	1		Ϋ́
					!	2			0
Year Constructed			0551		2041-1902		([m] mm m m m		
Autoess (bility Score)	67.9	519	112	6 r0		L C	CINNER		107# L
	h	1.112			·			0	
2		0700-5100	0620-1705	11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	- 4742-475-44273-5745 07-00-17-30	1997년 1997년 1997년 1997 1993년 - 17월 1997년 1997	0730-1700	0700.0500	0274 0170
Sat 0200-1230		0500-1300	0809-1600	3203-1303	0730-1500	0700-1600	170n-160n		
Sur: 0.900-1.80.0		0.800-1.800	0000-1500	0800-1800	00091-16C1	0701-1500			
Parking Spaces			·	「「「「「「「「「「」」」」」」」」」		「日本の」には名字ものできる	and the state of the second		מריפר בשרי
	263	A64	and the second of the second sec	「いい」へいていたのであるのです。		W-WINESPERATIVE ALLER	うちんがインドにつけ	自主の法に法の出	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
	5	0		2	j,	n l	2	RPZ	R.
	4	ń	2 1	ø	81.)		.	দ	
1			C		0	0	0		01
12 U.S.C.			54		*	0	0		24
	265	472	45	507	20	30	60	11 11	1
а 4		(1) · · · · · · · · · · · · · · · · · · ·	のなどに置いてい	同時間には高くない	「「「「「「「「「「」」」」」	国家が形式国際など	に通知したいのないない		10 Sec. 34
AUDUAL STREAMERS - ARCING IS SHOT	500	757.3113	19/03/06	SEVENS 1	18:03/05	12/03/09	25/03/09	25/03/09	19/03/05
	(5)	[surs])	(Zoucz)	(Tage)	(Thurs)	(Fhurs)	(Shark)	(Thurs)	(Thurs
Weather	Sunny	Sumy	Sunry	Search	Senar	Smrth	Sunny	Suppy Rain	Samey
		and a second second						Evenua	
late of Survey - Wankerd - 140309	507	60727966	2 ND3AD	21/03/09	21/03/06	14/03/03	28/03/09	25,03,122	21/03/05
2 <u>7</u>	(Jat)		(5at)	[240]	(531)	(142)	(Sa!)	(Set)	(25T)
Weather Sur	SURRY	Sunny	Stany	Sucus	Sunny	Sunny Rain	Suncy	Sunny	Sum
						Evaning			

7 aller.

Hyder Consulting Pty LEAARV 70 104 485 280 dissertionaesticession analysis university guide update. Timal reportabulity goods har suburbuilith-wald2360-wa-0,0 bulky goods analysis report doo

Hardware / DIY 3.3.1

Teble 3-1 Traffic Results Summary - Hardware/DIY

		r. Sydnay	Motropo	litan Ara		No	n-Metro	oolitan A	in i
She ID Gross floor area (m2)	1W1 9,800	令 HW2	HW3	HW4	HW 0 2,400	HWG	HWZ	HWB	+IW9
Weekdays	Sec. 1	1.111	tin Later:	1.1.1.1	1.400			3,040	
Porson-based Trips	and the most income		S.C. 1995		a	ar provides.	ch052-++) all stell 201	a state of
- Sito Peak Hour	484	565	101	6.98	119	128	97	393	100
Trips/ 100m ² GFA	4.94	4,00	5.61	5.77	4.96	5.40	6.06	3,95	6.5
- Vehicle Network AM Poak	162				65	49	76	127	6
Trips/100m ² GFA	1.65	0.65	2.72	2.29	2.71	2,45	4,75	1.28	
-Vehicle Network FM Penk	281	350	98	174	73	2,40	4.10	278	3.3
Trips/100m ² GFA	2,87	2.48	4,89	3,98	3.29	4.65			
Dally Total Person Trips	4,397	4,538	510	6,346	858	9.00 868	4,13	2.79	3 50 703
Trips/ 100m ² GFA	44 B7	32,08	45.33	53.26				2,907	
Vohiclo-based Trips	1	UAAII.	40.00	00,20	35.76	43.40	41,69	29.22	39.00
Site Peak Hour	403	444	64	601	98	140	7.0	070	
Idps/100m ² GFA	4.11	3.15	4.67	4.12	4.08	112	75	273	83
Network AM Perks	140	84	43	243	4.08	5,60	4,69	2,74	4.51
Trips/ 100m ² GFA	1.40	D.60	2.22			42	62	108	53
Notwork PM Pesk	225	289	64	2.04	2.13	2.10	3.88	1.09	2,94
frlps/100m ² GFA	2.30	2.05		338	D 66	76	50	198	55
Dally Total LV Trips	3,441	3.642	3.68	12.84	V 2.75	3.80	3.13	1,69	3.22
Fries/ 100m ² CFA	35.11			4,658	605	718	623	2,065	678
Delly Total HV Trips	122	25.82 130	28.66	38 25	25.21	35.93	32,89	20.66	31.9/
rips/ 100m ² GFA			114	178	51	45	10	69	33
Dally Tota: Vohicle Trips	1,24	0.99	6.17	1.49	2.13	2,25	1.19	0.69	1,83
rips/100m ² GFA		3,782	625	4,736	656	703	542	2,124	608
611V	36.38	26.80	34.72	30.75	27.33	38.15	33.68	21.55	33.78
Youk Parking Accumulation	3.4%	3.7%	17.8%	3.8%	7,8%	ō.9%	3,5%	3.2%	5.4%
Posk Parking/ 100m ² GFA			14	(99	25	39	30	104	20
Veekend 1 200 000 CFX	1.21	1.10	0.78	1.67	104	1.00	1.80	1.05	1.11
orson-based Trips	18. 666.435	(A DE A DE A DE A DE A	ND SANA	3	10. 1	64 A. 9-19	o.93[6.]64	民民黨黨的	読んや
Site Poak Huur	1,000	1,331	123	1,256	205	184	1.0.00	-	
ips/ 100m ² GFA	10.20	2,43	6.83	10.54			155	739	147
Vehicle Notwork Pank	925	1,282	108	1,244	8.54	9.20	7,03	7.43	8.17
dps/100m ² GFA	9.44	5.00			192	174	122	709	120
ally Total Person Trips	7,100	8 590	005	10.44	8,00	ő.70	7.63	7,13	0.67
rlps/ 100ir.2 GFA	72.45	80.87	36.94	8,564	1;238	593	866	4,738	723
chicle-based Tripa	16.90	DURIT	30.84	74,39	51,59	49,90	40.04	47,63	40,17
Site Peak Hour	656	844	77	784	4.74				
rips/ 100m ² GFA	0.69	5.9/1		754	151	112	70	447	111
Network Peak	693	806	4.28	751	6.29	5,60	4,80	4.49	3.17
lps/100m ² GFA					119	107	78	426	96
uily Total LV Trips	6,05	6.70	3.61	6.33	4.86	5,20	4,68	4,28	5.33
ips/100m ⁷ GFA	4,780	6,493	396	5,440	892	644	489	2,500	571
ihat tooliv. Olive	42.78	38.93	22.00	45,60	36.75	32,20	30.66	25.24	31,72
ally Total HV Trips	27	115	16	GO	3	5	0	15	2
lps/100m ² GFA	52.0	0.61	0.99	0.50	\$13v	0.25	0.00		
ally Total Volide Trips	4 807	5,668	412	6.500	885	849	<u>- 6 60</u> - 2 <u>89</u>	2.824	0.11 5≠3
ips/ 100m² GFA	49.05	39.74	22.89	46.1.5	30 88				
HV	0.6%	2.1%	1.9%	1.1%	33 BC	32.45	30.56	28.39	31.65
			1.4 0.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	A 11 70	ST.U. 47	11 12 10	- Sec. 21	11.0 70	U 376
eak Parking Acountuistion	106	818	30	234	36	29	40	152	27

Trip Generation and Parkit g Carninaton Surveys – Kolky Croots / Hardward Blams Hyder Consulting Fty LickABM 76 504 465 200

ł.

APPENDIX C

APPENDIX C

SIDRA OUTPUT SUMMARIES

-

Site: Ex Thu PM

Victoria Road & Edinburgh Road

Existing Thursday afternoon peak hour

Signals - Fixed Time Cycle Time = 121 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Mov	ement Perf	ionnance - \	vehicles		and technical						1.
Mov ID	OD Mov	Demano Total Veh/h		Dog. Satn	Average Delay	Lovel of Service	95% Back Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
South	: Victoria Re	ad south				and the second second second second	and a second second		States and	opi ven	3312(1)
2	Γ1	405	20	0.446	22 8	LOS B	15.B	112.2	0 72	0 63	36 7
3	R2	140	2.0	0.446	39,1	LOS C	63	44 9	0 79	D 81	29.7
Appro	ach	545	2.0	0.446	27 0	LOS B	15 8	112.2	0.74	0.68	33.9
East:	Edinburgh R	oad									
4	L2	550	20	0 459	11.6	LOSA	95	67.7	0.39	0 73	46 0
6	R2	210	20	0.133	314	LOS C	9.5	67.7	0.64	0 76	32.9
Appro	ach	760	2.0	0.459	17.1	LOSB	9.5	67.7	0 46	0.74	41 5
North:	Victoria Roa	ad north									
7	L2	135	2,0	0 333	20.7	LOS B	97	69 3	0.66	0.70	37.6
8	T1	470	2 C	0 333	21.1	LOS B	11.0	78_4	0.66	0.62	37.0
Appro	ach	605	2,0	0.333	21.0	LOS B	110	78.4	0.66	0.64	37 1
All Vel	licles	1910	2.0	0 459	21 2	LOS B	15 8	112.2	0 60	0 69	37 7

Level of Service (LOS) Method, Delay (RTA NSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for Al! Movement Classes of Al: Heavy Vehicle Model Designation

Move	ement Performance - Pedestrians	STOLLS						ALL ADD
Mov ID	Description	Demand Flow ped/h	Average Delay	Level of Service	Average Back o Pedestrian ped	Cueue Distince	Prop. Queued	Effective Stop Rete
P1	South Full Crossing	53	27.2	LOS C	0 *	0.1	0.67	C 67
P2	East Full Crossing	53	22 1	LOSIC	0.1	0.1	0 60	0.60
All Pe	destrians	105	24.6	LOS C			0.64	0 64

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average celay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements

Processed Monday, 1 July 2013 12:14:49 PM Copyright © 2000 2013 Akcelix and S/DRA (NTERSECTION 6.0.9 3896 www.sidrasolutions.com Project G. (TraffictSIDRA 6 0/8053 Marricky/lie Masterst/Victona Road & Edinburgh Road s.p6 8000030 COLSTON BUDD HUNT & KAFES PTY LTD, PLUS 7 1PC Copyright \approx 2000-2013 Akcelik and Associates Pty 11d

Site: Ex Sat mid

Victoria Road & Edinburgh Road Existing Saturday lunchtime peak hour Signals - Fixed Time - Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfe	ormance - V	/ehicles						-1.2	1819.1-1	1 1 1
Mov ID	OD Mov	Demand Total	Flows HV	Deg Saln	Average Delay	Lavel of Service	95% Back (Vehicles	Distance	Prep Quaued	Effective Stop Rate	Average Speed
South	Victoria Ro	ad south	- 70	We	SOC	And Address	(151)	11.0		per vah	Km/)
2	T1	415	2.0	0.287	5.0	LOSA	7.6	53.8	0.34	D 30	51 1
3	R2	315	20	0 463	16.4	LOS B	76	54.3	0.45	0.76	42.1
Аррго	ach	730	2.0	0.463	9.9	LOS A	76	54_3	0.39	0.50	46.8
East: 6	Edinburgh R	oad									
4	L2	360	2.0	0.315	94	LOS A	22	15.9	D 16	0.67	48 1
6	R2	160	2.0	0,291	59 1	LOS E	4.2	30.2	0 93	077	23.6
Арогоа	ach	520	2.0	0.315	24.7	LOS B	4.2	30.2	0.41	0 70	36.5
North:	Victoria Roa	id north									
7	L2	130	20	0.149	7.9	LOS A	2.4	17.3	0.27	0.58	48.9
8	T1	300	2.0	0 149	5.4	LOS A	3.4	24.5	0 29	0.35	51 1
Approa	ach	430	20	0,149	6 2	LOS A	3.4	24 5	0 29	0 42	50 4
All Veh	ncles	1680	20	0 463	13.5	LOS A	76	54 3	0 37	0 54	43 8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Dalay includes Geometric Delay.

Gap-Acceptance Capacity SIDRA Standard (Akçelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Move	ment Performance - Pedestrians				Collon St		Name of Street	an a 🕄
Mav ID	Description	Demand Flow pedit	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	54.3	LOS E	02	02	0.95	0.95
P2	East Full Crossing	53	6.4	LOS A	01	0.1	0.33	0.33
All Pe	destrians	105	30.3	LOS D			0.64	0 64

Level of Service (LOS) Method, SIORA Pedestrian LOS Method (Based on Avorage Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

 Processed
 Monday, 1 July 2013 12 16:33 PM
 Copyright © 2000-2013 Akcelik and Associates Pty Ltd

 SIDRA INTERSECTION 6.0,9:3896
 www.sidraschitions.com

 Project
 C/Traffic/SIDRA 6.0/8053 Marrickville Masters/Victoria Road & Edinburgh Road sip6

 8000030
 COLSTON BUDD HUNT & KAFES PTY LTD, PLUS 7 1PC

[™] Site: Ex Thu PM

Edinburgh Road & Fitzroy Street Existing Thursday afternoon peak hour Roundabout

	ement Perf	ormance - \	/ehicles		1						
Mov ID	OD Mov	Demano Total veh/h	f Flows HV %	Deg Satri	Average Delay	Level of Service	95% Back Vehicles	Distance	Prop. Queued	and a state of the state of the	Average Speed
South	Fitzroy Stre		ALC	Contraction of the local states	in the second second	100000000000	YED.	m	Carlo Participation	per wah	KAVA
1	L2	S Ū	2 C	0.342	16.2	LOS B	2.1	14.9	0.76	1.78	42.2
3	R2	140	20	0.342	16 2	LOS B	2.1	14.9	0.76	1.76	42.2
Аррго	ach	230	2.0	0.342	16 2	LOS B	2 1	14.9	0 76	0.89	42.2
East E	Edinburgh R	oad east									
4	12	160	2.0	0.569	8.5	LOS A	5.7	40.4	0 26	1 10	48 1
5	11	670	20	0.569	8.5	LOS A	5.7	40.4	0.26	1.10	48 1
Арргоа	ach	830	20	C 569	8 5	LOS A	5.7	40 4	0.26	C.55	48.1
West I	Edinburgh R	load west									
11	T1	240	2.0	0 252	9,4	LOS A	1.6	11 6	0.41	1 22	47.3
12	R2	35	2.0	0 252	9.4	LOSA	1.6	11.6	0.41	1 22	47.3
Approa	ich	275	2.0	0 252	9.4	LOS A	1.6	11,6	0.41	D 61	47.3
All Veh	icles	1335	20	0 569	10.0	LOS A	5.7	40 4	0.38	0.62	46 9

Level of Service (LOS) Method Delay (RTAINSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Processed Monday I July 2013 12 40:20 PM Copyright © 2000-2013 Akcellk and Associates Ply Ltd SIDRA INTERSECTION 6 0 9.3896 www.adrasolutions.com Project: Cr\Traffic\SIDRA 6 0\8053 Marrickville Masters/Eurinburgh Read & Fibroy Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

🕅 Site: Ex Sat mid

Edinburgh Road & Filzroy Street Existing Saturday lunchtime peak hour Roundabout

Move	ment Perfo	ormance - V	/ehicles			1.20	10.0	1.4	100		
Mov ID	OD Mov	Demand Total veh/h	l Flows HV	Deg Satn V/C	Average Delay 860	Lavel of Service	95% Back (Vehicles	of Queue Distance m	Prop. Quoued	Effective Stop Rate per van	Average Speed km/r
South.	Fitzroy Stre		and the second second		and the second se		Contract of the second second	CONTRACTOR A DATE	CONCISION PROPERTY A	CRIEFE ACCURACION	and a second second
1	L2	65	2.0	0.323	14.6	LOS B	19	13.6	C.64	1 63	43.5
3	R2	200	2.0	0.323	14.6	LOS B	1.9	13 6	0.64	1.63	43.5
Арогов	ch	265	20	0.323	14 6	LOS B	19	13 6	0 64	D.81	43 5
East. B	dinburgh Ri	oad east									
4	L2	150	20	0.417	8.5	LOSA	3.4	24.4	0.20	1.12	48.4
5	T1	455	2.0	0.417	8.5	LOS A	3.4	24.4	0.20	1.12	48 4
Approa	ich	605	2.0	0 417	85	LOSA	3.4	24.4	0.20	0.55	48.4
West	Edinburgh R	oad west									
11	T1	415	20	0.427	9.8	LOS A	3 1	22.4	0.55	1.31	46.8
12	R2	30	2.0	0.427	9.8	LOS A	3:1	22.4	0.55	1.31	46.8
Approa	ch	445	2.0	0.427	9,8	LOSA	3.1	22,4	0.65	0.66	46.8
All Veh	iclos	1315	2.0	0,427	10.2	LOSA	3.4	24.4	0.41	0 64	46.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model, SIDRA Standard,

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, 1 July 2013 12:42:02 PM Copyright® 2000-2013 Akcelik and Associates Pty Ltd SIDRA INTERSECTION 6 0 9.3896 www.sidrasolutions.com Project: G:/Traffic/SIDRA 6 0;8053 Marrickville Masters/Edinburgh Road & Fitzroy Struet.sip6 8006030, CCI STON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Thu PM

Edinburgh Road & Smidmore Street

Existing Thursday afternoon peak hour Signals - Fixed Time Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied The results are given for the selected output sequence.

Move	ment Perf	ormance - V	Vehicles			n a parti		and the second second		1 2 4 4 1	
Mov. ID	OD Mov	Demano Total	and the second	Deg Sain	Average Delay	Level of Service	95% Back (Vehicles	of Queue Distance	Prop. Quoued	Effective Stop Rate	Average Speed
East: I	Edinburgh R	load east		1914	1000	- 202 - 10 - 100	Neit		(e. 19 e.a)	perven	, hinth
5	T1	520	2.0	0.540	13 1	LOSA	11 3	80.4	0.65	D 59	36.7
5	R2	50	20	0.540	13.9	LOS A	11 3	80.4	D 69	0.64	36.2
Appro	ach	570	20	0 540	13.1	LOS A	\$1.3	80.4	0 66	0.69	36.7
North:	Smidmore {	Street									
7	12	20	20	0.034	26.4	LOS B	05	3.8	0.71	0 69	30 7
9	R2	310	20	0.538	30.8	LOSIC	10.0	71.0	0.86	0.82	28.8
Approa	ich	330	2.0	C.538	30 5	LOSIC	10 0	71.0	0.85	0.81	28 9
West (Edinburgh R	toad west									
10	L2	245	20	0 157	7.2	LOS A	0.8	60	0.18	D 64	42.5
11	T1	135	20	0 134	10.3	LOS A	2.7	19.0	0.54	0.44	38.7
Approa	ch	380	20	0 157	8.3	LOS A	2.7	19.0	0 31	C.57	41.1
Ali Veh	icles	1280	2 0	0 540	16 2	LOS B	11 3	80 4	0 60	0 64	35.4

Level of Service (LOS) Method | Delay (RTA NSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Crasses of All Heavy Vahicle Model Designation

Move	ement Performance - Pedestriar	IS	All second				Sector Ball	ALC: NO.
NOV ID	Description	Demand Flow ped/h	Average Delay	Level of Service	Average Back Pedestrian	of Queue Distance	Prop Quoted	Effective Stop Rate
P2	East Full Crossing	53	27 3	LOSIC	0.1	0,1	0.83	0.83
P3	North Full Crossing	53	13 8	LOS B	0.1	0,1	0.59	0.59
P4	West Full Crossing	53	27 3	LOS C	0.1	01	0.83	0.63
All Pe	destnans	158	22.8	LOS C			0 75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements

Site: Ex Sat mid

Edinburgh Road & Smidmore Street

Existing Saturday lunchtime peak hour

Signals - Fixed Time - Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence

Movement Performance - Vehicles Demand Flo Total OD Mov Level of Service **Back of Queue** Prop. Queuer HV East, Edinburgh Road east 5 **T**1 260 2.0 0.411 20.8 LOS B 70 49.6 0.77 0.66 32.2 6 R2 2.0 0.411 22.C LOS B 70 49 G 070 40 0.60 31.6 300 LOS B 2.0 0.411 21.0 7.0 Approach 49.6 0.77 0.66 32.1 North: Smidmore Street 7 L2 30 20 0.034 18.5 LOS 8 0.6 4.4 0.56 0.68 34.7 9 R2 345 20 0.412 21.4 LOS B 8.7 62.1 0.69 0.79 33.1 375 0.412 21.2 LOS B 8.7 62.1 0.78 Approach 2.0 0.68 33.2 West: Edinburgh Road west 10 1.2 465 20 0.299 73 LOSA 1 B 13.1 0 22 0.66 42.4 11 150 2.0 0.208 LOS B 4.0 11 18.3 28.3 0.72 0.58 33.4 615 20 0.299 10.0 LOS A Approach 40 28.3 0.34 0.64 39.8 All Vehicles 1290 2.0 0 412 15.8 LOS B 8.7 62.1 0.54 0.68 35.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of Ali Heavy Vehicle Model Designation

Move	ement Performance - Pedestrians	in detrict		1 10 24				
Mov ID	Description	Demand Fiow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian	of Queue Distance m	Prop Queued	Effective Stop Rate
P2	East Full Crossing	53	18.3	LOS B	0.1	0.1	0.68	C.68
P3	North Full Crossing	53	21,8	LOS C	Q_1	Ō 1	0.74	0.74
P4	West Full Crossing	53	18.3	LOS B	C 1	0 1	0.68	0.68
All Pe	destnans	158	19.4	LOS B			0 7 0	0,70

Lavel of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement Intersoction LOS value for Pedestrians is based on average delay for all pedestrian movements

 Processed: Monday: 1 July 2013 1:00:26 PM
 Copyright © 2000-2013 Akcelik and Associates Pty Ltd

 S/DRA INTERSECTION 6:0:9:3896
 www.sicrasolutions.com

 Project
 G (Traffic/SIDRA 5:0/8853 Mainckville Masters)Edinburgh Road & Smidimure Street sip6

 8000030; COLSTON BUDD HUN 1 & KAFES PTY LTD; PLUS / 1PC

∇ Site: Ex Thu PM

Edinburgh Road & Sydney Steel Road Existing Thursday afternoon peak hour Giveway / Yield (Two-Way)

Move	ment Perfe	ormance - \	Vehicles		Marine and A					10 A 1	3454
Mav ID	OD Mov	Demand Total	t Flows HV	Deg Satn	Average Delay	Level of Service	95% Back o Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
South	Sydney Ste	el Road	and the second second	Commission of Calegory	306	FOR DE LA COMPANY	Ven	m	112251	perveh	km/h
1	L2	30	2.0	0 032	8.8	LOS A	0.1	0.8	0.49	D 68	41.3
3	R2	15	2.0	0.014	6.8	LOS A	0.1	0.8	0.47	0.67	41.5
Approa	ach	25	2.0	0.032	88	LOS A	G.1	0.8	0.49	0.68	41.4
East E	Edinburgh Ro	ad east									
4	L2	5	2.0	0.049	0_4	LOS A	0.0	0.0	0.00	0.05	49.6
5	T1	540	20	0.049	Q, 1	LOS A	0.0	00	0.00	0.01	45.9
Approa	ich	545	20	0.235	0.1	NA	0.0	0.0	0.00	0.01	49.9
West: (Edinburgh Ri	oad west									
11	T1	150	2.0	0.083	26	LOSA	0.7	4.7	C:55	0.03	43.5
12	R2	5	2.0	0.083	26	LOSA	0.7	47	0.55	0.03	43.5
Арргоа	ch	155	2.0	0.083	2.6	NA	07	4.7	0.55	0.03	43.5
Al: Veh	icles	745	20	0 235	1 1	NA	07	4.7	0.14	0.05	47.8

Level of Service (LOS) Method, Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements

NA Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Processed Monday, 1 July 2013 1 11:39 PM	Copyright © 2000-2013 Axcellik and Associates Pty Ltd	
SIDRA INTERSECTION 6 0 9 3896	Www.sidgesplutions.com	SIDRA
Project: G.(Traffic)SIDRA 6 0)8053 Marrickville Mosters/En		INTERSECTION 6
8099939, COLSTON BUDD HUNT & KAFES PTY LTD, P;	US / 1PC	INTERSECTION 6

∇ Site: Ex Sat mid

Edinburgh Road & Sydney Steel Road Existing Saturday lunchtime peak hour Giveway / Yield (Two-Way)

Move	ment Perfo	ormance - V	ehicles			1 1 3				100	10.00
Mov ID	OÐ Mov	Demand Total veb/h	Flows HV	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles	of Queue Distance	Prop. Quoued	Effective Stop Rate	Average Speed
South	Sydney Ste	Contraction of the local distance of the loc	and all control			Consequence of the second	1998 1978 1974 2078 2078 2078 2078 2078 2078 2078 2078	AND DEPENDENTLY REAL	CHICKLESS CO.	CHEVRONE CALIFORNIA COLUMN	and a second
1	L2	15	2 C	0.012	7.5	LOSA	D, C	0.3	0.34	0.58	42.0
3	R2	5	2 0	0.004	7.8	LOS A	0.0	03	0.38	0.59	41.
Approa	ach	20	2.0	0.012	7.6	LOS A	Q.0	0.3	0.35	0.58	41.
East: E	dinburgh Re	oad east									
4	L2	10	2.0	0.028	12	LOSA	0.0	0.0	0.00	0.16	48 (
5	T1	285	20	0 028	02	LOSA	0.0	0.0	0.00	0 03	49 (
Approa	ich	295	2.0	0 125	0.2	NA	0.0	0.0	0.00	0 03	497
West I	Edinburgh R	oad west									
11	T1	170	20	0.095	1.5	LOS A	06	4.4	0.40	0.05	44.9
12	R2	10	2.0	0.096	1.5	LOSA	0.6	4.4	0.40	0,05	44.9
sorqqA	ich	180	2,0	0 096	15	NA	0.6	4.4	0.40	0.05	44.9
All Veh	icles	495	20	0 125	1 0	NA	0.6	4.4	0.16	0.06	47 5

Level of Service (LOS) Method: Delay (RTA NSW)

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vohicle Model Designation

Processed Monday, 1 July 2013 1:12 42 PM Copyright © 2000-2013 Alcolik and Associates Pfy 1 th SIDRA INTERSECTION 6:0.9 3896 www.sidrasolutions.com Project, GM/raffictSIDRA 6 0/8053 Manickville Masters/Edinburgh Road & Sydnay Steel Road.sip6 9000330, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC





B Site: Ex Thu PM + MM

Victoria Road & Edinburgh Road

Existing Thursday afternoon peak hour + Marrickville Metro

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfe	ormance - V	/ehicles	1.91 1.285		建固定	S18434	ALC: NO			
Mov ID	OD Mov	Domand Total veh/h		Deg Satn v/c	Average Delay	Level of Service	95% Back of Vehicles	of Queue Distance	Prop Queued	Effective Stop Rate	Average Speed
South	Victoria Ro	ad south			A REAL PROPERTY AND	14.0 814 (54 (54	1000	CONTRACTOR OF	STAN LITT	STRATIC	kon/Fil
2	T1	405	2.0	0.377	15.7	LOS B	13.0	92.8	0.60	0 53	40.5
3	R2	185	2.0	0.510	33.0	LOS C	7.7	54.6	0.74	0.81	32.2
Approa	ach	590	20	0 510	21 1	LOS B	13.0	92 8	0.64	0.62	37 5
East: 6	Edinburgh Re	oad									
4	L2	590	2.0	0.522	11.6	LOS A	10.5	74.6	0.40	G.74	46.0
6	R2	290	2.0	C.232	39.5	LOS C	10.5	74.6	0.76	0.79	29.5
Approa	ach	880	2.0	0 522	20.8	LOS B	10.5	74.6	0.52	0.75	38.9
North.	Victoria Roa	d north									
7	L2	200	20	0 305	16.1	LOS B	8.5	60 G	0.54	0.69	41.2
8	11	460	20	0:305	15.3	LOS B	10.0	71.4	0.56	D.55	41 1
Арріоз	ch	660	2.0	0.305	15.5	LOS B	10.0	714	0.56	0 59	412
All Veh	icles	2130	2.0	0 522	19.2	LOS B	13.0	92 B	0.57	0.67	39 1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Move	ment Performance - Pedestrians				A Martin		dri drej	
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Fedestrian	of Queue Distance	Prop. Queved	Effective Stop Rate
P1	South Full Crossing	53	34 6	LOSID	0.1	0.1	0.76	0.76
P2	East Full Crossing	53	15-1	LOS B	0.1	0 1	0.52	0.52
All Pa	festrians	105	25.3	LOSIC			0.64	0.64

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed Friday 19 July 2013 5 39:49 PM SIDRA INTERSECTION 6 0 9 3896 Project GR1ath:SIDRA 6 0/8053 Martickvile Masters/Victoria Road & Edinburgh Roan sipfi 1000030 COLSTON BUDD HUNT & KATES PTY LTD, PLUS / TPC

Site: Ex Sat mid + MM

Victoria Road & Edinburgh Road

Existing Saturday lunchtime peak hour + Marrickville Metro

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence

Move	ment Perfe	ormance - V	/ehicles							N.C. State	
Mov ID	OD Mov	Demand Total veh/h	l Flows HV	Deg Sain	Average Delay	Level of Service	95% Back o Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed km/h
South	Victoria Ro		Contract Contract	an a	NOT BEAU, ALLOW	and a second	100000000000000000000000000000000000000	1.000 0.000 0.000	Law & Friday	210 PC(0,1)	South
2	T1	395	2.0	0 274	5.0	LOSA	71	50.5	0.34	0,30	51.2
з	R2	395	20	0.651	18.8	LOS B	12.4	88.0	0 57	0.80	40.3
Approa	ach	790	2.0	0.651	11 9	LOSA	12.4	88 Q	0.46	0.55	45 1
East E	Edinburgh R	oad									
4	L2	440	2.0	0.383	96	LOS A	33	23 7	0 21	0.68	47 9
6	R2	300	20	0 546	61.4	LOS E	83	59.3	0 97	0.81	23 0
Approa	ach	740	20	0 546	30.6	LOSC	8.3	59.3	0 52	0.73	33.3
North:	Victoria Roa	d north									
7	L2	250	20	0_176	93	LOSA	1.8	13.1	0 19	0.67	48 1
ß	T1	280	2.0	0.176	5.0	LOSA	4 2	29.8	0 30	0 30	51.5
Approa	ach	530	20	0 176	7.0	LOS A	4 2	29.8	0.25	0 47	49.8
All Veh	icles	2060	2.0	0.651	17.4	LOS B	12.4	88.0	0.43	0.60	40 9

Level of Service (LOS) Method Delay (RTAINSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelix M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ement Performance - Pedestrians				The supervision			10 10 10
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian	of Queue Distance	Prop Queued	Effective Stop Rete
P1	South Full Crossing	53	54.3	LOS E	02	0.2	0.95	0.95
P2	East Full Crossing	53	64	LOS A	01	01	0 33	0.33
All Pe	destrians	105	30.3	LOS D			0 64	0.64

t evel of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements

Processed: Monday 1 July 2013 1 32:29 PM SIDRA IN TERSECTION 6 0.9.3890 Project: G \Traffic\SIDRA 6.0\8053 Marrickville MastersWictoria Road & Edicburgh Road sip6 8000030, COLSTON BUDD RUNT & KAFES PTY LTD, PLUS / TPC

Site: Ex Thu PM + MM

Edinburgh Road & Fitzroy Street Existing Thursday afternoon peak hour + Marrickville Metro Roundabout

	and the second se	ormance - \								erentesan	Livia citi
Mov ID	OD Mov	Demano Total veh/h	1 Flows HV	Deg. Satn	Average Delay	Lavel of Service	95% Back Vehicles	of Queue Distance	Prop Queued	Effective Stop Rate	Average Speed
South	Fitzroy Stra	eet	CHECKING ALCONO	1000	1996	TAKE PUTKIN	Ven	m		par veh	km/h
1	L2	90	20	0416	18.8	LOS B	29	20.5	0.84	1.95	40.3
3	R2	155	20	0 4 1 6	18.8	LOS B	29	20.5	0 84	195	40.3
Appro	ach	245	20	0.416	18.8	LOS B	29	20.5	C.64	0.98	40.3
East I	Edinburgh R	pad east									1010
4	L2	175	2.0	0.556	86	LOSA	79	5⁄6 G	0.31	1.07	47.9
5	T1	79D	20	0 656	86	LOSA	7.9	56.6	0.31	1.07	47.9
Approa	ach	965	2.0	0.656	86	LOSA	79	56 6	0.31	0:54	47.9
West:	Ecinburgh R	oad west									
11	T1	350	2.0	0.353	9.5	LOSA	2.6	18.2	0.47	1.24	47 :
12	R2	35	20	0.353	9.5	LOSA	2.6	18.2	0.47	1.24	47.1
Арргоа	ich	385	20	0.353	9.5	LOSA	2.6	18.2	0.47	0.62	47.1
All Veh	icles	1595	20	0 656	10.3	LOS A	79	56.6	043	0 62	46.4

Level of Service (LOS) Method | Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on avorage delay for all vehicle movements

Roundabout Capacity Model: SIDRA Standard

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, 1 July 2013 1 34 18 PM	Copyright © 2000-2013 Akcelik and Associates Pty Ltd
SICRA INTERSECTION 6 0.9.3896	www.sldrasolutions.com
	www.siorasolutions.com
Project: G. Traffic/SIDRA 0.0/8003 Marrickville Masters/E	dinburgh Road & Filzroy Street sip6
8000030, COLSTON RUDD HUNT & KAFES PTY LTD, P	LUS / 1PC

🕅 Site: Ex Sat mid + MM

Edinburgh Road & Fitzroy Street Existing Saturday lunchtime peak hour + Marrickville Metro Roundabout

10000	CONTRACTOR OF THE OWNER	ormance - V	and the second second	Deg.		- 10 - 10					
Mov	OD		Demand Flows		Average	Lavel of	95% Back		Prop	Effective	Avenage
ID	Mav	Total veh/h	HV 94	Saln	Dolay	Service	Vehicles	Distance	Queued	Stop Rate per veh.	Speed km/h
South:	Fitzroy Stre					Charles of the second second	Number of Street, St			States of Long Long Long	
1	L2	65	2.0	0.434	17,7	LOS B	3 0	21,4	0.80	1 89	41_1
3	R2	225	2.0	0.434	17.7	LOS B	3.0	21.4	0.80	1,89	41.1
Арргоа	ach	290	2 .0	0 434	17.7	LOS B	3.0	21.4	0.80	0 94	41 1
East E	Edinburgh Re	oad east									
\$	L2	175	20	0 575	8.5	LOS A	54	457	0 26	1 09	48.1
5	T1	675	2.0	0.575	8.5	LOSA	6.4	45.7	0 25	1 09	4B 1
Арргоа	аср	850	2.0	0.575	8.5	LOS A	6,4	45.7	0 26	0.54	48 1
Nest:	Edinburgh R	oad west									
11	T1	615	2.0	0.629	10.7	LOS A	6.2	44.1	0.73	1.42	46.1
12	R2	30	2.0	0.629	10.7	LOSA	6.2	44.1	0.73	1.42	46.1
Арргоа	ach	645	2.0	0 629	107	LOSA	62	44 1	0.73	0.71	46 1
All Vehicles		1785	2.0	0.629	10.8	LOS A	6.4	45.7	0.52	0 67	46.1

Level of Service (LOS) Method, Dolay (RTA NSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Processed: Monday, 1 July 2013 1:35 16 PM Copyright © 2000-2013 Akcelik and Associates Pty Ltd SIDRA INTERSECTION 6.0.9 3896 www.sidraso:utions.com Project C/Traffic/SIDRA 6 0:8053 Marrickv-lie Masters/Edinburgh Road & Fitzroy Street sip6 8000030 CO: STON BUDD HUNT & KAFES PTY LTD PLUS / 1PC

Site: Ex Thu PM + MM

Edinburgh Road & Smidmore Street

Existing Thursday afternoon peak hour - Marrickville Motro Signals - Fixed Time - Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Mov	ement Perf	ormance -	Vehicles			1115717-8		프 프 등 강남		1000	
Mov ID	OD Mov	and the second second second	d Flows HV	Deg Saln	Average Delay	Leval of Service	95% Back o Vehicles	d Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
East:	Edinburgh F	load east	AND DESCRIPTION OF THE	1010/1010/001/1112/001	100000	NERS CONTRACT	A CONTRACTOR OF	. n:	1111 232/001	per ven	km2h.
5	T1	620	20	0.657	13.7	LOSA	14.0	100.0	C.69	0.62	36.2
6	R2	50	20	0.657	14.7	LOS B	14.0	100,0	0.74	0.68	35.6
Аррго	ach	670	2.0	0.657	138	LOSIA	14.0	100.0	0.69	0.63	35.2
North	Smidmore S	Street									002
7	L2	95	2.0	0 160	27.4	LOS B	2.7	18.9	0.75	0.74	30.2
9	R2	345	20	0 672	31.7	LOS C	11.5	81_8	0.89	0.83	28.5
Appro	ach	440	20	0,672	30.8	LOS C	11.5	81.8	C.86	0.81	28.8
West	Edinburgh R	load west									200
10	L2	280	2,0	0.180	72	LOSIA	: 0	7.0	0.19	0.64	10.5
11	Τí	225	2.0	0,223	10.9	LOSA	47	33.4	0.57	0.64	42.5
Арргаа	ich	505	2.0	0 223	9.9	LOS A	4.7	33.4	0.35	0.57	38-2 40,5
Al: Veh	licles	1615	2 ()	0.672	06.9	LOS B	14_0	100.0	0.63	0.66	34 9

Level of Service (LOS) Method: Delay (RTA NSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are cased on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity_SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ement Performance - Pedestrians		State Law					
Mav ID	Description	Demand Flow ped/h	Average Delay	Lovet of Service	Average Back Pedestrian	of Quoue Distance	Prop. Quantid	Effective Stop Rate
12	East Full Crossing	53	27.3	LOS C	C 1	0.1	0.83	0.83
РЗ	North Full Crossing	53	13.8	LOS B	0_1	0.1	0.63	0.63
F4	West Full Crossing	53	273	LOS C	Ū 1	0.1	0.63	0.53
Al' Pe	destnans	158	22.8	LOSIC			0 75	0 75

SIDRA INTERSECTION 6

Level of Service (LOS) Method: SIDRA Podestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements

CONCRUMENTS FOR THE STREET	Copyright of 2000-2013 Almelik and Associates Pty Ltd www.sideacoutions.com
Project: COMUNICSIDERA 5 0/8053 Martickville Masters/Ex 2000030 COLSTON BLIDD HUNT & KAFES PTY LTD FU	Inburgh Jose & Shudurup Great e at

B Site: Ex Sat mid + MM

Edinburgh Road & Smidmore Street

Existing Saturday lunchtime peak hour + Marrickville Metro

Signals - Fixed Time - Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfo	ormance - V	/ehicles	12.3				llas of t			
Mov IÐ	OD Mov	Demand Total veh/h	Flows HV	Deg, Saln	Average Delay	Level of Service	95% Back Vehicles	of Queua Distance	Prop. Queued	Effective Stop Rate der veh	Average Speed
East	Edinburgh R	CONTRACTOR AND A DESCRIPTION OF A DESCRI					And one of the second			BURNEY CALIFICATION	Km2
5	T1	425	2.0	0.621	20 2	LOS B	11_1	79.0	0 79	0.69	32.4
6	R2	40	20	0 621	21.8	LOS B	11.1	79.0	0.84	0.74	31.
Appro	ach	465	20	0 621	20.4	LOS B	11.1	79 0	0.80	0.69	32.3
North:	Smidmore S	Street									
7	L2	145	2.0	0.181	21.4	LOS B	34	24 6	0.65	Q 74	33.1
)	R2	425	2.0	0.643	24.6	LOS B	12.2	87.0	078	0.81	31.5
Approa	ach	570	20	0 643	23.8	LOS B	12.2	87.0	0 75	0,80	31.9
West:	Edinburgh R	oad west									
0	L2	540	2.0	0.347	73	LOSA	2.3	16 1	0,23	0 66	42 4
1	T1	300	2.0	0.378	17.6	LOS B	82	56 2	0.74	0.63	33.7
Approa	acri	840	2.0	0.378	11.0	LOS A	8 2	58 2	D_41	0 65	38.8
All Ver	licles	1875	2.0	0 643	17.2	LOS B	12.2	87.0	0.61	0.71	34.6

Level of Service (LOS) Method Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vahicle movements

SIDRA Standard Delay Model Is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akçalik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ement Performance - Pedestrians	/ Franklore II				212191		
Mov ID	Description	Demand Flow	Average Delay Sec	Leval of Service	Average Back Pedestrian Ged	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	53	20.4	LOSC	01	01	0 71	0 71
P3	North Full Crossing	53	19.6	LOS B	01	D 1	0.70	070
P4	West Full Crossing	53	20.4	LOS C	0,1	01	0.71	0.71
Ali Pe	destrians	15B	20.1	LOS C			0.71	0.71

Level of Service (LOS) Mothod: SIDRA Pedestnan LOS Method (Based on Average Delay) Pedestnan movement LOS values are based on average delay per pedestrian movement Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements

Processed: Monday, 1 Jury 2013 1:37-32 PM Copyright © 2000-2013 Akcelik and Associates Pty Lto SIDRA INTERSECTION 6.0-9-3896 www.aidrasolutions.com Propot: GATrafic/SIDRA 6 0/8063 Marrickville Mastars/Eulinburgh Road & Smidmore Street,sipfi 8000020, COLSTON RUDD HUNT & KATES PTY LtD, Pt US / 1PC

𝔄 Site: Ex Thu PM + MM

Edinburgh Road & Sydney Steel Road Existing Thursday afternoon peak hour + Marrickville Metro Roundabout

Move	ement Perfe	ormance - '	Vehicles				a Vie Beth		I LI LA LAN		anc La
Mov ID	OD Mov	Deman Total vet/h	d Flows HV %	Deg. Satn	Average Delay	Leval of Service	Vehicles	of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
South	Sydney Ste	el Road	CONTRACT AND		506		ven	m		per veh	kan/h
1	L2	GE	2.0	0 072	12 5	LOS A	0.4	3.0	0.72	1.51	38 6
3	R2	15	2.0	0.072	12 5	LOSA	0.4	30	0.72	1.51	38.6
App/o	ach	45	2.0	0 072	12 5	LOS A	04	3.0	0.72	0.76	38.6
East:	Edinburgh Re	pad east									
4	L2	5	20	0.448	6.6	LOSA	3.6	25.9	0.42	1.07	42.4
5	Τ1	540	2.0	0.448	66	LOSA	3.6	25.9	0.42	1.07	42.4
Appro	ach	545	20	0 448	66	LOSA	3.6	25 9	0 42	0.53	42.4
West:	Edinburgh R	oad west									
11	Τī	215	20	0.217	8.1	LOSA	17	11.9	0.13	1.16	44.1
12	R2	5	20	0.217	81	LOS A	17	11.9	0.13	1 16	44 1
12.	U	100	2.0	0.217	8 1	LOSA	1.7	11.9	0.13	1:6	44 1
Арогоа	ach	320	2.0	0.217	8 1	LOSA	1.7	11.9	0,13	0.58	44 1
All Veh	icles	910	2.0	0.448	7.4	LOS A	36	25,9	0 33	0 56	42 8

Level of Service (LOS) Method, Deray (RTA NSW).

Vehicle movement LOS values are cased on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Processed: Monday, 1 July 2013 1 43:39 PM Copyright © 2000 2013 Akcollk and Associates Pty Ltd SIDRA IN TERSECTION 6 0.9 3896 www.sidrasolutions.com Project: G Vtraffic/SIDRA 6 0/8053 Martickville Masters/Edinburgh: Road & Sydney Steel Road sip6 8000030, CCI STON PUDD HUNT & KAFES PTY LTD /PEuS / TPC
🕅 Site: Ex Sat mid + MM

Edinburgh Road & Sydney Steel Road Existing Saturday lunchtime peak hour + Marrickville Metro Roundabout

	and the second sec	ormance - V	111-111-111-			Contractor of the local division of the loca			CALL BUILDING	-#	-
Mov ID	OD Mov	Demand Total	Flows HV	Deg Satn	Average Delay	Level of Service	95% Back Vehicl es	of Queue Distance	Prop. Queued	Effective Stop Rate	Averag Speed
South:	Sydney Ste	veh/h el Road	76	v/c	Salo	CONTRACTOR OF	Hell.			per veh	km/
1	L2	15	2.0	0.026	10.3	LOSA	0,1	1.0	0.60	1.31	40.
3	R2	5	20	0.026	10.3	LOSA	0.1	1.0	0.60	1,31	40.
Asproa	ach	20	2.0	0.026	10.3	LOSA	0.1	10	0.60	0.65	40
East E	Edinburgh Re	oad east									
4	L2	10	2.0	0 262	7.1	LOSA	1.8	12.9	0.46	1 15	42.
5	T 1	285	20	0 282	7_1	LOS A	1.8	12.9	0.46	1,15	42
Approa	ach	295	20	0.282	71	LOS A	1.8	12.9	0.46	0.58	42.
West: I	Edinburgh R	oad west									
11	T1	270	2.0	0.278	8.5	LOSA	23	16.1	0.07	1:23	64
12	R2	10	2.0	0 278	8.5	LOSA	23	16.1	D 07	1.23	44
12u	U	165	2.0	0.278	8.5	LOSA	23	16.1	0.07	1.23	44.
Approa	rla	445	20	0.27B	8.5	LOS A	2.3	16 1	0.07	0.62	44.
All Veh	cles	760	2.0	0.282	80	LOSA	2.3	16 1	0.23	0.60	43

Level of Service (LOS) Mathod: Delay (RTA NSW)

Vehicle movement LOS values are based on average delay per inovement.

