

POLICY MEETING

08 March 2016

Members of the public are encouraged to attend Council Meetings from 6:45pm.

Council will consider confidential reports from 6:30pm and then re-open the Meeting to the Public at approximately 6:45pm.

Please note Council Meetings are recorded for the purpose of verifying the accuracy of the minutes. Appropriate language by speakers should be used at all times. Opinions expressed or statements made by members of the public during the meeting are the opinions or statements of those individual persons and are not opinions or statements of Leichhardt Council; and under no circumstances are meetings to be recorded by a member of the gallery without Council's consent.



LEICHHARDT MUNICIPAL COUNCIL

POLICY MEETING OF COUNCIL

NOTICE IS HEREBY GIVEN THAT A **POLICY MEETING** OF THE LEICHHARDT MUNICIPAL COUNCIL WILL BE HELD IN THE COUNCIL CHAMBERS, LEICHHARDT TOWN HALL, 107 NORTON STREET, LEICHHARDT, ON 08 MARCH 2016 at 6:30 PM.

Peter Head GENERAL MANAGER

01 MARCH 2016

BUSINESS:

** ACKNOWLEDGEMENT OF COUNTRY

I acknowledge the Gadigal and Wangal people of the Eora nation on whose country we are meeting today, and their elders past and present.

- ** APOLOGIES AND APPLICATIONS FOR LEAVE OF ABSENCE AND/OR CONDOLENCES
- ** DECLARATION OF PECUNIARY INTERESTS AND NON-PECUNIARY INTERESTS
- ** CLOSED COUNCIL CONSIDERATION OF CONFIDENTIAL REPORTS (MEETING CLOSED TO THE PUBLIC)
- ** OPEN COUNCIL MEETING RESUMES
- ** PUBLIC INVITED TO ADDRESS MEETING ON AGENDA ITEMS

The Mayor will remind the public to be respectful whilst speaking and that before speaking they must provide their full name and suburb of residence so that these details can be recorded in the minutes.

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SECTION 2 - HIGH PRIORITY ITEMS



ITEM 2.1 PARRAMATTA ROAD / NORTON STREET CORRIDOR HERITAGE STUDY

Division	Environment and Community Management		
Author Team Leader – Strategic Planning			
Meeting date	8 March 2016 Policy Meeting		
	tegic Plan Key Service Community well-being		
Area	Accessibility		
7 50.	Place where we live and work		
	A sustainable environment		
	Business in the community		
	Sustainable services and assets		
SUMMARY AND	ORGANISATIONAL IMPLICATIONS		
Purpose of Report	To seek endorsement of the Parramatta Road /		
	Norton Street Heritage Study.		
Background	Council is undertaking a Strategic Sites, Centres and Corridors Project, which aims to develop a masterplan for land adjacent to Parramatta Road between Booth Street/Mallett Street and Elswick Street, as well as the core business section of Norton Street. The Council's Employment and Economic Development Plan Strategy 1.1 Action 2.e for Parramatta Road is to "undertake a corridor heritage study to identify properties of high heritage value and those which may be altered or which can be retained." NBRS was appointed to undertake the heritage study for the Parramatta Road and Norton Street Corridor.		
	The purpose of the study was to review the quality and significance of the buildings in the parts of Heritage Conservation Areas that overlap with the Strategic Sites, Centres and Corridors Parramatta Road and Norton Street Project area. The study was undertaken concurrently with urban design and economic studies for the Corridor as well as detailed industrial precinct planning work.		
	This suite of studies will inform the land use future and built form outcomes for the Strategic Sites, Centres and Corridors Parramatta Road and Norton Street Project area.		
Current Status	Council made a submission on the Draft Parramatta Road Urban Transformation Strategy in December 2015. UrbanGrowth NSW		



1. Local Environmental Plan 2013 : Stage 2 Strategic Sites, Centres and Corridors strategy. 2. Employment and Economic Development Plan.		subsequently advised Council officers that additional information could be sent to them up until mid-March 2016.		
Study was funded from the \$135,000 Council budget for Heritage Studies. This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure Recommendation That Council: 1. Endorse the Parramatta Road / Norton Street Heritage Study as the basis for a review of heritage planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and 2. Forward a copy of the Parramatta Road / Norton Street Heritage Study to UrbanGrowth	policy	Local Environmental Plan 2013 : Stage 2 Strategic Sites, Centres and Corridors strategy.		
Guidelines issued by the OLG in relation to financial expenditure That Council: 1. Endorse the Parramatta Road / Norton Street Heritage Study as the basis for a review of heritage planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and 2. Forward a copy of the Parramatta Road / Norton Street Heritage Study to UrbanGrowth		Study was funded from the \$135,000 Council		
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Heritage Study as the basis for a review of heritage planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and 2. Forward a copy of the Parramatta Road / Norton Street Heritage Study to UrbanGrowth	Recommendation	·		
the Parramatta Road Urban Transformation Strategy.	Netifications	Heritage Study as the basis for a review of heritage planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and 2. Forward a copy of the Parramatta Road / Norton Street Heritage Study to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy.		
Notifications Community and stakeholder engagement in the review of Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.	Notifications	2013 and Leichhardt Development Control Plan		
Attachments To be circulated separately and placed on	Attachments			
Councillors iPads and Council's website 1. Thematic History Parramatta Road Corridor.		Councillors iPads and Council's website 1. Thematic History Parrametta Road Corridor		
2. Thematic History Norton Street Corridor.				
 Heritage Assessment Parramatta Road. Heritage Assessment Norton Street. 		3. Heritage Assessment Parramatta Road.		



Purpose of Report

To seek endorsement of the Parramatta Road / Norton Street Heritage Study.

Recommendation

That Council:

- 1. Endorse the Parramatta Road / Norton Street Heritage Study; and
- 2. Forward a copy of the Parramatta Road / Norton Street Heritage Study to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy.

Background

Council is undertaking a Strategic Sites, Centres and Corridors Project, which aims to develop a masterplan for land adjacent to Parramatta Road between Booth Street/Mallett Street and Elswick Street, as well as the core business section of Norton Street. The Council's Employment and Economic Development Plan Strategy 1.1 Action 2.e for Parramatta Road is to "undertake a corridor heritage study to identify properties of high heritage value and those which may be altered or which can be retained." NBRS was appointed to undertake the heritage study for the Parramatta Road and Norton Street Corridor.

The purpose of the study was to review the quality and significance of the buildings in the parts of Heritage Conservation Areas that overlap with the Strategic Sites, Centres and Corridors Parramatta Road and Norton Street Project area. The study was undertaken concurrently with urban design and economic studies for the Corridor as well as detailed industrial precinct planning work.

This suite of studies will inform the land use future and built form outcomes for the Strategic Sites, Centres and Corridors Parramatta Road and Norton Street Project area.

Report

History

In July 2013 Council resolved (C320/13) to undertake Stage 1 of the Strategic Sites, Centres and Corridors Study as follows:

"That Council encourage neighbouring Councils that border Parramatta Road to undertake a similar study.

That a Strategic Sites, Centres and Corridors Study for Parramatta Road from Johnston Street to Mallet Street and Johnston's Creek – the defined area to be subject to minor adjustments recommended by staff following further refinement of the study's scope – be brought forward to be commenced as soon as possible, the scope of the study to include all matters flagged for consideration, specifically:



- Future employment and economic possibilities, including business incubators to facilitate small "start up" enterprises,
- Housing opportunities, in particular aged housing, student housing and key worker housing;
- Transport considerations, including public transport, cycleways and pedestrian linkages;
- Public domain improvements;
- Place making and activation of the public domain;

And with reference to:

- Councils flagged intention to develop Parramatta Road as a live music and entertainment precinct;
- the regeneration of transport corridors and high street precincts;
- the need to develop more detailed response to opportunities implied by the proposed West Connex corridor'

C341/14:

In October 2014, Council resolved to:

'Include consideration in the pending strategic sites and corridors study of identifying Norton Street as a location for increased density. This should include an assessment of the benefits of focusing on residential, commercial, entertainment land uses on Norton Street to improve the viability of businesses and reduce impacts on the amenity of the non-main street residential dwellings.'

These resolutions led to the current Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project.

In parallel to the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project Council was already working on delivery of a series of key heritage studies to inform the future direction of heritage planning in the Leichhardt local government area and update the heritage data that underpins Council's planning instruments.

The above resolutions and the imminence of the Draft Parramatta Road Transformation Strategy (DPRUTS) rendered the Parramatta Road / Norton Street Heritage Study the priority heritage study. NBRS were appointed in September 2015 to undertake this study. Initial work informed the development of Council's December 2015 submission on the DPRUTS and the current urban design study for the Parramatta Road / Norton Street Corridor.

Scope

The scope of the Parramatta Road / Norton Street Heritage Study included the following elements:

 A review of the quality and the significance of buildings in the Heritage Conservation Areas in the Parramatta Road / Norton Street Strategic Sites,



Centres and Corridors Project area. This review included identification of potential new heritage items, contributory items and properties with neutral or detracting qualities that could be suitable for re-development.

- Identification of impediments to conservation of buildings in the Conservation Areas.
- Description of categories of buildings, including shopfronts, and establish broad principles for future development controls.
- A review of the significance of existing heritage items.
- Preparation of updates for the statements of significance for those parts of the Conservation Areas that lie within the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area.
- Development of draft heritage planning and controls for properties with heritage significance, including those that might be suitable for redevelopment.

The above scope for the Heritage Assessment of the Conservation Areas did not require a full Assessment of non-conservation area localities in the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area. The appointment of NBRS to carry out the Heritage Assessment of the relevant Conservation Areas did however present Council with an opportunity to have all the properties in the non-conservation area localities of the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area surveyed for their historic and aesthetic significance. This survey was undertaken and data compiled for each property in these localities. The survey categorised properties as buildings of historic and aesthetic significance, or as neutral or detracting to the character of the area.

This data will feed into Council's Review of the Leichhardt Development Control Plan (DCP) 2013 to help update Desired Future Character Objectives and Controls for the relevant Distinctive Neighbourhoods and future work on an extension of the Annandale Conservation Area (C1). A report on the latter possibility is also being presented to the 8 March 2016 Policy Council meeting. The data has also been used to inform Council's 2016 urban design studies of the Parramatta Road and Norton Street Corridor, including the Camperdown Industrial Precinct.

Methodology

NBRS chose to split the Heritage study into two parts to reflect the distinctive characters of Parramatta Road and Norton Street. These two sub-studies are also each divided into two reports with separate Thematic Histories (Attachments 1 and 2) and Heritage Assessments with recommended controls (Attachments 3 and 4) for Parramatta Road and Norton Street.

Thematic Histories

The purpose of the two Thematic Histories is to identify the heritage values of those parts of Heritage Conservation Areas that lie within the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area. The Histories then inform the preparation of the Heritage Assessments for the relevant parts of the Conservation Areas in the Project area.



The preparation of the Thematic Histories followed the guidelines set out in the NSW Heritage Office document *History and Heritage - The Use of Historical Context in Heritage Assessment* (1996).

The Histories document the following aspects of each area's heritage:

- Original land grants.
- Subsequent subdivision and housing estates.
- Commerce.
- Roads and transportation.
- Community and government.

Heritage Assessments

The Heritage Assessments are based on the Thematic Histories and a survey undertaken of lot frontages of all properties in the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area. Data sheets were prepared in tabulated format describing each property, documenting historic notes and providing a brief description of materials, construction dates, stylistic period, key stylistic elements, alterations, character.

A digital image of the frontage of each property was provided together with ranking to identify its heritage significance. The data sheets also provided recommendations for each property on whether they should be retained, have potential for alterations, additions, or redevelopment and where significant facades and character should be retained and possibly reinstated.

All the properties surveyed were then mapped in accordance with their identified heritage significance ranking. In the Conservation Areas these include:

- Heritage items.
- Contributory items (including potential Heritage items) buildings which contribute substantially to character of a Heritage Conservation Area.
- Neutral buildings which have a neutral impact on character of the area.
- Detracting buildings which have an adverse impact on the character of the area.
- Unknown vacant sites and car parks.

The category of Contributory item only applies in terms of how such a building contributes to the heritage character of a Local Environmental Plan Heritage Conservation Area. Consequently this category is inappropriate for the non-conservation localities of the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area, such as the Camperdown industrial precinct. Accordingly the rankings for these localities are slightly different and include:

- Heritage items.
- Buildings of historic and aesthetic significance (including potential Heritage items) buildings which contribute substantially to the character of the area.



- Neutral buildings which have a neutral impact on the character of the area.
- Detracting buildings which have an adverse impact on the character of the area.
- Unknown vacant sites and car parks.

The heritage assessment of the properties and the Project area was based on the methodology and guidelines set down by the NSW Heritage Office in the documents entitled Assessing Heritage Significance (2001), Conservation Areas (1996) and Planning and Heritage (1996). The NSW Heritage Office evaluation criteria are compatible with those in *The Burra Charter*.

Consequently the Assessment studies are composed of the following key elements:

- An assessment of the physical characteristics of the Parramatta Road and Norton Street parts of the Corridor Project area.
- An analysis of the cultural heritage significance of the Parramatta Road and Norton Street parts of the Corridor Project area.
- Statements of heritage significance for those parts of Conservation Areas that lie within the Corridor Project area.
- Recommended conservation controls.
- A description of the heritage significance of non-conservation localities in the Corridor Project area.
- Data sheets for every property in the Corridor Project area (Appendix B in Attachments 3 and 4).

Findings and Recommendations

In summary the assessment of heritage significance provided updated statements of significance for the Conservation Areas within the Project area. These in turn provide general recommendations on how the Conservation Areas should be managed, protection of contributory items and the redevelopment or refurbishment of neutral and detracting properties within Conservation Areas. The recommendations also cover building materials, conservation of public domain features and particularly significant building types. The latter include significant shopfronts, pubs and hotels, public and community buildings, warehouses, workshops and factories that are more than 50 years old.

The detailed findings and recommendations are set out in sections 3, 4 and 5 of both Assessments (Attachment 3 and 4), but key findings and recommendations are listed below. Some of these apply to the Conservation Areas in both the Parramatta Road and Norton Street sections of the Project area, while others are specific to only the Parramatta Road Conservation Area or only the Norton Street Conservation Areas.

Key Findings and Recommendations - Parramatta Road Conservation Area

 The Parramatta Road Conservation Area (C2) Statement of Significance primary reason for why the Area is important is "The Parramatta Road corridor, a mix of commercial / retail, factory / warehouse and residential



development, has historical significance for its ability to demonstrate the changes in retail and commercial development along Sydney's oldest and most important transport route."

- The Assessment also acknowledges that "The Parramatta Road Corridor has undergone many layers of change and alteration. Some of these changes have contributed to the heritage significance, but others are irreversible, have destroyed fabric, and confused the identified heritage values of the area."
- In terms of management of heritage values pre-1939 buildings should be retained, but buildings which do not contribute to the heritage significance of the area may be replaced with sympathetically designed infill.
- Warehouses and industrial buildings older than 50 years should be conserved. Alterations and additions to these buildings or their adaptive re-use should maintain the legibility of their historic uses.
- The following guidance on what should be avoided in future development is provided:
 - Over-sized and unsympathetic signage on shopfronts;
 - Upper levels that detract from the heritage character of the building facades and diminishes the quality of the streetscape;
 - Amalgamation of allotments on re-development sites unless these will enhance the heritage values of the conservation area;
 - Infill commercial / residential development that does not respect the heritage character of the conservation area.

Key Findings and Recommendations - Norton Street Conservation Areas

Most of the Norton Street Corridor south of Marion Street is not in a Conservation Area (see Appendix A maps in Attachment 4). The parts of the Norton Street Corridor that are in a Conservation Area include both sides of the street north of Marion Street, numbers 34 to 68 on the east side south of Marion Street, Leichhardt Public School and properties south of Dot Lane and Renwick Lane.

- The Norton Street Conservation Areas statements of significance update primary reason for why the area is important is that "The Norton Street Corridor, a mix of commercial / retail, residential and civic development, has historical significance for its ability to demonstrate the changes in retail and commercial development along a major street and transport route in Leichhardt."
- The Assessment also acknowledges that "The Norton Street Corridor has undergone many layers of change and alteration. Some of these changes have contributed to the heritage significance, but others are irreversible, have destroyed fabric, and confused the identified heritage values of the area."
- In terms of management of heritage values pre-1939 buildings and structures should be retained, but buildings which do not contribute to the heritage significance of the area may be replaced with sympathetically designed infill.
- The following guidance on what should be avoided in future development is provided:



- Amalgamation of allotments on re-development sites unless these will enhance the heritage values of the conservation area;
- Infill commercial / residential development that does not respect the heritage character of the conservation area;
- Demolition of any building shown on the 1888 map. Reinstatement of external form and materials of any of those buildings which have suffered unsympathetic change is encouraged where evidence of former form or materials can be verified;
- Additional architectural detail for which there is no evidence in the photographic record or on the building itself;
- Inappropriate fences such as high brick fences/walls;
- Second storey additions to an original single-storey building;
- Plastering and/or painting of original face brick walls;
- Removal of any plaster or decorative plaster to external walls.

<u>Recommendations - Significant Building Categories And Types In Both Parramatta</u> Road And Norton Street Conservation Areas

Broad generic recommendations are provided for contributory items and significant building types in sections 3 and 5 of both Assessments (Attachment 3 and 4). Specific heritage categorisation and management recommendations for each property in the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area Conservation Areas are also provided in the data sheets attached to each Assessment as Appendix B.

Key generic recommendations for Conservation Area contributory items and significant building types are listed below:

- Contributory items should be retained unless replacement is justified and additions and alterations must not significantly alter the appearance of significant facades.
- Demolition of neutral buildings will be considered where the replacement building will not compromise the heritage significance of the heritage conservation area.
- Development on sites containing detracting buildings is to improve the contribution of the site to the character of the heritage conservation area.
- Where residential flat buildings have foyers or other significant interior features, including hallway detailing, panelling and significant staircases, that are designed to be visible from the street, these are to be retained.
- Original building materials are to be retained on heritage items and buildings in heritage conservation areas.
- Original public domain features such as early road surfaces, stone kerbs, sandstone steps and retaining walls are to be retained.
- Encourage the retention of original, early significant shopfronts and ensure the design of street frontages is not detrimental to the aesthetic quality of the street.
- Ensure that alterations, additions and change of use of pubs and hotels that are more than 50 years old retain significant fabric and building elements from



all periods of construction and provide for ongoing use primarily as pubs and hotels.

- Ensure alterations, additions and change of use of current and former public and community buildings that are more than 50 years old:
 - are sympathetic to the existing fabric and design of the building and do not compromise its particular qualities from all periods of construction;
 - allow for and encourage, the ongoing public or community use for which the building was constructed;
 - retain significant fabric and building elements; and
 - retain significant internal features and spaces.

Summary/Conclusions

The attached Parramatta Road / Norton Street Heritage Study complements Council's urban design studies for the Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project area and Industrial Precincts. The two sets of studies should be seen as scales, with the Heritage Study recommendations on management of heritage values and controls balancing the urban design studies recommendations on how regeneration and redevelopment in the Project area can be facilitated and encouraged in appropriate locations.

The Heritage Study and urban design studies will be used to review and develop Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 policies, objectives and controls for the Parramatta Road / Norton Street Corridor and to help shape UrbanGrowth NSW's development of the Draft Parramatta Road Urban Transformation Strategy. These studies will also be considerations in Council assessments of the individual merits of planning proposals and development applications in the Parramatta Road / Norton Street Corridor.

UrbanGrowth NSW is aware that the Parramatta Road / Norton Street Heritage Study was being undertaken by Council and have indicated their willingness to consider the findings. They have however, advised Council officers that any further information, in addition to that provided during the exhibition period for the Draft Parramatta Road Urban Transformation Strategy, can only be accepted up until mid-March 2016.

It is recommended that the Heritage Study be endorsed as a basis for the review of the Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 and forwarded to UrbanGrowth NSW for consideration in the progression of the Parramatta Road Urban Transformation Strategy.

Attachments (to be circulated separately and placed on Councillors iPads and Council's website)

- 1. Thematic History Parramatta Road Corridor.
- 2. Thematic History Norton Street Corridor.
- 3. Heritage Assessment Parramatta Road.
- 4. Heritage Assessment Norton Street.



ITEM 2.2 COMMERCIAL AND RETAIL STUDY: NORTON STREET AND PARRAMATTA ROAD

Division	Environment and Community Management	
Author	Executive Strategic Planner	
Meeting date	8 March 2016 Policy Meeting	
Strategic Plan Key Service	Community well-being	
Area	Accessibility	
	Place where we live and work	
	A sustainable environment	
	Business in the community	

SUMMARY AND ORGANISATIONAL IMPLICATIONS

Purpose of Report To seek endorsement of the Commercial and Retail Study: Norton Street and Parramatta Road. Background Council is undertaking a Strategic Sites, Centres and Corridors project which aims to develop a masterplan for land adjacent to Parramatta Road between Booth Street/Mallett Street and Elswick Street, as well as the southern half of Norton Street.

This project flows from Council's Employment and Economic Development Plan Strategy 1.1 Action 2 which includes investigating increasing office floorspace, allowing modern development form and residential intensification in Norton Street and investigating the potential to extend retail and commercial activity and for strategic rezoning with mixed use built form typologies. SGS Economics and Planning was appointed to undertake these investigations through a retail and commercial study of the business zoned land within the Norton Street and Parramatta Road corridors.

The purpose of the study was to determine the existing capacity and future demand for commercial and retail floorspace within the project area to ensure that the planning framework supports the appropriate provision. The study was undertaken concurrently with urban design and heritage studies for the corridors as well as detailed industrial precinct planning work.

This suite of studies was pursued to inform the land use future and built form outcomes of the Strategic Sites, Centres and Corridors project area, however given the timing of the release of the Draft Parramatta Road Urban Transformation



	Strategy by UrbanGrowth NSW in September 2015, these studies have also served to inform Council's position on the draft Strategy.		
Current Status	Council made a submission on the Draft Parramatta Road Urban Transformation Strategy in December 2015. UrbanGrowth NSW subsequently advised Council officers that additional information could be accepted up until mid-March 2016.		
Relationship to existing policy	The Strategic Sites, Centres and Corridors – Parramatta Road project is identified in the Employment and Economic Development Plan and incorporates actions of the Community and Cultural Plan, Integrated Transport Plan, Affordable Housing Strategy and a number of Council resolutions.		
Financial and Resources Implications	The Commercial and Retail Study: Norton Street and Parramatta Road was funded from the \$160,000 Council allocated to the Strategic Sites, Centres and Corridors – Parramatta Road project. This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure.		
Recommendation	 That Council: Endorse the Commercial and Retail Study: Norton Street and Parramatta Road as the basis for a review of land use planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and Forward a copy of the Commercial and Retail Study: Norton Street and Parramatta Road to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy. 		
Notifications	Community and stakeholder engagement in the review of Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.		
Attachments	Commercial and Retail Study: Norton Street and Parramatta Road		



Purpose of Report

To seek endorsement of the Commercial and Retail Study: Norton Street and Parramatta Road.

Recommendation

That Council:

- Endorse the Commercial and Retail Study: Norton Street and Parramatta Road as the basis for a review of land use planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and
- 2. Forward a copy of the Commercial and Retail Study: Norton Street and Parramatta Road to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy.

Background

Council is currently undertaking a Strategic Sites, Centres and Corridors project which aims to develop a masterplan for land adjacent to Parramatta Road between Booth Street/Mallett Street and Elswick Street, as well as the southern half of Norton Street.

This project flows from the Council's Employment and Economic Development Plan Strategy 1.1 Action 2 which includes investigating increasing office floorspace, allowing modern development form and residential intensification in Norton Street and investigating the potential to extend retail and commercial activity and for strategic re-zoning with mixed use built form typologies. SGS Economics and Planning was appointed to undertake these investigations through a retail and commercial study of the business zoned land within the Norton Street and Parramatta Road corridors.

The purpose of the study was to determine the existing capacity and future demand for commercial and retail floorspace within the project area to ensure that the planning framework supports the appropriate provision. The study was undertaken concurrently with urban design and heritage studies for the corridors as well as detailed industrial precinct planning work. The purpose of the later was to build on the findings and pursue the actions identified in the Leichhardt Industrial Lands Study, endorsed by Council in February 2015.

This suite of studies was pursued to inform the land use future and built form outcomes of the Strategic Sites, Centres and Corridors project area, however given the timing of the release of the Draft Parramatta Road Urban Transformation Strategy by UrbanGrowth NSW in September 2015, these studies have also served to inform Council's position on the draft Strategy.



Report

History

In July 2013 Council resolved (C320/13) to undertake Stage 1 of the Strategic Sites, Centres and Corridors Study as follows:

That a Strategic Sites, Centres and Corridors Study for Parramatta Road from Johnston Street to Mallet Street and Johnston's Creek – the defined area to be subject to minor adjustments recommended by staff following further refinement of the study's scope – be brought forward to be commenced as soon as possible, the scope of the study to include all matters flagged for consideration, specifically:

- Future employment and economic possibilities, including business incubators to facilitate small "start up" enterprises,
- Housing opportunities, in particular aged housing, student housing and key worker housing;
- Transport considerations, including public transport, cycleways and pedestrian linkages;
- Public domain improvements;
- Place making and activation of the public domain;

And with reference to:

- Councils flagged intention to develop Parramatta Road as a live music and entertainment precinct;
- the regeneration of transport corridors and high street precincts;
- the need to develop more detailed response to opportunities implied by the proposed West Connex corridor

In October 2014, Council resolved (C341/14) to:

Include consideration in the pending strategic sites and corridors study of identifying Norton Street as a location for increased density. This should include an assessment of the benefits of focusing on residential, commercial, entertainment land uses on Norton Street to improve the viability of businesses and reduce impacts on the amenity of the non-main street residential dwellings.

These resolutions led to the current Parramatta Road/Norton Street Strategic Sites, Centres and Corridors Project and the appointment of SGS to undertake the Commercial and Retail Study for Norton Street and Parramatta Road.

Study Methodology

In summary, the study methodology for the commercial and retail study comprised:

 Market analysis to identify the macro trends influencing high streets as well as local internal and external factors that have shaped the study area. It also included a review of demographic changes in the area over time.



- 2. Supply-side floorspace analysis a floorspace audit was undertaken for each of the retail and commercial centres within the Leichhardt LGA which identified the building types and the types of businesses operating within buildings.
- 3. Demand-side analysis using the audited floorspace and identified expenditure patterns within the study area's likely catchment, a retail model was prepared. This was used to determine the amount of retail floorspace required to satisfy the needs of the catchment and compared it with current provision.
- 4. The development of recommendations which aim to improve the offer and position of Norton Street and the wider study area.

Key findings of each of the steps are outlined in the following sections.

Market analysis

It was identified that a number of factors, both internal and external, have influenced the livelihood and character of the study area and contributed to its gradual decline.

External factors

- As a result of the advent of online retailing over the past decade, Bricks and Mortar shopping is relying more on the idea of retail as an 'experience'. Norton Street and Parramatta Road have not retained the characteristics that once identified them and as such cannot compete with nearby high streets that have been more successful in this regard.
- The Italian influence has not been sustained along the once thriving Norton Street, nor has it been superseded by another identifiable characteristic. This is the result of the decline in Leichhardt's Italian community generally, the lack of continued investment in the Norton Street brand and the rise of Haberfield as a more authentic Italian experience.
- Coupled with the precinct's declining Italian identity, Norton Street's competitive
 offer has weakened in the face of growing competition from other centres with
 strong cultural identities. As Norton Street has declined, nearby centres such as
 King Street in Newtown and New Canterbury Road in Petersham have
 established themselves as destination high streets. Additionally, the Sydney
 CBD has reinvented itself as a food and entertainment destination in the past ten
 vears.
- Permanent clearways and the erection of safety fencing along Parramatta Road have restricted access to shops, resulting in their decline.
- Since the 2000s, Sydney has seen a number of live music venues close down.
 This has been due to a number of factors including competition from other uses
 to generate revenue, in particular poker machines and live sports screens;
 increased operational costs for smaller venues; increased complexity around
 noise and patron management; and inner city festivals increasingly taking the
 place of established venues.

Internal factors

 The development of The Forum simultaneously created an over-supply of restaurants in the precinct and shifted activity away from Norton Street and into the middle of the block, contributing to the demise of the high street. While new



restaurants initially thrived, when they began to fail, Norton Street had already lost the energy it once had.

- The development of Norton Plaza shifted the retail focus away from the high street and into a self-contained shopping centre. The introduction of a large supermarket, coupled with basement parking and other specialty stores, reduced the need for shoppers to venture out onto Norton Street.
- Norton Street (particularly the southern end) has no cohesive public realm and a patchwork of built form. This contributes to a feeling of neglect and suggests a lack of investment over time, thus deterring potential retailers.
- There is a lack of consistent identity. The distinct sub-precincts of the study area should complement each other and attract activity from one to another.
- As people are said to attract people, vacancies also attract vacancies. The high vacancy rates in Norton Street signify to potential retail tenants that the area is not trading well and deters investment. A lack of activity and retail options also deter customers.

Supply-side assessment

A floorspace audit categorised and quantified the amount of retail and commercial floorspace in each of Leichhardt's centres by land use type and industry. This process identified several trends in floorspace use within the LGA:

- The study area encompasses a large proportion of the Leichhardt LGA's gross business zoned floorspace, in excess of 194,000sqm, or 40.9% of the total.
- In all of the major local centres, hospitality (restaurants/cafes/pubs/bars) is the dominant industry type in terms of floorspace.
- Different retail precincts have different roles, different built forms and are different sizes. As a consequence, the observed rates of vacancy vary. Given that the centres are all local in nature and the surrounding demographic is relatively similar, this variation is wide, ranging from zero to almost 16%.
- The study area has the highest observed vacancy rate, with almost 15.8% (23,521sqm) of the net lettable area being vacant.
- The centre that competes with Norton Street most directly Leichhardt Marketplace – has an observed vacancy rate of less than half of Norton Street (7%).

Demand-side assessment

The study defined a trade area, or catchment (Figure 1), for the study area to understand the magnitude of expenditure demand and growth most likely to impact on the centres within the study area. Retail modelling and a population-driven commercial floorspace assessment identified a number of trends within the retail and commercial catchment.

- There is sustained demand for a range of store types in the study area with demand for total retail floorspace forecast to grow by 61% between 2015 and 2031. Supermarkets and specialty stores focusing on household goods are forecast to see the highest growth in demand.
- It is forecast that by 2031, current retail floorspace provision is likely to be insufficient to meet demand. Under a base case population growth, there is forecast to be up to 45,750sqm additional floorspace required. With the



- population growth anticipated under the Draft Parramatta Road Urban Transformation Strategy, this could increase to 62,000sqm.
- Demand for restaurants, bars and cafes will grow by 61% to 2031 in the study area, almost double the rate of demand for the rest of the study catchment (32%). Cafes tend to serve a predominantly local population more so than restaurants and bars, which are more likely to be destinations. If Norton Street is to retain its restaurant identity, it needs to provide a clear and consistent offering.
- There is a significant but diminishing surplus of hospitality floorspace. The catchment currently has an oversupply of hospitality floorspace (9,300sqm). It is forecast that by 2031, this surplus will have reduced to 953sqm. The study area has the highest amount of hospitality floorspace (69% of the catchment's 33,000sqm) and therefore much of the forecast surplus.
- There is additional demand for food retail and other specialist retail in the study area of approximately 5,000sqm and 9,000sqm respectively. This demand is forecast to increase by 2031. This provides an opportunity to build Norton Street's retail identity while satisfying demand.
- Although the catchment already has supermarket provision in Norton Plaza and Leichhardt Marketplace, supply is currently finely balanced with demand. A growth in demand by 60% to 2031 will create a deficit in supermarket floorspace. There is an opportunity to develop additional supermarket floorspace within Norton Street to consolidate its retail primacy and meet this demand.
- Due to there being no department stores within the catchment, a significant proportion of this demand is met by the large number of smaller speciality stores.
- Despite the higher than average income levels of the area, expenditure on food in the retail catchment is 25% lower than the Sydney average. Expenditure on restaurants and cafes as well as personal goods and services however is higher than the average.
- There is a slight deficit in the amount of floorspace currently supporting local commercial uses. Although some of this office floorspace is likely to be met in other types of buildings (such as residential or retail), this shortage is expected to increase because demand for this type of floorspace is largely driven by the size of the local population. By 2031, the deficit is forecast to be between 2,100sqm and 2,700sqm.



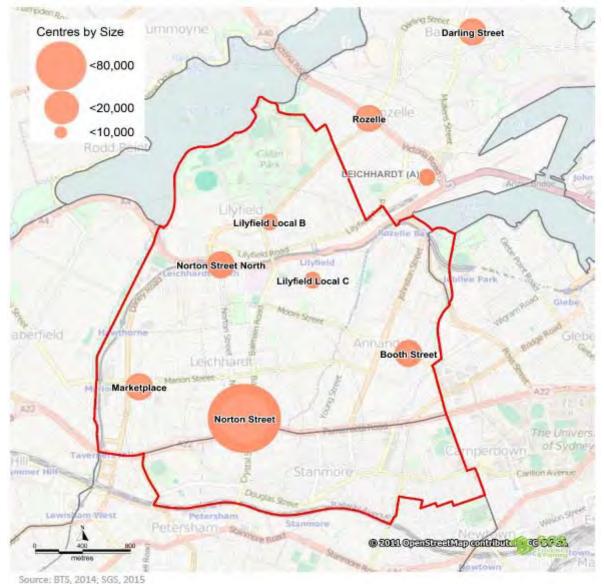


Figure 1: Norton Street/Parramatta Road Trade Area

Findings and Recommendations

Observations

Following the analysis of macro trends and the land use audit and retail model, a number of observations were made regarding the study area:

- Norton Plaza is both an attractor and detractor
- Decline in visitation has been experienced
- There is an over-supply of hospitality floorspace
- The precinct is comprised of sub-precincts
- The study area is not attracting investment
- Norton Street lacks a 'centre'
- The study area has high vacancy rates



Reasons

The current retail and commercial status of the study area is likely due to a confluence of many factors as identified in Figure 2 below.

Figure 2: Reasons for the current retail and commercial status of the study area

Commercial and retail landscape	Physical characterstics	Accessibility	Cultural characteristics	Increased competition
 Change in consumer preferences Oversupply of restaurant floorspace 	Lack of consistency in built and urban form Lack of investment	Clearways on Parramatta Road Lack of public transport options Provision of underground car park at Norton Street	 Decline in Italian identity Trading on identity without investing in the underlying structure Failure of The Forum Dislocation of civic facilities from Norton Street 	Growth of competitive centres Leichhardt Marketplace refurbishment

Strategies and Actions

The study includes recommendations to improve the offer and position of Norton Street and the wider study area (see Table 1 below). In order to define these more clearly and help guide Council's approach, they have been categorised under the three horizons model.

Horizon 1 initiatives consolidate the current economic performance, Horizon 2 measures will tap organic diversification opportunities to enhance this performance, but Horizon 3 strategies are required to ultimately transform the study area. It is identified that councils must simultaneously maintain a focus on all three horizons.

The recommendations focus strongly on Norton Street as it was identified as having the most opportunity for improvement.

Table 1: Strategies and actions of the commercial and retail study

First Horizon					
Strategy 1: De	Strategy 1: Develop better understanding of local issues and opportunities				
Action 1.1	Discuss needs with existing tenants				
Action 1.2	Identify development potential in key sites				
Action 1.3	Recognise and define sub-precincts				
Strategy 2: De	Strategy 2: Develop a management and investment strategy				
Action 2.1	Promotion of Norton Street				
Action 2.2	Identify second generation of uses				
Strategy 3: Review barriers to investment					
Action 3.1	Review of existing FSR controls				
Action 3.2 Accommodate change of use applications from hospitality uses					
Strategy 4: Inter-jurisdictional collaboration to address Parramatta Road					
Action 4.1	Involve Marrickville Council in decision-making along Parramatta				



	Road				
Second Horizon					
Strategy 5: Improve character of Norton Street					
Action 5.1	Streetscape improvements				
Action 5.2	Update traffic and parking management strategies				
Action 5.3	Unify existing Norton Street sub-precincts				
Action 5.4	Use speciality stores to promote Norton Street				
	prove investment potential				
Action 6.1	Develop an urban design and 'program of use' framework for Norton Street				
Action 6.2	Encourage extended trading hours				
Strategy 7: Re	-activate Norton Street				
Action 7.1	Creation of a retail and community 'heart' of Norton Street				
Action 7.2	Relocate community facilities closer to Norton Street from The Forum				
Action 7.3	Redevelopment of key site(s) along Norton Street				
Action 7.4	Encourage redevelopment of The Forum				
Action 7.5	Allow for additional retail and commercial floorspace to meet future demand				
Action 7.6	Understand the likely retail demand from outside of the local catchment				
Third Horizon					
Strategy 8: Inc	rease residential population				
Action 8.1	Rezone some of Parramatta Road's commercial and retail floorspace to mixed-use (B4)				
Action 8.2	Allow increased residential development along the southern end of Norton Street				
Strategy 9: Increase pedestrian activity and amenity					
Action 9.1	Activation and through connection of laneways running parallel to Parramatta Road				
Strategy 10: Incentivise development that contributes to improvements along Norton Street					
Action 10.1	Encourage development through incentives				

Report validity

SGS have indicated that the recommendations of the study would remain valid for approximately two years, however the potential change facing Leichhardt and the surrounding areas over the coming years makes population and therefore retail forecasting less certain.

Relationship with the Draft Parramatta Road Urban Transformation Strategy

The table below includes relevant recommendations from Council's submission to UrbanGrowth NSW on the Draft Parramatta Road Urban Transformation Strategy (DPRUTS) and commentary from the completed commercial and retail study which clarifies and reinforces Council's positions.



Table 2: Relationship with the DPRUTS					
Issue	Initial Council recommendation	Study findings			
The mixed use zone (B4) and related active frontages in the Taverners Hill Precinct translate as a retail high street	15. Council does not support the potential increases in retail and commercial floorpsace in Taverners Hill Precinct as part of the proposed Mixed Use zone as it will potentially affect the trading performance of other centres and should be avoided. Council will provide UrbanGrowth NSW with its Parramatta Road and Norton Street Retail and Commercial study as the basis for discussions in this relation to this matter.	The commercial and retail study supports Council's stance. It identifies that Leichhardt Marketplace competes directly with Norton Street for retail custom and that introducing further competition through facilitation of additional retail away from Norton Street, such as in the Taverners Hill Precinct, may thwart efforts to reactivate the corridor (the primary focus of the strategies and actions of the study) and be detrimental to other nearby centres.			
	16. Council recommends that any land use change to a mixed-use zone in the Taverners Hill precinct should make provision for only minimal retail floorspace to protect other centres in the area				
Leichhardt Precinct: The spread of mixed use may encourage retail and commercial uses away from Norton Street	23. Council recommends that the Structure Plan should be amended to keep frontages along Balmain Road and Renwick Street as residential. This will help to reinforce Norton Street's role as Leichhardt's main retail strip. There may be some opportunity to expand mixed use into the laneway that runs south of the Forum, however this	The SGS report which accompanied Council's submission on the draft Strategy suggested that the delineation of mixed use from Renwick Street to Balmain Road may encourage retail and commercial to locate on these streets, thus diluting the opportunity to reestablish Norton Street as the area's high street.			



should remain close to Norton Street

Action 7.5 of the commercial and retail study is to allow for additional retail and commercial floorspace to meet future demand. It states that new mixed-use development with a significant residential component should provide retail floorspace at ground floor and new, local-serving commercial floorspace to accommodate future demand.

Notwithstanding, the study qualifies that, given the existing surplus in the study area, this floorspace should be delivered in the medium-to-long term, only once supply and demand are in balance. If introduced earlier, it may exacerbate vacancy rates and further erode Norton Street's retail character. Provision of this floorspace is to be focussed on Norton Street.

The action warns against new residential development being self-contained with regards to retail floorspace, that is, it provides a sufficient range of retail functions to accommodate the majority of the retail needs of new residents. Conversely, it suggests that drawing activity from these developments into Norton Street should be a priority. It is



			noted that retail floorspace associated with any development along Parramatta Road should be no larger than neighbourhood retail so that its catchment does not overlap with Norton Street and that there is no gravity shift away from the high street.
Leichhardt Precinct: Increased residential may lead to a loss of retail and commercial floorspace	25.	Council notes that it is finalising a Retail and Commercial Study for Parramatta Road and Norton Street (south of Marion St) and an Urban Design Study. Council does not support residential development that will result in a net loss of existing retail or commercial floorspace. In some areas, additional retail floorspace may be appropriate within new developments.	Action 8.1 of the study states that although there is currently a surplus of retail floorspace, future demand necessitates that this be retained. Any residential development (in the study area) should not result in a net loss of retail or commercial floorspace. Consistent with this position, the study reveals that with demand growing alongside population, current retail floorspace provision is likely to be insufficient to meet demand by 2031. This deficiency is forecast to be between 45,750sqm and 62,000sqm.
Leichhardt Precinct: Residential should be confined to the south of Marion Street	27.	Council notes that its Retail and Commercial Study, Urban Design Study and SGS/Architectus review of the DPRUTS all suggest that new residential development should only be concentrated to the south of Marion	Action 8.2 of the study is to allow increased residential development along the southern end of Norton Street. It states that carefully-located shop-top residential development along certain sections of Norton Street will help to



Street and along Parramatta Road, with an orientation to the north. This is to maintain a commercial and retail focus in the heart of the Norton Street precinct. It will also encourage pedestrian footfall from new residential development up to Norton Plaza. This will facilitate activation along its length. Any residential along Norton Street should only be shop-top or behind the high street frontages.

consolidate retail activity between The Forum and Marion Street, however this must not result in a net loss of retail or commercial floorspace (Action 8.1).

As with Action 8.1, this would increase the residential population within Norton Street's walking catchment and better support retail.

In relation to any residential development north of Marion Street, Action 8.2 states that it should not further separate the two identified sub-precincts, should provide active ground floor uses and must not disrupt the strip's consistent retail frontage.



Summary/Conclusions

The Commercial and Retail Study: Norton Street and Parramatta Road fed into the preparation of Council's urban design study for the business zoned land within the Parramatta Road/Norton Street Strategic Sites, Centres and Corridors project area.

The commercial and retail study and urban design study will be used to review and develop Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 policies, objectives and controls for the Parramatta Road/Norton Street Corridor and to help shape UrbanGrowth NSW's development of the Parramatta Road Urban Transformation Strategy. These studies will also be considerations in Council assessments of the individual merits of planning proposals and development applications in the Parramatta Road/Norton Street corridor.

UrbanGrowth NSW is aware that the Commercial and Retail Study: Norton Street and Parramatta Road was being undertaken by Council and have indicated their willingness to consider the findings. They have however, advised Council officers that any further information, in addition to that provided during the exhibition period for the Draft Parramatta Road Urban Transformation Strategy, can only be accepted up until mid-March 2016.

It is recommended that the Commercial and Retail Study be endorsed as a basis for the review of the Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 and forwarded to UrbanGrowth NSW for consideration in the progression of the Parramatta Road Urban Transformation Strategy.

Next Steps

Subject to the endorsement of the Commercial and Retail Study: Norton Street and Parramatta Road the following steps will be taken to progress Council's approach to the planning for the corridors:

- Confirmation of final planning objectives and principles through community and stakeholder engagement.
- Report community engagement outcomes to Council.
- Application of Council endorsed objectives and principles to the review of Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.
- Preparation of draft Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 amendments and presentation of these to Council for endorsement to submit a draft LEP amendment planning proposal for Gateway Determination.
- Report Gateway Determination to Council and subject to Gateway approval proceed to public exhibition of Planning Proposal and associated DCP Draft Amendments.
- Report to Council on public exhibition and proceed to publication for the LEP and DCP amendments.

Attachment

Commercial and Retail Study: Norton Street and Parramatta Road



Leichhardt Commercial and Retail study: Norton Street and Parramatta Road



Final

Leichhardt Municipal Council January 2016



Independent insight.







This report has been prepared for Leichhardt Municipal Council. SGS Economics and Planning has taken all due care in the preparation of this report. However, SGS and its associated consultants are not liable to any person or entity for any damage or loss that has occurred, or may occur, in relation to that person or entity taking or not taking action in respect of any representation, statement, opinion or advice referred to herein.

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Leichhardt Commercial and Retail study: Norton Street and Paria matta Road





EXECUTIVE SUMMARY

1.1 Introduction

SGS Economics and Planning have been commissioned by Leichhardt Council to undertake a retail and commercial study of the Norton Street and Parramatta Road study area. This report will inform Leichhardt Council's Strategic Sites, Centres and Corridors Project which aims to develop a masterplan for land adjacent to Parramatta Road between Booth Street/Mallett Street and Norton Street as well as the southern half of Norton Street.

This study has been undertaken through a market assessment, supply-side floorspace audit and demand modelling in order to define recommendations for Leichhardt Council to pursue across planning policy changes, urban form recommendations, programmatic interventions and development potential.

The study focuses strongly on Norton Street as it has been identified as the local centre with most opportunity for improvement

L1 Market background

The study identified a number of internal and external influences that have influenced the livelihood and character of the study area. These influences include:

External factors

The act of shopping has changed

Both Norton Street and Parramatta Road's character and retail mix lacks the quality and amenity that attracts people to experience bricks and mortar retailing over online shopping, due to its fragmented nature and lack of streetscape amenity. The Parramatta Road section of the precinct has begun to develop a defined identity with the proliferation of bridal gown stores and ancillary retailers.

A fading cultural identity

Leichhardt, and Norton Street in particular, have long been associated with Sydney's Italian community. This identity has gradually declined and with it, Norton Street's primary trade attractor

The rise of competitive centres

Nearby centres such as King Street in Newtown and New Canterbury Road in Petersham have established themselves as destination high streets. Additionally, the Sydney CBD has reinvented itself as a food and entertainment destination in the past ten years. This has been underway at the same time as Norton Street's 'eat street' identity has faded.