Intersection and Approach LOS values are based on average delay for all vehicle movements

Roundabout Capacity Model SIDRA Standard

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Processed: Monday, 1 July 2013, 1:45-09 PM SIDRA INTERSECTION 6:0-9-3896 Project: G:\Traffic\SIDRA 6 0(8053 Marr.ckv lio Masters\Edinburgh Road & Sydney Step: Road s:p0 B000030, COLSTON RUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Thu PM + MM + dev

Victoria Road & Edinburgh Road

Existing Thursday alternoon peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Peri	onnance - V	Vehicles					No. Contraction	Diam'r a'r		
Mov ID	OD Mev	Demano Total veh/h		Deg Satn	Average Delay	Level of Service	95% Back Vehicles	of Queue Distance	Prop Queued	Effective Stop Rate	Average Speed
South:	Victoria Ro	ad south		and the second second	2120		ven	m	121111-11	per veh	kin/h
2	T1	405	20	0.356	13.4	LOS A	12.0	86.6	0 56	0.49	42 3
3	R2	210	2.0	0.554	31.2	LOS C	86	61.2	0 73	0.82	33.1
Арргоа	ch	615	2.0	0.554	19 5	LOS B	12 0	85.6	0.62	D 6D	38.6
East E	dinburgh R	oad									
4	L2	615	2.0	0 556	11.7	LOS A	11.5	818	0.42	0.75	45.9
6	R2	310	20	0.275	43,0	LOS D	11.5	81.8	0.80	0.79	28.2
Approa	ch	925	2 0	0.555	22.2	LOS B	11.5	B† B	0.55	0.76	38.0
North: N	/ictoria Roa	ad north									
7	L2	220	2,0	0.296	14 3	LOSA	78	55.8	0.49	0.68	42.7
8	T1	460	2.0	0 296	13.2	LOSIA	9.6	68.2	0.52	0.52	42.8
Approac	sh	650	2.0	0 296	13.6	LOSA	9.6	68.2	0.51	0 52	42.8
Al-Veha	cles	2220	20	0 556	1.9.B	LOS B	12.0	85.6	0.56	0.66	39.5

Level of Service (LOS) Method Delay (RTAINSW)

Vehicle movament LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap Acceptance Capacity' SIDRA Standard (Akçelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Move	ement Performance - Pedestrians	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				An out and		
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Sarvice	Average Back Pedestrian	of Queue Distance	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	37 7	LOS D	0.1	01	0.79	0.79
P2	East Full Crossing	53	14 0	LOS B	0.1	0.1	0.48	0.48
All Pe	destrians	105	25.9	LOS C			C.64	0.64

Lovel of Service (LOS) Method, SIDRA Pedestrian LOS Method (Based on Average Dolay) Podestrian movement LOS values are based on average delay per pedestrian movement. intersection LOS value for Pedestrians is based on average delay for all pedestrian movements

Processed Friday 19 July 2010 5:40 40 PM Cupyright to 2008-2013 Akcelik and Associates Pty Ltd SIGRA INTERSECTION 6 0.9.3898 Project: GritsffciSIDRA 6.0/8053 Marrickville MastersWictoria Road & Edinburgh Road sip6 8000030, COLSTON BUDD / UNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Sat mld + MM + dev

Victoria Road & Edinburgh Road

Existing Saturday lunchtime peak hour + Marrickville Metro + Masters

Signals - Fixed Time – Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfe	ormance - V	ehicles			21×14		1 2 cl aller			
Mov ID	OD Mav	Demand Total veh/h	Flows HV %	Deg Saln v/c	Average Delay sec	Level of Service	95% Back of Vehicles	of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South	Victoria Ro	ad south									
2	T1	395	20	0.290	67	LOS A	8.3	59.0	0.39	0.35	49.0
3	R2	450	2.0	0.497	32 2	LOS C	14.8	105.1	0.72	0.90	32.5
Appro	ach	845	2.0	0 497	20.3	LOS B	14.8	105 1	0.57	0 64	38.7
East: I	Edinburgh R	oad									
4	L2	495	20	0 357	11.9	LOSA	7 2	51 4	035	0.72	45.8
6	R2	350	20	0.499	56.7	LOS E	9.3	66.2	0.94	0.61	24.1
Appro	ach	845	20	0.499	30.4	LOSC	9.3	66.2	0.59	0.76	33.4
North:	Victona Roa	ad north									
7	L2	300	2.0	0.486	32.4	LOS C	16.2	115.3	0.76	0.80	32.0
8	11	280	2.0	0.486	417	LOS C	16.2	115.3	0.88	D 78	27.6
Approa	ach	580	2.0	0 486	36.9	LOSIC	16 2	115.3	0.82	0.79	29 7
All Ve?	licles	2270	2.0	0 499	28.3	LOS B	16 2	115 3	0 64	0,72	34 1

Level of Service (I.OS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Mov	ement Performance - Pedestriar	IS						10.19 Z 1
Móv ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue D)stance m	Prep Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.6	LOS E	0.2	0 2	0.91	0.91
P2	East Full Crossing	53	46.0	LOS E	0 2	0 2	0.88	0.88
All Pe	destrians	105	47.8	LOS E			0 89	0.89

Level of Service (LOS) Method. SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on avorage delay per pedestrian movement Intersection LOS value for Pedestrians is based on avorage delay for all pedestrian movements.

Processed Friday, 19 July 2013 5/41:35 PM Copyright © 2000-2013 Accelik and Associates Ply Ltd StDRA INTERSECTION 6.0 9 3896 www.sidrasolutions.com Project: G3/trafle3SIDRA 5 0/8053 Mamokville MastersWictoria Road & Edinourgh Road.sip6 2806030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

𝒛 Site: Ex Thu PM + MM + Masters

Edinburgh Road & Fitzroy Street

Existing Thursday afternoon peak hour + Marrickville Metro + Masters Roundabout

Mov ID	OD Mov	Demano Total veh/h	l Flows HV	Deg Saln	Average Delay	Level of Service	95% Back (Vehicles	of Queue Distance	Prop Queued	Effective Stop Rate	Average Speed
South	Filzroy Stre		712	v/c	560	2 1 1 2 1 1 2	veh		1174月11月	per veh	kavh.
1	L2	90	20	0.471	20.6	LOS B	3,6	25.6	0.88	2.04	39.1
3	R2	175	2,0	0.471	20.6	LOS B	3.6	25.6	0.88	2.04	39 1
Approa	ach	265	20	0.471	2D 6	LOS B	3.6	25.6	0.88	1 02	39 1
East E	Edinburgh Ro	oad east									
4	L2	195	20	0.691	8,6	LOSA	92	65.7	0 34	1 0-5	478
5	T1	825	2.0	0.691	8.6	LOS A	9.2	65.7	0.34	1 06	47.8
۱рргоа	ich	1020	2.0	0.691	8.6	LOSA	9,2	65 7	0.34	0.63	47.8
West: E	Edinburgh R	oad west									
11	TI	385	2.0	0 395	97	LOSA	3.0	21.2	0.52	1.27	46.9
2	R2	35	2.0	0 395	9.7	LOSA	3.0	21.2	0.52	1.27	46.5
Арргоа	ch	420	2.0	0 395	9.7	LOSA	3.0	21.2	0.52	0 64	46 9
N: Veh	icles	1705	20	0.691	10.7	LOS A	9.2	65.7	0.47	0.63	46.0

Level of Service (LOS) Method: Delay (RTAINSW),

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Project: G \Traffic\SIDRA 6.0/9/3896 Project: G \Traffic\SIDRA 6.0/8053 Marrickville Masters\	Copyright © 2000-2013 Akcelik and Associates Pty Ltd www.sidtasolutions.com Edinburgh Roart & Fitzroy Street sip6 PLUS 4 PC	SIDRA INTERSECTION
-8000030, COLSTON BUDD HUNT & KAFLS PTYLED, I	PLUS / 1PC	HALEKSELLON

6

♥ Site: Ex Sat mid + MM + Masters

Edinburgh Road & Fitzroy Street

Existing Saturday lunchtime peak hour + Marrickville Metro + Masters Roundabout

Move	ment Perfe	ormance - V	ehicles	illa featur			Several West			10-10-07-2	
Mov ID	OD Mav	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Loval of Service	95% Back Vehicles veh	of Queue Distance m	Prop Queued	Effective Stop Rate	Average Speed km/h
South	Fitzroy Stre		a substantia de la composition de la compositi				and the second second second			and south and	and the second se
1	L2	65	2.0	0 574	22 4	LOS B	51	36-1	0.90	2 13	37.9
3	R2	275	20	0 574	22.4	LOS B	51	36 1	0.90	2 13	37.9
Аррго	ach	340	20	0.574	22.4	LOS B	5.1	36.1	0.00	1.05	37,9
East: I	Edinburgh R	oad east									
4	L2	225	2.0	C.672	8,6	LOSA	9.7	69 0	0.34	1.05	47.5
6	11	775	2.0	0.672	86	LOSA	9.7	69.0	0.34	1 05	47.8
Аррго	ach	1000	2.0	0,672	66	LOSA	97	69.0	0.34	0.52	47.8
West	Edinburgh P	load west									
11	T1	715	20	0 773	14 4	LOSA	11.4	81.1	0.93	173	43 G
12	R2	30	20	0.773	14.4	LOS A	11.4	81	0.93	173	43.6
Approa	ach	745	2.0	0.773	14.4	LOS A	11.4	81.1	0.93	0 87	43.6
All Veh	ricles	2085	20	0.773	12.9	LOS A	11.4	81_1	0.64	0,73	44.4

Level of Service (LOS) Method: Delay (RTAINSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

 ${\rm HV}\,(\%)$ values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Friday, 19 July 2013 5:59 59 PM Copyright © 2000-2013 Akcelik and Associates Pty Ltd SIDRA INTERSECTION 6 0.3896 www.skdrasolutions.com Project: G \Traffic\SIDRA 6 0\8953 Marrickville Mosters\Ecinburgh Road & Filzroy Street.sipfi 8000030, COLSTON BUDD HUNT & KAFES PTY LTB, PCUS7 1PC

Site: Ex Thu PM + MM + dev

Edinburgh Road & Smldmore Street

Existing Thursday afternoon peak hour + Marrickville Metro + Masters Signals - Fixed Time - Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence

Move	ment Per	formance - \	Vehicles		医胆带 一						
Mov ID	OD Mav	Demano Total veh/h		Deg Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles	Distance	Prop Queued	Effective Stop Rate	Averaga Speed
South	RoadNam		5-1-	in an a state of the state of t	51 G	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		m	1250 314 13	per veh	km/h
1	12	84	2.0	0.141	20 5	LOS B	2.6	18.8	0.62	0.71	38.5
2	T1	32	2.0	0 141	20.5	LOS B	26	18.8	0.62	0.71	38.5
3	R2	58	2.0	0 122	28.4	LOS B	16	11 1	0.22	0.74	34.5
Арргоа	ich	174	2.0	0.141	23.1	LOS B	26	18.8	0.65	0.72	37.0
East: E	dinburgh R	load east									
4	L2	58	2.0	C.415	25.8	LOS B	7.7	54.8	0.84	G.74	312
5	Τ1	620	2.0	0 717	27 0	LOS B	15 5	110.3	0.91	0.81	29.5
6	R2	50	2.0	0.364	47 5	LOS D	20	14.2	0.99	074	23.5
Арргоа	ch	728	2.0	0.717	28.3	LOSB	15.5	110 3	0_91	0.80	29.1
North: S	Smidmore S	Street									
7	L2	95	20	ő 152	19.1	LOS B	2.9	20.7	0 62	0.70	35.2
8	T1	32	20	0 152	19,1	LOS B	2.9	20 7	0.62	0.70	35.2
9	R2	345	2.0	0.715	32 5	LOS C	12.4	88.4	0.92	C.88	28.2
Approa	on	472	2 D	0.715	28 9	LOS C	12.4	88.4	0.84	0.83	29.8
West: E	dinburgh R	oad west									
10	L2	280	2.0	0 489	31.0	LOS C	9.0	64 1	0.86	081	28,8
11	71	225	2.0	0 374	23.3	LOS B	9.G	64.1	0.82	0.69	30.8
12	R2	84	2.0	0.613	51,5	LOS D	3.5	24.9	1 00	080	25.6
Approac	:h	589	2.0	0.613	31.0	LOS C	9.0	64.1	0 87	0 76	28.9
All Vehro	les	1962	2.0	0 717	26.8	LOS C	15,5	110.3	0 86	0.79	29.8

Level of Service (LOS) Method: Delay (RTA NSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akcolik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Move	ement Performance - Pedestria	ans					1.1.1.1.1	
Mav ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedesinen ped	of Queue Distance m	Prop Queued	Effective Stop Rate
[·• 1	South Full Crossing	53	25.7	LOSIC	0.1	0.1	0.80	0.80
P2	Fast Full Crossing	53	25.7	LOS C	0.1	0.1	0.80	C 80
123	North Full Crossing	53	257	LOS C	0.1	0.1	0.60	0.80
P4	West Full Grossing	53	257	LOS C	d 1	0 =	0.60	0.60
AL Pe	destrians	211	25.7	LOSIC			0.80	0.80

Livel of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements

Processed: Enday, 19 July 2010 5 43:50 FM Copyright © 2000-2013 Akcelik and Ast SIDRAINTERSECTION 6 0.9 3896 www.sidrasourtiens.com Project: G \Traffic\SIDRA 6 0\8053 Mampkvide Masters\Ed-rituingn Road & Smidmore Street sip5 8000030, GOUSTON BUDD HUNT & KATES PTY LTD, PLUS / TPC Copyright to 2000-2013 Akcelik and Associates Pily Ltc

Site: Ex Sat mid + MM + dev

Edinburgh Road & Smidmore Street

Existing Saturday lunchtime peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 88 seconds (OptImum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfo	rmance - V	ehicles		1.1.1.1.1						
Mov	OD	Demand		Deg	Average	Level of	95% Back		Prop	Effective	Average
ID	Μον	Total veh/h	HV	Satn v/c	Delay sec	Service	Vehicles	Distance m	Queued	Stop Rate	Speed km/n
South	RoadName	Torracia and and		119		TABLE & COL		A R R R R R R R R R R R R R R R R R R R		STREE ALCORDING	and Production Co.
1	L2	211	20	0 559	23.5	LOS B	6.7	47 5	0.90	0.81	36.4
2	T1	79	2.0	0.559	23.5	LOS B	6.7	47 5	0.90	0.81	36 4
3	R2	147	2.0	0.654	49 4	LOS D	6.4	45.4	0.99	0.84	26 2
Асрго	ach	437	2.0	0.654	32 3	LOS C	6.7	47 5	0_93	0 82	32 1
East:	Edinburgh Ro	ad east									
4	L2	147	20	0 549	41.2	LOS C	8.2	58.6	0.95	0.81	27.6
5	T1	385	20	0.823	41.9	LOS C	14,9	106_1	0.99	0.96	24.5
6	R2	40	2.0	0.160	43,9	LOS D	1.6	11.1	0.92	0.73	24.4
Appro	ach	572	2.0	0.823	41.8	LOS C	14,9	106.1	0.97	C.90	25.3
North:	Smidmore St	reet									
7	L2	145	2.0	0,243	17.9	LOS B	54	38,7	0,60	0 69	363
8	T1	79	20	0 243	17.9	LOS B	5.4	38 7	0.60	0.69	36.3
9	R2	425	20	0.860	46.8	LOS D	18.1	128 8	1.00	1, 11	23.7
Appro	ach	649	20	0.860	36.6	LOSIC	18.1	128.8	0.86	0.97	27.0
West:	Eoinburgh Ro	ad west									
10	L2	540	2 D	0,811	25 3	LOS B	14.5	102.9	0.96	0.91	31.2
11	T1	260	2 0	0 660	35 9	LOS C	14.5	102,9	0.97	0.83	25.8
12	R2	211	2.0	0 843	56.9	LOS E	10 1	72.1	: 00	0.93	24 1
Appro	ach	1011	2 C	0 843	34.6	LOSC	14.5	102.9	0.97	0.89	27.9
All Ve	nicles	2669	2,0	0_860	36 3	LOSIC	18 1	128 8	0.94	0.90	277

Level of Service (LOS) Method Delay (RTAINSW).

Vehicle movement LOS values are based on avorago delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ement Performance - Pedestrians			and the second			1941年1月	
Mov ID	Description	Domand Flow ped/h	Average Delay sec	Level of Sarvice	Average Back Pedestrian ped	of Queue Distance m	Prop. Queuad	Effective Stop Rate par ped
P1	South Full Crossing	53	35.5	LOS D	01	01	0.90	0.90
P2	East Full Crossing	53	39.2	LOS D	01	D 1	0.95	0.95
P3	North Full Crossing	53	35.5	LOS D	U 1	D_1	0.90	0.90
24	West Full Crossing	53	39.2	LOS D	O 1	0.1	0.95	0.95
All Pe	destrans	211	37 4	IOSD			0 92	0.92

Level of Service (LOS) Mothod, SIDRA Pedestrian LOS Method (Based on Average Dolay) Pedestrian movement LOS values are based on average delay per cedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Friday, 19 July 2013 5 4447 PM Copyright © 2009-2013 Aknelik and Associates Pty Ltd S DRA IN TERSECTION 6.0 9 3896 www.sk/rasotukons.com Project, G thatis/SIDRA 5 0/6053 Marrokville Masters/Ed nburgh Road & Smidmore Street sip8 2000030, COLSTON RUCD HUNT & KAFES PTY CTD, PLUS / 1PC

🐺 Site: Ex Thu PM + MM + dev

Edinburgh Road & Sydney Steel Road

Existing Thursday afternoon peak hour + Marrickville Metro + Masters Roundabout

		ormanco - V			International Automation						n il add
Mov ID	OD Mav	Demand Total veh/h	l Flows HV %	Deg Satn	Avorage Delay sec	Level of Service	95% Back of Vehicles	of Queue Distance	Prop Queued	Effective Stop Rate	Average Speed
South	Sydney Ste			CONTRACTOR OF THE	2002	17 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	veh			per veh	ken/h
1	L2	30	2.0	0,075	12.9	LOS A	04	32	0.74	1.54	38.2
3	R2	15	2.0	0.075	12.9	LOS A	0.4	3 2	0.74	1.54	38.2
Approa	ich	45	2.0	0.075	12,9	LOS A	04	3.2	0 74	0 77	38.2
East: E	dinburgh Re	pad east									
4	L2	5	2.0	0.478	6.6	LOS A	4.1	28.9	0.44	1.07	42 3
5	T1	580	2 0	0,478	6.6	LOS A	4.1	28.9	0.44	1.07	42.3
Approa	cn	585	20	C_478	66	LOSA	4.1	28.9	0.44	0.53	42.3
West: 6	dinburgh Re	oad west									12.0
11	T1	255	20	0.242	7.8	LOS A	19	13.7	0.13	1 14	44.0
12	R2	5	2.0	0 242	7.8	LOS A	1.9	13.7	0.13	1 14	44 0 44 0
12u	U	100	2.0	0.242	7,8	LOS A	1.9	13.7	0.13	5 14	44 C
Approa	ch	360	20	0 242	7.8	LOS A	1 9	13.7	0 13	0 57	44 C
All Vehi	cles	990	2.0	C:478	73	LOSA	4.1	28.9	0.34	D.56	42.7

Level of Service (LOS) Method: Delay (RTAINSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard

SIDRA Standard Delay Model is used. Control Dolay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akçel/k M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation

Processed: Enday, 19, July 2015 5:45 27 PM Copyright © 2000-2013 Accelik and Associates Pty Ltd SIDRA INTERSECTION 0.0 9 3590 www.sidrasolutions.com Project: G3/Traffic/S-DRA 6 0:8053 Marrickville Masters/Edinburgh Road & Sydney Steol Road.sip6 8000030, COLSTON BUDC HUNT & KAEES PTY LTD, PLUS / 1PC



♡ Site: Ex Sat mid + MM + dev

Edinburgh Road & Sydney Steel Road Existing Saturday lunchtime peak hour + Marrickville Metro + Masters Roundabout

Move	ment Perfo	ormance - V	ehicles								
Mov (D	OD Mov	Demand Total veh/n	Flows HV	D eg . Satn	Average Delay	Level of Service	95% Back o Vehicles	f Queue Distance	Prop Queued	Effective Stop Rate	Average Speed km/h
South	Sydney Ste			ALC: NO.	014					Contrast and contrast of the	
1	L2	15	2.0	0.029	11 2	LOSA	0.2	1.2	0.66	1,36	39 5
3	R2	5	2.0	0.029	11.2	LOS A	0 2	12	0.66	1,36	39,5
Appro	ach	20	2.0	0.029	11_2	LOS A	02	1.2	0.66	0.68	39 5
East: I	Edinburgh R	oad east									
4	τ2	10	2.0	0.370	7.2	LOS A	2.6	18.5	0.49	1 17	42,1
5	T1	385	2.0	0.370	7.2	LOSA	2.6	18 5	0.49	1.17	42.1
Appro	ach	395	2.0	0.370	72	LOSIA	2,6	16 5	0.49	0.59	42.1
West:	Edinburgh R	load west									
11	T1	370	2,0	0.338	8.0	LOS A	3.0	21.5	0.07	1 19	44 3
12	R2	10	20	0 338	8.0	LOS A	3 C	21.5	0 07	1 19	44 3
12u	U	165	2.0	0.338	8.0	LOS A	3 C	21.5	0.07	1 19	44.3
Appro	ach	545	5.0	0 338	0,6	LOS A	3.0	21.5	0.07	0.60	44.3
All Vel	ncles	960	2.0	0,370	77	LOS A	3 0	21.5	0.26	0,59	43.3

Level of Service (LOS) Method: Delay (RTA NSW)

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vahicle movements

Roundabout Capacity Model SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vohicle Model Designation.

Processed: Friday, 18 July 2013 5:45 50 PM SIDRA INTERSECTION 6 0 9.3859 Project: G 1Traffic/SIDRA 6 0:8053 Marrickvi le Masters/Edinburgh Road & Sydney Stoel Road sip6 anno030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC





ATTACHMENT 1

Revised Analysis of Potential Alternative Sites

In response to the decision of the JRPP on 23 May 2013, a revised analysis of the potential alternative sites has been undertaken by Urbis. A summary of this analysis is provided below. Due to the nature of this work and to provide suitable context to this work, the revised analysis has been prepared as previously provided in the original Planning Proposal document, being in the form of the Sequential Test and Site Suitability Criteria as outlined in the *NSW Draft Activities Centres Policy* (May 2010). Accordingly a revised Section 3.7 of the Planning Proposal report is provided below.

3.7 DRAFT NSW ACTIVITY CENTRES POLICY MAY 2010

The NSW Draft Activities Centres Policy (May 2010) (the 'draft Centres Policy') sets out the fundamental aims and principles to guide the formulation of regional and local planning strategies and the consideration of new development proposals.

The *draft Centres Policy* establishes key principles that form a state-wide policy context for the preparation of regional and subregional strategies and LEPs, and assists in determining the best location for new retail entrants such as Masters.

The aims of the draft Centres Policy are to:

- "Promote a network of activity centres that cater for the needs of business and places where people want to live, work, learn, play and visit;
- Provide sufficient flexibility within the planning system so that it can accommodate demand for a broad range of uses to help encourage investment and facilitate competition; and
- Provide guidance on how to manage broad scale expansion of dynamic business sectors".

The *draft Centres Policy* is based on six key planning principles to guide future development in and around activity centres and to provide for the emergence of new entrants.

- 1. Commercial development should be located in activity centres.
- 2. Activity centres should be able to grow and new activity centres form in a manner that is consistent with relevant and up to date regional or sub-regional strategies.
- 3. Market determines need for development.
- 4. The supply of development should accommodate market demand.
- 5. Activity centres should support a range of uses and contribute to a competitive market.
- 6. Activity centres should be well designed, sustainable and integrated with surrounding uses.

The six key planning principles area addressed in Section 7 of the Planning Proposal report and the Economic Impact Assessment included as **Appendix B** of the Planning Proposal report.

In considering out-of-centre proposals, the *draft Centres Policy* outlines a Sequential Test which should be used to inform the determination of appropriate new centre locations. Further, Site



Suitability Criteria should be used when considering the merits of alternative locations to accommodate development. These criteria are to be applied when assessing the merits of sites on the edge or outside of an existing or planned new activity centre when considering:

- Alternative sites to accommodate demand as part of the strategic planning processes;
- Spot rezoning proposals and development applications for individual sites.

The *draft Centres Policy* states that priority should be given to sites which perform best against the criteria. It is not necessary for a proposal to meet all the criteria in order to be supported.

Accordingly, both Sequential Test and Site Suitability Criteria have been used in the analysis undertaken below to identify whether sufficient opportunity exists for new development within the region or subregion.

3.7.1 THE SEQUENTIAL TEST.

The Sequential Test has been used to consider the best location for the proposed Masters development. When considering an out-of-centre site, the Sequential Test calls for the following steps to be undertaken:

- Step 1 firstly, it must be demonstrated that there are no suitable sites within an existing or
 planned new activity centre that can satisfy the demand to be accommodated. This may be
 achieved by adjusting future intentions for a centre and could include:
 - Increasing height and floor space controls,
 - permitting a broader mix of uses, or
 - actions to facilitate site availability or site consolidation.
- Step 2 secondly, it must be then demonstrated that there are no suitable sites in an edge-of centre location that can satisfy the demand to be accommodated.
- Step 3 thirdly, an out-of-activity centre site that can satisfy the demand to be accommodated may be considered if it meets the Site Suitability Criteria and is consistent with relevant local or regional planning strategy.

An assessment following these key steps has been undertaken by the proponent in preparing this Planning Proposal and is outlined below.

3.7.2 STEP 1: EXISTING ACTIVITY CENTRES IN MARRICKVILLE LGA

There are a number of Activity Centres within the Marrickville LGA which are zoned B2 – Local Centre or B4 - Mixed Use under the *Marrickville LEP 2011* (the MLEP 2011). It is noted that no land is zoned B3 – Commercial Core under MLEP 2011.

Based on the Planning Circular issued by the Department of Planning and Infrastructure 'How to Characterise Development' (February 2013), the principle purpose of a Masters Home Improvement Store is 'hardware and building supplies' which is mandated permissible in the B2 and B4 zones under the Standard Instrument (Local Environmental Plan) Order 2006.



An analysis of the lot size of the B2 and B4 zones has been prepared and illustrated in **Figure 3**. This analysis indicates that whilst the proposed Masters Home Improvement Store would be permissible in the B2 and B4 zones, aside from the Marrickville Metro site there are no sites large enough in the either zone to accommodate the Masters Home Improvement Store (all B2 zoned lots are less than 10,500m² and all B4 zoned lots are less than 8,500m² excluding the Marrickville Metro site). There are therefore no suitably zoned or sized sites within the B2 and B4 zone that could accommodate a Masters Home Improvement Store.



FIGURE 1 - LOT SIZE ANALYSIS OF ACTIVITY CENTRES (B2 AND B4 ZONES) UNDER MARRICKVILLE LEP 2011

It is noted that the vast majority of land surrounding the B2 and B4 zones (i.e. edge-of-centre land) is zoned for residential development, with some pockets of land zoned IN2, B5, B6 and B7 under MLEP 2011. '*Hardware and building supplies*' is prohibited in all residential zonings under the MLEP 2011, however is permissible in B5, B6, B7 and IN2 zones.

The *draft Centres Policy* states that where a development for the purpose of '*hardware and building supplies*' cannot be accommodated within an Activity Centre or an-edge-of-centre location, they should be accommodated within a bulky goods cluster or on a busy road. Where the impacts are comparable to industrial uses and a significant proportion of customers are likely to come from the building sector, they may be located in industrial areas. This approach has been endorsed in the recently exhibited *Draft Metropolitan Strategy for Sydney*.



Bulky goods premises' is permissible in the B2, B4, B5 and B6 zones under the MLEP 2011. An assessment of B2 and B4 zoned land has been undertaken above, while the assessment of the B5 and B6 zoned land is undertaken below concurrently with the assessment of these lands to support *'hardware and building supplies'* which are both permissible uses within the B5 and B6 zones.

3.7.3 STEP 2: EDGE-OF-CENTRE LOCATIONS IN MARRICKVILLE

Under the MLEP 2010 'hardware and building supplies' is permissible in the B2, B4, B5, B6, B7 and IN2 zone. **Figure 2** shows the locations of all land within these zones under the MLEP 2011. These sites are identified as potential 'edge-of-centre' sites to accommodate a Masters Home Improvement Store.



FIGURE 2 – SITES WHERE 'HARDWARE AND BUILDING SUPPLIES' IS PERMISSIBLE OR PORPOSED TO BE PERMISSIBLE UNDER MLEP 2011

Existing Sites Zoned to Support Masters

The locations of the zones that would permit a Masters Home Improvement Store are <u>primarily</u> located along major transit routes and on the periphery of industrial lands, including the following areas:

- Old Canterbury Road, Dulwich Hill (B4, B5 and IN2 zone).
- New Canterbury Road, Dulwich Hill (B4 and IN2 zone).



- Parramatta Road, Petersham and Lewisham (B4, B5 and B6 zone).
- Bridge Road, Stanmore (B5 and IN2 zone).
- Alice Street, Newtown (B4 zone).
- Crystal Street, Petersham (B4 zone).
- Denison Street, Camperdown (IN2 zone).
- Land to the north of Enmore Road, Stanmore (B5 and B7 zone).
- Addison Road, Marrickville (B4, B5, B7 and IN2 zone).
- May Street and Hutchinson Street, St Peters (B4, B5 and B7 zone).
- Princes Highway, St Peters (B4, B5, B6 and IN2 zone).
- Marrickville Road, Marrickville (B5 zone).
- Unwins Bridge Road and Mary Street, St Peters (IN2 zone).

Due to the scale of a Masters Home Improvement Store, a site with a minimum area of approximately 3 hectares is required. Based on this site requirement, there are two potential precincts where a Masters Home Improvement Store could be accommodated under the current land use zoning:

- <u>Tempe Precinct</u> located on the Princes Highway and including the IKEA, Salvation Army and 'Pretty Girl' sites.
- <u>Unwins Bridge Road Precinct</u> comprising RailCorp and Council services land.

Sites Proposed to be rezoned to Support Masters

There are two sites within the Marrickville LGA which are the subject of planning proposals to rezone the sites which would support a Masters Home Improvement Store in the future. Each of these sites is considered below:

- St Peters Precinct A planning proposal to rezone the site at 396 576 Princes Highway from its current IN1 General Industrial zoning to B6 Business Enterprise has received a gateway determination to proceed on 24 August 2012. This proposal was exhibited as part of Amendment 1 to the *MLEP 2011*, and at the Council meeting of 20 November 2012 Council resolved to adopt the documentation of the site as exhibited and forward to DoPI for gazettal. It is understood that a draft amendment instrument is currently being finalised by Parliamentary Counsel. Accordingly, due to the imminence of the rezoning which would permit a Masters Home Improvement Store under the revised zoning, a detailed analysis of this site (identified as "Precinct C") has been undertaken below.
- Victoria Road Precinct In May 2012 Marrickville Council resolved to consider a Planning Proposal to rezone approximately 21.5 hectares of industrial land forming part of the Sydenham Industrial Precinct for urban renewal. This precinct is referred to as the Victoria Road Precinct (identified as "Precinct D"). While the Planning Proposal has not yet been formally submitted to Council, and therefore the future land uses to be supported in this precinct are unknown, it has been recognised a precinct undergoing a land use transition and therefore has been analysed in



detail below to determine its potential to support a Masters Home Improvement Store In the short to medium term.

A lot size analysis of all land zoned B2, B4, B5, B6, B7 and IN2, as well as the two proposed rezoning sites is illustrated in **Figure 3** below. This illustrates that there are four precincts of sufficient size to consider amalgamation of sites to determine their viability to support a Masters development. An analysis of each of these precincts is outlined below.





3.7.4 ANALYSIS OF LOT SIZES OF EGDE-OF-CENTRE SITES

Precinct A – Tempe Precinct: Princes Highway Tempe and Tempe Bus Depot Site

The Tempe Precinct is located along the Princes Highway and is generally bounded by Bellevue Street to the north and Smith Street to the south. This precinct includes IKEA, the Salvos site, industrial warehouses on Wood Street, Tempe Bus Depot and Pretty Girl Fashion Group. It is noted 'bulky goods premises' are permissible on land in this precinct under Schedule 1 of the MLEP 2011.



IKEA and Salvos Sites

IKEA occupy approximately 10 hectares of the Tempe Precinct. The IKEA development was approved by the DoPI as a Part 3A Project in 2009, and open to the public in the last quarter of 2011. Adjoining the IKEA site to the north-east, the site known as 5-7 Bellevue Street is partly occupied by a Salvation Army recycling store (Salvos site) and partly vacant. However, this site is only approximately 1.2ha in size, which is not sufficient to accommodate a Masters Home Improvement Store. Furthermore, it is understood that there is a DA approval DA200900547 to subdivide the site into two lots (the Salvos currently occupy the proposed larger lot, which is approximately 7,500m² and the proposed smaller lot, which is currently vacant, is approximately 4,500m²). At the time of writing the subdivision had not been registered.

FIGURE 4 – PRECINCT A – TEMPE PRECINCT



Pretty Girl Site

The site known as the 'Pretty Girl" site at 728-750 Princes Highway is zoned IN2 and has a site area greater than 1ha in size. This site is approximately 2ha and is occupied by a locally significant heritage item known as the Former Westpac Stores, however is currently used as a clothing factory and warehouse by the Pretty Girl Fashion Group. The building is heritage listed and generally in good condition. Furthermore, it is understood there is a DA currently before Marrickville Council for a bulky goods development of approximately 16,000sq.m across two-level on the site which preserves the heritage façade. At the time of writing the DA for the 'Pretty Girl' site has not been determined. Redevelopment of this site for a Masters Home Improvement Store could not occur without demolition of the heritage item as the Masters Concept could not be accommodated within the existing heritage building. This site is therefore is not considered to be a practical or realistic option.

SAL ET MARRICRVILLE MASTERS RESPONSE TO JRITE DECISION 2. MAY 2015

P9656 *1



Tempe Bus Depot

The Tempe Bus Depot consists of three lots zoned IN2 site and varying in size from approximately 2,042sq.m to 1.2ha. This site is occupied by the Tempe Bus Depot and is listed as a locally significant heritage item known as 'Tempe Bus Depot'. The site is currently occupied by a child care centre, bus storage and the Sydney Bus Museum, which is currently located in the former tram shed on the adjoining sites. It is understood that development consent was recently granted for refurbishment and upgrade of the bus depot to provide the garaging, servicing and administrative facilities for the Metrobus Network Strategy (DA201000035).

Given, the heritage status of the Tempe Bus Depot and its current land uses, redevelopment of this site for a Masters Home Improvement Store is not considered to be a practical or realistic option.



FIGURE 5 - PRECINCT A - TEMPE PRECINCT LOT SIZE ANALYSIS



Precinct B - Unwins Bridge Road Precinct, St Peters

The Unwins Bridge Road Precinct extends from Hogan Avenue to Bedwin Road and is approximately 6.2 hectares made comprising three sites. The Unwins Bridge Road Precinct is identified in the *Draft Metropolitan Strategy for Sydney* as employment lands. There are two sites zoned IN2 in the Unwins Bridge Road Precinct which are greater than 1ha in size. The largest site at 5-13 Unwins Bridge Road (approximately 3.6ha) is owned by Railcorp and currently contains a significant number of shipping containers and related industry. It is understood that Railcorp use this as their Depot site.

To the south of the Railcorp land is the Marrickville Council depot on a 1.3ha site.

Further to the south is 17-19 Unwins Bridge Road which is a 1.3ha site occupied by a range of industrial factory units containing glaziers and car repairs. The site was the subject of a rezoning requested in 2002 to permit bulky goods, however was not supported by Council primarily due to inconsistency of the proposal with strategic planning policy and potential traffic impacts.

An isolated site approximately 1.3ha in area, containing industrial warehouses is also located with frontage to Mary Street and Edith Street. Aside from the site not having sufficient size to accommodate a Masters development, the site is located in a primarily low-density residential street with limited through traffic.



FIGURE 6 - PRECINCT B: UNWINS BRIDGE ROAD PRECINCT, ST PETERS

SAR ST MARRICKVILLE MASTERS RESPONSE TO JERR DEGISION 2 (MAY 2015)





FIGURE 7 -PRECINCT B: UNWIN ROAD PRECINCT, ST PETERS LOT SIZE ANALYSIS

Only the Railcorp site is large enough to accommodate the proposed Masters Home Improvement Store, without consolidation of sites, however no operational policy of Railcorp indicates this land will become available for redevelopment in the short to medium term.

Due to the mixed land ownership within the Unwins Bridge Road Precinct, amalgamation of these sites is not considered to be a practical or realistic option. Railcorp have advised that this site is unlikely to be redeveloped in the short to medium term.



Precinct C – St Peters Precinct (Princes Highway)

The St Peters Precinct comprises five properties known as 396-576 Princes Highway as illustrated in **Figure 8** below. This precinct is currently zoned IN1 General Industrial under the MLEP 2011, however is the subject of a Planning Proposal to rezone the land B6 Business Enterprise, which is currently with Parliamentary Counsel awaiting gazettal. Of these lots, 500 Princes Highway currently operates as a bulky goods centre and is permissible under MLEP 2011 by what of a Schedule 1 additional permissible use.

The St Peters Precinct is currently occupied by:

- 500 Pacific Highway a home furnishing centre, a car wash, Hungry Jacks, a bulky goods/office/light industrial complex. Tenants include (amongst others) REPCO, automotive services, Printatape and Metropolitan Demolition Group
- 396 Princes Highway a second hand building materials receivership, a conveyor and hoist rental centre, and a recycling yard at the rear.

FIGURE 8 - PRECINCT C: ST PETERS PRECINCT



A lot size analysis carried out on the St Peters Precinct is shown in **Figure 9** below. In summary, the precinct comprises a number of small lots (3,163sq.m to 1.3ha), which are individually not of sufficient scale to support a Masters Home Improvement Store. While there are some allotments in common ownership, due to the current improvements on the sites and existing tenants, amalgamation of numerous sites is not considered a practical or realistic option.

STREET MARKERVIELE MASTERS RESPONSE TO IRPR DECISION 7. MAY 2017





FIGURE 9 - PRECINCT C: ST PETERS PRECINCT LOT SIZE ANALYSIS

SA4501 MARRICKVILLE MASTERS RESPONSE TO JRPP DECISION 23 MAY 2017



Precinct D – Victoria Road Urban Renewal Precinct

The Victoria Road Urban Renewal Precinct is an area of approximately 21.5 hectares of industrial zoned land adjacent to Victoria Road Marrickville, which forms part of the Sydenham Industrial Area. The land which is zoned IN1 General Industrial under the *MLEP 2011*. It is understood preliminary discussions have been held with Marrickville Council and the Department of Planning and Infrastructure (DoPI) as part of the preparation of a Planning Proposal to request the precinct be rezoned to support urban renewal of the area.

FIGURE 10 - PRECINCT D: VICTORIA ROAD URBAN RENEWAL PRECINCT



A letter from DoPI dated 24 April 2012 provided clarification of the State government's policy position on employment lands, and indicated in-principle support for a rezoning to support urban renewal of this area to progress. The DoPI correspondence was considered at the Marrickville Council meeting on 1 May 2012 which resolved to advise the proponents of the Planning Proposal that Council would consider a revised planning proposal for the Victoria Road Urban Renewal Precinct. At the time of writing, a revised Planning Proposal has not been submitted to Council for consideration.

An analysis of the lot sizes within the Victoria Road Urban Renewal Precinct is illustrated below in **Figure 11**, which illustrates that all sites are less than 1 hectare (with the exception of 56 Fitzroy Street which has an area of 1.55 hectares) which falls significantly short of the 3 hectares required to support a Masters Home Improvement Store.





FIGURE 11 - PRECINCT D: VICTORIA ROAD URBAN RENEWAL PRECINCT LOT SIZE ANALYSIS

Accordingly, due to the early stage of precinct planning for the Victoria Road Precinct, and the fragmentation of land, the precinct does not present any viable alternative sites in the short to medium term to support a Masters Home Improvement Store.





3.7.5 CONSIDERATION OF AVAILABLE SITES

In considering the best location for a regionally oriented home improvement centre offer, the following criteria are used:

- Minimum site area of approximately 3 hectares.
- Generally flat topography.
- Regular shape to enable a 'big box' construction with adequate space for at grade car parking to
 accommodate approximately 400 vehicles.
- Good multi-directional vehicle access.
- Good site visibility from a major road.
- Regional accessibility to ensure draw from a large retail catchment.
- Proximity to other similar uses.
- Land use permissibility.

GIS mapping provided above demonstrates that the subject site and precinct best meets all the criteria for the type of development proposed and is the preferred option. As discussed, the analysis of lot sizes shows that there are:

- no appropriately zoned sites under the MLEP 2011;
- No suitable sites in the St Peters Precinct (with a gateway determination supporting rezoning to B6 Business Enterprise):
- No sites in the proposed Victoria Road Precinct large enough to accommodate a Masters developed without consolidation of sites.

Amalgamation of numerous sites which are presently tenanted is not a practical or realistic option to achieve development in the medium term.

In summary, the analysis in **Figure 5**, **Figure 7**, **Figure 9**, **and Figure 11** demonstrates that there are no suitable sites currently zoned under MLEP 2011 or proposed to be zoned to permit *'hardware and building supplies'* which are of a sufficient size to support a large home improvement centre proposed.

Furthermore, the proposed Masters Home Improvement Store will be located in close proximity to Marrickville Metro Shopping Centre on the northern side of Edinburgh Road. An expansion of the retail centre was approved by the PAC on 19 March 2012, which will see the centre extend further south east, towards the site's frontage on Edinburgh Road. The proposed development involves broadening the existing range of home improvement retailing adjacent to an established shopping centre and in an area which contains a number of trade suppliers. It is beneficial from a town planning perspective to locate such uses in close proximity wherever possible, and would be consistent with the *draft Centres Policy* direction to consider sites adjacent to existing centres.

SAULT MARRICKVILLE MASTERS RESPONSE TO JREP DECISION 2. MAY 2011



3.7.6 STEP 3 SITE SUITABILITY CRITERIA

The Site Suitability Criteria is designed for use when considering the merits of alternative locations to accommodate development to assist in the assessment of this Planning Proposal.

TABLE 1 - SITE SUITABILITY CRITERIA

CRITERIA

Strategy Consistent: is the proposed use of the site consistent with or implementing the relevant regional, sub-regional or local strategy?

RESPONSE

The proposed use of the site is generally consistent with the Metropolitan Plan and the draft South Sub-Regional Strategy as demonstrated at Sections 3.3 and 3.4 of the Planning Proposal Report.

Further, it is consistent with the *Draft Metropolitan Strategy* for Sydney, which supports retailing in industrial zones 'where is it ancillary two the main industrial use, goods are produced on site or where retailing has industrial-scale impacts', which is consistent with the nature of a Masters Home Improvement Store.

The Planning Proposal is unlikely to adversely impact upon the surrounding road network. There is capacity within the surrounding road system to service the proposed development, with road infrastructure upgrades in accordance with the traffic report prepared by Colstin Budd Hunt and Kafes which accompanies this Planning Proposal.

The site can be suitably serviced to meet the demand of the future Home Improvement Centre development.

The site has good public transport access particularly given the site's location adjacent to Marrickville Metro, providing opportunities for employees to access the site by public transport. Bus Routes 352 and 355 between Marrickville Metro and Bondi Junction run past the site along Edinburgh Road, while both Sydenham and St Peters Train Stations are approximately 1 kilometre from the site.

The site has good road access utilising Edinburgh Road, which connects with the Princes Highway to the south. The site is also readily accessible by pedestrians.

The Planning Proposal will facilitate a Home Improvement Centre, which will be designed to integrate with the surrounding mix of land uses. This will be detailed further at Development Application stage.

Infrastructure: capacity to support future demands, e.g. traffic capacity, sewerage and water services.

If not, are arrangements in place for these to be provided?

Access Considerations:

Good public transport and road access for employees, customers and suppliers

Good pedestrian access

If not, are arrangements in place for these to be provided?

Urban Design Opportunities: potential to:

Integrate with surrounding land uses

Increase the amenity of the local areas



Competing land issues: impact on

Housing supply and affordability

Industrial land supply

On choice and competition in the locality

For instance, does the proposal affect delivery of other targets or objectives for the area - for example if the land is currently residential and is proposed to be changed to commercial, would this affect achieving dwelling targets.

There will be no impact on housing supply or affordability.

The proposal will result in increased competition within the Home Improvement sector, which should result in greater choice and price savings for customers.

The Planning Proposal is consistent with the need to adapt localities to reflect changing economic conditions. As many older employment areas are experiencing a declining level of activity, the proposal to facilitate a Home Improvement Centre on the periphery of a larger industrial precinct is considered appropriate.

The proposed development will not undermine the integrity of the Sydenham industrial precinct.

Given the peripheral location of the site, the use is unlikely to directly hinder any airport related uses.

Proximity to labour markets and associated The proposed use provides the opportunity to create employment close to home for Marrickville residents. The development of a Masters Home Improvement Centre provides a variety of job opportunities, with approximately

For management.

Environmental Considerations

housing (jobs closer to home)

For workers with required skills

Hazards, such as flooding, bushfire, or coastal, contaminated land

Opportunities to contribute positively to environmental outcomes

Public benefit considerations

Provides a broader public benefit from being located at the alternative site

Priority should be given to sites which perform best against the criteria. It is not necessary for a proposal to meet all the criteria in order to be supported.

There are no known environmental constraints that would prevent the development of the site for retailing. A detailed assessment of environmental impacts will be undertaken as part of any future Development Application.

130-150 additional jobs within the inner west of Sydney.

The proposed development will increase the range of goods and services available and competition in the region for home improvement supplies and will provide employment for local residents.

The proposal is considered to meet the relevant site suitability criteria under the draft Centres Activity Policy.

SARES MARRICEVILLE MASTERS RESPONSE TO JRPP DECISION 73 MAY 2013

Marrickville Masters Home Improvement Store

Assessment of Implications for the Marrickville Industrial Precinct

July 2013



URBIS STAFF RESPONSIBLE FOR THIS REPORT:

Director	Clinton Ostwald
Associate Director	Chrystal Desange
Consultant	Ryan McKenzie
GIS Consultant	Sally Pearce
Job Code	
Report Number	1

© [Urbis Valuations Pty Ltd] ABN [28 105 273 523]

All Rights Reserved. No material may be reproduced without prior permission.

You must read the important disclaimer appearing within the body of this report.

URBIS Australia Asia Middle East urbls.com.au

TABLE OF CONTENTS

Execu	tive Summary	i
1	Study Background	1
1.1	Study Purpose	.1
1.2	Proposed Development	. 1
1.3	Site Location & Context	.1
2	Local Employment & Jobs Profile	3
2.1	Jobs By Industry	.3
2.1.1	Study Area	
2.1.2	Marrickville LGA.	
2.1.3	South Sydney Subregion	
2.2	Resident Employment By Industry	
2.2.1	Marrickville LGA	
2.2.2	South Sydney Subregion	
2.3	Job Provision	
2.4	Journey To Work	
2.4.1	Residents	
2.4.2	Workers	
2.5	Summary	19
3	Study Area Survey	20
3.1	Zoning Types	20
3.2	Building Types	21
3.3	Employment	23
3.4	Vacanct & Underutilised Properties	23
3.5	Future Intentions of Tenants	
3.6	Perceived OutcomeS of Proposed Masters Home Improvement Store	24
3.7	Summary	24
4	Home Improvement Store Case Studies	25
5	Economic Impacts of Proposed Development	28
5.1	Implications for Surrounding Industrial Activities	28
5.2	Employment Impacts	28
5.3	Other Impacts	28
5.4	Summary	29
Discla	imer	30

FIGURES:

Figure 1 – Building Types, Study Area	22
Figure 2 – Floor Area by Building Types, Study Area	22

MAPS:

Map 1 –	Subject Site & Study Area	2
Map 2 –	Destination Zone & Study Area boundaries	5
Мар 3 –	Marrickville Residents' Place of Work	6
Map 4 –	Marrickville Workers' Place of Residence1	8
Мар 5 –	Building Floor Plates Mapping, Study Area2	1

Tables:	
Table 1 – Study Area Jobs By Industry, 2006-2011	4
Table 2 – Marrickville LGA Jobs By Industry, 2006-2011	
Table 3 – Marrickville LGA Jobs By Industry, 2011-2046	8
Table 4 – South Sydney Subregion Jobs By Industry, 2006-2011	
Table 5 – South Sydney Subregion Jobs By Industry, 2011-2046	. 10
Table 6 - Marrickville Resident Employment by Industry, 2006-2011	a11
Table 7 - South Sydney Subregion Resident Employment by Industry, 2006-2011	. 12
Table 8 - Marrickville LGA Jobs Deficit	13
Table 9 - South Sydney Subregion Jobs Deficit	. 13
Table 10 - Marrickville and South Sydney Subregion Residents' Place of Work, 2011	e14
Table 11 - Employment Containment Benchmarks, 2011	15
Table 12 - Marrickville and South Sydney Subregion Workers' Place of Residence, 2011	17
Table 13 - Zoning Type Distribution, study area	. 20
Table 14 – Study Area Employment Densities	. 23

Executive Summary

STUDY BACKGROUND

The purpose of this study is to assess the impacts the Hydrox Nominees' proposed Masters Home Improvement store at 74 Edinburgh Road Marrickville in relation to the industrial precinct in which it sits.

The study has been prepared in response to the Sydney East Joint Regional Planning Panel's (JRPP) decision to allow to Hydrox's planning proposal proceeding to Gateway determination subject to the following being undertaken:

a review of the industrial area enclosed by Sydenham Road, Victoria Road, Edinburgh Road and the railway line, including an analysis of existing land uses consistent with the zoning, vacancy rates and the implications of the proposed rezoning on the viability of this industrial area.

The subject property has frontages to both Edinburgh Road and Sydney Steel Road and is set on the fringe of an industrial precinct approximately bounded by Edinburgh Road to the north, Railway Parade and the railway line to the east, Marrickville Road/the railway line to the south and Meeks Rd/Farr Street/Shepherd Street to the west.

The site falls within Marrickville Local Government Area (LGA) which belongs to the South Sydney Subregion, also comprising Kogarah, Hurstville, Canterbury, Rockdale and Sutherland LGAs, as defined by the NSW DoP&I.

LOCAL EMPLOYMENT & JOBS PROFILE

The Bureau of Transport Statistics (BTS), a division of Transport for NSW, publishes jobs and employment data for small areas known as Destination Zones (DZN). The Study Area mostly closely matches DZN 414 (for DZN boundaries see Map 2 in the report proper). Jobs located in DZN 414 are approximately equally split between industrial and non-industrial sectors.

The retail trade sector – which the proposed Masters Home Improvement store would fall within – accounted for just 5% of all jobs in DZN 414 in 2011. With growth in jobs in the precinct over time, the introduction of the Masters Home Improvement store is not likely to result in a significant increase in the retail trade sectors' share of jobs in the precinct. At 5% of jobs, the representation of retail trade is marginal, and it is not considered to be at a level which will detract from or threaten the viability of surrounding industrial activities. In any event, a significant proportion of the staff within a Masters Home Improvement store are recruited on the basis of having skills or experience in trade sectors and would therefore align with industrial based employment.

The number of jobs located in Marrickville LGA remained virtually constant between 2006 and 2011 (1% growth). Over the same period, Marrickville's resident population grew by 4,700. Therefore, proportionate to the number of residents, jobs have actually fallen over time.

The number of jobs in industrial sectors declined between 2006 and 2011. This was primarily attributed to the large decrease in manufacturing jobs – the impact of structural economic changes occurring at the national level.

However, some industrial sectors in Marrickville actually grew – the transport, postal & warehousing sector gained 250 jobs and the construction sector gained 138 jobs.

BTS expects that the overall number of industrial jobs located in Marrickville LGA will continue to fall in the future. However, BTS estimates that the construction sector is expected to continue to be an anomaly to this trend, with an additional 392 constructions jobs expected to be located in Marrickville by 2046.

Given that the construction (trades) sector is a major customer of Masters Home Improvement stores, accounting for approximately 20% of anticipated store turnover, the introduction of the store on the subject site is considered to be highly complementary to the changing industry structure which has occurred in Marrickville in past years, and which is expected to continue to occur in the future.

The Store will provide construction businesses located in Marrickville easy access to construction materials. In this way the proposed Masters Home Improvement store would compliment and support, rather than hinder, the growing construction sector in the immediate precinct, and in the broader Marrickville LGA.

Compared to 2006, fewer Marrickville residents were employed in industrial sectors (-363) and more residents were employed in non-industrial sectors (+2,358) in 2011. Manufacturing experienced the greatest decline (-212), while Professional, Scientific and Technical Services experienced the greatest increase (+1,029).

The number of Marrickville residents employed in the Retail sector increased between 2006 and 2011 (+109) but the number of retail jobs located in Marrickville LGA declined (-5). The same was experienced at the subregional level. The proposed Masters Home Improvement store would assist to offset this divergence between resident employment and jobs, which ultimately results in more people travelling longer distances to work. This has a range of adverse environmental, social and economic impacts (for instance, increased pollution from fuels, increased pressure on road infrastructure and associated higher maintenance costs, reduced time spent with families, increased costs of travel for workers and reduced worker productivity) and is in conflict with the DoP&I's objective of providing more jobs closer to homes.

Of the people who work in Marrickville LGA, 29% travel more than 20 kilometres, and 10% travel more than 30 kilometres. The high dependency on workers from outside of Marrickville can be attributed to the fact that the jobs located in Marrickville do not closely match the employment profile of Marrickville residents.

STUDY AREA SITE SURVEYS

To better understand the nature of industrial activities occurring near the subject site, and in order to fully consider the impacts of the proposed Masters Home Improvement store on the adjoining industrial precinct, Urbis undertook external inspections of properties in the precinct. This was supplemented with information collated with the use of Urbis' Geographic Information Systems (GIS) tools.

There are 301 properties in the Study Area, of which 255 (87%) are zoned IN1. The bulk of the balance of properties are zoned B7 and IN2.

The total Study Area comprises a total site area of around 384,000sq.m., and total building floor space of approximately 238,000sq.m.

There is currently around 4,000sq.m. of retail floorspace in the study area, which represents approximately1.7% of all building floorspace. The proposed Masters Home Improvement store would result in a total of around 17,000sq.m. of retail floor space in the Study Area – which is equivalent to around 8% of existing building floor space. Therefore, the precinct would continue to be dominated by industrial buildings, and the overall share of retail floorspace would remain marginal.

Freight & logistics / warehouses – the most prominent building type in the Study Area – has the lowest employment density of all properties in the precinct, employing 1 person per 262sq.m. of floorspace or 460sq.m. of site area. Studios / industrial workshops – the second most prominent building type in the precinct – has the second lowest employment density. Therefore, the precinct supports a low level of employment, relative to other industrial precincts occupied by more intensive industrial uses.

If the freight & logistics / warehouse properties (which are expected to become less relevant as businesses operating in the sector move to alternative locations) are adapted to better suit the changing industry structure of the precinct (e.g. growing prevalence of construction businesses), there is considered to be significant opportunity for total employment to increase, and the overall economic importance of the precinct to be enhanced. The introduction of the proposed Masters Home Improvement store is not expected to inhibit this adaptation from occurring. However, changes to land use permissibility and development controls are required for adaptation to occur.

A high level of vacancy and underutilisation was observed in the Study Area. Vacant is defined to comprise all lots that were vacant, derelict or for sale (and untenanted); underutilised floorspace is defined to comprise properties which were not occupied on any of the days that Urbis undertook site

surveys (3 days) and which were not believed to be regularly utilised based on their physical appearance (for instance, they were run-down, boarded/chained up and without any signage).

Businesses in the precinct primarily felt that the proposed Masters Home Improvement store would have a neutral to positive impact on their activities, and on the wider precinct. The general view was that the predominate hardware focus of Masters was compatible with the local industrial uses.

Positive impacts were largely expected to be generated through the improved range and access of hardware goods that will be provided by the Masters Home Improvement store.

In terms of possible negative impacts, some businesses expressed that traffic congestion was a concern but felt that congestion could be mitigated through appropriate traffic management. Some of the service industrial businesses actually felt that the possible increase in passing traffic would increase customer exposure and have an overall positive impact on their business.

Only one construction supplies business, occupying a 500sq.m. site, expected that the Masters Home Improvement store would take trade away from it and have an overall negative impact.

ECONOMIC IMPACTS OF PROPOSED DEVELOPMENT

Economic outcomes expected to be generated by the proposed Masters Home Improvement store in Marrickville are summarised as follows:

- it is expected to compliment the adjoining industrial precinct by increasing access and choice of building and construction materials to the construction sector, which increased its prevalence in the precinct between 2006 and 2011, and is expected to continue to become more prevalent in Marrickville LGA in the future;
- the 2.75 hectare subject site represents just 1.3% of all industrial zoned land in the draft Marrickville LEP 2010 (214.6 hectares), and 7% of industrial zoned land in the Study Area. Therefore, the rezoning will not have a material impact on industrial land supply in Marrickville or the Study Area;
- it is expected to result in a net increase in jobs in the precinct, with 130 to 150 people expected to be employed at the store, compared to 15 workers employed on the site currently. It is also expected to generate more employment than what could be generated if another distribution centre occupied the site, with average employment densities for distribution centres / warehouses ranging from 1 job per 110 sq.m (universal average according to Urbis internal benchmarks) to 1 job per 262sq.m. of floorspace (average for the study area, as quantified through Urbis Study Area site Surveys), compared to an average 1 job per 90-105sq.m for Masters Home Improvement stores.
- the Masters Home Improvement store will increase the provision of retail jobs in Marrickville LGA, which actually declined between 2006 and 2011, while the number of Marrickville residents employed in retail jobs increased between 2006 and 2011, resulting in an increase in the size of the retail jobs deficit in Marrickville to 643 jobs by 2011. Such divergence between jobs and resident employment causes people to have to travel longer distances to work, and this has a range of adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.
- increased competition within the home improvement sector which should result in greater choice and price savings for customers;
- the site's location adjacent to Marrickville Metro shopping centre provides a convenient location for household shoppers, whilst its location close to other trades suppliers within Marrickville is also advantageous to the trades sector. Both factors have the potential to reduce overall travel distances for customers.
- accordingly, there may be potential vehicle emission savings (particularly from trades vehicles) by minimising the need for customers to travel greater distances to make purchases; and
- increased expenditure retention within the Main Trade Area reducing the amount of expenditure that is leaked to other LGAs.





1 Study Background

1.1 STUDY PURPOSE

The purpose of this study is to assess the impacts the Hydrox Nominees' proposed Masters Home Improvement store at 74 Edinburgh Road Marrickville in relation to the industrial precinct in which it sits, having regard for:

- existing land uses and business activities;
- vacancy rates;
- site location and attributes;
- resident and workforce employment profile;
- future intentions of tenants;
- the number of jobs expected to be created by the development.

1.2 PROPOSED DEVELOPMENT

The Masters Home Improvement store will comprise of approximately 13,500sq.m. which will include a main floor area for a range of home improvement products, a nursery for landscape and garden products, a trade area for drive-thru sales of all goods, restaurant/café and associated parking.

1.3 SITE LOCATION & CONTEXT

The property has frontages to both Edinburgh Road and Sydney Steel Road and is set on the fringe of an industrial precinct approximately bounded by Edinburgh Road to the north, Railway Parade and the railway line to the east, Marrickville Road/the railway line to the south and Meeks Rd/Farr Street/Shepherd Street to the west.

Marrickville Metro shopping centre lies immediately north of the site. A redevelopment of the centre was approved in 2012 which will see the centre extend further south east, towards the subject site's frontage on Edinburgh Road.

The site falls within Marrickville Local Government Area (LGA) which belongs to the South Sydney Subregion, also comprising Kogarah, Hurstville, Canterbury, Rockdale and Sutherland LGAs, as defined by the NSW DoP&I.

Map 1 overleaf shows the site's location, and the 'Study Area' that was defined by the JRPP, which encompasses the area bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line.

MAP 1 - SUBJECT SITE & STUDY AREA



1995 STREET (AND STREET (CONTRACTOR) STREET AND CONTRACTOR (CONTRACTOR)

1.0
2 Local Employment & Jobs Profile

This section assesses the potential impacts of the proposed site rezoning on the industrial precinct that it sits within, having regard for the resident employment and jobs profile of the Study Area, Marrickville LGA and South Sydney Subregion. Note that jobs and resident employment are distinctly different and are defined as follows:

- Jobs: this is based on place of employment and refers to the jobs that are actually located in a given area.
- Resident Employment: this is based on place of residence and refers to the jobs that residents
 of a given area are employed in, regardless of where those jobs are.

2.1 JOBS BY INDUSTRY

2.1.1 STUDY AREA

The New South Wales Bureau of Transport Statistics (BTS) – an independent entity within Transport for New South Wales – publishes jobs data for small areas referred to as Destination Zones (DZN).

The Study area for this assessment – comprising the area bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line – does not exactly match one DZN, however it primarily falls within DZN 414, except for a small portion to the east which falls within DZN 418. The study area and DZN boundaries are illustrated in Map 2 overleaf.

As noted, the total DZN 414 covers 80 hectares, of which the Study Area accounts for 48 hectares, or 60%. The part of the DZN which is outside of the Study Area includes a significant proportion of residential properties to the north-west, as illustrated in Map 2. Therefore, we can assume that the Study Area is likely to account for more than 60% of jobs in the DZN – Urbis estimates it to be in the order of 70%.

Based on the fact that DZN 414 contains 3,221 jobs, and assuming that 70% of those jobs fall within the Study Area, the total number of jobs in the Study Area is quantified to be in the order of 2,255.

Table 1 shows the breakdown of jobs by industry in the DZN 414, in 2011 – this provides an indication of the nature of jobs in the Study Area. We note that the travel zone boundaries changed between 2006 and 2011, and therefore a like for like comparison of jobs in 2006 and 2011 cannot be provided, as per the analysis presented in Sections 2.1.2 and 2.1.3 for Marrickville and South Sydney Subregion respectively.

As noted, in 2011 there was an approximately equal split between industrial and non-industrial jobs. Manufacturing was the most prominent activity occurring in the precinct, accounting for more than one third of all jobs.

The retail trade sector – which the proposed Masters Home Improvement store would fall within – accounted for just 5% of all jobs in the DZN in 2011. With growth in jobs in the precinct over time, the introduction of the Masters Home Improvement store is not likely to result in an increase in the retail trade sectors' share of jobs in the precinct. At 5% of jobs, the representation of retail trade is marginal, and it is not considered to be at a level which would detract from or threaten the viability of any industrial activities.

TABLE 1 -- STUDY AREA JOBS BY INDUSTRY, 2006-2011

Jobs by Industry - Historic

	20	011
Industry Sectors	%	#
Agriculture, Forestry and Fishing	0%	0
Mining	0%	3
Manufacturing	38%	1,209
Electricity, Gas & Waste	0%	5
Construction	7%	237
Transport, Postal & Whousing	5%	158
Industrial Sectors	50%	1,612
Wholesale Trade	17%	558
Retail Trade	5%	164
Accommodation & Food	4%	115
Rental, Hiring & Real Estate	1%	22
Education and Training	1%	25
Healthcare & Social Assistance	3%	101
Arts and Recreation Services	2%	59
Other Services	8%	246
info Media & Telecomms	1%	34
Finance & Insurance	0%	10
Profess'nal, Scient. & Tech.	4%	113
Administration & Support	3%	85
Public Admin. & Safety	0%	7
Non-Industrial Sectors	48%	1,539
Not State / NA	2%	71
Total	100%	3,222



MAP 2 – DESTINATION ZONE & STUDY AREA BOUNDARIES

URBIS LEPRIS MALTERS MARRICKVILLE EIA 190713 FINAL

2.1.2 MARRICKVILLELGA

As noted in Table 2, the number of jobs located in Marrickville LGA remained virtually constant between 2006 and 2011 (1% growth). Over the same period, Marrickville's resident population grew by 4,700. Therefore, proportionate to the number of residents, jobs have actually fallen over time.

The manufacturing sector experienced the greatest decline over the period, with 729 fewer jobs in 2011 compared to 2006. The decline in these industrial jobs was partially offset by an increase in Transport, Postal & Warehousing jobs (+250) and construction jobs (+138), resulting in a net loss in industrial jobs of 380.

An additional 606 jobs in non-industrial sectors were created in Marrickville over the period, with the largest winners being Professional, Scientific & Technical Services and Healthcare & Social Assistance Services.

The changing jobs profile of Marrickville is generally consistent with the changing resident employment profile, with fewer Marrickville residents employed in industrial jobs in 2011 compared to 2006 (discussed in Section 2.2.1.)

A notable anomaly is that the number of retail jobs located in Marrickville LGA decreased by 5 while the number of residents employed in retail jobs increased by 109. Such divergence in jobs and resident employment profiles causes people to have to travel longer distances to work. The proposed Masters Home Improvement store could assist to address this divergence, providing retail jobs to Marrickville residents who currently travel elsewhere to work.

TABLE 2 - MARRICKVILLE LGA JOBS BY INDUSTRY, 2006-2011

Jobs by Industry - Historic

	2	006	2	011		Change -2011
Industry Sectors	%	#	%	#	#	%
Agriculture, Forestry and Fishing	0%	51	0%	7	-44	-86%
Mining	0%	3	0%	10	7	233%
Manufacturing	18%	4,208	15%	3,479	-729	-17%
Electricity, Gas & Water	0%	47	0%	45	-2	-4%
Construction	5%	1,210	6%	1,348	138	11%
Transport, Postal and Warehousing	5%	1,202	6%	1,452	250	21%
Industrial Sectors	29%	6,721	27%	6,341	-380	-6%
Wholesale Trade	9%	2,173	8%	1,975	-198	-9%
Retail Trade	11%	2,642	11%	2,637	-5	0%
Accommodation & Food	6%	1,431	7%	1,542	111	8%
Rental, Hiring & Real Estate	2%	347	2%	352	5	1%
Education and Training	8%	1,941	9%	2,045	104	5%
Healthcare & Social Assistance	8%	1,745	9%	2,055	310	18%
Arts and Recreation Services	2%	413	2%	537	124	30%
Other Services	6%	1,361	5%	1,238	-123	-9%
Information Media & Telecomms	2%	543	2%	514	-29	-5%
Financial and Insurance Services	2%	436	1%	348	-88	-20%
Profess'nal, Scient. & Tech.	6%	1,346	8%	1,755	409	30%
Administration & Support	2%	546	2%	523	-23	-4%
Public Administration and Safety	5%	1.074	5%	1,083	9	1%
Non-Industrial Sectors	69%	15,998	71%	16,604	606	4%
Not Stated/Inadequately described	1%	340	1%	315	-25	-7%
Total		23,059		23.260	201	1%

Table 3 overleaf shows the estimated future number of jobs located in Marrickville LGA by industry to 2046, as projected by BTS. As noted, the observed decline in industrial jobs and growth in non-industrial jobs is expected to continue into the future, with the share of industrial jobs forecast to fall to 9% by 2046.

The largest fall is expected to be in the manufacturing sector, with 848 fewer jobs projected by 2046. However, manufacturing is still expected to maintain a presence in Marrickville, with some 1,378 jobs expected to remain by 2046.

Some of the fall in industrial jobs is expected to be offset by a rise in construction jobs (+392). Given that the construction (trades) sectors are major customers of Masters Home Improvement stores, accounting for an estimated 20% of turnover, the introduction of the Home Improvement store on the subject site is highly complimentary to the changing industry structure which has occurred in Marrickville in past years, and which is expected to continue to occur in the future.

The Masters Home Improvement store will provide construction businesses located in Marrickville easy access to construction materials. In this way it would compliment and support, rather than hinder, the growing construction sector in the immediate precinct, and in the broader Marrickville LGA.

For reference, the construction sector is comprised of the activities noted below, as per Australian & New Zealand Standard Industry Classifications (ANZSIC):

- House Construction
- Residential Building Construction n.e.c.
- Non-Residential Building Construction
- Road and Bridge Construction
- Non-Building Construction n.e.c.
- Site Preparation Services
- Concreting Services
- Bricklaying Services
- Roofing Services
- Structural Steel Erection Services
- Plumbing Services
- Electrical Services
- Air Conditioning and Heating Services
- Fire and Security System Services
- Plastering and Ceiling Services
- Carpentry Services
- Tiling and Carpeting Services
- Painting and Decorating Services
- Landscaping Services
- Construction Services n.e.c.

TABLE 3- MARRICKVILLE LGA JOBS BY INDUSTRY. 2011-2046 Jobs by Industry - Forecast

	5	2011	5	016	5(2021	20	2026	2031	31	20	2036	20	2041	20	2046	2011-	2046
Industry Sectors	%	#	%	*	%	#	%	4	70	*	/0	*	/0	4		-	*	%
		I					2		2	н	6	ŧ	\$	*	2	#:	Change	Change
Agriculture, Forestry and Fishing	%0	7	%0	7	%0	7	%0	7	%0	7	%0	ø	%0	6	%0	6	0	28%
	%0	10	%0	10	%0	10	%0	10	%0	10	%0	10	%0	10	%0	10	0	%0
Manufacturing	15%	3,479	12%	2,965	10%	2,461	%6	2,300	8%	2,167	8%	2,113	%∠	2,100	7%	2,154	-1,325	-38%
Electricity, Gas & Water	%0	45	%0	19	%0	6	%0	4	%0		%0	0	%0	0	%0	0	-45	-100%
Construction	%9	1,348	%9	1,488	%9	1,550	%9	1,522	6%	1,528	%9	1,557	%9	1,592	%9	1,649	301	22%
Transport, Postal and Warehousing		1,452	%9	1,379	5%	1,343	5%	1,256	5%	1,248	5%	1,254	4%	1,280	4%	1,331	-121	-8%
Industrial Sectors	27%	6,341	24%	5,867	21%	5,379	20%	5,099	19%	4,961	18%	4,941	17%	4,991	17%	5,153	-1,188	-19%
Wholesale Irade	8%	1,975	8%	2,088	6%	2,221	%6	2,352	%6	2,462	%6	2,577	%6	2,694	%6	2,798	823	42%
Ketail Irade	11%	2,637	12%	3,030	12%	3,051	12%	3,106	12%	3,155	12%	3,229	12%	3,323	12%	3,456	819	31%
Accommodation & Food	%2	1,542	%1	1,654	%2	1,663	7%	1,704	7%	1,758	%2	1,832	7%	1,923	7%	1,996	454	29%
Rental, Hiring & Real Estate	2%	352	1%	363	1%	369	1%	372	1%	385	1%	406	2%	439	2%	455	103	29%
Education and Training	%6	2,045	%6	2,116	%6	2,368	10%	2,578	10%	2,741	10%	2,886	11%	3,019	11%	3,151	1,106	54%
Healthcare & Social Assistance	%6	2,055	%6	2,292	10%	2,517	10%	2,708	11%	2,849	11%	2,968	11%	3,073	11%	3,207	1,152	56%
Arts and Recreation Services	2%	537	2%	569	2%	564	2%	576	2%	583	2%	589	2%	601	2%	625	88	16%
	5%	1,238	2%	1,250	5%	1,265	5%	1,282	5%	1,297	5%	1,312	5%	1,327	5%	1,349	111	6%
Information Media & Telecomms	2%	514	2%	563	2%	584	2%	611	2%	634	2%	659	2%	693	2%	718	204	40%
Financial and Insurance Services	1%	348	1%	337	1%	361	1%	371	1%	388	1%	403	1%	419	1%	434	86	25%
Profess'nal, Scient. & Tech.	8%	1,755	8%	1,914	9%	2,157	9%	2,380	10%	2,560	10%	2,707	10%	2,841	10%	2,959	1,204	69%
Administration & Support	2%	523	2%	572	2%	569	2%	573	2%	575	2%	581	2%	597	2%	620	67	19%
Public Administration and Safety	5%	1,083	5%	1,243	5%	1.320	5%	1,398	2%	1,472	%9	1,553	%9	1,638	%9	1,705	622	57%
Non-Industrial Sectors	71%	16,604	73%	17,990	75%	19,008	%22	20,011	78%	20,859	79%	21,703	79%	22,587	%62	23,472	6,868	41%
Not Stated/Inadequately described	1%	315	4%	907	4%	923	4%	941	4%	956	4%	972	3%	988	3%	1,012	697	221%
Total		23,260		24,764		25,310		26,051		26,776		27,617		28,566		29,637	6,377 27%	27%

WART STADES ALL DUDAY REPAY SETTISMAN SHERE

.

2.1.3 SOUTH SYDNEY SUBREGION

Table 4 shows the change in the number of jobs located in the South Sydney Subregion by industry, between 2006 and 2011.

As per the experience of Marrickville LGA, there was a decline in industrial jobs and in increase in nonindustrial jobs in South Sydney between 2006 and 2011.

The biggest winners were Healthcare & Social Assistance Services (+3,100) and Professional, Scientific & Technical Service (+1,468). The biggest losers were Manufacturing (-3,445) and Retail Trade (1,275).

TABLE 4 - SOUTH SYDNEY SUBREGION JOBS BY INDUSTRY, 2006-2011

Jobs by Industry - Historic

STRUCTURE VISUE REGIME REFERENCE

	20	006	20	011	Actual (2011-	-
Industry Sectors	%	#	%	#	#	%
Agriculture, Fishery & Forestry	0%	211	0%	122	-89	-42%
Mining	0%	71	0%	78	7	10%
Manufacturing	11%	18,104	9%	14,659	-3,445	-19%
Electricity, Gas & Waste	1%	834	1%	952	118	14%
Construction	6%	10,190	7%	10,715	525	5%
Transport, Postal & Whousing	5%	8,063	5%	8,406	343	4%
Industrial Sectors	23%	37,473	22%	34,932	-2,541	-7%
Wholesale Trade	6%	9,169	5%	8,436	-733	-8%
Retail Trade	14%	22,823	13%	21,548	-1,275	-6%
Accommodation & Food	7%	11,431	7%	11,987	556	5%
Rental, Hiring & Real Estate	2%	3,205	2%	2,974	-231	-7%
Education and Training	8%	13,300	9%	14,105	805	6%
Healthcare & Social Assistance	13%	20,590	15%	23,690	3,100	15%
Arts and Recreation Services	1%	2,212	1%	2,341	129	6%
Other Services	5%	7,778	5%	7,719	-59	-1%
Info Media & Telecomms	1%	1,800	1%	1,573	-227	-13%
Finance & Insurance	4%	6,251	3%	5,148	-1,103	-18%
Profess'nal, Scient. & Tech.	6%	9,639	7%	11,107	1,468	15%
Administration & Support	3%	4,115	3%	4,318	203	5%
Public Admin. & Safety	6%	9,515	6%	9,362	-153	-2%
Non-Industrial Sectors	76%	121,828	77%	124,308	2,480	2%
Not State / NA	1%	1,788	1%	1,808	20	1%
Total		161,089		161,048	-41	0%

Like Marrickville LGA, there is expected to be a decline in industrial jobs in South Sydney Subregion, in particular manufacturing, which is expected to have almost 8,000 fewer jobs by 2046. However, consistent with Marrickville LGA, construction jobs are expected to increase by some 6,600 jobs, thereby offsetting some of the decline in industrial jobs.

Again, the proposed Masters Home Improvement store will provide increased access to construction materials to the growing pool of construction businesses in the Subregion, and in this way it is expected to complement the neighbouring industrial activities.

SOUTH SYDNEY SUBREGION JOBS BY INDUSTRY, 2011-2046	
TABLE 5 –	

Forecast
-
Industry
à
Jobs

		2011		2016		2021		2026		2031		2036	2	2041	3	2046	2011	2011-2046
Industry Sectors	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	14	# Change	% Change
Agriculture, Fishery & Forestry	%0	122	%0	108		102	%0	103	%0	106	%0	111	%0	117	%0	122	%0	C
Mining	%0	78	%0	85		94	%0	102	%0	109	%0	116	%0	123	%0	128	64%	202
Manufacturing	%6	14,659	7%	12,630		10,866	5%	10,070	5%	9,587	5%	9,459	4%	9.521	4%	9.781	-33%	-4.878
Electricity, Gas & Waste	1%	952	%0	651		565	%0	526	%0	503	%0	495	%0	501	%0	517	-46%	435
Construction	7%	10,715	7%	11,989	7%	12,651	7%	12,544	%9	12,704	%9	13,047	%9	13,406	%9	13.885	30%	3.170
Transport, Postal & Whousing	5%	8,406	5%	8,129		8,144	4%	7,779	4%	7,747	4%	7,815	4%	7,936	4%	8,252	-2%	-154
Industrial Sectors	22%	34,932	20%	33,592		32,422	16%	31,125	16%	30,756	15%	31,044	15%	31,604	15%	32.686	~9~	-2.246
Wholesale Trade	5%	8,436	5%	8,805		9,316	5%	9,783	5%	10,142	5%	10,540	5%	10,920	5%	11.339	34%	2.903
Retail Trade	13%	21,548	14%	23,708	•	24,587	13%	25,545	13%	26,335	13%	27,344	13%	28,276	13%	29.408	36%	7.860
Accommodation & Food	%2	11,987	7%	12,472		12,755	7%	13,182	7%	13,638	7%	14,243	7%	14,851	7%	15,408	29%	3.421
Rental, Hiring & Real Estate	2%	2,974	2%	3,022		3,072	2%	3,033	2%	3,025	1%	3,060	1%	3,091	1%	3,205	8%	231
Education and Training	6%	14,105	%6	14,632		16,391	%6	17,868	10%	18,996	10%	19,998	10%	20,917	10%	21,831	55%	7,726
Healthcare & Social Assistance	15%	23,690	16%	27,082		30,172	17%	32,813	18%	34,825	18%	36,555	18%	38,080	18%	39,740	68%	16,050
Arts and Recreation Services	1%	2.341	1%	2,367	1%	2,378	1%	2,473	1%	2,533	1%	2,591	1%	2,667	1%	2,773	18%	432
Other Services	5%	7,719	5%	7,740		7,808	4%	7,884	4%	7,949	4%	8,075	4%	8,186	4%	8,497	10%	778
Info Media & Telecomms	1%	1,573	1%	1,728	1%	1,866	1%	1,965	1%	2,041	1%	2,134	1%	2,194	1%	2,273	45%	700
Finance & Insurance	3%	5,148	3%	5,595		6,401	4%	6,926	4%	7,343	4%	7,689	4%	7,901	4%	8,202	59%	3,054
Profess'nal, Scient. & Tech.	7%	11,107	7%	12,658	8%	14,902	%6	16,844	9%	18,367	10%	19,679	10%	20,684	10%	21,540	94%	10,433
Administration & Support	3%	4,318	3%	4,956		5,299	3%	5,569	3%	5,771	3%	6,018	3%	6,191	3%	6,433	49%	2.115
Public Admin. & Safety	6%	9,362	6%	11,032	7%	11,879	%2	12,703	7%	13,467	7%	14,279	7%	15,100	7%	15,718	68%	6.356
Non-Industrial Sectors	77%	124,308	79%	135,797		146,827	83%	156,589	83%	164,433	84%	172,204	84%	179,058	84%	186,366	50%	62,058
Not State / NA	1%	1,808	1%	1,878	1%	1,954	1%	2,035	1%	2,105	1%	2,179	1%	2,250	1%	2,339	29%	531
Total		161,048		171,268		181,203		189,749		197,295		205,427		212,912		221,390	37%	60,342

MURIC AMSTERS MADURAVILLE LUE (E0713 FINAL

2.2 RESIDENT EMPLOYMENT BY INDUSTRY

2.2.1 MARRICKVILLE LGA

Compared to 2006, fewer Marrickville residents were employed in industrial sectors (-363) and more residents were employed in non-industrial sectors (+2,358) in 2011. Manufacturing experienced the greatest decline (-212), while Professional, Scientific and Technical Services experienced the greatest increase (+1,029).

As noted in Section 2.1.2 the number of Marrickville residents employed in the Retail sector increased between 2006 and 2011 (+109) but the number of retail jobs located in Marrickville LGA declined (-5). The proposed Masters Home Improvement store would assist to offset this divergence between resident employment and jobs, which ultimately results in more people travelling longer distances to work. This has a range of adverse environmental, social and economic impacts, and is in conflict with the DoP&I's objective of providing more jobs closer to homes.

TABLE 6 - MARRICKVILLE RESIDENT EMPLOYMENT BY INDUSTRY, 2006-2011

Resident Employment by Industry - Historic

WARRING TO BUGA UNDER TO JOIN

	20	06	20	011	2006	-2011
Industry Sectors	%	#	%	#	% Change	# Change
Agriculture, forestry & fishing	0%	63	0%	44	-30%	-19
Mining	0%	52	0%	50	-4%	-2
Manufacturing	7%	2,510	5%	2,298	-8%	-212
Electricity, as, water & waste services	1%	203	1%	254	26%	52
Construction	5%	1,876	4%	1,790	-5%	-86
Transport, postal & warehousing	5%	1,817	4%	1,721	-5%	-96
Industrial Sectors	17%	6,521	15%	6,158	-6%	-363
Wholesale trade	4%	1,633	4%	1,647	1%	15
Retail trade	8%	3,171	8%	3,280	3%	109
Accommodation & food services	7%	2,659	7%	2,831	6%	172
Rental, hiring & real estate services	2%	569	1%	581	2%	12
Education & training	10%	3,906	11%	4,679	20%	773
Health care & social assistance	11%	4,067	11%	4,750	17%	684
Arts & recreation services	3%	990	3%	1,282	29%	292
Other services	4%	1,459	4%	1,484	2%	25
Information media & telecommunications	6%	2,185	6%	2,532	16%	346
Financial & insurance services	6%	2,369	7%	2,731	15%	361
Professional, scientific & technical services	11%	4,196	12%	5,225	25%	1,029
Administrative & support services	4%	1,415	4%	1,645	16%	231
Public Administration & safety	7%	2,656	7%	3,047	15%	391
Non-Industrial Sectors	83%	31,275	85%	35,715	14%	2,358
Total	100%	37,796	100%	41,873	5%	1,995

2.2.2 SOUTH SYDNEY SUBREGION

As per the experience of Marrickville LGA, fewer residents across the entire South Sydney subregion were employed in industrial sectors in 2011 compared to 2006, as noted in Table 7. Again, the largest fall was in the number of residents employed in the manufacturing sector (-2,961).

As per the experience in Marrickville, the number of residents of South Sydney subregion who were employed in the retail sector increased between 2006 and 2011 (+261), but the number of retail sector jobs located in South Sydney subregion fell (-1,275). By 2011 around 35,000 South Sydney residents were employed in the retail sector, but there was just 21,000 retail jobs located in South Sydney subregion.

Once again, the incorporation of a Masters Home Improvement store in Marrickville would assist to offset the growing retail jobs deficit in the South Sydney subregion.

TABLE 7 - SOUTH SYDNEY SUBREGION RESIDENT EMPLOYMENT BY INDUSTRY, 2006-2011 Resident Employment by Industry - Historic

	2	006	2	011	2006	-2011
Industry Sectors	%	#	%	#	% Change	# Change
Agriculture, forestry & fishing	0%	548	0%	345	-37%	-202
Mining	0%	304	0%	448	47%	144
Manufacturing	9%	29,753	7%	26,792	-10%	-2,961
Electricity, as, water & waste services	1%	2,739	1%	2,927	7%	187
Construction	7%	23,573	7%	24,666	5%	1.093
Transport, postal & warehousing	7%	24,130	7%	24,934	3%	804
Industrial Sectors	24%	81,047	22%	80,112	-1%	-935
Wholesale trade	5%	17,559	5%	17,321	-1%	-238
Retail trade	11%	35,088	10%	35,305	1%	217
Accommodation & food services	7%	23,107	7%	25,183	9%	2,076
Rental, hiring & real estate services	2%	6,148	2%	6,307	3%	159
Education & training	8%	26,139	8%	30,261	16%	4,122
Health care & social assistance	10%	32,962	11%	39,221	19%	6,260
Arts & recreation services	2%	5,486	2%	6,576	20%	1,090
Other services	4%	13,563	4%	13,820	2%	258
Information media & telecommunications	3%	10,450	3%	11,236	8%	785
Financial & insurance services	6%	21,148	6%	22,749	8%	1.601
Professional, scientific & technical services	8%	28,253	9%	33,206	18%	4,953
Administrative & support services	4%	11,664	4%	13,490	16%	1,827
Public Administration & safety	6%	20,602	6%	22,646	10%	2,044
Non-Industrial Sectors	76%	252,168	78%	277,322	126%	25,154
Total	100%	333,215	100%	357,434	124%	24,219

2.3 JOB PROVISION

Tables 6 and 7 compare the number of jobs, by industry, located in Marrickville LGA and South Sydney subregion respectively, with the number of Marrickville LGA and South Sydney subregion residents employed, by industry. The analysis highlights the industries where there is a jobs deficit i.e. where there are more residents of an area employed in an industry than the number of jobs available in that industry in the same area.

As noted, there is a deficit of some 19,000 jobs in non-industrial sectors, and a surplus of some 183 jobs in industrial sectors in Marrickville LGA. Across the total South Sydney subregion, there is a jobs deficit in both industrial and non-industrial sectors, but it is significantly greater in non-industrial sectors.

Whilst some imbalance between jobs and resident employment is to be expected at the local level, and it is unrealistic to aim to achieve equilibrium in all sectors, too large of a deficit is inefficient as it causes people to have to travel longer distances to work. This has a range of adverse economic, social and environment impacts (for instance, increased pollution from fuels, increased pressure on road infrastructure and associated higher maintenance costs, reduced time spent with families, increased costs of travel for workers and reduced worker productivity).

The introduction of the proposed Masters Home Improvement store would assist to offset some of the imbalance between resident employment and jobs in Marrickville by providing more retail jobs, which are currently in deficit (-643 at the local level; -13,000 at the subregional level).

TABLE 8 - MARRICKVILLE LGA JOBS DEFICIT

Jobs Deficit

MARINE WILLE LEA. 21

Industry Sectors	Workers	Jobs	Jobs Gap
Agriculture, forestry & fishing	44	7	-37
Mining	50	10	-40
Manufacturing	2,298	3,479	1,181
Electricity, as, water & waste services	254	45	-209
Construction	1,790	1,348	-442
Transport, postal & warehousing	1,721	1,452	-269
Industrial Sectors	6,158	6,341	183
Wholesale trade	1,647	1,975	328
Retail trade	3,280	2,637	-643
Accommodation & food services	2,831	1,542	-1,289
Rental, hiring & real estate services	581	352	-229
Education & training	4,679	2,045	-2,634
Health care & social assistance	4,750	2,055	-2,695
Arts & recreation services	1,282	537	-745
Other services	1,484	1,238	-246
Information media & telecommunications	2,532	514	-2,018
Financial & insurance services	2,731	348	-2,383
Professional, scientific & technical services	5,225	1,755	-3,470
Administrative & support services	1,645	523	-1,122
Public Administration & safety	3,047	1,083	-1,964
Non-Industrial Sectors	35,715	16,604	-19,111
Total	41,873	22,945	-18,928

TABLE 9 - SOUTH SYDNEY SUBREGION JOBS DEFICIT

Jobs Deficit

TOTA SAME A COMPOSITION SAL

Industry Contern	Workers	Jobs	Jobs Gap
Industry Sectors	345	122	-223
Agriculture, forestry & fishing		78	-223 -370
Mining	448		
Manufacturing	26,792	14,659	-12,133
Electricity, as, water & waste services	2,927	952	-1,975
Construction	24,666	10,715	-13,951
Transport, postal & warehousing	24,934	8,406	-16,528
Industrial Sectors	80,112	34,932	-45,180
Wholesale trade	17,559	8,436	-9,123
Retail trade	35,088	21,548	-13,540
Accommodation & food services	23,107	11,987	-11,120
Rental, hiring & real estate services	6,148	2,974	-3,174
Education & training	26,139	14,105	-12,034
Health care & social assistance	32,962	23,690	-9,272
Arts & recreation services	5,486	2,341	-3,145
Other services	13,563	7,719	-5,844
Information media & telecommunications	10,450	1,573	-8,877
Financial & insurance services	21,148	5,148	-16,000
Professional, scientific & technical services	28,253	11,107	-17,146
Administrative & support services	11,664	4,318	-7,346
Public Administration & safety	20,602	9,362	-11,240
Non-Industrial Sectors	92,118	31,508	-60,610
Total	172,229	66,440	-105,789

24 JOURNEY TO WORK

241 RESIDENTS

The inability of Marrickville to adapt its economic base to the changing employment profile of its residents has resulted in the LGA achieving a very low employment containment ratio of 15%, meaning that just 15% of working Marrickville residents are employed within the LGA. The remainder travel beyond for work, primarily to Sydney LGA (presumably mostly the CBD), North Sydney LGA and a dispersed mix of other LGAs, as noted in Table 11. Marrickville residents' journey to work patterns are illustrated in Map 3.

Table 12 benchmarks Marrickville's employment containment ratio against employment containment ratios achieved in a sample of other LGAs across Sydney. As noted, Marrickville has the lowest employment containment rate of all benchmarked LGAs.

This situation is contrary to Council's and the DoP's goal of providing jobs close to homes, and has adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.

The development of a Masters Home Improvement store on the subject site would contribute to improving Marrickville's employment containment rate, as it will provide retail jobs - which are currently in deficit - to Marrickville residents.

.

TABLE 10 - MARRICKVILLE AND SOUTH SYDNEY SUBREGION RESIDENTS' PLACE OF WORK, 2011

Worker Place of Residence

Place of Residence, LGA	Employed	Within	Employed	Within	
	Marrickvi	lle LGA	South Sydne	y Subregion	
Marrickville	5,682	24%	7,396	5%	
Canterbury	2,547	11%	14,525	9%	
Sydney	1,337	6%	3,074	2%	
Rockdale	1,214	5%	13,737	9%	
Sutherland Shire	1,063	5%	54,286	34%	
Bankstown	1,061	5%	8,142	5%	
Randwick	721	3%	2,471	2%	
Hurstville	669	3%	12,829	8%	
Ashfield	639	3%	1,420	1%	
Leichhardt	602	3%	1,051	1%	
Canada Bay	585	3%	1,481	1%	
Kogarah	560	2%	9,923	6%	
Liverpool	461	2%	3,483	2%	
Blacktown	422	2%	1,509	1%	
Parramatta	402	2%	1,488	1%	
Campbelltown	373	2%	2,448	2%	
Fairfield	366	2%	1,721	1%	
Ryde	311	1%	922	1%	
Auburn	309	1%	1,177	1%	
Waverley	305	1%	748	0%	
Other	3,633	16%	17,218	11%	
Total	23,262	100%	161,049	100%	

TABLE 11 - EMPLOYMENT CONTAINMENT BENCHMARKS, 2011 Employment Containment Rates

LGA	%
Warringah	38%
Waverley	27%
Ryde	28%
Parramatta	25%
Botany Bay	24%
Mosman	20%
Leichhardt	18%
Marrickville	14%



URBIS MASTERS MAPPICKYNULE EIA 196715 FINAL

0

MAP 3 -

2.4.2 WORKERS

Table 12 shows the places of residence of people who work in Marrickville LGA and South Sydney subregion. The key points to note are:

- 24% of people that work in Marrickville also live in Marrickville, with the remaining 76% travelling to work in Marrickville from a broad range of areas. 29% of workers travel more than 20 kilometres to work in Marrickville, and 10% travel more than 30 kilometres to work in Marrickville. The journey to work patterns of Marrickville workers is illustrated in Map 4.
- The high dependency on workers from outside of Marrickville can be attributed to the fact that there is a significant mismatch between the types of jobs located in Marrickville and the types of jobs that Marrickville residents are employed in.
- Masters Home Improvement store would assist to address this issue by providing more jobs in an industry that a large proportion of Marrickville residents are employed in (retail), and where there is an undersupply of jobs currently.

TABLE 12 - MARRICKVILLE AND SOUTH SYDNEY SUBREGION WORKERS' PLACE OF RESIDENCE, 2011

Worker Place of Residence

MARRICKVILLE LOA & SOUTH SYDNEY SUBREGION, 2011

Place of Residence, LGA	Employed Within Marrickville LGA		Employed Within South Sydney Subregio	
Marrickville	5,682	24%	7,396	5%
Canterbury	2,547	11%	14,525	9%
Sydney	1,337	6%	3,074	2%
Rockdale	1,214	5%	13,737	9%
Sutherland Shire	1,063	5%	54,286	34%
Bankstown	1,061	5%	8,142	5%
Randwick	721	3%	2,471	2%
Hurstville	669	3%	12,829	8%
Ashfield	639	3%	1,420	1%
_eichhardt	602	3%	1,051	1%
Canada Bay	585	3%	1,481	1%
Kogarah	560	2%	9,923	6%
_iverpool	461	2%	3,483	2%
Blacktown	422	2%	1,509	1%
Parramatta	402	2%	1,488	1%
Campbelltown	373	2%	2,448	2%
Fairfield	366	2%	1,721	1%
Ryde	311	1%	922	1%
Auburn	309	1%	1,177	1%
Waverley	305	1%	748	0%
Other	3,633	16%	17,218	11%
Total	23,262	100%	161,049	100%





NAME NASTERN MARKMAN, ELEMAN 20213 FUNDL

18 advisor future conver-

2.5 SUMMARY

Key findings from the preceding analysis are summarised as follows:

- Jobs located in the study area comprising the area bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line – are largely in the manufacturing and wholesale trade industries.
- In Marrickville LGA and South Sydney subregion, the number of industrial jobs is in decline and this is forecast to continue in the future. This is predominately being driven by the decline in the manufacturing sector a structural economic transformation that is occurring nationally.
- An exception to this is construction jobs, which grew in Marrickville and South Sydney subregion between 2006 and 2011, and which are projected to continue to grow in the future.
- The proposed Masters Home Improvement store could service the growing construction (trade) industry which is forecast to account for around 20% of Masters' turnover. In this way, it is expected to compliment, rather than hinder, the industrial activities occurring in neighbouring areas, and in the broader South Sydney Subregion.
- The Masters Home Improvement store will also contribute to addressing the growing jobs deficit in Marrickville LGA by providing more retail jobs (which declined between 2006 and 2011) to Marrickville residents employed in the retail sector (which grew between 2006 and 2011). This is in line with the DoP&I's goal of creating more jobs close to peoples' homes, and is associated with a range of economic, social and environmental benefits.

3 Study Area Survey

To better understand the nature of industrial activities occurring near the subject site, and in order to fully consider the impacts of the proposed Masters Home Improvement store on the adjoining industrial precinct, Urbis undertook external inspections of properties in the precinct. This was supplemented with information collated with the use of Urbis' Geographic Information Systems (GIS) tools.

This section presents the findings from the site surveys, including analysis of the following metrics:

- Site areas
- Floor space
- Zoning types
- Building types
- Business types
- Vacancy rates
- Employment densities

The assessment incorporates all properties within the Study Area boundaries, being Sydenham Road, Victoria Road, Edinburgh Road and the railway line.

3.1 ZONING TYPES

There are 301 properties in the Study Area, of which 255 (87%) are zoned IN1. The bulk of the balance of properties are zoned B7 and IN2.

The total Study Area comprises around 384,000sq.m. and total building floor space of approximately 238,000sq.m. Site areas and floor spaces were quantified by mapping the site boundaries and building floor plates using GIS software (illustrated in Map 5 overleaf), and assigning zonings using Marrickville Council's zoning plans.

TABLE 13 - ZONING TYPE DISTRIBUTION, STUDY AREA

	IN1	B7	IN2	RE1	RE2	SP2	TOTAL
Number of properties	263	17	15	1	1	3	301
Site area (sq.m.)	346,709	6,126	8,276	473	1,551	20,983	384,118
Floor area (sq.m.)	227,967	4,119	4,669	459	926	296	238,737

 $\label{eq:constraint} \begin{array}{c} Qhde, \\ Q$

MAP 5 - BUILDING FLOOR PLATES MAPPING, STUDY AREA



3.2 BUILDING TYPES

There is a broad range of building types in the study area, accommodating a range of different activities. As illustrated in Figures 1 and 2, freight and logistics / warehouse buildings accounted for the largest share of business and floor space, of the properties that could be fairly categorised through physical survey (some properties were not identifiable from the street and could be not be entered as they were unoccupied).

As noted in Section 2.1.2, BTS has projected a decline in the transport & storage sector in Marrickville in the future. Therefore, given the extensive supply of freight & logistics accommodation / warehouses, the Study Area is at risk of becoming underutilised if land uses are not permitted to be adapted to align with the changing nature of industrial activities (e.g. an increase in construction related activities).

With transport & storage properties having amongst the lowest employment densities of all property types, other industrial activities which could potentially take the place of existing transport & storage businesses (such as construction related) could potentially generate more employment and economic activity than what is currently present. In this way, there is considered to be strong prospects for industrial activities in the Study Area if land uses are not adapted to respond to changing industry structures, as the Masters Home Improvement store seeks to do.

As illustrated in Figure 2, there is currently around 4,000sq.m. of retail floorspace in the study area, equivalent to 1.7% of total building floor space. The proposed Masters Home Improvement store would result in a total of around 17,000sq.m. of retail floor space in the Study Area – which is equivalent to around 8% of existing building floor space. Therefore, the precinct would continue to be dominated by industrial buildings, and the overall representation of retail floorspace would remain marginal, and uncompromised.

FIGURE 1 - BUILDING TYPES, STUDY AREA

Number of Businesses by Building Type



FIGURE 2 - FLOOR AREA BY BUILDING TYPES, STUDY AREA

Floor Area by Building Type



3.3 EMPLOYMENT

Through site surveys, employee numbers were obtained for 73 businesses (25%) in the precinct. The remaining properties were either vacant / not occupied on the day that fieldwork was undertaken, or were not willing to provide information.

As noted in Table 14 below, freight & logistics / warehouses – the most prominent building type in the Study Area – has the lowest employment density of all properties in the precinct, employing 1 person per 262sq.m. of floorspace 460sq.m. of site area. Studios / industrial workshops – the second most prominent building type in the precinct – has the second lowest employment density. Therefore, the precinct supports a low level of employment, relative to other industrial precincts occupied by more intensive industrial uses.

If the freight & logistics / warehouse properties (which are expected to become less relevant as businesses operating in the sector move to alternative locations) are adapted to better suit the changing industry structure of the precinct (e.g. growing prevalence of construction businesses), there is significant opportunity for total employment to increase, and the overall economic importance of the precinct to be enhanced. The introduction of the proposed Masters Home Improvement store, by virtue of its site / building area alone, would not stop this adaptation from occurring.