The need to reduce congestion along Parramatta Road

Parramatta Road's worsening congestion has necessitated the introduction of permanent clearways which has resulted in stretches of Parramatta Road within the study area devoid of pedestrian activity due to a lack of parking

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Internal factors

The development of the Forum

The Forum simultaneously created an over-supply of restaurants in the precinct and shifted the activity centre of gravity away from Norton Street and into the middle of the block This reduced the activity along Norton Street and contributed to its demise.

The development of Norton Plaza

The development of Norton Plaza shifted the retail focus away from individual high street shops and into a self-contained shopping centre. This reduced the need for shoppers to venture out onto Norton Street.

A lack of active investment

Norton Street lacks a coheave public realm and a patchwork of built form which contributes to an overall feel of neglect and suggests a lack of investment over time.

A lack of consistent identity

The study area has distinct sub-precincts which do not currently complement each other and attract activity from one to another.

Vacancies are self-perpetuating

Vacancies attract vacancies. High vacancy rates in the study area deters both retailers and customers and becomes self-perpetuating.

Li Supply-side analysis

A floorspace audit categorised and quantified the amount of retail and commercial floorspace in each of Leichhardt's centres by land use type and industry. This process identified several trends in floorspace use within the LGA.

Hospitality is the dominant industry cluster throughout the LGA

Hospitality (restaurants/cafes/pubs/bars) is the dominant industry type in terms of floorspace.

Observed vacancy rates vary across retail precincts

There is a variance in vacancy rates across the precincts, ranging from zero to 16%.

High vacancy rates in the study area

The study area has the highest observed vacancy rate, at almost 16%.

Vacancy around shopping centres is lower

Leichhardt Marketplace has an observed vacancy rate of less than half of Norton Street (7%).

1.4 Demand-side analysis

The undertaking of retail modelling and population-driven commercial floorspace demand identified a number of trends within the retail and commercial catchment.

There will be a shortage of retail floorspace by 2031

With demand growing alongside population, it is forecast that by 2031, current retail floorspace provision is likely to be insufficient to meet demand.

There is sustained demand for a range of store types in Norton Street

Demand for total retail floorspace is forecast to grow by 61% in Norton Street between 2015 and 2031. Supermarkets and specialty stores focusing on household goods are forecast to see the highest growth in demand.

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Hospitality is doing well but there is no consistency in offering

Demand for restaurants, bars and cafes will grow by 61% to 2031 in Norton Street, almost double the rate of demand for the rest of the study catchment (32%). If Norton Street is to retain its restaurant identity, it needs to provide a clear and consistent offering.

There is a surplus of hospitality floorspace now and forecast into the future

The catchment currently has an oversupply of hospitality floorspace (9,300 sqm). The retail model suggests that even by 2031, the catchment will have a surplus of hospitality floorspace (953 sqm).

There is additional demand for food retailing and other specialty stores that is forecast to deepen There is an additional demand for food retail and other specialist retail in Norton Street of approximately 5,000 sqm and 9,000 sqm respectively

There is a shortage of supermarket floorspace forecast

A growth in demand by 60% to 2031 will create a deficit of supermarket floorspace by 2031.

The study area population spends lower than the Sydney average on food but higher on restaurants and personal goods

Expenditure on food is 25% lower than the Sydney average. Expenditure on restaurants and cafes as well as personal goods and services however is higher than the average.

There is a shortage in floorspace for local commercial offices

There is a slight deficit in the amount of floorspace currently supporting local commercial uses, compared with what could be expected to be required to satisfy the local population needs.

Li Observations

Following the supply-side and demand-side analysis of the study area undertaken in the report, a number of observations relating to the study area's position, issues and opportunities have been identified that provides a summary regarding the state of Norton Street and the precinct more broadly.

Norton Plaza

The development of Norton Plaza has simultaneously increased retail floorspace in the study area and reduced the need for shoppers to use Norton Street's high street retail offer. Norton Plaza could be viewed as a contributor to Norton Street's decline and there is merit in this position. It does, however, also act as one of the few anchors Norton Street has for attracting people from surrounding areas. It should therefore be seen as an asset to help re-build Norton Street's retail and commercial presence.

Decline in visitation

It is evident that the study area has experienced a decline in visitation over the past ten to fifteen years. While Norton Street retains a retail identity (albeit diminished), Parramatta Road's retail offer appears to have suffered significantly. This decline in visitation extends to the evening and night-time economy, which was once a major asset of Norton Street.

Over-supply of hospitality floorspace

Retail modelling indicates that there is an over-supply of retail floorspace in the study area and in the Leichhardt LGA more broadly. The model, which seeks to distribute floorspace to support the precinct's catchment, indicates that there is an excess of over 9,000 sqm of hospitality floorspace in the Study Area alone.

Precincts comprise of sub-precincts

The study area is large, with over three linear kilometres of frontage along two perpendicular roads. Naturally, the precinct does not act as a cohesive, singular precinct. Rather, it comprises of distinct subregions that function with varying degrees of independence.

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The study area is not attracting investment

Norton Street appears to have minimal coherent investment in public realm, coordinated development along the high street or even in branding. The investment in Parramatta Road appears limited to the erection of heavy-duty fencing to separate the footpath from carriageway.

Norton Street does not have a 'centre'

Norton Street suffers from a lack of an identifiable 'centre' to signal to retailers and shoppers where the heart of the precinct lies. Centres in the context of local high streets do not require large squares, but do require a sustained degree of activity around them and a place for people to dwell.

High vacancy rates

The study area currently has relatively high vacancy rates (16%). The high vacancy rate is symptomatic of the factors identified above.

Future population growth will require additional floorspace

Population growth, both forecast by BTS and under UrbanGrowth's strategy for Parramatta Road, will require additional floorspace — both retail and commercial. The current retail landscape suggests that there is additional capacity in the system. However, as the population grows through to 2031, additional retail floorspace demand may be as 45,000 to 60,000 sqm and commercial up to 2,700 sqm. These should be treated as an upper limit however as they assume that no other retail floorspace in the system is provided between now and then.

I.I. Recommendations

SGS has identified a number of recommendations to improve the offer and position of Norton Street and the wider study area. In order to define these more clearly and help to guide Council on their approaches to these recommendations, they have been categorised under the three horizons model. This help to identify the type of recommendation, based on the following definitions:

Horizon One: protection of the enterprise's existing core business

Horizon Two: Looks for ways to incrementally leverage its current core businesses to expand its customer base.

Horizon Three: Contemplate new opportunities which might be quite distant from current core business, but which draw on the completencies, skills and endowments which underpin current activities.

The recommendations identified in the report have been summarised below.

First Horizon

STRATEGY 1: DEVELOP BETTER UNDERSTANDING OF LOCAL ISSUES AND OPPORTUNITIES

- Action 1.1 Discuss needs with existing tenants
- Action 1.2 Identify development potential in key sites
- Action 1.3 Recognise and define sub-precincts

STRATEGY 2: DEVELOP A MANAGEMENT AND INVESTMENT STRATEGY

- Action 2.1 Promotion of Norton Street
- Action 2.2 Identify second generation of uses

STRATEGY 3: REVIEW BARRIERS TO INVESTMENT

- Action 3.1 Review of existing FSR controls
- Action 3.2 Accommodate change of use applications from hospitality uses

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STRATEGY 4: INTER-JURISD ICTIONAL COLLABORATION TO ADDRESS PARRAMATTA ROAD

Action 4.1 Involve Marrickville Council in decision-making along Parramatta Road

Second Horizon

STRATEGY 5: IMPROVE CHARACTER OF NORTON STREET

- Action 5.1 Streetscape improvements
- Action 5.2 Up date traffic and parking management strategies
- Action 5.3 Unify existing Norton Street sub-precincts
- Action 5.4 Use speciality stores to promote Norton Street

STRATEGY 6: IMPROVE INVESTMENT POTENTIAL

- Action 6.1 Develop an urban design and 'program of use' framework for Norton Street
- Action 6.2 Encourage extended trading hours

STRATEGY 7: RE-ACTIVATE NORTON STREET

- Action 7.1 Creation of a retail and community 'heart' of Norton Street
- Action 7.2 Relocate community facilities to Norton Street from the Forum
- Action 7.3 Redevelopment of key site(s) along Norton Street
- Action 7.4 Encourage redevelopment of the Forum
- Action 7.5 Allow for additional retail and commercial floorspace to meet future demand
- Action 7.6 Understand the likely retail demand from outside of the local catchment

Third Horizon

STRATEGY 8: INCREASE RESIDENTIAL POPULATION

- Action 8.1 Rezone some of Parramatta Road's commercial and retail floorspace to mixed-use (B4)
- Action 8.2 Allow increased residential development along the southern end of Norton Street

STRATEGY 9: INCREASE PEDESTRIAN ACTIVITY AND AMENITY

Action 9.1 Activation and through connection of laneways running parallel to Parramatta Road

STRATEGY 10: INCENTIVISE DEVELOPMENT THAT CONTRIBUTES TO IMPROVEMENTS ALONG NORTON STREET

Action 10.1 Encourage development through incentives





2 INTRODUCTION

2.1 Context

Norton Street and Parramatta Road have traditionally been important local retail and commercial centres for Leichhardt and the inner-west of Sydney. More recently however, both Norton Street and Parramatta Road have witnessed a decline in their character and trading

Leichhardt Council is currently undertaking a Strategic Sites, Centres and Corridors Project which aims to develop a masterplan for land adjacent to Parramatta Road between Booth Street/M allett Street and Norton Street as well as the southern half of Norton Street As part of this suite of studies, SGS has been engaged to determine the existing capacity and future demand for commercial and retail floorspace within the project area. The findings and recommendations of this study, as well as those of urban design analysis, will be used to inform the land use future of the B2 zoned land within the study area.

2.2 Scope of the study

The Strategic Sites, Centres and Corridors – Parramatta Road Project includes all land within the red boundary in Figure 1 below.

FIGURE 1. STUDY AREA AND CONTEXT



The purpose of the study is to ensure that the planning framework supports the appropriate provision of commercial floorspace in the Strategic Sites, Centres and Corridors project area

The scope of work outlined in the study brief is a sfollows:

- Consider and respond to the relevant State and local plans, policies, studies and strategies
- Identify the trends and long-term demand and supply for business zoned land

Leich handt Commercia land Retail study: Norton Street and Paira matta Road 10



- Determine the existing capacity of the business zoned land within the study area and the likely future demand for commercial (retail, office and business) floorspace
- Consider what uses may need to be accommodated in the study area in the future and their floorspace requirements. This could include broad commentary on the nature of the future commercial floorspace (e.g. large or small floorplates/tenancies) and building configuration (e.g. mixed use or commercial only)
- Make recommendations for changes to the planning framework necessary to facilitate the appropriate provision of commercial floorspace, including consideration of the appropriateness of the 82 Local Centre zoning
- Identify any potential obstacles to realising identified outcomes
- Provide indication as to the length of time that the findings are likely to remain valid

Method

This study has been undertaken with the use of a number of methods that have helped to shape the recommendations outlined. The following steps have been undertaken sequentially in order to build a picture of the study area, the environment in which it operates sequent and the current and future demands for the type of uses that locate in it. These broad steps are:

Market analysis

Provides an overview of macro trends influencing high streets as well as local internal and external factors that have shaped Norton Street and Parramatta Road. It includes a review of demographic changes in the area over time.

It also provides an assessment of local competing centres and other identified centres in inner Sydney as a means to understanding what factors may influence a local centre's success.

Supply-side floorspace analysis

A floorspace audit was undertaken for each of Leichhardt's retail and commercial centres. This identified the type of building and type of business or use currently operating within buildings.

This was undertaken using SGS auditors and is a critical element of the study, it not only provides input into the following step (retail demand modelling) but also provides an insight into the prevailing retail or commercial character of each local centre

Demand-side analysis

A retail model, using the audited floorspace and identified expenditure patterns within the study area's likely catchment was undertaken. This determined the amount of retail floorspace required to satisfy the needs of the catchment and compared it with current provision.

Additionally, a population-drive floorspace demand assessment was done that assessed the likely need of local commercial floorspace against the amount identified in the audit.

Recommendations

Recommendations derived from this process are identified based on a three horizons model to inform. Leichhardt Council in future decision-making.

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3 MARKET BACKGROUND

3.1 High level trends and drivers

Shopping hours

Retail trading hours have relaxed over the past twenty years and shops tend to open on both weekdays and weekends. They are also increasingly trading for longer during the day and into the evening. Tenancies that have longer opening hours also support retail services that operate 'after hours' such as cinemas and restaurants'. This creates a symbiotic relationship and can help to promote and sustain a precinct's evening economy.

Changing profile of supermarkets and discount supermarkets

High street retail strips and enclosed shopping centres are often anchored by a supermarket. These act as a major tenant which smaller specialty stores cluster around. These anchors play a significant role in the overall health of a shopping centre or district. Traditionally, Australia's groceries market has been dominated by Woolworths and Coles. Even today, they account for over 70% of the market.

The past decade has seen the rise of two main competitors – IGA and Aldi. Combined, these two chains account for approximately 21% of market share. IGA has a strong focus on supporting local communities through stocking goods that tailor to community needs as well as by identifying as an active commercial citizen in local communities.

Aldi, the German-born discount supermarket chain, has tripled its market share (3.1% to 11.6%) in the past ten years. Their focus on low-price item promotion of 'home brands' has attracted a number of shoppers who may not have traditionally shopped at discount supermarkets. In NSW and Victoria, 47% of grocery buyers in each state now shop at Aldi in any given four week period.

Where supermarkets tend to service their surrounding population catchment, anecdotally Aldi appears to buck this trend, with people often deliberately shopping at Aldi although it is not their closest supermarket.

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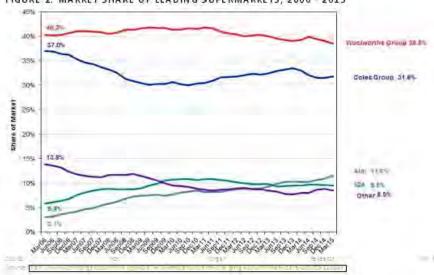


FIGURE 2. MARKET SHARE OF LEADING SUPERMARKETS, 2006 - 2015

Out of centre retailing (bulky goods)

Bulky goods retailing has been performing strongly. The household goods sector, primarily sold through bulky goods retailing, led the growth in retail trade in 2014. During the year to March 2015, household goods retailing grew by 8 percent, well above the overall retail average of 4.5 percent (Colliers, 2015).

The growth in bulky goods retailing has largely been driven by growth in housing construction, and low interest rates. The growth in household goods retailing is anticipated to continue in the short term until house prices and residential construction plateau (Colliers 2015). The Large Format Retail Association anticipates demand for an additional 2.32 million square metres of floorspace from 2014 to 2024 (Large Format Retail Association, 2015). New bulky goods development have been focused on single tenant buildings rather than larger scale homemaker centres (Colliers, 2015).

Rise of regional shopping centres

Historically, retailing has been viewed as a city centre or town centre activity, particular for higher order retailing. However, regional suburban centres have emerged as the preferred destination for many consumers and preferred location for retailers. Some regional suburban centres, such as Bondi Junction, Chatswood and the Macquarie Centre, have recently attracted large international retailers over the city centre. The trend of retail decentralisation is driven by a number of factors including:

- the growth of an affluent and mobile population in suburban areas
- the development of strong corporate chains with fewer ties to a locality and more willingness and need to move shops to areas of demand and opportunity
- changes in the methods of selling which have seen a demand for larger stores and associated parking.

Leich handt Commercia land Retail study Norton Street and Para matta Road 13





Rise of online retailing

The rise of online retailing has also impacted on retail sector growth in Australia. Online retailing now accounts for the equivalent of 7.1 percent of retail spending in bricks and mortar stores in Australia'. Nominated reasons for shopping online are: 'avoid having to go somewhere to shop', 'finding better offers', and the 'flexibility to shop anytime'.

The declining Australian dollar has seen a reduction in international online sales as products have become more expensive. However, it is important to note that 75 percent of online retail is from domestic retailers, and domestic online retail is less likely to be affected by the decline of the Australian dollar.

When this form of retailing first emerged it was initially seen as a direct competitor to store based retailing. As the table below indicates, both forms of retailing possess distinct and different advantages. Many retailers now have both a physical and online presence to maximise potential revenue sources.

TABLE 1. ADVANTAGES OF RETAIL DISTRIBUTION PLATFORMS

Advantages of unline stores	Advantages of physical stores
Broad selection	Personal Service
Richer product innovation	Ability to touck/try products
Customer reviews and tips	Sho pping as an event/experience
Strong referal networks (Twitter, Instagram)	Social interaction and immersion
More time efficient	

This multi-channel retailing could involve a customer finding the store online and deciding to download the store app. The customer then visits the store, tries on and then purchases the product and with a 10% discount coupon from the app. In the process the store receives data about how the customer found the store and their preference. This feeds future research to deliver a more targeted product and service offer. The converse may also be impacting retail stores, with customers examining or trying on goods in store and then sourcing competitive prices and purchasing online.

Most clothing and personal item retailers in particular will need to integrate both online and physical platforms and assess the extent to which spending occurring only online or in-store is relevant. Ultimately the physical store is still necessary, because there are many reasons why stores still facilitate an important point of difference in the business model.

Retail as an experience

Traditional bricks and mortar shopping centre and high street retail has been forced to evolve in the face of online retail growth over the past decade. The price differential model that has driven shopping centre competition since the 1960s has been nullified by online retail where competitive pricing is one of the major competitive advantages. To counter this, bricks and mortar centres are increasingly placing greater emphasis on service-oriented offering and quality to differentiate centres from one another and attract



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custom. The physical act of retailing is therefore becoming increasingly experiential as centres seek to leverage one of the competitive advantages they retain over online retail.

In some instances, retail is id entifying as a leisure activity. Leisure based retailing relies in part on creating an appealing and enjoyable experience to attract and retain consumers. Recent research by CBRE into the retail habits of 18 to 34 year solds has found a growing preference for retail centres with foreign brands and a wide range of high quality food and beverage options (CBRE 2015 a, CBRE 2015 b). The presence of foreign retailers in centres, and an increasing range of food and beverage options are expected to continue over the next decade. The introduction of international retailers has been found to support high street shopping districts and shopping centres in the Sydney and Melbourne CBDs. Food and beverage retailing in particular offers a more desirable and attractive shopping experience as these goods generally cannot be bought online.

In order to compete, centres and larger shopping precincts are needing to develop distinctive identities that set them apart from competitors. These are often based on the cultural characteristics of the surrounding suburb and are often tied to food. In inner Sydney, these centres include Leichhardt (Italian), Chinatown (Chinese), Cabramatta (Vietnamese), Petersham (Portuguese) and Auburn (Turkish). These identities help to encourage consumers to 'linger', thereby increasing levels of activity and opportunities to capture additional expenditure.

Emergence of café culture and eat streets

The café market has grown significantly over the past decade as an appreciation for coffee and the lifestyle associations with it take hold in Australian cities. The café industry is forecast to grow by 7.4% between 2011 and 2016. This has coincided with the rise in alfresco dining and the 'eat street' culture. Sydney's climate in particular is conducive to this culture and witnessed in a number of Sydney's local high street retail precincts, including Willoughby Road (Crows Nest), Crown Street (Surry Hills) and Leichhardt's Norton Street.

The move towards outdoor dining and restaurant-defined retail strips requires a reconfiguration of footpaths and road alignment, a strong focus on urban amenity (including street trees, provision of furniture and pedestrian/diner safety) as well as supportive polices that enable these to take place. A number of high streets throughout inner Sydney as well as in western Sydney centres are increasingly focusing on the pedestrian and diner experience along local retail strips

Unique food centres like The Grounds of Alexandria (The Grounds) and The Fountain are a growing trend in Sydney. Both centres are situated in former industrial lands, repurposing industrial warehouse space into trendy food outlets. These centres focus on the food-retailing experience, as opposed to the traditional offering.

The Grounds in particular, connects urban living with 'fresh-off-the-farm' ideals. The Grounds incorporate vegetable patches and a live farmyard to enhance this experience. There is a growing trend in consumer experience with food production. This might be because there is intrinsic value in knowing the detailed process of production, such as whether the products are organically produced and manufactured. The demographic that this kind of centre attracts are young and affluent professionals. The Fountain offers a similar food retail experience, combining coffee, restaurant and on-site bakery in one location.



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A resurgent CBD and inner city competition

The Sydney CBD has undergone somewhat of a transformation over the past decade. Once considered a predominantly business centre, the introduction of legislation to facilitate small bars in the mid-2000 s has seen a growth in the number of bars, cafes and restaurants in the CBD. The CBD is becoming a desirable location to open new bars.

Additionally, a number of inner city high streets have developed their identity as bar and/or restaurant strips. These include King Street (Newtown), Enmore Road (Enmore), Illawarra Road (Marrickville), Ramsay Street (Haberfield) and New Canterbury Road (Petersham). These precincts have established themselves as cultural and ethnic centres in the same way that Norton Street traditionally presented itself as Sydney's centre for Italian cuisine.

These two factors have increased the dining options within striking distance of Leichhardt and compete for customers where once Norton Street was one of Sydney's primary dining destinations.

Increasing retail rents

The cost of renting retail floor space, coupled with an adequate supply of suitable unit types is a driver of retail mix and location. In the CBD in particular, the increasing prevalence of international brands (such as Uniqlo and Zara) is pushing rents up in prime retail strips such as Pitt Street Mall. [Table 2] identifies the discrepancy between prime retail locations and the CBD. Anecdotally, rents in Pitt Street Mall have been reported as reaching \$15,000/sqm⁻¹. The discrepancy between CBD locations and regional enclosed centres is also stark.

TABLE 2. SYDNEY RETAIL FLOORSPACE NET RENTS (S/SQM)

Pitt Street Ma	Other CBD		Regional enc	losed centres	
Low	High	low	High	Low	High
\$5,000	5 10,000	1,000	\$4,500	5310	560

The outcome of these increasing CBD rents is that it is forcing smaller retailers out of these areas and into other parts of the CBD as well as into surrounding inner-city suburbs (AFR 2015). The comparably low rents in region all shopping centres presents and also attractive alternative.

Music and entertainment precincts

Sydney's live music scene reached its zenith in the 1980s, with major bands such as INXS and Midnight Oil progressing onto a global stage via a number of Sydney venues. Since the 2000s, Sydney has seen a number of live music venues close down. This has been due to a number of factors that have cumulatively impacted on venue viability. These include:

- Competition from other uses to generate revenue in particular pokie machines and live sports screens
- Increased operational costs for smaller venues
- Increased complexity around noise and patron management
- Inner city fexivals are in creasingly taking the place of established venues in providing live music

The live music and theatre industry grew by 0.7% per year between 2011 and 2016. This growth is expected to slow to 2021, to 0.2%. The revenue generated by the industry is heavily influenced by large

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music tours and concerts, with the segment accounting for 34% of the \$1.9bn generated in 2015-16°. As a consequence, large scale concerts held at major venues continue to do well at the expense of established medium-sized venues.

3.2 Market analysis

Changes to employment provide an indication of what industries are growing or declining in an area Between 1996 and 2011, the study area has seen most growth in the Accommodation and Food and Retail industries (Table 3). This is to be expected given the predominantly retail-focused nature of Norton Street and Parramatta Road.

TABLE 3. CHANGES TO EMPLOYMENT IN STUDY AREA (1996-2011)

ANSZIC (1 Digit)	1995	2001	2006	2011	Change (1996-2011)	(2006-2011)
Agriculture, Forestry and Fishing		3		12	1/2	0/3
Mining	1.91	-			n/a	n/a
Manufacturing	1,005	721	479	422	-58%	-124
Electricity, Gas, Water and Waste Services	3	3	27	10	297%	-63%
Construction	247	316	224	255	3%	14%
Wholesale Trade	450	380	334	250	-44%	+25%
Reta il Tra de	931	1, 202	1,014	1,389	49%	37%
Accommodation and Food Services	25 2	393	3 45	496	97%	44%
Transport, Postal and Warehousing	118	136	69	49	-58%	-29%
Information Media and Telecommunications	56	76	164	177	218%	8%
Financial and Insurance Services	142	119	120	93	-35%	-274
Rental, Hiring and Real Estate Services	1,074	689	107	113	-89%	5%
Professiona I. Scientific and Technica I Services	*	-	501	567	11/2	13%
Administrative and Support Services	147	+	110	101	n/a	-9%
Public Administration and Safety	27 2	232	287	378	39%	3 2%
Education and Training	200	362	462	625	213%	35%
Health Care and Social Assistance	537	485	582	792	47%	36%
Arts and Recreation Services	1 29	167	72	98	-24%	37%
Other Services	197	206	255	256	30%	Ote
Inadequately described	51	19	75	103	102%	38%
Not stated		31	7	76	11/2	n/2
TOTAL	5,665	5,509	5, 231	6,262		

Both these sectors did see a decline in employment between 2001 and 2006, however this has been reversed in the five years to 2011.

Leich kandt Commercia land Retail study Norton Street and Parramatta Road 17



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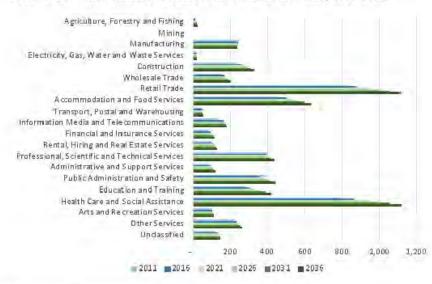


FIGURE 3: FORECAST CHANGES TO EMPLOYMENT IN STUDY AREA, 2011-2036

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Employment is forecast to grow most significantly in these two industries, along with Health Care and Social Assistance (Figure 3)

3.3 Changing profile of the study area

Population growth

The population of both Leichhardt and the study area are forecast to grow by over 30% between 2011 and 2041 (Table 4). These forecasts do not factor in Urban Growth NSW's Parramatta Road Corridor proposal or development in the Bays Precinct.

TABLE 4. POPULATION FORECASTS, 2011 - 2041

	2011	2016	2021	2026	2031	2036	2041	Change 2011-2041	% Change 2011-2041
Study Area	7,289	7,584	8.023	8,459	8,908	9,347	9,739	2,450	34%
Leichardt LGA	55,642	58, 15 2	61,311	64,400	67,543	70,588	73,280	17,638	324

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Changing demographics

Leichhardt has long been considered the centre of Sydney's Italian population and Norton Street its culinary heart. In the past ten years however, the number of people born in Italy has declined from 5.5% to 3.8%. In contrast, the nearby suburb of Haberfield has a much larger Italian community, with 14.6% of its population born in Italy and nearly a quarter of its population having Italian ancestry.

TABLE 5. PERCENTAGE OF POPULATION WITH ITALIAN ANCESTRY, 2001-2011

Indicator	Suburb	2001	2011	
	Leich hard t	5.5%	3.8%	
Country of birth	Ha berfield	19.26	14.6%	
Acres to	Leich handt	11/2	7.8%	
Ancestry	Ha berfield	n/a	24.7%	

While second and third generations of Italian-Australian descendants continue to reside in Sydney and no doubt in the Leichhardt area, consultation with local and longstanding estate agents suggest that the shops owned and run by first generation Italian immigrants rarely continued in the family. As a result, Leichhardt has gradually lost its strong Italian retail and culinary presence. Haberfield's local centre on the Ramsay Street has taken on the role of inner Sydney's Italian culinary heart.

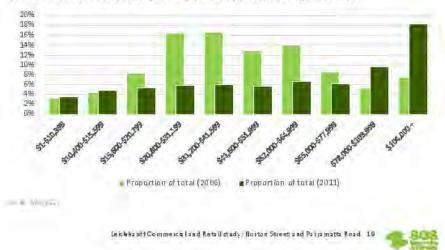
Alongside the cultural change occurring in Leichhardt, across the LGA there has been a change in the professional and educational profile. Between 2001 and 2011, the number of people identified as 'Professionals' or 'Managers' has almost doubled to 62% while the number of people with tertiary education has also markedly increased.

TABLE 6. SNAPSHOT OF LEICHHARDT'S CHANGING DEMOGRAPHIC PROFILE, 2001-2011

Indicator	2001	2011	
Occupation: Percentage of population identify as 'Professionals' or 'Managers'		33,2%	62%
Education: Backelors or Higher degree		33.4%	44.3%

This rise in educational attainment and employment profile correlates with an increase in the proportion of people earning over \$100,000 per year (Figure 4) and a commensurate increase in median property prices across the LGA (Figure 5).

FIGURE 4. TOTAL PERSONAL (GROSS) INCOME, LEICHHARDT, 2006-2011





Residential property market

Leichhardt's inner-city location, proximity to the harbour and a high amenity value has seen property prices increase significantly over the past twenty years (Figure 5). In 2014, the area's median residential sales values were \$1.2 million for a single dwelling and nearly \$800,000 for an apartment.

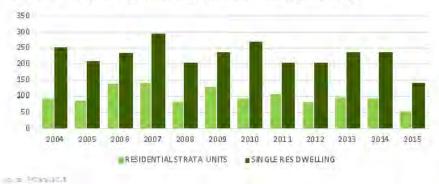
FIGURE 5. MEDIAN RESIDENTIAL SALES VALUES (2040 POSTCODE) (2004-2015)



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Sales numbers have been relatively consistent over the past decade, with single dwelling sales ranging between 200 and 300 per year (Figure 6).

FIGURE 6: RESIDENTIAL SALES VOLUME (2040 POSTCODE) (2004-2015)



Commercial property market

The commercial property market has suffered over the past decade, particularly during the Global Financial Crisis in the late 20 00s. Across Leichhardt, the number of properties sold has ranged from one to twenty two (Figure 7).

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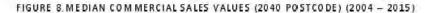


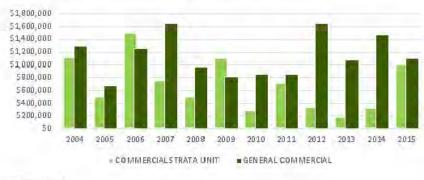


20 15 5 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 COMMERCIAL STRATA UNIT GENERAL COMMERCIAL DOMESTICS

FIGURE 7. COMMERCIAL SALES VOLUME (2040 POSTCODE) (2004 - 2015)

The relatively low number of property transactions per year is reflective of the predominately residential nature of Leichhardt and reflects the volatility in median sales values in the area (Figure 8).





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Events influencing the study area

Leichhardt generally and the Norton Street precinct in particular have been influenced by a number of internal and external factors over the past 100 years Table 7. Some, such as the waves of Italian migration, are a result of national policy and global geopolitics. Others, such as the development of Norton Plaza and the Forum, have been driven by a combination retail trends, local planning conditions and the development market.

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TABLE 7. TIMELINE OF EVENTS INFLUENCING STUDY AREA

Year	Event
1920	Ita lia u migration begins in Austra lia
1946	Establish ment of la Fiamma newspaper to support local Italia a community
19 47	Italian inigration increased rapidly after WWII. Leichhardt becomes heavily influenced by Italian culture
1949	Balmain and Annandale Councils were amalgamated with Leichhardt
1958	Buses replaced trains in Sydney
1975	ManketPlace Leichhardt opens (originally named Leichhardt MarketTown)
1999	Norton Plaza opens
2000	The Italian Forum opens a 12,000sq m site off Norton Street
2002	MarketPlace Leichhardt undergoes a 52.5 million refurbishment with additional care parking, food court and $\Delta \mathbf{k}$
2003	Leichliandt library relocates to the Forum
2013	Adoption of Leichhardt Standard Instrument LEP (2013)
	The small bass legislation was passes in March introducing a new category for a "small bar"
	Annandale Hotel ends live music performances
2014	CBD Lockouts introduced by NSW government
	City of Sydney adopts Live Music and Performance Action Plan
	Sustainable Sydney 203 OStrategic Plan identifies City of Sydney's 10-year Economic Development Strategy
	Inner West Light Rail extension opens in March
	RMS seeks feedback on plan to introduce new clearway along Parramatta Road
2015	UrbanGrowth NSW release draft Parramatta Agad Urban Transformation Strategy (September)
2016	WestConnex-construction on Stages 1 and 2 to start mid 2016

Each of these events, a number of others and the inevitable and gradual evolution that local centres undergo have shaped Norton Street and Parramatta Road's current condition. The proposed revitalisation of the Parramatta Road Corridor by UrbanGrowth NSW will play a big role in the precinct's future.

Changing structure

Some of the events identified in Table 7 have had a significant impact on the function and character of Norton Street. Perhaps the most profound are the twin developments of Norton Plaza and the Forum at the turn of the millennium. The former is a self-contained local shopping centre containing a Coles and a number of other smaller specialty stores. The centre has underground parking and minimal frontage to Norton Street. This situation serves to 'suck' activity that would have traditionally taken place along multiple stores along Norton Street into the self-contained, easily car-accessible centre. This is something seen in high streets across the world. While providing a degree of convenience and accessibility, it often serves to compete with the high street the centre ostensibly sits along (as is the case with Norton Street).

The development of the Forum has had a similar impact. Consultation with local agents suggested that prior to the Forum opening, the supply of restaurants and café along Norton Street seemed in balance with demand. When the Forum opened in 2000, over ten additional restaurants and cafes significantly increased the number of patron covers that Norton Street could accommodate. This effectively created a new restaurant district within the precinct and shifted the night-time economy's centre of gravity away from the traditional restaurants along Norton Street.

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FIGURE 9. STREET VIEW OF NORTON STREET BETWEEN MORTON PLAZA AND FORUM

Norton Street also appears to have suffered from a gradual fracturing of its built form which has contributed to a decline in uniformity and sense of character. Figure 9 provides an example of the varying setbacks and built form typologies that line Norton Street, particularly south of Marion Street. This lack of consistency reduces the strip's amenity and, given the earlier discussion around the importance of experience in bricks and mortar retail, is likely to be a contributor to reduced patronage and increasing vacancies.

The emergence of sub-precincts

The study area's size and linear nature means that it has variances in function and form throughout. These are identified as sub-precincts and the study area has four:

- 1. Norton Street North
- 2. Norton Street South
- 3. Parramatta Road
- 4. Music precinct

Figure 10 identifies the broad range of these, however, in practice, sub-precincts rarely have a clear threshold. There tends to be a distinct centre that provides a sub-region with its identity and less defined characteristics away from this centre.





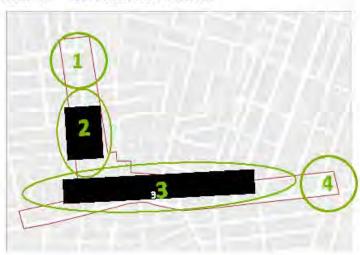


FIGURE 10. STUDY AREA SUB-PRECINCTS

3.4 Comparative inner-Sydney centres

To ascertain which physical characteristics may be hindering Norton Street's trading and amenity, two similar high streets have been examined at a high level – Willoughby Road (Crows Nest) and King Street (Newtown).

Comparative centre: Willoughby Road, Crows Nest

Willough by Road Crows Nest is a restaurant and specialty store-dominated high street on Sydney's lower North Shore. It shares similarities with Norton Street in terms of its scale, length, built form and surrounding demographic profile.

Although it has two supermarkets that anchor its northern and southern ends, these are predominantly standalone shopping centres and do not form part of a larger plaza as with Norton Plaza. Car parking is located behind the major retail strip and requires users to access it via Willoughby Road, rather than the self-contained nature of Norton Plaza.

Aside from a small number of small restaurants under the southernmost supermarket, all food retailing is located along Willoughby Road itself. This provides a sustained degree of activity during the day and evening. North Sydney Council has sought to encourage this by widening footpaths to accommodate outdoor dining and to separate these areas from the road through planting (Figure 11).



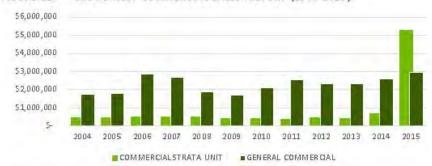


FIGURE 11. WILLOUGHBY ROAD - CROWS NEST



Consultation with local commercial agents suggested that vacancy rates along Willoughby Road are extremely low (less than 5%), when compared with an estimated 30-40% on Norton Street. Aside from a slight dip during the GFC, commercial sales values have remained relatively consistent over the past ten years (Figure 12).

FIGURE 12. CROWS NEST COMMERCIAL SALES HISTORY (2004-2015)



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Comparative centre: King Street, Newtown

King Street in Newtown has established a reputation as one of inner Sydney's most vibrant high streets. It shares many characteristics with Norton Street including a local cinema and small supermarket (IGA), however it has managed to avoid large-floorplate development such as Norton Plaza and the Forum. These tend to disrupt the continuity of retail frontages (one of King Street's major characteristics).

Unlike Willoughby Road, there does not appear to be any notable public realm improvements along its length, save for some work around Newtown Station. It also has high levels of congestion. This, however, suggest why it is successful— it has a significant and sustained amount of passing trade. This is exacerbated by King Street's proximity to the University of Sydney.

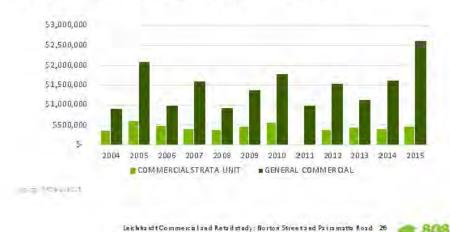
King Street has developed a reputation as an alternative centre with a strong independent retail character. Although the public realm and traffic can be considered a detraction, the fact that it has a strong identity is something that Norton Street can learn from (and indeed once had).

FIGURE 13. KING STREET - NEWTOWN



Newtown has experienced a period of fluctuating sales values similar to Leichhardt. The median sales price for general commercial properties is higher than in Leichhardt and where Leichhardt has seen a downward trend in sales values over the past here years, Newtown has seen an increase, with 2015 providing the highest median sales values in the past ten years (Figure 14).

FIGURE 14. NEWTOWN COMMERCIAL SALES HISTORY (2004-2015)





Floorspace ratios of comparative high streets

A comparison of high streets was undertaken to consider how the study area compares with built form controls - specifically floorspace ratios (FSR). FSR control the amount of floorspace a development is allowed to have

TABLE 8. FLOORSPACE RATIOS OF COMPARABLE INNER-CITY HIGH STREETS

Local centre	LGA	LEP adoption	Applied FSR
Norton Street, Leickhardt	Leich hand t	2013	05 - 1.0
New Canterbury Road Petersham	Marricky ille	2011	2.2
King Street, New town	City of Sydney	2012	1.75 - 2
Military Road, Mosman	Mosman	2012	25
Marrickville Road/Illawarra Road, Marrickville	Marricky ille	2011	25
Willough by Road, Crows Nest	North Sydney	2013	n/a (su bject to Council)
Lane Cove Phys (Burns Bay Road), Lane Cove	Lane Cove	2009	2

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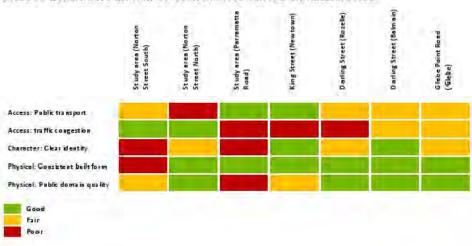
What Table 8 demonstrates is that when compared with similar high streets perceived to be vibrant and successful, the study area has a significantly lower FSR (maximum of 11 compared with 2-2.5:1 in some

Lower FSRs can inhibit redevelopment potential by limiting the feasibility of a development As a consequence, there is less incentive to redevelop and improve the built form character of the centre, particularly on smaller blocks that characterise local centres such as Norton Street. This was in issue identified in consultation with local estate agents.

3.5 Comparison with competing local centres

In order to determine what Norton Street should do to revitalise the current retail and commercial offer, it is important to understand the precinct's constituent characteristics. In particular, this is important in relation to surrounding local centres that compete for similar businesses. Table 9 is a qualitative analysis of a number of nearby local centres that compete with the Norton Street study area for local business

TABLE 9. QUALITATIVE MATRIX OF COMPARATIVE CENTRE CHARACTERSTICS



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This qualitative assessment indicates that compared with other centres and other sub-precincts within the gudy area, the southern part of Norton Street is the least attractive across all criteria, with only its relative lack of traffic congestion being identified as a positive trait. Its lack of consistency, both in terms of identity (or branding) and its built form make it less attractive for businesses and customers.

Norton Street north of Marion Street has the most potential of the study area's sub-precincts. The public domain improvements undertaken by Council, coupled with a consistency of built form along the restaurant strip helps to more strongly define the area's identity.

Parramatta Road has a poor outcome for three criteria; traffic congestion, the strip's identity and public domain quality. The former two are heavily influenced by the arterial nature of Parramatta Road and are difficult to address at a local level without significant structural and functional changes to the carriageway. The latter is complicated by the fact that Parramatta Road bounds two LGAs – Leichhardt and Marrickville.

When compared with local centres near to the study area, it is evidence that each of the subregions individually and the study area collectively fare poorly against the competition. Darling Street is likely to compete most directly for the local population's custom, while King Street has defined itself as a destination high street that attracts custom from across inner city.

3.1 Summary of key points and application to study area

A number of factors, both internal and external, appear to have contributed to Norton Street and Parramatta Road's gradual decline. It is difficult to pinpoint a single factor that has been the major contributor to this demise, however, as discussed below, the development of the Forum and Norton Plaza on Norton Street appear to have been important turning points in the precinct's fortunes.

External factors

The act of shopping has changed

Shopping as a process has evolved over the past decade with the advent of online retailing. Bricks and mortar shopping is relying more on selling the idea of retail as an 'experience' as a point of difference to online retail. Some shopping districts have developed a defining character, such as clustering of complementary retailers, to draw comparison shoppers.

Norton Street's character and retail mix does not engender this experience with its fragmented nature and lack of streetscape amenity. The Parramatta Road section of the precinct has begun to develop a defined identity with the proliferation of bridal gown stores and ancillary retailers.

A fading cultural identity

Leichhardt, and Norton Street in particular, have long been associated with Sydney's Italian community. This identity has gradually declined, due to a mix of factors including a dwindling Italian migrant population, a resurgence in demand for inner city living attracting new people to the area and the rise of Haberfield as Sydney's new Italian centrie.

The fading Italian influence has not been sustained along the once thriving Norton Street. Nor has it been superseded by another identifiable characteristic.

The rise of competitive centres

As Norton Street has declined, nearby centres such as King Street in Newtown and New Canterbury Road in Petersham have established themselves as destination high streets. Additionally, the Sydney CBD has reinvented itself as a food and entertainment destination in the past ten years.

Where Norton Street was once seen as Sydney's 'eat street', the rising popularity of dining out has reinvigorated a number of inner city precincts, in creasing Leichhardt's competition for dining custom. The

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fact that Norton Street has not kept pace with these centres, nor consolidated its character, suggests a low degree of adaptive resilience.

Nearby local centres present a more attractive high street character than Norton Street. This makes them more likely to attract both businesses and customers over Norton Street and its sub-precincts.

The need to reduce congestion along Parramatta Road

Parramatta Road's worsening congestion has necessitated the introduction of permanent clearways. The resulting inability to park outside shops, coupled with the erection of fences to separate the footpath from traffic, has reduced the ability for customers of shops along Parramatta Road to easily park

This has resulted in stretches of Parramatta Road within the study area devoid of pedestrian activity. Shops have suffered and many are vacant or appear informally used for residential use.

Internal factors

The development of the Forum

The Forum simultaneously created an over-supply of restaurants in the precinct and shifted the activity centre of gravity away from Norton Street and into the middle of the block. This separation was exacerbated by the level change between Norton Street and the Forum's restaurant-fringed square as well as the lack of visibility of the square from Norton Street. This reduced the activity along Norton Street and contributed to its demise.

The development of Norton Plaza

The development of Norton Plaza shifted the retail focus away from individual high street shops and into a self-contained shopping centre. The introduction of a large supermarket, coupled with b assement parking and other specialty stores reduced the need for shoppers to venture out onto Norton Street.

A lack of active investment

Norton Street (particularly the southern end) has no cohesive public realmand a patchwork of built form. This contributes to an overall feel of neglect and suggests a lack of investment over time. This is a deterrent for potential retailers, given the previous discussion regarding retail as an experience.

A lack of consistent identity

The study area has distinct sub-precincts. This is particularly evident in Norton Street, where the areas north and south of Marion Street operate as separate parts of the same high street. This in itself is not necessarily a poor outcome, however they should complement each other and attract activity from one to another.

Vacancies are self-perpetuating

As people are said to attract people, vacancies also attract vacancies. Consultation with a local agent suggest that vacancy rates are over 30% in Norton Street. This signifies to potential retail tenants that the area is not trading well and acts as a deterrent to investment. It also deters customers due to both a lack of activity (people attracting people) and a lack of retail options. This in turn drives out existing retailers.







SUPPLY-SIDE ASSESSMENT

4.1. Audit Details and Method

An assessment of retail floorspace supply within the LGA has been conducted to inform the preparation of this report, via a land-use audit conducted by SGS. The audit captured data regarding the supply of floorspace by the Australian and New Zealand Standard Industrial Classification (ANZSIC), along with the rate of vacancies within the audited areas.

It was identified from the Leichhardt LEP 2013 that there were four business zones located within the Leichhardt LGA, being.

- B1 Neighbourhood Centre
- B2 Local Centre
- B4 Mixed Use
- B7 Business Park

These were used to define the extent of the land audit. The audit recorded data for each building identified to be within the business zones. This identified the primary land use for each site (e.g. business, vacant, residential, etc.), the Broad Land-use Categories (BLCs) for each site (see below), the ANZSIC code at the 4 digit level, as well as spatial data pertaining to the location of each site and the amount of floorspace occupied by each use.