TABLE 14 - STUDY AREA EMPLOYMENT DENSITIES

	EMPLOYMENT DENSITY	EMPLOYMENT DENSITY		
BUILDING TYPE	SQ.M. FLOOR SPACE EMPLOYEE	SQ.M. SITE AREA / EMPLOYEE		
Factory or laboratory	105	124		
Freight & logistics / warehouses	262	460		
Office	116	140		
Retail - Centre based retail	100	142		
Retail – Dispersed retail	92	179		
Retail – Retail big box	NA	NA		
Retail – Showrooms	46	55		
Service industrial	63	77		
Studio / industrial workshop	239	411		
Urban services	28	213		
Other	62	66		
Precinct Average	111	187		

3.4 VACANCE & UNDERUTILISED PROPERTIES

A high level of vacancy and underutilisation was observed in the Study Area. In this instance, vacancy is defined to comprise all lots that were vacant, derelict or for sale (untenanted); underutilised floorspace is defined to comprise properties which were not occupied on any of the days that Urbis undertook site surveys (3 days) and which were not believed to be regularly utilised based on their physical appearance (for instance, they were run-down, boarded/chained up and without any signage).

Based on information obtained through site surveys, there is estimated to be approximately 64,000sq.m. (27%) of vacant or underutilised IN1 floorspace and 577sq.m. (12%) of vacant or underutilised IN2 floorspace in the Study Area.

3.5 FUTURE INTENTIONS OF TENANTS

Where possible, tenants were asked of their intentions to remain or relocate from their current premises. Of the 76 businesses that were willing or able to respond, 4 (5% of respondents) indicated that they planned to move from the area.

3.6 PERCEIVED OUTCOMES OF PROPOSED MASTERS HOME IMPROVEMENT STORE

Businesses were also asked for their views on how the proposed Masters Home Improvement store would affect their business and the precinct in general.

Businesses primarily felt that it would have a neutral or positive impact on their activities, and on the wider precinct.

Positive impacts were largely expected to be generated through the improved range and access of hardware goods that will be provided by the Masters Home Improvement store.

In terms of possible negative impacts, some businesses expressed that traffic congestion was a concern but felt that congesting could be mitigated through appropriate traffic management. Some of the service industrial businesses actually felt that the possible increase in passing traffic would increase customer exposure and have an overall positive impact on their business.

Only one construction supplies business, occupying a 500sq.m. site, expected that the Masters Home Improvement store would take trade away from it and have an overall negative impact.

3.7 SUMMARY

The rezoning of some industrial lands in the Study Area to permit complimentary uses – such as the proposed Masters Home Improvement store – is not expected to have an adverse impact on the industrial activities in the precinct.

Rather, it is expected that the future viability of the precinct will be largely dependent on existing industrial accommodation (primarily transport & logistics buildings / warehouses) to adapt to accommodate emerging industrial sectors, such as construction.

If this does occur, there is significant opportunity for total employment in the precinct to increase – due to the introduction of more employment intensive industrial uses as well as other complimentary uses – and for the overall economic significance of the area to be enhanced.

UT32S MANTERS MARRIERUM FEM (2011) FEM.

4 Home Improvement Store Case Studies

MASTERS CHULLORA (BANKSTOWN LGA)

Location Description	Masters Chullora is located at 62 Hume Highway, on the site of the former Coles distribution centre at the Chullora, Greenacre and Potts Hill Industrial Area (CGPHIA).			
	The CGPHIA contains in excess of 500,000 sq.m commercial floorspace incorporating a range of light and general industrial uses including printing, manufacturing, food processing, freight and logistics.			
	Chullora Marketplace – a subregional shopping centre comprising 17,000sq.m. of floorspace – is approximately 1 kilometre away.			
Development Description	Chullora was among the first Masters Home Improvement stores to be approved and third to be constructed in NSW. It comprises approximately 13,500sq.m. of floor space.			
Relationship to Surrounding Industrial Precinct	Bulky goods/hardware retail has a relationship with industrial operators, providing retail building supplies. Co-locating with industrial estates can localise a proportion of industrial operators supply chain, thereby increasing the local areas' overall expenditure capture.			
Similarities to Marrickville Proposal	 Located within an industrial precinct accommodating a broad range of light and heavy industrial uses Close (although not adjacent) to a subregional shopping centre 			



BUNNINGS ARTARMON (WILLOUGHBY LGA)

Location Description	Bunnings Artarmon is located at 71 Reserve Rd, Artarmon within the Artarmon employment area which extends north of Campbell Street towards the Gore Hill Freeway, and north-east of the Pacific Highway. There are a number of consolidated business/showroom developments located along the Pacific Highway to the north of the site, as well as a cluster of home improvement retail businesses within the centre of the industrial precinct located on Reserve Road, Artarmon. The remainder of this area is
	dominated by small industrial businesses, with a particular focus on the automotive industry.
Development Description	The property was developed by BBC Hardware Limited in 2000, and purchased by the Bunnings Warehouse Property Trust in February 2003.
Relationship to Surrounding Industrial Precinct	 The Artarmon Employment Area contains a consolidated business/showroom development in the centre of the precinct, with the remaining precinct comprised mainly of industrial businesses. The established 'home improvement precinct' serves a mix of residents and trades people/local businesses. The co-location with industrial businesses has placed Bunnings Artarmon close to wholesale business customers as well as a residential area of Willoughby, St Leonards and Lane Cove.
Similarities to Marrickville Proposal	 Similar to the proposed Masters Home Improvement store in Marrickville, it is located within an established industrial precinct, with a mix of small and large industrial lots, and businesses. Like the proposed Masters Marrickville store, Bunning Artarmon is located in an area with a predominately white collar workforce. The demand for industrial jobs by local regidents has reduced over time, while the demand for precinctive line has

residents has reduced over time, while the demand for non-industrial jobs by local increased. The introduction of complimentary uses like, Bunnings, into the Artarmon Employment Area has contributed to meeting demand for non-industrial jobs.





BUNNINGS ALEXANDRIA (SYDNEY LGA)

Location Description	Bunnings Alexandria is located at 8-40 Euston Road, Alexandria. It is part of the Alexandria Industrial Precinct, which primarily consists of small to medium scale warehousing and factory facilities, some dating to the 1940's / 1950's. Many of the larger facilities from this period have been redeveloped or adapted to accommodate multiple users.
	Pockets of more contemporary employment related development have emerged in recent years shifting from 'traditional' low intensity industrial warehousing facilities towards alternate broader higher intensity employment generating uses.
Development Description	The store comprises approximately 20,000 sq.m, of floorspace with 17,200 sq.m allocated to Hardware and 2,800 to Home Improvement. The site is 2.6 hectares.
Relationship to Surrounding Industrial Precinct	 Bulky goods/hardware retail has a relationship with industrial operators, providing wholesaling retail building supplies. Co-located with industrial estates can localise a proportion of industrial operators supply chain. Based on a recent review of employment lands in South Sydney, the City of Sydney intends to largely retain much of the industrial zoning in the precinct, but introduce some rezonings to allow for a broader mix of uses. Whilst this would result in a reduction in industrial zoned land, new and more intensive industrial uses entering the precinct are expected to drive a net increase in industrial jobs.
Similarities to Marrickville Proposal	 Located in an industrial precinct containing a high proportion of older industrial stock on small lots/stratified ownership. It is transitioning from lower employment intensity 'traditional warehousing',

- It is transitioning from lower employment intensity traditional waterbousing, moving to more flexible industrial/commercial/retail uses, such as low rise commercial office buildings, strata office suites, showrooms, adaptive re-use of former industrial facilities and quasi retail / commercial / industrial uses.
- The local resident demographic profile is relatively comparable. In particular, the white collar workforce has increased and the blue collar workforce has decreased over time, like Marrickville.



5 Economic Impacts of Proposed Development

This section of the report considers implications of the proposed Marrickville Masters Home Improvement store in relation to the industrial precinct in which it sits, as well as broader economic impacts of the proposal.

5.1 IMPLICATIONS FOR SURROUNDING INDUSTRIAL ACTIVITIES

Key points to note in regards to the relationship between the proposed Masters Home Improvement store and the surrounding industrial uses are as follows:

- The proposed Masters Home Improvement store is expected to compliment the adjoining industrial precinct by increasing access and choice of building and construction materials to the construction sector, which increased its prevalence in the precinct between 2006 and 2011, and is expected to continue to become more prevalent in Marrickville LGA, according to BTS forecasts.
- The 2.75 hectare subject site represents just 1.3% of all industrial zoned land in the draft Marrickville LEP 2010 (214.6 hectares), and 7% of industrial zoned land in the Study Area. Therefore, the rezoning will not have a material impact on industrial land supply in Marrickville or the Study Area.

5.2 EMPLOYMENT IMPACTS

The proposed Masters Home Improvement store is expected to have the following employment impacts:

- According to Masters, the Home Improvement store will employ approximately 180 people directly during construction, and 130 to 150 people during operation – a substantial increase on the 15 people currently employed by the warehouse and distribution uses currently on the site.
- The proposed development (1 job per 90-105sq.m.) presents an opportunity to accommodate more jobs on the site than what is currently accommodated, and more than what would likely be accommodated if another distribution centre occupied the site (1 job per 110sq.m. according to Urbis universal averages, or 1 job per 262sq.m. which is the average in the Study Area as quantified through site surveys and presented in Section 3.3).
- The Home Improvement store will increase the provision of retail jobs in Marrickville LGA, which actually declined between 2006 and 2011, while the number of Marrickville residents employed in retail jobs increased between 2006 and 2011, resulting in an increase in the size of the retail jobs deficit in Marrickville to 643 jobs by 2011. Such divergence between jobs and resident employment causes people to have to travel longer distances to work, and this has a range of adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.

5.3 OTHER IMPACTS

Other benefits associated with the proposed development include:

- Increased competition within the home improvement sector which should result in greater choice and price savings for customers;
- The site's location adjacent to Marrickville Metro shopping centre provides a convenient location for household shoppers, whilst its location close to other trades suppliers within Marrickville is also advantageous to the trades sector. Both factors have the potential to reduce overall travel distances for customers.
- Accordingly, there may be potential vehicle emission savings (particularly from trades vehicles) by minimising the need for customers to travel greater distances to make purchases; and
- Increased expenditure retention within the Main Trade Area reducing expenditure leakage to other LGAs.

5.4 SUMMARY

Taking into account the jobs and resident employment profile of Marrickville, and the nature of surrounding land uses and activities, the key anticipated outcomes of the proposed Masters Home Improvement store are summarised as follows:

- It is not expected to undermine the role of the adjoining industrial precinct;
- It is seen as being complimentary to neighbouring industrial activities, particularly those relating to construction;
- It will generate a net increase in jobs;
- It will provide more retail jobs thereby contributing to reducing the current retail jobs deficit in Marrickville LGA;
- The expected employment impacts are highly consistent with the DoP&I's objective of providing more jobs closer to peoples' homes;
- Overall, the proposed Masters Home Improvement store is expected to generate a net economic benefit.

Disclaimer

This report is dated July 2013 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (Urbis) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Hydrox Nominees Pty Ltd (Instructing Party) for the purpose of its rezoning proposal relating to its proposed Masters Home Improvement store (Purpose) and not for any other purpose or use. Urbis expressly disclaims any liability to the Instructing Party who relies or purports to rely on this report for any purpose other than the Purpose and to any party other than the Instructing Party who relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events including wars, civil unrest, economic disruption, financial market disruption, business cycles, industrial disputes, labour difficulties, political action and changes of government or law, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or made in relation to or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

Urbis has made all reasonable inquiries that it believes is necessary in preparing this report but it cannot be certain that all information material to the preparation of this report has been provided to it as there may be information that is not publicly available at the time of its inquiry.

In preparing this report, Urbis may rely on or refer to documents in a language other than English which Urbis will procure the translation of into English. Urbis is not responsible for the accuracy or completeness of such translations and to the extent that the inaccurate or incomplete translation of any document results in any statement or opinion made in this report being inaccurate or incomplete, Urbis expressly disclaims any liability for that inaccuracy or incompleteness.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading bearing in mind the necessary limitations noted in the previous paragraphs. Further, no responsibility is accepted by Urbis or any of its officers or employees for any errors, including errors in data which is either supplied by the Instructing Party, supplied by a third party to Urbis, or which Urbis is required to estimate, or omissions howsoever arising in the preparation of this report, provided that this will not absolve Urbis from liability arising from an opinion expressed recklessly or in bad faith.



Svdnoy Toxer z. Lovel z3, Darling Pade 201 Sensax Street Syrlik y MSW 2000 1 +02 8215 9900 1 +02 8213 9986

Methourne

(1990) F3 *20 Colles Strad Mobstee, 20, 3000 1 +03 8652 4855 4 +03 8652 4855

Brisbane

Brisbane Lovel 7: 123 Albert Street Breibane, CLD 4000 1: 07:3007 3800 1: 07:3007 381

Porth Level 1 55 St Gourges Transic Porth WA 6000 1 -08 0345 0500 1 -00 9221 17 5

Australia • Asis • Misidle East worthe core as a intermeties core as

COMMENTS FROM TRANSPORT NSW 6 JAN 2014







Mr Stuart Withington Manager, Regional Panels Secretariat Department of Planning and Infrastructure GPO Box 39 Sydney NSW 2001 Department of Planning Received 6 JAN 2014

Scanning Room

Dear Mr Withington

Planning proposal for Masters Home Improvement Centre at 74 Edinburgh Road Marrickville

Thank you for your letter received 29 November 2013 inviting Transport for NSW comment regarding the subject site.

Transport for NSW has reviewed the planning proposal with an emphasis on the traffic report provided by Colston Budd, Hunt and Kafes Pty Ltd (CBHK). In summary, while Transport for NSW has no concerns to the general Masters development proceeding it does believe the 2011 Traffic and Transport report by CBHK should be updated to consider bus movements and pedestrian movements in the vicinity of the site prior to any rezoning approval being granted.

Transport for NSW notes the proposed modifications (fourth leg) to the traffic lights at Edinburgh Road and Sidmore Street Intersection to create signalised access/egress from this development. Any modifications to the signals requires Roads and Maritime input and approval under the provisions of the Roads Act. The additional access on Sydney Steel Road is also noted.

The applicants traffic and transport report should be able to demonstrate that the potential impacts from the traffic generated by the proposal and the impacts of the mitigation measures proposed as part of the Marrickville Metro development detailed at Section 9 of the CBHK report do not have any detrimental impact on the current operation of bus services, pedestrian or cyclist movements. Transport for NSW is of the view that the report should be able to demonstrate that:

- Current bus turning arrangements in the vicinity will be retained as a result of the measures proposed.
- A safe environment for pedestrians and cyclists as part of the access driveway works will be provided. This is particularly important given the proposal to relocate the bus stops nearby to the eastern side of Sydney Steel Road.
- The safety of pedestrian and cyclist access from the subject development to Edinburgh Road, and the bus stops in particular, should also be given consideration.

18 Lee Street Chippendale NSW 2008 PO Box K659 Haymarket NSW 1240 T 8202 2200 F 8202 2209 www.transport.nsw.gov.au ABN 18 804 239 602 • The report should also detail how potential impacts to bus services operating on roads within the vicinity of the proposal site during construction of the hardware store and the traffic mitigation infrastructure will be mitigated.

Transport for NSW is not proposing that planning proposal should be delayed while the above issues are addressed. Transport for NSW would be satisfied if these issues are addressed prior to development approval stage.

Could any future correspondence please be directed to the undersigned. The contact officer for this matter will be Mr Tim Dewey, Senior Transport Planner. Mr Dewey may be contacted on 8202-2188.

Yours sincerely

pre /10/ WMA

Mark Ozinga Manager Land Use Planning and Development

CD13/23397

GATEWAY DETERMINATION 25 NOV 2013




Contact: Deewa Baral Phone: (02) 8575 4110 Fax: (02) 9228 6244 Email: deewa.baral@planning.nsw.gov.au Postal; GPO Box 39, Sydney NSW 2001

Our ref: PP_2013_MARRI_001_00 (13/06637) Your ref: RPA2013SYE002

Dr John Roseth Chairperson Sydney East Joint Regional Planning Panel GPO Box 39 SYDNEY NSW 2001

Dear Mr Roseth,

Planning proposal to amend Marrickville Local Environmental Plan 2011

I am writing in response to your letter dated 21 October 2013 requesting a Gateway determination under section 56 of the *Environmental Planning and Assessment Act 1979* ("EP&A Act") in respect of the planning proposal to allow 'hardware and building supplies' and 'garden centre' as additional uses within Schedule 1 – 'Additional Permitted Uses' for the land at 74 Edinburgh Road, Marrickville.

As delegate of the Minister for Planning and Infrastructure, I have now determined the planning proposal should proceed subject to the conditions in the attached Gateway determination.

I have also agreed the planning proposal's inconsistency with S117 Direction 1.1 Business and Industrial Zones, 3.4 Integrating Land Use and Transport, 4.1 Acid Sulphate Soils, 4.3 Flood Prone Land and 6.3 Site Specific Provisions are of minor significance. No further approvals are required in relation on these Directions.

Prior to exhibition, the Sydney East Joint Regional Planning Panel (the Panel) should consult with Transport for NSW in terms of the additional information regarding traffic provided by the proponent and include its comments as part of the exhibition material.

The amending Local Environmental Plan (LEP) is to be finalised within 9 months of the week following the date of the Gateway determination. The Panel should aim to commence the exhibition of the planning proposal as soon as possible. The Panel's request for the Department to draft and finalise the LEP should be made six (6) weeks prior to the projected publication date.

The State Government is committed to reducing the time taken to complete LEPs by tailoring the steps in the process to the complexity of the proposal, and by providing clear and publicly available justification for each plan at an early stage. In order to meet these commitments, the Minister may take action under section 54(2)(d) of the EP&A Act if the time frames outlined in this determination are not met.

Should you have any queries in regard to this matter, please contact Deewa Baral of the regional office of the department on 02 8575 4129.

Yours sincerely 25.11.13

Neil McGaffin A/ Deputy Director General Planning Operations and Regional Delivery



Gateway Determination

Planning proposal (Department Ref: PP_2013_MARRI_001_00): to allow 'hardware and building supplies' and 'garden centres' as additional uses within Schedule 1 – Additional Permitted Uses for the land at 74 Edinburgh Road, Marrickville.

I, the Acting Deputy Director General, at the Department of Planning and Infrastructure as delegate of the Minister for Planning and Infrastructure, have determined under section 56(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) that an amendment to the Marrickville Local Environmental Plan (LEP) 2011 to allow 'hardware and building supplies' and 'garden centre' as additional uses within Schedule 1 – Additional Permitted Uses for the land at 74 Edinburgh Road, Marrickville should proceed subject to the following conditions:

- 1. Community consultation is required under sections 56(2)(c) and 57 of the EP&A Act as follows:
 - (a) the planning proposal must be made publicly available for a minimum of 28 days; and
 - (b) the relevant planning authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 5.5.2 of A Guide to Preparing LEPs (Department of Planning & Infrastructure 2013).
- 2. Prior to undertaking exhibition, the proponent is to provide the following:
 - updated planning proposal in line with the 'Guide to Preparing Planning Proposal' available online at <u>www.planning.nsw.gov.au/gateway-process</u> and the planning proposal template provided to the proponent;
 - (b) a map outlining the land subject to the planning proposal; and
 - (c) a current land zoning map.
- 3. Prior to exhibition the Panel should consult with Transport for NSW in terms of the additional information regarding traffic provided by the proponent and include its comments as part of the exhibition material.
- 4. Consultation is required with Marrickville Council, Sydney Water, Department of Infrastructure and Regional Development and Office of Environment and Heritage under section 56(2)(d) of the *EP&A Act*.
- 5. A public hearing is not required to be held into the matter by any person or body under section 56(2)(e) of the EP&A Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).



6. The timeframe for completing the LEP is to be **9 months** from the week following the date of the Gateway determination.

Dated

JT-22 day of November

2013.

Neil McGaffin Acting Deputy Director General Planning Operations and Regional Delivery Department of Planning and Infrastructure

Delegate of the Minister for Planning and Infrastructure



PANEL DECISION 21 OCT 2013



RECORD OF DECISION THE SYDNEY EAST JOINT REGIONAL PLANNING PANEL

Members:

John Roseth David Furlong Sue Francis Vic Macri Rosanna Tyler Chair Member Member Member

Apology: John Roseth

The Panel considered the following planning proposal and this is a record of the process and decision.

Business Item

ITEM 1 – RPA2013SYE002 – Marrickville Local Government Area -Masters Home Improvement Centre - 74 Edinburgh Road, Marrickville

The Minister for Planning and Infrastructure directed the Sydney East Joint Regional Planning Panel (regional panel) to be the relevant planning authority (RPA) for the above planning proposal.

On 30 September 2013 Panel members were circulated advice from the Department's regional team regarding the additional information supplied by the applicant in response to questions from the Panel.

The Panel noted that information and requests that the matter proceed to the gateway subject to a requirement that the additional information regarding traffic provided by the applicant, be submitted to Transport NSW and that its response be included in the material forming part of any exhibition of the Planning Proposal.

Endorsed by

David Furlong Acting Chair, Sydney East Joint Regional Planning Panel 21 October 2013

PANEL DECISION 23 MAY 2013



RECORD OF DECISION THE SYDNEY EAST JOINT REGIONAL PLANNING PANEL

Members:

John Roseth David Furlong Sue Francis Vic Macri Rosanna Tyler Chair Member Member Member

Apology: Nil

The Panel considered the following planning proposal and this is a record of the process and decision.

Business Item

ITEM 1 – RPA2013SYE002 – Marrickville Local Government Area -Masters Home Improvement Centre - 74 Edinburgh Road, Marrickville

The Minister for Planning and Infrastructure directed the Sydney East Joint Regional Planning Panel (regional panel) to be the relevant planning authority (RPA) for the above planning proposal.

On 23 May 2013, the panel members met to be briefed on the planning proposal and to review material relevant to the proposal.

The resolution of the panel is:

- The Panel accepts the recommendation of the Department of Planning and Infrastructure to agree to the planning proposal proceeding to gateway determination under s56 of the EPA Act 1979, subject to the Panel being satisfied on the following three matters:
 - a) the Traffic Report being brought up to date by a revised analysis of traffic following the approval of the Metro Shopping Centre Extension;
 - b) the Analysis of Potential Alternative Sites being updated; and
 - c) a review of the industrial area enclosed by Sydenham Road, Victoria Road, Edinburgh Road and the railway line, including an analysis of existing land uses consistent with the zoning, vacancy rates and the implications of the proposed rezoning on the viability of this industrial area.

Endorsed by

Dr John Roseth Chair, Sydney East Joint Regional Planning Panel 23 May 2013

ADDITIONAL INFORMATION 25 JULY 2013





25 July 2013

Dr John Roseth Chair, Sydney East Joint Regional Planning Panel GPO Box 39 SYDNEY NSW 2001

Dear Dr Roseth,

Re: RPA2013SYE002 – Marrickville Local Government Area Masters Home Improvement Centre – 74 Edinburgh Road, Marrickville

At the meeting with of the Sydney East Joint Regional Planning Panel (the JRPP) on 23 May 2013 acting as the relevant planning authority (the RPA) for the Masters Planning Proposal at 74 Edinburgh Road the JRPP made the following resolution:

- The Panel accepts the recommendation of the Department of Planning and Infrastructure to agree to the planning proposal proceeding to gateway determination under s56 of the EPA Act 1979, subject to the Panel being satisfied on the following three matters:
 - a) the Traffic Report being brought up to date by a revised analysis of traffic following the approval of the Metro Shopping Centre Extension;
 - b) the Analysis of Potential Alternative Sites being updated; and
 - c) a review of the industrial area enclosed by Sydenham Road, Victoria Road, Edinburgh Road and the railway line, including an analysis of existing land uses consistent with the zoning, vacancy rates and the implications of the proposed rezoning on the viability of this industrial area.

In response to the resolution of the JRPP, revised information has been prepared by the proponent to address each of the issues raised. This information accompanies this correspondence, and is summarised below:

1 Traffic Implications

The Traffic Report prepared by Colstin Budd Hunt and Kafes which accompanied the Planning Proposal has been updated to include key land uses changes surrounding the subject site since lodgement of the Planning Proposal in September 2011. Most notably, the revised Traffic Report incorporates the road infrastructure upgrade requirements contained in the Planning and Assessment Commission (PAC) determination for the Marrickville Metro expansion.

The conclusions of the revised Traffic Report are summarised below:

 The cumulative impact of the Masters Home Improvement Store traffic with the approved Marrickville Metro approved road upgrades has been modelled using SIDRA and concludes that:



- The Edinburgh Road intersection with Victoria Road will have less than 30 seconds wait time per vehicle during peak periods, and that this provides a satisfactory level of service (LoS B/C).
- The Edinburgh Road intersection with Fitzroy Road and Sydney Steel Road will have less than 25 seconds wait time per vehicle during peak periods, and that this provides a good level of service (LoS B).
- The Edinburgh Road intersection with Smitmore Street will have less than 40 seconds wait time per vehicle during peak periods, and that this provides a satisfactory level of service (LoS C).
- Upgrades are proposed to the traffic signals at Edinburgh Road / Smidmore Street intersection, including right turn bays in both directions on Edinburgh Road and a fourth signalised approach to provide access for Masters.
- With the approved and proposed measures, the road network will be able to accommodate the additional traffic from the proposed development.

2 Updated Analysis of Potential Alternative Sites

The Planning Proposal included a detailed analysis of Potential Alternative Sites for a Masters Home Improvement Store in the Marrickville local government area as part of the strategic assessment of the proposal with the *Draft NSW Activity Centres Policy May 2010*. This assessment adopts the 'Sequential Test' which requires the following steps to be completed in order to determine if there are suitable sites in existing or planned activity centres or edge-of-centre locations, and if the proposed site is suitable for the intended use:

- Step 1 Demonstrates there are no suitable sites within existing or planned activity centres.
- Step 2 Demonstrates there are no suitable sites in edge-of-centre locations.
- Step 3 The Masters site meets the suit suitability criteria to support an out-of-centre proposal.

This assessment process is detailed in the revised Section 3.7 of the Planning Proposal Report prepared by the proponent, which is attached as **Attachment 1** to this letter.

The key findings of this analysis have been summarised in the graphic below.





As illustrated in the graphic above, the assessment of activity centres identified all sites within B2 and B4 zones (noting that Marrickville do not adopt the B3 zone in the *Marrickville LEP 2011*), and concludes through a lot size analysis that there are no sites of sufficient size to support a Masters in existing activity centres.

The assessment of edge-of-centre locations identified two precincts where a Masters would be permissible, being:

- Tempe Precinct; and
- Unwins Bridge Road Precinct.

However each of these precincts contain substantial existing tenancy operations, with the balance of the Tempe Precinct which has potential for redevelopment not having sufficient size, even if amalgamated, to support a Masters Home Improvement Store.

Two additional precincts were also identified as being proposed edge-of-centre locations which would permit a Masters Home Improvement Store. These precincts are:

SA4551_MARRICKVILLE MASTERS RESPONSE TO JRPP DECISION 23 MAY 2013



- St Peters Precinct; and
- Victoria Road Precinct.

Similarly with the current edge-of-centre precincts, these sites also do not have sufficient size to support a Masters Home Improvement Store, or offer opportunity for amalgamation to create sites of a sufficient scale.

Accordingly, the subject site of this Planning Proposal was considered against the 'Site Suitability Criteria'. This assessment is contained in **Table 1** of **Attachment 1** and shows that the Masters site is consistent with each of the relevant criteria.

3 Review of Industrial Area

An *Industrial Market Impact Assessment* of the industrial precinct bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line has been undertaken by Urbis' Property Economics and Valuations division. This study accompanies this letter as **Attachment 2**. In preparing the *Industrial Market Impact Assessment*, information was sourced from:

- External inspections of properties in the precinct; and
- Information collated with the use of Urbis' Geographic Information System (GIS) tools.

In summary, the key findings of the review of the industrial area are:

- There has been an overall decline in industrial jobs in the Marrickville LGA between 2006 and 2011, however in some industrial sectors there was growth:
 - Transport, postal and warehousing gained 250 jobs.
 - Construction gained 138 jobs.
- The nature of a Masters Home Improvement Store is considered to be highly complementary to the changing industrial structure which has occurred in Marrickville in recent years, and what is expected in the future.
- The decline in freight and logistics in the precinct between 2005 and 2011 offers opportunity for adaptive uses better suited to the current industrial structure of the precinct to enter the precinct, which can offer enhanced employment opportunities.

The study concludes that the expected overall economic impacts to be generated from the redevelopment of the site for a Masters Home Improvement Store are:

- the Masters Home Improvement Store is expected to compliment the adjoining industrial precinct by increasing access and choice of building and construction materials to the construction sector, which increased its prevalence in the precinct between 2006 and 2011, and is expected to continue to become more prevalent in Marrickville LGA in the future;
- the 2.75 hectare subject site represents just 1.3% of all industrial zoned land in the draft Marrickville LEP 2010 (214.6 hectares), and 7% of industrial zoned land in the Study Area. Therefore, the rezoning will not have a material impact on industrial land supply in Marrickville or the Study Area;

SA4551_MARRICKVILLE MASTERS RESPONSE TO JRPP DECISION 23 MAY 2013



- The Masters Home Improvement Store is expected to result in a net increase in jobs in the precinct, with 130 to 150 people expected to be employed at the Masters Home Improvement Store, compared to 15 workers employed on the site currently. It is also expected to generate more employment than what could be generated if another distribution centre occupied the site, with average employment densities for distribution centres / warehouses ranging from 1 job per 110 sq.m (universal average according to Urbis internal benchmarks) to 1 job per 262sq.m. of floorspace (average for the study area, as quantified through Urbis Study Area site Surveys), compared to an average 1 job per 110 sq.m for the Masters Home Improvement Stores.
- The Masters Home Improvement Store will increase the provision of retail jobs in Marrickville LGA, which actually declined between 2006 and 2011, while the number of Marrickville residents employed in retail jobs increased between 2006 and 2011, resulting in an increase in the size of the retail jobs deficit in Marrickville to 643 jobs by 2011. Such divergence between jobs and resident employment causes people to have to travel longer distances to work, and this has a range of adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.
- Increased competition within the home improvement sector which should result in greater choice and price savings for customers;
- The site's location adjacent to Marrickville Metro shopping centre provides a convenient location for household shoppers, whilst its location close to other trades suppliers within Marrickville is also advantageous to the trades sector. Both factors have the potential to reduce overall travel distances for customers.
- Accordingly, there may be potential vehicle emission savings (particularly from trades vehicles) by minimising the need for customers to travel greater distances to make purchases; and
- Increased expenditure retention within the Main Trade Area reducing the amount of expenditure that is leaked to other LGAs.

Accordingly, the *Industrial Market Impact Assessment* demonstrates that the precinct has been in decline between 2006 and 2011, suffering from high vacancy rates of 28% for IN1 General Industrial land and that the proposed rezoning to support a Masters Masters Home Improvement Store provides a complementary land use to support areas of the industrial sector experiencing growth, while also delivering jobs to the retail sector which has recently experienced decline in the Marrickville LGA.

4 Conclusion

We trust this information satisfactorily addresses the concerns of the JRPP and demonstrate that:

- That the cumulative impact of the Masters proposal and the Marrickville Metro expansion, with the approved and proposed road upgrades will provide good or satisfactory levels of service at the surrounding intersections;
- That the road network will be able to accommodate the additional traffic from the proposed Masters development.
- There are no alternative sites in existing or planned activity centres, or existing or proposed edge of centre locations;



- That the site meets the 'Site Suitability Criteria' contained in the *draft Activity Centres Policy (May 2010)*;
- That the proposals offers a land use which is 'highly complementary' to the changing nature of the
 precinct, and delivers jobs which will complement the growth in the construction industry within the
 LGA, while also providing retail jobs within the LGA which have seen decline between 2006 and
 2011; and
- Deliver a net increase in jobs within the precinct, with Masters employing 130 to 150 people, on a site that currently provides employment for 15 workers.

Yours sincerely,

Danielle Pinkerton Associate Director

UPDATED TRAFFIC REPORT 25 JULY 2013





TABLE OF CONTENTS

TABLE OF CONTENTS

١.	INTRODUCTION
	TRANSPORT ASPECTS OF PLANNING PROPOSAL

Appendix A - Marrickville Metro approved measures Appendix B - RMS survey results Appendix C - SIDRA output summaries

CHAPTER I

I. INTRODUCTION

- 1.1 Colston Budd Hunt and Kafes Pty Ltd has been commissioned by Hydrox Nominees Pty Ltd to assess the transport aspects of a planning proposal to permit a new Masters store on the corner of Edinburgh Road and Sydney Steel Road at Marrickville. The site location is shown in Figure 1.
- 1.2 It is currently occupied by industrial development, including distribution and warehouse uses. The planning proposal would provide for a Masters home improvement centre of approximately 13,500m², with vehicular access from Edinburgh Road and Sydney Steel Road.
- 1.3 On 23 May 2013, the Sydney East Joint Regional Planning Panel resolved the following in relation to the development:
 - The Panel accepts the recommendation of the Department of Planning and Infrastructure to agree to the planning proposal proceeding to gateway determination under s56 of the EPA Act 1979, subject to the Panel being satisfied on the following three matters:
 - a) The Traffic Report being brought up to date by a revised analysis of traffic following the approval of the Metro Shopping Centre Extension;
 - b) The Analysis of Potential Alternative Sites being updated; and
 - c) A review of the industrial area enclosed by Sydenham Road, Victoria Road, Edinburgh Road and the railway line, including an analysis of existing land uses consistent with the zoning, vacancy rates and the implication of the proposed rezoning on the viability of the industrial area.
- 1.4 This report assesses transport aspects of the proposed development in the following chapter, as requested by the JRPP in point a) above.

CHAPTER 2

2. TRANSPORT ASPECTS OF PLANNING PROPOSAL

- 2.1 Transport aspects of the planning proposal are set down through the following sections:
 - o site location and road network;
 - o scale of development;
 - o Marrickville Metro development;
 - o policy context;
 - public transport, walking and cycling;
 - o parking provision;
 - o access, servicing and internal layout;
 - o traffic generation and road works;
 - o consultation with authorities; and
 - o summary.

Site Location and Road Network

- 2.2 The site is on the south-western corner of the intersection of Edinburgh Road/ Sydney Steel Road at Marrickville, as shown in Figure 1. It is occupied by industrial development, including distribution and warehouse uses. Vehicular access to the site is provided from Edinburgh Road and Sydney Steel Road.
- 2.3 The site is in an area which is largely industrial. There is residential development west of the site on Edinburgh Road. Marrickville Metro shopping centre is north of the site on Smidmore Street.

CHAPTER 2

- 2.4 Adjacent the site, Edinburgh Road provides one traffic lane and one parking lane in each direction, clear of intersections. It has a shared pedestrian and cycle path along the site frontage. It provides access to industrial properties and residential properties. There are bus stops on both sides of the road, close to the site.
- 2.5 Sydney Steel Road runs south from Edinburgh Road at an unsignalised tintersection controlled by give way signs, with Edinburgh Road having priority. Sydney Steel Road is a dead end south of Edinburgh Road. It provides access to industrial properties and provides for two-way traffic with parking permitted on both sides. It is signposted as a bicycle route.
- 2.6 Smidmore Street runs north from Edinburgh Road, opposite the site. It has a signalised intersection with Edinburgh Road, with all turns permitted and pedestrian crossings on all approaches. Smidmore Street provides access to industrial properties and Marrickville Metro shopping centre. It provides for one traffic lane in each direction with parking permitted on both sides, clear of intersections. There are bus stops and taxi zones adjacent to the shopping centre.
- 2.7 West of the site, Fitzroy Street runs south from Edinburgh Road at a t-intersection controlled by a roundabout. Fitzroy Street provides access to industrial development and provides for one traffic lane and one parking lane in each direction, clear of intersections.

Scale of Development

2.8 The planning proposal would provide for a Masters of approximately 13,500m². Vehicular access is proposed from Edinburgh Road (through a fourth approach to the signalised intersection of Edinburgh Road with Smidmore Street, with all turns permitted) and Sydney Steel Road.

CHAPTER 2

Marrickville Metro Development

- 2.9 As previously discussed, the Marrickville Metro shopping centre is north of the site on Smidmore Street. The shopping centre has been approved for an extension of 16,767m² plus additional on-site car parking.
- 2.10 The approved redevelopment of Marrickville Metro includes the following changes to the road network in association with the redevelopment of the shopping centre:
 - new left in/left out car park entry entry/exit point on Edinburgh Road, west of Sydney Steel Road (opposite the site);
 - median in Edinburgh Road in front of the new car park access (adjacent to the site), between Sydney Steel Road and Smidmore Street;
 - o roundabout at the intersection of Edinburgh Road and Sydney Steel Road;
 - new bus stops on Edinburgh Road, east of Sydney Steel Road.
- 2.11 These measures are shown in drawings for the approved development, in Appendix A.

Policy Context

2.12 There are a number of strategic state policies which are relevant to future development in the Sydney metropolitan area. The policies include NSW 2021, the draft Metropolitan Strategy for Sydney to 2031 and The NSW Long Term Transport Master Plan. These policies are discussed below.

D NSW 2021

- 2.13 NSW 2021: A Plan to Make NSW Number One sets targets to increase the proportion of commuter trips made by public transport for various areas within Sydney by 2016, including:
 - o 80 per cent in the Sydney CBD;
 - o 50 per cent in the Parramatta CBD;
 - 20 per cent in the Liverpool CBD; and
 - 25 per cent in the Penrith CBD.

2.14 It also has targets to:

- o improve road safety, reduce fatalities to 4.3 per 100,000 population by 2016;
- double the mode share of bicycle trips made in the metropolitan area by 2016; and
- increase the proportion of the population living within 30 minutes by public transport of a city or major centre in the metropolitan area.
- Draft Metropolitan Strategy for Sydney to 2031
- 2.15 The draft Metropolitan Strategy for Sydney to 2031 provides a strategic plan to accommodate an additional 1.3 million people, 545,000 houses and 625,000 jobs.
- 2.16 It identifies a Global Economic Corridor for provision of much of the new employment, encompassing Port Botany, Sydney Airport, the CBD, North Sydney, St Leonards, Chatswood and Macquarie Park, with extension towards Norwest and Parramatta. A number of Urban Activation Precincts will be provided in this area.

CHAPTER 2

- 2.17 Other key areas in the strategy include Sydney Harbour, Parramatta, the Parramatta Road Corridor, Anzac Parade Corridor, North West Rail Link Corridor, Western Sydney Employment Area and the Metropolitan Rural Area.
- 2.18 The draft strategy identifies the following objectives for housing, employment and transport:
 - o provide 27,500 new houses per year, across all of Sydney's six sub-regions;
 - o provide higher densities closer to major centres;
 - provide appropriate land to support jobs growth, including new business parks and industry clusters and hubs;
 - o provide cross-city transport connections;
 - provide appropriate infrastructure to facilitate business growth, including an efficient port, airport and freight network, telecommunications and educational facilities;
 - use of the Urban Activation Precincts to demonstrate greater use of public transport, walking and cycling, and integrating land use and transport;
 - improve travel times and reduce congestion through improvements to six high priority transport corridors (Parramatta – CBD via Strathfield, Parramatta – CBD via Ryde, Liverpool – Sydney Airport, Sydney Airport – CBD, Mona Vale – Sydney CBD and Rouse Hill – Macquarie Park);
 - key transport measures, as outlined in the NSW Long Term Transport Master Plan) to support the strategy;
 - provision of other infrastructure, including schools and hospitals, to support the identified growth; and
 - improved environmental management by use of resources and energy more efficiently, better planning for natural disasters and increased green space.

CHAPTER 2

- NSW Long Term Transport Master Plan
- 2.19 The NSW Long Term Transport Master Plan has been developed, in association with the Sydney Metropolitan and Regional Strategies and State Infrastructure Strategy, to support NSW 2021. The key measures identified are as follows:
 - providing a fully integrated transport system;
 - o providing a modern railway system and increase capacity by 60 per cent;
 - providing a modern light rail system in the CBD;
 - o providing a modern bus system to complement the rail networks;
 - o connect the motorway network, including WestConnex, F3/M2 link and F6;
 - reduce congestion in the CBD, including removing the monorail, increasing light rail, improving pedestrian links, increasing ferry use, providing increased capacity on the rail system and improved walking and cycling infrastructure;
 - support the growth of new economic centres including the north west and south west rail links, new roads in growth areas and new bus infrastructure;
 - connect regional communities through major highway upgrades, and improved rail, bus and air services;
 - improve freight efficiency and productivity;
 - improve access to Sydney Airport and Port Botany;
 - o boost walking, cycling and its integration with public transport; and
 - o preserve future transport corridors.

Public Transport, Walking and Cycling

2.20 Local bus services are provided by Sydney Buses. The site is adjacent to bus services which operate along Edinburgh Road. Services also operate along Victoria Street, west of the site. Services include:

CHAPT	ER 2
-------	------

- o route 308 Marrickville Metro, St Peters, Alexandria, Redfern, city;
- route 352 Marrickville Metro, Newtown, Sydney University, Chippendale, Surry Hills, Darlinghurst, Paddington, Bondi Junction; and
- route 355 Marrickville Metro, Enmore, Newtown, Erskineville, Alexandria,
 Waterloo, Surry Hills, Moore Park, Bondi Junction.
- 2.21 There are existing on and off-road cycle paths on Sydney Steel Road and Edinburgh Road, adjacent to the site.
- 2.22 Existing public transport services will provide for people to access the development by public transport, walking and cycling, particularly for employees. To support accessibility by bicycles, appropriate bicycle parking, in accordance with Council requirements, is proposed to be provided.
- 2.23 The development will therefore satisfy the objectives of NSW 2021, the draft Metropolitan Strategy for Sydney to 2031 and the NSW Long Term Transport Master Plan as follows:
 - enabling employees to readily access buses close to the site;
 - providing an appropriate level of on-site parking, with reference to appropriate Council and RMS requirements, to encourage public transport use and increase the proportion of trips by public transport; and
 - providing employment and retail facilities close to residential areas nearby to reduce the need for travel.

Parking Provision

2.24 Marrickville Development Control Plan No. 19 (Parking Strategy) does not include parking rates for home improvement centres.

CHAPTER 2

- 2.25 By comparison, RMS has undertaken recent surveys of the parking demands of home improvement centres. The results of these surveys are shown in Appendix
 B. Two of the centres (Bankstown and Minchinbury) have areas (14,111m² and 11,915m² respectively) similar in size to the proposed Marrickville Masters.
- 2.26 These stores provide some 472 and 403 parking spaces respectively, which represents rates of some 3.3 to 3.4 spaces per 100m².
- 2.27 The RMS parking demand surveys found peak parking demands of 318 and 264 spaces at Bankstown and Minchinbury respectively. These demands represent rates of some 2.2 to 2.3 spaces per 100m² at peak times.
- 2.28 Based on these rates, the proposed Masters would have parking demands of some 300 to 310 spaces. It is proposed to provide approximately 313 spaces for the proposed development, which will cater for these demands.
- 2.29 Appropriate disabled and bicycle parking should be provided in accordance with Council requirements.

Access, Servicing and Internal Layout

- 2.30 Access to the development is proposed from Edinburgh Road and Sydney Steel Road. The main access to the site is proposed via a fourth signalised approach to the Edinburgh Road/Smidmore Street intersection. Access is also proposed from Sydney Steel Road.
- 2.31 The main access location, as a new signalised approach to the Edinburgh Road/Smidmore Street intersection, would include provision for new right turn bays in both directions on Edinburgh Road, for turns into the site and Smidmore

CHAPTER 2

Street. Land is available to accommodate the right turn bays and two through lanes on Edinburgh Road, should it be required.

- 2.32 Appropriate queuing will be provided within the site for entering and exiting vehicles.
- 2.33 The access from Sydney Steel Road will be provided to accommodate turns by service vehicles. As previously discussed, there is a roundabout proposed for the intersection of Sydney Steel Road with Edinburgh Road, in association with the redevelopment of Marrickville Metro.
- 2.34 The detailed design of the service vehicle access and loading dock arrangements will be undertaken at the development application stage. However, the design will be provided to accommodate 19 metre semi-trailers and 12.5 metre large rigid trucks entering the development, manoeuvring into the loading docks and exiting in a forward direction.
- 2.35 Within parking areas, parking space dimensions, aisle widths, ramp grades and transitions should be provided in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking), AS 2890.1:2004 at the time that a development application is made.

Traffic Generation and Road Works

2.36 In order to gauge traffic conditions, counts were undertaken during Thursday afternoon and Saturday peak periods at the following intersections:

CHAPTER 2

- o Edinburgh Road/Victoria Road;
- Edinburgh Road/Fitzroy Street;
- Edinburgh Road/Smidmore Street; and
- Edinburgh Road/Sydney Steel Road.
- 2.37 The results of the surveys are shown in Figures 2 and 3, and summarised in Table 2.1. Victoria Road carried some 1,000 to 1,600 vehicles per hour two-way during the surveyed weekday afternoon and Saturday peak periods. Edinburgh Road carried lower flows of some 450 to 1,250 vehicles per hour two-way. Fitzroy Street and Smidmore Street carried some 400 to 900 vehicles per hour two-way and Sydney Steel Road carried less than 100 vehicles per hour two-way.

Road	Location	Weekday afternoon	Saturday lunchtime	
Victoria Road	North of Edinburgh Road	1,220	1,005	
	South of Edinburgh Road	1,565	I,390	
Edinburgh Road	East of Victoria Road	1,035	965	
	East of Fitzroy Street	1,210	1,220	
	East of Smidmore Street	725	480	
	East of Sydney Steel Road	710	470	
Fitzroy Street South of Edinburgh Road		425	445	
Smidmore Street	North of Edinburgh Road	625	880	
Sydney Steel Road	South of Edinburgh Road	55	40	

2.38 The operations of the surveyed Edinburgh Road intersections have been analysed using the SIDRA program. SIDRA provides a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

CHAPTER 2

• For traffic signals, the average delay per vehicle in seconds is calculated as delay/(all vehicles), for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:

0 to 14	=	"A"	Good
l 5 to 28	=	"B"	Good with minimal delays and spare capacity
29 to 42	=	"C"	Satisfactory with spare capacity
43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive
			delays. Roundabouts require other control mode.
>70	=	${}^{n}F^{n^{n}}$	Unsatisfactory and requires additional capacity

 For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

2.39 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all

12
Colston Budd Hunt & Kafes Pty Ltd

movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

- 2.40 The analysis found that the signalised intersections of Edinburgh Road with Victoria Road and Smidmore Street are operating with average delays of less than 25 seconds per vehicle during Friday afternoon and Saturday peak periods. This represents LOS B, a good level of service.
- 2.41 The roundabout at the intersection of Edinburgh Road with Fitzroy Street is operating with average delays for the highest delayed movement of less than 20 seconds per vehicle during peak periods. This represents level of service B, a good level of service.
- 2.42 The unsignalised intersection of Edinburgh Road with Sydney Steel Road is operating with average delays for the highest delayed movement of less than 15 seconds per vehicle during peak periods. This represents level of service A/B, a good level of service.
- 2.43 The RMS surveys of similar home improvement centres (Appendix B) found the following two-way (sum of both directions) peak hour traffic generations for the home improvement centres at Bankstown and Minchinbury:
 - 289 and 338 vehicles per hour two-way during the afternoon peak hour (representing rates of some 2.05 and 2.84 vehicles per hour per 100m² respectively); and

CHAPTER 2

- 844 and 754 vehicles per hour two-way during the weekend peak hour (representing rates of some 5.98 and 6.33 vehicles per hour per 100m² respectively).
- 2.44 Using an average of the above rates, the proposed Masters home improvement centre would have the following two-way peak hour traffic generations:
 - weekday afternoon peak hour: some 330 vehicles; and
 - weekend peak hour: some 830 vehicles.
- 2.45 The RMS guidelines indicate that some 20 per cent of retail traffic is passing trade, i.e. traffic which would have driven past the site regardless of its visit to the site. On this basis, the proposed home improvement centre would have the following additional two-way traffic generations on the surrounding road network:
 - weekday afternoon peak hour: some 260 vehicles; and
 - weekend peak hour: some 660 vehicles.
- 2.46 The additional Masters development traffic has been assigned to the road network, including an allowance for 20 per cent passing trade. Existing flows plus the additional development traffic are summarised in Table 2.2. Traffic increases on Edinburgh Road, from where access is proposed, would be some 80 to 130 and 200 to 320 vehicles per hour two-way during weekday afternoon and Saturday peak hours respectively. Increases on Victoria Road, Fitzroy Street and Smidmore Street would be lower at some 40 to 60 and 100 to 150 vehicles per hour two-way during weekday afternoon and Saturday peak hours respectively.