The BLCs are groupings of employment land developed by SGS to standardise the results of our land audits. A BLC is assigned to each building which is audited, being allocated based on the typology of the building, rather than the current use occupying the building (i.e. should the current business utilising the building be removed, what kind of other uses would be able to occupy the building without major modification?). A list of BLCs is displayed here:

Heavy Industrial
 Freight and Logistics

Local Service Industrial

- Office

Main Street Retail
 Local Dispersed
 Service Stations

- Regional Health and Education

Vacant Residential
 Vacant Industrial

- Urban Services

Light Industrial
 Business Park

- Big Box Retail

Bulky Goods Retail
 Regional Dispersed

- Local Health and Education

Vacant Office

- Vacant Retail

Vacant Dispersed

A further and full explanation of each BLC is included in the appendices

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4.2 Precinct Profiles

The business zones within the LGA were divided into several precincts in order to collate the resultant data as required. These are as such:

- The Study Area (comprising of Norton St, south of Allen St, and Parramatta Road)
- Norton St North (between and adjacent to William St and Lilyfield Road)
- Booth St, Annandale
- Darling St, Balmain
- Rozelle (being along Darling St and Victoria Rd)
- Leichhardt Marketplace (and surrounds)
- Balmain East, and
- Dispersed business uses

The dispersed business uses are not a single precinct, however this classification is constituted by the various isolated business zones dispersed throughout the LGA, which are either individual sites or groupings of sites which do not have the critical mass to be considered a precinct

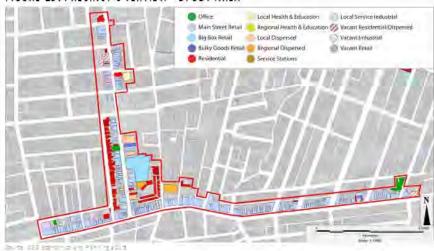
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Study Area

FIGURE 15: PRECINCT O VERVIEW - STUDY AREA



The study area encompasses a large proportion of the Leichhardt LGA's gross business zoned floorspace, being in excess of 194,000m², or 40.9% of the total. The precinct has a spatially varied character, largely due to its size. The sections of the precinct fronting Parramatta Road experience different challenges to Norton Street. Parramatta Road, as a heavily congested arterial roadway, has a marked lack of pedestrian amenity along its entire length. In comparison, Norton Street north of Marion Street has a much higher level of pedestrian amenity, with high levels of pedestrian access and crossing opportunities, lower traffic speeds and volumes and streetscape improvements such as public benches and street trees. The intersection of Norton Street with Marion Street, through the inactive frontages of the Leichhardt Public School, Town Hall and Post Office, along with the Anglican Church, creates a physical separation and perceived distinction between the Northern and Southern ends of Norton St.

The built form along Parramatta Road is comprised predominantly of two storey developments, with shopfronts on the ground floor, and shop-top housing on the second floor.

The BLC that dominates the precinct is undoubtedly the Main Street Retail category, with its prevalence along the entirety of Parramatta Road and Norton Street

TABLE 10: TOP TEN INDUSTRIES - STUDY AREA

Rank	ANZSIC 4 Digit	Floorspace (sqnv)
1	Cafes and Restauran ts	1 4,8 29
2	Pubs, Taverns and Bars	7,650
3	Clothing Retailing	6,605
4	Central Government Administration	5,354
5	Supermarketand Grocery Stores	4,513
6	Hairdressing and Beauty Services	3,789
7.	Furniture Retailing	3,762
8	Other Electrical and Electronic Goods Retailing	3,621
9	Business and Professional Association Services	3,564
10	Other Building Installation Services	3,363

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TABLE 11: FLOORSPACE BY ANZSIC & BLC: STUDY AREA

ANZSIC			3	arc.		Vacant Finorspace	ē
	Count (sqm)	% of NLA		Count (sqm)	% of GFA	Count (sqm)	% of BLC
Agriculture, Forestry and Fishing	(4)	4	Main Street Retail	115,578	59%	14,689	13%
Mining	-	5	Bulky Goods Retail	2,028	1%	1	
Ma nufacturing	5,287	4%	Big Box Retail	7,355	4%	110	15
Electricity, Gas, Water and Waste Services	(3	1	Commercia 10 ffice	6,529	3%	1,413	22.6
Construction	4,738	3%	Business Park	1,294	14	1-1	
W ho lesa le Trad e	4831	316	Local Service Industrial	4,428	26	- 1	
Retail Trade	35,478	24%	Light Industrial	355	0%	-	
Accommodation and Food Services	23 5 21	16%	Local Dispersed	9,147	5%	57.4	6%
Transport, Postaland Warehousing	378		Regional Dispersed	7,709	4%		
Information Media and Telecommunications	1.602	197	Service Stations	+)		-	
Financia (and Insurance Services	1,869	1%	Local Health & Education	2,391	r.	3	
Renta), Hiring and Res Estate Services	1,835	197	Regional Health & Education	21	-	(4)	
Professional, Scientific and Technical Services	9,076	6%	Vacant Retail	1,038	250	1,038	100%
Ad inivistrative and Support Services	1,9 41	1%	Vacant Residential	4,721	24	4,7 21	100%
Public Administration and Safety	5,354	4%	Vacant Industrial	+	100		
Education and Training	778	197	Residentia I	34,037	17%	976	3%
Health Care and Social Assistance	10,675	7%				-	
Arts and Recreation Services	6,386	4%					
Other Services	11,837	8%					
Inadequately described and Not Stated	2	-					
Vacant Floorspace	23 5 21	16%					
Net Letta ble Area (N LA)	149, 208	100%					
Common areas within buildings	2,039						
Residential floorspace	43,006						
Gross Floorspace	194,255			195,610		23,521	129

- At the four digit level, the precinct's main industry is the Cafes and Restaurants classification, occupying 14,829 m² of developed floorspace. This is well clear of the next largest industry, Pubs, Taverns and Bars, which occupies 7,650 m² of floorspace within the precinct.
- At the 1 digit level, retail trade is the most prominent industry, occupying 23.8% of net lettable area (NLA). The Accommodation and Food industry comes in at second place, with 15.8% of the precinct's NLA. This is supported by the prevalence at the four digit level of the Clothing Retailing industry, being the third largest by floor space within the precinct at 6,605 m².
- They acancy rate for the precinct is high, being a total of 23,521 m², or 15.8% of the NLA. The majority of this vacant floorspace is found in the Main Street Retail BLC, being 14,689 m², with an additional 1,038 m² withinthe Vacant Retail BLC (where an entire building is either vacant or under construction). Together, they comprise approximately 66.8% of the vacant floorspace within the precinct, whilst comprising only 59.3% of gross floor area (GFA).

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Norton St North

FIGURE 16: PRECINCT O VERVIEW - NORTON ST NORTH



TABLE 12: TOP TEN INDUSTRIES - NORTON ST NORTH

Ronk	ANZSIC 4 Digit	Floorspace (sqm)
1	Ca fes and Restaurants	1,128
2	Employment Placement and Recruitment Services	702
3	Child Care Services	702
4	Real Estate Services	63
5	Liquor Retailing	574
6	Advertising Services	566
7	Other Personal Services n.e.c.	566
8	Automotive Body, Paintand Interior Repair	538
9	Hardware and Building Supplies Retailing	484
10	Other Allied Health Services	43:

Leich hand t Commercial and Retail study: Norton Street and Paris matta Road 34





TABLE 13: FLOORSPACE BY ANZSIC & BLC: NORTON ST NORTH

ANZSIC			3	uc		Vac Flaors	
	Count (sqm)	% of NLA		Count (sqm)	% of GFA	Count (sq m)	% of BLC
Agriculture, Forestry and Fishing		-	Main Street Retail	6,516	34%	- 29	
Mining	-	- 6	Bulky Goods Retail	48 4	26	-	
Ma nufacturing	+	•	Big Box Retail	+1		4	
Electricity, Gas, Water and Waste Services		1	Commercia 10 ffice	2,038	10%	(2)	
Construction	1	. +	Business Park	+1	-	1-1	
Wholesale Trade		- 4	Local Service Industrial	÷	- 2		
Reta il Trade	1,565	18%	Light Industrial	+		3-1	
Accommodation and Food Services	1,271	14%	Local Dispersed	538	397	- 1	
Transport, Postaland Warehousing			Regional Dispersed	*			
Information Media and Telecommunications			Service Stations	*)-i	
Financia (and Insurance Services	209	24	Local Health & Education	*		3	
Rental, Hiring and Real Estate Services	634	716	Regional Health & Education	7	1,2		
Professional, Scientific and Technical Services	1,261	14%	Vacant Retail	ŧ	3	14	
Ad inivistrative and Support Services	702	8%	Vacant Residentia I	L .	-	10-1	
Public Administration and Safety	(+	4	Vacant Industrial		0.0		
Education and Training	-	- 5	Residentis I	4,271	22.6		
Health Care and Social Assistance	1,5,71	18%					
Arts and Recreation Services	92	15					
OtherServices	1,5 22	17%					
Inadequately described and Not Stated	9	1					
Vacant Flororspace		-					
Net Letta ble Area (N LA)	8,8 27	100%					
Common areas within buildings	54						
Residential floorspace	4,967						
Gross Floorspace	13,847			19,425		-	

- The Norton Street North Precinct has a no dominant single industry at the ANZSIC one digit level. Retail Trade, Health Care and Social Assistance and Other Services all occupy substantial shares of the precinct's floorspace (17.7%, 17.8% and 17.2% respectively). The Accommodation and Food Services and the Professional, Scientific and Technical Services classifications follow close behind, at 14.4% and 14.3% respectively.
- The standout occupier of floor space at the ANZSIC four digit level is the Cafes and Restaurants industry, at 1,128m² of floor space within the precinct.
- There were no vacancies observed within the precinct area at the time of the audit. A desktop audit was carried out for the industrial building situated off Norton Street to the West, which determined that it was likely vacant. The building has been included in the precinct due to its B2 Local Centre zoning, however it has been removed from the calculation of floorspace within the precinct contained above in Table 13 due to the fact that it would skew the floorspace results in its favour (comprising 38.7% of the total floorspace of the precinct) and the fact that it is physically removed from the rest of the precinct.

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Booth St, Annandale

FIGURE 17: PRECINCT O VERVIEW - BOOTH ST, ANNANDALE

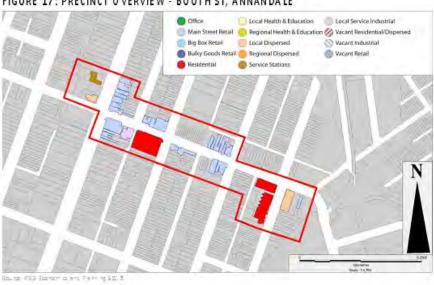


TABLE 14: TOP TEN INDUSTRIES - BOOTH ST, ANNANDALE

Rank	ANZSIC 4 Digit	Floorspace (sqm)
1	Cafes and Restaurants	2,305
2	Supermarket and Grocery Stores	2,191
3	Pubs, Taverns and Bars	1,855
4	Real Estate Services	1,039
5	Clothing Retailing	553
6	Postal Services	523
7	Other Goods Wholess ling n.e.c.	486
8	Specialist Medical Services	413
9	Pharmaceutical, Cosmetic and Toiletry Goods Retailing	391
10	Hairdressing and Beauty Services	366

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TABLE 15: FLOORSPACE BY ANZSIC & BLC: BOOTH ST, ANNANDALE

ANZSIC			Bic		Verant Finorspace		
	Count (sqm)	% of NLA		Count: (sqm)	% of GFA	Count (sqm)	% of BLC
Agriculture, Forestry and Fishing			Main Street Retail	11,585	43%	-	
Mining	. 0		Bulky Goods Retail		-		
Manufacturing	143	1%	Big Box Retail	106	0%	~	
Electricity, Gas, Water and Waste Services	- 8		Commercia 10 ffice			*	
Construction	- 14	-	Business Park	-	7	-	
Wholesale Trade	636	5%	Loca (Service Industria (486	24	17-	
Reta il Trade	4,969	35%	Light Industrial	-	- 3	1	
Accommodation and Food Services	4.481	32%	Local Dispersed	2,012	7%	4	
Transport, Postaland Warehousing	523	4%	Regional Dispersed		-		
Information Media and Telecommunications		+	Service Stations	336	1%	- 9	
Financia land Insurance Services	-	-	Local Health & Education	-	-	-	
Rental, Hiring and Real Estate Services	1,039	7%	Regional Health & Education		- 4	7(-)	
Professional, Scientific and Technical Services	•		Vacant Retail		9	3.	
Ad ministrative and Support Services		-	Vacant Residential	+		1 3	
Public Administration and Safety	-	- 6	Vacant Industria I		- 2	-	
Education and Training			Residentia)	12,360	46%	14	
Health Care and Social Assistance	972	7%					
Arts and Recreation Services	226	21/	1				
OtherServices	1,066	8%					
Inadequately described and Not Stated	,						
Vacant Flororspace	14						
Net Letta ble Area (N LA)	14,055	100%					
Common areas within buildings	3,999						
Residential floorspace	8,831						
Gross Floo rspace	26,885			26,885		-	

- The highest proportion of floorspace within the Booth Street precinct is occupied by the Retail Trade
 industries, which is comprised of 4,969m² of floorspace, or 35% of the precinct's NLA. The main
 component of this floorspace is in the Supermarket and Grocery Stores four digit classification, which
 occupies 2,191m² of floorspace in the precinct.
- The Accommodation and Food Services industries comprise the second largest proportion of floorspace within the Booth St precinct, being 32% of the NLA within the precinct. At the four digit level, Cafés and Restaurants is the largest industry, occupying 2,305m², and Pubs, Taverns and Bars the third largest, with 1,855m² of floorspace.
- The precinct has a slightly reduced diversity when compared to the larger precincts, with the Retail Trade and the Accommodation and Food Services industries occupying 66% of the NLA.
- The precinct had no observable vacancies at the time of the audit.

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Darling St, Balmain

FIGURE 18: PRECINCT O VERVIEW - DARLING ST, BALMAIN



TABLE 16: TOP TEN INDUSTRIES - DARLING ST, BALMAIN

Rank	ANZSIC 4 Digit	Floorspace (sqm)
1	Cafes and Restaurants	7,141
2	Pubs, Taverns and Bars	6,070
3	Clothing Retailing	3,749
4	Hairdressing and Beauty Services	2,951
5	Justice	2, 469
6	Ban king	2,061
7	Supermarketand Grocery Stores	1,714
8	Business and Professional Association Services	1,571
9	Wired Telecommunications Network Operation	1,511
10	Rea I Esta te Services	1,394

Leich hand t Commercia land Retail study: Norton Street and Parra matta Road 38





TABLE 17: FLOORSPACE BY ANZSIC & BLC: DARLING ST. BALMAIN

ANZSIC			BLC			Vecant Finorspace		
	Count (sqm)	% of NLA		Count: (sqm)	% of GFA	Count (sqm)	% of BLC	
Agriculture, Forestry and Fishing		- 4	Main Street Retail	52,483	69%	3,364	6	
Mining			Bulky Goods Retail	į.	-	-		
Manufacturing	214	0%	Big Box Retail	1,532	26	~		
Electricity, Gas, Water and Waste Services	- 4		Commercia 10 ffice	4,736	6%	209	4	
Construction	168	0%	Business Park	-		-		
Wholesale Trade	442	1%	Loca Service Industria I	4	4	4		
Reta il Trade	11.429	21%	Light Industrial	-	- 2			
Accommodation and Food Services	13,693	25%	Local Dispersed	7,469	10%	124	2	
Transport, Postaland Warehousing	475	1%	Regional Dispersed					
Information Media and Telecommunications	1,7 28	3%	Service Stations	(e)		34		
Financia land Insurance Services	2356	496	Loca (Health & Education	1,781	24)-/		
Rental, Hiring and Real Estate Services	1,696	3%	Regional Health & Education	- ÷ (- 4	76-0		
Professional, Scientific and Technical Services	2,569	5%	Vacant Retail	2,017	3%	1,877	93	
Ad ministrative and Support Services	732	1%	Vacant Residential			-		
Public Administration and Safety	4368	8%	Vacant Industria I			-		
Education and Training			Residential	5,797	8%	4,1		
Health Care and Social Assistance	2507	5%						
Arts and Recreation Services	851	21/6						
Other Services	5,739	11%						
Inadequately described and Not Stated	,	-						
Vacant Flororspace	5575	10%						
Net Letta ble Area (N LA)	54,543	100%						
Common areas within buildings	3,739							
Residential floorspace	17.533							
Gross Floo rapace	75,815			75,815		5,575	7%	

- At the four digit level, the two industries which occupy the greatest floorspace within the Darling St precinct are Cafés and Restaurants, and Pubs, Taverns and Bars, occupying 7,141 m² and 6,070 m² each. As a result, the Accommodation and Food Services industries occupy the largest share of floorspace at the one digit level, being 14,693 m², or 25% of the NLA within the precinct
- As has been seen in the Study Area precinct, the Clothing Retailing industry is the third largest industry
 behind the two major hospitality land uses at the four digit level, occupying 3,749 m² of floorspace
 within the precinct. At the one digit level, the Retail Trade industries occupy 21% of the floorspace
 within the precinct, at a total of 11,429 m².
- They aconcy rate within the precinct sits at 10% of the NLA. Within this, 94% is found within the Main Street Retail and Vacant retail BLCs

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Rozelle

FIGURE 19: PRECINCT O VERVIEW - ROZELLE

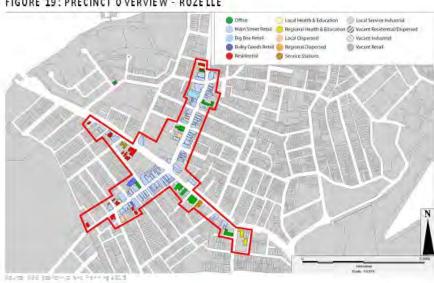


TABLE 18: TOP TEN INDUSTRIES - ROZELLE

Rank	ANZSIC 4 Digit	Floor space (sqm)
1	Pulbs, Taverns and Bars	6,254
2	Cafes and Restaurants	5,112
3	Hairdressing and Beauty Services	3,076
4	Physiotherapy Services	2,998
5	Arts Education	2,610
6	Adult, Community and Other Education n.e.c.	2,185
7	Clothing Retailing	1,917
8	Health and Fitness Centres and Gymnasia Operation	1,916
9	O ther Spec is lised Food Retailing	1,889
10	Fuel Retailing	1,712

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TABLE 19: FLOORSPACE BY ANZSIC & BLC: ROZELLE

ANZSIC			BLC			Verant Finerspace	
	Count (sqm)	% of NLA		Count: (sqm)	% of GFA	Count (sqm)	% of BLC
Agriculture, Forestry and Fishing	- 2	- 6	Main Street Retail	57,594	69%	4,720	85
Mining	79	-	Bulky Goods Retail	÷		4.	
Manufacturing	287	0%	Big Box Retail		7	-	
Electricity, Gas, Water and Waste Services	- 4		Commercia 10 ffice	11,245	14%	2,479	22
Construction	569	1%	Business Park	-		-	
Wholesale Trade	205	0%	Loca (Service Industria I	775	re	-	
Reta il Trade	13,8 11	221/	Light Industrial	-	- 2	1	
Accommodation and Food Services	12836	21%	Local Dispersed	1,072	197	4	
Transport, Postaland Warehousing	406	1%	Regional Dispersed		- 3		
Information Media and Telecommunications		- 1-	Service Stations	1,712	26	9.	
Financial and Insurance Services	1,045	21/	Local Health & Education	400	or	(6)	
Rental, Hiring and Real Estate Services	922	1%	Regional Health & Education	2,185	316	300	
Professional, Scientific and Technical Services	3,502	6%	Vacant Retail	89Z	2%	89 2	100
Administrative and Support Services	495	1%	Vacant Residential		(+)		
Public Administration and Safety	14	- 4	Vacant Industria I		- 1	-	
Education and Training	4,795	8%	Residentia)	7,278	9%	1,220	17
Health Care and Social Assistance	5,681	9%					
Arts and Recreation Services	3,8 25	6%					
Other Services	3925	6%					
Inadequately described and Not Stated	,						
Vacant Flororspace	9,311	15%					
Net Letta ble Area (N LA)	51,515	100%					
Common areas within buildings	1,426						
Residential floorspace	20,112						
Gross Floo rapace	83,153		1	83,153		9311	115

- At the four digit level, the two industries which occupy the greatest floorspace within the Darling St
 precinct are Cafés and Restaurants, and Pubs, Taverns and Bars, occupying 6,254 m² and 5,112 m²
 respectively. The Accommodation and Food Services industries occupy the second largest amount of
 floorspace at the ANZSIC one digit level, being a 21% of the NLA within the precinct.
- The Retail Trade industries occupy the highest proportion of floorspace at the one digit level, being 13,811m², or 22% of the NLA
- The is a comparatively large amount of floorspace within the Education and Training industries, being 4,795m², or 8% of the NLA within the precinct. This is due to the presence of several tertiary education facilities within the precinct, namely the Academy of Music and Performing Arts and the Sydney Community College on Victoria Road. The corresponding four digit codes for both of these businesses rank as the fifth and sixth highest by floorspace within the precinct.
- There is a vacancy rate of 15% of the NLA within the precinct. This is divided between the Main Street
 Retail and Vacant Retail BLCs at a combined proportion of 60% of the vacant floorspace, along with
 the Commercial Office BLC, which comprises 27% of the audited vacant floorspace within the precinct

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Leichhardt Marketplace

FIGURE 20: PRECINCT O VERVIEW - LEICHHARDT MARKETPLACE



TABLE 20: TOP TEN INDUSTRIES - LEICHHARDT MARKETPLACE

Rank	ANZSIC 4 Digit	Floorspace (sqm)
1	Supermarketand Grocery Stores	4,265
2	Department Stores	3,367
3	Cafes and Restaurants	2,000
4	Clothing Retailing	1,54
5	Fruit and Vegetable Retailing	1,41
6	Pubs, Taverns and Bars	1,238
7	Hairdressing and Beauty Services	96
8	Takeaway Food Services	92
9	Other Store-Based Retailing n.e.c.	61
10	Houseware Retailing	560

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TABLE 21: FLOORSPACE BY ANZSIC & BLC: LEICHHARDT MARKETPLACE

ANZSIC			BIC			Vecant Finorspace	
	Count (sqm)	% of NLA		Count (sqm)	% of GFA	Count (sqm)	% of BLC
Agriculture, Forestry and Fishing		- 6	Main Street Retail	9,304	34%	47.7	5%
Min ing	9		Bulky Goods Retail	÷	-	-	
Manufacturing	173	157	Big Box Retail	17,310	63%	1,252	7%
Electricity, Gas, Water and Waste Services	4		Commercia I Office		9	14	
Construction		-	Business Park	-	-	-	
Wholesale Trade	537	2%	Loca Service Industria I	4	4	-	
Reta il Tra de	13,876	59%	Light Industrial	-	1	1	
Accommodation and Food Services	4.167	18%	Local Dispersed	-		-	
Transport, Postaland Warehousing			Regional Dispersed				
Information Media and Telecommunications			Service Stations			- 9	
Financial and Insurance Services	506	24	Loca (Health & Education	-	- 4	5-1	
Rental, Hiring and Real Estate Services	.81		Regional Health & Education			30-2	
Professional, Scientific and Technical Services	76		Vacant Retail		9	3.	
Ad ministrative and Support Services	47	0%	Vacant Residential	+		3	
Public Administration and Safety	1.	- 4	Vacant Industria I		- 2		
Education and Training			Residentia)	821	31/	100	
Health Care and Social Assistance	858	4%					
Arts and Recreation Services	551	2%					
Other Services	1,125	5%					
Inadequately described and Not Stated	7.						
Vacant Flororspace	1,7 29	7%					
Net Letta ble Area (N LA)	23,5 49	100%					
Common areas within buildings	134						
Residential floorspace	3,652						
Gross Floo rspace	27,435			27,435		1,729	6%

- The Retail Trade industries dominate the provision of floorspace within the Leichhardt Marketplace precinct, comprising 13,876m² of total floorspace, or 59% of the NLA. At the more detailed four digit level, Supermarket and Grocery Stores have the largest share of floorspace, comprising 4,265 m², closely followed by department stores, being 3,367m².
- Accommodation and Food Services industries take the second highest proportion of floorspace, with 4,167m², or18% of NLA within the precinct. Cafes and Restaurants occupy 1,543m² within the precinct and Pubs, Taverns and Bars occupy 1,238m² within the precinct.
- Vacancy rates are at 7% of the precinct's NLA. Of this, 72% is located within the Marketplace itself, and 28% is located in the surrounding areas.

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Balmain East

FIGURE 21: PRECINCT O VERVIEW - BALMAIN EAST



TABLE 22: TOP TEN INDUSTRIES - BALMAIN EAST

Rank	ANZSIC 4 Digit	Floor space (sqm)
1	Professional Photographic Services	1,719
2	Other Specialised Design Services	1,001
3	Pubs, Taverns and Bars	891
4	Engineering Design and Engineering Consulting Services	859
5	Architectura I Servic es	712
6	Lega I Services	286
7	Corporate Head Office Management Services	286
8	General Insurance	286
9	Health and Fitness Centres and Gymnasia Operation	28 4
10	Advertising Services	284

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TABLE 23: FLOORSPACE BY ANZSIC & BLC: BALMAIN EAST

ANZSIC			BLC			Verant Finerspa	ice
	Count (sqm)	% of NLA		Count (sqm)	% of GFA	Count (sqm)	% of BLC
Agriculture, Forestry and Fishing	- 2	- 6	Main Street Retail	4,841	31%	85	24
Min ing		- 5-	Bulky Goods Retail	÷		4.	-
Manufacturing	ė	7	Big Box Retail		- 7	~	
Electricity, Gas, Water and Waste Services			Commercia 10 ffice	6,912	44%	*	
Construction	96	1%	Business Park			-	
Wholesale Trade	190	2%	Loca Service Industria I	4	4	-	
Reta il Tra de	650	756	Light Industrial	-	1	1	
Accommodation and Food Services	1,151	12%	Local Dispersed	-	-	4	
Transport, Postaland Warehousing			Regional Dispersed			-	
Information Media and Telecommunications	284	3%	Service Stations			- 8	
Financial and Insurance Services	286	3%	Local Health & Education	-	2	1-1	
Rental, Hiring and Real Estate Services			Regional Health & Education		- 4	7(-)	
Professional, Scientific and Technical Services	5,376	55%	Vacant Retail			3.	
Ad ministrative and Support Services	318	3%	Vacant Residential	+)			
Public Administration and Safety		- 1	Vacant Industria I		- 1	-	
Education and Training		-	Residential	3,986	25%	1	
Health Care and Social Assistance	367	4%					
Arts and Recreation Services	511	5%					
Other Services	473	5%					
Inadequately described and Not Stated	,						
Vacant Flororspace	85	1%					
Net Letta ble Area (N LA)	9,786	100%					
Common areas within buildings	199						
Residential floorspace	5,755						
Gross Floorspace	15,740			15,740		85	15

- The Balmain East precinct is dominated by the Professional, Scientific and Technical Services industries, which occupies 5,376m² of floorspace, or 55% of the NLA in the precinct. At the ANZSI Cfour digit level, Professional photographic Services and Other Specialised Design Services are the two largest industries by floorspace, followed by an array of other industries which fall within the Professional, Scientific and Technical Services one digit classification.
- The Accommodation and Food Services industries occupies the second highest amount of floorspace within the precinct, at 1,151 m² or 12% of the NLA. The Pubs, Taverns and Bars classification rates as the third largest industry at the four digit level, occupying 891 m² of floorspace, featuring as the only industry at the four digit level within the top ten for the precinct which does not fall in to the Professional, Technical and Scientific Services industries
- The precinct has a very low rate of vacancies, at only 85 m² or 1% of the precinct total

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Dispersed Business Activities

FIGURE 22: PRECINCT O VERVIEW - DISPERSED BUSINESS ACTIVITIES



TABLE 24: TOP TEN INDUSTRIES - DISPERSED BUSINESS ACTIVITIES

Rank	ANZSIC 4 Digit	Floorspace (sqm)
1	Floor Coverings Retailing	1,206
2	Pubs, Taverns and Bars	736
3	Accom modation	552
4	O ther Store-Based Retailing n.e.c.	428
5	Other Electrical and Electronic Goods Retailing	377
6	Pharmaceutical, Cosmetic and Toiletry Goods Retailing	377
7	Passenger Car Rental and Hiring	311
8	Liquorand Tobacco Product Wholesa ling	298
9	Other Health Care Services n.e.c.	293
10	Financial Asset Investing	217

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TABLE 25: FLOORSPACE BY ANZSIC & BLC: DISPERSED BUSINESS ACTIVITIES

ANZSIC						ant space	
	Count (sqm)	% of NLA		Count (sqm)	% of GFA	Count (sqm)	% of BLC
Agriculture, Forestry and Fishing		-4	Main Street Retail	6,747	21%	-	
Min ing		- 5-	Bulky Goods Retail	1,212	4%		
Manufacturing	ė	7	Big Box Retail	2,693	8%	~	
Electricity, Gas, Water and Waste Services	- 8		Commercia 10 ffice	423	1%	14	
Construction	552	6%	Business Park	+		-	
Wholesale Trade	866	10%	Loca Service Industria I	9	- 4	4	
Reta il Tra de	6,009	69%	Light Industrial		- 2	1	
Accommodation and Food Services	1,873	221/	Local Dispersed	44	0%	-	
Transport, Postaland Warehousing		-	Regional Dispersed			-	
Information Media and Telecommunications	231	3%	Service Stations	. +		391	-
Financial and Insurance Services	3	-	Local Health & Education	-	- 2	-	
Rental, Hiring and Real Estate Services			Regional Health & Education	= -0	- 4	37-9	
Professional, Scientific and Technical Services	735	9%	Vacant Retail			-	
Administrative and Support Services		-	Vacant Residential	1,239	4%	1.239	100%
Public Administration and Safety	-		Vacant Industria I			-	
Education and Training			Residentia)	19,881	62%	4.	
Health Care and Social Assistance	689	8%					
Arts and Recreation Services		-					
Other Services	933	11%					
Inadequately described and Not Stated							
Vacant Flororspace	1,239	14%					
Net Letta ble Area (N LA)	3,5 48	100%					
Common areas within buildings	76						
Residential floorspace	19,036					1	
Gross Floo rapace	32,238			32,238		1,239	49

- The out of precinct business zones are dominated by the retail trade classification, which holds 47% of the NLA. The Accommodation and Food Services industries represents the second largest amount of floorspace, at 1,873m² or 22% of the NLA.
- There is a high proportion of vacant floorspace within the precinct, however this is due to several
 large floorplate buildings which are under construction, relative to the total amount of lettable space
 within the Dispersed Business Activities across the LGA.

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Summary of findings

Hospitality is the dominant industry cluster throughout the LGA

In all of the major local centres hospitality (restaurants/cafes/pubs/bars) is the dominant industry type in terms of floorspace, with the exception of Leichhardt Marketplace and Balmain East. The former is geared towards supermarket and grocery floorspace and the later niche commercial industries such as photographic studios.

Observed vacancy rates vary across retail precincts

Different precincts have different roles, are different sizes and different built forms. As a consequence the observed rates of vacancy vary. Given that the centres are all local in nature and the surrounding demographic is relatively similar, this variation is wide, ranging from zero to 16%.

High vacancy rates in the study are a

The study area has the highest observed vacancy rate, at almost 16%. The reasons for this are discussed in greater detail in Chapter $\boxed{2.1}$ however the size of the precinct and large frontage to the busy Parramatta Road likely skew these results.

Vacancy around shopping centres is lower

Interestingly, the centre that competes with Norton Street most directly – Leichhardt Marketplace – has an observed vacancy rate of less than half of Norton Street (7%).

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5 DEMAND-SIDE ASSESSMENT

5.1 Norton Street main retail trade area

Retail systems within established urban areas are complex with significant flows travelling in and out of the system. However, a broader trade area has been defined for the study area to understand the magnitude of expenditure demand and growth most likely to impact on the centres within the study area.

Figure 23 below shows the defined trade area. It includes the majority of Leichhardt LGA, extending to Lilyfield in the north, Annandale to the west bound by Booth Street, Leichhardt to the east bound by Hawthorne Canal, Stanmore to the south bounded by the heavy rail line.

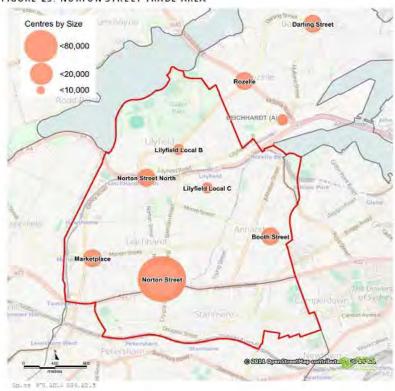


FIGURE 23. NORTON STREET TRADE AREA

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Table 26 below shows the current retail floorspace available within the main trade area it shows a concentration of supermarket and specialty shops are within three centres; Norton Street, Leichhardt Marketplace and Booth Street. There is a significant amount of floorspace within Norton Street dedicated to speciality household goods, clothing, other and hospitality goods. As there is no bulky retail within Norton Street, it is likely these speciality stores have made up this shortage.

TABLE 26. CURRENT RETAIL FLOORSPACEIN NORTON STREET TRADE AREA

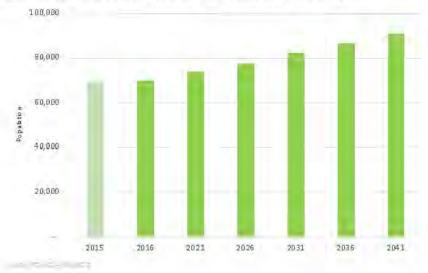
Centre	Supermarkets	Department Stores	Specialty (Food)	Specialty (Hhid Goods)	Specialty (Clothing)	Specialty (Other)	Hospitality
Norton Street (study a rea)	4,626 m²	Om ³	8.372m ²	17,097 m ²	11,108 m ¹	14,58 4m²	23,183 m ²
Norton St Horth	Om ²	Om ²	574m²	Om²	283 m ³	708 m²	1,128 m ²
Booth St	2.191m ²	Om ²	980m²	Om ²	637 m ³	1,925 m ²	4,160m ²
Leichhard t Marketplace	4,386 m ³	3,367 m ²	3,278 m ²	718 m ²	2,010m ¹	1,504m²	3,247 m ²
Lilyfield Local B	Om ³	Om ³	85 m ³	194 m ²	297 m ²	579 m ²	1,459 m ²
Lilyfield Loca IC	736 m³	Om ²	Om²	O m²	311m ¹	140m²	124m²
Leichardt Local East	Om ³	Qm²	130m ²	Om ¹	261m ²	130m²	Qm²
Norton St South	201 m ²	Qm ²	393m²	90 m²	Om ¹	Omt	308 m²

Projected population of the Norton Street trade area

One of the main drivers of retail demand is population growth. The population of the trade area is expected to increase by approximately 13,000 residents by 2031. By 2041, the trade area is expected to be home to around 90,800 residents

Figure 24 presents the current population and projected population growth for the Norton Street retail trade area

FIGURE 24. PROJECTED POPULATION OF MAIN TRADE AREA: 2015-2041



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5.1 Retail expenditure forecasts

The following sections estimates the underlying demand expenditure. This is completed in a number of steps:

- The total residential expenditure 'pool' is calculated based on the total population within the main trade area and analysis of annual per capita spend data.
- Adjustments are made to account for the growth in online expenditure.
- Adjustments are made to account for workers within the retail trade area
- Expenditure is then compared to local floorspace and turnover estimates to understand likely NET flow of expenditure in/out of the trade area.

Total retail expenditure forecast

Current retail expenditure per capita is based on Market Info expenditure by commodity group data. For the main retail trade area data was collected for each Statistical Area 1s (SA1). The table below shows the per capita expenditure by commodity group for the base year (2011/12) for the Norton street trade area and comparator areas.

This demonstrates that residents within the main trade area have a relatively lower average spend compared to the Greater Sydney average. However, residents do spend more than the average person within Greater Sydney on restaurants, furniture, electronics and personal retailing

TABLE 27. ANNUAL PER CAPITA SPEND, (5) 2011/12

	Leichhardt Trade Area											
	ş	% diff from Gr Syd	Leichhardt LGA	Central Sub region	Greater Sydney							
Food /Groceries	52861	75%	\$3,900	\$3,900	\$3,800							
Pharma	\$575	724	5900	\$800	\$8 00							
To bacco/Bottles kops	5898	87%	51,400	\$1.200	\$1,100							
Rests uran ts/Cafes/Taleaway	51.850	103%	53 100	\$2,400	\$1,800							
Clothing/Shoes	51.126	94%	\$1,500	\$1500	\$1,200							
Furniture/Whitegoods/Manchester/HomeDec	\$1,200	150%	51,000	\$1,000	\$8 00							
Electron ic	\$1,209	101%	\$1,500	\$1,400	\$1,200							
Newsagent/Lotto	5338	23%	52,200	\$1,800	\$1,500							
Handware/Gardening	\$455	76%	5 400	\$500	\$6.00							
Personal	59 47	237%	\$500	5 400	5400							
Total Retail Spend	\$11,460	87%	\$16,400	\$14,900	\$13,100							

These small area expenditure estimates are projected forward to 2031 using data from the ABS Retail Trade series for NSW. These per capita expenditure forecasts are in real terms (exclude inflation), and assume increases in real consumption.

Growth rates for individual commodity groups have then been applied to the Market Info data by SA1 in the base year in order to generate projections of future per capita expenditure. This assumes that the Marketinfo spatial distribution of expenditure remains fixed over time.

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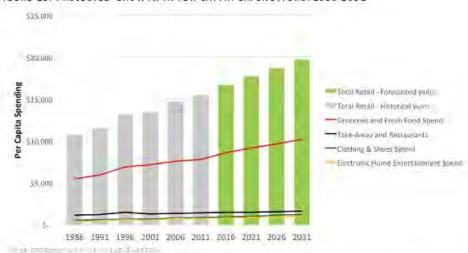


FIGURE 25. PROJECTED GROWTH IN PER CAPITA EXPENDITURE: 1986-2031

Per capita forecasts are then converted to total resident expenditure forecasts using Bur eau of Transport Statistics (BTS) forecasts by Travel Zones (TZ) in the defined trading area. A summary of this total expenditure pool is presented in Table 28.

TABLE 28. TOTAL RETAIL EXPENDITURE BY COMMODITY (\$M), TRADE AREA

	2015	2021	2031
Population	69,323	73,611	82,153
Food /G to ceries	5210	\$240	\$294
Pha rma	\$40	5 46	557
To bacco/Bottleshops	\$56	\$59	564
Restaurants/Cafes/Taleaway	\$130	\$145	5171
Clothing/Shoes	\$84	598	5123
Furniture/Whitegoods/Manchester/HomeDec	580	593	5118
Electron ic	\$87	\$102	5129
Newsagent/Lotto	\$15	511	. 55
Handware/Gardening	531	536	5 46
Persona I	\$65	\$71	581
Total Retail Spend	\$797	\$900	\$1,087

Accounting for the rise of online retail

Not all expenditure will be retained in the catchment area, as some retail spending will be captured online. So has sought to estimate the 'leaked' expenditure based on research from the Productivity Commission. Solven uncertainty about the future, SGS has not sought to estimate future trends in online retail. Rather, it has been assumed that 'leaked' shares remain fixed at the 2011 level.

Figure 26 shows the estimated shares by commodity group. Where possible, percentages for individual commodity groups have been sourced from the Productivity Commission report. Perishable commodities are assumed to lose a negligible share of turnover to online retailing. For other non-perishable

Leich frand f Commercia land Retail study Norton Street and Parramatta Road 52



Pladnotinity Commission. Economis Structure and Performance of the Enstralar Petail Industry. Hovember 2011.



commodities, the overall online share of retail sales has been applied. It has been assumed that all online retailing expenditure is sourced from outside the catchment area.

FIGURE 26. ONLINE RETAIL SHARES BY COMMODITY GROUP

Net escape/capture of expenditure

Due to the close proximity of other centres such as Birkenhead Point (outlet department store), Burwood Westfield and the CBD, it is likely a portion of retail expenditure will be spent outside of the study area. For example, limited department store offering within the main trade area will result in residents seeking other centres to satisfy their needs.

Total expenditure for retail trade area is compared to the current provision of floorspace and associated estimated retail turnover <u>Table 29</u> and <u>Table 30</u> present the net escape/capture of expenditure across all the floorspace within the study area

TABLE 29. RETAINED RETAIL EXPENDITURE BY COMMODITY TYPE (SM), 2015

Commodity	Total Expanditure from study area	Total Turnover in study area	NetEscape/Copture
Food /G to ce ries	5210	\$167	79%
Pharmaceutical goods	\$40	524	61%
To bacco/Bottle sliops	556	544	78%
Resta gran ts/Cafes/Ta keaway	\$130	5218	168%
Clothing/Shoes	584	590	107%
Persona I	\$65	538	58%
Furniture/White goods/Manchester	\$80	529	36%
Electron ics	587	524	27%
Handware/Gardening	531	523	74%
Newsage nt/Lotto	515	512	8 4%
Total	\$797	\$668	84%

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TABLE 30 RETAINED RETAIL EXPENDITURE BY STORE TYPE (\$M), 2015

Commodity	Total Expenditure from study area	Total Turn over in study area	NetEscape/Capture
Superma riets	\$151	\$133	88%
Department Stores	\$56	\$10	18%
Large Format Retail	\$73	\$0	0%
Specialty (food)	\$138	\$90	65%
Specialty (Household Goods)	\$69	\$45	65%
Specialty (Clothing)	\$58	574	128%
Specialty (Other)	5121	598	81%
Hospita lity	5130	\$218	168%
Total	\$797	\$668	84%

The current model estimates approximately 16 per cent expenditure will be spent elsewhere and approximately 668 million dollars will be spent within the study area.

5.3 Current retail demand

Projected retail expenditure for the study area is then aligned to current retail floor space to estimate the future retail floor space demand for Norton Street and across the study area.

Summary of retail floors pace demand

Table 31 presents a summary of the overall retail provision gap across the study area. The retained expenditure is aligned to different store types using a gravitational mechanism to derive underlying demand for the study area. Table 31 shows the underlying floorspace demand based on retained expenditure in the study area.

TABLE 31 SUMMARY OF UNDERLYING FLOORSPACE REQUIREMENTS IN TRADE AREA

	Hospitality	Specialty (Other)	Specialty (H'hold Goods)	Specialty (Clothing)	Specialty (Food)	Super- markets	Dept. Stores	Total
Estimated	Turnovers within	study area(\$1	M)			-		
2015	\$218.0	\$97.7	545.2	574.4	589.6	\$133.3	\$10.1	56683
Retained	Expenditure distri	buted by ston	e type (\$M)					
2015	\$130.0	516 4.2	\$349	\$53.4	\$143.1	\$131.8	\$11.0	\$6683
2021	\$145.2	\$185.8	\$45.2	5649	5169.9	\$144.1	\$6.7	57618
2031	\$171.2	\$217.2	\$56.9	\$77.5	\$198.6	\$168.9	\$8.3	5898.7
Current fil	oorspace (audited	supply) (sqm)					
2015	33,609	19,570	18,099	14,907	13,812	12,140	3,367	115,504
Underlyin	g floorspace dem	and (what cur	rent expenditu	re requires) (sq	m)			
2015	20, 230	33,480	14,020	10.990	22,020	12,140	3,660	116,540
2021	22,470	37,570	18,160	13,300	26,140	13, 220	2, 230	133,090
2031	26,500	43,870	22,850	15,790	30,540	15,470	2,760	157,780
Hoorspac	e surplus/gap (su	pply – demand	d) (sqm)					
2015	13.369	-13,898	4,038	3,887	-8,228	-11	-303	-1,145
2021	11,129	-17,978	-112	1,607	-12,306	-1,081	1.137	-17,605
2031	7,109	-24,338	-4,742	-9 03	-16,768	-3,311	597	-42,355

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Centres demand analysis

At a centre level, floorspace demand is compared with current supply to identify gaps and surpluses in retail provision. Table 32 below shows the difference between current supply and demand at base year (2015).

TABLE 32 FLOORSPACE PROVISION GAP / SURPLUS 2015 (SQM) IN TRADE AREA

	Hospitality	Specialty (Other)	Specialty (H'hold Goods)	Specialty (Clothing	Specialty (Food)	Super- markets	Dept. Stores	Total
Norton Street (study a rea)	9,383	-9,876	3,897	3,148	-4.968	66	*	1,650
Leichhard t Marketplace	1,307	-1.016	158	570	-1,952	56	-303	-1,181
Booth St	1,550	-1,655		57	-590	-89	14.	-727
Norton St North	418	-602		33	-336	141	1-	- 487
Lilyfield Local B	549	-511	-6	17	-55	141	-	-6
Lilyfield Local C	44	-130	×	31	1	-34		-88
Norton St South	118	-	-10	41	-237	-9		- 138
Leichardt Local East		-110		31	-90			- 168
Total	13,369	-13,898	4,038	3,887	-8,228	-11	-303	-1,143

5.4 Future retail demand

While there is a small surplus in total retail floorspace within the study area identified in 2015, it is important that future demand be considered. [Table 33] identifies the likely retail floorspace demand in 2031, using the BTS population figures. This indicates that the study area will face a shortage of retail floorspace of over 45,000 sqm by 2031 based on an extrapolation of the population's expenditure profile into the future. It should be noted that this assumes a commensurate growth in expenditure through to 2031, rather than a tailing off. The latter approach is more likely and would result in a lower deficit.

TABLE 33 FLOORSPACE PROVISION GAP / SURPLUS 2031 BASE CASE (SQM)

	Hospitality	Specialty (Other)	Specialty (H'hold Goods)	Specialty (Clothing)	Specialty (Food)	Super- markets	Dept. Stores	Total
Norton Street (study area)	953	-23,356	-5,023	-2,152	-13,048	-3,124		-45,750
Leichhard t Marketplace	2,137	-96	398	870	-2,892	-1,214	597	- 201
Booth St	3,300	9.45		487	470	1.401	-	6.603
Norton St North	448	-562	7.0	3	- 486		141	-597
Lilyfield Local B	149	-1,091	- 106	- 203	- 255		-	-1,506
Lilyfield Local C	24	-240	- 2	-89		-224	-1,	-5 28
Norton St South	98		-10		-607	-149	-	-668
Leichardt Local East		60	- 4	181	50		-	29.2
Total	7.109	-24,338	-4,742	-903	-16,768	-3,311	597	-42355

In addition to the BTS forecasts, it is important to consider the implication that UrbanGrowthNSW's Draft Parramatta Road Urban Transformation Strategy, released in September 2015. Although the study does not explicitly identify the number of new people that development will accommodate, SGS has used the BTS percentage increase and applied it to the current population in each of the three UrbanGrowthNSW precincts. The difference between that estimated population and the indicated UrbanGrowth Population has been assumed to be the uplift that the transformation strategy will deliver in summary, the Urban Growth scenario estimates an additional 6,032 people above the 82,153 that BTS forecasts in the catchment by 2031.

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TABLE 34 FLOORSPACE PROVISION GAP / SURPLUS 2031 URBANGROWTH NSW SCENARIO (SQM)

	Hospitality	Specialty (Other)	Specialty (Hinold Goods)	Specialty (Clothing)	Specialty (Food)	Super- markets	Dept. Stores	Total
Borton Street (study a rea)	-1,867	-27 856	-7,543	-3 832	-16,538	-4,394	- 1	-62,030
Leichhard till arketplace	2,127	-96	358	870	-2,982	-1, 294	567	-451
Booth St	3,240	885		457	430	1,3 21		6,333
Norton St North	418	-622		3	-566			-767
Lily field Local B	129	-1,111	- 106	- 203	- 255	-		-1,5 46
Lilyfield Loca IC	14	- 260		-119		-274		-638
Norton St South	78	-	-10	-	-667	-169	147	-768
Leichardt Local East		60	-	181	50	1410	140	29 2
Total	4,139	-28,998	-7,302	-2,643	-20,528	-4,811	567	-59,575

Under this scenario, the demand for retail floorspace would increase, due to the addition of over 6,000 residents within the three UrbanGrowth precincts. Again, this is likely to slightly overstate demand due to the linear extrapolation of expenditure.

These forecast floorspace demand scenarios do not consider demand from future commercial development. This is because the majority of the development is indicated as residential and, in keeping with A Plan for Growing Sydney's economic vision, new commercial floorspace will be concentrated in existing strategic centres

These figures do not include development of the Bays Precinct either, for two reasons. Firstly, there have been no numbers provided as yet by Urban Growth NSW regarding the future population of the Bays Precinct. Secondly, the area sits outside of the retail catchment model.

It is important to note that the retail model is a closed system and does not consider the existing availability of vacant retail floorspace as a means of accommodating any identified future demand. This is because the model is based on expenditure patterns and does not consider the quality of the existing retail floorspace. There are a number of reasons that shops may be vacant, from suitability or strategic decisions by landlords through to a current lack of demand. It can be assumed that some of the identified future demand may be accommodated in existing vacant floorspace, but accounting for a specific percentage is not a role for the retail model and requires more detail case-by-case analysis of vacant stock quality.

5.5 Population-driven floorspace forecasts

There are a number of industries and organisations that operate at a local level and whose operations are driven by the population that they serve. Other industries are driven more by subregional or regional influences and locate in areas due to proximity to markets, land availability, agglomeration or supply chain factors. In relation to the study area and the role of Norton Street in particular, [Table 35] outlines three BLCs that are predominantly population-serving and therefore local in their operations. High street retail is also driven by population, however this is addressed through the retail model in the preceding sections and so not included in this assessment.

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TABLE 35. POPULATION-DRIVEN EMPLOYMENT FORECASTS (SQM)

	Date case (6	TS to recess)		UnbanGrown	h NSW szener	ŘΦ
	2013	4031	Change	1915	203,1	Crimge
Local light industrial and urban support	47,833	56,685	8,853	47,833	60,848	13,015
Office	7,279	8,626	1,347	7,279	9,259	1,981
Prim & sec. education and comm. services	29,670	35,161	5,491	29,670	37.743	8,073

Remainment of the

Of interest for the study area is the amount of local office floorspace required to meet the needs of the population. The catchment for this BLC is defined by the retail model catchment. This acknowledges that some demand will come from outside of the LGA (Marrickville) but demand in the north of Leichhardt is likely to be satisfied by Darling Street (refer to Figure 23).

TABLE 36. POPULATION-DRIVEN EMPLOYMENT FLOORSPACE (2015 AND 2031) FOR OFFICE COMPARED WITH EXISTING FLOORSPACE (SQM)

Year-	* and the same of	Base case (BTS fore asts)		UrbanGrowth NSW scenario	
	(numited)	Forecast demand (675)	Supplyed em and difference	Foremat demand (Urban Growth)	Supplyed emend difference
2015	6,529	7,279	-750	7,279	-750
2031	6,529	8,626	-2,097	9, 259	-2,730

Table 36 compares the current supply of audited commercial office floorspace in the study area against the two forecast scenarios' respective local-population driven floorspace requirements. This indicates a deficit of 750sqm currently in the study area, however it is likely that some additional floorspace is found in buildings that fit under the Residential or Retail Main Street BLCs. Under the two population forecasts (BTS and UrbanGrowth) by 2 031 there is forecast to be a more acute shortage of between 2,100sqm and 2,730sqm in the respective scenarios.

Norton Street's character—that of a local high street—is highly unlikely to attract subregional commercial businesses. This is because it does not have the requisite floorspace sizes, scale, public transport accessibility and the opportunity for agglomeration that derives from business-to-business relationships. Businesses that seek commercial floorspace for subregional or regional operations are much more likely to locate in the CBD or other centres such as Parramatta. This is supported by A Plan for Growing Sydney which identifies Sydney's Strategic Centres as the primary focus for subregional commercial development. As a consequence, Norton Street and Parramatta Road is highly unlikely to see any demand for subregional commercial floorspace.

5.6 Summary of results

Overall, there is sustained demand for a range of store types in the study area

Demand for total retail floorspace is forecast to grow by 61% in the study area between 2015 and 2031. Supermarkets and specialty stores focusing on household goods are forecast to see the highest growth in demand.

There will be a shortage of retail floorspace by 2031

With demand growing alongside population, it is forecast that by 2031, current retail floorspace provision is likely to be insufficient to meet demand. Under the base case population growth (BTS), there is forecast to be up to 45,750sqm additional floorspace required. Under the UrbanGrowth scenario, this could

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increase to 62,000 sqm. It is noted that this assumes a continued growth in expenditure through to 2031 and does not consider the expenditure from outside of the retail catchment.

Hospitality is doing well but there is no consistency in offering

Demand for restaurants, bars and cafes will grow by 61% to 2031 in the study area, almost double the rate of demand for the rest of the study catchment (32%). However, a distinction between restaurants/bars and cafes should be made – cafes tend to serve a predominantly local population more so than restaurants and bars, which are more likely to be destinations. If the study area, and particularly Norton Street, is to retain its restaurant identity, it needs to provide a clear and consistent offering

There is a significant but diminishing surplus of hospitality floorspace

The catchment currently has an oversupply of hospitality floorspace (9,300 sqm). Notwithstanding the future demand for hospitality floorspace, the retail model suggests that by 2031, the catchment will have a surplus of hospitality floorspace (953 sqm) under the BTS population scenario. The study area has the highest amount of hospitality (69% of the catchment's 33,000 sqm) and consequently, much of the forecast surplus is in and around Norton Street.

There is additional demand for food retailing and other specialty stores that is forecast to deepen There is an additional demand for food retail and other specialist retail in the study area of approximately 5,000 sqm and 9,000 sqm respectively. This is demand forecast to increase by 2031 as demand continues to grow. This provides an opportunity to build Norton Street's retail identity while satisfying demand.

There is a shortage of supermarket floorspace forecast

Although the catchment already has supermarket provision in Norton Plaza and Leichhardt Marketplace, supply is currently finely balanced with demand. A growth in demand by 60% to 2031 will create a deficit in supermarket floorspace by 2031. There is an opportunity to develop additional supermarket floorspace to meet this demand within the study area – ideally on Norton Street - to consolidate its retail primacy.

Expenditure that would otherwise go to department stores is captured by specialty stores

The catchment has no department stores. Some of the demand for these uses is therefore, satisfied outside of the catchment, however the amount of specialty store floorspace suggests that a significant proportion of this demand is met elsewhere in smaller stores. This would be consistent with areas with higher incomes where smaller specialty stores play a large role in satisfying retail needs.

The study area population spends lower than the Sydney average on food but higher on restaurants and personal goods

It is interesting to note that considering the higher than average income levels of the area, expenditure on food is 25% lower than the Sydney average. Expenditure on restaurants and cases as well as personal goods and services however is higher than the average.

There is a currently an identified shortage of floorspace for local commercial offices

There is a slight deficit in the amount of floorspace currently supporting local commercial uses, compared with what could be expected to be required to satisfy the local population needs. Although some of this office floorspace is likely to be met in other types of buildings (such as residential or retail), this shortage is expected to increase as the population grows.

The shortage of commercial floorspace is forecast to deepen in the future

Under both population growth scenarios (BTS and UrbanGrowth), the demand for local commercial floorspace is set to increase. This is because demand for this type of floorspace is largely driven by the size of the local population. By 2031, the shortage of local office floorspace under the BTS scenario is 2,100 sqm and under the UrbanGrowth scenario, is 2,700 sqm.

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FINDINGS AND RECOMMENDATIONS

This section has been structured to build the case for the recommended strategies and actions outlined in Section $\overline{5.4}$ From the macro trends analysis, land use audit and retail model, a number of observations regarding the study are have been made. These are outlined in Section $\overline{5.1}$. The reason behind the issues observed are varied and rarely independent. They are outlined them atically in Section $\overline{5.2}$.

In order to determine the delivery mechanism for the strategies and actions, a two-part analytical framework has been used that maps out both the nature of the strategies and the role that the Council would play by implementing them. This is outlined in 5.3.

5.1 Diservations

The development of Norton Plaza

The development of Norton Plaza has simultaneously increased retail floorspace in the study area and reduced the need for shoppers to use Norton Street's high street retail offer. The location of Coles in the Plaza continues to attract people as one of the few supermarkets in the area. Underground parking provision within the Plaza facilitates ease of shopping but does so at the expense of people parking in other parts of the precinct and walking to the Plaza. This reduces the amount of foot traffic along Norton Street.

Norton Plaza could beviewed as a contributor to Norton Street's decline and there is merit in this position. It does, however, also act as one of the few anchors Norton Street has for attracting people from surrounding areas. It should therefore be seen as an asset to help re-build Norton Street's retail and commercial presence.

Decline in visitation

Through consultation with agents, an assessment of vacant floorspace and a review of literature, it is evident that the study area has experienced a decline in visitation over the past ten to fifteen years. While Norton Street retains a retail identity (albeit diminished), Parramatta Road's retail offer appears to have suffered significantly. Two loose retail clusters remain – one focused on bridal gowns and associated wedding paraphernalia, the other the music precinct identified by Council.

This decline in visitation extends to the evening and night-time economy, which was once a major asset of Norton Street. The closure of a number of restaurants and bars limits the ability for activity to take place and provide Norton Street with a potentially extend retail trading opportunity.

Over-supply of hospitality floorspace

The retail modelling indicates that there is an over-supply of retail floor space in the study area and in the Leichhardt LGA more broadly. The model, which seeks to distribute floor space to support the precinct's catchment, indicates that there is an excess of over 9,000 sqm of hospitality floor space in the Study Area alone.

Given that hospitality-aligned retail tends not to require units with extra-large floorspace, this equates to an over-supply of a number of small to medium sized restaurants and cafes. This aligns with feedback

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received through agency consultation, where it was suggested that the addition of new restaurants as part of the Leichhardt Forum disrupted the supply/demand balance that Norton Street had held previously.

It must be noted that as the retail model only seeks to serve the retail needs of the defined catchment, it does not anticipate demand from outside of this catchment. Although this has not been modelled, it can be assumed that some of the surplus floorspace may be absorbed by out-of-catchment retail. However, given the decline witnessed in Norton Street over the past decade, it is assumed that the number of people visiting the Study Area from outside of the retail catchment has declined in parallel with Norton Street's features.

Precincts comprise of sub-precincts

The Study Area is large, with over three linear kilometres of frontage along two perpendicular roads Naturally, the precinct does not act as a cohesive, singular precinct. Rather, it comprises of distinct subregions that function with varying degrees of independence.

Parramatta Road is roughly uniform along its length in terms of activation and frontage, with the exception of the identified music cluster at the eastern end of the study area centred on the Annandale Hotel. Norton Street has two clear sub-precincts divided north-south by the shallow ridge along which Marion Street runs.

In a study area the size of this, sub-precincts provide an opportunity to tailor recommendations to better suit localised characteristics.

The study area is not attracting investment

Norton Street appears to have minimal coherent investment in public realm, coordinated development along the high street or even in branding. The investment in Parramatta Road appears limited to the erection of heavy-duty fencing to separate the footpath from carriageway.

This presents a tired public realm lacking in cohesion. This cause and effect of this issue is that as the study area continues to suffer from a lack of investment, it inhibits investment potential and the situation becomes self-perpetuating.

Norton Street does not have a 'centre'

Norton Street suffers from a lack of an identifiable 'centre' to signal to retailers and shoppers where the heart of the precinct lies. Centres in the context of local high streets do not require large squares, but do require a sustained degree of activity around them and a place for people to dwell. The Forum was perhaps an attempt to create a centre by recreating an Italian piazza, however its separation from the street and change of levels inhibited this.

Norton Street's greatest potential lies outside the well patronised Norton Plaza where the centre connects well with the smaller retail development directly opposite.

High vacancy rates

The study area currently has relatively high vacancy rates (16%). This is likely the result of a number of conflating factors, primarily those observations above. The high vacancy rate is symptomatic of these factors – the resulting implication of the influence of each observation, caused by the identified reasons outlined in 6.2 It therefore acts as a useful 'health check' for the study area (and its constituent subprecincts).

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Future population growth will require additional floorspace

Population growth, both forecast by BTS and under UrbanGrowth's strategy for Parramatta Road, will require additional floorspace — both retail and commercial. The current retail landscape suggests that there is additional capacity in the system. However, as the population grows through to 2031, additional retail floorspace demand may be as 45,000 to 60,000 sqm and commercial up to 2,700 sqm. These should be treated as an upper limit however as they assume that no other retail floorspace in the system is provided between now and then in practice, for Norton Street in its role as a local high street, it may not be able to accommodate this much additional floorspace, given most demand stems from specialty stores

6.7 Reasons

There are numerous reasons for Norton Street's current retail and commercial status. It is likely that the issues the study area currently experiences are due to a confluence of many, rather than a single fault. Specific reasons have been grouped in broader classifications.

Commercial and retail landscape

Change in consumer preferences

High street retail has been significantly affected by the rise of online shopping. 'Bricks and Mortar' retailing has needed to trade more strongly on the experiential advantages to compete. Norton Street and Parramatta Road in particular have not retained the characteristics that once identified them and they cannot compete with nearby high streets (such as Darling Street and King Street) that have been more successful in this regard.

Oversupply of restaurant floorspace

The development of the Forum in the early 2000s significantly increased the amount of restaurant floorspace that Norton Street precinct provided. This has diluted the concentration of the precinct's restaurants and reduced the opportunity for the Norton Street strip to benefit from the concentrated energy that results in a sequence of well patronised restaurants, cafes and bars

Physical characteristics

Lack of consistency in built and urban form

Norton Street in particular suffers from an erratic building line and has little consistency in building type. This does not provide a strong structure upon which to build an attractive and identifiable public domain. The exception to this is the northern part of the Norton Street precinct north of Marion Street.

Lack of investment

As identified in the observations, there does not appear to have been any significant public realm up grades undertaken south of MarionStreet. This results in this section of the study area feeling tired and neglected. Where improvements have been undertaken (north of MarionStreet around Bar Italia), the street provides a more unified and attractive pedestrian experience.

Accessibility

Clearways on Parramatta Road

The implementation of clearways along Parramatta Road to improve traffic flow have impacted the ability for shops fronting the road to trade. Many of these smaller shops rely on the ability for customers to quickly access them. Without a reason for people to walk along stretches of Parramatta Road, no on-street parking and a lack of dedicated parking in side streets, these shops appear to have suffered by having access to them significantly constricted.

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Lack of public transport options

Norton Street in particular suffers from a lack of public transport options to it from outside of the area. It is heavily reliant upon buses along Parramatta. Road and is not easy walking distance to the light rail stations. This reduces opportunities for people from outside of the area to easily visit it.

Provision of underground car park at Norton Plaza

People who do visit the study area from outside, as well as those who use the centre for shopping, are likely to drive. Parking under Norton Plaza is convenient as it enables shoppers to readily access supermarkets and other stores without venturing into Norton Street. This reduces the opportunity for activation of the public domain.

Cultural characteristics

Decline in Italian identity

The decline in Leichhardt's italian community generally and the Study Area's italian identity more specifically has reduced the trading value Norton Street once held. This is in part due to a lack of continued investment in the Norton Street brand and also likely due to the rise of Haberfield, which presents as more authentic than Norton Street.

Trading on identity without investing in the underlying structure

Norton Street appears to have traded on its Italian characteristics and particularly its culinary identity without an appreciation of what constitutes a good eat street. As a consequence, as the identity faded and eat street competition increased, Norton Street's underlying structure (public domain, accessibility and physical character) did not provide sufficient facility to a) compete with other centres and b) transition towards a more diverse eat street destination. This has been exacerbated by the type of development that has appeared (particularly the Forum) which traded on the Italian identity in a pastiche manner and contributed to the gradual decline of authenticity in the area.

Failure of forum

The failure of the Forum is due to many factors air eady identified. Its failure however had a systemic impact on the Norton Street precinct as a whole. While new restaurants initially thrived, they took business from traditional restaurants along Norton Street, reducing activity along it in the process. When these restaurants in the Forum began to fail, Norton Street had already lost the energy it once had and customers appear to have gone elsewhere.

Dislocation of civic facilities from Norton Street

The library and community centre were relocated to the Forum in the mid-2000 s. As with the shifting of restaurant patronage away from the activity along Norton Street, the tucking away of these two important community facilities reduced the opportunity for Norton Street to benefit from the regularity of their foot traffic.

Increased competition

Growth of competitive centres

As discussed in part above, Norton Street in particular has suffered from increased competition for restaurant patronage from other nearby centres, including the CBD. Coupled with the precinct's declining Italian identity, Norton Street's competitive offer has weakened in the face of growing competition from other centres with strong cultural identities such as Haberfield and Petersham.

Leichhardt Marketplace refurbishment

The refurbishment of the nearby Leichhardt Marketplace in 2002 included increases supermarket floorspace and speciality stores. The centre's contained car parking and access to other stores such as Target, have meant that it competes directly with Norton Street for retail custom.

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Assessment framework

In order to identify approaches to address the study area's fortunes, the observations and understanding of cause outlined in Sections 3.6 6.1 and 6.2 have been assessed through a two-stage assessment framework. The first, the Three Horizons framework, identifies the type of opportunities that can be undertaken to address the issues. The second framework identifies how these opportunities can be developed through the Four Roles of Government lens

Three harizons

This report includes a range of strategies and actions to promote economic development in the study area. While it may be appropriate that Council is ambitious in their policy making and have a view to the 'transformation' of the Norton Street and Parramatta Road, local economic development also requires a practical focus, with due emphasis on 'readily deliverable' projects.

Tensions between the 'visionary' and the 'pragmatic' can be resolved by applying a Three Horizons framework, as devised by Baghai, Coley and White (1999). This framework was formulated in the context of commercial business planning, but is highly adaptable to planning endeavours in public policy. It is premised on the assertion that truly robust and sustainable enterprises (here we can read city economies) must simultaneously plan to three horizons or agendas.

The first horizon is concerned with protection of the enterprise's existing core business. The focus here is on cost control and ensuring that the current customer base is retained by continuing to offer reliable quality.

In planning to the second horizon, the enterprise looks for way sto in crementally leverage its current core businesses to expand its customer base. This often involves diversification into related product streams, or providing value added services to existing products, such as improved after sales service. These improvements can be thought of as 'organic innovations'; 'building on what we know we do well.'

Planning to the third horizon requires the enterprise to lift its sights to contemplate new opportunities which might be quite distant from current core business, but which draw on the competencies, skills and endowments which underpin current activities. This is the horizon where the enterprise seeks to 'reinvent itself'.

Councils must simultaneously maintain a focus on all three horizons. Horizon 1 initiatives may consolidate the current economic performance, Horizon 2 measures will tap organic diversification opportunities to enhance this performance, but Horizon 3 strategies are required to ultimately transform the study area.

Four roles of government

There are four basic 'roles' or economic development models that Local Government can adopt to encourage local economic development. Council would not necessarily need to 'choose' any one of these types of roles and in fact, the best outcomes may be achieved with a mix of activities that cut across all of these broad classifications.

The appropriate role depends on a number of factors such as pre-existing organisational relationships, the local industrial structure, the relative level of social and economic prosperity, identified priorities for the future, available funding for economic development initiatives and local personalities. The caveat to all of this is that the limited power and resources of local government can make it difficult to implement these roles. In understanding these roles and functions, we can start to think about appropriate responses to the challenges the Norton Street and Parramatta Road study area faces.

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The four roles of government are:

Stimulator/Promoter

This is where Council could take specific action to induce business creation or expansion. This can be undertaken through a branding and marketing role or by direct intervention to protect or support a particular industry sector. An example here could be using an underutilised Council building or land.

Facilitator

This can take the form of providing an 'enabling' environment for local development by delivering a streamlined development approval process and by providing a clear policy statement focusing the Council's development objectives.

Co-ordinator

Here, Council takes the role of co-ordinating the provision of infrastructure or services for which it is not directly responsible but which are required for new business development. This co-ordinating role would generally be undertaken in partnership with other government agencies, private sector representatives and / or community interest groups. For example, Council's role in assisting the co-ordination of the proposed light rail expansion to Randwick.

Entrepreneur/Developer

Here, Council would become directly involved in development activities, either as a sole operator or in partnership arrangements with the private or public sector. The joint venture between Woollahra Council and Woolworths for the supermarket development in Double Bay is an example.





Assessment matrix

The following assessment matrix distributes the strategies identified in this report by Horizon and government role. Each strategy is elaborated on further in Section $\underline{6.4}$ under each of the three horizons.

	HORIZON ONE	HÓRIZON-TWÓ	HORIZON THREE
STIMULATOR/PROMOTER	Strategy 1: Develop better understanding of local issues and opportunities	Strategy 5: Improve character of Norton Street	Strategy 8: Increase residential population Strategy 9: Increase pedestrian activity and amenity
FACILITATOR	Strategy 2: Develop a management and investment strategy Strategy 3: Review barriers to investment	Strategy 6: Improve investment potential	Strategy 10: Incentivise development that contributes to improvements along Norton Street
CO-ORDINATOR	Strategy 4: Inter-jurisdictional collaboration to address Parramatta Road		
ENTREPRENEUR/DEVELOPER		Strategy 7: Reactivate Norton Street	

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6.4 Strategies and actions

First Horizon

Strategy 1: Develop better understanding of local issues and opportunities

ACTION 1.1 Discuss needs with existing tenants

Prior to undertaking any improvement works or considering development, Council should discuss issues and needs with existing commercial and retail tenants in order to get ground-level information. Information required should include:

- Identification of barriers to increased trade
- Micro-level issues that have resulted in Norton Street's demise
- Understanding of where customers come from (may be supplemented with a survey)
- Why new businesses have to cated in Norton Street

Rationale

Often streetscape improvements and other superficial works can be undertaken at great expense without solving the problem. It is important that the remaining retailers and businesses remain a part of the Norton Street community so that established businesses can help to engender a sense of community and attract new investment.

ACTION 1.2 Identify development potential in key sites

Undertaking a methodical identification of these sites, based on location, lot size, feasibility and development potential will enable Council to develop a clearer strategic vision for the study area and engage in discussions with landowners regarding the area's future.

Rationale

Norton Street and Parramatta Road provide numerous sites for development that could help to directly or indirectly activate the study area. Developing an understanding of potential floorspace capacity and the likelihood of development being undertaken is important for Council to shape the vision for the study area. It is also important to develop relationships with key landowners, who in turn benefit from increased involvement in strategic planning apportunities.

ACTION 1.3 Recognise and define sub-precincts

The study area comprises four identified sub-precincts. Each of these have identifiable characteristics that distinguish them. These characteristics should be used to build future planning and development around. These are:

- Norton Street South (Parramatta to Marion Street)
 - Mixed retail and civic/community uses with no consistency of built form
 - Norton Street North (Marion Street to Allen Street)
 - 'Eat street' with continuous restaurant strip facing continuous line of specialty stores with a consistent shop-top built form characteristic
 - Music precinct (at Crossroads of Parramatta Road and Nelson Street and Bridge Road)
 - Loose collection of music stores and entertainment venues clustered around the Annandale Hotel
- Remainder of Parramatta Road
 - Consistent shop-top frontages and building heights, with low-value retail uses

A detailed understanding of the workings of these sub-precincts and any retail and commercial submarkets should be further explored in consultation with businesses and local agents.

Rationale

It is important to ensure that a one-size-fits all policy is not applied to large and complex study areas. Policy should provide appropriate responses to localised issues.

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Strategy 2: Develop a management and investment strategy

ACTION 2.1 Promotion of Norton Street

Community-aligned events should be considered and promoted through curated and coordinated means (for instance flag banners in the way that the City of Sydney advertises events). While important to ensure the local population's needs are met, promotion should also focus on attracting people from outside the local area

Rationale

Although Norton Street's star has faded, it still has significant potential and a growing population who require a local centre. Considered promotional methods that focus on community events serve the multiple purposes. They provide targeted advertising for events, promote the Council's investment in the community and present a consistent public domain marker – something that is lacking along much of Norton Street and Parramatta Road.

ACTION 2.2 Identify second generation of uses

Identify and promote a new (or evolved) identity to drive the precinct's future. This will build on the studies undertaken by this and other studies and augmented with outputs from Action 1.1.

Retail focus should be on encouraging more specialty stores, including food retailing. In order to accommodate this, Council should prioritise change of use applications in particular away from hospitality uses to other retail uses when they arise. This can be done by:

- prioritising DAs that propose change of use
- waiving discretionary fees to encourage owners or tenants to apply for changes

A statement in Section C2.2.3.5 'Leichhardt Commercial Distinctive Neighbourhood' section of the DCP expressing a focus on fine-grained, local servicing retail use would provide more guidance for Council in articulating the vision for the area

This could extend to the explicit encouragement of short-term lets to better use vacant shop fronts for temporary or 'pop-up' retail uses.

Additionally, council should consider moving away from relying on Norton Street's Italian identity as a focus of marketing and instead focus more on its role as a locally-oriented high street.

Rationale

The growing wealth of the surrounding residential population and the continued need for local shapping precincts suggests that there is an opportunity to focus on retail and hospitality that caters to this changing demographic. In the face of growing competition from nearby high street centres (Darling Street, King Street, Ramsay Street), Norton Street needs to develop an identity that defines it against others. Where once this was Norton Street's Italian community, this has now waned and recurrent attempts to sustain it appear to have exaggerated its decline. It is more important to do the things that support the needs of the current community than hold onto a nostalaic notion of the past.

Strategy 3: Review barriers to investment

ACTION 3.1 Review of existing FSR controls

Increase FSRs in the Norton Street precinct to between 2 and 2.5.1 to encourage residential development. Residential uses should be shop-top so as to not compromise the active frontages of Norton Street. The identification of a more specific FSR requires feasibility testing on specific lots to ascertain the required FSR.

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Roponale

Current building contrals (in particular Floorspace Ratio) appear to inhibit development potential. The intention is to pull residential development up from Parramatta Road towards Marian Street, without a ompromising high street retail floorspace. The current B2 zoning permits residential, however the low FSR inhibits feasible development. Current FSRs hover around 1 to 1.5:1. Given the relatively small lots that buildings sit on, they tend to cover much of the lot already. If Council wishes to encourage development, increasing the FSR will enable development to gain additional floorspace and provide a better chance of returning a feasible outcome. Such an increase will put Norton Street in line with more successful high streets in inner suburban areas.

ACTION 3.2 Accommodate change of use applications from hospitality uses

Applications to change the use of existing hospitality premises to other retail uses (in particular specialty stores) should be approved, subject to other planning conditions

This does not include rezoning away from retail uses.

Rationale

The existing surplus of hospitality floorspace is one of the contributors to Norton Street's vacancy rates. There is an identified undersupply of other types of specialty stores, including food retailing that could be met in this surplus floorspace.

Resisting rezoning will ensure that the future demand can be accommodated.

Strategy 4: Inter-jurisdictional collaboration to address Parramatta Road

ACTION 4.1 Involve Marrickville Council in decision-making along Parramatta Road

Council should involve Martickyille in decision-making at a strategic level along Parramatta Road as well as at a more detailed level surrounding major intersections and cross streets

This should be done through the establishment of a formal cross-council working group to review individual assessments and co-ordinate future public domain and urban development plans

Rationale

Parramatta Road forms the boundary between Leichhardt and Marrickville Councils. Although a major artery, Parramatta Road must be planned for without local government boundaries impeding decision-making. Local communities are rarely contained by local government boundaries. If Leichhardt wants to present Norton Street and Parramatta Road as part of a cohesive precinct, the involvement of Marrickville is essential given the length of frontage the council has on the southern side of Parramatta Road.

2 802



Second Horizon

Strategy 5 : Improve character of Norton Street

ACTION 5.1 S

Streetscape improvements

Invest in Norton Street's public realm to contribute to the precinct presenting a more cohesive identity and provide a more attractive high street. These should build on the existing works undertaken north of Marion Street.

These should consider:

- South of Marion Street more consistent scale of buildings, building frontages on footpaths and a uniform approach to shop frontages to present a more cohesive high street
- North of Marion Street continued support of eat street character

Rationale

Investment in public realm upgrades help to instil confidence to current and prospective retailers that there is active investment taking place. The retail 'experience' is an increasingly important competitive advantage that high streets and shopping centres can provide over online retail. High streets that present a clear character through a degree of consistency can build on this in terms of branding.

ACTION 5.2 Update traffic and parking management strategies

Undertake an updated parking plan and traffic study that considers the role of car parking on the fortunes of Norton Street, the implications that removing on-street parking on Parramatta Road has had and how to better leverage Norton Plaza's parking to increase activation along Norton Street would be of benefit.

Rationale

Although Norton Street serves a predominantly local catchment, the retail model demonstrates that there is surplus retail floorspace throughout the study area. As improvements are made with the intention of better supporting the local community, it should be considered that improvements to identity may increase visitation from further afield. Well-located parking (on or off-street) can be a driver of activation along Norton Street by requiring patrons to walk along the main road between the car and retail destination.

Leichhardt's parking study was undertaken in 2005 and focuses on supply and demand. The parking plan should consider the points above to align more closely with urban development principles for the study area. Additionally, the study area's fortunes have changed since this was undertaken and so an update would provide a better picture of supply and demand now.

ACTION 5.3 Unify existing Norton Street sub-precincts

Well-located concentrations of activity 'nodes' should bridge the gap between Norton Street's two sub-precincts and help to establish a visual connection between them. These nodes can include retail or other uses that present an active frontage to the street

This would build on and support Action 1.2 and could include the south-western corner of the Marion Street/Norton Street Intersection and the southern side of the Norton Street/Mariborough Street intersection.

Rationale

The current separation of Norton Street's two major retailing strips by Marion Street limits the value that both can leverage of one another. The total length of Norton Street and the location of several established institutional buildings (Leichhardt Public, All Souls Church and the Leichhardt Town Hall) from Parramatta Road to Allen Street prohibits a single, continuous retail strip.

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Local high streets do not tend to be able to support a sustained length of more than approximately 500 metres. This is due to people's desire to walk, the location of car parking and the demand for retail floorspace that services local need. Often, local high streets longer than this 'pulse' with retail activity along their length and are interspersed with other uses such as residential. Norton Street does not need to act as a single linear high street, however, both sub-precincts should complement each other and benefit from shared resources such as car parking.

ACTION 5.4 Use speciality stores to promote Norton Street

Independent and speciality stores, including food retailing, should underpin the identity of Norton Street and meet the current identified demand. This can take the form of permanent shops as well as regular street markets and develop the area's identity as a food destination.

This would be most suited in the short term in the sub-precinct to the north of Marion Street. Any consideration of this would need to factor in delivery bays and delivery timings as part of an urban design framework (Action 6.2) and be considered in a parking strategy (Action 5.2).

Rationale

There is an undersupply of speciality stores for food to service the current needs of the surrounding area. Food retailing tends to be done locally. With the area's increasingly wealthy demographic and the resurgence of locally-bought produce, a focus on food retailing in certain parts of Norton Street would both meet the local demand identified in the retail model and help form part of a large programmatic structure to evolve Norton Street's identity whilst trading on something that it has been known for for a generation.

Strategy 6: Improve investment potential

ACTION 6.1 Develop an urban design and 'program of use' framework for Norton Street

Above and beyond simply improving the study area's streetscape, a cohesive strategy for the future of Norton Street should be undertaken based on the recommendations contained in this report. This will provide potential investors, residents and tenants with a clear view for the future of the study area.

Rationale

A clear and coordinated approach that involves discussion with existing tenants (Action 1.1) and a vision for how the precinct may look and operate in the future (Strategy 2) provides certainty to potential investors that they are developing in a retail and commercial precinct with a clear identity. With development along Parromatta Road driven directly or indirectly by Urban Growth's corridor strategy, this clarity is important in seeking investment over other cross streets along the corridor's length.

ACTION 6.2 Encourage extended trading hours

Establishing a clear trading hours policy and vision for Norton Street and the proposed music precinct will provide the planning framework to enable retailers and restaurants, cafes and bars to operate into the evening. The Council or other community groups such as the Chamber of Commerce, however, should also encourage evening trading, even temporarily, through street festivals and other short-term events.

initially this should focus on the retail area north of Marion Street, where the restaurant strip and identifiable destinations such as Bar Italia and the Royal Hotel can be anchors for this.

Around the Annandale Hotel, enabling longer trading hours may encourage restaurants, bars and even small music venues to cluster around the existing anchor of the Annandale

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Rationale

In high streets and retail precincts that are operating well, retail and hospitality often have a symbiotic relationship. Restaurants, bars and cafes attract people after work hours and shaps that remain open can benefit from extended passing trade. Restaurant, cafes and bars can also benefit as open shops attract people and retain a degree of activity along the street. Although simply allowing extended trading hours through policy will not ensure that trading is healthy, the provision for it can be an incentive to attract particular appearators who see long-term prospects.

Encouraging this as short-term events in the first instance can help Norton Street and the music precinct to build their reputations as evening economy destinations for both local residents and visitors.

Strategy 7: Re-activate Norton Street

ACTION 7.1

Creation of a retail and community heart' of Norton Street

Develop a central focal point on Norton Street close to Norton Plaza and the Norton Street Cinema as a focus for local activity (following on from Action 1.2).

This could take the form of a square or more simply, a forecourt to a set-back civic or community building (such as at Surry Hills Library). This will require urban design analysis to best locate this and define its scale.

Rationale

Norton Street's length, coupled with the shifting centre of gravity caused by the Forum has resulted in the street lacking an identifiable heart. Currently, the area outside of Norton Plaza and outside Bar Italia to the north vie for the role in their respective subprecincts. With most activity along Norton Street centred on Norton Plaza, this section of the precinct is most appropriate.

ACTION 7.2

Relocate community facilities to closer to Norton Street from the Forum

Move the library and associated community facilities from the Forum and into a site along closer to, or on, Norton Street. This could be in a dedicated building, ideally close to the intersection with Marion Street as part of the loose grouping of facilities there now (following from Action 7.1 and in anticipation of Actions 7.3 and 10.1). In the short term, it could be relocated to vacant shop frontages:

Rationale

The relocation of community facilities to the Forum in the mid-2000s (including the library) exacerbated the demise of Norton Street that the additional restaurant floorspace facilitated. The opportunity to repurpose any vacant sites along Norton Street with these uses would demonstrate Council's programmatic investment in the study area (Action 6.2) and simultaneously reduce vacant floorspace along the retail strip. Both short and long-term opportunities would increase activity along Norton street and help to draw people who park in Norton Plaza out.

ACTION 7.3 Redevelopment of key site (s) along Norton Street

Build on Action 1.2 by developing identified key sites along Norton Street, either with direct support by council (i.e. funding) or indirect (through favourable planning conditions). Where sites are adjacent, favourable planning controls and/or development incentives (Action 3.1) to encourage lot amalgamation where appropriate may encourage development interest. While not comprehensive, at a minimum this should include:

- 39-51 Nortan Street
- 63-97 Norton Street

Rationale

Development could play an important role in redefining Norton Street. If FSR and building height controls were altered, along with a change of zoning to permit residential in certain areas, it could help to increase the intensity and variety of activity along Norton Street. Development sites would need to be carefully considered in terms of their potential role.

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and from a land owner perspective. Amalgamation of sites is one way of presenting a larger and more attractive development proposition to the private sector, particularly given the area's low FSR. These two sites have been identified due to their lack of streetscape presence and ability to consolidate the uses based around Norton Plaza. Amalgamation also enables the scale of activity around Norton Street to increase.

ACTION 7.4 Encourage redevelopment of the Forum

Increasing building height limits, FSR controls or considering rezoning to high density residential on the forum site may encourage the site to better be used to support a growing residential suite of developments near to Parramatta road and Norton Street Optimal building heights and FSRs can be determined through feasibility testing of options that arise from urban design studies.

Additionally, incentives to attract retail investment back to Norton Street through other actions (5.1, 6.1, 6.2, 7.2, 7.3) will help to encourage retail, commercial and cultural uses back to Norton Street

Rationale

As discussed, the Forum has sucked a large amount of floorspace away from Norton Street. While as a contained site, its scale and premise is valid, as part of the broader precinct it has been detrimental. Its role as a site for residential use will further concentrate a residential population between Norton Plaza and Parramatta Road, increasing the opportunity for Norton Street to support an increased population in walking catchment to Norton Street.

ACTION 7.5 Allow for additional retail and commercial floorspace to meet future demand

New mixed-use development with a significant residential component should make allowance for retail floorspace at ground floor and new, local-serving commercial floorspace to accommodate future demand.

Retail modelling indicates an upper limit of between 45,000sqm and 60,000sqm by 2031, however this is dependent upon retail development in other nearby centres and the ability for Norton Street to actually deliver this amount and still operate as a local centre. Between 750 sqm and 2,700 sqm of local-serving commercial floorspace should also be considered as part of mixed-use development, depending on the future plans for Urban Growth NSW's corridor strategy.

Given the existing surplus in the study area, this should be delivered in the medium-to-long term. Floorspace should be focused firstly on Norton Street, however as demand grows, this could extend along side streets with direct links to Norton Street. This includes any laneway activation opportunities that may arise from residential development along Parramatta Road (Action 9.1). Care should be taken not to allow new residential development to be self-contained with regards to retail floorspace. Activity drawn from these developments into Norton Street should be a priority. Retail floorspace associated with any development along Parramatta Road should be no larger than neighbourhood retail in size so that its catchment does not overlap with Norton Street and that there is no gravity shift away from Norton Street.

Rationale

The additional population that the study area and surrounds will accommodate in the future will require retail floorspace to increase in order for supply to keep pace with demand. The existing identified oversupply means that additional floorspace should not be added until the current supply is in balance with demand. If it is introduced earlier, it may exacerbate the vacancy rates and further erode Norton Street's retail character. It is important that the amount of retail floorspace provided in these mixed use development is not 'self-contained' – that is, that it provides a sufficient range of retail functions to accommodate the majority of the retail needs of new residents. This scenario would add

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little to no benefit to Norton Street as new residents would not need to travel up Norton Street to shop.

ACTION 7.5 Understand the likely retail demand from outside of the local catchment

Commission surveys to be undertaken in competing local centres (such as King Street and Glebe Point Road) to determine the proportion of shoppers who have come from outside of their local catchment. This would include surveying shoppers in the Norton Street study area.

Rationale

The retail model assesses demand for retail floorspace from within the centre's local retail catchment. In order to better understand the expenditure that is likely to be generated from visitors, it is important to be clear on the type of centre Norton Street is likely to become before ascertaining the likely amount of external visitation that this would attract. A survey of competing centres will define the proportion that these centres have. Centres with an identity and role closest to the vision for Norton Street can be used to determine how much expenditure is likely to come from outside.

It would also help to better understand issues such as parking requirements (Action 5.2) and curate the type of retail experience that Norton Street provides (Actions 5.4, 6.3).

Third Horizon

Strategy 8: Increase residential population

ACTION 8.1 Rezone some of Parramatta Road's commercial and retail floorspace to mixed-use
(84)

Rezone some of the existing commercial and retail floorspace along Parramatta Road and in particular at major intersections such as with Norton Street, Balmain Road and Johnson Street to enable greater concentration of residential development.

B4 (mixed use) would enable the retention of retail use and possibility of retail expansion if population and/or expenditure increased over time and additional floorspace was required.

Although there is currently a surplus of retail floorspace, future demand necessitates that this be retained. Any residential development should not replace existing retail or commercial floorspace, or if it does, should result in no net loss.

Rationale

This stretch of Parramatta Road has little pedestrian activity and poor amenity. Redevelopment to residential, with a northward focus to the parallel lanes (Action 9.1) would simultaneously increase the residential population in walking distance to Norton Street and public transport and provide active frontages for additional retail in the medium to long term.

ACTION 8.2

Allow increased residential development along the southern end of Norton Street Carefully-located shop-top residential development along certain sections of Norton Street will help to consolidate retail activity between the Forum and Marion Street. This will facilitate the concentration of an active 'pulse' centred either side of Norton Plaza. This must not result in a net loss of retail or commercial floorspace (Action 8.1)

If this residential development is north of Marion Street, it should not further separate the two identified sub-precincts and should have active ground floor uses. No infill development should be permitted in the northern sub-precinct that disrupts the strip's consistent retail frontage.

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Rationale

As with Action 8.1, this would in crease the residential population within Norton Street's walking catchment and better support retail.

Strategy 9: Increase pedestrian activity and amenity

ACTION 9.1

Activation and through connection of laneways running parallel to Parramatta Road Any new development along Parramatta Road (either as part of UrbanGrowth NSW's Corridor Strategy or Council-driv en development) should orient its entrance and street activity to the North, along the series of lanes (Albion Lane, Dot Lane, Renwick Lane) that run parallel to Parramatta Road. This would provide better pedestrian connections through to Norton Street as the precinct's central retail strip. This includes improving pedestrian links through the Forum site (Action 7.4).

Local retail (cafes and bars) as well as commercial floorspace (possibly as part of live/work development or residential above commercial) would support the growing population and facilitate the establishment of the music precinct (Action 7.5)

Rationale

Parramatta Road is unlikely to be a pedestrian friendly environment, even with development along its length. Although residential development along it will benefit from the public transport linkages into the CBD, the northern laneway system is a more appropriate scale for street-level activity and benefits from a north-facing aspect.

Strategy 10: Incentivise development that contributes to improvements along Norton Street

Encourage development through incentives

ACTION 10.1

FSR bonuses should be implemented to unlock increased residential floorspace for developers in return for the inclusion of community floorspace within the development. This is in addition to existing Section 94 requirements

It is applicable for lots of greater than approximately 500 sqm to ensure that community facilities are of a sufficient size and allow sufficient flexibility of uses. This figure is subject to testing in feasibility modelling.

As part of this, Council should identify a program of community facility infrastructure requirements that is specific to the study area. At a minimum, this should include the costs of identifying a suitable location for the library and cost of relocation. This would facilitate the negotiation of Voluntary Planning Agreements (VPAs) should they be presented to Council. VPAs should be considered as a method of delivering public benefits, but only as part of an understood strategic need. They should not be used to provide ad hoc and unsolicited infrastructure or improvements.

Rationale

Encourage development that contributes to improving the precinct's public domain and community infrastructure. As with other Actions (6.1, 6.2, 7.3) the fostering of a precinct that is attractive to investment gives Council the option to not only decide what they want but have the leverage to deliver it through private sector investment.

This would act in a manner similar to a Voluntary Planning Agreement (VPA) insofar as Council would reserve the right to refuse any offer as well as the apportunity to work with the developer to deliver required social infrastructure.

A program of community facility infrastructure requirements would act in a similar way to the Council's capital works program that Section 94 contributions are aligned to. This would enable council officers to assess proposals against it to ensure that only the infrastructure required is provided for.

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Aspart validity

This report has been commissioned during a significant period of change facing Leichhardt and the surrounding areas over the coming years. The recent release of the Draft Urban Transformation Strategy for Parramatta Road, the gradual development of the Bays Precinct vision and the continued planning for Westconnex means that land use and population growth is expected to change over the coming years. Additionally, the potential amalgamation of Leichhardt with Marrickville and Ashfield Councils presents a less certain policy landscape.

Additionally, 2016 is a new census year and so new population figures, along with employment and expenditure information will be released in the next 18 months to two years

In this light, the recommendations contained in this report would remain valid for approximately two years or dependent upon the finalising of any strategy for Parramatta Road or other shock created from infrastructure announcements or other scenarios not planned for The uncertainty of this development makes population and therefore retail forecasting less certain

Notwithstanding the possible changes and challenges facing the study area, the issues that this report raise will still need to be addressed regardless of council size and development potential.

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7 APPENDIX A: RETAIL MODEL

The following table shows the concordance between ANZSIC categories, and SGS retail categories.