Colston Budd Hunt & Kafes Pty Ltd

CHAPTER 2

Road	Location	Weekd	ay afternoon	Saturd	ay lunchtime
		Existing	Plus development	Existing	Plus development
Victoria Road	North of Edinburgh Road	1,220	+40	1,005	+100
	South of Edinburgh Road	1,565	+50	1,390	+110
Edinburgh Road	East of Victoria Road	1,035	+90	965	+210
	East of Fitzroy Street	1,210	+130	1,220	+320
	East of Smidmore Street	725	+80	480	+200
	East of Sydney Steel Road	710	+80	470	+200
Fitzroy Street	South of Edinburgh Road	425	+40	445	+110
Smidmore Street	North of Edinburgh Road	625	+60	880	+150
Sydney Steel Road	South of Edinburgh Road	55	-	40	-

- 2.47 As previously discussed, it is proposed to upgrade the signalised intersection of Edinburgh Road with Smidmore Street to provide for access to the site. A roundabout is also approved at the Edinburgh Road/Sydney Steel Street intersection in association with the Marrickville Metro development.
- 2.48 The Edinburgh Road intersections have been reanalysed with SIDRA for the additional development traffic flows, including the upgrades discussed above. The upgrade to the Edinburgh Road/Smidmore Street intersection has included right turn bays in both directions on Edinburgh Road.
- 2.49 The analysis has also included traffic from the approved Marrickville Metro development.
- 2.50 The analysis found that with the additional Masters development traffic, plus the additional traffic from Marrickville Metro, the intersection of Edinburgh Road with

Colston Budd Hunt & Kafes Pty Ltd

CHAPTER 2

Victoria Road would operate with average delays of less than 30 seconds per vehicle during peak periods. This represents level of service B/C, a satisfactory level of service.

- 2.51 The roundabouts at the intersections of Edinburgh Road with Fitzroy Street and Sydney Steel Road would operate with average delays for the highest delayed movements of less than 25 seconds per vehicle during peak periods. This represents level of service B, a good level of service.
- 2.52 The proposed upgraded signalised intersection at Edinburgh Road/Smidmore Street would operate with average delays of less than 40 seconds per vehicle during peak periods. This represents level of service C, a satisfactory level of service. The SIDRA output summaries are provided in Appendix C.

Consultation with Authorities

- 2.53 In a meeting with Council on 12 November 2010, Council's traffic engineer (George Tsaprounis) agreed that access through the signalised Smidmore Street intersection would be the most appropriate access to the site.
- 2.54 At the RMS Regional Development Committee meeting on 2 December 2010, RMS generally accepted that access may be possible through the signalised intersection. This would be subject to the application and approval processes, including traffic analysis at the development application stage.

Summary

- 2.55 In summary, the main points relating to the transport aspects of the planning proposal are as follows:
 - the proposed development will be readily accessible by existing public transport services;
 - ii) the planning proposal would provide for a Masters store of approximately 13,500m²;
 - an extension has been approved for the Marrickville Metro shopping centre, north of the site;
 - iv) a number of road and transport measures are approved in association with the Marrickville Metro development, including a roundabout at Edinburgh Road/Sydney Steel Road;
 - v) the proposed parking provision is considered appropriate;
 - vi) the proposed access arrangements Edinburgh Road and Sydney Steel Road are considered appropriate;
 - vii) appropriate arrangements for service vehicles will be provided;
 - viii) an upgrade is proposed to the traffic signals at Edinburgh Road/Smidmore Street, including right turn bays in both directions on Edinburgh Road and a fourth signalised approach to provide access for Masters;
 - ix) with the approved and proposed measures, the road network will be able to accommodate the additional traffic from the proposed development.

8053 - Marrickville Masters



Location Plan

 Colston
 Budd
 Hunt
 & Kafes
 Pty
 Ltd

 DRAWN BYCBHK Pty Ltd_hs
 Ref: 8053
 02 July 2013

Figure 1





8053 - Marrickville Masters

Colston Budd Hunt & Kafes Pty Ltd

_

APPENDIX A

APPENDIX A

MARRICKVILLE METRO APPROVED MEASURES





Colston Budd Hunt & Kafes Pty Ltd

APPENDIX B

APPENDIX B

RMS SURVEY RESULTS

Name Bunnings Sublarb North Paramata 3ank 2152 Region Syloney 2152 Region Syloney 2007 Vear of Network Survey 2007 Vear of Network Survey 2007 Mai Parak - Weekends 1700-1300 Park - Weekends 1200-1300 Park - Weekends 2000 flag (1200-1300 Park - Weekends 2000 flag (1200-1300) Park - Weekends 2		C - WO HWA -	-12.44.44.44.44.14		い。 	- MML - The PML	· ···· HWB	CWHY
aublurb Nordri Pauramarta 8 2152 Angton Sydney antwork Peak Hours Sydney Antes of Network Survey 2007 Antes Control Contro	Bunnings	Martt	Bunnings	Mrefu	Ntra10	Mitre 10	Bunnings	Natre 10
2152 egion 2152 struck Peak Hours Sydney artwork Survey 2007 M Peak - Weekarys 0800-0300 M Peak - Weekards 1700-1300 cals - Weekards 1730-1300 the Desile - Bolly Social rila (1200-1300	North Paramata Sancown Airport	Vāndsor	ងពែកង់វិការវាយ	URISTN	1045310M	Piertoin	South Nama	Crange
cgion Sydney atwork Peak Hours	2200	2756	0112	2567	2264	2577	1457	2800
arwork Peak Huurs	1		Sydney	Sydney	Nochem		Northern	Southem
ate: M Peak - Waekdays M Peak - Weekdays ank - Weekands to Debaile - Boilty Goods fria در الاستيارة - 1200 - 1300 De Debaile - Boilty Goods fria در الاستيارة - 1200 - 1300			2.2.5.5.4.4.4.5.6.2.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	2005	の時代は、日本の時代にいていた。	Solution of the second s	Contraction of the second	5006
M Peak - Waskdays (800-090) M Peak - Wetkdays (700-1900 eak - Weekends (200-1900 the Details - Boilty Goopts friat (1442) (200-1900 the Details - Boilty Goopts friat (1442) (200-1900 the Details - Content - Cont		5				54-124	15/3-24/3	4
א Peak - Werkdays cak - Weekends נאס Debails - Boilty Goods fila (נוצמים כי 1200 - 1300 נאס Debails - Boilty Goods fila (נוצמים כי 1200 - 1300	0020-C0/A	0060-0020	0030-0020	0000-0000	0200-0300	0001-0060	0080-00k3	0060-0000
enk - Weekends (200-1300 De Detaile - Bajlsy Goods friacti <u>war</u> e:	0041-009%	1500-1600	1700-1200	1600-17040	1803-1700	1500-1700	1500-1500	1600-1700
te Details - Boiley Goods friaçúvare: 2007 - 2007	1200-1300	1100-1200	1100-1200	1100-1200	1100-1200	1200-1300	1100-1200	1100-1200
			「日本によった」の「「「「「「「「「「「」」」」」	東部に行きたい。	「方法になる思いない」	いなどにないのであるよう	「ないたんにいている	「同じに作るの。
		3,700		3,500		3,600		תאימאהש
Gross floor area (m ²)	14.313	1,300	11,215	2,400	2,000	1,600	575 572	1,207
Mo. of Employee (Total)		5 1		20		12		() ()
Nc. of employee (at one		Ť		15	15	12		
time)								
Year Constructed		19921		1991-1997 1		Untarewa		1980
Accessibility Score	6.2>	<75	¢19	622	0.5	٣	0	
Opening Hours	A LA LANDAR AND	ACCURATE AND		「民間的ために用い	の の の の の の の の の の の の の の		11 11-14 13 15 12 12 12 12 12 12 12 12 12 12 12 12 12	1217, 1217, 1218 11700, 1177, 1218
		נוסטו-וזנט יייי זָּ						47 0000
Sat 0800-1800	0800-1800	0800-1600	0800-1300	0730-1500	0700-1000	n700-1600	0,800-1,800	0291-0080
Sum 0.800-1600		0200-1500	0500-1800	05D0-1600	0700-1500	0371-0080	000-1800	0091-036C
Parking Spaces		町、泉田城の長い町、朝	教をはいたの気が	のないないない	品が没いたの形	「「なない」の日日にない。	後に、市民にはため、保	
	162	4	282	35	52	55	209	28
Disatilei	40	ť	40	ณ	٢	0	र्म	
219日				ā	Q	0		10
toading Bay		4		7	Ū	5		
Total 265	472	10 10	403	23	30	Ð	212	
Survey Results				CONTRACTOR OF	の日本のないのである	ECCEPTION OF		1903/09
		(Taure)	(Tarres)	(Thurs)	(Thurs)	(illiors)	(Thurs)	(Tburs)
Weather	Seriny	Sumay	Suntry	Schroy	Sunny	Senty	Socny/Rain Evenion	Sunny
						000000		11 CW -12
Date of Sunvey - Weekend 54/03/09	2863.09	50YEC/1Z	21/13/08	2 TAUSRE		EUXLAND	60/20%	
(Sat)	(3es)	(193)	[2:eff])					ີນເກີຍ ເ
Neather Sunny	Euory	Sutury	Surany	Sunty	Sunny Kalo Evening	funde	fellare	Juane
ŝ.								

.

• **

b

ŝ

• ŝ

•

3 1

Hardware / DIY 3.3.1

1

ί.,

ł

Teble 3-1 Traffic Results Summary ~ Hardware/DIY

		Viria SVdn8ÿ	Motropo	ilturi Aro				oolitan A	
Site ID Gross floor ùrea (m2)	1 W 1 9.800	14 111	新日W3 以上的0	WHW4	HWS	HWGY	REHWZ 4	THW8?	2 HW9
Wookdays	11510-047	i state de	1 Martin	11010	2012 16	1 4/000	1,000	0.040	004/000
Person-based Trins			181.391.		11	A. A. A. A. A.	Siles Vest	2.41.120.524	voraisi n
Site Peak Hour	484	585	101	6.98	119	128	97	393	10
Trips/ 100m ² GFA	4.04	4.08	5,61				6.06	3.95	5.5
- Vehicle Network AM Peak	162		49			49		127	6.0
Trips/ 100m2 GFA	1.65		2.72		2.71	2,46			
- Vehicle Network FM Pauk	281	350	88	The second second	79	2,40	4.75 60	1.28	3,3
Trips/100m ² GFA	2.87		4,89			4.65	_		6
Dally Total Person Trips	4,397					868	4.19	2.79	3.6
Tripa/ 100m ² GFA	44.87		45.53	100.00	1.1111.111	Di2200424		2,907	70
Vohicle-based Trips	1	94,00	40.00	03.20	35.76	43.40	41,89	29.22	39.0
- Site Peak Hour	403	444	E4	101	0.0	1.10	*		
Trips/ 100m ² GFA	4.11	444	64 4.67		98	112	76	273	8
-Notwork AM Peak	140	3.10	4.67	243	the second states in the	6.00	4.89	2.74	4.6
Trips/100m ² GFA					61	42	62	108	8
Notwork PMPeak	1.43	289	2.22		2,13	2.10	3.88	1,09	2,9
Tripa/100m ² GFA			64	338	n ⁶⁶	76	50	198	Ģ
Cally Total LV Trips	2.30	2,05	3.68	2.84	2.76	08.E	3.13	1.89	3.Z
Trips/100m ² GFA		3,643	514	4,558	606	718	623	2,065	57
Deily Total HV Trips	35.11	26.82	20.66	38.25	25.21	35.92	32,89	20.06	31,0
	122	139	111	178	51	45	10	69	3
Trips/ 100m ² GFA	1.24	0.89	6.17	1.49	2.13	2.25	1.19	0,60	1.8
Dally Total Vahicle Trips	3,563	3,782	62\$	4,736	656	763	542	2,124	60
frips/100m ² GFA % HV	38.36	26.80	34.72	39.75	27,33	38.15	33.88	21.85	33.7
Peak Parking Accumulation	3.4%	3.7%	17,8%	3,8%	7.9%	J.9%	3.6%	3.2%	5.49
Sell Parking Accomutation	119	155	14	199	25	38	3D	104	2
Poak Parking/ 100m ² GFA	1.21	1.10	0.78	1.67	1.04	1.00	1.88	1.05	1.1
Veekend) (Statistics Constant) Forson-based Trips	No Maria	939929J	化的形式		如何的行	14. 1.	e al des	化的现象	
Site Peak Hour	L 4 0.00	1004				-		_	
/ips/ 100m ² GFA	1,000	1,331	123	1,256	205	184	122	739	14
Vehicle Network Pank	10.20	9.43	6.83	10,64	8.54	9,20	7.63	7.43	6.1
	925	1,282	108	1,244	192	174	122	709	120
rips/100m ² GFA	0.44	0.0D	6.00	10.44	8.00	8.70	7.63	7.13	Q. G)
ally Total Person Trips	7,100	B,59D	665	8,864	1;238	593	855	4,738	723
rlps/ 100m ² GFA	72.45	B0.87	38.94	74.39	51.58	49,90	40.94	47.63	40.17
ehicle-based Trips	1 10000								
Site Peak Hour	656	844	77	754	151	112	78	447	111
fipe/100m ² GFA	6,69	5.98	4.28	6.33	6.29	5,60	4,88	4.49	6.17
Network Peak	593	806	65	751	119	104	78	428	96
lps/100m ² GFA	6.05	б. 7 0	3.61	0.33	4.96	5.20	4,88	4,28	5.33
ally Total LV Trips	4,780	6,483	396	5,440	882	644	489	2,800	571
ips/100m ² GFA	40.78	38.93	22.00	45.66	36.75	32,20	30.66	28.24	31,72
	27	115	16	60	3	5	0	15	2
ally Total NV Trips I ps/100m² GFA								15	
	0.28	0.61	0.89	0.50	0.13	0.25	0.00	0.15	0.11
ps/100m ² GFA	0.28 4, 807	0.61 5,608	0.89	0.50 6,600	0.13	0.25 649	0.00 480	0.15 2,824	0.11
ips/100m² GFA ally Total Vehicle Trips	0.28 4 ,807 49.05	0.61 5,608 39.74	0.89 412 22.89	0.50 6,600 46.1 6	0.13 885 35.88	0.23 849 32.45	0.00 400 30,56	0.15 2,824 28.39	0.11 573 31.83
ips/100m ² GFA ally Total Vehicle Trips ips/100m ² GFA	0.28 4, 807	0.61 5,608	0.89	0.50 6,600	0.13	0.25 649	0.00 480	0.15 2,824	0.11

Trip Generation and Parking Generation Surveys--Bulky Gooda / Hardword Storas Hyder Cohsulting Pty Ltd-ABM 70104 486 289

Colston Budd Hunt & Kafes Pty Ltd

APPENDIX C

APPENDIX C

SIDRA OUTPUT SUMMARIES

B Site: Ex Thu PM

Victoria Road & EdInburgh Road

Existing Thursday afternoon peak hour

Signals - Fixed Time - Cycle Time = 121 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence,

Move	ment Perf	ormance - V	enicles			100					
Mov ID	OD Mav	Demand Total vel/h	Flows HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles voh	of Queue Distance	Prop. Queued	Effective Stop Rate par veh	Average Speed km/h
South	Victoria Ro	ad south							1942 NV423	por terr	NIT I
2	Τ1	405	2.0	0.446	22.8	LOS B	15.8	112.2	0.72	0.63	35.7
3	R2	140	2.0	0,446	39.1	LOS C	6.3	44.9	Ó.79	0.81	29.7
Appro	ach	545	2.0	0,446	27,0	LÓS B	15.8	112.2	0.74	0.68	33.9
Ëast: E	Edinburgh R	oad									
d,	L2	550	2.0	0.459	11,6	LOSA	9.5	67.7	0.39	0.73	46.0
6	R2	210	2.0	0.133	31.4	LOS C	9.5	67.7	0.64	0.76	32.9
Approa	ach	760	2.0	0.459	17.1	LOS B	9.5	67.7	0.46	0.74	41.5
North:	Victoria Roa	ad north									
7	L2	135	2.0	D.333	20.7	LOS B	9.7	69.3	0,66	0,70	37.6
8	T1	470	2.0	0.333	21.1	LOS B	11.0	78.4	0.66	0.62	37.0
Approa	ich	605	2.0	0.333	21.0	LOS B	11.0	78.4	0.66	0.64	37.1
All Veh	icles	1910	2,0	0.459	21.2	LOS B	15.8	112.2	0.6D	0.69	37.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D):

HV (%) values are calculated for All Movement Classe's of All Heavy Vehicle Model Designation.

Move	ement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	27.2	LÒS C	0,1	0.1	0.67	0.67
P2	East Full Crossing	53	22,1	LOSIC	Ô.1	0.1	0.60	0.60
All Pe	destrians	105	24.6	LOS C			Ú. 64	0.64

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Monday, 1 July 2013 12:14:49 PM Copyright © 2000-2013 Akcellk and Associates Pty Ltd SIDRA INTERSECTION 6.0.9.3886 www.sidrasolutions.com Projoct: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Victoria Road & Edinburgh Road.sip8 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Sat mid

Victoria Road & Edinburgh Road

Existing Saturday lunchlime peak hour

Signals - Fixed Time - Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfe	ormance - V	ehicles						1.00		المعلم الم
Mov ID	OÐ Mov	Demand Total	Fiows HV	Deg. Satn	Average Delay	Level of Service	95% Back e Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
IU	14104	veh/h	%	v/c	Sec	12 Million	veh	m	22 Y 22 # 2	per veh	km/h
South:	Victoria Ro	ad south									
2	T1	415	2.0	0.287	5.0	LOS A	7.6	53.8	0.34	0.30	61.1
3	R2	315	2.0	0.483	16.4	LOS B	7.6	64.3	0.45	0.76	42.1
Approa	ach	730	2.0	0.463	9.9	LOSA	7.6	54,3	0.39	0.50	46.8
East: 8	Edinburgh R	.oad									
4	1.2	360	2.0	0.315	9.4	LOSA	2.2	15.9	0.18	0.67	48.1
6	R2	160	2.0	0.291	59.1	LOSE	4.2	3D.2	0.93	0.77	23.6
Approa	ach	520	2.0	0.315	24.7	LOS B	4.2	30.2	0.41	0.70	36.5
North:	Victoria Roa	ad north									
7	L2	130	2.0	0.149	7.9	LOSA	2.4	17.3	0.27	0.58	48.9
8	T1	300	2.0	0.149	5.4	LOSA	3.4	24.5	0,29	0.35	51.1
Арргоя	ach	430	2.0	0.149	6.2	LOSA	3.4	24.5	0.29	0.42	50.4
Ali Vef	niclas	1680	2.0	0.463	13.5	LOSA	7.6	54.3	0.37	0. 5 4	43.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity, SIDRA Standard (Akgelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestria	ns					a an	
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	6.4	LOSA	0.1	0.1	0.33	0.33
All Pe	destrians	105	30.3	LOS D			0.64	0.64

Leval of Servica (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement, Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Monday, 1 July 2013 12:16:33 PM SIDRA INTERSECTION 6.0.8.3896 Project: G:\Traffic\SIDRA 6.0\8053 Marrickvillo Masters\Victoria Road & Edinburgh Road.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

🗑 Site: Ex Thu PM

Edinburgh Road & Fitzroy Street Existing Thursday afternoon peak hour Roundabout

		ormance - V									ILLUI-
Mav ID	OD Mov	Demand Total Veh/h	I Flows HV %	Deg: Sain v/c	Average Delay sec	Level of Service	95% Back (Vahicles	Distance	Prop Queued	Effective Stop Rate	Average Speed
South	Fitzroy Str	eet	10	140	005	CONTRACTOR OF	veh	m	222.011.011.0	þér veh	km/h
1	L2	90	2.0	0.342	16.2	LOS B	2.1	14.9	0.76	1.78	42.2
3	R2	140	2,0	0.342	16.2	LOS B	2.1	14.9	0.76	1.78	42.2
Appro	ach	230	2.0	0.342	16.2	LOS B	2.1	14.9	0.76	0.89	42.2
East: 8	Edinburgh R	oad east									
4	L2	160	2.0	0,569	8.5	LOSA	5.7	40.4	D.26	1.10	48.1
5		670	2.0	0.569	8.5	LOS A	5.7	40.4	0.26	1.10	48.1
Approa	ach	830	2.0	0,569	8.5	LOSA	5.7	40.4	0,26	0.55	48.1
West: I	Edinburgh F	load west									
11	T1	240	2,0	0.252	9.4	LOS A	1.6	11 6	0.41	1.22	47,3
12	R2	35	2.0	0.252	9.4	LOSA	1.6	11.6	0.41	1.22	47.3
Approa	ich.	275	2.0	0.252	9.4	LOS A	1.6	11.6	D.41	D.61	47.3
All Veh	icles	1335	2.0	0.569	10.0	LOSA	5.7	40.4	0.38	0.62	46.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average datay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model Is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday. 1 July 2013 12:40:20 PM SIDRA INTERSECTION 6.0.9.3896 Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Roed & Fitzroy Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

𝖁 Site: Ex Sat mid

Edinburgh Road & Fitzroy Street Existing Saturday lunchtime peak hour Roundabout

Mov	OD	Demand	Elmas	Dog.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total veh/h	HV %	Satn v/c	Delay	Service	Vehicles veh	Distance	Queued	Stop Rate per veh	Speed km/t
South:	Fitzroy Stre			119			0.511				
1	L2	65	2.0	0.323	14.6	LOS B	1.9	13.6	0.64	1.63	43.5
3	R2	200	2.0	0.323	14.6	LOS B	1.9	13.6	0.64	1.63	43.5
Approa	ach	265	2.0	0.323	14.6	LOS B	1.9	13.6	0.64	0.81	43.5
East: E	Edinburgh R	oad east						+ (
\$	L2	150	2.0	0.417	8.5	LOS A	3.4	24.4	0.20	1.12	48.4
5	T1	455	2.0	0.417	8.5	LOSA	3.4	24.4	0.20	1,12	48.4
Approa	ach	605	2,0	0.417	8.5	LOSA	3.4	24.4	0.20	0.56	48.4
Nest: I	Edinburgh R	load west									
11	T1	415	2.0	0.427	9.8	LOSA	3.1	22.4	0.55	1.31	46,8
12	R2	30	2.0	0.427	9.8	LOSA	3.1	22.4	0.55	1.31	46.8
Approa	ich	445	2.0	0.427	9.8	LOSA	3.1	22.4	0.55	0.66	46.8
All Veh	iclos	1315	2.0	0.427	10,2	LOSA	3.4	24.4	0.41	0.64	46.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vahicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Copyright © 2000-2013 Akcelik and Associates Pty Ltd www.sidrasolutions.com

Processed: Monday, 1 July 2013 12:42:02 PM SIDRA INTERSECTION 6.0.9.3896 Project: G:\Traffic\SIDRA 6.0\8053 Marilckville Masters\Edinburgh Road & Fitzroy Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, FLUS / 1PC

Site: Ex Thu PM

Edinburgh Road & Smidmore Street

Existing Thursday afternoon peak hour

Signals - Fixed Time Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles Demand Flows Total HV veh/h % Deg Satn v/c Mov OD Averago Level of 95% Back of Queue Prop. Quaued Effective Average Delay 8ec Vehicles veh Mov Distance m Stop Rate Speed Service per veh km/h East: Edinburgh Road east 5 71 520 2.0 0.540 13.1 LOSA 41.3 80.4 0.65 0.59 36.7 6 R2 50 2.0 0,540 13.9 LOSA 11.3 80.4 0.69 0.64 36.2 Approach 570 2.0 0.540 13.1 LOS A 11.3 80.4 0.59 0.66 36.7 North: Smidmore Street 7 L2 20 0.034 2.0 26.4 LOS B **Q**.6 3.8 0.69 0.71 30.7 9 R2 310 2.Q 0.538 30.8 LOS C 10.0 71.0 0.86 0.82 28.8 Approach 330 2.0 0.638 30.5 LOS C 10.0 71.0 0.81 0.85 28.9 West: Edinburgh Road west 10 12 245 2,0 LOSA 0.157 7.2 0.8 6.0 0.18 0.64 42.5 11 Τ1 135 2.0 0.134 10.3 LOS A 2.719.0 0.54 38.7 0.44 Approach 380 2.0 0.157 8.3 LOS A 2.7 19,0 0.31 0.57 41.1 All Vehicles 1280 2.0 0.540 16.2 LOS B 11.3 80.4 0.60 0.64 35.4

Level of Service (LOS) Method: Delay (RTA NSW),

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used, Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ement Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back o Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	53	27.3	LOS C	0.1	0.1	0.83	0.83
PЭ	North Full Crossing	53	13.8	LOS B	0,1	0,1	0.59	0.59
P4	West Full Crossing	53	27.3	LOS C	0.1	Q.1	0.83	0.63
All Pe	destrians	158	22.8	LOS C			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Monday, 1 July 2013 12:59:16 PM SIQRA INTERSECTION 6.0.9,3899 Project: G-\Traffic\SIDRA 6.0\8053 Marrickville Masters\E \$000030, COLSTON BUDD HUNT & KAFES PTY LTD, P	SIDRA INTERSECTION

6

Site: Ex Sat mid

Edinburgh Road & Smidmore Street

Existing Saturday lunchtime peak hour

Signals - Fixed Time - Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfe	ormance - V	ehicles						an Yourselle	والمحرية أوا	in the second
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg Sain v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance M	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: I	dinburgh R	A DRIVEN AND A DRIVE ADDRESS OF									
5	T1	260	2.0	0.411	20.8	LOS B	7.0	49.6	0.77	0.66	32.2
6	R2	40	2.0	0.411	22.0	LOS B	7,0	49.6	0.BQ	0.70	31.6
Approa	ach	300	2.0	0.411	21.0	LOS B	7.0	49.6	0.77	0.66	32.1
North:	Smidmore S	Street									
7	L2	30	2.0	0.034	18.5	LOS B	0.6	4.4	0,56	0.68	34.7
9	R2	345	2.0	0.412	21.4	LOS B	8.7	62.1	0.69	0.79	33.1
Approa		375	2.0	0.412	21.2	LOS B	8.7	62.1	0.68	0.78	33.2
West:	Edinburgh R	load west									
10	12	465	2.0	0,299	7,3	LOSA	1.6	13.1	0.22	Q.66	42.4
11	T 1	150	20	0.208	18.3	LOS B	4.0	28.3	0.72	0.58	33,4
Approa	ich	615	2.0	0.299	10.0	LOSA	4.0	28.3	0.34	0,64	39,8
All Veh	icles	1290	2.0	0.412	15.8	LOS B	8.7	62.1	0,54	0.68	35.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay par movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move Mov ID	ment Performance - Pedestrians Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedesirian pod	of Queue Distance .m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	53	18.3	LOS B	0.1	D.1	0.68	0,68
P3	North Full Crossing	53	21.8	LOS C	Q.1	0.1	0.74	0.74
P4	West Full Crossing	63	18.3	LÓS B	Q.1	0.1	0.68	0.68
All Pe	destrians	158	19.4	LOS B			0.70	0.70

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Monday, 1 July 2013 1:00:26 PM SIDRA INTERSECTION 6.0.9.3886 Project: C:\TrafficiSIDRA 6.0/0653[Marrickville Masters\Edinburgh Road & Smidmore Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

SIDRA INTERSECTION 6

▽ Site: Ex Thu PM

Edinburgh Road & Sydney Steel Road Existing Thursday alternoon peak hour Giveway / Yield (Two-Way)

Move	ment Perfe	ormance - V	ehicles								-
Mov ID	OD Mov	Domand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Lovel of Service	95% Back Vehicles veh	Dislance	Prop Queved	Effective Stop Rate	Average Speed
South:	Sydney Ste			and a state of the state	000		YGII	m		per veh	km/h
1	L2	30	2.0	0,032	8.8	LOS A	0.1	0.8	0.49	0,68	41.3
3	R2	15	2.0	0.014	8.6	LOSA	O, 1	0.8	0.47	0.67	41.5
Approa	ach	45	2.0	0.032	8.8	LOSA	O .1	0.8	0.48	0.68	41.4
East: E	dinburgh Re	oad east									
4	L2	5	2,0	0.049	0.4	LOS A	0.0	0.0	0.00	0.05	49.6
5	T 1	540	2.0	0.049	Q,1	LOSA	0.0	0.0	0.00	0.01	49.9
Approa	ch	845	2.0	0.235	0.1	NA	0.0	0.0	0.00	0.01	49.9
West: E	Edinburgh R	oad west									
11	TI T	150	2.0	0.083	26	LOSA	0.7	4.7	0.65	0.03	43.5
12	R2	5	2.0	0.083	2.6	LOSA	0.7	4.7	0.55	0.03	43.5
Approa	ch	155	2.0	0.083	2.6	ΊNΑ	07	4.7	0.55	0.03	43.5
All Vehi	cles	745	2.0	0,235	1.1	NÁ	0.7	4.7	0.14	0.05	47.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay Includes Geometric Delay.

Gap-Acceptance Capacity, SIDRA Standard (Akcelik M3D),

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, 1 July 2013 1:11:39 PM SIDRA INTERSECTION 6.0.9.3896 Project: G:\Traffic\SIDRA 6.0\8053 Marrickvil/e Masters\Edinburgh Road & Sydney Steel Road.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

abla Site: Ex Sat mid

Edinburgh Road & Sydney Steel Road Existing Saturday lunchtime peak hour Giveway / Yield (Two-Way)

Mov	OD	Demand	Floure	Deg	Avorago	Level of	95% Back o	Ouerte	Prop.	Effective	Average
ID	Mov	Total	HV %	Satu v/c	Delay	Service	Vehicles veh	Distance	Quaued	Stop Rate per yeh	Speed km/h
South:	Sydney Ste										
1	12	15	2.0	0.012	7.5	LOSA	0.0	0.3	0.34	0.58	42.0
3	R2	5	2.0	0.004	7.8	LOS A	0.0	0.3	0.36	0.59	41.B
Аррта		20	2,0	0.012	7.6	LOSA	0.0	0.3	0.35	0.58	41.9
East: E	dinburgh Re	pad east									
4	L2	10	2.0	0.028	1,2	LOSA	0.0	0.0	0.00	Q,16	48,6
5	T1	285	2,0	0.028	0.2	LOSA	0.0	0.0	0.00	0.03	49.8
Арргоа	ch	295	2.0	0.125	0,2	NA	D.0	0.0	0.00	0.03	49.7
West: I	Edinburgh R	oad west									
11	T1	170	2.0	0.096	1.5	LOS A	0.6	4.4	0.40	0.05	44.9
12	R2	10	2.0	0.096	1.5	LOSA	0.6	4.4	0.40	0.05	44.9
Approa	ich	180	2.0	0.096	1.5	NA	0.6	4.4	0.40	0.05	44.9
All Veh	cles	495	2.0	0.125	1.0	NA	0.6	4.4	0,16	0.06	47.5

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D)

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, 1 July 2013 1:12:42 PM Copyright © 2000-2013 Akcolik and Associates Pty Ltd SIDRA INTERSECTION 6.0,9:3896 www.sidrasolutions.com Project. G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Sydney Steel Road.slp8 8000030. COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Thu PM + MM

Victoria Road & Edinburgh Road

Existing Thursday afternoon peak hour + Marrickville Metro

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfe	ormance - V	ehicles	a. 11 ki	135.0	H. S. H.				Store Bar	and a la
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Averaga Speed km/h
South:	Victoria Ro										
2	τ1	405	2.0	0.377	15.7	LOS B	13,0	92.8	0.60	0.53	40.5
3	R2	185	2.0	0.510	33.0	LOS C	7.7	54.6	0.74	0.81	32.2
Арргоа	ich	590	2.0	0.510	21,1	LOS B	13.0	92.8	0.64	0.62	37.5
East: E	dinburgh R	oad									
4	L2	590	2.0	0,622	11.6	LOSA	10.5	74,6	0.40	0.74	46.0
6	R 2	290	2.0	0.232	39.5	LOŞ Ç	10,5	74.6	0.76	0.79	29,5
Approa	ch	880	2.0	0.522	20.8	LOS B	10,5	74.6	0.52	0.75	38.9
North: 1	Victoria Roa	ud north									
7	L2	200	2.0	0.305	16.1	LOS B	6.5	60.6	D_54	0.69	41.2
8	T1	460	2.0	0.305	15.3	LOS B	10.0	71.4	0.56	0.55	41.1
Approa	ch	660	2.0	0.305	15.5	LOS B	10.0	71.4	0.56	0.59	41.2
All Veh	Icles	2130	2.0	0.522	19.2	LOS B	13.0	92,8	0.57	0.67	39,1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation,

Move	ment Performance - Podestrians		的正义的	W. C.		16.03	I. Walt	
Mov ID	Description	Demand Flow ped/h	Average Delay Sec	Level of Service	Average Back of Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
Pt	South Full Crossing	63	34.6	LOS D	Ġ.1	0.1	0.76	0.76
P2	East Full Crossing	53	16.1	LOS B	0,1	0.1	0.52	0.52
All Pag	destrians	105	25:3	LOSC			0.64	0.64

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Dolay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Friday, 19 July 2013 5:39:49 PM Copyright @ 2000-2013 Akcelik and Associates Pty Ltd SIDRA INTERSECTION 6.0.9.3896 www.sidrasolutions.com Project. G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Victoria Road & Edinburgh Road,sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Sat mid + MM

Victoria Road & Edinburgh Road

Existing Saturday lunchtime peak hour + Marrickville Metro Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

								and the second se			and in case of the local division of the loc
Move	ment Perfo	ormance - V	ohicles			Section and	and the				
Mov	OD	Demand		Deg	Average	Level of	95% Back of		Prop	Effective Stop Rate	Average Speed
ID	Mov	Total	HV %	Satn v/c	Delay sec	Service	Vehiclas veh	Distance n	Queued	per veh	km/h
South:	Victoria Ro	veh/h ad south	120	Vila	900	D P R S D R S A	A COLORED				
2	T 1	395	2.0	0.274	5.0	LOS A	7.1	50.5	0.34	0.30	51.2
3	R2	396	2.0	0.651	18,8	LOS B	12,4	88.0	0.57	0.60	40.3
Approa		790	2.0	0.651	11.9	LOSA	12.4	88.0	0.46	0,55	45.1
East E	idinburgh R	oad									
4	L2	440	2.0	0.383	9.6	LOS A	3.3	23.7	0.21	0.68	47.9
6	R2	300	2.0	0.546	61.4	LOSE	8.3	59.3	0,97	0.81	23.0
Approa		740	2.0	0.546	30.6	LOS C	8.3	59.3	0.52	0.73	33.3
North:	Victoria Roa	ad north									
7	L2	250	2.0	0.176	93	LOSA	1.8	13.1	0.19	0.67	48.1
8	T1	280	2.0	0.176	5.0	LOS A	4.2	29.8	0.30	0.30	51.5
Approa	ich	530	2.0	0.176	7.0	LOSA	4.2	29.8	0.25	0.47	49.8
All Veh	icles	2060	2.0	0.651	17.4	LOS B	12.4	88.0	0.43	0.60	40.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçalık M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedest	rians		a an	ayan ayang ayan			
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance M	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	54.3	LOS E	Q.2	0.2	0.95	0.95
F2	East Full Crossing	63	6.4	LOSA	0.1	0.1	0.33	0.33
All Pø	dastrians	105	30,3	LOS D			0.64	0,64

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Avarage Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Monday, 1 July 2013 1:32;29 PM SIDRA INTERSECTION 6.0.9.3896 Copyright @ 2000-2013 Akcelik and Associates Pty Ltd www.sidrasolutions.com Project: G:\Traffic\SIDRA 8.0\8053 Marrickville Masters\Victoria Road & Edinburgh Road sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

SIDRA

Site: Ex Thu PM + MM

Edinburgh Road & Fitzroy Street Existing Thursday afternoon peak hour + Marrickville Metro Roundabout

	ment Perf	ormance - V	/ehicles								
Moy ID	OD Mov	Demand Total veluh	l Flows HV %	Deg Satn v/c	Average Delay sec	Lavel of Service	95% Back o Vehicles	Distance	Prop Quaued	Effective Stop Rate	Average Speed
South:	Fitzroy Stre	aet		0.0	000	CO SAGES CON	voh	i ve si e imi	2011年11月8月	per veh	km/h
1	L2	90	2.0	0.415	18.8	LOS B	29	20.5	D 84	1.95	4Ď.3
3	R2	155	2.0	0,416	18.8	LOS B	2.9	20.5	0.84	1.95	40.3
Approa	ach	245	2.0	0.416	19.6	LOS B	2.9	20,5	0.84	0.98	40.3
East: E	đinburgh R	oad east									
4	L2	175	2.0	0.656	8.6	LOSA	7,9	56.6	0.31	1,07	47.9
5	T1	790	2.0	0.656	8.6	LOSA	7.9	56.6	0.31	1.07	47.9
Approa	ich	965	2.0	0.656	8.6	LOSA	7.9	56,6	0.31	0.54	47.9
West: £	Édînburgh R	load west									11.0
11	T1	350	2.0	0.353	9.5	LOSIA	2,6	18,2	0.47	1.24	47,1
12	R2	35	2.0	0.353	9.5	LOSA	2.6	18.2	Q.47	1.24	47.1
Арргоа	ch	385	2.0	0.353	9.5	LOŞA	2.6	18.2	0.47	0.62	47.1
All Vehi	cles	1595	2.0	0.656	10,3	LOS A	7.9	56.6	0.43	0,62	46.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, 1 July 2013 1:34:18 PM SIDRA INTERSECTION 6.0.9.3896 Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Fitzroy Street,sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

₩ Site: Ex Sat mid + MM

Edinburgh Road & Fitzroy Street Existing Saturday lunchtime peak hour + Marrickville Metro Roundabout

Move	ment Perfo	ormance - V								- and - a cost	
Mov ID	OD Mov	Demand Total vah/h	Flows HV %	Deg Sain v/c	Average Delay sec	Level of Service	95% Back (Vahicles voh	of Queue Distance m	Prop. Queued	Effective Stop Rate par veh	Average Speed km/h
South:	Fitzroy Stre	the second s	70	W/C	906		VOI				A 10 10 10 10 10 10 10 10 10 10 10 10 10
1	1.2	65	2.0	0.434	17.7	LOS B	3.0	21.4	0.80	1.89	41,1
3	R2	225	2.0	0.434	17.7	LOS B	3.0	21.4	0.80	1,89	41.1
Арргоа	លា	290	2.0	0.434	17.7	LOS B	3.0	21.4	0.80	0,94	41.1
East: E	dinburgh R	oad east									
4	L2	175	2.0	0.575	8.5	LOSA	6.4	45 7	0.26	1.09	48.1
5	T 1	675	2.0	0.575	8.5	LOSA	6.4	45.7	Ď 26	1,09	48,1
Approa	ich	850	2.0	0.575	8.5	LOSA	6.4	45.7	0.26	0,54	48.1
West: I	Edinburgh R	load west									
11	T1	615	2.0	0,629	10.7	LOSA	6.2	44.1	0.73	1.42	46.1
12	R2	30	2.0	0.629	10.7	LOSIA	6.2	44.1	0.73	1.42	46.1
Approa		645	2.0	0.629	10.7	LOSA	6.2	44.1	0.73	0.71	46.1
Ali Veh	icles	1785	2.0	0.629	10.8	LOSA	6.4	45.7	0,52	0.67	46.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used, Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, 1 July 2013 1:35:16 PM SIDRA INTERSECTION 6.0.9.3896 Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Fitzroy Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD. PLUS / 1PC

B Site: Ex Thu PM + MM

Edinburgh Road & Smldmore Street

Existing Thursday afternoon peak hour + Marrickville Metro

Signals - Fixed Time - Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ement Perf	ormance - V	enicles			AU-0			- Alexandre		
Mov ID	OD Mav	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back c Vehicles veh	f Queue Distance	Prop Quoued	Effective Stop Rate per veh	Average Speed km/h
East:	Edinburgh R					IN A VIEW STRATEGY	Contraction of the local states		100000000000000000000000000000000000000	perven	KOLUIN
5	T1	620	2.0	0.657	13,7	LOSA	14.0	100.0	0.69	0,62	36.2
6	R2	50	2.0	0.657	14.7	LOS B	14.Q	100.0	0.74	0.68	35.6
Appro	ach	670	2.0	0.657	13.8	LOSA	14.0	100.0	0.69	0.63	36.2
North:	Smidmare S	Street									
7	L2	95	2.0	0.160	27.4	LOS B	2.7	18.9	0.75	0.74	30.2
9	R2	345	2.0	D.672	31.7	LOSIC	11.5	81,8	0.89	0.83	28.5
Appro	ach	440	2.0	0.672	30.8	LOS C	11.5	81.8	0.86	0.81	28.8
West:	Edinburgh R	load west									
10	L2	280	2.0	0.180	7.2	LOSA	1.0	7.0	0.19	0.64	42.5
11	T1	225	2.0	0.223	10.9	LOS A	4.7	33.4	0.57	0.48	38.2
Appro	ach	505	2.0	0.223	8.9	LOSA	4,7	33.4	0.36	D.57	40.5
All Vel	nicles	1615	2.0	0.672	16.9	LOS B	14.0	100.0	0.63	Ô,66	34,9

Level of Service (LOS) Method; Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestrians						te sil silej Rezi	
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	53	27.3	LOS C	0.1	0.1	0.83	0.83
P3	North Full Crossing	53	13.8	LOS B	0,1	0.1	0.59	0.59
P4	West Full Crossing	53	273	LOS C	Q.1	0.1	0.83	0.83
All Pe	deslitans	158	22.8	LOSIC			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement, Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 6,0.9.3896 Project: G:\Treffict/SIDRA 6.0/8053 Marrickville Masters\Ec	inburgh Road & Smidmore Street.sip6	SIDRA INTERSECTION 6
8000030, COLSTON BUDD HUNT & KAFES PTY LTD. PL	US / 1PC	INTERSECTION 6

Site: Ex Sat mid + MM

Edinburgh Road & Smidmore Street

Existing Saturday lunchtime peak hour + Marrickville Metro Signals - Fixed Time Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence,

										_	
Move	ment Perfe	ormance - V	ehicles					يد بر ال			
Mov	OD	Demand		Deg.	Average	Level of	95% Back of		Prop	Effective Stop Rate	Average Speed
ID	Mov	Total	HV	Satn	Delay sec	Service	Vehicles veh	Distance	Queued	per veh	km/h
East F	dinburgh R	veh/li oad east	%	víc	396	CALL COLOR	Besti				
5	T1	425	2.0	0,621	20.2	LOS B	11.1	79.0	Q.79	0.69	32.4
6	R2	40	2,0	0.621	21,8	LOS B	11.1	79.0	0.84	0.74	31.6
Approa		465	2 0	0.621	20,4	LOS B	11,1	79.0	0.80	0.69	32.3
North:	Smidmore \$	Street									
7	L2	145	2.0	0.181	21,4	LOS B	3.4	24.6	0.65	0.74	33.1
9	R2	426	2,0	0.643	24.6	LOS B	12.2	87.0	0.78	0.81	31.6
Approa		570	2.0	0.643	23.8	LOS B	12.2	87,Q	0.75	0.80	31,9
West:	Édinburgh F	Road west									
10	L2	540	2.0	0.347	7.3	LOSA	2.3	16.1	0.23	0,68	42.4
11	T1	300	2.0	0.378	17.8	LOS B	8.2	58.2	0.74	0.63	33.7
Appro		840	2.0	0.378	11.0	LOSA	8.2	58.2	D.41	Q.65	36.8
All Vet	nicles	1875	2.0	0.643	17,2	LOS B	12.2	87.0	0.61	0.71	34.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçalik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move Mov ID	ment Performance - Pedestr Description	ians Demand Flow ped/b	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	53	20.4	LOS C	Q,1	Ŭ.1	0.71	0,71
P3	Nodh Full Crossing	53	19.6	LOS B	0.1	D.1	0.70	0.70
P4	West Full Crossing	53	20,4	LOS C	0.1	Q.1	0.71	0.71
	destrians	158	20.1	LOS C			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Monday, 1 July 2013 1:37:32 PM SIDRA INTERSECTION 6.0.9.3896 Copyright © 2000-2013 Akcelik and Associates Ply Ltd SIDRA INTERSECTION 6 www.sidzasofutions.com Project: G:\TrafficiSIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Smidmore Street.sip8 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Thu PM + MM

Edinburgh Road & Sydney Steel Road Existing Thursday afternoon peak hour + Marrickville Metro Roundabout

Move	ment Perf	ormance - V	Vehicles								
Mov ID	OD Mov	Demano Total veh/h		Deg, Satn v/c	Average Delay	Level of Service	95% Back o Vehicles	Dislance	Prop. Queued	Effective Stop Rate	Average Speed
South	Sydney Ste			110	SOC	O-BELLING UNI	veh	m		per veh	km/h
1	L2	30	2.0	0.072	12.5	LOSA	0.4	3.0	0.72	1,51	38.6
3	R2	15	2.0	0.D72	12.6	LOSA	0.4	3,0	0.72	1.51	38.6
Approa	ach	45	2.0	0.072	12.5	LOSA	0.4	3.0	0.72	0.76	38.6
East: E	Edinburgh R	oad east									
4	L2	5	2.0	0.448	6.6	LOSA	3.6	25.9	0.42	1.07	42,4
5	⊤1	540	2.0	0.44B	6,6	LOSA	3.6	25.9	0.42	1.07	42.4
Ар рго а	ich	545	2.0	0.448	6.6	LOSA	3.6	25.9	0.42	0.53	42.4
West: E	Edinburgh R	aad west									
11	T1	215	2.0	D.217	8.1	LOS A	1.7	11,9	0 13	1.16	44,1
2	R2	5	2.0	0.217	8.1	LOSA	1.7	11.9	0.13	1.16	44.1
2u	Ų	100	2.0	0.217	8.1	LOSA	1.7	11.9	0.13	1.16	44.1
Арргоа	ch	320	2.0	0.217	8.1	LOSA	1.7	11.9	0,13	0.58	44.1
All Vehi	cles	910	2.0	0.448	7.4	LOSA	3.6	25.9	0.33	0.56	42,8

Level of Service (LOS) Method: Dalay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\E	Copyright © 2000-2013 Akcellk and Associates Pty Ltd www.sldrasolutions.com clinburgh Road & Sydney Steel Road.slpb	SIDRA -
8000030, COLSTON BUDD HUNT & KAFES PTY LTO, P	LUS / 1PC	INTERSECTION 6

♥ Site: Ex Sat mid + MM

k

Edinburgh Road & Sydney Steel Road Existing Saturday lunchlime peak hour + Marrickville Metro Roundabout

Move	ment Perfe	ormance - V	ehicles		neo 1 ,			1.000			
Mov ID	OD Mov	Demand Total vet/h	Flows HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back o Vehiclas veh	of Queuo Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed knvt
South:	Sydney Ste				CCC .		a second contract				a la de la d
1	LZ	15	2.0	0.026	10,3	LOS A	Q. 1	1.Q	0.60	1.31	4 0 .1
3	R2	5	2.0	0.026	10.3	LOSA	0,1	1.0	0.60	1.31	40,1
Approa	ach	20	2.0	0.026	10.3	LOSA	0.1	1.0	0.60	0.65	40.1
East: B	Edinburgh R	oad east									
4	L2	10	2.0	0.282	7.1	LOS A	1.8	12.9	0.46	1.15	42.2
5	Τ1	285	2.Q	0.282	7.1	LOSA	1.8	12.9	0.46	1.15	42.2
Approa	ach	295	2.0	0.282	7.1	LOS A	1.8	12.9	0.48	0.58	42.2
West: I	Edinburgh R	load west									
11	T1	270	2.0	0.278	6.5	LOSA	2,3	16.1	0.07	1.23	44 4
12	R2	10	2,0	0.278	8.5	LOS A	2.3	16.1	0.07	1.23	44.4
12u	U	165	2.0	0.278	8.6	LOSA	2.3	16.1	0.07	1.23	44.4
Approa		445	2.0	0.278	8.5	LOS A	2.3	f6.1	0.07	0.62	44.4
All Veh	icles	760	2.0	0.282	6.0	LOSA	2.3	16.1	0.23	0.60	43.4

Level of Service (LOS) Method; Delay (RTA NSW). Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D). HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, 1 July 2013 1:45:09 PM	Copyright © 2000-2013 Akcelik and Associates Pty Ltd	SIDRA
SIDRA INTERSECTION 6.0.9.3896	www.sidrasolutions.com	
Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\E	Edinburgh Road & Sydney Steel Road sip6	INTERSECTION 6
BOOOD30, COLSTON BUDD HUNT & KAFES PTY LTD, F	PLUS/1PC	

Site: Ex Thu PM + MM + dev

Victoria Road & Edinburgh Road

Existing Thursday afternoon peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perfe	ormance - V	ehicles		9 X-0,5	ipi ka					
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	f Quaue Distance	Prop Queued	Effective Stop Rate per vah	Average Speed km/h
South:	Victoria Ro										
2	T1	405	2.0	0.356	13.4	LOS A	12.0	85.6	0.56	0.49	42.3
3	R2	210	2.0	0.554	31.2	LOS C	8.6	61.2	0.73	0.82	33.1
Approa	ch	615	2.0	0.554	19.5	LOS B	12.0	85.6	0,62	0.60	38.6
East: E	dinburgh R	oad									
·4	12	616	2.0	0.556	11.7	LOS A	11,5	81.8	0.42	0.75	45.9
6	R2	310	2.0	0.275	43,D	LOS D	11.5	81,8	0.80	0.79	28,2
Approa	oh	925	2.0	0.556	22.2	LOS B	11.5	81.8	0.55	Ġ.76	38.0
North: 1	victoria Roa	id north									
7	L2	220	2.0	0.296	14.3	LOS A	7.8	55.8	0.49	0.68	42.7
8	T1	460	2.0	0.296	13.2	LOSA	9.6	68.2	0.52	0.52	42.8
Approa	ch	68 0	2.0	0.296	13.6	LOSA	9.6	68.2	0.51	0.57	42.8
All Vehi	cles	2220	2.0	0.556	19.8	LOS B	12.0	85.6	0.56	0.68	39,5

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

intersection and Approach LOS values are based on average delay for all vahicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation,

Move	ment Performance - Pedestrians							
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Servica	Average Back Pedestrian ped	of Queue Distance m	Prop. Quaued	Effective Stop Rate per ped
P1	South Full Crossing	53	37.7	LOS D	Q.1	D.1	0.79	0.79
P2	East Full Crossing	53	14.Ď	LOS B	Q.1	0.1	0.48	0.48
All Peo	destrians	105	25.9	LOSIC			0.64	0.64

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Dalay) Pedestrian movement LOS values are based on average delay per pedestrian movement Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Friday, 19 July 2013 6:40.40 PM SIDRA INTERSECTION 6.0.9.3896 Copyright © 2000-2013 Akcelik and Associates Pty Ltd SIDRA INTERSECTION 6 www.sidrasplutions.com Project: G:Traffic/SIDRA 6.0/8053 Marickvilla Masters/Victoria Road & Ettinburgh Road.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

B Site: Ex Sat mid + MM + dev

Victoria Road & Edinburgh Road

Existing Saturday lunchtime peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

	mant Deefe	ormance - V	obielee	1-	1.2.1						
Move Mov ID	OD Mov	Demand Total veh/h		Deg Saln v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance Ni	Prop Queuad	Effective Stop Rate per veh	Average Speed km/h
South:	Victoria Ro										
2	T 1	395	2.0	0.290	6.7	LOS A	8.3	59.0	0.39	0.35	49.0
3	R2	450	2.0	0,497	32.2	LOS C	14.8	105.1	0.72	0.90	32.6
Appro	ach	845	2.0	0.497	20.3	LOS B	14.8	105,1	0.57	0.64	38.7
East: E	Edinburgh R	oad									
4	L2	495	2.0	0.357	11.9	LOSA	7.2	51.4	0.35	0.72	45.8
6	R2	350	2.0	0.499	56.7	LOS E	9.3	66.2	0.94	0.61	24.1
Арргоз	ach	845	2,0	0.499	30.4	LOSC	9,3	66.2	0.59	0.76	33.4
North:	Victoria Roa	ad north									
7	L2	300	2.0	0.486	32.4	LOS C	16.2	115.3	0.76	0.80	32.0
8	T1	280	2.D	0,486	41.7	LOS C	16.2	115.3	0.88	0.78	27.6
Approx		580	2.0	0.486	36.9	LOSIC	16.2	115.3	0.82	D.79	29.7
All Vel	nicles	2270	2.0	0.499	28,3	LOS B	16.2	115.3	0.64	0.72	34.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model Is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pede	strians				N.S		And The
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Quette Distance M	Piop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.6	LOS E	0,2	0.2	0.91	0.91
P2	East Full Crossing	53	46.0	LOS E	0.2	0.2	88.0	0.88
All Pe	destrians	105	47.8	LOS E			0.89	0.89

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Friday, 19 July 2013 5:41:35 PM SIDRA INTERSECTION 6,0.9.3896 Project: G:\Traffic\SIDRA 6,08053 Mambkville Masters\Victoria Road & Edinburgh Road.slp8 8000039, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

♥ Site: Ex Thu PM + MM + Masters

Edinburgh Road & Fitzroy Street

Existing Thursday afternoon peak hour + Marrickville Metro + Masters Roundabout

Move	ment Perf	ormance - V	/ehicles						hill are the		
Mov ID	OD Mov	Demand Total velvh	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles vah	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed
South	Fitzroy Stre				COL		Ven		10111111111	per ven	km/h
1	L2	90	2.0	0.471	20.6	LOS B	3.6	25.6	0.88	2,04	39.1
3	R2	175	2.0	0.471	20.6	LOS B	3,6	25,6	0.68	2.04	39.1
Approa	ach	265	2.0	0.471	20.6	LOS B	3.6	25.6	0.88	1.02	39.1
East: E	dinburgh R	oad east									
4	12	195	2.0	D.691	8,6	LOS A	9.2	65.7	0.34	1.06	47.8
5	T1	825	2.0	0.691	8.6	LOS A	9.2	65.7	0.34	1,06	47.8
Approa	ich	1020	2,0	0,691	8.6	LOSA	9,2	65.7	0.34	0.53	47.8
West: I	Edinburgh R	load west									
11	T1	385	2.0	0.395	9 .7	LOSA	3.0	21.2	0.52	1.27	46.9
12	<u>R2</u>	35	2.0	0.395	9.7	LOSA	3.0	21.2	0.52	1.27	46.9
Approa	ch	420	2.0	0.395	9.7	LOSA	30	21.2	0.52	0.64	46 9
All Veh	icles	1705	2.0	0.691	10.7	LOS A	92	65.7	D.47	0.63	46.0

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Friday, 19 July 2013 5:58:22 PM Copyright © 2000-2013 Akcelik and Associates Pty Ltd SIDRA INTERSECTION 6.0.9.3896 www.sidfasolutions.com Project: G/tTraffic/SIDRA 6.0/8053 Marickville Masters/Edinburgh Road & Fitzroy Street.sip6 IN

♥ Site: Ex Sat mid + MM + Masters

Edinburgh Road & Fitzroy Street

Existing Saturday lunchtime peak hour + Marrickville Metro + Masters Roundabout

Move	ment Perfe	ormance - V	ehicles			14.1	10.20				
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back (Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Fitzroy Stre										
1	L2	65	2.D	0.574	22.4	LOS B	5.1	36.1	0.90	2.13	37.9
3	R2	275	2,0	0.574	22,4	LOS B	5.1	36.1	0.90	2.13	37.9
Арргоа	ach	340	2.0	0.574	22.4	LOSB	5.1	36.1	0.90	1.06	37.9
East: E	Edinburgh R	oad east									
4	1.2	225	2.0	0.672	8,6	LOSA	9,7	69.0	0.34	1.05	47.8
6	T 1	775	2.0	0.672	8.6	LOSA	9.7	69.0	0.34	1.05	47.8
Approa	ach	1000	2.0	0.672	6.6	LOSA	9.7	69.0	0.34	0,52	47.8
West: I	Edinburgh F	load west									
17	T1	715	2.0	0.773	14.4	LOSA	11.4	81,1	0.93	1.73	43.6
12	R2	30	2.0	0.773	14.4	LOS A	11.4	81.1	0.93	1.73	43.6
Appros	ich	745	2.0	0.773	14.4	LOS A	11.4	81.1	0.93	Û.87	43.6
All Veh	icles	2085	2.0	0.773	12.9	LOSA	11.4	61.1	0.64	0.73	44.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Friday, 19 July 2013 5:59:59 PM SIDRA INTERSECTION 6.0.9.3896 Project: G:4Traffic/SIDRA 6.0\8053 Marrickvll/e Mastars\Edinburgh Road & Fitzroy Street.sip0 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Thu PM + MM + dev

Edinburgh Road & Smidmore Street

Existing Thursday afternoon peak hour + Marrickville Metro + Masters Signals - Fixed Time - Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

		ormance - \					The second second	a line and the second			and the second
Mov	OD	Demand Flows		Deg	Average	Level of	95% Back of Quaue		Prop	Effective	Average
1D	Mav	Total veh/h	HV %	Satn v/c	Delay sec	Service	Vehicles veh	Distance	Queued	Stop Rate per veh	Speed km/t
South:	RoadName				000					Contraction of the	ALL
1	L2	64	2.0	0.141	20.5	LOS B	2.6	18.8	0.62	ō.71	38.5
2	T1	32	2.0	0.141	20.5	LOS B	2.6	18.8	0.62	0.71	38.6
3	R2	56	2.0	0.122	28.4	LOS B	1.6_	11.1	0.71	0.74	34.5
Approach		174	2.0	0.141	23.1	LOS B	2,6	18.8	0.65	0.72	37.6
East: E	dinburgh R	oad east									
4	L2	58	2.0	0.415	25.8	LOS B	7.7	54.B	0.84	0,74	31.2
5	Τ1	620	2.0	0.717	27.0	LOS B	15.6	110.3	0.91	0.81	29.5
6	R2	5.0	2.0	0.364	47.5	LOS D	2.0	14.2	0.99	0,74	23.6
Approach		728	2.0	Đ.717	28.3	LOS B	16.5	110.3	0.91	D.80	29.1
North:	Smidmore 5	Street									
7	12	95	2.0	0.152	19.1	LOS B	2.9	20,7	D.62	0,70	35.2
3	T1	32	2.0	0.152	19.1	LOS B	2.9	20.7	0.62	0.70	35.2
9	R2	345	2.0	0.715	32.5	LOS Ç	12.4	69.4	0.92	0.88	28.2
Approach		472	2.0	0.715	28.9	LOS C	12.4	88,4	0.84	0.83	29.8
West B	Edinburgh R	load west									
10	L2	280	2.0	0.489	31.0	LOSIC	9.0	64.1	0,86	0.81	28.8
11	Ti	2,25	2.0	0.374	23.3	LOS B	9,0	64.1	0.82	0,69	30.5
12	R2	84	2.0	0.613	51,5	LOS D	3.5	24,9	1.00	0.80	25.6
Approach		589	2.0	0.613	31.0	LOSC	9.0	64.1	D 87	0.76	28.9
VI Vehicles		1962	2,0	0.717	26.8	LOS C	15.5	110.3	0,86	0,79	29.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vahicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D),

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation,

Move Mav ID	ment Performance - Pedestrians Description	Demand Flow ped/h	Average Delay sec		Average Back Pedestnan ped	of Queue Distance mi	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	25.7	LOS C	0.1	0 .1	0.80	0.80
P2	East Full Crossing	53	25.7	LOS C	0.1	Ð. 1	0,80	0,80
P3	North Full Crossing	53	25.7	LOSIC	° 0.1	0.1	0,60	0.80 (
₽4	West Full Crossing	53	25.7	LOS C	0.1	0.1	0.80	0,80
All Pe	All Pedestrians		257	LOSC			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Podestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Copyright @ 2000-2013 Akcelik and Associates Pty Ltd
MOVEMENT SUMMARY

Site: Ex Sat mid + MM + dev

Edinburgh Road & Smidmore Street

Existing Saturday lunchtime peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 88 seconds (Optimum Cycle Time - Minimum Delay) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perf	ormance - V	/ehicles								15 da -
Mov ID	OD Mov	Demand Total	HV	Deg Setn	Average Delay	Level of Service	95% Back Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
South	RoadName	veh/h	%	v/c	Sec		veh	m	BY 3 511 1 1 1	per veh	km/h
1	12	211	2.0	0.559	23.5	LOS B	6,7	47.5	0.90	0.81	36.4
2	Tt	79	2.0	0.559	23.5	LOS B	6.7	47.5	0.90	0.61	36.4
3	R2	147	-2.0	0.654	49.4	LOS D	6,4	45,4	0.99	0.84	26.2
Аррго	ạch	437	2,0	0.654	32.3	LOS C	6,7	47.5	0,93	0.82	32.1
East:	Edinburgh R	oad east									
4	12	147	2.0	0.549	41,2	LOS C	8.2	58.6	0.95	0.81	27:6
5	T1	385	2.0	0.823	41.9	LOSC	14.9	106.1	0.99	0.96	24,5
6	R2	40	2,0	0.160	43.9	LOS D	1,6	11.1	0.92	0.73	24.4
Appro	ach	572	2,0	0.823	41.8	LOS C	14.9	106.1	0.97	0.90	26,3
North:	Smidmore	Street									
7	L2	145	2.0	0.243	17,9	LOS B	5.4	38.7	0.60	0.69	38.3
8	T1	79	2.0	0.243	17.9	LOS B	5.4	38.7	0.60	0.69	36.3
9	<u>R</u> 2	425	2.0	0.860	46.8	LOS D	18,1	128.8	1.00	1:11	23.7
Appro	ach	649	2.0	0.860	36.8	LOS C	18.1	128.8	0.86	0.97	27.0
West:	Edinburgh F	toad west									
10	L2	540	2.0	0.811	25.3	LOS B	14,5	102.9	0,96	0,91	31.2
11	T1	260	2.0	0.660	35.9	LOS C	14.5	102.9	0,97	0,83	25.8
12	R2	211	2.0	0.843	56.9	LOS E	10.1	72,1	1.00	0.93	24.1
Appro	ạch	1011	2.0	0.843	34.6	LOS C	14.5	102.9	0.97	0.89	27.9
All Vel	nicles	2669	2,0	0.860	36.3	LOSIC	18.1	128.8	0.94	0.90	27.7

Laval of Service (LOS) Method: Delay (RTANSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements,

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity; SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestrians						1. See 8	
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back o Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Slop Rate per ped
P1	South Full Crossing	53	35.5	LOS D	0.1	0.1	0.90	0.90
P2	East Full Crossing	53	39.2	LOS D	0.1	0.1	0.95	-0.95
P3	North Full Crossing	53	35.5	LOS D	0.1	Ð.1	D.80	0.90
P4	West Full Crossing	53	39.2	LOS D	0.1	0.1	0.95	0.95
All Pe	destrians	211	37.4	LOS D			Ó,92	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA

MOVEMENT SUMMARY

Site: Ex Thu PM + MM + dev

Edinburgh Road & Sydney Steel Road Existing Thursday afternoon peak hour + Marrickville Metro + Masters Roundabout

Move	ment Perfe	ormanco - V	chiclos	i - generation			- 10 cm				
Moy ID	OD Mov	Demand Total veh/h		Deg Satn v/c	Avorage Delay sec	Level of Service	95% Back o Vehicles veh	f Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South	Sydney Ste				0,00					por von	- Maria
1	L2	30	2.0	0.075	12.9	LOSA	0.4	3.2	0.74	1.54	38.2
3	R2	15	2.0	0.075	12.9	LOSA	0.4	3.2	0.74	1.54	38.2
Approa	ach	45	2.0	0.075	12.9	LOS A	Ũ.4	3.2	0.74	Q.77	38.2
East: 6	Edinburgh R	oəd east									
4	L2	5	2.0	0.478	6.6	LOSA	4.1	28.9	0.44	1.07	42.3
5	T1	580	2,Q	0.478	6.6	LOSA	4.1	28,9	0.44	1.07	42,3
Approa	ch	585	2.0	0.478	6.6	LOSA	4.1	28.9	0.44	0.53	42.3
West: I	Edinburgh R	oad west									
11	T1	265	2.0	0.242	7.8	LOSA	1 .9	13.7	0,13	1,14	44.0
12	R2	5	2.0	0.242	7.8	LOS A	1,9	13.7	0,13	1.14	44.0
12u	Ų	100	2.0	0.242	7.6	LOSA	1.9	13.7	0.13	1.14	44.0
Арргоа	ıch	360	2.0	0,242	7,6	LOSA	1.9	13.7	D.13	0.57	44.0
All Veh	icl a s	990	2.0	0,478	7.3	LOSA	4.1	28.9	0.34	Ũ.5S	42.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Friday, 18 July 2013 5:45:27 PM SIDRA INTERSECTION 6.0.9,3898 Project: G:(Traffic/SiDRA 6.0)8053 Manickville Masters/Edinburgh Road & Sydney Steel Road.sip8 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

SIDRA INTERSECTION 6

MOVEMENT SUMMARY

𝕂 Site: Ex Sat mld + MM + dev

Edinburgh Road & Sydney Steel Road Existing Saturday lunchtime peak hour + Marrickville Metro + Masters Roundabout

Move	ment Perf	ormance - V	/ehicles								
Mov ID	OD Mov	Demand Total veh/h		Deg. Sain v/c	Avarage Delay sec	Level of Service	95% Back o Vehiclas veh	f Queue Distance m	Prop Queued	Effective Stop Rate	Average Speed
South:	Sydney Ste		70	vie	080		Ven	NO DO DUDA	945084913	per veh	km/h
1	L2	15	2,0	0.029	11.2	LOSA	0.2	1.2	Q.66	1,36	39,5
3	R2	5	2.0	0.029	11.2	LOS A	0 2	1.2	0.66	1.36	39.5
Approa	ach	20	2.0	0.029	11_2	LOS A	02	1.2	0.66	0 6B	39.5
East: E	dinburgh R	oad east									
4	L2	10	2.0	0.370	7.2	LOSIA	2.6	18.5	0.49	1.17	42.1
5	T1	385	2.0	0.370	7.2	LOSA	2,6	18.5	0.49	1.17	42.1
Approa	ich	395	2.0	0.370	7.2	LOSA	2,6	18.5	0,49	0,59	42.1
West: f	Edinburgh R	load west									
11	T1	370	2.0	0.338	8.0	LOS A	3.0	21.5	0.07	1.19	44.3
12	R2	10	2.0	0.338	8.0	LOS A	3.0	21.5	0.07	1,19	44.3
12u	U	165	2.0	0.338	8.0	LOSIA	3.0	21.5	0.07	1.19	44.3
Approa	ch	545	20	0.338	8.0	LOSA	3.0	21,5	0.07	0.60	44.3
All Vehi	icles	960	2.0	0,370	7.7	LOS A	3,0	21,5	0.26	0.59	43.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vahicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Haavy Vehicle Model Designation.

Processed: Friday, 19 July 2013 6:45:50 PM Copyright © 2000-2013 Akcelik and Associates Pty Ltd SIDRA INTERSECTION 6 0.9.3896 www.sidrasolutions.com Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Sydney Steel Road.sip6 SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Sydney Steel Road.sip6

ANALYSIS OF POTENTIAL ALTERNATIVE SITES



ATTACHMENT 1

Revised Analysis of Potential Alternative Sites

In response to the decision of the JRPP on 23 May 2013, a revised analysis of the potential alternative sites has been undertaken by Urbis. A summary of this analysis is provided below. Due to the nature of this work and to provide suitable context to this work, the revised analysis has been prepared as previously provided in the original Planning Proposal document, being in the form of the Sequential Test and Site Suitability Criteria as outlined in the *NSW Draft Activities Centres Policy* (May 2010). Accordingly a revised Section 3.7 of the Planning Proposal report is provided below.

3.7 DRAFT NSW ACTIVITY CENTRES POLICY MAY 2010

The NSW Draft Activities Centres Policy (May 2010) (the 'draft Centres Policy') sets out the fundamental aims and principles to guide the formulation of regional and local planning strategies and the consideration of new development proposals.

The *draft Centres Policy* establishes key principles that form a state-wide policy context for the preparation of regional and subregional strategies and LEPs, and assists in determining the best location for new retail entrants such as Masters.

The aims of the *draft Centres Policy* are to:

- "Promote a network of activity centres that cater for the needs of business and places where people want to live, work, learn, play and visit;
- Provide sufficient flexibility within the planning system so that it can accommodate demand for a broad range of uses to help encourage investment and facilitate competition; and
- Provide guidance on how to manage broad scale expansion of dynamic business sectors".

The *draft Centres Policy* is based on six key planning principles to guide future development in and around activity centres and to provide for the emergence of new entrants.

- 1. Commercial development should be located in activity centres.
- 2. Activity centres should be able to grow and new activity centres form in a manner that is consistent with relevant and up to date regional or sub-regional strategies.
- 3. Market determines need for development.
- 4. The supply of development should accommodate market demand.
- Activity centres should support a range of uses and contribute to a competitive market.
- 6. Activity centres should be well designed, sustainable and integrated with surrounding uses.

The six key planning principles area addressed in Section 7 of the Planning Proposal report and the Economic Impact Assessment included as **Appendix B** of the Planning Proposal report.

In considering out-of-centre proposals, the *draft Centres Policy* outlines a Sequential Test which should be used to inform the determination of appropriate new centre locations. Further, Site



Suitability Criteria should be used when considering the merits of alternative locations to accommodate development. These criteria are to be applied when assessing the merits of sites on the edge or outside of an existing or planned new activity centre when considering:

- Alternative sites to accommodate demand as part of the strategic planning processes;
- Spot rezoning proposals and development applications for individual sites.

The *draft Centres Policy* states that priority should be given to sites which perform best against the criteria. It is not necessary for a proposal to meet all the criteria in order to be supported.

Accordingly, both Sequential Test and Site Suitability Criteria have been used in the analysis undertaken below to identify whether sufficient opportunity exists for new development within the region or subregion.

3.7.1 THE SEQUENTIAL TEST

The Sequential Test has been used to consider the best location for the proposed Masters development. When considering an out-of-centre site, the Sequential Test calls for the following steps to be undertaken:

- Step 1 firstly, it must be demonstrated that there are no suitable sites within an existing or
 planned new activity centre that can satisfy the demand to be accommodated. This may be
 achieved by adjusting future intentions for a centre and could include:
 - Increasing height and floor space controls,
 - permitting a broader mix of uses, or
 - actions to facilitate site availability or site consolidation.
- Step 2 secondly, it must be then demonstrated that there are no suitable sites in an edge-of centre location that can satisfy the demand to be accommodated.
- Step 3 thirdly, an out-of-activity centre site that can satisfy the demand to be accommodated may be considered if it meets the Site Suitability Criteria and is consistent with relevant local or regional planning strategy.

An assessment following these key steps has been undertaken by the proponent in preparing this Planning Proposal and is outlined below.

3.7.2 STEP 1: EXISTING ACTIVITY CENTRES IN MARRICKVILLE LGA

There are a number of Activity Centres within the Marrickville LGA which are zoned B2 – Local Centre or B4 - Mixed Use under the *Marrickville LEP 2011* (the MLEP 2011). It is noted that no land is zoned B3 – Commercial Core under MLEP 2011.

Based on the Planning Circular issued by the Department of Planning and Infrastructure 'How to Characterise Development' (February 2013), the principle purpose of a Masters Home Improvement Store is 'hardware and building supplies' which is mandated permissible in the B2 and B4 zones under the Standard Instrument (Local Environmental Plan) Order 2006.



An analysis of the lot size of the B2 and B4 zones has been prepared and illustrated in **Figure 3**. This analysis indicates that whilst the proposed Masters Home Improvement Store would be permissible in the B2 and B4 zones, aside from the Marrickville Metro site there are no sites large enough in the either zone to accommodate the Masters Home Improvement Store (all B2 zoned lots are less than 10,500m² and all B4 zoned lots are less than 8,500m² excluding the Marrickville Metro site). There are therefore no suitably zoned or sized sites within the B2 and B4 zone that could accommodate a Masters Home Improvement Store.

FIGURE 1 - LOT SIZE ANALYSIS OF ACTIVITY CENTRES (B2 AND B4 ZONES) UNDER MARRICKVILLE LEP 2011



It is noted that the vast majority of land surrounding the B2 and B4 zones (i.e. edge-of-centre land) is zoned for residential development, with some pockets of land zoned IN2, B5, B6 and B7 under MLEP 2011. *'Hardware and building supplies'* is prohibited in all residential zonings under the MLEP 2011, however is permissible in B5, B6, B7 and IN2 zones.

The *draft Centres Policy* states that where a development for the purpose of '*hardware and building supplies*' cannot be accommodated within an Activity Centre or an-edge-of-centre location, they should be accommodated within a bulky goods cluster or on a busy road. Where the impacts are comparable to industrial uses and a significant proportion of customers are likely to come from the building sector, they may be located in industrial areas. This approach has been endorsed in the recently exhibited *Draft Metropolitan Strategy for Sydney*.



Bulky goods premises' is permissible in the B2, B4, B5 and B6 zones under the MLEP 2011. An assessment of B2 and B4 zoned land has been undertaken above, while the assessment of the B5 and B6 zoned land is undertaken below concurrently with the assessment of these lands to support *'hardware and building supplies*' which are both permissible uses within the B5 and B6 zones.

3.7.3 STEP 2: EDGE-OF-CENTRE LOCATIONS IN MARRICKVILLE

Under the MLEP 2010 'hardware and building supplies' is permissible in the B2, B4, B5, B6, B7 and IN2 zone. **Figure 2** shows the locations of all land within these zones under the MLEP 2011. These sites are identified as potential 'edge-of-centre' sites to accommodate a Masters Home Improvement Store.



FIGURE 2 – SITES WHERE 'HARDWARE AND BUILDING SUPPLIES' IS PERMISSIBLE OR PORPOSED TO BE PERMISSIBLE UNDER MLEP 2011

Existing Sites Zoned to Support Masters

The locations of the zones that would permit a Masters Home Improvement Store are <u>primarily</u> located along major transit routes and on the periphery of industrial lands, including the following areas:

- Old Canterbury Road, Dulwich Hill (B4, B5 and IN2 zone).
- New Canterbury Road, Dulwich Hill (B4 and IN2 zone).



- Parramatta Road, Petersham and Lewisham (B4, B5 and B6 zone).
- Bridge Road, Stanmore (B5 and IN2 zone).
- Alice Street, Newtown (B4 zone).
- Crystal Street, Petersham (B4 zone).
- Denison Street, Camperdown (IN2 zone).
- Land to the north of Enmore Road, Stanmore (B5 and B7 zone).
- Addison Road, Marrickville (B4, B5, B7 and IN2 zone).
- May Street and Hutchinson Street, St Peters (B4, B5 and B7 zone).
- Princes Highway, St Peters (B4, B5, B6 and IN2 zone).
- Marrickville Road, Marrickville (B5 zone).
- Unwins Bridge Road and Mary Street, St Peters (IN2 zone).

Due to the scale of a Masters Home Improvement Store, a site with a minimum area of approximately 3 hectares is required. Based on this site requirement, there are two potential precincts where a Masters Home Improvement Store could be accommodated under the current land use zoning:

- <u>Tempe Precinct</u> located on the Princes Highway and including the IKEA, Salvation Army and 'Pretty Girl' sites.
- Unwins Bridge Road Precinct comprising RailCorp and Council services land.

Sites Proposed to be rezoned to Support Masters

There are two sites within the Marrickville LGA which are the subject of planning proposals to rezone the sites which would support a Masters Home Improvement Store in the future. Each of these sites is considered below:

- St Peters Precinct A planning proposal to rezone the site at 396 576 Princes Highway from its current IN1 General Industrial zoning to B6 Business Enterprise has received a gateway determination to proceed on 24 August 2012. This proposal was exhibited as part of Amendment 1 to the *MLEP 2011*, and at the Council meeting of 20 November 2012 Council resolved to adopt the documentation of the site as exhibited and forward to DoPI for gazettal. It is understood that a draft amendment instrument is currently being finalised by Parliamentary Counsel. Accordingly, due to the imminence of the rezoning which would permit a Masters Home Improvement Store under the revised zoning, a detailed analysis of this site (identified as "Precinct C") has been undertaken below.
- <u>Victoria Road Precinct</u> In May 2012 Marrickville Council resolved to consider a Planning Proposal to rezone approximately 21.5 hectares of industrial land forming part of the Sydenham Industrial Precinct for urban renewal. This precinct is referred to as the Victoria Road Precinct (identified as "Precinct D"). While the Planning Proposal has not yet been formally submitted to Council, and therefore the future land uses to be supported in this precinct are unknown, it has been recognised a precinct undergoing a land use transition and therefore has been analysed in



detail below to determine its potential to support a Masters Home Improvement Store in the short to medium term.

A lot size analysis of all land zoned B2, B4, B5, B6, B7 and IN2, as well as the two proposed rezoning sites is illustrated in **Figure 3** below. This illustrates that there are four precincts of sufficient size to consider amalgamation of sites to determine their viability to support a Masters development. An analysis of each of these precincts is outlined below.



FIGURE 3 – LOT SIZE ANALYSIS OF LAND WHERE 'HARDWARE AND BUILDING SUPPLIES' IS A PERMISSIBLE USE UNDER THE MARRICKVILLE LEP 2011

3.7.4 ANALYSIS OF LOT SIZES OF EGDE-OF-CENTRE SITES

Precinct A – Tempe Precinct: Princes Highway Tempe and Tempe Bus Depot Site

The Tempe Precinct is located along the Princes Highway and is generally bounded by Bellevue Street to the north and Smith Street to the south. This precinct includes IKEA, the Salvos site, industrial warehouses on Wood Street, Tempe Bus Depot and Pretty Girl Fashion Group. It is noted '*bulky goods premises*' are permissible on land in this precinct under Schedule 1 of the MLEP 2011.



IKEA and Salvos Sites

IKEA occupy approximately 10 hectares of the Tempe Precinct. The IKEA development was approved by the DoPI as a Part 3A Project in 2009, and open to the public in the last quarter of 2011. Adjoining the IKEA site to the north-east, the site known as 5-7 Bellevue Street is partly occupied by a Salvation Army recycling store (Salvos site) and partly vacant. However, this site is only approximately 1.2ha in size, which is not sufficient to accommodate a Masters Home Improvement Store. Furthermore, it is understood that there is a DA approval DA200900547 to subdivide the site into two lots (the Salvos currently occupy the proposed larger lot, which is approximately 7,500m² and the proposed smaller lot, which is currently vacant, is approximately 4,500m²). At the time of writing the subdivision had not been registered.

FIGURE 4 - PRECINCT A - TEMPE PRECINCT



Pretty Girl Site

The site known as the 'Pretty Girl" site at 728-750 Princes Highway is zoned IN2 and has a site area greater than 1ha in size. This site is approximately 2ha and is occupied by a locally significant heritage item known as the Former Westpac Stores, however is currently used as a clothing factory and warehouse by the Pretty Girl Fashion Group. The building is heritage listed and generally in good condition. Furthermore, it is understood there is a DA currently before Marrickville Council for a bulky goods development of approximately 16,000sq.m across two-level on the site which preserves the heritage façade. At the time of writing the DA for the 'Pretty Girl' site has not been determined. Redevelopment of this site for a Masters Home Improvement Store could not occur without demolition of the heritage item as the Masters Concept could not be accommodated within the existing heritage building. This site is therefore is not considered to be a practical or realistic option.



Tempe Bus Depot

The Tempe Bus Depot consists of three lots zoned IN2 site and varying in size from approximately 2,042sg.m to 1.2ha. This site is occupied by the Tempe Bus Depot and is listed as a locally significant heritage item known as 'Tempe Bus Depot'. The site is currently occupied by a child care centre, bus storage and the Sydney Bus Museum, which is currently located in the former tram shed on the adjoining sites. It is understood that development consent was recently granted for refurbishment and upgrade of the bus depot to provide the garaging, servicing and administrative facilities for the Metrobus Network Strategy (DA201000035).

Given, the heritage status of the Tempe Bus Depot and its current land uses, redevelopment of this site for a Masters Home Improvement Store is not considered to be a practical or realistic option.



FIGURE 5 - PRECINCT A - TEMPE PRECINCT LOT SIZE ANALYSIS



Precinct B – Unwins Bridge Road Precinct, St Peters

The Unwins Bridge Road Precinct extends from Hogan Avenue to Bedwin Road and is approximately 6.2 hectares made comprising three sites. The Unwins Bridge Road Precinct is identified in the *Draft Metropolitan Strategy for Sydney* as employment lands. There are two sites zoned IN2 in the Unwins Bridge Road Precinct which are greater than 1ha in size. The largest site at 5-13 Unwins Bridge Road (approximately 3.6ha) is owned by Railcorp and currently contains a significant number of shipping containers and related industry. It is understood that Railcorp use this as their Depot site.

To the south of the Railcorp land is the Marrickville Council depot on a 1.3ha site.

Further to the south is 17-19 Unwins Bridge Road which is a 1.3ha site occupied by a range of industrial factory units containing glaziers and car repairs. The site was the subject of a rezoning requested in 2002 to permit bulky goods, however was not supported by Council primarily due to inconsistency of the proposal with strategic planning policy and potential traffic impacts.

An isolated site approximately 1.3ha in area, containing industrial warehouses is also located with frontage to Mary Street and Edith Street. Aside from the site not having sufficient size to accommodate a Masters development, the site is located in a primarily low-density residential street with limited through traffic.



FIGURE 6 - PRECINCT B: UNWINS BRIDGE ROAD PRECINCT, ST PETERS





FIGURE 7 - PRECINCT B: UNWIN ROAD PRECINCT, ST PETERS LOT SIZE ANALYSIS

Only the Railcorp site is large enough to accommodate the proposed Masters Home Improvement Store, without consolidation of sites, however no operational policy of Railcorp indicates this land will become available for redevelopment in the short to medium term.

Due to the mixed land ownership within the Unwins Bridge Road Precinct, amalgamation of these sites is not considered to be a practical or realistic option. Railcorp have advised that this site is unlikely to be redeveloped in the short to medium term.



Precinct C – St Peters Precinct (Princes Highway)

The St Peters Precinct comprises five properties known as 396-576 Princes Highway as illustrated in **Figure 8** below. This precinct is currently zoned IN1 General Industrial under the MLEP 2011, however is the subject of a Planning Proposal to rezone the land B6 Business Enterprise, which is currently with Parliamentary Counsel awaiting gazettal. Of these lots, 500 Princes Highway currently operates as a bulky goods centre and is permissible under MLEP 2011 by what of a Schedule 1 additional permissible use.

The St Peters Precinct is currently occupied by:

- 500 Pacific Highway a home furnishing centre, a car wash, Hungry Jacks, a bulky goods/office/light industrial complex. Tenants include (amongst others) REPCO, automotive services, Printatape and Metropolitan Demolition Group
- 396 Princes Highway a second hand building materials receivership, a conveyor and hoist rental centre, and a recycling yard at the rear.

FIGURE 8 - PRECINCT C: ST PETERS PRECINCT



A lot size analysis carried out on the St Peters Precinct is shown in **Figure 9** below. In summary, the precinct comprises a number of small lots (3,163sq.m to 1.3ha), which are individually not of sufficient scale to support a Masters Home Improvement Store. While there are some allotments in common ownership, due to the current improvements on the sites and existing tenants, amalgamation of numerous sites is not considered a practical or realistic option.





FIGURE 9 - PRECINCT C: ST PETERS PRECINCT LOT SIZE ANALYSIS

SA4551_MARRICKVILLE MASTERS RESPONSE TO JRPP DECISION 23 MAY 2013



Precinct D – Victoria Road Urban Renewal Precinct

The Victoria Road Urban Renewal Precinct is an area of approximately 21.5 hectares of industrial zoned land adjacent to Victoria Road Marrickville, which forms part of the Sydenham Industrial Area. The land which is zoned IN1 General Industrial under the *MLEP 2011*. It is understood preliminary discussions have been held with Marrickville Council and the Department of Planning and Infrastructure (DoPI) as part of the preparation of a Planning Proposal to request the precinct be rezoned to support urban renewal of the area.

FIGURE 10 - PRECINCT D: VICTORIA ROAD URBAN RENEWAL PRECINCT



A letter from DoPI dated 24 April 2012 provided clarification of the State government's policy position on employment lands, and indicated in-principle support for a rezoning to support urban renewal of this area to progress. The DoPI correspondence was considered at the Marrickville Council meeting on 1 May 2012 which resolved to advise the proponents of the Planning Proposal that Council would consider a revised planning proposal for the Victoria Road Urban Renewal Precinct. At the time of writing, a revised Planning Proposal has not been submitted to Council for consideration.

An analysis of the lot sizes within the Victoria Road Urban Renewal Precinct is illustrated below in **Figure 11**, which illustrates that all sites are less than 1 hectare (with the exception of 56 Fitzroy Street which has an area of 1.55 hectares) which falls significantly short of the 3 hectares required to support a Masters Home Improvement Store.







FIGURE 11 - PRECINCT D: VICTORIA ROAD URBAN RENEWAL PRECINCT LOT SIZE ANALYSIS

Accordingly, due to the early stage of precinct planning for the Victoria Road Precinct, and the fragmentation of land, the precinct does not present any viable alternative sites in the short to medium term to support a Masters Home Improvement Store.



3.7.5 CONSIDERATION OF AVAILABLE SITES

In considering the best location for a regionally oriented home improvement centre offer, the following criteria are used:

- Minimum site area of approximately 3 hectares.
- Generally flat topography.
- Regular shape to enable a 'big box' construction with adequate space for at grade car parking to accommodate approximately 400 vehicles.
- Good multi-directional vehicle access.
- Good site visibility from a major road.
- Regional accessibility to ensure draw from a large retail catchment.
- Proximity to other similar uses.
- Land use permissibility.

GIS mapping provided above demonstrates that the subject site and precinct best meets all the criteria for the type of development proposed and is the preferred option. As discussed, the analysis of lot sizes shows that there are:

- no appropriately zoned sites under the MLEP 2011;
- No suitable sites in the St Peters Precinct (with a gateway determination supporting rezoning to B6 Business Enterprise):
- No sites in the proposed Victoria Road Precinct large enough to accommodate a Masters developed without consolidation of sites.

Amalgamation of numerous sites which are presently tenanted is not a practical or realistic option to achieve development in the medium term.

In summary, the analysis in **Figure 5**, **Figure 7**, **Figure 9**, **and Figure 11** demonstrates that there are no suitable sites currently zoned under MLEP 2011 or proposed to be zoned to permit *'hardware and building supplies'* which are of a sufficient size to support a large home improvement centre proposed.

Furthermore, the proposed Masters Home Improvement Store will be located in close proximity to Marrickville Metro Shopping Centre on the northern side of Edinburgh Road. An expansion of the retail centre was approved by the PAC on 19 March 2012, which will see the centre extend further south east, towards the site's frontage on Edinburgh Road. The proposed development involves broadening the existing range of home improvement retailing adjacent to an established shopping centre and in an area which contains a number of trade suppliers. It is beneficial from a town planning perspective to locate such uses in close proximity wherever possible, and would be consistent with the *draft Centres Policy* direction to consider sites adjacent to existing centres.



3.7.6 STEP 3: SITE SUITABILITY CRITERIA

The Site Suitability Criteria is designed for use when considering the merits of alternative locations to accommodate development to assist in the assessment of this Planning Proposal.

TABLE 1 - SITE SUITABILITY CRITERIA

CRITERIA

RESPONSE

Strategy Consistent: is the proposed use of the site consistent with or implementing the relevant regional, sub-regional or local strategy?

The proposed use of the site is generally consistent with the Metropolitan Plan and the draft South Sub-Regional Strategy as demonstrated at Sections 3.3 and 3.4 of the Planning Proposal Report.

Further, it is consistent with the *Draft Metropolitan Strategy* for Sydney, which supports retailing in industrial zones 'where is it ancillary two the main industrial use, goods are produced on site or where retailing has industrial-scale impacts', which is consistent with the nature of a Masters Home Improvement Store.

Infrastructure: capacity to support future demands, e.g. traffic capacity, sewerage and water services.

If not, are arrangements in place for these to beprovided?

Access Considerations:

Good public transport and road access for employees, customers and suppliers

Good pedestrian access

If not, are arrangements in place for these to be provided?

Urban Design Opportunities: potential to:

Integrate with surrounding land uses

Increase the amenity of the local areas

The Planning Proposal is unlikely to adversely impact upon the surrounding road network. There is capacity within the surrounding road system to service the proposed development, with road infrastructure upgrades in accordance with the traffic report prepared by Colstin Budd Hunt and Kafes which accompanies this Planning Proposal.

The site can be suitably serviced to meet the demand of the future Home Improvement Centre development.

The site has good public transport access particularly given the site's location adjacent to Marrickville Metro, providing opportunities for employees to access the site by public transport. Bus Routes 352 and 355 between Marrickville Metro and Bondi Junction run past the site along Edinburgh Road, while both Sydenham and St Peters Train Stations are approximately 1 kilometre from the site.

The site has good road access utilising Edinburgh Road, which connects with the Princes Highway to the south. The site is also readily accessible by pedestrians.

The Planning Proposal will facilitate a Home Improvement Centre, which will be designed to integrate with the surrounding mix of land uses. This will be detailed further at Development Application stage.



Competing land issues: impact on

- Housing supply and affordability
- Industrial land supply

On choice and competition in the locality

For instance, does the proposal affect delivery of other targets or objectives for the area – for example if the land is currently residential and is proposed to be changed to commercial, would this affect achieving dwelling targets.

There will be no impact on housing supply or affordability.

The proposal will result in increased competition within the Home Improvement sector, which should result in greater choice and price savings for customers.

The Planning Proposal is consistent with the need to adapt localities to reflect changing economic conditions. As many older employment areas are experiencing a declining level of activity, the proposal to facilitate a Home Improvement Centre on the periphery of a larger industrial precinct is considered appropriate.

The proposed development will not undermine the integrity of the Sydenham industrial precinct.

Given the peripheral location of the site, the use is unlikely to directly hinder any airport related uses.

The proposed use provides the opportunity to create employment close to home for Marrickville residents. The development of a Masters Home Improvement Centre provides a variety of job opportunities, with approximately 130-150 additional jobs within the inner west of Sydney.

There are no known environmental constraints that would prevent the development of the site for retailing. A detailed assessment of environmental impacts will be undertaken as part of any future Development Application.

Environmental Considerations Hazards, such as flooding, bushfire, or coastal,

Proximity to labour markets and associated

housing (jobs closer to home)

For management.

contaminated land

For workers with required skills

Opportunities to contribute positively to environmental outcomes

Public benefit considerations

Provides a broader public benefit from being located at the alternative site

Priority should be given to sites which perform best against the criteria. It is not necessary for a proposal to meet all the criteria in order to be supported. The proposed development will increase the range of goods and services available and competition in the region for home improvement supplies and will provide employment for local residents.

The proposal is considered to meet the relevant site suitability criteria under the draft Centres Activity Policy.

IMPLICATIONS FOR MARRICKVILLE INDUSTRIAL PRECINCT



Marrickville Masters Home Improvement Store

Assessment of Implications for the Marrickville Industrial Precinct

July 2013



URBIS STAFF RESPONSIBLE FOR THIS REPORT:

Director	Clinton Ostwald
Associate Director	Chrystal Desange
Consultant	Ryan McKenzie
GIS Consultant	Sally Pearce
Job Code	SPE0398
Report Number	1

© [Urbls Valuations Pty Ltd] ABN [28 105 273 523]

All Rights Reserved. No material may be reproduced without prior permission.

You must read the important disclaimer appearing within the body of this report.

TABLE OF CONTENTS

Execut	tive Summary	i
1 1.1 1.2 1.3	Study Background Study Purpose Proposed Development Site Location & Context	.1 .1
2 2.1 2.1.1 2.1.2 2.1.3 2.2 2.2.1 2.2.2 2.3 2.4 2.4.1 2.4.2 2.5	Local Employment & Jobs Profile Jobs By Industry Study Area Marrickville LGA South Sydney Subregion Resident Employment By Industry Marrickville LGA South Sydney Subregion Job Provision Journey To Work Residents Workers Summary	.3 .6 .9 11 11 12 14 14
3 3.1 3.2 3.3 3.4 3.5 3.6 3.7	Study Area Survey	20 21 23 23 24 24 24
4	Home Improvement Store Case Studies	25
5 5.1 5.2 5.3 5.4	Economic Impacts of Proposed Development Implications for Surrounding Industrial Activities Employment Impacts Other Impacts Summary	28 28 28 29
DISCIS		

FIGURES:

jure 1 – Building Types , Study Area	22
ure 2 – Floor Area by Building Types, Study Area	22

MAPS:

Map 1	Subject Site & Study Area	2
Map I –	Subject Site & Study Alexandre	E
Map 2 –	Destination Zone & Study Area boundaries	Э
	Marrickville Residents' Place of Work1	
	Marrickville Workers' Place of Residence1	
Мар 5 –	Building Floor Plates Mapping, Study Area2	1

Tables:

Table 1 – Study Area Jobs By Industry, 2006-2011	4
Table 2 - Marrickville LGA Jobs By Industry, 2006-2011	
Table 3 - Marrickville LGA Jobs By Industry, 2011-2046	
Table 4 - South Sydney Subregion Jobs By Industry, 2006-	
Table 5 - South Sydney Subregion Jobs By Industry, 2011-	2046 10
Table 6 - Marrickville Resident Employment by Industry, 20	06-2011
Table 7 - South Sydney Subregion Resident Employment b	y Industry, 2006-2011 12
Table 8 - Marrickville LGA Jobs Deficit	
Table 9 - South Sydney Subregion Jobs Deficit	
Table 10 - Marrickville and South Sydney Subregion Reside	nts' Place of Work, 2011 14
Table 11 - Employment Containment Benchmarks, 2011	
Table 12 - MarrickvIIIe and South Sydney Subregion Worker	
Table 13 – Zoning Type Distribution, study area	
Table 14 – Study Area Employment Densities	

Executive Summary

STUDY BACKGROUND

The purpose of this study is to assess the impacts the Hydrox Nominees' proposed Masters Home Improvement store at 74 Edinburgh Road Marrickville in relation to the industrial precinct in which it sits.

The study has been prepared in response to the Sydney East Joint Regional Planning Panel's (JRPP) decision to allow to Hydrox's planning proposal proceeding to Gateway determination subject to the following being undertaken:

a review of the industrial area enclosed by Sydenham Road, Victoria Road, Edinburgh Road and the railway line, including an analysis of existing land uses consistent with the zoning, vacancy rates and the implications of the proposed rezoning on the viability of this industrial area.

The subject property has frontages to both Edinburgh Road and Sydney Steel Road and is set on the fringe of an industrial precinct approximately bounded by Edinburgh Road to the north, Railway Parade and the railway line to the east, Marrickville Road/the railway line to the south and Meeks Rd/Farr Street/Shepherd Street to the west.

The site falls within Marrickville Local Government Area (LGA) which belongs to the South Sydney Subregion, also comprising Kogarah, Hurstville, Canterbury, Rockdale and Sutherland LGAs, as defined by the NSW DoP&I.

LOCAL EMPLOYMENT & JOBS PROFILE

The Bureau of Transport Statistics (BTS), a division of Transport for NSW, publishes jobs and employment data for small areas known as Destination Zones (DZN). The Study Area mostly closely matches DZN 414 (for DZN boundaries see Map 2 in the report proper). Jobs located in DZN 414 are approximately equally split between industrial and non-industrial sectors.

The retail trade sector – which the proposed Masters Home Improvement store would fall within – accounted for just 5% of all jobs in DZN 414 in 2011. With growth in jobs in the precinct over time, the introduction of the Masters Home Improvement store is not likely to result in a significant increase in the retail trade sectors' share of jobs in the precinct. At 5% of jobs, the representation of retail trade is marginal, and it is not considered to be at a level which will detract from or threaten the viability of surrounding industrial activities. In any event, a significant proportion of the staff within a Masters Home Improvement store are recruited on the basis of having skills or experience in trade sectors and would therefore align with industrial based employment.

The number of jobs located in Marrickville LGA remained virtually constant between 2006 and 2011 (1% growth). Over the same period, Marrickville's resident population grew by 4,700. Therefore, proportionate to the number of residents, jobs have actually fallen over time.

The number of jobs in industrial sectors declined between 2006 and 2011. This was primarily attributed to the large decrease in manufacturing jobs – the impact of structural economic changes occurring at the national level.