TABLE 37. ANZSIC-STORE TYPE CONCORDANCE

4Deit AN 四年	SGS fets il Catego (y
Ca fes	Hospita lity
Resta nram ts	Hospita lity
Pubs, Taveres and Bars	Hospita lity
Clubs (Hospita lity)	Hospita lity
Sound/Radio/TV/Video Retailing	Large Format Retail - Electrical and Electronic Goods Retailing
Other Electrical and Electronic Goods Retailing	Large Format Retail- Electrical and Electronic Goods Retailing
Electrica I. Electronic and Gas Appliance Retailing	Large Format Retail- Electrical and Electronic Goods Retailing
Computerand Computer Peripheral Retailing	Large Format Retail- Electrical and Electronic Goods Retailing
Furniture Retailing	Large Format Retail- Firmiture, Floor Coverings, Houseware and Textile Goods Retailing
Domestik Hardware and Houseware Retailing N.E.C.	Large Format Retail- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
Domestic Household Tools/Paint Retailing	Large Format Retail- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
Floor Coverings Retailing	Large Format Retail- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
Manchester/Linen/Household Textiles Retailing	Large Format Retail- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
Garden Equipment/Tools Retailing	Large Format Retail- Hardware, Building and Garden Supplies Retailing
Marine Equipment Retailing	Large Format Retail- Hardware, Building and Garden Supplies Retailing
Clothing Retailing	Specialty - Clothing, Footwear and Personal Accessory Retailing
Perfumes and Cosmetics Retailing	Specialty - Clothing, Footwear and Personal Accessory Retailing
Footwear Retailing	Specialty - Clothing, Footwear and Personal Accessory Retailing
Mens and Boys Clothing Retailing (incl. hire)	Specialty - Clothing, Footwear and Personal Accessory Retailing
Jewellery Retailing	Specialty - Clothing, Footwear and Personal Accessory Retailing
Other Personal Accessory Retailing	Specialty - Clothing, Footwearand Personal Accessory Retailing
Health Foods Stores	Specialty - Food Retailing
Fresh Meat, Fish and Poultry Retailing	Specialty - Food Retailing
Other Specia lised food Retailing N.E.C.	Specialty - Food Retailing
Liquo r Reta iling	Specialty - Food Retailing
Smallgood's Stores/Delicatessens	Specialty - Food Retailing
Fish Shops	Specialty - Food Retailing
Poultry Shops (Frozen and Cooked)	Specialty - Food Retailing
Bakersand Bread Shops	Specialty - Food Retailing
Takeaway Food Services	Specialty - Food Retailing
Cold Food Retailing	Specialty - food Retailing
Hot Food Retailing	Specialty - Food Retailing
Housewa re Retailing N.E.C.	Specialty - Household Goods Retailing
Whitegoods Retailing	Specialty - Household Goods Retailing
Cutlery/Kitchenware Retailing	Specialty - Household Goods Retailing

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4Den ARISE	SGS Acts il Cartego sy coaco ida ace	
Other Retailing N.E.C.	Specialty - Other Retailing	
Variety Stores	Specialty - Other Retailing	
Antique and Used Goods Retailing	Specialty - Other Retailing	
Stationery Stores Retailing	Specialty- Other Retailing	
Toy and Game Retailing	Specialty - Other Retailing	
Sporting Equipment Retailing	Specialty - Other Retailing	
Antique Goods Retailing	Specialty - Other Retailing	
Photographic Chemica b/Supplies/ Films Retailing	Specialty - Other Retailing	
Drugs and Medicines Retailing	Specialty - Other Retailing	
Art Gallery, Retailing	Specialty - Other Retailing	
Fabrics Retailing	Specialty - Other Retailing	
Gift Shop	Specialty - Other Retailing	
Pets and Pet Accessories	Specialty - Other Retailing	
Leather Luggage & Travel Goods Retailing	Specialty - Other Retailing	
Second Hand Goods Retailing	Specialty - Other Retailing	
Newsage nt/Newspaper and Magazines Retailing	Specialty - Other Retailing	
Craft Shop	Specialty - Other Retailing	
Ad ult Books/Video Shop	Specialty - Other Retailing	
Sportand Camping Equipment Retailing	Specialty- Other Retailing	
Souvenirs Retailing	Specialty - Other Retailing	
Mobile Phone Outlet	Specialty - Other Retailing	
Camera/Photographic (excl. Film Prod.) Retailing	Specialty - Other Retailing	
Stamps and Coins Retailing	Specialty - Other Retailing	
Musical Instruments Retailing	Specialty - Other Retailing	
Sunglasses Retailing	Specialty - Other Retailing	
Supermanket	Supermarketand Grocery Stores	
Convenience Stores	Supermarketand Grocery Stores	

Retail Gravity Model

The SGS Retail Gravity Model distributes the available retail expenditure using a gravity distributional mechanism. The Model looks at the likelihood or propensity of a particular person to gravitate towards a retail centre within a defined retail system and estimates how much of a person's household goods retail expenditure will be spent at a particular centre based on two opposing forces.

- An attracting force if all retail centres were at your doorstep people will still have a
 preference to visit one centre over the other. This is a result of floorspace (as shoppers tend to
 enjoy greater variety and choice), the quality of the retailers, the price, the supplementary
 businesses (for example cinemas, entertainment) and so on.
- A detracting force this is generally represented as how far away the centre is. Given the
 associated costs of travel (all other things equal between two centres) a shopper will try and
 shop at the closer centre.

These two forces determine the market pull of a particular centre which is then used to determine how much of each resident's retail expenditure (that is, market share) will be spent at that particular centre. For a group of residents within the same Travel Zone (TZ), the market pull of a centre is calculated as follows:

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\begin{split} \text{Market Pull} &= \frac{\text{Attraction Pares}}{\text{Detracting Force}} \\ &= \frac{(\text{'Attractiveness' of the centre}) * (Floorspace of the centre)}{(Travelling time from the customer to the centre)^2} \end{split}
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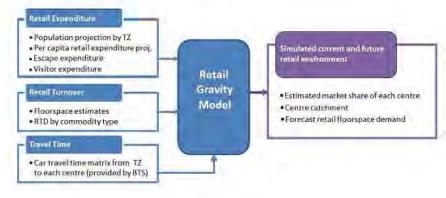
As described above, the "attractiveness" measures of a wide range of factors that make a shopper prefer one centre over another. All these factors are captured in the actual current performance of the centre.

The market share, or per cent of expenditure that is likely to be spent at a particular centre, is then calculated as follows:

As opposed to making assumptions to try to directly calculate the relative "attractiveness" of each centre, the 'attractiveness' of a centre is determined within the model, using the estimated retail turnover as a basis and working backwards to find the "attractiveness" value at the present time.

The model inputs and outputs, in the context of the current study, are summarised in Figure 27.

FIGURE 27 MODEL INPUTS AND OUTPUTS



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APPENDIX B: BLC DEFINITIONS

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Included in this guide are definitions of the Broad Land Use Categories

Summary Table

	BLC Code	BLC Name	Description	Example uses	Physical indicators	Lo cation requirements
Commercial office	0	Office	Office buildings that are independent (i.e. are not ancillary to another use on site) and likely to accommodate a significant number of administration staff	Banks; Architectural and Surveying Services;	Office buildings that are independent (ie, are not ancillary to another use on site); Office buildings likely to accommodate a significant number of administration staff (>10 people); and Will generally be in commercial area.	Typically require commercial centre locations. Need to have good accessibility for office workers.
Commercial office	ВР	Busine ss Park	Integrated warehouse, storage, R&D, 'back-room' management and administration with up to 40% office component		Generally a combination of office and some back-office functions, such as usually more than 40%	Traditional business park environments offer large land parcels and attractive site aspects Business park locations are heavily driven by strategic positioning with respect to arterial infrastructure. For business park land uses with higher industrial components proximity to population centres is not desirable.

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Retail	RB	Big Box Retail	Large shopping complex and supermarket developments.	Shopping Complexes (e.g. Westfields) Supermarkets Department Stores Factory Outlets	Typically large, rectangular buildings with few windows, and are purpose built	Typically require high levels of visibility and accessibility.
Retail	RM	Main Street Retail	Main Street Retail involves small scale and local retailing activities, traditionally found on the main street of an area	Post office Newsagency Chemist Clothing Retailing Convenience Stores Fresh Meat, Fish and Poultry Retailing Accessories Other Store-Based Retailing (except bulky goods)	Small scale, located along main roads or streets and in or near centres.	
Retail	RBG	Bulky Goods	Typically large, one-story buildings surrounded by car- parking,	Automobile Retailing; Homemaker centres Bedding & furniture retail Harvey Norman; BBQ's Galore; Timber and bulk hardware (eg Bunnings).	Require large building for storage of bulky goods Large, one story buildings, usually out of centre; Usually surrounding by carparking; and Usually high exposure (main roads).	Usually located out of centre and in high exposure (main road) locations

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Industrial	Ш	Heavy Industrial	Large scale production activity. Likely to be characterised by high noise emission; emission stacks; use of heavy machinery; and frequency of large trucks	Chemical Manufacturing Iron and Steel Manufacturing Petroleum and Coal Manufacturing Log Sawmilling Meat Processing Oil and Fat M anufacturing	Emission Stacks; Large scale production; High noise emission; Use of heavy machinery; and Frequency of large trucks	Industrial areas. Heavy manufacturing is in decline in Sydney, but will continue to cluster in some locations such as Wetherill Park, Campbelltown/Ingleburn etc There are strong arguments for collocation in terms of raw material delivery and to concentrate externalities (though impacts on surrounding uses are generally moderate).
Industrial	FL	Freight and Logistics	Warehousing and distribution activities. Includes buildings with a number of docking facilities, 'hard stand' areas with trucks or goods awaiting distribution; and large storage facilities	Postal depot/mail centres Road Freight Transportation Services Container Terminals Jeans West Distribution Centre Woolworth Storage Centre	Buildings with large number of docking facilities; Large 'hard stand' areas with trucks or goods awaiting distribution; Heavy movement of trucks; Large Storage Facilities; Warehousing; and Distribution Centre	Warehousing and distribution is a metro level issue with activities preferably locating close to air, sea and inter-modal inland ports, or with access to the motorway system
Industrial	US	Urban Services	Concrete batching, waste recycling and transfer, construction and local and state government depots, sewerage, water supply, electricity construction yards	Government (federal, state or local) Depot Bus Depot Water Supply, Sewerage and Drainage Services Electricity Supply Concrete Batching Recycling Depots		These typically have noise dust and traffic implications and need to be isolated or buffered from other land uses Needed in each sub-region
Industrial	U	Light Industrial	Small scale production with lower noise and emission levels than heavy manufacturing	Small printing works Small scale production Lower noise and emission levels than Heavy Industrial	Toy and Sporting Good Manufacturing; Clothing Manufacturing; Electrical Equipment Manufacturing; Footwear Manufacturing;	Industrial areas but with a lower requirement for distance from population than heavy manufacturing/

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					Boat Building; and Light Engineering	
Industrial	LSI	Local Service Industrial	Car service and repair; joinery, construction and building supplies; and domestic storage Typically does not interfere with the amenity of the neighbourhood via pollution.	Automobile Repairs Plumbers Building supplies Panelbeaters Domestic Storage Bricklaying Services Machinery and Equipment Hiring Self-storage	Services providing urban support, generally related to local population demand May have some ancillary office less than 20% of total.	Wide range of businesses that service other business (components, maintenance and support) and Subregional populations Need to be accessible for population centres
Other	DL	Local Dispersed	Social and community services, trades construction, other 'nomads'	Police/ Fire/Ambulance Services Childcare Religious Services Veterinarians, doctors, physios, chiros, dentists etc Funeral Services Cultural and Community Services (Libraries, Museums, Parks and Gardens) Accommodation		Institutions are dispersed but need to be accessible and well served by public transport
Other	DR	Regional Dispersed		Performing Arts Venues Amusement Parks Sports and Physical Recreational Venues and Grounds	Generally stand alone uses, in suburban areas, small scale	Typically require strategic locations and needed in each sub-region.
Other	55	Service Stations	Service Stations	Service Stations	ServiceStations	Main roads and busy road corridors

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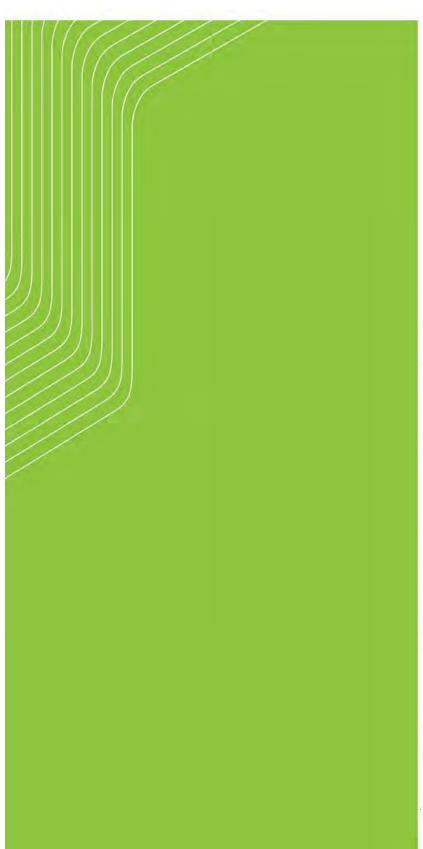


Health & Education	LHE	Local health and education	Smaller scale education or health uses such as schools, training centres, community college, aged care facilities, day surgery	Nursing homes Training centres Pre, Primary schools Sports and Recreational Services Secondary Schooling	Small scale education or health	Institutions are dispersed but need to be accessible and well served by public transport
Health & Education	RHE	Regional health and education	Large-scale regional health and education facilities include general and speciality hospitals, universities and TAFEs	Hospitals Tertiary Level Education	Large scale government, community or entertainment/sporting sites, providing a wide variety of activities.	Typically require strategic locations and needed in each sub-region
Vacant	VO	Vacant - Office		Vacant office building	If occupied, likely use would be office	
Vacant	VR.	Vacant - retail		Vacant retail building	If occupied, likely use would be retail	
Vacant	VI	Vacant - industrial		Vacant industrial building	If occupied, likely use would be industrial	
Vacant	VD	Vacant - dispersed		Vacant dispersed building	If occupied, likely use would be dispersed use	

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ITEM 2.3 PARRAMATTA ROAD AND NORTON STREET URBAN DESIGN STUDY

Division	Environment and Community Management	
Author	Executive Strategic Planner	
Meeting date	8 March 2016 Policy Meeting	
Strategic Plan Key Service Area	Community well-being Accessibility Place where we live and work A sustainable environment Business in the community	
SUMMARY AND ORGANISATIONAL IMPLICATIONS		

Purpose of Report	To seek endorsement of the Parramatta Road and Norton Study Urban Design Study.
Background	The Parramatta Road and Norton Street Urban Design Study was commissioned as part of Council's Strategic Sites, Centres and Corridors – Parramatta Road project. At its meeting of 23 July 2013, Council resolved to undertake the Strategic Sites, Centres and Corridors – Parramatta Road project.
	On 28 October 2014, Council resolved to extend

the project area to include Norton Street.

These resolutions led to the current Parramatta Road/Norton Street Strategic Sites, Centres and Corridors project. The approach to the project, endorsed by Council at its meeting of 10 February 2015, was envisaged as follows:

Phase 1 – Information collection and analysis

Phase 2 – Objectives and guiding principles

Phase 3 – Structure plan and supporting documentation

Phase 4 – Scenario development and feasibility testing

While Phase 1 was well underway with the Industrial Lands Study completed and the subsequent phase of industrial precinct planning commenced, the remainder of the phases have largely been undertaken simultaneously in response to the release of the Draft Parramatta Road Urban Transformation Strategy (DPRUTS) by UrbanGrowth NSW and the need for Council to establish its own position on the redevelopment of



	the corridor and adjacent precincts.
	The purpose of the urban design study was to establish the desired future character for the Parramatta Road and Norton Street corridors and inform the future land use planning framework to achieve viable development of appropriate massing, scale and grain. The study was undertaken concurrently with commercial/retail and design and heritage studies for the corridors as well as detailed industrial precinct planning work.
Current Status	Council made a submission on the Draft Parramatta Road Urban Transformation Strategy in December 2015. UrbanGrowth NSW subsequently advised Council officers that additional information could be accepted up until mid-March 2016.
Relationship to existing policy	The Strategic Sites, Centres and Corridors – Parramatta Road project is identified in the Employment and Economic Development Plan and incorporates actions of the Community and Cultural Plan, Integrated Transport Plan, Affordable Housing Strategy and a number of Council resolutions.
Financial and Resources Implications	The Parramatta Road and Norton Study Urban Design Study was funded from the \$160,000 Council allocated to the Strategic Sites, Centres and Corridors – Parramatta Road project.
	This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure.
Recommendation	 That Council: Endorse the Parramatta Road and Norton Study Urban Design Study as the basis for a review of land use planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and Forward a copy of the Parramatta Road and Norton Study Urban Design Study to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy.
Notifications	Community and stakeholder engagement in the review of Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.



Attachments	1.Parramatta Road and Norton Street Urban
	Design Study



Purpose of Report

To seek endorsement of the Parramatta Road and Norton Study Urban Design Study.

Recommendation

That Council:

- Endorse the Parramatta Road and Norton Study Urban Design Study as the basis for a review of land use planning policies and controls in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013; and
- 2. Forward a copy of the Parramatta Road and Norton Study Urban Design Study to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy.

Background

The Parramatta Road and Norton Street Urban Design Study was commissioned as part of Council's Strategic Sites, Centres and Corridors – Parramatta Road project. At its meeting of 23 July 2013, Council resolved to undertake the Strategic Sites, Centres and Corridors – Parramatta Road project:

That a Strategic Sites, Centres and Corridors study for Parramatta Rd from Johnston St to Mallet St and Johnston's Creek (see Fig. 1 in report) - the defined area to be subject to minor adjustments recommended by staff following further refinement of the study's scope - be brought forward to be commenced as soon as possible, the scope of the study to include all matters flagged for consideration, specifically:

- Future employment and economic possibilities, including business incubators to facilitate small 'start up' enterprises;
- Housing opportunities, in particular aged housing, student housing and key worker housing;
- Transport considerations, including public transport, cycleways and pedestrian linkages;
- Public domain improvements;
- Place-making and activation of the public domain;

And with reference to:

- Council's flagged intention to develop Parramatta Road as a live music and entertainment precinct;
- The regeneration of transport corridors and high street precincts;
- The need to develop a more detailed response to opportunities implied by the proposed West Connex Corridor.

On 28 October 2014, Council resolved to extend the project area to include Norton Street:



8. Include consideration in the pending strategic sites and corridors study of identifying Norton Street as a location for increased density. This should include an assessment of the benefits of focusing on residential, commercial, entertainment land uses on Norton Street to improve the viability of businesses and reduce impacts on the amenity of non main street residential dwellings.

These resolutions led to the current Parramatta Road/Norton Street Strategic Sites, Centres and Corridors project. The approach to the project, endorsed by Council at its meeting of 10 February 2015, was envisaged as follows:

Phase 1 – Information collection and analysis

Phase 2 – Objectives and guiding principles

Phase 3 – Structure plan and supporting documentation

Phase 4 – Scenario development and feasibility testing

While Phase 1 was well underway with the Industrial Lands Study completed and the subsequent phase of industrial precinct planning commenced, the remainder of the phases have largely been undertaken simultaneously in response to the release of the Draft Parramatta Road Urban Transformation Strategy (DPRUTS) by UrbanGrowth NSW and the need for Council to establish its own position on the redevelopment of the corridor and adjacent precincts.

The purpose of the urban design study was to establish the desired future character for the Parramatta Road and Norton Street corridors and inform the future land use planning framework to achieve viable development of appropriate massing, scale and grain. The study was undertaken concurrently with commercial/retail and design and heritage studies for the corridors as well as detailed industrial precinct planning work.

Report

The Draft Parramatta Road Urban Transformation Strategy was released by UrbanGrowth NSW immediately prior to the engagement of consultants for the Parramatta Road and Norton Street Urban Design Study, and as such the brief for the study morphed into two components:

- 1. Urban form analysis and development of urban design objectives and guidelines for the Parramatta Road and Norton Street corridors; and
- 2. Assessment of the draft Parramatta Road Urban Transformation Strategy (draft Strategy) with regard to the Taverners Hill, Leichhardt and Camperdown Precincts.

The Camperdown industrial precinct was not considered under the subject urban design study as it has been examined as part of the industrial precinct planning urban design work.

Architectus, an urban design, architecture and planning practice, was engaged to undertake the urban design study. Due to the timeframe, resourcing and scale of the project, Architectus subsequently engaged architectural firm CHROFI, with Council's approval, to assist with the delivery of the study.



Methodology

The methodology applied to the study was as follows:

- 1. Consolidated analysis and identification of strengths, weaknesses, opportunities and constraints within the existing urban form;
- 2. Draft objectives and guiding principles within the themes of Built Form, Movement and Public Domain;
- 3. Identification of appropriate built form outcomes;
- 4. Where mixed residential/commercial development outcomes are deemed appropriate, provide principles for responding to aircraft and road noise for residential development.

Urban design characteristics

The following characteristics of the Norton Street and Parramatta Road corridors were identified.

Norton Street	Parramatta Road
Fine grain built form on western side of Norton Street (adapted terrace and shop houses) and larger format commercial and retail premises on the eastern side of Norton Street (south of Marion Street).	Generally consistent two-storey fine grain built form (shop houses) on both sides of Parramatta Road, and larger warehousestyle commercial and retail premises and several heritage pubs – typically these are on larger, corner lots.
A cluster of civic buildings around the intersection of Norton Street and Marion Street, situated on the local topographic high-point (the 'civic' precinct).	Transition from retail and commercial premises fronting Parramatta Road to lower density individual residential dwellings to the north.
Long, north-south blocks with some east- west informal pedestrian connections on private land.	Some isolated examples of recent mixed use development (4-5 storeys) with residential units above retail/commercial ground floor.
Some detracting built form, particularly between Marion Street and Parramatta Road.	Long, east-west blocks, 60-190m in length.
Generally consistent fine-grain built form (shop houses) north of Marlborough Street.	Some detracting built form, particularly those that lack street activation (e.g. surface car parks) or with large, blank walls.



Urban design principles

The analysis of the study area led to the development of the following urban design principles:

Built form

- Built form should manage potential interface between different land uses on site and at the 'edges' of the precincts – to the R1 General Residential areas.
 Consider a form that mediates between Parramatta Road and single level dwellings one block behind.
- Encourage built form that maintains fine grain and is not reliant on lot amalgamation. Provide for 1, 2 and 3 lot amalgamation options.
- Encourage ground level commercial. Allow for flexible commercial/residential uses on the second storey. Residential uses above.
- Encourage two levels (garage with studio or two level dwelling) North/residential side of laneway.
- Create a defined laneway edge. Building form could start back from the laneway but the street edge should be held by garage door or some built form element.
- Built form should facilitate lot permeability while managing access and security.
- Built form should adequately mediate noise to apartments that face Parramatta Road while ensuring ability to achieve cross ventilation as per SEPP 65.
- Built form should respond intelligently to level changes by facilitating entries to different land uses at different levels.
- A four storey, 15m street wall should be encouraged to provide an appropriate built form scale to Parramatta Road while keeping the existing character of the contributory façades prevalent on Parramatta Road and Norton Street.
- Upper levels (level 5 and 6) should be setback from the street wall a 6-8m setback above a 4 storey street wall to reduce apparent building bulk and scale.
- Allow a maximum of three levels to laneway Parramatta Road side. Setback levels above three storeys a minimum of 10m.
- Car parking should be in a basement level or levels to encourage the most efficient use of the site.
- Sites under 17m in width that require multiple basement car park levels should be amalgamated to improve floorspace efficiency and to allow for minimum car park space and aisle dimensions.
- Alterations and additions to buildings with heritage value in Conservation Areas should adhere to the controls in Council's adopted heritage studies for Parramatta Road and Norton Street.
- Ground and first floor floor-plates should be as flexible as possible to ensure buildings can respond to changes to market demand over time. Floor-plates on the second storey above ground level should be designed with a 3.6m floor to ceiling height to allow either commercial or residential uses. This ceiling height also works better with the historic two storey shop house façades.
- Allow additional height where new development creates public development e.g. desired mid-block connections.
- Norton Street built form scale to be 3-4 storeys generally. 6 storeys permissible for special sites that provide public benefit and Norton Street East sites (south



of Marion Street) where lot sizes are generally larger, existing built form quality is lower, and lots can more readily be amalgamated.

Streets and laneways

- Streets and laneways should facilitate the functionality of retail and commercial uses, including accommodating large vehicles where possible.
- Streets and laneways should be activated throughout the day and evening to increase the perceived and actual safety and vibrancy of the precincts.
- Streets and laneways should provide amenity for pedestrians to encourage patronage to local businesses.

Public domain

- Pedestrian connectivity to retail and key community assets should be facilitated through improved site permeability and pedestrian links.
- Opportunities for new or improved public spaces to support the amenity of Parramatta Road and Norton Street and additional demand driven by increased capacity should be identified.
- In the winter solstice, allow sunlight to southern footpath of Parramatta Road (typically a maximum of six storeys will achieve this with setbacks to the upper levels).

Indicative capacity estimate

Based on the urban design principles and built form site testing, achievable FSRs were applied to opportunity sites within the study area. The outcome of this capacity estimate is a nett increase of 150,000m² GFA. Assuming 10-15% retail/employment floorspace and 85-90% residential, this provides a total additional capacity of 15,000-22,500m² retail/commercial (or 300-450 jobs based on 1 job per 50m²) and 127,500-135,000m² residential (or 1,275-1,350 additional dwellings based on 1 dwelling per 100m²).

In comparison, the DPRUTS forecasts that the Leichhardt Precinct will accommodate 1,222 dwellings by 2050. The study has identified that there is considerable scope within the frame areas which was not explored under the DPRUTS.

The study also identifies that there is the potential capacity for 300-450 additional jobs (based on 1 job/50m²) within the study area, while the DPRUTS anticipates that jobs within the Leichhardt Precinct will decrease from 2,904 currently to 1,626 in 2050.

Relationship with the Draft Parramatta Road Urban Transformation Strategy

The table below includes relevant recommendations from Council's submission to UrbanGrowth NSW on the Draft Parramatta Road Urban Transformation Strategy (DPRUTS) and findings of the urban design study which clarifies and reinforces Council's positions.



Issue	Initial Council recommendation	Study findings
Leichhardt Precinct	61. Council notes that all properties fronting	The draft study identifies a maximum height of 6
Building Heights -	Parramatta Road in the Leichhardt	storeys and FSR of 3:1 for sites on Parramatta
Parramatta Road	Precinct are within a Heritage	Road, both within the Leichhardt Precinct and
The DPRUTS recommends	Conservation Area. The built form	adjoining frame areas. Notwithstanding, it is
heights of 4 storeys for sites	controls for this precinct must be	acknowledged that contributory buildings and
on Parramatta Road.	informed by detailed site testing, showing	sites adjacent to heritage items may not be able
	how contributory buildings can be	
	adaptively reused and how additional	
	density can be acceptable from a	would be considered on merit. For the purpose
	heritage perspective. Council has	of estimating additional capacity within the
	recently completed a comprehensive	,
	review of the heritage status of the	
	Parramatta Road and Norton Street	
	corridors as it relates to the Leichhardt	'
	Precinct. Council will be using this work	•
	to inform its Urban Design Study for this	· ·
	Precinct. Council requests that its studies be used to inform further	public benefit is provided.
	iterations of the DPRUTS.	
	iterations of the DFR013.	The study recommends a four storey, 15m street wall to Parramatta Road to provide an
	62. Council recommends that additional	<u> </u>
	testing is undertaken to establish:	Before arriving at this recommendation, the
	 A built form typology that allows for 	
	the retention of the front element of	· ·
	contributory buildings and retention of	'
	the existing street wall and fine grain	·
	character.	would increase the visibility of development
	 Maximum height and FSR controls 	when viewed from within the corridor and thus its
	for different lot sizes.	apparent bulk and scale.
	 If lot amalgamation is required to 	A for a state of the state of t
	achieve a feasible mixed use	A four storey wall height will not be appropriate



devel	opment.
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Council is currently testing built form options and will provide detailed feedback to UrbanGrowth NSW in 2016.

for the entire corridor, for example the location of any additional development on sites containing or adjacent to contributory buildings and heritage items will need to respond to the significance of the buildings.

To establish an appropriate scale of built form and transition to adjoining residential development, a maximum of three storeys is recommended adjacent to laneways to the rear of Parramatta Road properties.

Leichhardt Precinct: New Public Domain

The DPRUTS does not identify any new public open space in the Leichhardt part of the precinct.

- 63. Council recommends that streets parallel to Parramatta Road, may be the location for new civic space achieved through a setback to development. In these locations, where the traffic noise is significantly less than on Parramatta Road, places to meet and dwell could be created without unreasonable impacts on the development potential of those sites. These spaces could also provide a sequence of interesting spaces to activate the link between residential areas and Norton Street and contribute to Council's objectives in relation to a reduction in the Heat Island effect.
- 64. Council recommends that the DPRUTS public domain plan be amended to include additional spaces once Council's Urban Design study is completed and

Council recommends that streets parallel to Parramatta Road, may be the location for new civic space achieved through a setback to development. In these locations, where the traffic noise is significantly less than on Parramatta

The report identifies potential locations for public plazas along the Norton Street corridor and recommends that the side streets along the length of the Parramatta Road corridor provide opportunity to create public domain amenity with widened footpaths and street planting.



	provided to UrbanGrowth NSW in 2016.
Building Height – Remainder of the Precinct The draft DPRUTS recommends heights between 6-8 storeys for the majority of the precinct.	65. Council does not support the 6-8 storeys as proposed in the DPRUTS in the Leichhardt Precinct. Council notes that is undertaking additional testing to identify the most appropriate: • built form typology for sites on Parramatta Road and other streets (street wall heights and setbacks, side setback strategy etc.) • maximum height and FSR controls for different lot sizes. • detailed built form controls to protect heritage and shopfronts in some areas, and a fine grain built form in all areas. • street wall heights for all important pedestrian and cycle corridors. • ways to achieve residential amenity on Parramatta Road through building design. Council is currently testing built form options and will provide detailed future provisions to UrbanGrowth NSW in 2016. The urban design study recommends heights of 3-4 storeys and FSR of 1.9:1 for the majority of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street corridor. On the eastern side of the Norton Street, south of Marion Street, some sites with capacity for 6 storeys and FSR of 3:1 are identified. While there are some sites, predominantly north of Marion Street, where no scope for change has been identified. While there are a number of 'Special Sites' within the Leichhardt Precinct where additional height and scale may be appropriate in return for public benefit, such as through-site
Leichhardt Precinct: Active	66. Council supports the requirement for The urban design study identifies active street
Street Frontages	development on Parramatta Road to frontages to Parramatta Road and Norton Street
The DPRUTS recommends active frontages on Parramatta	have non-residential uses at ground level for the extent of the study area. This includes and multiple entries. However, Council encouraging the activation of rear laneways
active nontages on Fananatta	and maniple entities. However, Council encouraging the activation of feat laneways



Road and Norton Street

notes that Parramatta Road will not have
the same main street character as other
streets - primarily because of the narrow
footpaths, busy traffic and traffic noise
and that Norton Street should be the
primary focus for retail activity and public

domain upgrades in this precinct.

parallel to Parramatta Road and the side streets, which provide opportunity for spaces which offer enhanced amenity, including green relief.

Notwithstanding, the commercial and retail study recommends that addressing the high vacancy rates within Norton Street through reactivation and improvement of its character must be prioritised ahead of the provision of additional retail floorspace. Then as demand grows, this could extend along side streets with direct links to Norton Street.

Facilitating additional floorspace prematurely would result in an oversupply of floorspace and thwart efforts to reactivate and improve the retail offer of Norton Street.

The commercial and retail study also notes that retail floorspace associated with any development along Parramatta Road should be no larger than neighbourhood retail in size so that its catchment does not overlap with Norton Street and there is no gravity shift away from Norton Street.



Summary/Conclusions

In conjunction with the Commercial and Retail Study: Norton Street and Parramatta Road, the urban design study will be used to review and develop Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 policies, objectives and controls for the Parramatta Road/Norton Street corridor and to help shape UrbanGrowth NSW's development of the Parramatta Road Urban Transformation Strategy. These studies will also be considerations in Council assessments of the individual merits of planning proposals and development applications in the Parramatta Road/Norton Street corridor.

UrbanGrowth NSW is aware that the Parramatta Road and Norton Study Urban Design Study was being undertaken by Council and have indicated their willingness to consider the findings. They have however, advised Council officers that any further information, in addition to that provided during the exhibition period for the Draft Parramatta Road Urban Transformation Strategy, can only be accepted up until mid-March 2016.

It is recommended that the urban design study be endorsed as a basis for the review of the Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 and forwarded to UrbanGrowth NSW for consideration in the progression of the Parramatta Road Urban Transformation Strategy.

Next Steps

Subject to the endorsement of the Parramatta Road and Norton Study Urban Design Study the following steps will be taken to progress Council's approach to the planning for the corridors:

- Confirmation of final planning objectives and principles through community and stakeholder engagement.
- Report community engagement outcomes to Council.
- Application of Council endorsed objectives and principles to the review of Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.
- Preparation of draft Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013 amendments and presentation of these to Council for endorsement to submit a draft LEP amendment planning proposal for Gateway Determination.
- Report Gateway Determination to Council and subject to Gateway approval proceed to public exhibition of Planning Proposal and associated DCP Draft Amendments.
- Report to Council on public exhibition and proceed to publication for the LEP and DCP amendments.

Attachment



Parramatta Road and Norton Street

Urban Design Study

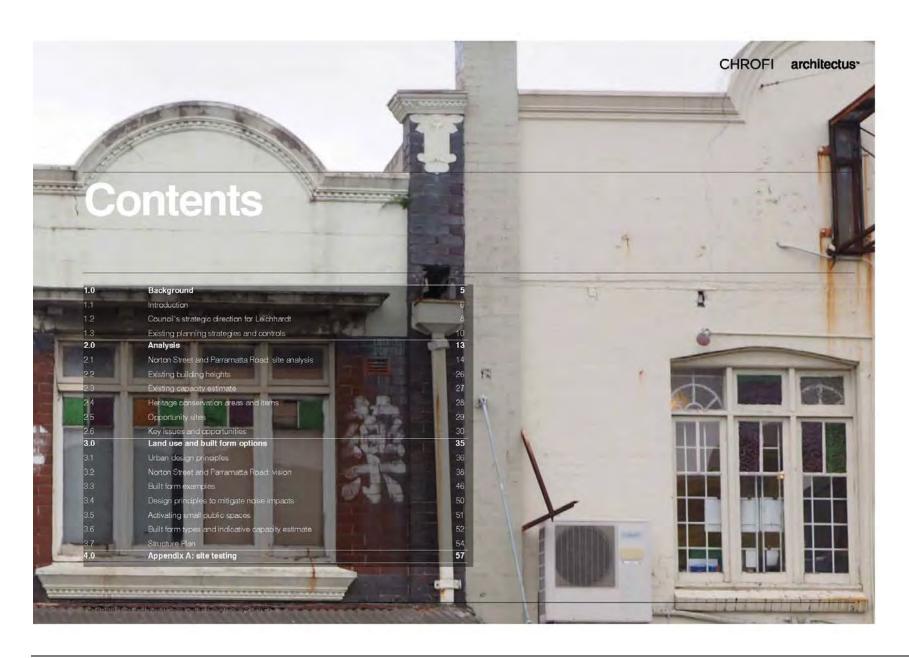
For Leichhardt Municipal Council 29 February 2016



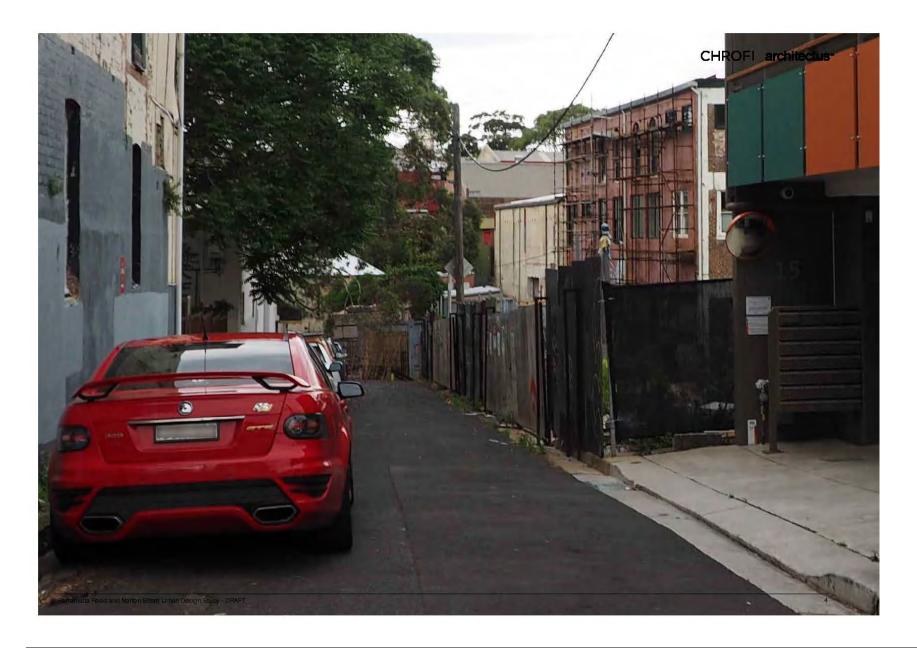




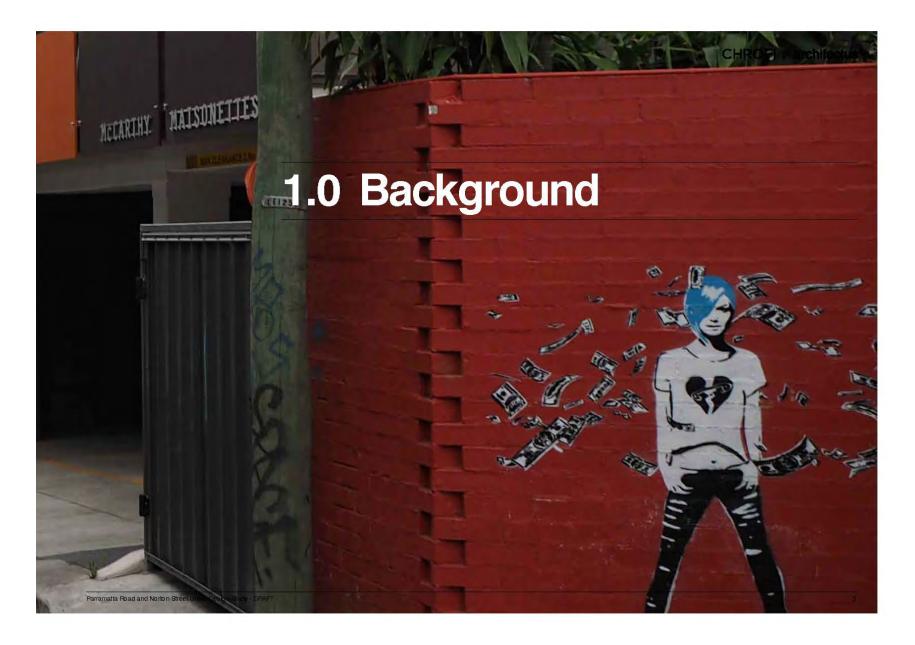














1.1 Introduction

The vision for Leichhardt is to build on the area's unique vibrant mixed use character, encouraging intensification and renewal in appropriate locations. This report has been prepared by CHROFI and Architectus for the Paramatta Road and Norton Street Precinct (refer plan opposite).

Purpose of this report

The purpose of the study is to establish the desired future character for the study area and inform the future land use planning framework to achieve viable development of appropriate massing, scale and grain.

Key outputs of the study is to provide:

- a) a consolidated analysis plan for the Parramatta Road(Norton Street study area which illustrates the key strengths, weaknesses: opportunities and constraints within the existing urban form. This analysis will inform the future character and liveability of the area.
- draft objectives and guiding principles for the precinct in collaboration with Council within the following themes;
- Built Form
- Movement
- Public Domain

Consideration should be given to:

- implementing the recommendations of the 1996 Hill Thalis Leichhardt Town Centre Urban Design Study in relation to opportunities for midblock pedestrian links and laneway connections to improve accessibility and provide retail and commercial frontages;
- the potential to extend retail and commercial activity into side streets (Strategy 1.1.2.e.iii of the Employment and Economic Development Plan 4 Year Service Delivary Plan);
- locations that may require the dedication of land to enhance the open space and public domain networks;
- the draft "Building Envelopes" and related guidelines for the UnitingCare sites prepared by Allen Jack + Cottler. The study should have regard to the work undertaken for these sites but not reconsider the outcomes already prepared.

- In addition to the original brief, this report takes into consideration mapping of heritage listed buildings, contributory buildings, neutral buildings and defracting buildings, based on a Heritage Assessment of Norton Street and Parramatta Road Corridors by NBRS (2015).
- i) Identify appropriate built form outcomes by way of discussion, plans and illustrations. Consideration should be given to:
- height (storeys and metres)
- massing
- grain
- setbacks
- building typologies
- site specific provisions for key sites e.g. gateways
- integration and retention of heritage
- site amalgamations
- solar access and overshadowing
- permeability/connectivity
- parking
- if mixed residential/commercial development outcomes are deemed appropriate, investigate the potential for appropriate mixed-use built form typologies that address aircraft and traffic noise impacts for residential components.

Built form options tested in this report have taken into account the commercial and retail study by SGS Economics and Planning which determined the esisting capacity and future demand for commercial floorspace within the project area to inform the land use future of the B2 zoned land.

The Study Area

The study area is loosely defined by 1 block north of Paramatta Road between Elswick and Nelson Streets, and 1 block either side of Norton Street from Paramatta Road to Macauley Street, just South of Pioneers. Park (refer plan opposite). Due consideration is given on solar access to blocks on the south side of Paramatta Road.

Council's vision for Leichhardt

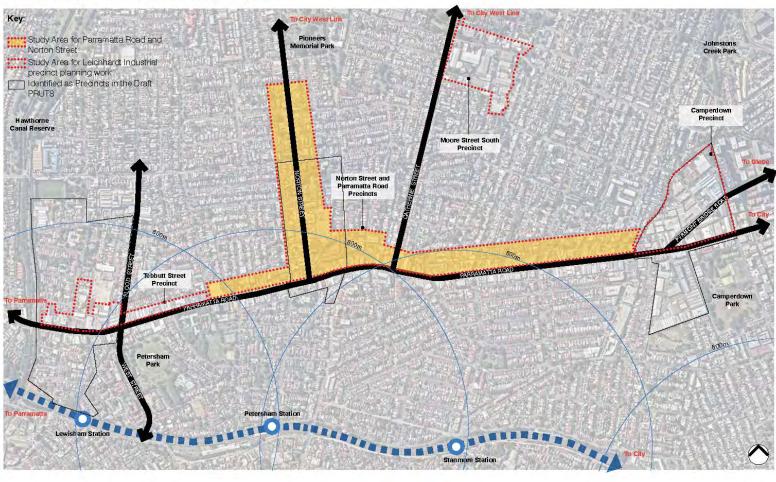
The vision for Leichhardt is to build on the area's unique vibrant mixed use character, encouraging intensification and renewal in appropriate locations to create jobs, new public spaces, revitalise retail precincts and provide new dwellings.

The objectives for this project are to:

- Map the heritage character of the area, ensuring that new built form integrates with existing and adds positively to the character of the precinct
- Review existing built form, ownership and urban design quality of the public domain within the study area
- Identify opportunity sites that are more readily developed
- Identify new laneway and / or street connections that would facilitate improved pedestrian connections within the precinct.
- Define an appropriate built form scale for Norton Street and Paramatta Road
- Test several built form options on typical sites to determine an appropriate scale and density that could be applied to the rest of the precinct
- Propose revised built form outcomes for the study area



Norton Street and Parramatta Road Urban Design Study Area





1.2 Council's strategic direction for Leichhardt

Council has undertaken and commissioned a range of studies focused on the Parramatta Road corridor through the Leichhardt LGA. These studies have informed land use planning, including preparation of and amendments to the Leichhardt LEP 2013.

These documents, and the key strategic directions relevant to the Parramatta and Norton Street precinct planning are summarised below:

Leichhardt 2025+

Leichhardt 2025+ is Leichhardt Council's Community Strategic Plan which guides the Delivery Program and Operational Plan in line with the community's aspirations for the next ten years. The vision statement from Leichhardt 2025+ is:

Community and Council will work together to promote and develop Leichhardt as a sustainable, liveable and connected community.

The plan also sets goals for community participation and best practice planning.

Leichhardt Employment and Economic Development Plan

The Leichhardt Employment and Economic Development Plan (EEDP) is a 10-year strategy for the future economic development of Leichhardt LGA. Its purpose is to identify initiatives that can make a fundamental improvement to Leichhardt's economy.

A key strategy relevant to this study is:

 Strategy 1.1: Drive the renewal of key centres sites and corridors through place-based planning and making.

Leichhardt Community and Cultural Plan

The Leichhardt Community and Cultural Plan (CCP) comprises an integrated 10 year strategic service plan, supported by a 4 year service delivery plan, that addresses the social and cultural aspirations and challenges of the Leichhardt LGA.

Key strategies relevant to this study are:

- Strategy 2.1.2: Work with local businesses, community and cultural groups to foster an identity responsive to the changing community
- Strategy 2.2.2: Develop positive interaction between public and private spaces
- Strategy 2.2.3: Manage and encourage shared use of the public domain
- Strategy 2.4.1: Encourage pedestrian and cycle friendly neighbourhoods with access to local services, spaces and places.





Leichhardt 2025+



Leichhardt Town Centre Urban Design Study, Hill Thalis, 1996

The Hill Thalis study undertook a thorough analysis of topography and environment, street layout, blocks, mid-block links, public facilities, subdivision, built form and conservation areas in the Norton Street area. Key recommendations include:

- Increased density for mixed uses on Norton Street.
- Increased permeability and new through site links into Norton Street.

Fine Grain Density Modelling, RAW Architects + Callagher

RAW Architects and Callagher undertook an analysis and assessment of Parramatta Road within the Leichhardt LGA and prepared massing models to consider various densities. Key recommendations include:

- Allow for renewal along Parramatta Road on one or two lots to retain a fine grain.
- Consider the transition to adjoining neighbourhoods, with density focussed on Parramatta Road.

Leichhardt Shopfront Improvement Audit, GMU, 2014

The audit concluded that Leichhardt and Parramatta Road are most in need of improvements to passive surveillance and the pedestrian experience. Key recommendations include encouraging active and transparent shop fronts, introducing new mid-block pedestrian links, activating side streets, and improving landscape character.

Off Broadway Live Music Reference Group Final Report, 2014

This report identifies opportunities to enhance the potential of Parramatta Road and Sydenham as cultural, live music and performance destinations. Recommendations include the promotion and management of the area as a live music and cultural space, including small, affordable, flexible venues for emerging artists and ancillary uses (cafes, small bars, clothing, design). The report also makes recommendations to manage interface, including building construction requirements.







1.3 Existing planning strategies and controls

1.3.1 Planning strategies

A Plan for Growing Sydney

- A Plan for Growing Sydney sets out goals and actions for the Sydney metropolitan area to achieve the State's vision for 'a strong global city, a great place to live'
- Leichhardt is part of the Central Subregion, which is expected to provide an agglorneration of high-value industries and employment while increasing residential density in appropriate centres to deliver a city of housing choice, with homes that meet our needs and lifestyles, by accelerating housing supply across Sydney and accelerating urban renewal across Sydney.
- Parramatta Road is identified as a key area of focus for delivering additional dwellings through the transformation of underutilised lands.
 The corridor will be 'a focus for increased housing, economic activity and social infrastructure'.

Leichhardt 2025+

- Leichhardt 2025 represents the community's main priorities and aspirations for the future, guiding Council's actions through ten year strategic service plans, a four year delivery program and annual operational plan.
- A key goal of Leichhardt 2025+ is a 'thriving business and a vibrant community working together to improve the local economy'.

Leichhardt Employment and Economic Development Plan

 The Leichhardt Employment and Economic Development Plan is a ten year service strategy supporting Leichhardt 2025 - that identifies initiatives to support Leichhardt's economy.

1.3.2 Planning Controls (Local Environmental Plan)

The Leichhardt Local Environmental Plan 2013 (LLEP 2013) sets planning controls for the LGA.

Land Use Zoning

Land in the study area is zoned B2 Local Centre, adjoining areas of R1 General Residential zoning.

Objectives of the B2 Local Centre Zone are:

- To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.
- To encourage employment opportunities in accessible locations.
- To maximise public transport patronage and encourage walking and cycling:
- To ensure that development is appropriately designed to minimise amenity impacts.
- To allow appropriate residential uses to support the vitality of local centres.
- To ensure that uses support the viability of local centres.
- To provide a mixture of compatible land uses.
- To reinforce and enhance the role, function and identity of local centres by encouraging appropriate development to ensure that surrounding development does not detract from the function of local centres.
- To integrate suitable business, office, residential, retail and other development in accessible locations.

The zone permits, with consent, the following uses.

Attached dwellings; Boarding houses, Child care centres; Commercial premises; Community facilities; Dual occupancies; Dwelling houses; Educational establishments; Entertainment facilities; Function centres; Information and education facilities; Medical centres; Multi dwelling housing; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Residential flat buildings; Respite day care centres; Restricted premises; Roads; Rural workers' dwellings; Semi-detached

dwellings, Service stations; Shop top housing; Tourist and visitor accommodation; any other development not specified as prohibited.

The zone prohibits a range of uses, including:

Agriculture; Air transport facilities; Airstrips; Animal boarding or training establishments; Biosolids treatment facilities; Camping grounds; Caravan parks; Cemeteries; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Extractive industries; Farm buildings; Forestry; Freight transport facilities; General industries; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Industrial training facilities; Marinas; Mooring pens; Open cut mining. Port facilities; Recreation facilities (major); Rural industries; Sewage treatment plants; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops, Warehouse or distribution centres; Waste disposal facilities; Waste or resource transfer stations; Water treatment facilities; Wharf or boating facilities; Wholesale supplies.

Additional local provisions apply, clause 6.11A.

- (1) The objective of this clause is to promote residential accommodation as part of mixed use developments in business zones to support the vitality of neighbourhood and local centres.
- (2) This clause applies to land in Zone B1 Neighbourhood Centre and Zone B2 Local Centre.
- (3) Development consent must not be granted to development for the purpose of residential accommodation on land to which this clause applies unless the consent authority is satisfied that:
- (a) the bullding comprises mixed use development, including residential accommodation, and
- (b) the building will have an active street frontage, and
- (c) the building is compatible with the desired future character of the area in relation to its bulk, form, uses and scale.
- (4) In this clause, a building has an active street frontage if all floor space on the ground floor of the building on the primary street frontage is used for a purpose other than residential accommodation (with the exception of areas for access or service purposes).



Floor Space Ratio

Maximum FSR in the study area is 1.1 for B2 zones, with provisions for 'Area 1' to have a maximum FSR of 1.5.1 to encourage mixed use development that have active ground floor frontages (clause 4.4A).

Adjoining R1 zoned land has FSRs of 0.5.1 and 0.6:1.

Height of Buildings

There is no applicable maximum height of buildings control for the study area.

Heritage

- Approximately half of the the western side of Norton Street (south of Marion) is within a Conservation Area.
- Both sides of Norton Street, north of Marion Street is within a Conservation Area
- Almost the entire frontage of Parramatta Road within the study area is in a Conservation Area

A more detailed heritage study has been undertaken by NBRS who have classified buildings within the study area into Heritage Items and Contributory, Neutral and Detracting buildings (refer section 2.4)

1.3.3 Planning Controls (Development Control Plan)

Parking

 The Leichhardt DGP 2013 provides minimum and maximum parking rates for a range of land uses. The following table sets out parking rates for key land uses relevant to this study (not including visitor parking).

Residential

1 bedroom unit	minimum 1 space per 3 dwellings	maemum 0.5 space per 1 dwelling
2 bedroom unit	minimum 1 space per 2 dwellings	maximith 1 space por 1 dwelling
3 bedroom unit	minimum 1 space per 1 dwelling	maamum 1.2 spaces per 1 dwelling
	minimum 1 space per 100sqm	maximum 1 ápoco per 60sqm
	minimum 1 space per 100sqm	тивотит 1 араса рег 60адт
Businees premises Office premises Industry		

mmimum I space per 125sqm maximum I space per 100sqm

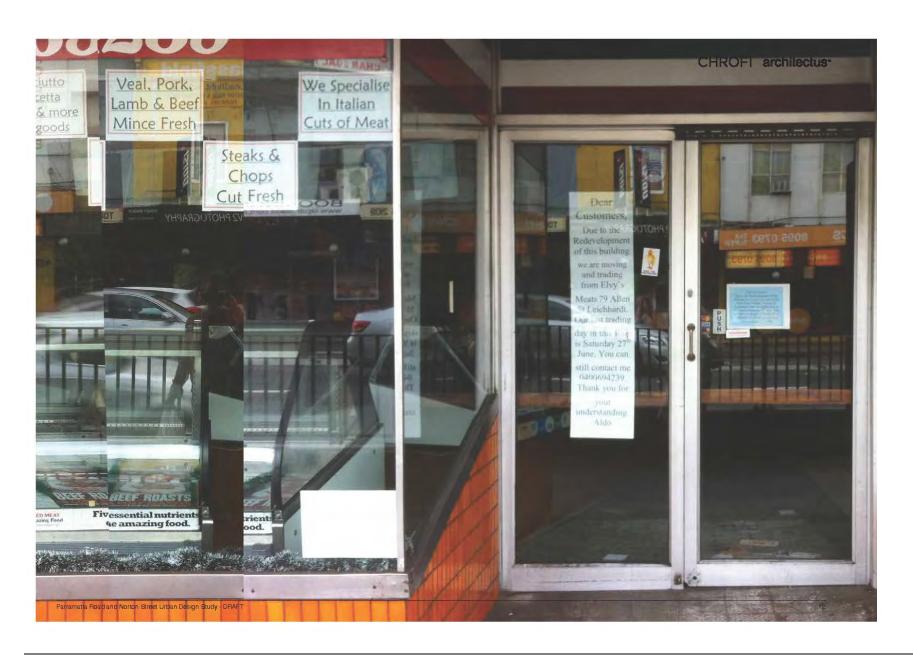
Flooding

Bulky goods

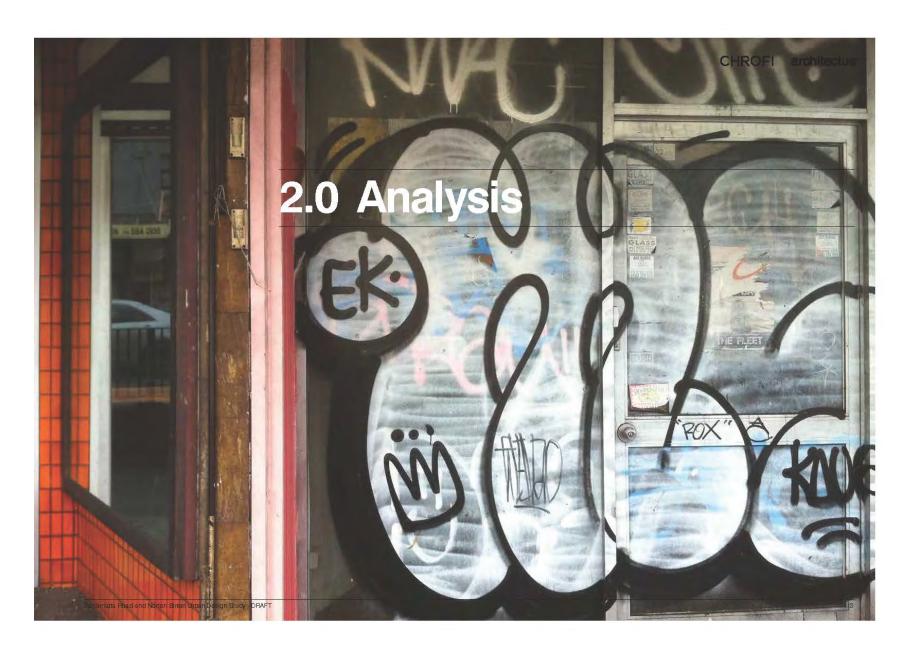
premises

- Land towards the south of the study area within the Whites Creek catchment is flood affected
- In order to approve a development on these lands, Council must be satisfied that the development is compatible with the flood hazard of the land and responds appropriately to flood risk through building design.
- a 500m freeboard above the 100 year ARI flood event must be provided.











Norton Street and Parramatta Road: site analysis 2.1

Norton Street Precinct

street serving the local community. The built form of Norton Street ranges from good to poor quality with some of the more recent developments improving the activation of Norton Street (eg. Norton Plaza, Berkelouw and Palace Cinemas) while some mid to late twentieth century buildings with parking lots facing lots typically 30-40m deep. the street detract from the vibrancy of Norton Street.

The Forum is the tallest (6 storeys) and one of the only large mixed-use developments that includes both residential and retail. It has declined in vibrancy in recent years.

The urban design characteristics of the precinct are:

- 1. Fine grain built form on western side of Norton Street (adapted terrace and shop houses) and larger format commercial and retail premises on the eastern side of Norton Street (south of Marion
- 2. A duster of civic buildings around the intersection of Norton Street and Marion Street, situated on the local topographic high-point (the 'civic' precinct).
- 3. Long, north-south blocks with some east-west informal pedestrian connections on private land.
- 4. Some detracting built form, particularly between Marion Street and Parramatta Road.
- 5. Generally consistent fine-grain built form (shop houses) north of Marlborough Street.

The precinct is currently zoned B2 'Local Centre' and SP2 for the civic uses (school, town hall and church) at the intersection of Norton Street and Marion Street

Parramatta Road Precinct

Norton Street is an important retail, restaurant and civic Parramatta Road provides a range of commercial and retail premises within relatively old building stock (typically late nineteenth century) on fine-grain lots, 2-3 storeys, with most lots from Renwick to Johnston Street fronting both Parramatta Road and the rear lanes (Renwick, Dot, Redmond and Albion lanes) on

> The two blocks from Johnston to Nelson Streets, and from Renwick to Elswick streets are typically 60m deep, consist of less regular built form and lot subdivision and lack rear lane access.

> The urban design characteristics of the precinct are:

- 1. Generally consistent 2-storey fine grain built form (shop houses) on both sides of Parramatta Road, and larger warehouse-style commercial and retail premises and several heritage pubs - typically these are on larger, corner lots.
- 2. Transition from retail and commercial premises fronting Parramatta Road to lower density individual residential dwellings to the north.
- Some isolated examples of recent mixed use development (4-5 storeys) with residential units above retail / commercial ground floor.
- 4. Long, east-west blocks, 60-190m in length.
- 5. Some detracting built form, particularly those that lack street activation (eg. surface car parks) or with large, blank walls.



B1 Neighbourhood Centre

B2 Local Centre

B4 Mixed Use B7 Business Park

IN2 Light Industrial R1 General Residential R3 Medium Density Residentia

RE1 Public Recreation RE2 Private Recreation SP1 Special Activities

SP2 Infrastructure



Norton Street and adjoining laneways



A strong heritage building marks the comer of Norton Street and Parramatta Road.



A legacy of good cafes and restaurants on Norton Street needs to be built upon with new commercial opportunities.



The eastern edge of Norton Street is characterised by large blocks, poor built form and low footpath amenity with many driveway entries.

Norton Plaza offers a concentration of people, however the activity does not continue down the street to neighbouring buildings.



The Town Hall at the corner of Marion Street and Norton Street marks the local topographic The intersection of Marion Street and Norton Street is a focus for civic uses that punctuates high point and, together with the school and Post Office building, is an important landmark the continuous retail strip of Norton Street, in the area.





Parramatta Road and Norton Street Urban Design Study - DRAFT

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Norton Street and adjoining laneways



Example of empty tenancies and unused open space Norton St.



Example of potential land to develop between Renwick St and Norton St.





Large blocks on the eastern side of Norton St often present blank frontages to the streetscape.



The entry to the Forum is marked with high signage, a pedestrian crossing and low level planting.

Underutilised sites fronting Norton Street.





Remwick Street footpath widening near to Parramatta Road offers a well functioning small public space with trees, a cafe and small scale refail - it connects to Norton Street via Remwick Lane, and is on the most direct and pleasant pedestrian route to Petersham Station.

Parramatta Road and Norton Street Urban Design Study - DRAFT

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Side streets intersecting with Parramatta Road



Existing warehouse buildings provide a strong character and opportunity for redevelopment.



Nelson Street next to the Annandale Hotel. Perpendicular parking area could be better used for extending the footpath and providing shade trees to create a small public space similar to Renwick Street.



Young Street built form upgrades and reuse of existing warehouse buildings can combine with some additional footpath width and planting.



Catherine Street in anchored by the heritage listed Albert Palais Events, but has little greenery or shade. The development on the south side of Parramatta Road illustrates new built form set back from the healtage 2 storey building.



Macquarie Street has good built form but many empty retail tenancies, no greenery or shade trees.



Annandale Street is wide enough to create some significant green spaces with on street parking.

Parramatta Road and Norton Street Urban Design Study - DRAFT

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Parramatta Road - typical elevation

This elevation illustrates the fine grain built form on Parramatta Road, typically 2 storeys.





Typical Parramatta Road street elevation - between Macquarie St and Young Street

Parramatta Road and Norton Street Urban Design Study - DRAFT



Parramatta Road and rear laneways



Parramatta Road is a noisy, vehicular dominated environment.



Declining retail development along Parramatta Road needs revitalisation.



Rear lanes offer pedestrian friendly environments and due to their narrow width (typically 12m), vehicular traffic is slow.



A large proportion of lots fronting Parramatta Road also front rear laneways - these are often more active places.



Continuous awnings front Parramatta Road (with a few exceptions) provide weather protection for pedestrians.



A recent example of residential development fronting McCarthy Lane, behind the Annandale Hotel.

Parramatta Road and Norton Street Urban Design Study - DRAFT



2.1.1 Built form - street edge and underutilised land

This diagram illustrates the prevalence of underutilised land in the Norton Street area that weakens the centre as a hub of activity. It also illustrates the distinct north and south subprecincts of Norton Street divided by Marion Street. Refer to 2.2 for existing building heights.



Parramatta Road and Norton Street Urban Design Study - DRAFT



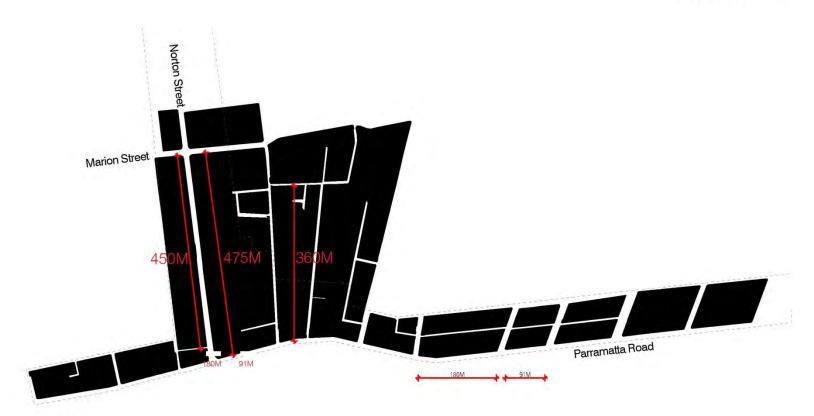
2.1.2 Movement

This diagram illustrates the lack of pedestrian connections between Norton Street and adjacent Renwick Street and Balmain Road. This makes it difficult for pedestrians to access Norton Street, weakening it as a centre of activity.



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Large Blocks

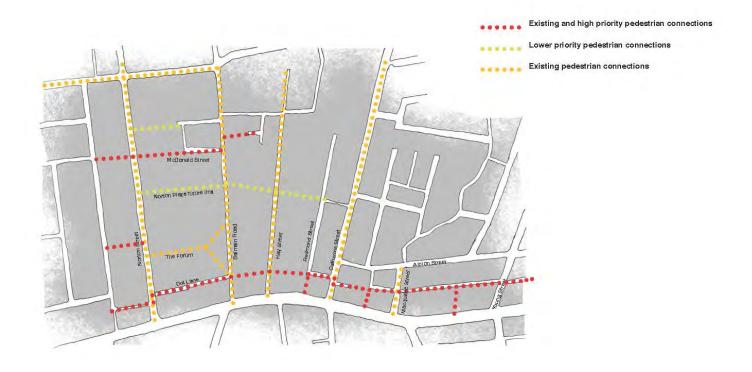
Large impenetrable blocks along Norton Street and Parramatta Road make it difficult for pedestrians to access Norton Street from adjoining neighbourhoods. A series of laneways and new pedestrian connections could help the residential areas reach the retail areas.

Block Length Norton St: Parramatta Road to Marion: 475m

Block Length Parramatta Road: 180m max

Parramatta Road and Norton Street Urban Design Study - DRAFT







2.1.3 Public Domain

This diagram illustrates the comparative lack of street trees on the south side of Norton Street and complete lack of trees on Parramatta Road. Some streets that intersect with Parramatta Road do offer good street trees that improve the pubic domain.



Parramatta Road and Norton Street Urban Design Study - DRAFT



2.1.4 Norton Street and Parramatta Road: SWOC

Strengths

- Close proximity to the CBD
- Good bus connections:
- Rear laneways provide rear loading, pedestrian and cycle friendly environment
- Dominant heritage buildings on many corner sites act as strong anchors to the built form
- Heritage character of conservation areas provides a good built form and public domain.
- Good building stock with shop top housing
- Good services
- Continuous awnings on northern side of Parramatta Road provide shade and weather protection for pedestrians
- Strong civic centre at intersection of Marion Street and Norton Street

Weaknesses

- Poor pedestrian amenity
- Lack of pedestrian access to Parramatta Road particularly at the mid block
- Parramatta Road traffic noise, air pollution, vibration
- Parking on Norton Street is in limited supply
- Retail decline resulting in many empty tenancies and poor built form upkeep
- Inflexible buildings due to complexity of fine grain lots.
- Lack of good amenity/ open space
- Long block lengths on Norton Street and lack of through block links from residential areas
- Many driveway entries across the footpath
- Lack of shaded footpaths on Norton Street particularly in the alternoon on the eastern side
- Lack of continuous awnings on Norton Street
- Poorly defined street edge on Norton Street
- Cluttered and visually incoherent street character on Norton Street
- Italian focus dispersing to other centres (Haberfield, Five Dock, Lewisham) diluting the strength of the brand
- Some poor quality built form, insufficient ground level activation, surface car parks

Opportunities

- Maximise underutilised sites
- Encourage fine grain mixed use development
- Improve laneways for shared use and a protected retail environment
- Revive the retail experience
- Revive the quality of the existing building stock
- Provide density with no negative visual or overshadowing impact on the area
- Opportunity for protected and green side streets along the length of Parramatta Road
- Create identity for this precinct
- Improve pedestrian connections in the east/ west direction to break down the large blocks on Norton Street
- Add life and activity to support the retail high street with increased residential density
- Create a strong sense of community focused on a well connected high street
- Improved pedestrian experience eg through the provision of street awnings and a defined street edge on Norton Street
- Connect to the Forum and good civic services eg library, town hall, schools
- Good public transport access means requirements for car parking in redevelopments could be reduced or eliminated entirely to better utilise sites and provide more active uses at ground level

Constraints

- Heritage items and Conservation Areas require a sensitive approach to redevelopment
- -Strata (residential) limits development potential
- Aircraft noise and road noise and vibration from Parramatta Road
- Sensitive edges low scale residential require a lower scale built form so as not to adversely impact the view amenity and privacy for rear yards of single dwellings.
- Small lots limiting opportunity for basement parking and feasibility of development (eg. limits number of apartments per storey)
- Fragmented ownership and limited potential for amalgamation requires fine grain built form controls that allow individual sites to redevelop



2.2 Existing building heights



Policy Council Meeting 08 March 2016



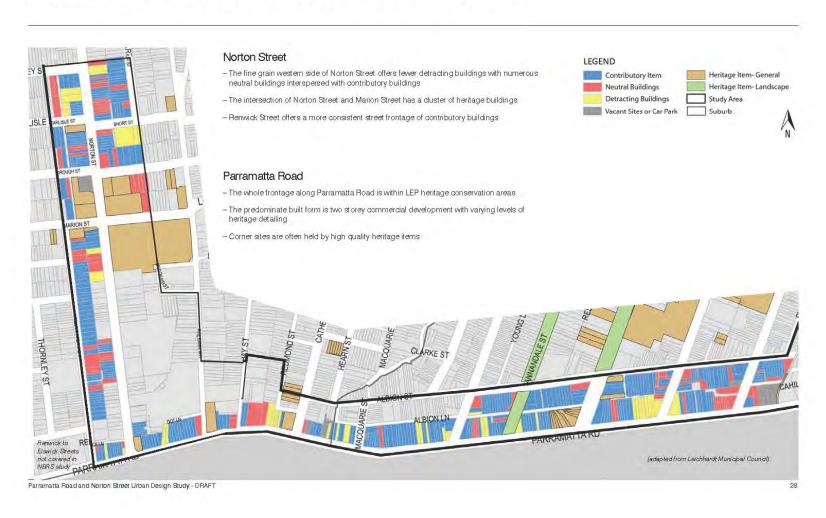
2.3 Existing capacity estimate

Block	Footprint Area	Storeys	Site Area	BEA	GFA	FSF
A.	2,353	- 1	11,977	18,509	13,882	1.10
	2,890	2				
	2,452	3				
	751	- 4			-	
В	13		8,290	11,071	B,303	1.00
	5,529	2				
C	175	- 1	1,896	3,389	2,542	1.34
	1,607	2				
Di	450	- 1	5,778	8,981	6,736	1.17
	3,577	2				
	457	3	-			
E	1.226	- 1	9,355	10,294	7.721	0.83
	3,721	2				-
	542	3.				
F	896	- 1	9,944	10,084	7,563	0.76
	4,594	2				
G	161	- 1	1,308	1,217	913	0.70
	528	2				
H	281	- 1	5,673	10,249	7,687	1.35
	2,770	5				
	1,476	- 3				
f.	0.112	- 1	1,245	1,112	834	0.67
a .	841	1	B.A11.	12,037	9,028	1.07
	4,581	2				
	678	3				
K	3,612	- 1	7,755	6,540	4,905	0.63
	1:464	2				-
E.	86	- 1	3,630	5,854	4,391	121
	2,884	2				
M:	500	- 1	3,452	3,442	2,582	0.75
	1,431	2	-			
N:	363	- 1:	4,716	6,805	5.104	1.00
	3,221	2				
ET.	1,100	T.	5,160	4.642	0,482	0.67

Block	Footprint Area	Storeys	Site Area	BEA	GFA	FSR
	1,726	- 2				
P	1.953	1	12,820	15,058	11,294	0.88
	4,666	2				
	1.257	3				
Q	2,106		12,370	15,473	11,605	0.94
	5,391	2				
	861	3				
R	706	2	2,670	1,412	1,059	0.40
S	1.197	3	2,926	1,611	1,208	0.41
	207	2				
Ţ	6,633	1	25,980	16,356	12.267	0.45
	3.241	3				
U	2.210	1	48,526	102,904	77,178	1.59
	10,174	2				
	17,842	3				
	4,470	6				
V	615	4:	3,673	2,178	1,684	0.44
	212	2				
	380	3				
W	1.255	2	7,079	10,019	7,514	1:00
	1.631	3				
	654	- 1				
X	276	11	3.662	5204	3.903	1.07
	2,464	2				
Y	1,154	1	7,006	10,394	7.796	(.1)
	1,998	2				
	1,740	3				
2	637	.1	3,541	6.718	5,039	1.38
	951	2				
	1,393	3				
AA	3,279	3	8,449	7,679	5,759	0.68
	2,200	2				
				Total GFA	231,924	
				Average FSR:		D.00

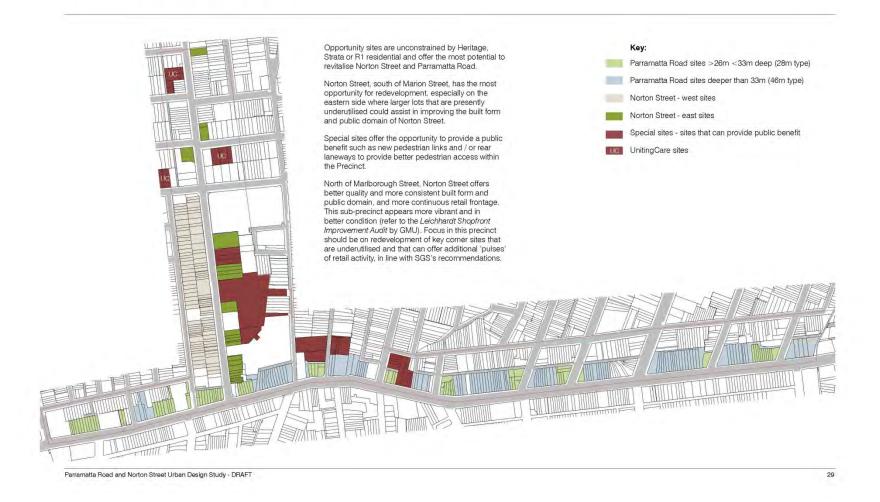


2.4 Heritage conservation areas and items





2.5 Opportunity sites





2.6 Key issues and opportunities

Built form/ Land use

	issue	opportunity
1.	Poor building alignments and lack of identifiable built edge along Norton Street.	Encourage consistent built form alignment and street activation for new development.
2.	Many sites on Norton Street are underutilised with surface car parks and building stock nearing the end of its useful life that detract from the street environment. This weakens Norton Street as an activity and retail hub.	These sites offer the best opportunities for development that will also assist in activating Norton Street. Height and built form which creates a successful liveable street to be explored in conjunction with public domain upgrades and improved pedestrian through connections.
3.	Lack of activation of rear laneways behind Parramatta Road.	The rear lane of Parramatta Road (Albion/Dct Lane) offers opportunity for building heights to step down to the single storey residential areas, and opportunities for studios above garages.
		Additional density along the laneway to be tested in scale, with preference for commercial activation along the laneway. Concessions for parking may be necessary to allow for feasible/affordable development and a more active ground plane.
4.	Fine grain built form and small lots.	Built form should encourage the retention of fine grain allotment and building scale with existing heritage and contributory façades. Infill development and additional storeys to be tested on Paramatta Road and the western side of Norton St which keep heritage frontages and encourage single lot development. Consider allowing reduced or no on-site parking for sites along Parramatta Road due to proximity to public transport, in return for better urban design outcomes.
5.	On grade parking sites currently adjoining large potential development sites	Opportunity for increased built form combined with open green space. Consider infill development potential of these sites.



Poor building alignments and lack of identifiable built edge on Norton Stree



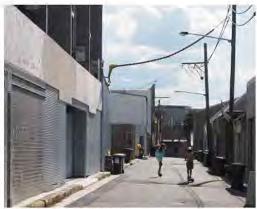
Heritage and civic centre at the Norton Street and Marion Street intersection

Parramatta Road and Norton Street Urban Design Study - DRAFT



M ovement

	issue	opportunity
1.	Key missing laneway connections on Dot/Albion Lane.	Explore the potential location of key links against current site ownerships, heritage items, and potential development sites. Encourage development sites that can provide key links and laneway connections with incentive based development controls.
2.	Poor pedestrian connections and large impenetrable blocks. Residents are unable to reach Norton Street on foot from the surrounding streets due to large block and few east west streets, while poor amenity makes walking along Parramatta Road undesirable.	Mid block links are vital in breaking down block lengths along both sides of Norton St and Parramatta Road. With retail decline usually at the centre of the block, pedestrian links combined with a connected laneway system make the high streets accessible.
3.	Whilst the predinct is very well serviced by bus routes, it is poorly serviced by high quality public transport such as rail. The predinct will need to continue providing parking for people to drive to the predinct, yet also encourage the local community to travel by cycling and walking.	Encourage an active transport network of laneways and connections both within the precinct and across Parramatta. Road to the rail stations. Encourage central parking options accessed off side streets rather than Norton St which will provide opportunity for better pedestrian amenity on the high street.
4.	The Forum's location away from the high street and the steep level change make it isolated and unlikely to help local street activation.	Focus for pedestrian activity and retail revitalisation on activating the streets and lanes around the Forum.



An active laneway system vital to the precinct



Potential Dot Lane connection to Norton Street

Parramatta Road and Norton Street Urban Design Study - DRAFT



Public Domain

	issue	opportunity
1,	Retail decline, lack of activation.	Focus public domain improvements on a connected network of active links and diverse spatial types including laneways and small public spaces that support small businesses.
2.	The precinct lacks any significant open green space or public plazas (other than the forum) to focus community activity.	Opportunity to provide a new public plaza on the Norton Plaza site as part of a redevelopment, and/or the Council- owned sites near to Town Hall.
3.	Parramatta Road footpaths are narrow, limiting green street planting opportunities and its future design as a rapid transit link is unknown.	Focus on the side streets to create public domain amenity along the length of Parramatta Rd. Widened foot paths and street planting provide protected and pleasant public spaces away from the noise of Parramatta Road. Trees will also be visible along the length of Parramatta Road providing a visual break to the built form.
4.	Public domain in Norton Street (south) is run down, inconsistent in approach, lacking in public seating, high quality finishes or consistent awnings. The footpath is cluttered and poorly defined.	Additional investment in the public domain combined with additional links can revitalise the street. These improvements can boost local businesses and attract development.
5.	The Marion St/ Norton St intersection is a strong divic centre with the town hall, public school and church, however it lacks activation on Norton Street.	Public domain improvements should enhance connection to this area and draw on its heritage character. Consider locating the library or community centre closer to this divic centre.



The Norton Street public domain is tired and lacking shade or high quality built form

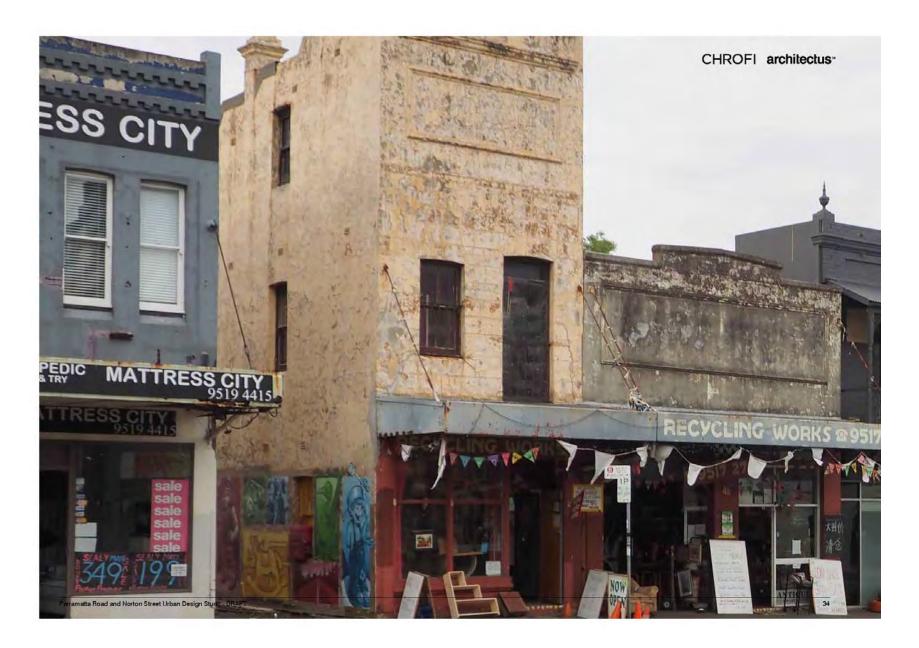


Remvick Street is a good example of public amenity and active frontages on streets that intersect with Parramatta Road.

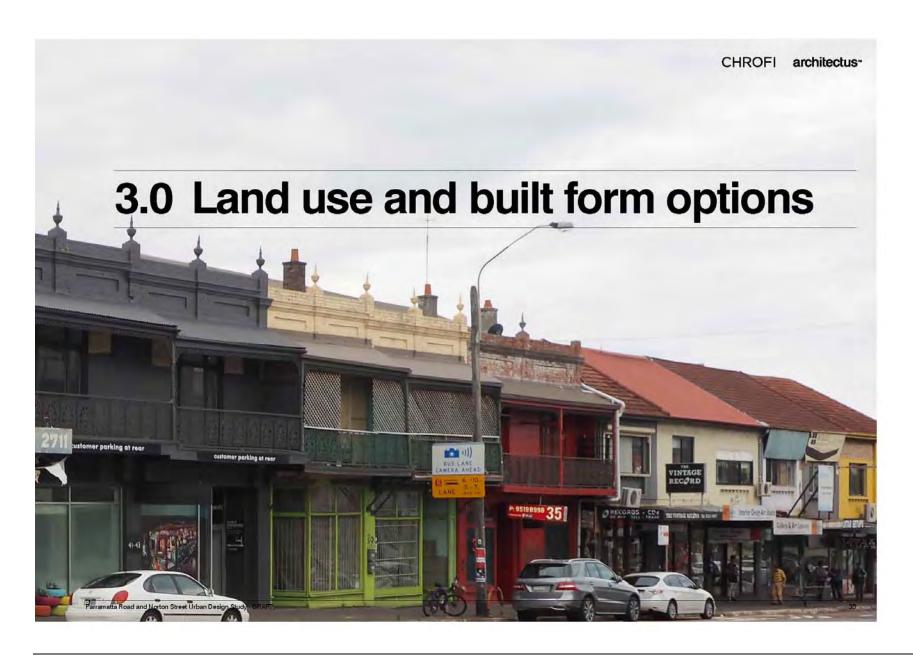
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3.1 Urban design principles

The following urban design principles underpin the site testing undertaken in this study.

Built form

- Built form should manage potential interface between different land uses on site and at the 'edges' of the precind's -to-the R1 General Residential areas. Consider a form that mediates between Parramatta Road and single level dwellings one block behind.
- Encourage built form that maintains fine grain and are not reliant on lot amalgamation. Provide for 1, 2 & 3 lot amalgamation options.
- Encourage ground level commercial. Allow for flexible commercial / residential uses on the second storey. Residential uses above.
- Encourage two levels (garage with studio or two level dwelling) North/ residential side of laneway.
- Create a defined laneway edge. Building form could start back from the laneway but the street edge should be held by garage door or some built form element.
- Built form should facilitate lot permeability while managing access and security.
- Built form should adequately mediate noise to apartments that face Parramatta Road while ensuring ability to achieve cross ventilation as per SEPPAS.
- Built form should respond intelligently to level changes by facilitating entries to different land uses at different levels.
- Afour storey, 15m street wall should be encouraged to provide an appropriate built form scale to Parramatta Road while keeping the existing character of the contributory façades prevalent on Parramatta Road and Norton Street.
- Upper levels (level 5 and 6) should be setback from the street wall a 6-8m setback above a 4 storey street wall to reduce apparent building bulk and scale.
- Allow a maximum of three levels to laneway Parramatta Road side.
 Setback levels above 3 storeys 10m (minimum).
- Car parking should be in a basement level or levels to encourage the most efficient use of the site.
- Sites under 17m in width that require multiple basement car park levels

should be amalgamated to improve floorspace efficiency and to allow for minimum car park space and aisle dimensions.

- Alterations and additions to buildings with heritage value in Conservation Areas should adhere to the controls in Council's adopted heritage studies for Parramatta Road and Norton Street.
- Ground and first floor floor-plates should be as flexible as possible to ensure buildings can respond to changes to market demand over time. Floor-plates on the second storey above ground level should be designed with a 3.6m floor to ceiling height to allow either commercial or residential uses. This ceiling height also works better with the historic 2 storey shop house fagades.
- Allow additional height where new development creates public benefit e.g. desired mid-block connections.
- Norton Street built form scale to be 3-4 storeys generally. 6 storeys permissible for special sites that provide public benefit and Norton Street East sites (south of Marion Street) where lot sizes are generally larger, existing built form quality is lower, and lots can more readily be amalgamated.

Streets and laneways

- Streets and laneways should facilitate the functionality of retail and commercial uses, including accommodating large vehicles where possible.
- Streets and laneways should be activated throughout the day and evening to increase the perceived and actual safety and vibrancy of the predicts.
- Streets and laneways should provide amenity for pedestrians to encourage patronage to local businesses.

Public domain

- Pedestrian connectivity to retail and key community assets should be facilitated through improved site permeability and pedestrian links.
- Opportunities for new or improved public spaces to support the amenity of Parramatta Road and Norton Street and additional demand driven by increased capacity should be identified.
- In the winter solstice, allow sunlight to southern footpath of Parramatta Road (typically a maximum of six storeys will achieve this with setbacks to the upper levels)

What not to do

The large, recessed, unrelenting form dominates over the heritage frontages, Example from Audkland New Zealand. Key design elements that this example lacks are:

- the building form should have gaps between to allow α oss ventilation and minimise single-aspect apartments that face a busy road; and
- be reflective of fine grain ownership patterns and heritage façades





Good examples

Retention of heritage façades and building articulation

The recessed form is clearly articulated from the front facade with form and materiality. The front facade to the street takes its form from the scale and divisions of the other heritage façades.

Adaptive reuse of fine grain with active ground level that accommodates level changes

Commercial terraces with a level change to the street are opened up with wide steps, stepped planting and footpath dining. This approach may be applied to the western side of Norton Street.

Human-scale laneways

2 and 3 storeys is a good built form scale to the laneway and provides good opportunities for passive surveillance.











Parramatta Road and Norton Street Urban Design Study - DRAFT



Norton Street and Parramatta Road: vision



1. Revitalise Norton Street. Intensification of residential and retail uses is essential to creating a critical mass in the neighbourhoods around Norton Street and bringing life back to the precinct.



2. Maximise east-west through site connections into Norton Street. The street blocks in this area are incredibly long, pedestrians cannot access the central part of southern Norton Street from surrounding residential precincts because of the long impenetrable blocks on both sides. Improved access to the retail street will be critical in making Norton Street busy and active, and businesses



5. Public domain upgrades on Norton Street. 6. Focus civic and cultural uses and potential new open space on Norton Street - to increase visitation to Norton Street and extend dwell times.



3. Retain the existing fine grain built form character. The shop fronts on Parramatta Road, and residences on the western side of Norton Street and on Renwick Street have fantastic character, and many have been identified as "contributory items" in the conservation areas. Ensure that new development allows for the retention of the front elements of these contributory buildings, with new development above and set back.

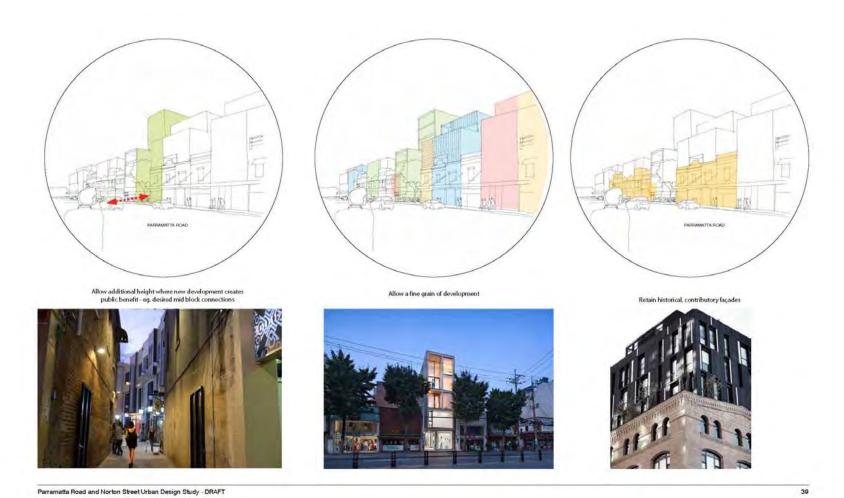


4. Create pockets for retail and small public spaces just off Parramatta Road. The northsouth streets intersecting with Parramatta Road could evolve as green, active spaces that are sheltered from the noise of Parramatta Road. The spaces can take advantage of the footfall created from public transport and pedestrians on Parramatta Road.

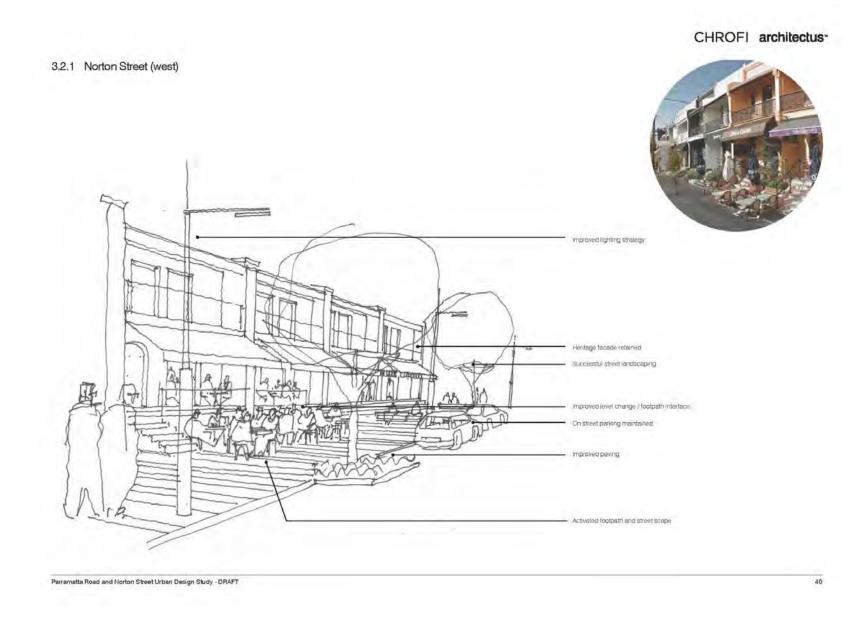


Public domain plans should be developed to provide for trees, shade, seating and open

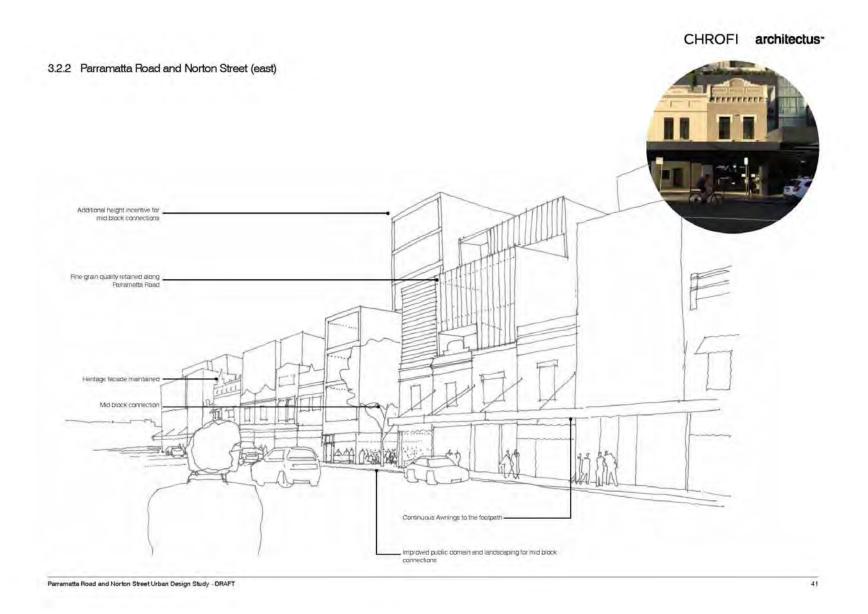














3.2.3 Parramatta Road - street wall and setback options

The following sections compare a 2-storey street wall (with upper levels setback) to a 4 storey street wall. Option 2 is preferred as it provides:

- a better street scale, with less building bulk visible from the street;
- 1.5 levels visible above the 2 storey parapet, with levels 5 and 6 barely visible from the street;
- Good solar amenity to the footpath on the southern side; and
- Improved noise mitigation to the upper 2 levels.