However, some industrial sectors in Marrickville actually grew – the transport, postal & warehousing sector gained 250 jobs and the construction sector gained 138 jobs.

BTS expects that the overall number of industrial jobs located in Marrickville LGA will continue to fall in the future. However, BTS estimates that the construction sector is expected to continue to be an anomaly to this trend, with an additional 392 constructions jobs expected to be located in Marrickville by 2046.

Given that the construction (trades) sector is a major customer of Masters Home Improvement stores, accounting for approximately 20% of anticipated store turnover, the introduction of the store on the subject site is considered to be highly complementary to the changing industry structure which has occurred in Marrickville in past years, and which is expected to continue to occur in the future.

The Store will provide construction businesses located in Marrickville easy access to construction materials. In this way the proposed Masters Home Improvement store would compliment and support, rather than hinder, the growing construction sector in the immediate precinct, and in the broader Marrickville LGA.

Compared to 2006, fewer Marrickville residents were employed in industrial sectors (-363) and more residents were employed in non-industrial sectors (+2,358) in 2011. Manufacturing experienced the greatest decline (-212), while Professional, Scientific and Technical Services experienced the greatest increase (+1,029).

The number of Marrickville residents employed in the Retail sector increased between 2006 and 2011 (+109) but the number of retail jobs located in Marrickville LGA declined (-5). The same was experienced at the subregional level. The proposed Masters Home Improvement store would assist to offset this divergence between resident employment and jobs, which ultimately results in more people travelling longer distances to work. This has a range of adverse environmental, social and economic impacts (for instance, increased pollution from fuels, increased pressure on road infrastructure and associated higher maintenance costs, reduced time spent with families, increased costs of travel for workers and reduced worker productivity) and is in conflict with the DoP&I's objective of providing more jobs closer to homes.

Of the people who work in Marrickville LGA, 29% travel more than 20 kilometres, and 10% travel more than 30 kilometres. The high dependency on workers from outside of Marrickville can be attributed to the fact that the jobs located in Marrickville do not closely match the employment profile of Marrickville residents.

STUDY AREA SITE SURVEYS

To better understand the nature of industrial activities occurring near the subject site, and in order to fully consider the impacts of the proposed Masters Home Improvement store on the adjoining industrial precinct, Urbis undertook external inspections of properties in the precinct. This was supplemented with information collated with the use of Urbis' Geographic Information Systems (GIS) tools.

There are 301 properties in the Study Area, of which 255 (87%) are zoned IN1. The bulk of the balance of properties are zoned B7 and IN2.

The total Study Area comprises a total site area of around 384,000sq.m., and total building floor space of approximately 238,000sq.m.

There is currently around 4,000sq.m. of retail floorspace in the study area, which represents approximately1.7% of all building floorspace. The proposed Masters Home Improvement store would result in a total of around 17,000sq.m. of retail floor space in the Study Area – which is equivalent to around 8% of existing building floor space. Therefore, the precinct would continue to be dominated by industrial buildings, and the overall share of retail floorspace would remain marginal.

Freight & logistics / warehouses – the most prominent building type in the Study Area – has the lowest employment density of all properties in the precinct, employing 1 person per 262sq.m. of floorspace or 460sq.m. of site area. Studios / industrial workshops – the second most prominent building type in the precinct – has the second lowest employment density. Therefore, the precinct supports a low level of employment, relative to other industrial precincts occupied by more intensive industrial uses.

If the freight & logistics / warehouse properties (which are expected to become less relevant as businesses operating in the sector move to alternative locations) are adapted to better suit the changing industry structure of the precinct (e.g. growing prevalence of construction businesses), there is considered to be significant opportunity for total employment to increase, and the overall economic importance of the precinct to be enhanced. The introduction of the proposed Masters Home Improvement store is not expected to inhibit this adaptation from occurring. However, changes to land use permissibility and development controls are required for adaptation to occur.

A high level of vacancy and underutilisation was observed in the Study Area. Vacant is defined to comprise all lots that were vacant, derelict or for sale (and untenanted); underutilised floorspace is defined to comprise properties which were not occupied on any of the days that Urbis undertook site

surveys (3 days) and which were not believed to be regularly utilised based on their physical appearance (for instance, they were run-down, boarded/chained up and without any signage).

Businesses in the precinct primarily felt that the proposed Masters Home Improvement store would have a neutral to positive impact on their activities, and on the wider precinct. The general view was that the predominate hardware focus of Masters was compatible with the local industrial uses.

Positive impacts were largely expected to be generated through the improved range and access of hardware goods that will be provided by the Masters Home Improvement store.

In terms of possible negative impacts, some businesses expressed that traffic congestion was a concern but felt that congestion could be mitigated through appropriate traffic management. Some of the service industrial businesses actually felt that the possible increase in passing traffic would increase customer exposure and have an overall positive impact on their business.

Only one construction supplies business, occupying a 500sq.m. site, expected that the Masters Home Improvement store would take trade away from it and have an overall negative impact.

ECONOMIC IMPACTS OF PROPOSED DEVELOPMENT

Economic outcomes expected to be generated by the proposed Masters Home Improvement store in Marrickville are summarised as follows:

- it is expected to compliment the adjoining industrial precinct by increasing access and choice of building and construction materials to the construction sector, which increased its prevalence in the precinct between 2006 and 2011, and is expected to continue to become more prevalent in Marrickville LGA in the future;
- the 2.75 hectare subject site represents just 1.3% of all industrial zoned land in the draft Marrickville LEP 2010 (214.6 hectares), and 7% of industrial zoned land in the Study Area. Therefore, the rezoning will not have a material impact on industrial land supply in Marrickville or the Study Area;
- it is expected to result in a net increase in jobs in the precinct, with 130 to 150 people expected to be employed at the store, compared to 15 workers employed on the site currently. It is also expected to generate more employment than what could be generated if another distribution centre occupied the site, with average employment densities for distribution centres / warehouses ranging from 1 job per 110 sq.m (universal average according to Urbis internal benchmarks) to 1 job per 262sq.m. of floorspace (average for the study area, as quantified through Urbis Study Area site Surveys), compared to an average 1 job per 90-105sq.m for Masters Home Improvement stores.
- the Masters Home Improvement store will increase the provision of retail jobs in Marrickville LGA, which actually declined between 2006 and 2011, while the number of Marrickville residents employed in retail jobs increased between 2006 and 2011, resulting in an increase in the size of the retail jobs deficit in Marrickville to 643 jobs by 2011. Such divergence between jobs and resident employment causes people to have to travel longer distances to work, and this has a range of adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.
- increased competition within the home improvement sector which should result in greater choice and price savings for customers;
- the site's location adjacent to Marrickville Metro shopping centre provides a convenient location for household shoppers, whilst its location close to other trades suppliers within Marrickville is also advantageous to the trades sector. Both factors have the potential to reduce overall travel distances for customers.
- accordingly, there may be potential vehicle emission savings (particularly from trades vehicles) by minimising the need for customers to travel greater distances to make purchases; and
- increased expenditure retention within the Main Trade Area reducing the amount of expenditure that is leaked to other LGAs.

IV EXECUTIVE SUMMARY

1 Study Background

1.1 STUDY PURPOSE

The purpose of this study is to assess the impacts the Hydrox Nominees' proposed Masters Home Improvement store at 74 Edinburgh Road Marrickville in relation to the industrial precinct in which it sits, having regard for:

- existing land uses and business activities;
- vacancy rates;
- site location and attributes;
- resident and workforce employment profile;
- future intentions of tenants;
- the number of jobs expected to be created by the development.

1.2 PROPOSED DEVELOPMENT

The Masters Home Improvement store will comprise of approximately 13,500sq.m. which will include a main floor area for a range of home improvement products, a nursery for landscape and garden products, a trade area for drive-thru sales of all goods, restaurant/café and associated parking.

1.3 SITE LOCATION & CONTEXT

The property has frontages to both Edinburgh Road and Sydney Steel Road and is set on the fringe of an industrial precinct approximately bounded by Edinburgh Road to the north, Railway Parade and the railway line to the east, Marrickville Road/the railway line to the south and Meeks Rd/Farr Street/Shepherd Street to the west.

Marrickville Metro shopping centre lies immediately north of the site. A redevelopment of the centre was approved in 2012 which will see the centre extend further south east, towards the subject site's frontage on Edinburgh Road.

The site falls within Marrickville Local Government Area (LGA) which belongs to the South Sydney Subregion, also comprising Kogarah, Hurstville, Canterbury, Rockdale and Sutherland LGAs, as defined by the NSW DoP&I.

Map 1 overleaf shows the site's location, and the 'Study Area' that was defined by the JRPP, which encompasses the area bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line.

MAP 1 - SUBJECT SITE & STUDY AREA


2 Local Employment & Jobs Profile

This section assesses the potential impacts of the proposed site rezoning on the industrial precinct that it sits within, having regard for the resident employment and jobs profile of the Study Area, Marrickville LGA and South Sydney Subregion. Note that jobs and resident employment are distinctly different and are defined as follows:

- Jobs: this is based on place of employment and refers to the jobs that are actually located in a given area.
- Resident Employment: this is based on place of residence and refers to the jobs that residents
 of a given area are employed in, regardless of where those jobs are.

2.1 JOBS BY INDUSTRY

2.1.1 STUDY AREA

The New South Wales Bureau of Transport Statistics (BTS) – an independent entity within Transport for New South Wales – publishes jobs data for small areas referred to as Destination Zones (DZN).

The Study area for this assessment – comprising the area bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line – does not exactly match one DZN, however it primarily falls within DZN 414, except for a small portion to the east which falls within DZN 418. The study area and DZN boundaries are illustrated in Map 2 overleaf.

As noted, the total DZN 414 covers 80 hectares, of which the Study Area accounts for 48 hectares, or 60%. The part of the DZN which is outside of the Study Area includes a significant proportion of residential properties to the north-west, as illustrated in Map 2. Therefore, we can assume that the Study Area is likely to account for more than 60% of jobs in the DZN – Urbis estimates it to be in the order of 70%.

Based on the fact that DZN 414 contains 3,221 jobs, and assuming that 70% of those jobs fall within the Study Area, the total number of jobs in the Study Area is quantified to be in the order of 2,255.

Table 1 shows the breakdown of jobs by industry in the DZN 414, in 2011 – this provides an indication of the nature of jobs in the Study Area. We note that the travel zone boundaries changed between 2006 and 2011, and therefore a like for like comparison of jobs in 2006 and 2011 cannot be provided, as per the analysis presented in Sections 2.1.2 and 2.1.3 for Marrickville and South Sydney Subregion respectively.

As noted, in 2011 there was an approximately equal split between industrial and non-industrial jobs. Manufacturing was the most prominent activity occurring in the precinct, accounting for more than one third of all jobs.

The retail trade sector – which the proposed Masters Home Improvement store would fall within – accounted for just 5% of all jobs in the DZN in 2011. With growth in jobs in the precinct over time, the introduction of the Masters Home Improvement store is not likely to result in an increase in the retail trade sectors' share of jobs in the precinct. At 5% of jobs, the representation of retail trade is marginal, and it is not considered to be at a level which would detract from or threaten the viability of any industrial activities.

TABLE 1 - STUDY AREA JOBS BY INDUSTRY, 2006-2011

Jobs by Industry - Historic STUDY AREA (DESTINATION ZONE 113261414), 2011

	20	011
Industry Sectors	%	#
Agriculture, Forestry and Fishing	0%	0
Mining	0%	3
Manufacturing	38%	1,209
Electricity, Gas & Waste	0%	5
Construction	7%	237
Transport, Postal & Whousing	5%	158
Industrial Sectors	50%	1,612
Wholesale Trade	17%	558
Retall Trade	5%	164
Accommodation & Food	4%	115
Rental, Hiring & Real Estate	1%	22
Education and Training	1%	25
Healthcare & Social Assistance	3%	101
Arts and Recreation Services	2%	59
Other Services	8%	246
info Media & Telecomms	1%	34
Finance & Insurance	0%	10
Profess'nal, Scient. & Tech.	4%	113
Administration & Support	3%	85
Public Admin. & Safety	0%	7
Non-Industrial Sectors	48%	1,539
Not State / NA	2%	71
Total	100%	3,222

Source : ABS Census 2006 and 2011; NSW Bureau of Transport Statistics; Urbis



URBIS UPBIS_MASTERS MARRICKVILLE EIA_190713_FINAL

2.1.2 MARRICKVILLE LGA

As noted in Table 2, the number of jobs located in Marrickville LGA remained virtually constant between 2006 and 2011 (1% growth). Over the same period, Marrickville's resident population grew by 4,700. Therefore, proportionate to the number of residents, jobs have actually fallen over time.

The manufacturing sector experienced the greatest decline over the period, with 729 fewer jobs in 2011 compared to 2006. The decline in these industrial jobs was partially offset by an increase in Transport, Postal & Warehousing jobs (+250) and construction jobs (+138), resulting in a net loss in industrial jobs of 380.

An additional 606 jobs in non-industrial sectors were created in Marrickville over the period, with the largest winners being Professional, Scientific & Technical Services and Healthcare & Social Assistance Services.

The changing jobs profile of Marrickville is generally consistent with the changing resident employment profile, with fewer Marrickville residents employed in industrial jobs in 2011 compared to 2006 (discussed in Section 2.2.1.)

A notable anomaly is that the number of retail jobs located in Marrickville LGA decreased by 5 while the number of residents employed in retail jobs increased by 109. Such divergence in jobs and resident employment profiles causes people to have to travel longer distances to work. The proposed Masters Home Improvement store could assist to address this divergence, providing retail jobs to Marrickville residents who currently travel elsewhere to work.

TABLE 2 - MARRICKVILLE LGA JOBS BY INDUSTRY, 2006-2011

Jobs by Industry - Historic

MARRICKVILLE LGA, 2006 TO 2011

	2	006	2	011		Change -2011
Industry Sectors	%	#	%	#	#	%
Agriculture, Forestry and Fishing	0%	51	0%	7	-44	-86%
Mining	0%	3	0%	10	7	233%
Manufacturing	18%	4,208	15%	3,479	-729	-17%
Electricity, Gas & Water	0%	47	0%	45	-2	-4%
Construction	5%	1,210	6%	1,348	138	11%
Transport, Postal and Warehousing	5%	1,202	6%	1,452	250	21%
Industrial Sectors	29%	6,721	27%	6,341	-380	-6%
Wholes ale Trade	9%	2,173	8%	1,975	-198	-9%
Retail Trade	11%	2,642	11%	2,637	-5	0%
Accommodation & Food	6%	1,431	7%	1,542	111	8%
Rental, Hiring & Real Estate	2%	347	2%	352	5	1%
Education and Training	8%	1,941	9%	2,045	104	5%
Healthcare & Social Assistance	8%	1,745	9%	2,055	310	18%
Arts and Recreation Services	2%	413	2%	537	124	30%
Other Services	6%	1,361	5%	1,238	-123	-9%
Information Media & Telecomms	2%	543	2%	514	-29	-5%
Financial and Insurance Services	2%	436	1%	348	-88	-20%
Profess'nal, Scient. & Tech.	6%	1,346	8%	1,755	409	30%
Administration & Support	2%	546	2%	523	-23	-4%
Public Administration and Safety	5%	1,074	5%	1,083	9	1%
Non-Industrial Sectors	69%	15,998	71%	16,604	606	4%
Not Stated/inadequately described	1%	340	1%	315	-25	-7%
Total		23,059		23,260	201	1%
Courses 4 DO Courses and a logit blatting of the		,			2001	1 /0

Source : ABS Census 2006 and 2011: NSW Bureau of Transport Statistics: Urbis

Table 3 overleaf shows the estimated future number of jobs located in Marrickville LGA by industry to 2046, as projected by BTS. As noted, the observed decline in industrial jobs and growth in non-industrial jobs is expected to continue into the future, with the share of industrial jobs forecast to fall to 9% by 2046.

The largest fall is expected to be in the manufacturing sector, with 848 fewer jobs projected by 2046. However, manufacturing is still expected to maintain a presence in Marrickville, with some 1,378 jobs expected to remain by 2046.

Some of the fall in industrial jobs is expected to be offset by a rise in construction jobs (+392). Given that the construction (trades) sectors are major customers of Masters Home Improvement stores, accounting for an estimated 20% of turnover, the introduction of the Home Improvement store on the subject site is highly complimentary to the changing industry structure which has occurred in Marrickville in past years, and which is expected to continue to occur in the future.

The Masters Home Improvement store will provide construction businesses located in Marrickville easy access to construction materials. In this way it would compliment and support, rather than hinder, the growing construction sector in the immediate precinct, and in the broader Marrickville LGA.

For reference, the construction sector is comprised of the activities noted below, as per Australian & New Zealand Standard Industry Classifications (ANZSIC):

- House Construction
- Residential Building Construction n.e.c.
- Non-Residential Building Construction
- Road and Bridge Construction
- Non-Building Construction n.e.c.
- Site Preparation Services
- Concreting Services
- Bricklaving Services
- Roofing Services
- Structural Steel Erection Services
- Plumbing Services
- Electrical Services
- Air Conditioning and Heating Services
- Fire and Security System Services
- Plastering and Ceiling Services
- Carpentry Services
- Tiling and Carpeting Services
- Painting and Decorating Services
- Landscaping Services
- Construction Services n.e.c.

TABLE 3 - MARRICKVILLE LGA JOBS BY INDUSTRY, 2011-2046 Jobs by Industry - Forecast MARRICKVILLE LGA, 2006 TO 2046

	¢		•													1		
	N	1117	N	2016	20	2021	ñ	2026	2031	31	20	2036	2041	41	20	2046	2011-	2046
Industry Sectors	%	#	%	#	%	#	%	#	%	#	%	#	%	#	*	#	#	%
Anticulture Ecroothy and Eiching	200	ſ	100	I		i						:	ł	-	2	ŧ	Change	Change
Maina Manual Coresultation Fishing	%0		%0	~	%0	~	%0	7	%0	7	%0	8	%0				2	28%
	%0	10		10	%0	10	%0	9	%0	10	%0	10	%0				0	%0
	15%	3,479	-	2,965	10%	2,461	8%	2,300	8%	2,167	8%	2,113	7%				-1,325	-38%
Electricity, Gas & Water	%0	45	%0	19	%0	6	%0	4	%0	-	%0	0	%0				45	-100%
Construction	%9	1,348	%9	1,488	6%	1,550	%9	1,522	6%	1,528	6%	1,557	%9				301	22%
Transport, Postal and Warehousing	%9	1,452	%9	1,379	5%	1,343	5%	1,256	5%	1,248	5%	1,254	4%	1,280	4%	1.331	-121 -8%	-8%
Industrial Sectors	27%		•••	5,867	21%	5,379	20%	5,099	19%	4,961	18%	4,941	17%				-1.188	-19%
Wholesale Irade	%8	1,975		2,088	%6	2,221	%6	2,352	%6	2,462	%6	2,577	%6				823	42%
Hetail Irade	11%	2,637	-	3,030	12%	3,051	12%	3,106	12%	3,155	12%	3,229	12%				819	31%
Accommodation & Food	%2	1,542	%1	1,654	7%	1,663	7%	1,704	7%	1,758	7%	1,832	%2				454	29%
Hental, Hiring & Real Estate	2%	352	1%	363	1%	369	1%	372	1%	385	1%	406	2%				103	29%
Education and Training	6%	2,045	8%	2,116	%6	2,368	10%	2,578	10%	2,741	10%	2,886	11%				1.106	54%
Healthcare & Social Assistance	%6	2,055	%6	2,292	10%	2,517	10%	2,708	11%	2,849	11%	2,968	11%				1.152	56%
Arts and Recreation Services	2%	537	2%	569	2%	564	2%	576	2%	583	2%	589	2%				88	16%
Other Services	5%	1,238	5%	1,250	5%	1,265	5%	1,282	5%	1,297	5%	1,312	5%				111	%6
Information Media & Telecomms	2%	514	2%	563	2%	584	2%	611	2%	634	2%	659	2%				204	40%
Financial and Insurance Services	1%	348	1%	337	1%	361	1%	371	1%	388	1%	403	1%				86	25%
Profess'nal, Scient. & Tech.	8%	1,755	8%	1,914	%6	2,157	%6	2,380	10%	2,560	10%	2,707	10%				1.204	69%
Administration & Support	2%	523	2%	572	2%	569	2%	573	2%	575	2%	581	2%				97	19%
Public Administration and Safety	2%	1,083	2%	1,243	5%	1,320	5%	1,398	5%	1,472	%9	1,553	6%				622	57%
Non-Industrial Sectors	71%	16,604	73%	17,990	75%	19,008	%17	20,011	78%	20,859	79%	21,703	79%				6.868	41%
Not Stated/Inadequately described	1%	315	4%	907	4%	923	4%	941	4%	956	4%	972	3%				697	221%
Total		23,260		24,764		25,310		26,051		6,776		719,71		8,566			6.377	27%
Source : ABS Census 2006 and 2011; NSW Bureau of Transport Statistics; Urb	urof Trar	sport Stati	stics; Urbi	60													•	

URBIS_MASTERS MARRICKVILLE EIA_190713_FINAL

CCAL EMPLOYMENT & JOBS PROFILE

2.1.3 SOUTH SYDNEY SUBREGION

Table 4 shows the change in the number of jobs located in the South Sydney Subregion by industry, between 2006 and 2011.

As per the experience of Marrickville LGA, there was a decline in industrial jobs and in increase in nonindustrial jobs in South Sydney between 2006 and 2011.

The biggest winners were Healthcare & Social Assistance Services (+3,100) and Professional, Scientific & Technical Service (+1,468). The biggest losers were Manufacturing (-3,445) and Retail Trade (1,275).

TABLE 4 - SOUTH SYDNEY SUBREGION JOBS BY INDUSTRY, 2006-2011

Jobs by Industry - Historic

SOUTH SYDNEY SUB-REGION, 2011 TO 2046

20	06	20)11	Actual C 2011-	-
%	#	%	#	#	%
0%	211	0%	122	-89	-42%
0%	71	0%	78	7	10%
11%	18,104	9%	14,659	-3,445	-19%
1%	834	1%	952	118	14%
6%	10,190	7%	10,715	525	5%
5%	8,063	5%	8,406	343	4%
23%	37,473	22%	34,932	-2,541	-7%
6%	9,169	5%	8,436	-733	-8%
14%	22,823	13%	21,548	-1,275	-6%
7%	11,431	7%	11,987	556	5%
2%	3,205	2%	2,974	-231	-7%
8%	13,300	9%	14,105	805	6%
13%	20,590	15%	23,690	3,100	15%
1%	2,212	1%	2,341	129	6%
5%	7,778	5%	7,719	-59	-1%
1%	1,800	1%	1,573	-227	-13%
4%	6,251	3%	5,148	-1,103	-18%
6%	9,639	7%	11,107	1,468	15%
3%	4,115	3%	4,318	203	5%
6%	9.515	6%	9,362	-153	-2%
76%	121,828	77%	124,308	2,480	2%
1%	1,788	1%	1,808	20	1%
	161.089		161,048	-41	0%
	% 0% 0% 11% 6% 5% 23% 6% 14% 7% 2% 8% 13% 1% 5% 13% 1% 5% 1% 4% 6% 3% 6% 76%	0% 211 0% 71 11% 18,104 1% 834 6% 10,190 5% 8,063 23% 37,473 6% 9,169 14% 22,823 7% 11,431 2% 3,205 8% 13,300 13% 20,590 1% 2,212 5% 7,778 1% 1,800 4% 6,251 6% 9,639 3% 4,115 6% 9,515 76% 121,828 1% 1,788	% # % 0% 211 0% 0% 71 0% 11% 18,104 9% 1% 834 1% 6% 10,190 7% 5% 8,063 5% 23% 37,473 22% 6% 9,169 5% 14% 22,823 13% 7% 11,431 7% 2% 3,205 2% 8% 13,300 9% 13% 20,590 15% 1% 2,212 1% 5% 7,778 5% 1% 1,800 1% 4% 6,251 3% 6% 9,639 7% 3% 4,115 3% 6% 9,515 6% 76% 121,828 77% 1% 1,788 1%	%#%#0%2110%1220%710%7811%18,1049%14,6591%8341%9526%10,1907%10,7155%8,0635%8,40623%37,47322%34,9326%9,1695%8,43614%22,82313%21,5487%11,4317%11,9872%3,2052%2,9748%13,3009%14,10513%20,59015%23,6901%2,2121%2,3415%7,7785%7,7191%1,8001%1,5734%6,2513%5,1486%9,6397%11,1073%4,1153%4,3186%9,5156%9,36276%121,82877%124,3081%1,7881%1,808	2006 2011 $2011-$ %#%##0%2110%122-890%710%78711%18,1049%14,659-3,4451%8341%9521186%10,1907%10,7155255%8,0635%8,40634323%37,47322%34,932-2,5416%9,1695%8,436-73314%22,82313%21,548-1,2757%11,4317%11,9875562%3,2052%2,974-2318%13,3009%14,10580513%20,59015%23,6903,1001%2,2121%2,3411295%7,7785%7,719-591%1,8001%1,573-2274%6,2513%5,148-1,1036%9,6397%11,1071,4683%4,1153%4,3182036%9,5156%9,362-15376%121,82877%124,3082,4801%1,7681%1,80820

Source : ABS Census 2006 and 2011; NSW Bureau of Transport Statistics; Urbis

Like Marrickville LGA, there is expected to be a decline in industrial jobs in South Sydney Subregion, in particular manufacturing, which is expected to have almost 8,000 fewer jobs by 2046. However, consistent with Marrickville LGA, construction jobs are expected to increase by some 6,600 jobs, thereby offsetting some of the decline in industrial jobs.

Again, the proposed Masters Home Improvement store will provide increased access to construction materials to the growing pool of construction businesses in the Subregion, and in this way it is expected to complement the neighbouring industrial activities.

TABLE 5- SOUTH SYDNEY SUBREGION JOBS BY INDUSTRY, 2011-2046 Jobs by Industry - Forecast

2046
9
2011
ź
SUB-REGIC
ĽB-
۲ Ш
Nay
SH
DOS

		2011		2016		2021		2026	61	2031	N	2036	ស៊	2041	2046	6	2011-2046	2046
Industry Sectors	%	*	%	*	%	#	%	*	%	*	%	#	%	*	8	*	# Change (% Change
Agriculture, Fishery & Forestry 0% 122 0% 108 0% 102 0% 103 0% 106	%0	122	%0	108	%0	102	%0	103	%0		%0	111	%0				%0	c
Mining	%0	78	%0	85	%0	94	%0	102	%0		%0	116	%0					202
Manufacturing	%6	14,659	%2	12,630	%9	10,866	5%	10,070	5%		5%	9,459	4%					4 878
Electricity, Gas & Waste	1%	952	%0	651	%0	565	%0	526	%0		%0	495	%0					435
Construction	%2	10,715	7%	11,989	%2	12,651	%/	12,544	%9		%9	13.047	%9					0218
Transport, Postal & Whousing	5%	8,406	5%	8,129	4%	8,144	4%	7,779	4%		4%	7,815	4%					-154
Industrial Sectors	22%	34,932	20%	33,592	18%	32,422	16%	31,125	16%		15%	31.044	15%					34C C
Wholesale Trade	5%	8,436	5%	8,805	5%	9,316	5%	9,783	5%		5%	10,540	5%					2 903
Retail Trade	13%	21,548	14%	23,708	14%	24,587	13%	25,545	13%		13%	27,344	13%					7 860
Accommodation & Food	7%	11,987	7%	12,472	%2	12,755	%2	13,182	%2		7%	14.243	7%					2 491
Rental, Hiring & Real Estate	2%	2,974	2%	3,022	2%	3,072	2%	3,033	2%		1%	3.060	1%					231
Education and Training	%6	14,105	6%	14,632	%6	16,391	%6	17,868	10%		10%	19,998	10%					7.726
Healthcare & Social Assistance	15%	23,690	16%	27,082	17%	30,172	17%	32,813	18%		18%	36,555	18%					6 050
Arts and Recreation Services	1%	2,341	1%	2,367	1%	2,378	1%	2,473	1%		1%	2,591	1%					432
Other Services	5%	7,719	5%	7,740	4%	7,808	4%	7,884	4%		4%	8,075	4%					778
Into Media & Telecomms	1%	1,573	1%	1,728	1%	1,866	1%	1,965	1%		1%	2,134	1%					700
Finance & Insurance	3%	5,148	3%	5,595	4%	6,401	4%	6,926	4%		4%	7,689	4%					3.054
Profess'nal, Scient. & Tech.	7%	11,107	7%	12,658	8%	14,902	%6	16,844	%6		10%	19,679	10%				·	0.433
Administration & Support	3%	4,318	3%	4,956	3%	5,299	3%	5,569	3%		3%	6,018	3%	6.191	3% 6.	6.433 4	49%	2 115
Public Admin. & Safety	%9	9,362	%9	11,032	7%	11,879	7%	12,703	7%		7%	14,279	7%					6.356
Non-Industrial Sectors	77%	124,308	79%	135,797	81%	146,827	83%	156,589	83%		B4%	172.204	84%					205B
Not State / NA	1%	1,808	1%	1,878	1%	1,954	1%	2.035	1%		1%	2.179	1%		•			531
Total		161,048		171,268		181,203		189,749				205.427						0 245
Source ; ABS Census 2006 and 2011; NSWL	Вигеаи о	i Transport S	Matistics,	; Urbis									•					1000

10 LOCAL EMPLOYMENT & JOBS PROFILE

2.2 RESIDENT EMPLOYMENT BY INDUSTRY

2.2.1 MARRICKVILLE LGA

Compared to 2006, fewer Marrickville residents were employed in industrial sectors (-363) and more residents were employed in non-industrial sectors (+2,358) in 2011. Manufacturing experienced the greatest decline (-212), while Professional, Scientific and Technical Services experienced the greatest increase (+1,029).

As noted in Section 2.1.2 the number of Marrickville residents employed in the Retail sector increased between 2006 and 2011 (+109) but the number of retail jobs located in Marrickville LGA declined (-5). The proposed Masters Home Improvement store would assist to offset this divergence between resident employment and jobs, which ultimately results in more people travelling longer distances to work. This has a range of adverse environmental, social and economic impacts, and is in conflict with the DoP&I's objective of providing more jobs closer to homes.

TABLE 6 - MARRICKVILLE RESIDENT EMPLOYMENT BY INDUSTRY, 2006-2011

Resident Employment by Industry - Historic

MARRICKVILLE LGA, 2006 TO 2011

	20	06	20	11	2006	-2011
Industry Sectors	%	#	%	#	% Change	# Change
Agriculture, forestry & fishing	0%	63	0%	44	-30%	-19
Mining	0%	52	0%	50	-4%	-2
Manufacturing	7%	2,510	5%	2,298	-8%	-212
Electricity, as, water & waste services	1%	203	1%	254	26%	52
Construction	5%	1,876	4%	1,790	-5%	-86
Transport, postal & warehousing	5%	1,817	4%	1,721	-5%	-96
Industrial Sectors	17%	6,521	15%	6,158	-6%	-363
Wholesale trade	4%	1,633	4%	1,647	1%	15
Retail trade	8%	3,171	8%	3,280	3%	109
Accommodation & food services	7%	2,659	7%	2,831	6%	172
Rental, hiring & real estate services	2%	569	1%	581	2%	12
Education & training	10%	3,906	11%	4,679	20%	773
Health care & social assistance	11%	4,067	11%	4,750	17%	684
Arts & recreation services	3%	990	3%	1,282	29%	292
Other services	4%	1,459	4%	1,484	2%	25
Information media & telecommunications	6%	2,185	6%	2,532	16%	346
Financial & insurance services	6%	2,369	7%	2,731	15%	361
Professional, scientific & technical services	11%	4,196	12%	5,225	25%	1,029
Administrative & support services	4%	1,415	4%	1,645	16%	231
Public Administration & safety	7%	2,656	7%	3,047	15%	391
Non-Industrial Sectors	83%	31,275	85%	35,715	14%	2,358
Total	100%	37,796	100%	41,873	5%	1,995

Source : A B/S Census 2006 and 2011; Urbis

2.2.2 SOUTH SYDNEY SUBREGION

As per the experience of Marrickville LGA, fewer residents across the entire South Sydney subregion were employed in industrial sectors in 2011 compared to 2006, as noted in Table 7. Again, the largest fall was in the number of residents employed in the manufacturing sector (-2,961).

As per the experience in Marrickville, the number of residents of South Sydney subregion who were employed in the retail sector increased between 2006 and 2011 (+261), but the number of retail sector jobs located in South Sydney subregion fell (-1,275). By 2011 around 35,000 South Sydney residents were employed in the retail sector, but there was just 21,000 retail jobs located in South Sydney subregion.

Once again, the incorporation of a Masters Home Improvement store in Marrickville would assist to offset the growing retail jobs deficit in the South Sydney subregion.

TABLE 7 - SOUTH SYDNEY SUBREGION RESIDENT EMPLOYMENT BY INDUSTRY, 2006-2011

Resident Employment by Industry - Historic

SOUTH SYDNEY SUBREGION, 2006 TO 2011

2	2006	2	2011	2006	-2011
%	#	%	#	% Change	# Change
0%	548	0%	345	-37%	-202
0%	304	0%	448	47%	144
9%	29,753	7%	26,792		-2,961
1%	2,739	1%	2,927		187
7%	23,573	7%	24,666		1.093
7%	24,130	7%			804
24%	81,047	22%			-935
5%	17,559	5%		-1%	-238
11%	35,088	10%	35,305	1%	217
7%	23,107	7%	25,183	9%	2.076
2%	6,148	2%	6,307	3%	159
8%	26,139	8%	30,261	16%	4,122
10%	32,962	11%	39,221	19%	6,260
2%	5,486	2%	6,576	20%	1,090
4%	13,563	4%	13,820	2%	258
3%	10,450	3%	11,236	8%	785
6%	21,148	6%	22,749	8%	1.601
8%	28,253	9%	33,206	18%	4,953
4%	11,664	4%	13,490	16%	1,827
6%	20,602	6%	22,646	10%	2,044
76%	252,168	78%			25.154
100%	333,215	100%	357,434	124%	24,219
	% 0% 9% 1% 7% 24% 5% 11% 7% 2% 8% 10% 2% 4% 3% 6% 8% 4% 6% 6% 7 6%	0% 548 0% 304 9% 29,753 1% 2,739 7% 23,573 7% 24,130 24% 81,047 5% 17,559 11% 35,088 7% 23,107 2% 6,148 8% 26,139 10% 32,962 2% 5,486 4% 13,563 3% 10,450 6% 21,148 8% 28,253 4% 11,664 6% 20,602 76% 252,168	% # % 0% 548 0% 0% 304 0% 9% 29,753 7% 1% 2,739 1% 7% 23,573 7% 7% 24,130 7% 24% 81,047 22% 5% 17,559 5% 11% 35,088 10% 7% 23,107 7% 2% 6,148 2% 8% 26,139 8% 10% 32,962 11% 2% 5,486 2% 4% 13,563 4% 3% 10,450 3% 6% 21,148 6% 8% 28,253 9% 4% 11,664 4% 6% 20,602 6% 76% 252,168 78%	%#%#0%5480%3450%3040%4489%29,7537%26,7921%2,7391%2,9277%23,5737%24,6667%24,1307%24,93424%81,04722%80,1125%17,5595%17,32111%35,08810%35,3057%23,1077%25,1832%6,1482%6,3078%26,1398%30,26110%32,96211%39,2212%5,4862%6,5764%13,5634%13,8203%10,4503%11,2366%21,1486%22,7498%28,2539%33,2064%11,6644%13,4906%20,6026%22,64676%252,16878%277,322	% # % # % Change 0% 548 0% 345 -37% 0% 304 0% 448 47% 9% 29,753 7% 26,792 -10% 1% 2,739 1% 2,927 7% 7% 23,573 7% 24,666 5% 7% 23,573 7% 24,934 3% 24% 81,047 22% 80,112 -1% 5% 17,559 5% 17,321 -1% 11% 35,088 10% 35,305 1% 7% 23,107 7% 25,183 9% 2% 6,148 2% 6,307 3% 8% 26,139 8% 30,261 16% 10% 32,962 11% 39,221 19% 2% 5,486 2% 6,576 20% 4% 13,563 4% 13,820 2% <td< td=""></td<>

2.3 JOB PROVISION

Tables 6 and 7 compare the number of jobs, by industry, located in Marrickville LGA and South Sydney subregion respectively, with the number of Marrickville LGA and South Sydney subregion residents employed, by industry. The analysis highlights the industries where there is a jobs deficit i.e. where there are more residents of an area employed in an industry than the number of jobs available in that industry in the same area.

As noted, there is a deficit of some 19,000 jobs in non-industrial sectors, and a surplus of some 183 jobs in industrial sectors in Marrickville LGA. Across the total South Sydney subregion, there is a jobs deficit in both industrial and non-industrial sectors, but it is significantly greater in non-industrial sectors.

Whilst some imbalance between jobs and resident employment is to be expected at the local level, and it is unrealistic to aim to achieve equilibrium in all sectors, too large of a deficit is inefficient as it causes people to have to travel longer distances to work. This has a range of adverse economic, social and environment impacts (for instance, increased pollution from fuels, increased pressure on road infrastructure and associated higher maintenance costs, reduced time spent with families, increased costs of travel for workers and reduced worker productivity).

The introduction of the proposed Masters Home Improvement store would assist to offset some of the imbalance between resident employment and jobs in Marrickville by providing more retail jobs, which are currently in deficit (-643 at the local level; -13,000 at the subregional level).

TABLE 8 - MARRICKVILLE LGA JOBS DEFICIT

Jobs Deficit

MARRICKVILLE LGA, 2011

Industry Sectors	Workers	Jobs	Jobs Gap
Agriculture, forestry & fishing	44	7	-37
Mining	50	10	-40
Manufacturing	2,298	3,479	1,181
Electricity, as, water & waste services	254	45	-209
Construction	1,790	1,348	-442
Transport, postal & warehousing	1,721	1,452	-269
Industrial Sectors	6,158	6,341	183
Wholesale trade	1,647	1,975	328
Retail trade	3,280	2,637	-643
Accommodation & food services	2,831	1,542	-1,289
Rental, hiring & real estate services	581	352	-229
Education & training	4,679	2,045	-2,634
Health care & social assistance	4,750	2,055	-2,695
Arts & recreation services	1,282	537	-745
Other services	1,484	1,238	-246
Information media & telecommunications	2,532	514	-2,018
Financial & insurance services	2,731	348	-2,383
Professional, scientific & technical services	5,225	1,755	-3,470
Administrative & support services	1,645	523	-1,122
Public Administration & safety	3,047	1,083	-1,964
Non-Industrial Sectors	35,715	16,604	-19,111
Total	41,873	22,945	-18,928

Source : ABS Census 2006 and 2011: Urbis

TABLE 9 - SOUTH SYDNEY SUBREGION JOBS DEFICIT

Jobs Deficit

SOUTH SYDNEY SUBREGION, 2011

Industry Sectors	Workers	Jobs	Jobs Gap
Agriculture, forestry & fishing	345	122	-223
Mining	448	78	-370
Manufacturing	26,792	14,659	-12,133
Electricity, as, water & waste services	2,927	952	-1,975
Construction	24,666	10,715	-13,951
Transport, postal & warehousing	24,934	8,406	-16,528
Industrial Sectors	80,112	34,932	-45,180
Wholesale trade	17,559	8,436	-9,123
Retail trade	35,088	21,548	-13,540
Accommodation & food services	23,107	11,987	-11,120
Rental, hiring & real estate services	6,148	2,974	-3,174
Education & training	26,139	14,105	-12,034
Health care & social assistance	32,962	23,690	-9,272
Arts & recreation services	5,486	2,341	-3,145
Other services	13,563	7,719	-5,844
nformation media & telecommunications	10,450	1,573	-8,877
Financial & insurance services	21,148	5,148	-16,000
Professional, scientific & technical services	28,253	11,107	- 1 7,146
Administrative & support services	11,664	4,318	-7,346
Public Administration & safety	20,602	9,362	-11,240
Non-Industrial Sectors	92,118	31,508	-60,610
Fotal Source : ABS Census 2006 and 2011; Urbis	172,229	66,440	-105,789

2.4 JOURNEY TO WORK

2.4.1 RESIDENTS

The inability of Marrickville to adapt its economic base to the changing employment profile of its residents has resulted in the LGA achieving a very low employment containment ratio of 15%, meaning that just 15% of working Marrickville residents are employed within the LGA. The remainder travel beyond for work, primarily to Sydney LGA (presumably mostly the CBD), North Sydney LGA and a dispersed mix of other LGAs, as noted in Table 11. Marrickville residents' journey to work patterns are illustrated in Map 3.

Table 12 benchmarks Marrickville's employment containment ratio against employment containment ratios achieved in a sample of other LGAs across Sydney. As noted, Marrickville has the lowest employment containment rate of all benchmarked LGAs.

This situation is contrary to Council's and the DoP's goal of providing jobs close to homes, and has adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.

The development of a Masters Home Improvement store on the subject site would contribute to improving Marrickville's employment containment rate, as it will provide retail jobs – which are currently in deficit – to Marrickville residents.

TABLE 10 – MARRICKVILLE AND SOUTH SYDNEY SUBREGION RESIDENTS' PLACE OF WORK, 2011

Worker Place of Residence

MARRICKVILLE LGA & SOUTH SYDNEY SUBREGION, 2011

Place of Residence, LGA	Employed Marrickvi		Employe South Sydne	
Marrickville	5,682	24%	7,396	5%
Canterbury	2,547	11%	14,525	9%
Sydney	1,337	6%	3,074	2%
Rockdale	1,214	5%	13,737	9%
Sutherland Shire	1,063	5%	54,286	34%
Bankstown	1,061	5%	8,142	5%
Randwick	721	3%	2,471	2%
Hurstville	669	3%	12,829	8%
Ashfield	639	3%	1,420	1%
Leichhardt	602	3%	1,051	1%
Canada Bay	585	3%	1,481	1%
Kogarah	560	2%	9,923	6%
_iverpool	461	2%	3,483	2%
Blacktown	422	2%	1,509	1%
Parramatta	402	2%	1,488	1%
Campbelltown	373	2%	2,448	2%
Fairfield	366	2%	1,721	1%
Ryde	311	1%	922	1%
Auburn	309	1%	1,177	1%
Vaverley	305	1%	748	0%
Other	3,633	16%	17,218	11%
lotal	23,262	100%	161,049	100%

Source : ABS Census 2011; Urbis

TABLE 11 - EMPLOYMENT CONTAINMENT BENCHMARKS, 2011

Employment Containment Rates SAMPLE LGAS, 2011

LGA	%
Warringah	38%
Waverley	27%
Ryde	28%
Parramalla	25%
Botany Bay	24%
Mosman	20%
Leichhardt	18%
Marrickville	14%

A95 2011





URBIS_MASTERS MARRICKVILLE EIA_190713_FINAL

16 LOCAL EMPLOYMENT & JOBS PROFILE

2.4.2 WORKERS

Table 12 shows the places of residence of people who work in Marrickville LGA and South Sydney subregion. The key points to note are:

- 24% of people that work in Marrickville also live in Marrickville, with the remaining 76% travelling to work in Marrickville from a broad range of areas. 29% of workers travel more than 20 kilometres to work in Marrickville, and 10% travel more than 30 kilometres to work in Marrickville. The journey to work patterns of Marrickville workers is illustrated in Map 4.
- The high dependency on workers from outside of Marrickville can be attributed to the fact that there is a significant mismatch between the types of jobs located in Marrickville and the types of jobs that Marrickville residents are employed in.
- Masters Home Improvement store would assist to address this issue by providing more jobs in an industry that a large proportion of Marrickville residents are employed in (retail), and where there is an undersupply of jobs currently.

TABLE 12 - MARRICKVILLE AND SOUTH SYDNEY SUBREGION WORKERS' PLACE OF RESIDENCE, 2011

Worker Place of Residence

MARRICKVILLE LGA & SOUTH SYDNEY SUBREGION, 2011

Place of Residence, LGA	Employed Within Marrickville LGA		Employed Within South Sydney Subreg	
Marrickville	5,682	24%	7,396	5%
Canterbury	2,547	11%	14,525	9%
Sydney	1,337	6%	3,074	2%
Rockdale	1,214	5%	13,737	9%
Sutherland Shire	1,063	5%	54,286	34%
Bankstown	1,061	5%	8,142	5%
Randwick	721	3%	2,471	2%
Hurstville	669	3%	12,829	8%
Ashfield	639	3%	1,420	1%
_eichhardt	602	3%	1,051	1%
Canada Bay	585	3%	1,481	1%
Kogarah	560	2%	9,923	6%
Liverpool	461	2%	3,483	2%
Blacktown	422	2%	1,509	1%
Parramatta	402	2%	1,488	1%
Campbelltown	373	2%	2,448	2%
Fairfield	366	2%	1,721	1%
Ryde	311	1%	922	1%
Auburn	309	1%	1,177	1%
Waverley	305	1%	748	0%
Other	3,633	16%	17,218	11%
Total	23,262	100%	161,049	100%

Source : ABS Census 2011; Urbis



URBIS_MASTERS MARRICKVILLE EIA_190713_FINAL

18 LOCAL EMPLOYMENT & JOBS PROFILE

2.5 SUMMARY

Key findings from the preceding analysis are summarised as follows:

- Jobs located in the study area comprising the area bounded by Sydenham Road, Victoria Road, Edinburgh Road and the railway line – are largely in the manufacturing and wholesale trade industries.
- In Marrickville LGA and South Sydney subregion, the number of industrial jobs is in decline and this is forecast to continue in the future. This is predominately being driven by the decline in the manufacturing sector – a structural economic transformation that is occurring nationally.
- An exception to this is construction jobs, which grew in Marrickville and South Sydney subregion between 2006 and 2011, and which are projected to continue to grow in the future.
- The proposed Masters Home Improvement store could service the growing construction (trade) industry which is forecast to account for around 20% of Masters' turnover. In this way, it is expected to compliment, rather than hinder, the industrial activities occurring in neighbouring areas, and in the broader South Sydney Subregion.
- The Masters Home Improvement store will also contribute to addressing the growing jobs deficit in Marrickville LGA by providing more retail jobs (which declined between 2006 and 2011) to Marrickville residents employed in the retail sector (which grew between 2006 and 2011). This is in line with the DoP&I's goal of creating more jobs close to peoples' homes, and is associated with a range of economic, social and environmental benefits.

3 Study Area Survey

To better understand the nature of industrial activities occurring near the subject site, and in order to fully consider the impacts of the proposed Masters Home Improvement store on the adjoining industrial precinct, Urbis undertook external inspections of properties in the precinct. This was supplemented with information collated with the use of Urbis' Geographic Information Systems (GIS) tools.

This section presents the findings from the site surveys, including analysis of the following metrics:

- Site areas
- Floor space
- Zoning types
- Building types
- Business types
- Vacancy rates
- Employment densities

The assessment incorporates all properties within the Study Area boundaries, being Sydenham Road, Victoria Road, Edinburgh Road and the railway line.

3.1 ZONING TYPES

There are 301 properties in the Study Area, of which 255 (87%) are zoned IN1. The bulk of the balance of properties are zoned B7 and IN2.

The total Study Area comprises around 384,000sq.m. and total building floor space of approximately 238,000sq.m. Site areas and floor spaces were quantified by mapping the site boundaries and building floor plates using GIS software (illustrated in Map 5 overleaf), and assigning zonings using Marrickville Council's zoning plans.

TABLE 13 - ZONING TYPE DISTRIBUTION, STUDY AREA

	IN1	B 7	IN2	RE1	RE2	SP2	TOTAL
Number of properties	263	17	15	1	1	3	301
Site area (sq.m.)	346,709	6,126	8,276	473	1,551	20,983	384,118
Floor area (sq.m.)	227,9 67	4,119	4,669	459	926	296	238,737



MAP 5 – BUILDING FLOOR PLATES MAPPING, STUDY AREA

3.2 BUILDING TYPES

There is a broad range of building types in the study area, accommodating a range of different activities. As illustrated in Figures 1 and 2, freight and logistics / warehouse buildings accounted for the largest share of business and floor space, of the properties that could be fairly categorised through physical survey (some properties were not identifiable from the street and could be not be entered as they were unoccupied).