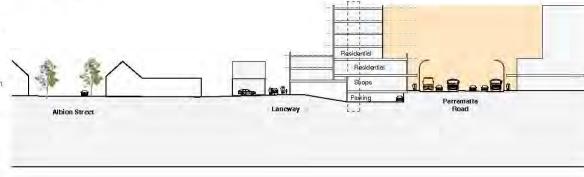
Option 1 - setback above 2 storeys

Providing a 6m setback behind the predominant 2-storey parapet would make sense if the total height was only 3 storeys, Council's DCP 2013 (App B Building Typologies, p36) refers to seeing the sky behind the parapet when viewed across the street. Seeing the sky would not be achievable with a 6 storey height without severely impacting on the feasibility (as the setback would have to be very large) and therefore the likelihood of redevelopment is very low – especially when considering the desired 'fine grain' development approach. For heritage items this is a good response, however it's not likely to result in widespread redevelopment of non-heritage items and contributory items.

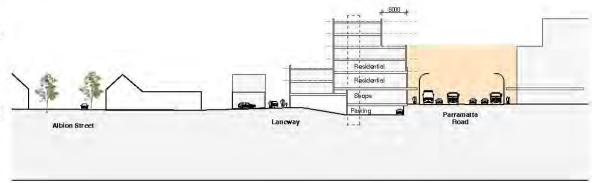
Option 2 - setback above 4 storeys

The preferred Option 2 shows the 3rd and 4th storeys setback to the rear face of the façade – so that the historical façade is clearly visible separate to the additional storeys (this difference in old and new can be further enhanced with a contrasting material and contemporary approach to the design).

Option 2 is the best urban design response that retains the possibility of fine-grain development, while keeping the character of the historical façades, and is a suitable built form scale for Parramatta Road. Built form examples of this approach are shown in section 3.3.



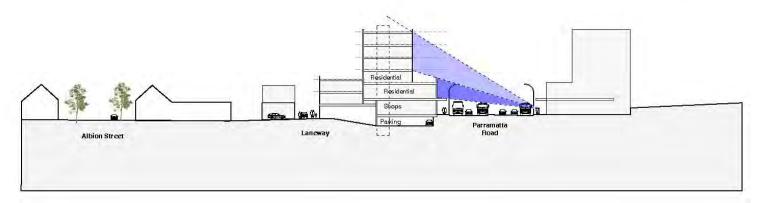
Built form and street scale
OPTION 1 - SETBACK BEHIND EXISTING FACADES



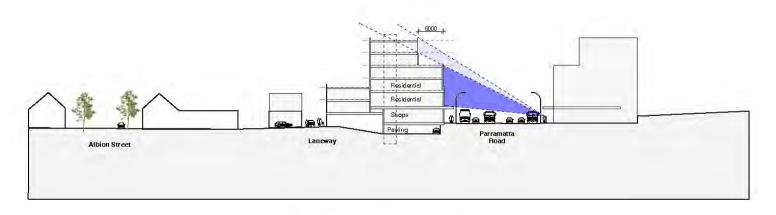
Built form and street scale OPTION 2 - 4 STOREY FACADE TO PARRAMATTA RD

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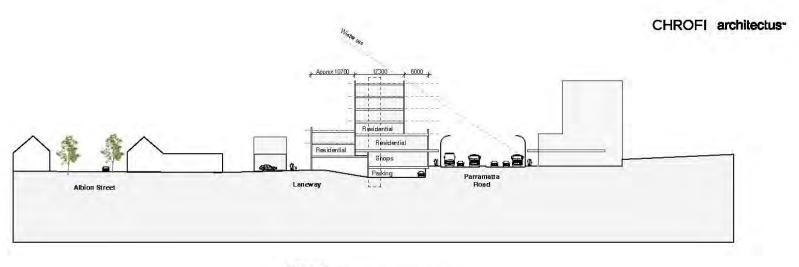


Bulk and visibility OPTION 1 - SETBACK BEHIND EXISTING FACADES

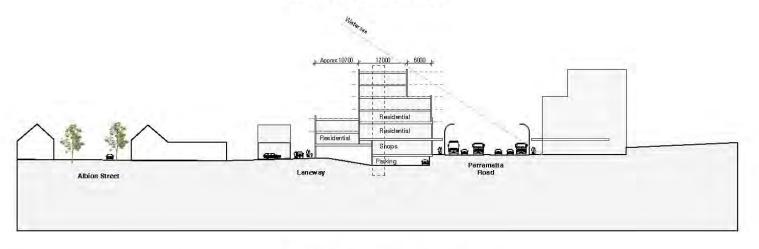


Bulk and visibility
OPTION 2 - 4 STOREY FACADE TO PARRAMATTA RD



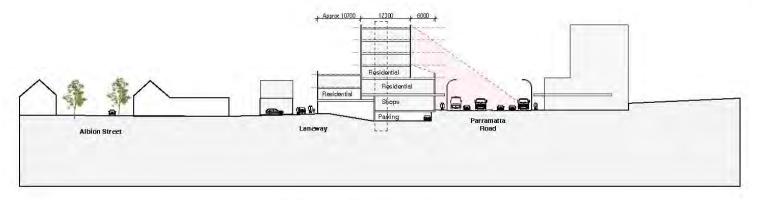




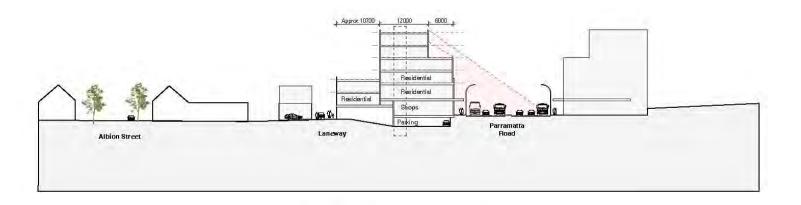


Solar angle OPTION 2 - 4 STOREY FACADE TO PARRAMATTA RD





Noise mitigation OPTION 1 - SETBACK BEHIND EXISTING FACADES



Noise mitigation OPTION 2 - 4 STOREY FACADE TO PARRAMATTA RD



3.3 Built form examples

3.3.1 Melbourne and Sydney examples of upper storey additions with little or no setback above old shop fronts and warehouse buildings.













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3.3.2 Overseas examples of upper storey additions with no setback













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3.3.3 Small scale laneway additions to upper storeys with no setback













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3.3.4 Examples of upper storey additions above 2 storey shops with 6-8m setback









These examples demonstrate why a setback behind the 2 storey street facade is not desirable.

The setback increases the visibility of the upper levels and makes the building appear bulkier.

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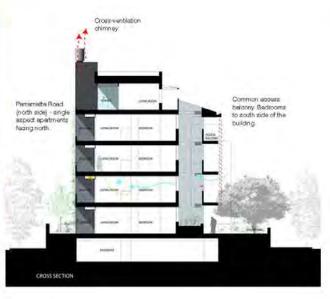
3.4 Design principles to mitigate noise impacts

The following built form design principles are recommended to mitigate noise impacts on the residential components of mixed use development fronting Parramatta Road and for sites are impacted by aircraft noise.

- 1. No single aspect apartments facing a busy road
- 2. Use winter-gardens instead of balconys
- Consider common corridors facing busy roads (single loaded apartments)
- 4. Higher performance glazing that reduces the noise
- Setback the upper levels to shield balconys from the noise source
- 6. No ground floor residential
- Provide common stainwells to the main road, and cross ventilation through these spaces and a courtyard/light well (refer example on this page).
- Ensure living spaces and open balconies are located away from the noise source and towards solar access (ie rear of sites on the north of Parramatta Rd)
- Place secondary living spaces such as bedrooms to the main road with winter garden buffers to mitigate noise.

The site testing has taken into consideration noise impacts on lots fronting Parramatta Road







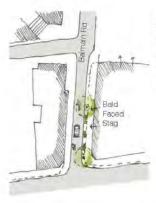
3.5 Activating small public spaces

Comer lots on Parramatta Road have potential to provide public benefit through provision of enhanced and activated public spaces.

The existing public footpath widening and street free planting on Renwick Street provides an example of a successful small public space that also enhances the retail uses that adjoin.

These side streets off Parramatta Road have much improved traffic noise reduction than Parramatta Road and have the potential to be very successful small public spaces.

These spaces also lead to the rear laneways (eg. Albion Lane) that run parallel to Parramatta Road that offer a much more pleasant pedestrian and cycle experience than Parramatta Road.



Balmain Road/ Hay Street could sacrifice some on street parking for a wider footpath adjoining the Bald Faced Stag hotel for some greenery and seating.



Baid Faced Stag, Footpath St View on Balmain Road



Bald Faced Stag, Aerial View



Catherine St can widen footpaths, add greenery and still retain existing on street parking.



Catherine St, Footpath St View

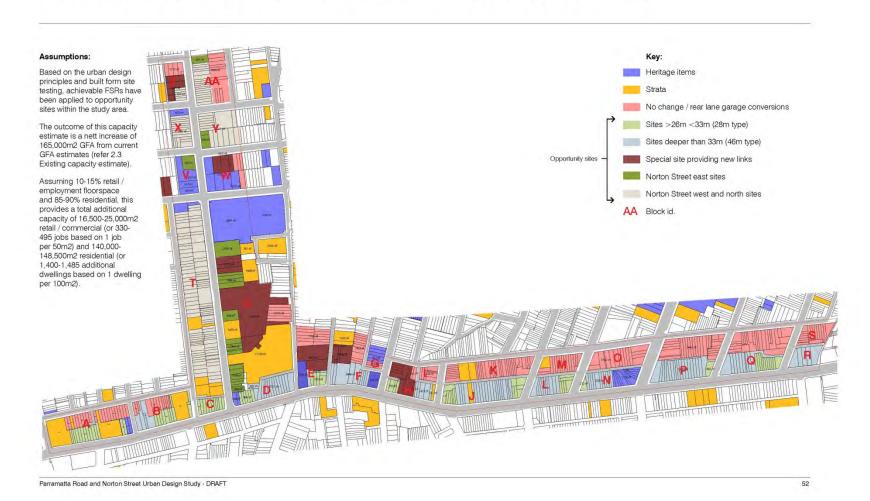


Catherine St. Aerial View

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3.6 Built form types and indicative capacity estimate



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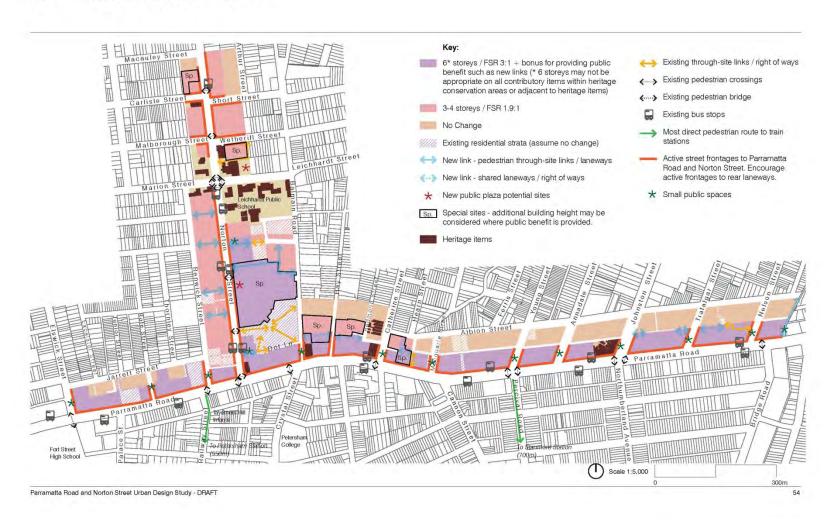


Block	Туре	FSR	Site Area	Total Block Area	GFA	Total GFA
A	beritage/strate/no change	1.16	9,232	11.075	10,709	18,938
	small blocks	- 3	2,743		8,229	
.13	heritoge/strata/no change	1	4,259	8,275	4,259	16,355
	small blocks	-3.	2,112		6,336	
	large blocks	2.5	1,904		4,760	
C	small blocks	- 3	1,902	1,902	5,705	5,706
D	heritage/strata/no change	1.17	448	5,777	524	14,156
	small blocks	.2.	964		2,892	
	large blocks	2.5	4,020		10,050	
	Noton East	2	345		690	
E	heritage/strata/no change	0.81	4,339	9,349	3,515	14,791
	small blocks	- 3	1,052		3,156	
	large blocks	2.6	408		1,020	
	special sites	2	3,550		7,100	
F	heritage/strata/no.chnnge	0.70	4,206	9.978	3,070	12,935
	large blocks	2.5	3,946		9,865	
	special sites	.0	1,826		-	
G	heritage/strata no change	0.7	1,308	1,808	916	916
H	henlage/strate/no change	1.35	664	5,673	896	14,647
	small blocks	.8	758		2,274	
	large blocks	2.5	1,421		3,553	-
	special sites	2.8	2,830		7,924	
1	heritage/strata/no change	0.67	1,245	1,245	834	834
3	hentage/strata/no change	1.07	427	8,400	457	21,657
	small blocks	- 0	2,490		7,470	
	large blocks	2.5	5,492		13,730	
K.	heritage/strala/no change	0.63	7,755	7,755	4,886	4,886
L	small blocks	3	1,158	3,635	3,474	9,667
	large blocks	2.0	2,477		6,193	
M	heritage/strata/no change	0.75	3,455	3,455	2,591	2,591
N	heritage/strata/no change	1.08	2,158	4.713	2,331	8.854
	small blocks	3	272		816	
	large blocks	2.5	2,283		5,708	
0	hentage/strata/no chunge	0.67	5,160	5,160	3,457	3,457
P	beritage/strata/no change	0.91	6,463	12,824	5,881	22,025
	small blacks	3	482		1,446	
	large blocks	2.5	5,879		14,698	
Q	heritage/strate/no change	0.98	6,805	12,384	6,669	21,530
	small blocks	-3	1,828.		5,484	
	large blocks	2.5	3,751		9,378	
B	large blocks	2.5	2,670	2,670	6,675	6.675
.5	heritage/strafa/no change	0.41	2.945	2,945	1,207	1,207

Block	Туре	FSR	Site Area	Total Block Area	GFA	Total GFA
T	heritaga/stmta/no change	0.45	4,057	26,991	1,826	45.400
	Norton West	1.0	22,934		43,575	
TI.	hentago/simia/no change	1.61	26,128	48.540	42,066	100,081
	Norton East	2	7,747		15,494	
	Special sites - Norton Plaza	a	12,540		117,620	
	Special sites - Norton Plaza Nth	2.8	2,131		4,901	
V	heritage/strata/no change	0.44	2,748	3,673	1,207	Δ,067
	Norton East	5.	930		1,860	
W	hentage/strata/no change	1.06	5,157	6,959	5,460	9,070
	special sites - united care	2	1,802		3,604	
X	beritage/strata/no change	1.07	601	3,660	643	6,76
	Norton north	2	3,059		6,118	
Y	Norton north / east	2	6005	6993	12,010	12,010
Z	heritage/strata/no change	1.38	1,215	3,640	1,677	8,150
	Norton north	2	793		1,586	
	special sites - united care	3	1,632		4,896	
AA.	hentage/strata/no change	0.60	4,313	8,638	2,933	11,583
	Noton north	2	4,325		8,650	
	Ayerage FS0	1.87		Total GFA	- 1.1	396,958



3.7 Structure Plan

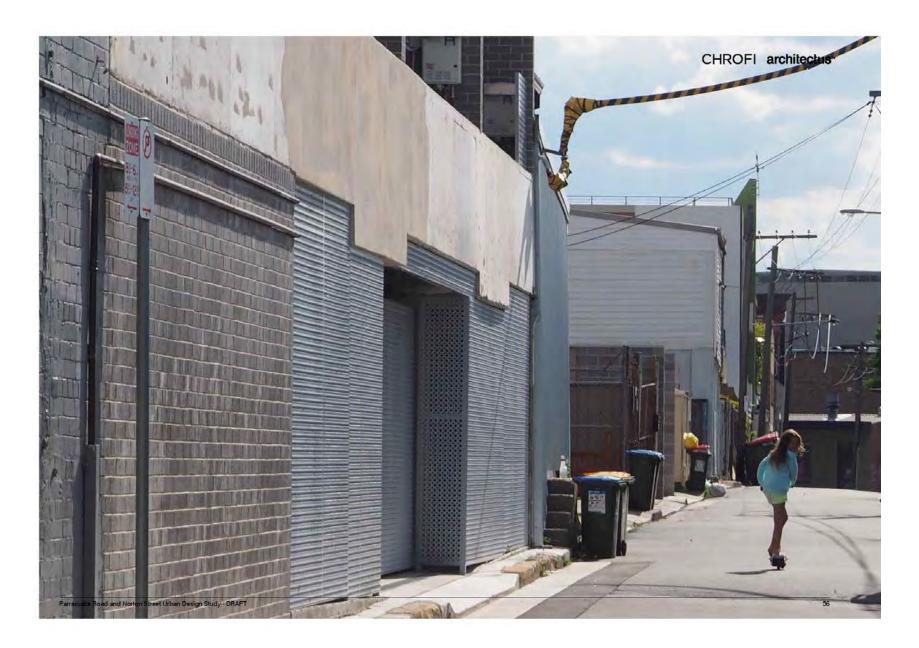




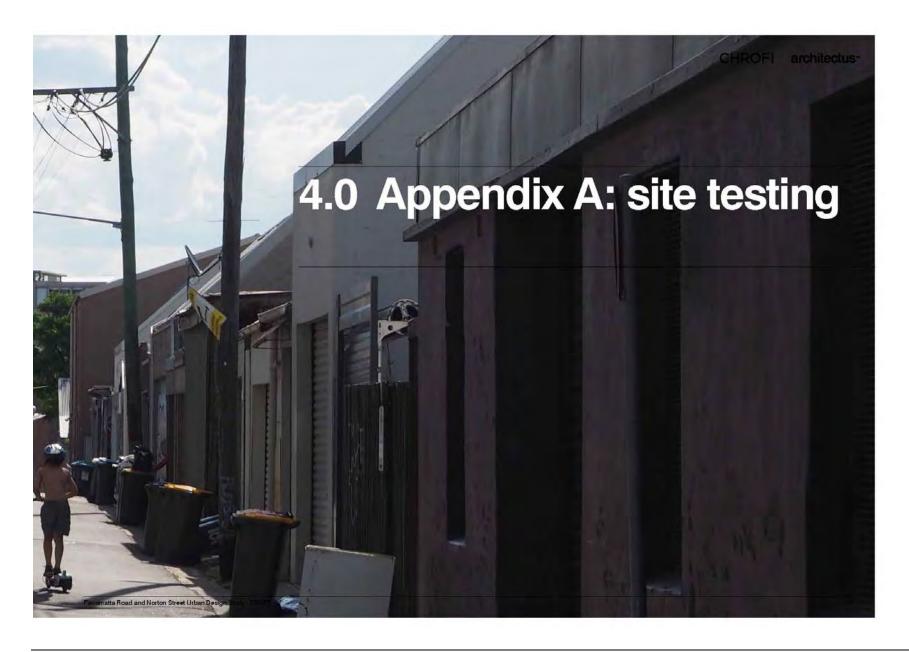
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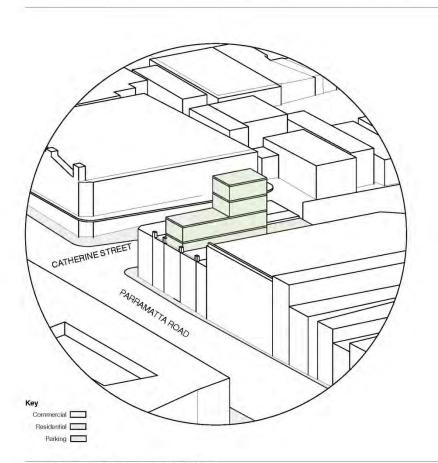








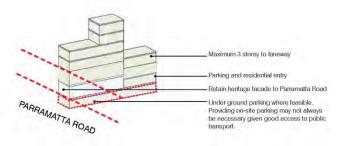
4.1 Parramatta Road - 28m deep site



28 M DEEP SITE x 6M WIDE	Area (sqm)
Lot area	168
Building footprint	168

		BEA		GFA		
Туре	Storeys	(sqm)	Efficiency	(sqm)	No. units	Car spaces*
Commercial	1	108	90%	97	0	1
Commercial	1	90	90%	81	0	1
Residential lower	2	108	75%	162	2	f .
Residential upper	2	60	75%	90	1	d
Residential rear	2	63	75%	95	1	0

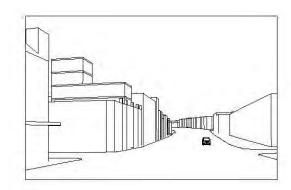
Total	4	4
	Total car park area (35sqm/car)	132
	Site area coverage	79%
Total GFA		525
Industrial GFA		0
Non-resi GFA		178
Resi GFA		347
FSR (n:1)		3.1

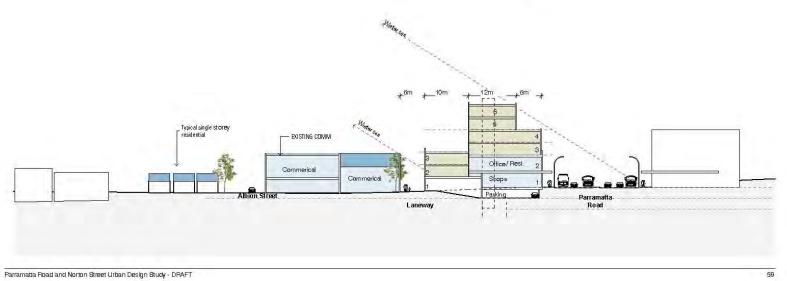


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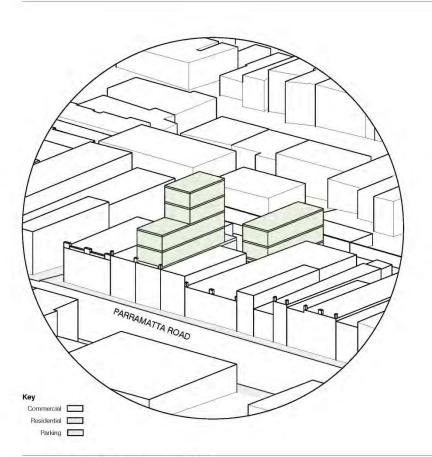






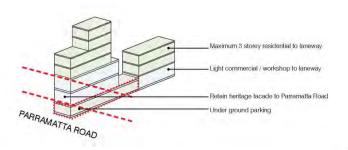


4.2 Parramatta Road - 46.5m deep site



46.5m deep x 6m wide (single lot)	Area (sqm)
Lot area	279
Building footprint	279

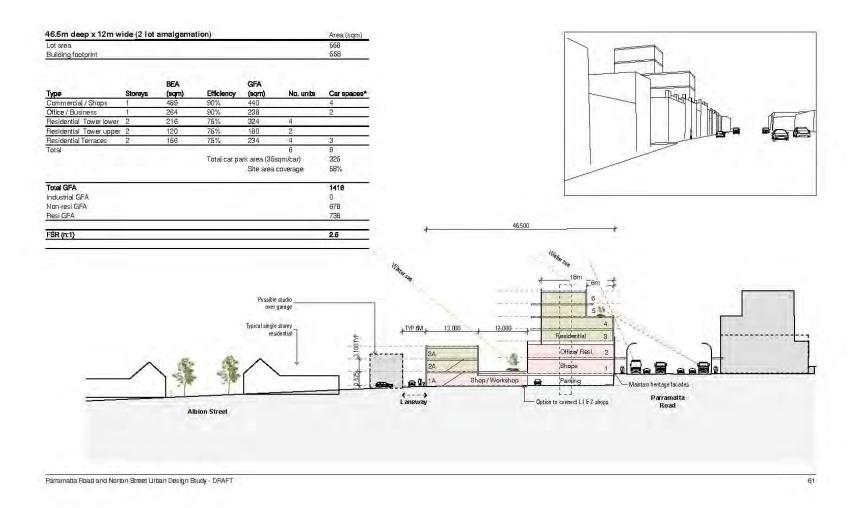
Type	Storeys	BEA (sqm)	Efficiency	GFA (sqm)	No. units	Car spaces*
Commercial / Shops	4	207	90%	186		2
Office / Business	1	132	90%	119		1
Residential Tower lower	2	108	75%	162	2	
Residential Tower upper	2	60	75%	90	2	
Residential Terraces	2	78	75%	117	1	3
Total					3	6
			Total car pa	rk area (35s	eqm/car)	194
				Site area	coverage	70%
Total GFA						674
Industrial GFA						0
Non-resi GFA						305
Resi GFA						369
FSR (n:1)						2.4



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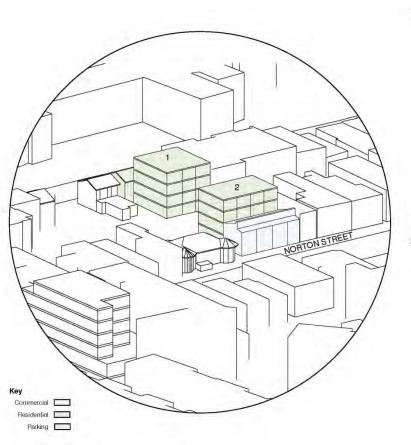
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4.3 Norton Street - Renwick Street



1	RENWICK ST TEST SITE Typical single lot 4.5m (width) x 31m (depth)	Area (sqm)
	Lot area	139.5
	Building footprint	95
	Existing FSR (n:1)	1

Туре	Storeys	BEA (sqm)	Efficiency	GFA (sqm)	No. units	Car spaces*
Commercial	0	0	90%	0	0	0
Heritage Residential	2	29.75	75%	45	1	0
Rear Residential	4	65.25	75%	196	2	
Total			1 - 1 - 1		0	0
			Total car pa	ark area (35s	sqm/car)	0
				Site area	coverage	0%
Total GFA						240
Non-resi GFA						0
Resi GFA						240
FSR (n:1)						1.7

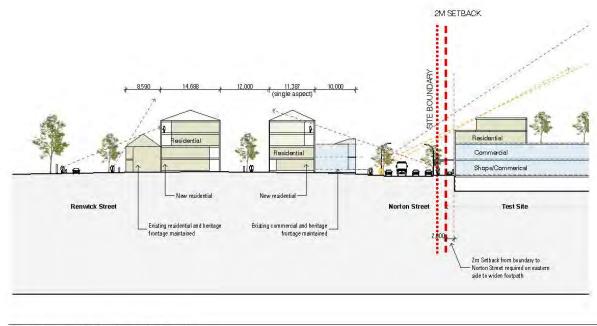
2	NORTON STREET WEST TEST SITE	Typical single lot 4.2m (width) x 27.5m (depth)	Area (sqm)
	Lot area		115.5
	Building footprint		88
	Existing FSR (n:1)		0.6

Туре	Storeys	BEA (sqm)	Efficiency	GFA (sqm)	No. units	Car spaces*
Commercial	2	42	90%	76	0	0
Rear Residential	4	46.2	75%	139	2	0
Total					2	0
			Total car pa	ark area (35s	sqm/car)	0
				Site area	coverage	0%
Total GFA						214
Non-resi GFA						76
Resi GFA						139
FSR (n:1)						1.9

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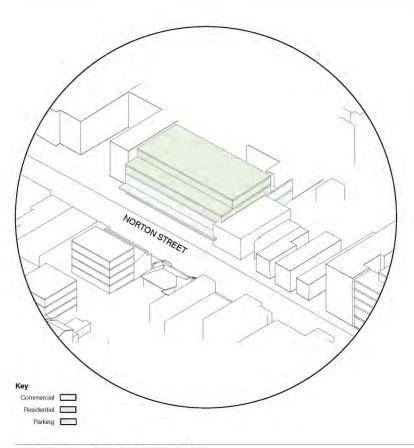




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4.4 Norton Street - east



NORTON STREET EAS Lot area	I IESI SHE I	pical single id	(widin)	35.8m (deptn)	Area (sqm) 1489
Building footprint					1489
Existing FSR (n:1)					0.6
		BEA		GFA	

		BEA		GFA		
Type	Storeys	(sqm)	Efficiency	(sqm)	No. units	Car spaces*
Commercial	2	1390	90%	2502	0	25
Residential lower	1	630	75%	473	5	3
Residential upper	1	287.5	75%	216	2	
Total					2	28
			Total car pa	ark area (35s	sqm/car)	981
				Site area	coverage	66%
Total GFA						3191
Industrial GFA						0
Non-resi GFA						2502

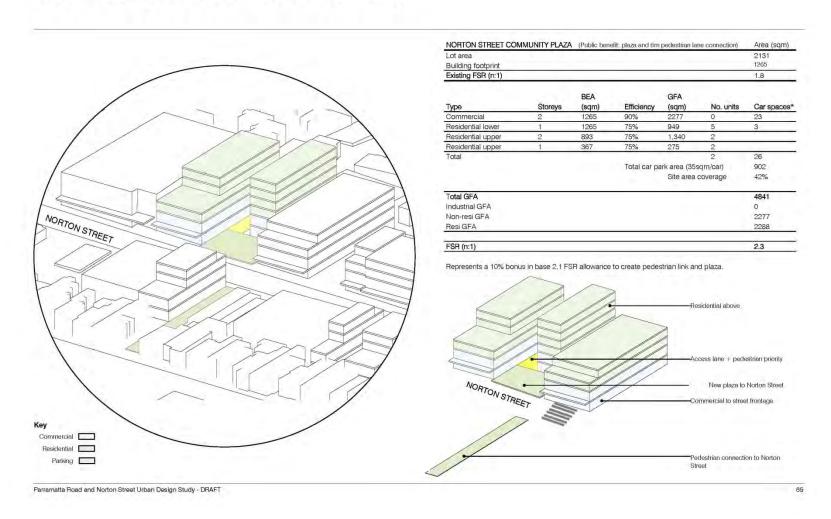
Industrial GFA	0
Non-resi GFA	2502
Resi GFA	688
FSR (n:1)	2.1

Parramatta Road and Norton Street Urban Design Study - DRAFT

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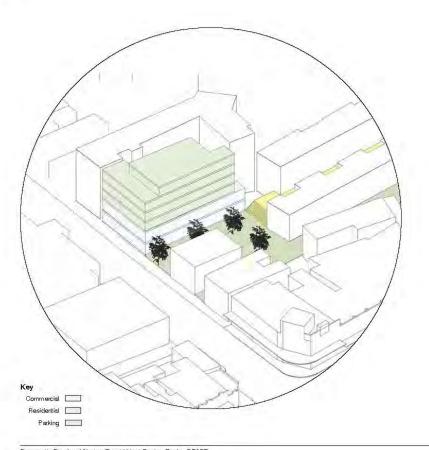


4.5 Norton Plaza - northern site





4.6 Norton Street - Dot Lane



Building footprint p Existing FSR (n:1)	лороseq					tbc 1
Турв	Storeys	BEA (sqm)	Efficiency	GFA (sqm)	No. units	Car spaces
Commercial	2	667	90%	1201	0	12
Residential	3	452	75%	1017	5	
Residential	1	332	75%	249	2	
Total					7	16
			Total car pa	ark area (35s	gm/car)	560
				Site area	ooverage	53%
Total GFA						2218
Non-resi GFA						1201
Resi GFA						1017
FSR (n:1)						2.1

Parramatta Road and Norton Street Urban Design Study - DRAFT

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ITEM 2.4 LEICHHARDT INDUSTRIAL PRECINCT PLANNING INTERIM REPORT

Author Meeting date					
Mooting data	Environment and Community Management Team Leader Strategic Planning				
wieeting uate	8 March 2016 Policy Meeting				
Strategic Plan Key Service Area	Community well-being Accessibility Place where we live and work A sustainable environment Business in the community				
SUMMARY AND ORGANISATIONAL IMPLICATIONS					
Purpose of Report	To inform Council of the findings of the Leichhardt Industrial Precinct Planning interim report and to seek endorsement of the Industrial Precinct Planning interim report as the basis for completion of the Industrial Precinct Planning Project.				
Background	At the Policy Meeting of 10 February 2015, Council considered a report on the Strategic Sites, Centres and Corridors – Parramatta Road project and the Leichhardt Industrial Lands Study. Council subsequently resolved (in part) to endorse the Leichhardt Industrial Lands Study and forward a copy to UrbanGrowth NSW as part of its submission on the <i>Draft Parramatta Road Urban Renewal Strategy</i> (C04/15P).				
	The Industrial Lands Study concluded that in light of future population and employment growth in the LGA, Leichhardt would see a deficit in industrial floorspace of between 7,500sqm and 55,000sqm by 2036.				
	In accordance with actions of the Industrial Lands Study, Council engaged SGS Economics & Planning to undertake a subsequent phase of industrial precinct planning.				
	In addition, Architectus were engaged to provide urban design input into the process for specific precincts, Camperdown, Tebbutt Street/Parramatta Road and Moore Street South, selected for their significance, size and industrial profile mix. This work would inform the development of appropriate and feasible urban form outcomes for the precincts. Subject to Council endorsement of the interim				



SGS Industrial Precinct Planning report Architectus will complete the associated urban design work to make final recommendations for built form controls and outputs as part of the overall Final Industrial Precinct Planning Project.

The commencement of the industrial precinct planning work in September 2015, coincided with the release of the Draft Parramatta Road Urban Transformation Strategy by UrbanGrowth NSW.

Council's submission on the draft Strategy in December 2015 advised that the findings of the industrial precinct planning would be provided in 2016. UrbanGrowth NSW subsequently advised Council officers that additional information could be accepted only up until mid-March 2016.

Given the complex nature of the industrial precinct planning, the coordination required between the two consultant firms (SGS and Architectus) and the multiple other studies they have been simultaneously undertaking for Council, completion of the work by Council's March Policy meeting was not possible.

Notwithstanding, to enable Council to present a more informed position to UrbanGrowth NSW, SGS have prepared an interim report. It is envisaged that a final report will be presented to Council for endorsement in May 2016. The final report will include recommendations for the planning of all the industrial precincts in the Leichhardt local government area and for the review of the Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.

Current Status

Council made a submission on the Draft Parramatta Road Urban Transformation Strategy in December 2015. UrbanGrowth NSW subsequently advised Council officers that additional information could be accepted up until mid-March 2016.

Relationship to existing policy

The Strategic Sites, Centres and Corridors – Parramatta Road project is identified in the Employment and Economic Development Plan and incorporates actions of the Community and Cultural Plan, Integrated Transport Plan, Affordable Housing Strategy and a number of



	Council resolutions.		
Financial and Resources Implications	The Industrial Precinct Planning work is being funded from the \$160,000 Council allocated to the Strategic Sites, Centres and Corridors – Parramatta Road project.		
	This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure.		
Recommendation	 That Council: Endorse the approach of the Industrial Precinct Planning interim report as the basis for the completion of the Industrial Precinct Planning Project for the Leichhardt local government area; and Forward a copy of the Industrial Precinct Planning interim report to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy. 		
Notifications	Community and stakeholder engagement in the review of Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.		
Attachments	 SGS Interim Report Leichhardt Industrial Precinct Planning. Architectus Interim Indicative Structure Plans and Urban Form Illustrations. Save Lewisham Group Strategy 		



Purpose of Report

To inform Council of the findings of the Leichhardt Industrial Precinct Planning interim report and to seek endorsement of the Industrial Precinct Planning interim report as the basis for completion of the Industrial Precinct Planning Project.

Recommendation

That Council:

- Endorse the approach of the Industrial Precinct Planning interim report as the basis for the completion of the Industrial Precinct Planning Project for the Leichhardt local government area; and
- 2. Forward a copy of the Industrial Precinct Planning interim report to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy.

Background

At the Policy Meeting of 10 February 2015, Council considered a report on the Strategic Sites, Centres and Corridors – Parramatta Road project and the Leichhardt Industrial Lands Study. Council subsequently resolved (in part) to endorse the Leichhardt Industrial Lands Study and forward a copy to UrbanGrowth NSW as part of its submission on the *Draft Parramatta Road Urban Renewal Strategy* (C04/15P).

The Industrial Lands Study concluded that in light of future population and employment growth in the LGA, Leichhardt would see a deficit in industrial floorspace of between 7,500sqm and 55,000sqm by 2036.

In accordance with actions of the Industrial Lands Study, Council engaged SGS Economics and Planning to undertake a Stage 2 of the industrial precinct planning.

In addition, Architectus (Architects and Urban Designers) were engaged to provide urban design input into the process for specific precincts. Camperdown, Tebbutt Street / Parramatta Road and Moore Street South were selected for their significance, size and industrial profile mix. Subject to Council endorsement of the interim SGS Industrial Precinct Planning report Architectus will complete the associated urban design work to make final recommendations for built form controls and outputs.

The commencement of the industrial precinct planning work in September 2015, coincided with the release of the Draft Parramatta Road Urban Transformation Strategy by UrbanGrowth NSW. Council's submission on the draft Strategy in December 2015 advised that the findings of the industrial precinct planning would be provided in 2016. UrbanGrowth NSW subsequently advised Council officers that additional information could be accepted only up until mid-March 2016.



Given the complex nature of the industrial precinct planning, the coordination required between the two consultant firms (SGS and Architectus) and the multiple other studies they have been simultaneously undertaking for Council, completion of the work by Council's March Policy meeting was not possible.

Notwithstanding, to enable Council to present a more informed position to UrbanGrowth NSW, SGS have prepared an interim report. It is envisaged that a final report will be presented to Council for endorsement in May 2016. The final report will include recommendations for the planning of all the industrial precincts in the Leichhardt local government area and for the review of the Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.

Report

The report identifies the industry trends and drivers as well as industrial land provision and anticipated population growth and major development in the Central Sydney subregion, before making the following observations:

- Inner city industrial precincts are evolving. As larger floorplate industries move out, they are being replaced by emerging industries such as higher value urban manufacturing as well as creative industries that require large floorspace but are not classified as 'traditional' industrial uses.
- Maintaining the status quo either side of Parramatta Road will not be sufficient.
 Simply protecting industrial land with current floorspace provision will not meet future demand.
- Many traditional industries are moving westward. Across Sydney, the
 competition for land coupled with the need for some industries to operate on
 large lots with few encumbrances has meant that some industries have moved
 out of inner city precincts. The large industrial land releases of western Sydney
 are more attractive to some of these uses.
- Industries that remain do so for a reason. Many businesses that remain in inner-city precincts do so as they have strong links to surrounding business networks and are important parts of the supply chain. They may support the operations of a nearby centre, rely on infrastructure to operate or act as a subregional distribution point for goods and services that cannot locate away from their market.
- Industrial land is being rezoned, but not necessarily to residential. Although
 demand for new housing places significant pressure on inner city industrial
 lands, the need for other commercial uses to operate in areas other than
 commercial cores is driving rezoning away from industrial uses. These tend to
 be towards B5 (Business Development), B6 (Enterprise Corridor) or B7
 (Business Park).
- A growing population needs local services. Future population growth, coupled with major urban renewal projects, will place pressure on remaining industrial lands to turn over to higher value land uses whilst simultaneously increasing demand for population-serving industries.

A review of trends and influences affecting inner city industrial lands as well as analysis of the LGA's industrial precincts identified four key issues that impact on these precincts:



- 1. There is a shortage of industrial land at a subregional level. The nature of innercity industrial lands and the patterns of urban growth limit the ability for these precincts to expand. This constrains the ability of inner-city industrial lands to meet the future demand for industrial uses.
- 2. There is a shortage of local services within Leichhardt. These are services that are traditionally found within local industrial estates, are necessarily located to service a local community and could not operate if forced to move away from this market.
- 3. There is a need to provide sufficient floorspace and appropriate built form configurations to support emerging uses. Inner city industrial estates must retain a degree of agility to facilitate the transition from 'traditional' functions and to accommodate a range of evolving industries and businesses which require industrial precinct characteristics to operate.
- 4. Industrial precincts are under threat from other uses. Competition for inner city land is placing pressure on industrial precincts to turn over to 'higher value' uses. While residential development is a persistent threat, industrial lands also face a threat from other employment uses that compete for larger floorplates and locations but aren't necessarily defined as 'industrial'.

The driving force behind the industrial precinct planning process is the need to increase the provision of industrial floorspace so as to reduce or eliminate the forecast industrial floorspace deficit. The interim report examines how feasible it is to provide this additional floorspace.

Following analysis of the urban structure and built form of the selected precincts, Camperdown, Tebbutt Street/Parramatta Road and Moore Street South, Architectus developed principles and subsequently built form options for sites within these precincts. Built form options were prepared and feasibility analysis undertaken for three sites of varying sizes (small, medium and large) in each of the three precincts. Using the initial design options prepared by Architectus as a basis, SGS undertook a 'goal seeking' exercise to determine how the floorspace quantum needed to change in each scenario to achieve a financially viable development outcome. Architectus subsequently made revisions to the built form options before further feasibility testing by SGS. The purpose was not to identify the exact quantum of floorspace required to feasibly develop, but to identify patterns that could inform policy recommendations.

The testing process uses three land use scenarios to test what land use and built forms could feasibly deliver an increase in industrial floorspace:

- 1. industrial only additional industrial floorspace for industrial uses only
- 2. industrial + commercial includes some commercial floorspace as a higher value land use lever to increase feasibility
- 3. industrial + commercial + residential includes all three land uses as a means of further increasing the likelihood of feasibility.

Application of this sequential testing is important because the introduction of alternative land uses to industrial precincts increases the risk of land use conflict and potential fragmentation. Notwithstanding, it is recognised that because of the relatively low value of industrial floorspace (compared with other uses such as



commercial or residential) it is unlikely that an increase in industrial floorspace alone could deliver a feasible return.

Feasibility findings

The feasibility testing process identified several headline findings:

- Industrial development alone will not provide additional industrial floorspace. The cost of development in all instances was above the revenues generated by industrial floorspace rents. This is because even though development costs are low relative to those of more complicated (or taller) buildings, industrial uses are rarely high-value and therefore cannot afford high rents. This is exacerbated when land acquisition costs are factored in.
- The addition of commercial floorspace can return a feasible result. Adding commercial floorspace to the floorspace mix of buildings increases development costs and requires taller buildings, however the higher rent per square metre can, in some instances, enable a development to cross the feasibility threshold. However, this tends to require a significant amount of commercial floorspace which is likely to exceed market demand and could result in an unfavourable urban design outcome.
- Residential is the easiest way to generate additional industrial floorspace.
 Residential returns the highest land values on a per square metre basis and it
 is therefore the most efficient at returning a feasible result. It also does not
 necessarily require a significant proportion of total Gross Floor Area (GFA). In
 most cases, the introduction of residential floorspace resulted is a feasible
 outcome for development.
- Lot size does not appear to matter. In the scenarios and sites tested, there does not appear to be a pattern where lot size provides a better or worse feasibility result.

Multi-Criteria Analysis

To inform recommendations for the future planning of Leichhardt's industrial precincts, SGS prepared a Multi-Criteria Analysis (MCA) framework through which the different development options were assessed. This framework brings together the findings of feasibility modelling, urban design assessment and policy/strategy assessment. The purpose of the MCA is to determine which option most appropriately addresses the LGA's forecast industrial floorspace supply deficit and protects the industrial precincts.

The MCA tests each option against the following criteria:

- Feasibility ratio
- Total floor space demand
- Depth within the likely target market segment
- Impact on the role and function of the precinct
- Impact on the surrounding precinct and broader economy
- Urban design considerations

Each criteria was given a positive, negative or neutral score to determine whether, on balance, the tested land use mix is of benefit to the LGA.



Each option was then assessed against the primary objectives of protecting existing industrial land and providing additional industrial floorspace. The outcomes from this analysis are summarised in the SGS table below:

Options	Positives	Negatives			
Industrial only	 Increase in industrial floorspace within the precinct supports existing industrial function. Additional industrial floorspace will provide support for the local population and businesses served by the industrial tenants. 	 Additional floorspace is likely to increase the volume of traffic and impact on the local road network. For the development of additional floorspace to be feasible, the rent per square metre has to increase. Increased rents will put pressure on the more traditional existing industrial businesses. 			
Industrial and commercial	 Increasing commercial floorspace will provide an opportunity for a range of different commercial types including creative, health services and CBD fringe office space. Supplying commercial floorspace will reduce the commercial floorspace deficit (88,283 sqm) for the LGA. The demand for commercial floorspace is aligned with population and employment growth. Commercial floorspace is less conflicting with industrial activity especially where precincts already have a mix of commercial and industrial activity (e.g. Camperdown) There is the potential to attract new tenants to the Camperdown precinct given proximity to Sydney University and RPA. 	 Potential for cannibalisation of other commercial centres e.g. Norton Street. Likely to give rise to increased parking and accessibility problems. High increase in commercial rents. The introduction of commercial floorspace has the potential to change the industrial sense of address in the precincts – jeopardising the continued operation of industrial business as well as the attraction of new industrial activity. Feasible development requires significant commercial floorspace which will fundamentally reshape the precinct. 			
Industrial, commercial and residential	 Introducing residential floorspace will contribute to the overall supply of housing There is market demand for residential floorspace in the LGA. There is an opportunity to provide affordable housing and housing for key workers in these precincts. Council can benefit from Section 94 contributions and add value to the surrounding area. 	 Integrating three land use types on one site will be likely to generate land use conflicts. Introducing residential land uses will create long term implications as residential is a competing land use and potentially dominate the site and push industrial uses out of the precinct. Pressure on social infrastructure and local services with an increasing residential and business population. If residential is developed in the core of a site, it will be especially harmful to the function of the precinct. Residential needs to be developed on the periphery. Introducing residential to industrial precincts sets a precedent for the 			



	development precincts.	in	other	industrial

Based on the precinct profiling, feasibility analysis and MCA process, a number of potential outcomes may be available to Council for planning industrial and employment land. These outcomes have been considered both in terms of their ability to deliver additional industrial floorspace and the risks that might arise from particular policy actions for individual precincts or for the overall supply of industrial floorspace in the local government area.