As noted in Section 2.1.2, BTS has projected a decline in the transport & storage sector in Marrickville in the future. Therefore, given the extensive supply of freight & logistics accommodation / warehouses, the Study Area is at risk of becoming underutilised if land uses are not permitted to be adapted to align with the changing nature of industrial activities (e.g. an increase in construction related activities).

With transport & storage properties having amongst the lowest employment densities of all property types, other industrial activities which could potentially take the place of existing transport & storage businesses (such as construction related) could potentially generate more employment and economic activity than what is currently present. In this way, there is considered to be strong prospects for industrial activities in the Study Area if land uses are not adapted to respond to changing industry structures, as the Masters Home Improvement store seeks to do.

As illustrated in Figure 2, there is currently around 4,000sq.m. of retail floorspace in the study area, equivalent to 1.7% of total building floor space. The proposed Masters Home Improvement store would result in a total of around 17,000sq.m. of retail floor space in the Study Area – which is equivalent to around 8% of existing building floor space. Therefore, the precinct would continue to be dominated by industrial buildings, and the overall representation of retail floorspace would remain marginal, and uncompromised.

FIGURE 1 - BUILDING TYPES , STUDY AREA

Number of Businesses by Building Type STUDY AREA



Source : Urbis

FIGURE 2 - FLOOR AREA BY BUILDING TYPES, STUDY AREA

Floor Area by Building Type





Source : Urbis

3.3 EMPLOYMENT

Through site surveys, employee numbers were obtained for 73 businesses (25%) in the precinct. The remaining properties were either vacant / not occupied on the day that fieldwork was undertaken, or were not willing to provide information.

As noted in Table 14 below, freight & logistics / warehouses – the most prominent building type in the Study Area – has the lowest employment density of all properties in the precinct, employing 1 person per 262sq.m. of floorspace 460sq.m. of site area. Studios / industrial workshops – the second most prominent building type in the precinct – has the second lowest employment density. Therefore, the precinct supports a low level of employment, relative to other industrial precincts occupied by more intensive industrial uses.

If the freight & logistics / warehouse properties (which are expected to become less relevant as businesses operating in the sector move to alternative locations) are adapted to better suit the changing industry structure of the precinct (e.g. growing prevalence of construction businesses), there is significant opportunity for total employment to increase, and the overall economic importance of the precinct to be enhanced. The introduction of the proposed Masters Home Improvement store, by virtue of its site / building area alone, would not stop this adaptation from occurring.

TABLE 14 - STUDY AREA EMPLOYMENT DENSITIES

BUILDING TYPE	EMPLOYMENT DENSITY SQ.M. FLOOR SPACE / EMPLOYEE	EMPLOYMENT DENSITY SQ.M. SITE AREA / EMPLOYEE
Factory or laboratory	105	124
Freight & logistics / warehouses	262	460
Office	116	140
Retail – Centre based retail	100	142
Retail – Dispersed retail	92	179
Retail – Retail big box	NA	NA
Retail – Showrooms	46	55
Service industrial	63	77
Studio / industrial workshop	239	411
Urban services	28	213
Other	62	66
Precinct Average	111	187

3.4 VACANCT & UNDERUTILISED PROPERTIES

A high level of vacancy and underutilisation was observed in the Study Area. In this instance, vacancy is defined to comprise all lots that were vacant, derelict or for sale (untenanted); underutilised floorspace is defined to comprise properties which were not occupied on any of the days that Urbis undertook site surveys (3 days) and which were not believed to be regularly utilised based on their physical appearance (for instance, they were run-down, boarded/chained up and without any signage).

Based on information obtained through site surveys, there is estimated to be approximately 64,000sq.m. (27%) of vacant or underutilised IN1 floorspace and 577sq.m. (12%) of vacant or underutilised IN2 floorspace in the Study Area.

3.5 FUTURE INTENTIONS OF TENANTS

Where possible, tenants were asked of their intentions to remain or relocate from their current premises. Of the 76 businesses that were willing or able to respond, 4 (5% of respondents) indicated that they planned to move from the area.

3.6 PERCEIVED OUTCOMES OF PROPOSED MASTERS HOME IMPROVEMENT STORE

Businesses were also asked for their views on how the proposed Masters Home Improvement store would affect their business and the precinct in general.

Businesses primarily felt that it would have a neutral or positive impact on their activities, and on the wider precinct.

Positive impacts were largely expected to be generated through the improved range and access of hardware goods that will be provided by the Masters Home Improvement store.

In terms of possible negative impacts, some businesses expressed that traffic congestion was a concern but felt that congesting could be mitigated through appropriate traffic management. Some of the service industrial businesses actually felt that the possible increase in passing traffic would increase customer exposure and have an overall positive impact on their business.

Only one construction supplies business, occupying a 500sq.m. site, expected that the Masters Home Improvement store would take trade away from it and have an overall negative impact.

3.7 SUMMARY

The rezoning of some industrial lands in the Study Area to permit complimentary uses – such as the proposed Masters Home Improvement store – is not expected to have an adverse impact on the industrial activities in the precinct.

Rather, it is expected that the future viability of the precinct will be largely dependent on existing industrial accommodation (primarily transport & logistics buildings / warehouses) to adapt to accommodate emerging industrial sectors, such as construction.

If this does occur, there is significant opportunity for total employment in the precinct to increase – due to the introduction of more employment intensive industrial uses as well as other complimentary uses – and for the overall economic significance of the area to be enhanced.

4 Home Improvement Store Case Studies

MASTERS CHULLORA (BANKSTOWN LGA)

Location Description	Masters Chullora is located at 62 Hume Highway, on the site of the former Coles distribution centre at the Chullora, Greenacre and Potts Hill Industrial Area (CGPHIA).			
	The CGPHIA contains in excess of 500,000 sq.m commercial floorspace Incorporating a range of light and general industrial uses including printing, manufacturing, food processing, freight and logistics.			
	Chullora Marketplace – a subregional shopping centre comprising 17,000sq.m. of floorspace – is approximately 1 kilometre away.			
Development Description	Chullora was among the first Masters Home Improvement stores to be approved and third to be constructed in NSW. It comprises approximately 13,500sq.m. of floor space.			
Relationship to Surrounding Industrial Precinct	 Bulky goods/hardware retail has a relationship with industrial operators, providing retail building supplies. Co-locating with industrial estates can localise a proportion of industrial operators supply chain, thereby increasing the local areas' overall expenditure capture. 			
Similarities to Marrickville Proposal	 Located within an industrial precinct accommodating a broad range of light and heavy industrial uses 			

Close (although not adjacent) to a subregional shopping centre



BUNNINGS ARTARMON (WILLOUGHBY LGA)

Location Description	Bunnings Artarmon is located at 71 Reserve Rd, Artarmon within the Artarmon employment area which extends north of Campbell Street towards the Gore Hill Freeway, and north-east of the Pacific Highway. There are a number of consolidated business/showroom developments located along the Pacific Highway to the north of the site, as well as a cluster of home improvement retail businesses within the centre of the industrial precinct located on Reserve Road, Artarmon. The remainder of this area is dominated by small industrial businesses, with a particular focus on the automotive industry.
Development Description	The property was developed by BBC Hardware Limited in 2000, and purchased by the Bunnings Warehouse Property Trust in February 2003.
Relationship to Surrounding Industrial Precinct	 The Artarmon Employment Area contains a consolidated business/showroom development in the centre of the precinct, with the remaining precinct comprised mainly of industrial businesses. The established 'home improvement precinct' serves a mix of residents and trades people/local businesses. The co-location with industrial businesses has placed Bunnings Artarmon close to wholesale business customers as well as a residential area of Willoughby, St Leonards and Lane Cove.
Similarities to Marrickville Proposal	 Similar to the proposed Masters Home Improvement store in Marrickville, it is located within an established industrial precinct, with a mix of small and large industrial lots,

 Like the proposed Masters Marrickville store, Bunning Artarmon is located in an area with a predominately white collar workforce. The demand for industrial jobs by local residents has reduced over time, while the demand for non-industrial jobs has increased. The introduction of complimentary uses like, Bunnings, into the Artarmon Employment Area has contributed to meeting demand for non-industrial jobs.



and businesses.



BUNNINGS ALEXANDRIA (SYDNEY LGA)

Location Description	Bunnings Alexandria is located at 8-40 Euston Road, Alexandria. It is part of the Alexandria Industrial Precinct, which primarily consists of small to medium scale warehousing and factory facilities, some dating to the 1940's / 1950's. Many of the larger facilities from this period have been redeveloped or adapted to accommodate multiple users.
	Pockets of more contemporary employment related development have emerged in recent years shifting from 'traditional' low intensity industrial warehousing facilities towards alternate broader higher intensity employment generating uses.
Development Description	The store comprises approximately 20,000 sq.m, of floorspace with 17,200 sq.m allocated to Hardware and 2,800 to Home Improvement. The site is 2.6 hectares.
Relationship to Surrounding Industrial Precinct	 Bulky goods/hardware retail has a relationship with industrial operators, providing wholesaling retail building supplies. Co-located with industrial estates can localise a proportion of industrial operators supply chain. Based on a recent review of employment lands in South Sydney, the City of Sydney intends to largely retain much of the industrial zoning in the precinct, but introduce some rezonings to allow for a broader mix of uses. Whilst this would result in a reduction in industrial zoned land, new and more intensive industrial uses entering the precinct are expected to drive a net increase in industrial jobs.
Similarities to Marrickville Proposal	 Located in an industrial precinct containing a high proportion of older industrial stock on small lots/stratified ownership. It is transitioning from lower employment intensity 'traditional warehousing', mention to many florible inductrial/commercial/retail uses such as low rise.

- It is transitioning from lower employment intensity traditional waterloosing, moving to more flexible industrial/commercial/retail uses, such as low rise commercial office buildings, strata office suites, showrooms, adaptive re-use of former industrial facilities and quasi retail / commercial / industrial uses.
- The local resident demographic profile is relatively comparable. In particular, the white collar workforce has increased and the blue collar workforce has decreased over time, like Marrickville.



5 Economic Impacts of Proposed Development

This section of the report considers implications of the proposed Marrickville Masters Home Improvement store in relation to the industrial precinct in which it sits, as well as broader economic impacts of the proposal.

5.1 IMPLICATIONS FOR SURROUNDING INDUSTRIAL ACTIVITIES

Key points to note in regards to the relationship between the proposed Masters Home Improvement store and the surrounding industrial uses are as follows:

- The proposed Masters Home Improvement store is expected to compliment the adjoining industrial precinct by increasing access and choice of building and construction materials to the construction sector, which increased its prevalence in the precinct between 2006 and 2011, and is expected to continue to become more prevalent in Marrickville LGA, according to BTS forecasts.
- The 2.75 hectare subject site represents just 1.3% of all industrial zoned land in the draft Marrickville LEP 2010 (214.6 hectares), and 7% of industrial zoned land in the Study Area. Therefore, the rezoning will not have a material impact on industrial land supply in Marrickville or the Study Area.

5.2 EMPLOYMENT IMPACTS

The proposed Masters Home Improvement store is expected to have the following employment impacts:

- According to Masters, the Home Improvement store will employ approximately 180 people directly during construction, and 130 to 150 people during operation – a substantial increase on the 15 people currently employed by the warehouse and distribution uses currently on the site.
- The proposed development (1 job per 90-105sq.m.) presents an opportunity to accommodate more jobs on the site than what is currently accommodated, and more than what would likely be accommodated if another distribution centre occupied the site (1 job per 110sq.m. according to Urbis universal averages, or 1 job per 262sq.m. which is the average in the Study Area as quantified through site surveys and presented in Section 3.3).
- The Home Improvement store will increase the provision of retail jobs in Marrickville LGA, which actually declined between 2006 and 2011, while the number of Marrickville residents employed in retail jobs increased between 2006 and 2011, resulting in an increase in the size of the retail jobs deficit in Marrickville to 643 jobs by 2011. Such divergence between jobs and resident employment causes people to have to travel longer distances to work, and this has a range of adverse impacts on the local community, namely traffic congestion, vehicle pollution, pressure on road and other transport infrastructure and high costs of travel between work and home for Marrickville residents.

5.3 OTHER IMPACTS

Other benefits associated with the proposed development include:

- Increased competition within the home improvement sector which should result in greater choice and price savings for customers;
- The site's location adjacent to Marrickville Metro shopping centre provides a convenient location for household shoppers, whilst its location close to other trades suppliers within Marrickville is also advantageous to the trades sector. Both factors have the potential to reduce overall travel distances for customers.
- Accordingly, there may be potential vehicle emission savings (particularly from trades vehicles) by minimising the need for customers to travel greater distances to make purchases; and
- Increased expenditure retention within the Main Trade Area reducing expenditure leakage to other LGAs.

5.4 SUMMARY

Taking into account the jobs and resident employment profile of Marrickville, and the nature of surrounding land uses and activities, the key anticipated outcomes of the proposed Masters Home Improvement store are summarised as follows:

- It is not expected to undermine the role of the adjoining industrial precinct;
- It is seen as being complimentary to neighbouring industrial activities, particularly those relating to construction;
- It will generate a net increase in jobs;
- It will provide more retail jobs thereby contributing to reducing the current retail jobs deficit in Marrickville LGA;
- The expected employment impacts are highly consistent with the DoP&I's objective of providing more jobs closer to peoples' homes;
- Overall, the proposed Masters Home Improvement store is expected to generate a net economic benefit.

Disclaimer

This report is dated July 2013 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (Urbis) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Hydrox Nominees Pty Ltd (Instructing Party) for the purpose of its rezoning proposal relating to its proposed Masters Home Improvement store (Purpose) and not for any other purpose or use. Urbis expressly disclaims any liability to the Instructing Party who relies or purports to rely on this report for any purpose other than the Purpose and to any party other than the Instructing Party who relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events including wars, civil unrest, economic disruption, financial market disruption, business cycles, industrial disputes, labour difficulties, political action and changes of government or law, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or made in relation to or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

Urbis has made all reasonable inquiries that it believes is necessary in preparing this report but it cannot be certain that all information material to the preparation of this report has been provided to it as there may be information that is not publicly available at the time of its inquiry.

In preparing this report, Urbis may rely on or refer to documents in a language other than English which Urbis will procure the translation of into English. Urbis is not responsible for the accuracy or completeness of such translations and to the extent that the inaccurate or incomplete translation of any document results in any statement or opinion made in this report being inaccurate or incomplete, Urbis expressly disclaims any liability for that inaccuracy or incompleteness.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading bearing in mind the necessary limitations noted in the previous paragraphs. Further, no responsibility is accepted by Urbis or any of its officers or employees for any errors, including errors in data which is either supplied by the Instructing Party, supplied by a third party to Urbis, or which Urbis is required to estimate, or omissions howsoever arising in the preparation of this report, provided that this will not absolve Urbis from liability arising from an opinion expressed recklessly or in bad faith.

Sydney Tower 2, Level 23, Darling Park 201 Sussex Street Sydney, NSW 2000 t +02 8233 9900 f +02 8233 9966

Melbourne Level 12, 120 Collins Street Melbourne, VIC 3000 t +03 8663 4888 f +03 8663 4999

Brisbane

Level 7, 123 Albert Street Brisbane, QLD 4000 t +07 3007 3800 f +07 3007 3811

Perth Level 1, 55 St Georges Terrace Perth, WA 6000 t +08 9346 0500 f +08 9221 1779

Australia • Asia • Middle East w urbis.com.au e info@urbis.com.au



COMMENTS FROM TRANSPORT FOR NSW - 15 AUG 2013







Department of Planning Receiver 3 SEP 2013

Scanning Room:

Megan Hollingsworth A/Team Leader - Sydney Region East Department of Planning and Infrastructure Level 3, 4-6 Bligh Street, Sydney NSW 2000

Review of Traffic Report prepared for Planning Proposal for a Master's Home Improvement Centre at Marrickville

Dear Ms Hollingsworth,

Thank you for your email dated 9 August 2013 requesting for Transport for NSW (TfNSW) review of the traffic report prepared for a planning proposal involving a re-zoning to allow a Master's Home Improvement Centre at Marrickville.

TfNSW has reviewed the document *Transport Aspects of Planning Proposal for Proposed Masters Store, Marrickville*, July 2013 prepared by Colston Budd Hunt & Kafes Pty Ltd (CBHK) for Hydrox Nominees Pty Ltd.

The following comments are provided:

Traffic Survey Details

Comment

Peak hour traffic volume information has been provided for the Thursday afternoon and Saturday midday peak periods. No information is provided in the report in relation to day and survey periods of traffic surveys undertaken.

Existing traffic volumes used for the approved Marrickville Metro Development (MMD) obtained from *Proposed Expansion of Marrickville Metro Shopping Centre, Preferred Project Report on Transport Aspects*, November 2010 prepared by Halcrow have been compared with the traffic volumes used for the proposed Masters Store proposal and are provided in Table 1.

18 Lee Street Chippendale NSW 2008 PO Box K659 Haymarket NSW 1240 T 8202 2200 F 8202 2209 www.transport.nsw.gov.au ABN 18 804 239 602

Table 1 – Existing Traffic Volumes

	Peak Ho	Peak Hour Traffic Volumes (veh/h)				
	Thurs	Thursday		day		
	NB	SB	NB	SB		
Edinburgh Road – Between	Victoria Road an	d Fitzroy	Street			
Halcrow (MMD) report	870	308	591	414		
CBHK report	760	275	520	445		
Edinburgh Road – Between F	itzroy Street and	Smidmor	e Street			
Halcrow (MMD) report	940	407	766	574		
CBHK report	830	380	605	615		

Note: NB-Northbound, SB-Southbound

From above table, the existing traffic volumes reported in the CBHK report are generally lower than the traffic volumes published in the Halcrow report.

Recommendation

It is recommended to include the details in relation to survey date, survey periods and the detailed results of traffic surveys in the report.

Future Traffic Volumes

Comment

Future traffic volumes with the approved Marrickville Metro Development (MMD) obtained from *Proposed Expansion of Marrickville Metro Shopping Centre, Preferred Project Report on Transport Aspects,* November 2010 prepared by Halcrow have been compared with the traffic volumes (MMD only scenario) used for the proposed Masters Store proposal and are provided in Table 2.

Table 2 – Future Traffic Volumes

Peak Hour Traffic Volumes (veh/h)			
Thurso	Thursday		rday
NB	SB	NB	SB
Road and Fit	roy Stre	et	
1015	412	820	620
882	385	740	645
925	430	845	750
eet and Smic	Imore St	reet	
1054	544	1010	794
965	505	850	840
1020	560	1000	990
	Thurso NB Road and Fitz 1015 882 925 eet and Smid 1054 965	Thursday NB SB Road and Fitzroy Strest 1015 412 882 385 925 430 eet and Smitmore St 1054 544 965 505	Thursday Satur NB SB NB Road and Fitzroy Street 1015 412 820 1015 412 820 882 385 740 925 430 845 845 845 845 eet and Smitore Street 1054 544 1010 965 505 850

Note: NB-Northbound, SB-Southbound

·
Based on the above table, future traffic volumes for MMD only scenario published in the Halcrow report are generally higher than the traffic volumes reported in the CBHK report. This is due to lower base traffic volumes that have been used to estimate the future traffic volumes in the CBHK report. As a result of this, traffic volumes used for MMD only scenario in the Halcrow report are generally similar to traffic volumes used for MMD + Masters Development scenario in the CBHK report. Therefore, the CBHK report may underestimate the future traffic volumes with MMD and Masters Development.

Recommendation

It is recommended that a sensitivity analysis for the intersection performance be undertaken for the traffic volumes estimated using the base traffic volumes published in the Halcrow report.

Analysis year

Comment

The details of future traffic volumes in relation to analysis year are not provided in the CBHK report.

Recommendation

It is recommended that the traffic analysis for future scenario be undertaken for the opening year of the proposed development and 10 years after opening of the development.

Cycle time used for the Victoria Road/Edinburgh Road intersection

Comment

Cycle time of 90secs was used for SIDRA modelling in the Halcrow Report for the Victoria Road/Edinburgh Road intersection compared to 120secs in the CBHK report.

Recommendation

Signal cycle times of up to 120 seconds are acceptable.

Review of SIDRA models

Comment

The information provided in relation to SIDRA modelling results is limited in the Appendices of the CBHK report to comment on the SIDRA modelling.

Recommendation

It is recommended that detailed SIDRA models results be provided in the traffic report.



Edinburgh Road/Smidmore Street/Proposed Masters Access intersection

Comment

No information is provided in the CBHK report in relation to the proposed phasing arrangements for the Edinburgh Road/Smidmore Street/Proposed Masters Access intersection. Limited sight distance would be available for the vehicles turning right from the proposed Masters Access to Edinburgh Road if filter phasing is allowed for vehicles turning right from the proposed Masters Access.

Recommendation

It is recommended that a concept design (Stage 2) road safety audit be undertaken for the proposed Masters Access arrangement at the Edinburgh Road/Smidmore Street intersection to assess the safety of the proposed intersection arrangement.

Pedestrians and cyclists

Comment

The information in relation to existing and future pedestrians and cyclists provision is limited in the CBHK report.

Recommendation

It is recommended that existing and future pedestrians and cyclists provision for the proposed development be included in the traffic report.

Service vehicle access and loading dock arrangements

Comment

Based on the traffic report, detailed design of the service vehicle access and loading dock arrangements will be undertaken at the development application stage.

Recommendation

It is recommended that the service vehicle access and loading dock arrangements shall be designed in accordance with the *Australian Standard*.*AS2890.2-2002 Parking Facilities*, *Part 2: Off Street Commercial Vehicle Facilities*.

Should you have any questions regarding this review, please contact Tim Dewey on 8202 2188 or Tim.Dewey@transport.nsw.gov.au

Yours sincerely,

Tim Dewey 15-8-13 A/Manager, Land Use and Transport Planning Planning and Programs

CD13/15766

RESPONSE ON TRANSPORT FOR NSW COMMENTS 11 OCT 2013



as Trustee for C & B Unit Trust ABN 27 623 918 759

Our Ref: JH\8053\jj

Transport Planning Town Planning Retail Studies

11 October, 2013

Hydrox Nominees Pty Ltd ATF The Hydrox Property Trust c/- Woolworths Limited PO Box 8000 BAULKHAM HILLS NSW 2153

Attention: Brad McAndrew Email: <u>bmcandrew@masters.com.au</u>

Dear Sir,

RE: PLANNING PROPOSAL FOR PROPOSED MASTERS, MARRICKVILLE

- 1. As requested, we are writing in response to matters raised by Department of Planning and Infrastructure and Transport for NSW in relation to the above development. We have previously prepared a report¹ which was submitted in association with the planning proposal.
- 2. In a letter dated 15 August 2013, Transport for NSW has raised a number of traffic matters. These matters have been summarized by DoPI in a letter to the Sydney East JRPP. The key matter raised was that traffic flows counted by ourselves in 2013 were lower than those counted in 2010 in association with the approved Marrickville Metro development.
- 3. As the 2013 counts are more recent, they represent the latest data and are therefore appropriate for the current assessment. However, we have also analysed the operations of the Edinburgh Road intersections with SIDRA using the 2010 traffic counts as a base case. A comparison of the average delays and levels of service for the Edinburgh Road intersections (plus traffic from the approved Marrickville Metro and proposed Masters developments) using 2010 and 2013 traffic flows is provided in Table 1.
- 4. Table I shows that with the approved Marrickville Metro and proposed Masters developments, the levels of service at the Edinburgh Road intersections are the same for the 2010 and 2013 base traffic flows.

¹ Transport Aspects of Planning Proposal for Proposed Masters Store, Marrickville, July 2013. Suite 1801/Tower A, Zenith Centre, 821 Pacific Highway, Chatswood NSW 2067

P.O. Box 5186 West Chatswood NSW 1515 Tel: (02) 9411 2411 Fax: (02) 9411 2422 Directors - Geoff Budd - Lindsay Hunt - Stan Kafes - Tim Rogers - Joshua Hollis ACN 002 334 296 EMAIL: cbhk@cbhk.com.au

Table 1: Comparison of intersection operations										
Intersection	2013 (CBHK)		2010 (MM)							
	Avg delay (seconds)	LOS	Avg delay (seconds)	LOS						
Edinburgh Road/Victoria Road	<30	С	<30	С						
Edinburgh Road/Fitzroy Street	<25	В	<25	В						
Edinburgh Road/Smidmore Street	<40	С	<40	С						
Edinburgh Road/Sydney Steel Road	<25	В	<25	В						

5. All of the matters raised in the correspondence, as well as our responses, are set out below.

Traffic Survey Details

TfNSW comment and recommendation

<u>Comment</u>

Peak hour traffic volume information has been provided for the Thursday afternoon and Saturday midday peak periods. No information is provided in the report in relation to day and survey periods of traffic surveys undertaken.

Existing traffic volumes used for the approved Marrickville Metro Development (MMD) obtained from Proposed Expansion of Marrickville Metro Shopping Centre, Preferred Project Report on Transport Aspects, November 2010 prepared by Halcrow have been compared with the traffic volumes used for the proposed Masters Store proposal...

...the existing traffic volumes reported in the CBHK report are generally lower than the traffic volumes published in the Halcrow report.

Recommendation

It is recommended to include the details in relation to survey date, survey periods and the detailed results of traffic surveys in the report.

CBHK response

6. Our traffic surveys were undertaken on Thursday 20 June (3:00 – 6:30 pm) and Saturday 22 June 2013 (10:00 am – 2:00 pm). The detailed results and turning movements are provided in Figures 2 and 3 of our previous report.

Future Traffic Volumes

TfNSW comment and recommendation

<u>Comment</u>

Future traffic volumes with the approved Marrickville Metro Development (MMD) obtained from Proposed Expansion of Marrickville Metro Shopping Centre, Preferred Project Report on Transport Aspects, November 2010 prepared by Halcrow have been compared with the traffic volumes (MMD only scenario) used for the proposed Masters store proposal...

...future traffic volumes for MMD only scenario published in the Halcrow report are generally higher than the traffic volumes reported in the CBHK report. This is due to lower base traffic volumes that have been used to estimate the future traffic volumes in the CBHK report. As a result of this, traffic volumes used for MMD only scenario in the Halcrow report are generally similar to traffic volumes used for MMD + Masters Development scenario in the CBHK report. Therefore, the CBHK report may underestimate the future traffic volumes with MMD and Masters Development.

Recommendation

It is recommended that a sensitivity analysis for the intersection performance be undertaken for the traffic volumes estimated using the base traffic volumes published in the Halcrow report.

CBHK response

- 7. We have analysed the operations of the Edinburgh Road intersections using SIDRA, with the 2010 traffic counts undertaken by Halcrow as "existing" flows. The analysis found that with the additional traffic from the proposed Masters development, and the changes to traffic flows associated with Marrickville Metro, the intersection of Edinburgh Road with Victoria Road would operate with average delays of less than 30 seconds per vehicle during peak periods. This represents level of service B/C, a satisfactory level of service.
- 8. The roundabouts at the intersections of Edinburgh Road with Fitzroy Street and Sydney Steel Road would operate with average delays for the highest delayed movements of less than 25 seconds per vehicle during peak periods. This represents level of service B, a good level of service.
- 9. The proposed upgraded signalised intersection at Edinburgh Road/Smidmore Street would operate with average delays of less than 40 seconds per vehicle during peak periods. This represents level of service C, a satisfactory level of service. The SIDRA output summaries are attached to this letter.

Analysis year

TfNSW comment and recommendation

<u>Comment</u>

The details of future traffic volumes in relation to analysis year are not provided in the CBHK report.

Recommendation

It is recommended that the traffic analysis for future scenario be undertaken for the opening year of the proposed development and 10 years after opening of the development.

CBHK response

- 10. In relation to this matter we note that the traffic counts undertaken by ourselves, some three years after the report for the Marrickville Metro development was prepared, were generally lower than those in 2010. This suggests that traffic flows in the area are generally stable or possibly falling.
- 11. We also note that analysis of 10 year future traffic flows was not required for the Marrickville Metro development.
- 12. As noted above, using the (generally higher) 2010 traffic flows as base flows, intersections would operate at satisfactory or better levels of service with both developments in place.
- 13. Analysis of future year traffic flows is therefore not considered to be necessary, because:
 - recent traffic counts have found lower flows than in 2010;
 - this suggests that traffic flows in the area are relatively stable or falling;
 - using the higher base flows, intersections would operate at satisfactory or better levels of service at peak times; and
 - future year traffic analysis would not be consistent with the assessment for Marrickville Metro.

Cycle time used for the Victoria Road/Edinburgh Road intersection

TfNSW comment and recommendation

Comment

Cycle time of 90secs was used for SIDRA modelling in the Halcrow Report for the Victoria Road/Edinburgh Road intersection compared to 120secs in the CBHK report.

Recommendation

Signal times of up to 120 seconds are acceptable.

CBHK response

14. This matter is noted.

Review of SIDRA models

TfNSW comment and recommendation

<u>Comment</u>

The information provided in relation to SIDRA modelling results is limited in the Appendices of the CBHK report to comment on the SIDRA modelling.

Recommendation

It is recommended that detailed SIDRA models results be provided in the traffic report.

CBHK response

15. SIDRA output summaries are attached to this letter.

Edinburgh Road/Smidmore Street/Proposed Masters Access intersection

TfNSW comment and recommendation

<u>Comment</u>

No information is provided in the CBHK report in relation to the proposed phasing arrangements for the Edinburgh Road/Smidmore Street/Proposed Masters Access intersection. Limited sight distance would be available for the vehicles turning right from the proposed Masters Access to Edinburgh Road if filter phasing is allowed for vehicles turning right from the proposed Masters Access.

Recommendation

It is recommended that a concept design (Stage 2) road safety audit be undertaken for the proposed Masters Access arrangement at the Edinburgh Road/Smidmore Street intersection to assess the safety of the proposed intersection arrangement.

CBHK response

16. The intersection has been analysed with diamond phasing on the Smidmore Street and Masters access approaches. Therefore, right turning vehicles will not filter. A road safety audit is therefore not considered to be necessary.

Pedestrians and cyclists

TfNSW comment and recommendation

<u>Comment</u>

The information in relation to existing and future pedestrians and cyclists provision is limited in the CBHK report.

Recommendation

It is recommended that existing and future pedestrians and cyclists provision for the proposed development be included in the traffic report.

CBHK response

17. We consider that this matter would be appropriately addressed in association with the report to support the future development application.

Service vehicle access and loading dock arrangements

TfNSW comment and recommendation

<u>Comment</u>

Based on the traffic report, detailed design of the service vehicle access and loading dock arrangements will be undertaken at the development application stage.

Recommendation

It is recommended that the service vehicle access and loading dock arrangements shall be designed in accordance with the Australian Standard.AS2890.2-2002 Parking Facilities, Part 2: Off Street Commercial Vehicle Facilities.

CBHK response

- 18. This matter is noted. We agree that the arrangements for service vehicles should be designed in accordance with AS 2890.2 – 2002 at the development application stage.
- 19. We trust the above provides the information you require. Finally, if you have any queries please do not hesitate to contact us.

Yours faithfully, COLSTON BUDD HUNT & KAFES PTY LTD

pomatloch

<u>| Hollis</u> Director

Site: Ex Thu PM + MM + dev - Halcrow flows

Victoria Road & Edinburgh Road

Existing (2010) Thursday afternoon peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Mov	OD	ormance - \ Demanc	11111-11-11-11-11-11-1-1-1-1-1-1-1-1-1	Deg.	Average	Level of	95% Back	of Quouo	Prop.	Effective	Auorogo
ID	Mov	Total veh/h	HV %	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Average Speed
South	Victoria Ro	the sy very little of the second second	70	v/c	sec		veh	m		per veh	km/h
2	T1	320	2.0	0.289	13.7	LOS A	9,4	66.7	0.55	0.47	42.0
3	R2	225	2.0	0.598	32.2	LOS C	9.7	69.0	0.77	0.83	31.8
Approa	ach	545	2.0	0.598	21.4	LOS B	9.7	69.0	0.64	0.62	37.1
East: E	Edinburgh R	oad									
4	L2	685	2.0	0.602	11.2	LOS A	14.3	101.8	0.47	0.76	45.8
6	R2	350	2.0	0.294	40.7	LOS C	7.6	54.2	0.79	0.80	28.2
Арргоа	ach	1035	2.0	0.602	21.2	LOS B	14.3	101.8	0.58	0.77	37.9
North:	Victoria Roa	ad north									
7	L2	235	2.0	0.294	17.0	LOS B	7.8	55.7	0.50	0.69	42.2
8	T1	425	2.0	0.294	12.6	LOS A	9.5	68.0	0.54	0.53	42.0
Approa	ach	660	2.0	0.294	14.2	LOS A	9.5	68.0	0.52	0.59	42.1
All Veh	icles	2240	2.0	0.602	19.1	LOS B	14,3	101.8	0.58	0.68	38.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestrians					民的人物		
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	36,1	LOS D	0.1	0.1	0.78	0.78
P2	East Full Crossing	53	15.0	LOS B	0.1	0.1	0.50	0.50
All Pe	destrians	105	25.6	LOS C			0.64	0.64

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

```
Processed: Wednesday, 9 October 2013 12:07:09 PM
SIDRA INTERSECTION 6.0.14.4193
Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Victoria Road & Edinburgh Road.sip6
8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC
```

Site: Ex Sat mid + MM + dev - Halcrow flows

Victoria Road & Edinburgh Road

Existing (2010) Saturday lunchtime peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

		ormance - V					T VS_HIMLE				
Mov	OD	Demano		Deg.	Average	Level of	95% Back		Prop.	Effective	Average
ID	Mov	Total veh/h	HV %	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
South:	Victoria Ro	and the second state of th	70	v/c	SEC		veh	m	OPENSEL 7 - 1	per veh	km/h
2	T1	355	2.0	0.254	5.8	LOS A	6.8	48.7	0.36	0.32	50.2
3	R2	365	2.0	0.514	30.2	LOS C	15.3	108.9	0.82	0.89	32.8
Appro	ach	720	2.0	0.514	18.2	LOS B	15.3	108.9	0.59	0.61	39.5
East: E	Edinburgh R	oad									
4	L2	585	2.0	0.477	11.6	LOS A	10.1	71.7	0.40	0.73	45.5
6	R2	330	2.0	0.515	57.5	LOS E	8.9	63.5	0.96	0.81	23.2
Approa	ach	915	2.0	0.515	28.1	LOS B	10.1	71.7	0.60	0.76	33.8
North:	Victoria Roa	ad north									
7	L2	355	2.0	0.466	32.0	LOS C	15.6	111.2	0.74	0.81	32.1
8	T1	395	2.0	0.466	27.9	LOS B	15.6	111.2	0.78	0.70	32.3
Approa	ach	750	2.0	0.466	29.8	LOS C	15.6	111.2	0.76	0.75	32.2
All Ver	nicles	2385	2.0	0.515	25.7	LOS B	15.6	111.2	0.65	0.71	34.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	ment Performance - Pedestria	ns						
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	51.5	LOS E	0.2	0.2	0.93	0.93
P2	East Full Crossing	53	27.4	LOS C	0.1	0.1	0.68	0.68
All Pe	destrians	105	39.4	LOS D			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Processed: Wednesday, 9 October 2013 12:09:03 PM SIDRA INTERSECTION 6.0.14.4193 Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Victoria Road & Edinburgh Road.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

♥ Site: Ex Thu PM + MM + Masters - Halcrow flows

Edinburgh Road & Fitzroy Street

Existing (2010) Thursday afternoon peak hour + Marrickville Metro + Masters Roundabout

		ormance - V	and the second se								
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles	Distance	Prop Queued	Effective Stop Rate	Average Speed
South	: Fitzroy Stre	eet		A CONTRACTOR OF	300	and the second second	veh	m	PROFILE T	per veh	km/h
1	L2	90	2.0	0.514	20.7	LOS B	4.2	30.0	0.92	2.14	37.2
3	R2	170	2.0	0.514	23.3	LOS B	4.2	30.0	0.92	2.14	37.2
Appro	ach	260	2.0	0.514	22.4	LOS B	4.2	30.0	0.92	1.07	37.2
East:	Edinburgh R	oad east									07.2
4	L2	220	2.0	0.751	8.4	LOS A	12.0	85.5	0.37	1.03	48.1
5	T1	910	2.0	0.751	7.6	LOS A	12.0	85.5	0.37	1.03	48.1
Appro	ach	1130	2.0	0.751	7.7	LOSA	12.0	85.5	0.37	0.51	48.1
West:	Edinburgh R	load west									
11	T1	420	2.0	0,419	8.5	LOS A	3.3	23.3	0.53	1.26	47.2
12	R2	30	2.0	0.419	12.0	LOS A	3.3	23.3	0.53	1.20	47.2
Арргоа	ach	450	2.0	0.419	8.7	LOS A	3.3	23.3	0.53	0.63	47.2
All Veh	icles	1840	2.0	0.751	10.0	LOS A	12.0	85.5	0.49	0.62	45.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D). HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Wednesday, 9 October 2013 12:10:45 PM SIDRA INTERSECTION 6.0.14.4193 Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Fitzroy Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC	SIDRA INTERSECTION 6
--	-------------------------

♥ Site: Ex Sat mid + MM + Masters - Halcrow flows

Edinburgh Road & Fitzroy Street

Existing (2010) Saturday lunchtime peak hour + Marrickville Metro + Masters Roundabout

Move	ment Perfe	ormance - \	/ehicles							liter a car	n de
Mov ID	OD Mov	Demano Total veh/h	l Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South	Fitzroy Stre	eet									NITT
1	L2	35	2.0	0.512	17.7	LOS B	4.1	29.2	0.88	2.08	38.8
3	R2	270	2.0	0.512	20.3	LOS B	4.1	29.2	0.88	2.08	38.8
Approa	ach	305	2.0	0.512	20.0	LOS B	4.1	29.2	0.88	1.04	38.8
East: B	Edinburgh R	oad east									
4	L2	385	2.0	0.749	8.3	LOS A	13.6	96.8	0.32	1.03	48.2
5	T1	775	2.0	0.749	7.4	LOS A	13.6	96.8	0.32	1.03	48.2
Approa	ach	1160	2.0	0.749	7.7	LOS A	13.6	96.8	0.32	0.52	48.2
West:	Edinburgh R	Road west									
11	T1	680	2.0	0.724	12.1	LOS A	9.3	66.0	0.87	1.66	44.9
12	R2	20	2.0	0.724	15.6	LOS B	9.3	66.0	0.87	1.66	44.9
Approa	ach	700	2.0	0.724	12.2	LOS A	9.3	66.0	0.87	0.83	44.9
All Veh	icles	2165	2.0	0.749	10.9	LOS A	13.6	96.8	0.58	0.69	45.5

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Wednesday, 9 October 2013 12:12:33 PM SIDRA INTERSECTION 6.0.14.4193 Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Fitzroy Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Thu PM + MM + dev - Halcrow flows

Edinburgh Road & Smidmore Street

Existing (2010) Thursday afternoon peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Mov	OD	Demand		Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID.	Mov	Total veh/h	HV %	Satn v/c	Delay sec	Service	Vehicles veh	Distance	Queued	Stop Rate	Speed
South	: RoadName		70	Vic	366		ven	m	and the second	per veh	km/i
1	L2	84	2,0	0,145	22.7	LOS B	2.7	19.3	0.63	0.71	37.9
2	T1	32	2.0	0.145	14,5	LOS A	2.7	19.3	0.63	0.71	37.9
3	R2	58	2.0	0.128	28.2	LOS B	1.6	11.3	0.72	0.75	33.8
Appro	ach	174	2.0	0.145	23.0	LOS B	2.7	19.3	0.66	0.72	36.4
East: I	Edinburgh R	oad east									
4	L2	58	2.0	0.441	30.6	LOS C	8.5	60.5	0.84	0.74	31.3
5	T1	695	2.0	0.767	27.0	LOS B	18.0	128.3	0.92	0.85	29.2
6	R2	40	2.0	0.291	46.9	LOS D	1.6	11.3	0.98	0.73	23.5
Арргоа	ach	793	2.0	0,767	28.3	LOS B	18.0	128.3	0.92	0.84	29.0
North:	Smidmore S	Street									
7	L2	100	2.0	0.162	20.6	LOS B	3.0	21.6	0.63	0.70	35.1
8	T1	32	2.0	0.162	14.0	LOS A	3.0	21.6	0.63	0.70	35.1
9	R2	365	2.0	0.783	37.1	LOS C	14.5	103.1	0.96	0.93	26.4
Approa	ach	497	2.0	0.783	32.3	LOS C	14.5	103.1	0.87	0.87	28.3
West:	Edinburgh R	load west									
10	L2	310	2.0	0.521	30.4	LOS C	10.0	71.0	0.86	0.82	28.9
11	T1	220	2.0	0.352	22.4	LOS B	6.6	47.0	0.81	0.67	31.3
12	R2	84	2.0	0.613	50.6	LOS D	3,5	24.9	1.00	0.80	25.1
Approa	ach	614	2.0	0.613	30.3	LOS C	10.0	71.0	0.86	0.76	29.0
All Veh	icles	2077	2.0	0.783	29.4	LOS C	18.0	128.3	0.87	0.81	29.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	24.9	LOS C	0.1	0.1	0.79	0.79
P2	East Full Crossing	53	26.5	LOS C	0.1	0.1	0.81	0.81
P3	North Full Crossing	53	24_9	LOS C	0.1	0.1	0.79	0.79
P4	West Full Crossing	53	26.5	LOS C	0.1	0.1	0.81	0.81
All Ped	lestrians	211	25.7	LOS C			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Copyright © 2000-2013 Akcelik and Associates Pty Ltd Processed: Wednesday, 9 October 2013 11:52:14 AM SIDRA INTERSECTION 6.0.14,4193 www.sidrasolutions.com Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Smidmore Street.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC

Site: Ex Sat mid + MM + dev - Halcrow flows

Edinburgh Road & Smidmore Street

Existing (2010) Saturday lunchtime peak hour + Marrickville Metro + Masters

Signals - Fixed Time Cycle Time = 89 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
South	: RoadName	veh/h	%	v/c	Sec		veh	m	NULLSIX DOLLARS	per veh	km/h
1	L2	211	2.0	0.546	25.6	LOS B	6.8	48.2	0.90	0.82	35.9
2	Τ1	79	2.0	0.546	17.5	LOS B	6.8	48.2	0.90	0.82	35.9
3	R2	147	2.0	0.629	47.7	LOS D	6.3	45.1	0.98	0.83	25.9
Appro	ach	437	2.0	0.629	31.6	LOS C	6.8	48.2	0.92	0.82	31.8
East: I	Edinburgh R	oad east									
4	L2	147	2.0	0.587	43.4	LOS D	8.9	63.5	0,96	0.81	26.9
5	T1	420	2.0	0.890	46.7	LOS D	17.6	125.7	0.99	1.05	22.9
6	R2	45	2.0	0.199	45.6	LOS D	1.8	13.0	0.93	0.74	23.8
Appro	ach	612	2.0	0.890	45.9	LOS D	17.6	125.7	0.98	0.97	23.8
North:	Smidmore S	Street									
7	L2	150	2.0	0.240	19.4	LOS B	5.4	38.7	0.59	0.69	36.8
8	T1	79	2.0	0.240	12.7	LOS A	5.4	38.7	0.59	0.69	36.8
9	R2	465	2.0	0.895	51.9	LOS D	21.3	151.6	1.00	1.17	22.2
Appro	ach	694	2.0	0.895	40.4	LOS C	21.3	151.6	0.86	1.01	25.6
West:	Edinburgh R	Road west									
10	L2	490	2.0	0.722	20.8	LOS B	11.5	81.7	0.92	0.85	33.3
11	T1	270	2.0	0.694	37.2	LOS C	11.4	81.0	0.98	0.86	25.3
12	R2	211	2.0	0.930	67.5	LOS E	11.5	82.0	1.00	1.07	21.0
Appro	ach	971	2.0	0.930	35.5	LOS C	11.5	82.0	0.95	0.90	27.3
All Vel	nicles	2714	2.0	0.930	38.4	LOS C	21.3	151.6	0.93	0.93	26.6

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Mov ID	ement Performance - Pedestria	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	36.0	LOS D	0.1	0.1	0.90	0.90
P2	East Full Crossing	53	38.8	LOS D	0 .1	0.1	0.93	0.93
P3	North Full Crossing	53	36.0	LOS D	0_1	0.1	0.90	0.90
P4	West Full Crossing	53	38.8	LOS D	0,1	0.1	0.93	0.93
All Pe	destrians	211	37.4	LOS D			0.92	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

♡ Site: Ex Thu PM + MM + dev - Halcrow flows

Edinburgh Road & Sydney Steel Road

Existing (2010) Thursday afternoon peak hour + Marrickville Metro + Masters Roundabout

Mov	OD	Demand	Flows	Deg	Average	Level of	95% Back		Prop.	Effective	Average
ID	Mov	Total veh/h	HV %	Satn v/c	Delay	Service	Vehicles veh	Distance m	Queued	Stop Rate	Speed km/f
South:	Sydney Ste	el Road	ACCURACY OF CASE		and the state of the second				the second second second second	per von	(WITH)
1	L2	55	2.0	0.133	12.6	LOS A	0.8	5.8	0.78	1.64	37.9
3	R2	20	2.0	0.133	15.2	LOS B	0.8	5.8	0.78	1.64	37.9
Approach		75	2.0	0.133	13.3	LOS A	0.8	5.8	0.78	0.82	37.9
East: E	Edinburgh R	oad east									
4	L2	10	2.0	0.517	7.4	LOS A	4.6	33.1	0.46	1.08	42.3
5	T1	625	2.0	0.517	6.5	LOS A	4.6	33.1	0.46	1.08	42.3
Approach		635	2.0	0.517	6.5	LOS A	4.6	33.1	0.46	0.54	42.3
West: I	Edinburgh R	load west									
11	T1	260	2.0	0.252	5.7	LOS A	2.0	14.5	0.16	1.14	44.1
12	R2	5	2.0	0.252	9.2	LOS A	2.0	14.5	0.16	1.14	44.1
12u	U	100	2.0	0.252	11.6	LOSA	2.0	14.5	0.16	1.14	44.1
Approa	ich	365	2.0	0.252	7.4	LOS A	2.0	14.5	0.16	0.57	44.1
All Vehicles		1075	2.0	0.517	7.3	LOSA	4.6	33.1	0.38	0.57	42.6

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard,

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Wednesday, 9 October 2013 12:14:38 PM	Copyright © 2000-2013 Akcelik and Associates Pty Ltd	CIDDA
	www.sidrasolutions.com	SIDRA
Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Ed	INTERSECTION 6	
8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PI	LUS / IPC	IIII LIGECTION 0

♥ Site: Ex Sat mid + MM + dev - Halcrow flows

Edinburgh Road & Sydney Steel Road

Existing (2010) Saturday lunchtime peak hour + Marrickville Metro + Masters Roundabout

		ormance - V	In the second		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		A Particular	IL STAR	and the second		
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	ot Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Sydney Ste					Contraction of the Party of the					
1	L2	15	2.0	0.046	10.8	LOS A	0.3	1.9	0,69	1.46	38.8
3	R2	15	2.0	0.046	13.4	LOS A	0.3	1.9	0.69	1.46	38.8
Approach		30	2.0	0.046	12.1	LOS A	0.3	1.9	0,69	0.73	38.8
East: I	Edinburgh R	oad east									
4	L2	20	2.0	0.422	8.0	LOS A	3.2	22.6	0.53	1,21	42.0
5	T1	430	2.0	0.422	7.1	LOS A	3.2	22.6	0.53	1.21	42.0
Approach		450	2.0	0.422	7.2	LOS A	3.2	22.6	0.53	0.60	42.0
West:	Edinburgh F	load west									
11	T 1	370	2.0	0.361	5.7	LOS A	3.3	23.4	0.14	1.16	44.2
12	R2	15	2.0	0.361	9.2	LOS A	3.3	23.4	0,14	1.16	44.2
12u	U	165	2.0	0.361	11.6	LOS A	3.3	23.4	0.14	1.16	44,2
Approach		550	2.0	0.361	7.6	LOS A	3.3	23.4	0.14	0.58	44.2
All Vehicles		1030	2.0 0	0.422	7.5	LOS A	3.3	23.4	0.33	0.59	43.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D),

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Wednesday, 9 October 2013 12:15:53 PM SIDRA INTERSECTION 6.0.14.4193 Project: G:\Traffic\SIDRA 6.0\8053 Marrickville Masters\Edinburgh Road & Sydney Steel Road.sip6 8000030, COLSTON BUDD HUNT & KAFES PTY LTD, PLUS / 1PC