SGS assessed the above industrial, industrial/commercial, and the industrial/commercial/residential options against the following categories of policy risk:

- Low risk Likely to be suitable for the LGA
- Medium risk Careful consideration of policy benefits and dis-benefits required.
- High risk Highly likely to fundamentally and adversely impact future industrial floorspace supply.

Overall SGS conclude that industrial development alone will not facilitate the provision of increased industrial floorspace supply as the cost of development outweighs the revenues received. As a consequence, other land uses are required to improve the feasibility aspect.

The potential integration of commercial and/or residential elements in new developments as levers to increase industrial floorspace supply present a number of risks. The volume of commercial floorspace required to cross the feasibility threshold is likely to fundamentally alter the function of an industrial precinct and shift the commercial gravity of the local government area away from existing commercial centres such as Norton Street.

The introduction of residential development brings with it extremely high risks of precinct fragmentation and land use conflicts that will significantly limit the ongoing function of the precinct. The extreme end of this scenario is that within a relatively short period of time, the pressure of residential would lead to the complete loss of industrial precincts.

With this in mind SGS have recommended two potential options for industrial precincts in the local government area and their possible implications the Camperdown and Tebbutt Street industrial precincts. These recommendations address the risks inherent in retaining the industrial zoning or of any potential rezoning within industrial precincts. Both options will require further consideration in



the completion of the Industrial Precinct Planning Project, but in the interim they provide a strong rationale for sound employment and industrial land planning that reflects the policy direction of the completed Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project studies. More particularly these options provide Council with a policy platform to influence how UrbanGrowth NSW formulates the next more detailed stage of the development of the Draft Parramatta Road Urban Transformation Strategy.

The two SGS options are explained in detail below:

(Please note: 1. the maps in the following options are SGS indicative illustrations of possible zonings that will require further consideration in the completion of the Final Industrial Precinct Planning Project for the entire local government area; 2. SGS's options refer to a number of business land use zones and the following definitions of these zones are useful in envisaging what types of land use they can incorporate

B4 Mixed Use

This zone is generally used where a wide range of land uses are to be encouraged, including commercial, residential, tourist and visitor and community uses. The residential development component in this zone can form an important element in revitalising and sustaining the area, and increasing housing diversity close to Commercial Cores and major transport routes.

B5 Business Development

This zone is to provide for business, warehouse and bulky goods retail uses that require a large floor area, in locations that are close to, and that support the viability of, centres. This zone provides for employment generating uses such as 'warehouses or distribution centres,' 'bulky goods premises,' 'hardware and building supplies,' 'landscaping material supplies' and 'garden centres.'

The zone may be applied to areas that are located close to existing or proposed centres, and which will support (and not detract from) the viability of those centres.

B6 Enterprise Corridor

The zone is generally intended to be applied to land where commercial or industrial development is to be encouraged along main roads such as those identified by the metropolitan, regional and subregional strategies. The zone provides for uses such as 'business premises,' 'hotel or motel accommodation', 'light industries,' 'hardware and building supplies,' 'garden centres' and 'warehouse or distribution centres.' Retail activity needs to be limited to ensure that Enterprise Corridors do not detract from the activity centre hierarchy. Residential accommodation can be prohibited or permitted with consent as part of mixed use development.

Option 1: Business as usual approach

This option assumes that the risk of precinct fragmentation and land use conflict that could come with additional uses is too great to entertain and would involve no change to the zoning in the local government area's IN2 zoned precincts.



1: Protection

Strategy 1: Retain industrial (IN2) categorisation in majority of industrial

ACTION Retain IN2 zoning and continue to protect from re-zoning for the following precincts:

Balmain East Balmain Road Lilyfield Road Marion Street Moore Street North

Terry Street White Bay

Camperdown

Moore Street South Tebbutt Street Lords Road

Rationale

The Industrial Land Use Study (2014) identified a shortage of industrial floorspace in the LGA by 2036. The retention of all IN2-zoned land and active protection of it against future development or adjacent development that may lead to land-use conflicts will not increase industrial floorspace. However, it is the best way to ensure that there is no continual erosion of remaining stock.

2: Strengthening of industrial character

Strategy 2: Differentiate between industrial uses in the LGA

ACTION 2.1

Introduce IN1 zoning into LEP land use classifications.

Rationale

There are subtle differences in the role of Leichhardt's industrial precincts and many of the precincts are small clusters of industrial units which fit into the IN2 category.

There are some precincts, however, that due to their size and role, are more 'traditional' industrial precincts. The introduction of an IN1 categorisation would add weight to the precincts that have such a zoning. This would send a clear message of intent regarding these precincts.

ACTION 2.2

Rezone Moore Street South industrial precinct to IN1

Rationale

Moore Street South is Leichhardt's largest 'traditional' industrial precinct with regards to role and function. A re-zoning to IN1 would signal that this precinct is not one to consider peripheral industrial uses and will not be a location for alternative uses such as commercial or residential.

Although feasibility testing suggested that in some instances, the introduction of commercial and/or residential could deliver an increase in floorspace, the possible loss of this precinct due to land-use conflicts is too great to contemplate seeking a marginal increase in floorspace.

Option 2: Step change approach



Option 2 – a 'Step Change Approach' assumes the following scenario:

- a) Pressure from the State Government to redevelop the Parramatta Road Corridor requires Council to take a lead in considering alternative land use arrangements; OR
- b) Council wishes to consider options that may deliver additional floorspace.

This would be mutually exclusive to Option 1 Action 1 and would reconceive the future roles of the Council's major industrial precincts for new forms of industry and business.

The following recommendations envisage how Camperdown and Tebbutt Street precincts may function as new non-traditional industrial precincts.

1: Vision for Camperdown precinct

Camperdown's location in relation to the CBD and other neighbouring institutions such as the University of Sydney and Royal Prince Alfred Hospital means it is well positioned to accommodate supporting industries. The Camperdown precinct could accommodate higher-value industrial and commercial users that support the operations of nearby institutions and businesses operating in the CBD. Leichhardt Council's Employment and Economic Development Plan encourages creative industries and with an identity that supports physical production in partnership with aligned commercial interests, Camperdown could attract these types of use.

2: Vision for Tebbutt Street Precinct

Tebbutt Street's identification as a centre in the Parramatta Road Urban Transformation Strategy and its location near to the Taverners Hill Light Rail station make it a logical place for mixed use development. A residential component, with a mix of business and industrial uses could enable a range of land uses to co-exist with minimal conflict. Each of these would benefit from the precinct's location and transport access.



3: Step-change in key precincts

	3 : Make amendments to standard instrument LEP and			
	nent Control Plan			
ACTION 3.1 Rationale	Introduce B6 (Enterprise Corridor) zoning into LEP land-use classifications Leichhardt currently has four Business use-class zones identified in its LEP. The introduction of B6 (Enterprise Corridor) will enable Council to provide a more nuanced set of business-oriented			
ACTION	B6 (Enterprise Corridor) provides Council with an additional business zoning that aligns with a number of the uses currently found within the IN2 zoning. This provides Council with a more refined set of zoning classifications to address future land-use pressures, particularly along the Parramatta Road corridor. Introduce B5 (Business Development) zoning into LEP land-use			
3.2	classifications and include 'Residential Accommodation' as a use permitted with consent.			
Rationale	Allowing some residential development within business zones will encourage a mix of uses where it is applied. It will also assist with the feasibility equation of new developments where this use is being encouraged.			
	Unlike B4 (Mixed Use), which usually has residential providing a significant proportion of floorspace in developments, the intent with this amendment is to retain the predominant land use as business-focus.			
ACTION 3.3	Provide additional direction with regards to floorspace proportions for B5 (Business Development) zoning in Development Control Plan. This would limit the total amount of residential GFA to approximately 20% of total GFA for individual development within a B5 zone.			
Rationale	To ensure that residential does not dominate the development and alter the intent of the precinct, additional directions to limit floorspace to a minimal proportion can provide design guidance to developers to articulate how and why this proportional cap is required.			



Strategy 4: Position Camperdown as a mixed business precinct aligned with surrounding industries

ACTION Re-zone the identified area to B5 (Business Development). This assumes that the inclusion of residential is permitted in the B5 zone.



Rationale

The Camperdown Precinct's location in relation to the CBD and other neighbouring institutions such as the University of Sydney and Royal Prince Alfred Hospital means it is well positioned to accommodate supporting industries. A B5 zone would permit a more commercial focus while retaining much of the existing industrial uses.

The introduction of capped residential development would act as a lever to increase industrial and commercial floorspace.

A B5 zone on the precinct's periphery will capture much of the existing land use profiles such as Bulky Goods Retail that current line Parramatta Road.



ACTION Retain existing IN2 zone in identified area (below). 4.3



Rationale

It is important to protect the industrial core of the precinct to continue to accommodate the range of light industrial users that require the close-to-CBD position of the precinct. It will also help to retain the overall intention of the precinct.

ACTION 4.4 Set a clear vision for the future industry identity of the Camperdown Precinct

Rationale

In order for the strategic intent of any changes to Camperdown being made clear, a statement in the DCP that outlines what type of precinct Camperdown will be should be made. This can build off the statement in this section about what the intention for Camperdown's proposed rezoning is.



Strategy 5: Be proactive in aligning Tebbutt Street with the future of the Parramatta Road Strategy

ACTION 5.1

Re-zone eastern edge of Tebbutt Street to B4 (Mixed Use) north of Number 5 Tebbutt Street (see map)



Rationale

The intention of UrbanGrowthNSW to redevelop this precinct as part of the Parramatta Road Urban Transformation Strategy puts pressure on Tebbutt Street to remain as an industrial precinct. This stretch already has a B4 zone to its east and its location near the Taverners Hill Light Rail Station makes it suitable for residential.

This approach also demonstrates a proactive approach by council to work with UrbanGrowth NSW and may help to protect more of the industrial precinct than otherwise would have.

ACTION 5.2

Re-zone IN2 zoned land in precinct between Tebbutt Street and Hathern Street and between Flood Street and Elswick Street to **B6** (Enterprise Corridor)



Rationale A B6 zoning aligns with much of the current use along Parramatta Road and still retains opportunity for some industrial uses. It does provide a more commercial opportunity to support any future residential development in the area.

ACTION Retain IN2 zoning between Flood Street and Upward Street.



5.3



Rationale This part of the precinct retains a cluster of larger lots that centre on the newly built Best and Less distribution facility. Given that Best and Less has committed to the precinct, it suggests that this warehousing and supply chain role is still relevant in this location.

Urban Form

Architectus will complete their urban design report to contribute to the Final Industrial Planning Precinct Project study after Council have considered this report, however extracts from their ongoing design work to inform the SGS feasibility testing so far are provided in Attachment 2: Architectus Interim Indicative Structure Plans and Urban Form Illustrations.

These illustrations include indicative structure plans and possible built forms that were provided to SGS for testing for each of the SGS Options for Camperdown and Tebbutt Street; international examples of non-traditional industrial precincts and developments; and images of recent high-tech, medical research and educational redevelopments including some incorporating heritage items in and around the Royal Prince Alfred and University of Sydney precinct.

Save Lewisham Group Strategy

In December 2015 Council resolved **(C608/15)** in relation to Council's submission to Urban GrowthNSW on the Draft Parramatta Road Transformation Strategy that: "Officers collaborate with the Save Lewisham Group to analyse the alternative proposals they have developed and report back to the February 2016 Policy Council Meeting on how they relate to Council's submission."

Council officers met with representatives of the Save Lewisham Group to discuss their alternative strategy (Attachment 3). In summary their strategy proposes to:

- Protect the existing low density residential areas north and south of Parramatta Road by only rezoning the industrial and commercial properties along Parramatta Road
- Allow a higher built form on the north side of Parramatta Road (up to 12 storeys and stepping down to 6 storeys)
- Require a lower built form on the southern side of Parramatta Road (4-6 storey and stepping down to 3 storeys) to minimise overshadowing
- Extend the Taverners Hill Precinct west of the light rail (Ashfield Council)



 It also envisages a new signalised intersection to align Old Canterbury Road with Tebbutt Street to allow north - south traffic movement to bypass Brown Street. This would provide an opportunity for the Brown Street overpass to become a pedestrian/cycle link with direct access to the Light Rail Station.

Taking into consideration recent approvals they have calculated their strategy will deliver the Urban Growth Target of 3064 dwellings by 2050.

Relationship with the Draft Parramatta Road Urban Transformation Strategy

The table after the Summary / Conclusions includes relevant recommendations from Council's submission to UrbanGrowth NSW on the Draft Parramatta Road Urban Transformation Strategy (DPRUTS) and how they broadly relate to the findings of the Industrial Precinct Planning interim report.

Summary / Conclusions

Given the complex and local government area wide nature of the Industrial Precinct Planning Project, the coordination required between the two consultant firms (SGS and Architectus) and the multiple other studies they have been simultaneously undertaking for Council, completion of the Project by Council's March Policy meeting was not possible.

SGS have prepared the interim report (Attachment 1) to enable Council to present a more informed position to UrbanGrowth NSW. It is envisaged that a final report will be presented to Council for endorsement in the near future. The final report will include recommendations for the planning of all the industrial precincts in the Leichhardt local government area and for the review of the Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.

In summary SGS suggest that Council has two options:

- Option 1: Business as usual retain IN2 zoning of all the area's industrial precincts and consider rezoning Moore Street to IN1 with IN1 land use classifications in some other IN2 precincts in order to attempt to prevent continuing erosion of the remaining stock of industrial land.
- Option 2: Step change approach to respond tactically to ongoing pressure from State government to redevelop Parramatta Road corridor and /or to allow Council to consider possible ways of delivering additional industrial, nontraditional industrial and other forms of employment development in the key Camperdown and Tebbutt Street precincts.

These recommendations address the risks inherent in retaining the industrial zoning or of any potential rezoning within industrial precincts. Both options will require further consideration in the completion of the Industrial Precinct Planning Project, but in the interim they provide a strong rationale for sound employment and industrial land planning that reflects the policy direction of the completed Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project studies. More particularly these options provide Council with a policy platform to influence how UrbanGrowth NSW formulates the next more detailed stage of the development of the Draft Parramatta Road Urban Transformation Strategy.



Consequently it is recommended that Council:

- 1. Endorse the approach of the Industrial Precinct Planning interim report as the basis for the completion of the Industrial Precinct Planning Project for the Leichhardt local government area; and
- 2. Forward a copy of the Industrial Precinct Planning interim report to UrbanGrowth NSW for consideration in the preparation of the Parramatta Road Urban Transformation Strategy.

Next Steps

Subject to the endorsement of the Industrial Precinct Planning interim report and presentation of the Final Industrial Precinct Planning Project report to Council in May 2016 the following steps will be taken to progress Council's approach to the planning the local government area's industrial precincts:

- Confirmation of final planning objectives and principles through community and stakeholder engagement.
- Report community engagement outcomes to Council.
- Application of Council endorsed objectives and principles to the review of Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.
- Preparation of draft Leichhardt Local Environmental Plan (LEP) 2013 and Leichhardt Development Control Plan 2013 amendments and presentation of these to Council for endorsement to submit a draft LEP Amendment Planning Proposal for Gateway Determination.
- Report Gateway Determination to Council and subject to Gateway approval proceed to public exhibition of Planning Proposal and associated DCP Draft Amendments.
- Report public exhibition submission to Council and proceed to publication for the LEP and DCP Amendments.



Issue	Initi	al Council recommendation	Study findings
Land use - Employment and	11.	Council does not support the loss of IN2	The findings of the interim report acknowledge
economic activity		zoned lands in accordance with the	this position. The loss of industrial zoned land or
		recommendations of the Leichhardt	the introduction of additional land uses would
		Industrial Lands Study.	jeopardise the industrial precincts and their
			ability to adequately provide for the future
	12.	•	population of the LGA, which is likely to increase
		review the Leichhardt Industrial Lands	substantially as a result of major urban renewal
		Study (Parts 1 and 2) and undertake	projects proposed in the vicinity.
		discussions with Leichhardt Council	
		regarding the findings and	The interim report shows that there is a need to
		recommendations.	provide additional industrial floorspace within
			Leichhardt to meet the LGA's future demands,
			however industrial development alone will not facilitate this and other land uses are required to
			improve the feasibility aspect. Accordingly,
			consideration must be given to the risks
			associated with seeking this additional
			floorspace and whether they outweigh the
			reward.
			Introducing commercial and/or residential as
			levers to increase industrial floorspace supply
			presents a number of risks. The volume of
			commercial floorspace required to cross the
			feasibility threshold is likely to fundamentally
			alter the function of the precinct and shift the
			commercial gravity of the LGA away from its
			identified commercial centres such as Norton
			Street. The introduction of residential
			development brings with it extremely high risks
			of precinct fragmentation and land use conflicts



		that will significantly limit the ongoing function of a precinct. The report concludes that the risk/reward equation is clear. Although the aspiration of increasing industrial supply is supported and founded in and strong evidence base, the implications for delivering on this objective is that it may perversely lead to a significant reduction of industrial floorspace over the medium-to-long term.
Mixed use in the Taverners Hill Precinct is unlikely to support existing industrial uses	14. Council recommends that the IN2 Industrial zone be retained in Taverners Hill Precinct. Council notes that any introduction of Mixed Use would include a Residential component which would not be compatible with the IN2 land use. Council's Industrial Lands Study (Part 1) recommends that there be no further loss of industrial land in the LGA and that Council finds locations to increase floorspace zoned for IN2. Further rezoning of land to B4 Mixed Use is therefore not supported in this location.	Street/Parramatta Road precinct, none of the development scenarios returned a feasible result. On the remaining site, only Option 3 (industrial + commercial + residential) proved to be feasible. The interim report states that the introduction of residential accommodation would negatively affect the positioning of the precinct as an industrial area. Furthermore, it identifies the following potential issues with the introduction of residential and commercial floorspace to the precinct:
	 17. Council recommends that the IN2 zoning in Taverners Hill be protected and retained, with additional permissible uses in the zone. Council's consultants are currently testing land use options for sites in 	industrial area would be negatively affected, with commercial and/or residential uses potentially redefining the precinct. With regard to the introduction of commercial



the IN2 Zone and Council will provide detailed future provisions to UrbanGrowth NSW in the first half of 2016.

- 18. Council does not support the loss of IN2 zoned land in Taverners Hill but if lost Council recommends that commercial development should be included in any mixed use area and include large, flexible floorspace to support businesses aligned with creative industries and similar industries that require non-traditional commercial floorspace.
- 19. Council notes that it needs to make provision for an increase in IN2 floorspace in the LGA and notes that if any industrial floorspace is lost in the Taverners Hill Precinct that it must be made up elsewhere.
- 20. Council requests that UrbanGrowth NSW consider the Leichhardt Industrial Lands Study (Parts 1 and 2) and the Industrial Precincts Urban Design Study in detail and in consultation with Council and that the findings and recommendations be used to inform the next iterations of any Transformation Strategy for the corridor.

- of redefinition would depend on the types of the uses introduced.
- the introduction of land use conflicts arising from accessibility issues, noise and amenity.
- an increased number of employees and/or residents would adversely impact traffic movement in the precinct, particularly at peak times.
- increased public transport demand associated with additional residents and workers.
- accessibility and parking issues given the small size of lots in the precinct.
- additional demand for services that support the local population such as social infrastructure and retail services and to a lesser extent, industrial services.
- competition with established commercial areas. Given the proximity to Norton Street, significant commercial activity in the precinct may adversely affect commercial attraction to Norton Street. The commercial and retail study undertaken by SGS identified the reactivation of Norton Street as a priority.

The report recommends that if residential were to be located in the precinct, it should be on the periphery so as to not impact on the industrial core. It is also acknowledged that there may be opportunities to provide housing for key workers and affordable housing within the precinct.



In the development of built form outcomes for testing, options comprising two industrial levels and between two and four levels of commercial and/or residential achieved appropriate urban design outcomes on sites within the Tebbutt Street/Parramatta Road precinct. Industrial uses were designed with a 6m floor to ceiling height to accommodate a range of uses and servicing, including truck access. Commercial and residential floorplates were both designed with a 3.6m floor to ceiling height. A two storey, 12m street wall was recommended to ensure retention of the existing character of the precinct.

In summary SGS have concluded so far that the local government area's projected industrial land supply deficit cannot be addressed through new industrial development alone and that therefore Council has two options:

- Option 1: Business as usual retain IN2 zoning of all the area's industrial precincts and consider rezoning Moore Street to IN1 with IN1 land use classifications in some other IN2 precincts in order to attempt to prevent continuing erosion of the remaining stock of industrial land.
- Option 2: Step change approach to respond tactically to ongoing pressure from State government to redevelop Parramatta Road corridor and /or to allow Council to consider possible ways of



		delivering additional industrial, non-traditional and other forms of employment development in the key Camperdown and Tebbutt Street precincts. Both options will require further consideration in the completion of the Industrial Precinct Planning Project, but in the interim they provide a strong rationale for sound employment and industrial land planning that reflects the policy direction of the completed Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project studies. These options provide Council with a policy platform to influence how UrbanGrowth NSW formulates the next more detailed stage of the
Camperdown Precinct: The strategy makes no allowance for industrial use	32. Council does not support the loss of IN2 — Industrial land in the Camperdown Precinct. The industrial floorspace in the Camperdown precinct should be protected and retained, with opportunities for an increase in floorspace explored where possible. The strategic importance of the precinct's current function is such that the existing quantum of floorspace should be retained and protected for continued industrial use. Council is undertaking detailed Precinct	formulates the next more detailed stage of the development of the Draft Parramatta Road Urban Transformation Strategy. The multi-criteria analysis, which considered the findings of the feasibility modelling, urban design assessment and policy/strategic direction, has determined that there is no ability to increase floorspace. Accordingly, the remaining industrial area is critical in providing floorspace for local population serving industries and backroom activities for businesses in the CBD and commercial centres. As identified by the Industrial Lands Study, the Camperdown industrial precinct has locational



Planning for Camperdown, including an Urban Design Study and further feasibility testing. This work should be used to inform the future for land use zones and FSR in the precinct.

33. Council recommends that this land is reserved for industrial uses into the future with no decrease in flexibility due to residential uses; and to avoid land use conflicts.

and operational characteristics that make it important to Leichhardt and the broader inner Sydney subregion. It is important for this land to be protected for essential industries and urban services.

In summary SGS have concluded so far that the local government area's projected industrial land supply deficit cannot be addressed through new industrial development alone and that therefore Council has two options:

- Option 1: Business as usual retain IN2 zoning of all the area's industrial precincts and consider rezoning Moore Street to IN1 with IN1 land use classifications in some other IN2 precincts in order to attempt to prevent continuing erosion of the remaining stock of industrial land.
- Option 2: Step change approach to respond tactically to ongoing pressure from State government to redevelop Parramatta Road corridor and /or to allow Council to consider possible ways of delivering additional industrial, nontraditional and other forms of employment development in the key Camperdown and Tebbutt Street precincts.

Both options will require further consideration in the completion of the Industrial Precinct Planning Project, but in the interim they provide



		a strong rationale for sound employment and industrial land planning that reflects the policy direction of the completed Parramatta Road / Norton Street Strategic Sites, Centres and Corridors Project studies. These options provide Council with a policy platform to influence how UrbanGrowth NSW formulates the next more detailed stage of the development of the Draft Parramatta Road Urban Transformation Strategy.
Camperdown Precinct: Residential development will undermine industrial use	35. Council does not support the introduction of residential development into the Camperdown precinct as it will undermine the important industrial uses. Council is currently undertaking more detailed Precinct Planning for Camperdown to identify future built form and land use scenarios which support its ongoing feasibility as Industrial land. It is recommended that this work be provided to UrbanGrowth NSW to inform its next iteration of the DPRUTS.	development comprising industrial, commercial and residential floorsapce did not produce a feasible outcome on any of the sites tested in the Camperdown precinct. Of all the scenarios tested across the three selected sites in the precinct, the only feasible result was development comprising industrial and residential on the small (1000m²) site.



		 existing tenants being driven out due to increased property values and rents. land use conflicts associated with noise, access, amenity and operation. increase in traffic volumes placing pressure on the road network. increased demand for services that support the local population such as social infrastructure and retail services and to a lesser extent, industrial services. fragmentation of the precinct and impairment of its functioning, particularly if residential accommodation was provided in the core of the precinct. restricting the ability of the precinct to accommodate additional industrial floorspace in the future. sending a strong signal to existing owners and the market that the area is in transition away from industrial use or no longer has an industrial future.
Camperdown Precinct redevelopment should only be considered as a means to increasing or reorganising industrial floorspace	Industrial only scenario is the preferred outcome for the precinct. Council notes that if its sequential testing demonstrates there is a need for redevelopment in order to gain additional industrial floorspace, then a floorspace mix of industrial and commercial uses is the	Industrial only scenarios on sites within the Camperdown precinct did not produce feasible outcomes. Similarly, the industrial + commercial option did not produce feasible outcomes in the Camperdown precinct and would require a significant shift in the market value of the industrial floorspace or a more than doubling of



uses that support the precinct's operations and align with council's aspirations to encourage creative industries in the area.

- 37. Council recommends that residential uses should only be considered as a last option (due to its ability to fragment industrial precincts and create land use conflicts) and that it should only be located on the precinct's edges and should not impede the ongoing operations of the precinct. More detailed site testing must be undertaken prior to any decisions in relation to this Precinct.
- 38. Council notes that the Camperdown Precinct is well located to provide industrial, employment lands for uses associated with the growth of industries associated with the research and production activities of the Royal Prince Alfred Hospital and Sydney University, in particular in relation to biomedical industries. Council recommends that further consideration of the strategic importance of the Precinct in light of this potential growth is imperative.
- 39. Council requests that UrbanGrowth NSW considers, in detail, the findings and recommendations of the Leichhardt

precinct's substandard urban design outcome.

The final step of sequential testing included the introduction of residential floorspace, however for the reasons outlined above this is considered a high risk option. Notwithstanding, with consideration of the urban design outcomes, this scenario only produced a feasible result on one of the three sites tested.

While maintaining that there should be no loss of industrial floorspace and continued protection of the Camperdown industrial precinct, the interim report concludes that if there is any flexibility with precinct roles, Camperdown is best suited to be one that may evolve to encourage new 'higher value' industrial tenants, particularly due to its proximity to the CBD, RPA and Sydney University.

Any redevelopment of this nature, which cannot be easily tested by the feasibility modelling, should consider the built form outcomes prepared by Council's urban design consultants. Possible options developed by Architectus for the three test sites in the Camperdown industrial precinct included two and three industrial levels with two to four commercial or residential levels above. Industrial uses were designed with a 6m floor to ceiling height to accommodate a range of uses and servicing, including truck access. Commercial and residential floorplates were both



		Industrial Lands Study (Parts 1 and 2) including the finding that the precinct is important on a subregional basis and should not be rezoned to other uses.	designed with a 3.6m floor to ceiling height. A two storey, 12m street wall was recommended to ensure retention of the existing character of the precinct.
			SGS's interim options cover both no change and tactical step change possible solutions for Camperdown that can be used to influence the next steps in the UrbanGrowthNSW development of the Draft Parramatta Road Transformation Strategy.
			Option 2 may create an opportunity to provide industrial, employment lands for uses associated with the growth of the research and production activities of the Royal Prince Alfred Hospital and Sydney University, in particular in relation to biomedical industries.
Camperdown Precinct - Retain storage facility as part of enterprise corridor	40.	Council recommends that the storage facilities located in the Camperdown Precinct are an important land use which supports the population and businesses and should not be rezoned.	Any growth in residential population within the locality will see increased demand for storage facilities. The importance of this land use in the Camperdown precinct is further reinforced by the proximity to the CBD and the support role it plays for businesses.
Camperdown precinct: Streetscape upgrades should not compromise precinct operations	41.	Council requests that any streetscape improvement works be developed in conjunction with Council and that the design of the public domain be appropriate for an industrial core including consideration of the requirements of trucks in relation to	Given the findings of the interim report, Council's position on streetscape improvements in the Camperdown precinct should remain unchanged. Changes to the public domain should not compromise the ability of industrial uses to operate.



	footpath and carriageway widths, pedestrian and cycle networks and street tree planting.	
Camperdown Precinct: Enterprise and business zone	42. Council does not support the proposed Enterprise and Business Zone in the Camperdown Precinct as it is unable to ascertain from the DPRUTS what the permissible land uses would be for the proposed Enterprise and Business Zone and notes that any additional uses permitted in this area (compared to the IN2 Zone) are likely to result in light industrial and creative uses being forced out of the area, and therefore a loss of lands available for employment uses and essential urban services.	•



Attachments

Attachment 1: SGS Interim Report Leichhardt Industrial Precinct Planning. Attachment 2: Architectus Interim Indicative Structure Plans And Urban Form

Illustrations.

Attachment 3 : Save Lewisham Group Strategy



Leichhardt Industrial Precinct Planning



Interim report Leichhardt Municipal Council February 2016







This report has been prepared for Leichhardt Municipal Council, SGS Economics and Planning has taken all due care in the preparation of this report. However, SGS and its associated consultants are not liable to any person or entity for any damage or loss that has occurred, or may occur, in relation to that person or entity taking or not taking action in respect of any representation, statement, opinion or advice referred to herein.

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EXECUTIVE SUMMARY

An Executive Summary will be produced with the final report.





SUMMARY OF INDUSTRIAL LAND STUDY

In 2014, SGS were commissioned by Leichhardt Municipal Council to undertake an Industrial Lands Study for all industrially-zoned land in the LGA. This report was underpinned by a land-use audit that determined the floorspace, industry type and broad land-use categorisation of each lot across the LGA's industrial precincts.

Future demand for industrial floorspace was forecast from employment projections for Leichhardt produced by the Transport for NSW's Bureau of Transport Statistics (BTS). These were converted to floorspace projections using SGS's in-house modelling, derived from land-use audits undertaken across Sydney.

The report concluded that in light of future population and employment growth in the LGA, Leichhardt would see a deficit of between 7,500 sqm and 55,000 sqm by 2036. The range is due to a number of scenarios being test. The most conservative of these was that no additional development would take place in industrial precincts to provide more floorspace, while the most optimistic assumed that all lots in all precincts developed to the maximum theoretical capacity under existing planning controls (Floorspace Ratio and building height).

The study was adopted by Council in early 2015.





ECONOMIC CONTEXT

Industry trends and dewers

The story of Sydney's inner city industrial lands

Businesses and industries that locate within inner city industrial lands play an important role in the functioning of cities. These precincts vary in size and make up. They support commercial centres and the businesses that locate in them, through functions such as archiving, print, wholesale retail and food and beverage preparation. These precincts also serve the needs of surrounding local and sub regional populations through panel beaters, specialised retailers (such as builders' merchants), storage facilities and works depots of municipal councils

Aside from simply providing appropriate land to accommodate these functions, the zoning of these precincts under industrial classification (IN1, IN2) serves also to supress land values. This is especially significant in cities such as Sydney, where inner-city land values have risen dramatically in recent years. In Leichhardt, the median house and apartment price is \$1,367,500 and \$852,500 respectively (compared to a Sydney-wide median of \$900,000 and \$650,000 respectively), highlighting the demand for land and the premium that is placed on proximity to the CBD.

The suppression of land values through zoning mechanisms is an important function of planning. On face value, industrial land uses cannot compete on a dollar per square metre basis against higher value uses such as residential. This, however, masks the value-add that industrial land in proximity to commercial centres and population contribute. Businesses that operate in industrial precincts can do so due to the lower cost environment that industrial zoning permits. Without the suppression of land values through zoning, a plumbing supplier or storage facility could not compete with the returns that residential would provide on that land. These uses would be forced away from the area, increasing the operating cost of the business.

It is important to note that there are two distinct functions that businesses operating in inner-city industrial precincts tend to serve. The first is of a subregional nature, with the business (or collection of complementary businesses within an industrial precinct) providing a service that supports the operation of the subregion or even metropolitan region. These include secondary freight and logistics distribution facilities such as Australia Post depots that support a wide range of LGAs.

The second function is of a more local nature, with a precinct's operations servicing a smaller network. These include council depots, storage facilities or print operations and differ depending on whether their local network is predominantly business or residentially-oriented.

Multi-functional precincts

Industrial lands deliver a diverse mix of jobs. Across Sydney, almost two-thirds of jobs in Industrial lands relate to five industrial sectors collectively referred to as 'production and manufacturing'. This, however, means that one third of Sydney's industrial lands comprise of a range of other activities. These vary significantly across districts and precincts but can include arts and recreation, financial and insurance services and education and training.

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While production and manufacturing reflect common perceptions of industrial precincts, they are transitioning from traditional production and manufacturing uses and adapting to meet the needs of Sydney's global economy. These transitions are resulting in:

- an increasing demand for larger floor space to accommodate freight/logistics
- increasing competition from other land uses, such as residential, in inner city districts.
- a greater need to maximise transport accessibility to link to customers and distributors
- a greater emphasis on the economic value of agglomeration opportunities

The distinction between large industrial lands in Sydney's west and more concentrated inner-city precincts is also growing. The inner city industrial lands, in particular, contain a complex mix of local services and businesses locating near clients in strategic centres and customers in surrounding areas. The mix of activities in industrial precincts varies greatly. Against the Sydney-wide figure of two-thirds, the proportion of jobs located in the Central subregion's industrial precincts is closer to half, meaning that over fifty percent of jobs located in these precincts are something other than "traditional" industrial uses.

Transitioning functions

The role of inner-city industrial precincts is evolving alongside the industries locating within them. Changing business models that promote 'factory door' shops fronting a production facility have begun to attract people to precincts that were previously utilitarian in nature. This adds a degree of activity to precincts and supports businesses but can impact on more traditional operations that require, for instance, regular heavy vehicle access. Urban manufacturing has also shifted the focus from large floorplate manufacturing techniques towards smaller-scale operations. This has coincided with the rise of strata-ed business park-style industrial developments. The rise of 3 D printing is expected to continue the growth of small-scale, higher-value production in precincts close to clients.

Land use contestability

Competition for industrial lands in the inner city is high. These lands are often well located near public transport, main roads and, in the case of Leichhardt in particular, close to services and local amenities such as shopping centres and high streets. These characteristics are attractive to residential development, particular because the land values under industrial zoning are lower than surrounding residential land values. This often leads to land holdings being speculatively acquired in the hope that sustained pressure will see land values turn over to higher-value residential use.

Industrial lands also face pressure from other business and retail sectors. The transition of many traditional 'heavy' manufacturing businesses to larger, unencumbered precincts in Sydney's west has seen many of the remaining buildings filled with emerging industries as well as opportunistic businesses with no real need to locate in industrial precincts aside from the versatility of the building floorplates and lower rents. Retail use, particularly bulky-goods retail is also drawn to these precincts – again due to lot sizes and lower land values

3.2 Subregional anapahot

As an LGA within Sydney's Central subregion, Leichhardt has a relatively small amount of industrially-zoned land. Its approximately 100 hectares equates to 7 percent of the subregion's total. Although already small, Leichhardt's industrially-zoned land is continuing to reduce. Between 2011 and 2015, Leichhardt saw a net loss of almost 5 Hectares, 4.5% of the LGA's 2011 total (Table 1). This loss, coupled with Leichhardt's small amount of industrial land and neighbouring Marrickville's similar amount (170 hectares in 2015) has meant that continued demand, in particular for population-serving industries such as self-storage services or automobile maintenance and repairs, are facing increasing pressures on decreasing available land.

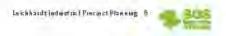




TABLE 1. CHANGE IN INDUSTRIALLY-ZONED LAND BY LGA, 2011-2015

LGA	Total Industrial lands 2011 (Ha)	Total in dustrial lands 2015 (Ha)	Net change (2011 to 2015) (Ha)
Ashfield	7.9	7.0	-0.9
Botany Bay*	398.6	483.1	84.5
Burwood	1.2	0.7	-0.5
Canada Bay	31.1	30.4	-0.7
Leich hardt	106.6	101.7	-4.9
Marrickville	167.2	169.2	2.0
Randwick	234.7	2043	+30.4
Strathfield **	198.7	287.0	88.3
City of Sydney	154.1	161.1	7.0
Waverley	0.0	0.0	0.0
Woolbha	0.0	0.0	0.0
TOTAL	1,300.1	1,4445	144.4

to the company of the

Demand for these lands is evident when examining vacancy rates for each LGA in the Central subregion. Vacancy rates are measured by the proportion of undeveloped land as a percentage of an LGA's total

Vacancy rates are measured by the proportion of undeveloped land as a percentage of an LGA's total industrial lands (developed plus undeveloped land). This is defined through the NSW Department of Planning and Environment's Employment Lands Development Program (Table 2).

TABLE 2. INDUSTRIAL LANDS VACANCY RATE, 2015

LGA	Vacancy rate (percentage of undeveloped land)
Ashfield	1%
Botany Bay	5%
Burwood	0%
Canada Bay	1%
Leich hardt	3%
Marrickville	454
Randwick	0%
Strathfield	8%
City of Sydney	4%
Waverley	0%
Woolbha	0%
SUBREGIONAL TOTAL	44

As discussed in section [21] competition for inner city industrial land comes from a number of alternate land uses. Table 3 identifies what uses industrial land in the subregion has been rezoned to between 2011 and 2014. Although residential is cited as the largest threat to industrial lands, employment and business rezonings clearly dominate.

This suggests that inner city councils, landowners and businesses are seeing continued demand for the type of floorspace and location that these precincts provide and are seeking to adapt them to meet emerging needs of a diverse set of industries.





TABLE 3. LAND REZONING AWAY FROM INDUSTRIAL, CENTRAL SUBREGION, 2011-2014

	Su bre gional rezonings (Hectar	es)	
Year	Total rezoned to residential	Total rezoned to business (B1, B2, B4)	Total resoned to employment (B5, B6, B7)
2014	0,8	0.7	05
2013	11.7	0.7	0
2012	0.7	1	0
2011	5	25	26.7
Total	18 2	4.9	27.2

This transition away from industrial uses to other employment uses reflects the observation made in the 2015 ELDP (and discussed in Section [2.1] that a significant proportion of industrial land use is outside of what many people would consider 'traditional' industry. This important distinction highlights the transition that many industrial precincts are undergoing, in particular in inner city industrial precincts where competition for alternate uses is high

2.1 Future growth

Subregional population growth

Demand for inner city living and the benefits many derive from it will see the population of the central subregion continue to grow. Across the subregion, Bureau of Transport Statistics (BTS) population projections indicate an overall growth of 40% above 2011 population levels by 2036 (Table 4). Leichhardt is forecast to grow by 27% over this period.

TABLE 4. PROJECTED SUBREGIONAL POPULATION GROWTH BY LGA

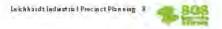
Ashfield	43,538	55,245	27%
Botany Bay	41.504	59,456	43%
Burwood	3 4,176	49,942	46%
Canada Bay	80,065	117,002	46%
Leich hardt	55,642	70,588	27%
Marrickville	81,121	107,594	33%
Randwick	137,792	182,537	32%
Strathfield	37,239	53,411	43%
City of Sydney	183,281	291,878	59%
Waverley	58,698	85,427	24%
Woolbha	56.320	70,109	24%
TOTAL	819,376	1,143,189	40%

Major subregional development

In addition to BTS projections, a number of significant urban renewal projects are in various stages of planning. These will directly impact Leichhardt with concentrated population growth in specific areas. They are also likely to increase demand for local services in centres such as Norton Street.

Parramatta Road Corridor

Urban Growth NSW recently released their Draft Parramatta Road Urban renewal Strategy (September 2015). This provides a planning framework and Vision for the entire length of Parramatta Road, driven by the need to better utilise the major transport corridor. The corridor's development is precipitated by the delivery of the Westconnex M otorway which UrbanGrowth NSW contend will reduce vehicular movements along Parramatta Road and facilitate mixed use development.





The Draft strategy proposes 70,000 additional residents in 40,000 new dwellings, along with 50,000 new jobs will be accommodated along the corridor. Three of the corridor's eight precincts; Taverner's Hill, Leichhardt and Camperdown are partially located in the Leichhardt LGA. Collectively, UrbanGrowth NSW propose that these precincts could accommodate up to 9310 new residents and a net loss of 164 jobs by 2050.

FIGURE 1. PARRAMATTA ROAD URBAN TRANSFORMATION STRATEGY



These proposed precincts will place significant pressure on Leichhardt's existing industrial lands, in particular Tebbutt Street and Camperdown. Camperdown in particular is of concern as it still retains a strong industrial character which the strategy proposed to supplant with more mixed use and residential land use.

Bays Precinct

Urban Growth NSW are also in the process of developing a plan for the renewal of the Bays Precinct, an 80 hectare site with over five kilometres of waterfront stretching around White, Rozelle and Blackwattle Bays. The plan is in its infancy and will be delivered over the next 30 years. The nature of the project is such that no firm population or job numbers have been provided. However, it can be expected that across the precinct, in both Leichhardt and the City of Sydney, the Bays Precinct will provide new homes and places of work for thousands of people.

FIGURE 2. BAYS PRECINCT TRANSFORMATION AREA







The Bays Precinct incorporates or sits adjacent to some of Leichhardt's last remaining significant industrially-zoned lands. The White Bay industrial precinct may face pressure from development that occurs along the White Bay foreshore.

Westconnex

Westconnex is a 33 kilometre motorway project, adopted by the State Government in 2012 and schedule d for staged completion between 2019 and 2023. The motorway is proposed to deliver vehicles into the CBD from the west and help to alleviate congestion along Parramatta Road. As mentioned above, it is identified by UrbanGrowth NSW as a piece of catalytic infrastructure that will enable the revitalisation of the Parramatta Road corridor.



FIGURE 3. WESTCONNEX CONCEPT DESIGN

The final alignment of Stage Three of the Westconnex project is yet to be confirmed. This is the section that would go under Leichhardt and the uncertainty regarding any potential on/off ramps makes planning for future land use more difficult due to a lack of clarity regarding potential land acquisition requirements.

Port Botany and Sydney Airport

Port Botany and Sydney Airport are critical pieces of freight infrastructure for NSW. Both are identified in A Plan for Growing Sydney as Transport Gateways. Between 2011 and 2015, Port Botany expanded its operational area by over 80 hectares in order to accommodate future growth. This has been driven, in part, by a State-identified need to increase the proportion of freight containers transported by rail from 20% to 40% in an attempt to better utilise freight rail networks and reduceroad congestion. This expansion of freight networks is supported by improvements to and delivery of new intermodal terminals across Sydney, such as Enfield and Moorebank.



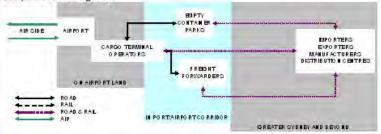




Both the port and airport precincts, however, suffer from an inability to dramatically exp and due to constraints presented by surrounding land uses. As freight requirements continue, industrial precincts in surrounding LGAs such as Leichhardt and Marrickville may see an increase in demand for port and airport-related services, due to their proximity.

The Sydney Airport logistics chain

The figure below shows a simplified logistics chain linking Kingsford Smith Airport with the Sydney region. Around 80 percent of airfreight arrives and leaves in the belly of passenger aircraft. The remaining 20 percent is carried on dedicated freight aircraft. Air freight tends to be low volume, high value, time sensitive goods.



Cargo Terminal Operations (CTOs) currently reside within the Airport's Freight Precinct CTOs include Qantas, Auspost, DHL and Patrick The onsite location offers a contiguous airside-landside interface CTOs bring freight in, and move it onto the plane, and vice versa. Due to space constraints on the airport site, some CTO operations overlap onto the surrounding land area, for example Qantas' landholdings in Botany Bay LGA, which include private road access to the Airport.

Airfreight forwarders are located close to the airport, and pack/unpack consignments into air freight containers referred to in the industry as Unit Load Devices (ULDs). Consignments that are not processed by airfreight forwarders are transported directly between CTOs and importers, exporters, manufacturers, and distribution centres. Because of the low volume, high value, time sensitive characteristics of air freight, small truck transport tends to be favoured over rail. Empty ULDs are returned to container parks near the airport for repacking or empty export.

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Subregional supply and demand

SGS has undertaken industrial land studies for Leichhardt and neighbouring LGAs, including Marrickville and the City of Sydney. Both Leichhardt and Marrickville used the same methodology and were undertaken in 2014. In both, future employment demand (using BTS employment projections converted to floorspace) has been compared with the LGA's current supply under various development scenarios

TABLE 5. FORECAST LGA INDUSTRIAL LAND SUPPLY-DEMAND GAP, 2014 TO 2036

Min	Med (40%)	Med (60%)	Max
-54,965	·33 811	-22335	-7 568
- 39 932	168,522	249,985	750,452
-94,897	134,711	227,650	742,884
	-54,965 -39,932	-51965 -33 811 -39932 168.522	-54,965 -33,811 -22325 -39,932 168,522 249,985

Maintaining current lot arrangements and usage across both LGAs in dustrial precincts would create a deficit of almost 100,000 sqm by 2036. Some development, particularly in Marrickville where building controls enable greater intensity of floorspace per lot would, however, return a surplus. This is precipitated on Marrickville retaining its industrial lands, however it too is facing increasing pressure for residential and mixed use development within its precincts.

A study was undertaken by SGS for the City of Sydney's industrial and employment lands in 2013, This found that there was sufficient zoned land to accommodate the LGA's future demand, however the precinct's proximity to the airport and port mean that industries requiring this proximity will look to locate in the city of Sydney and possibly push industries without such a tie to nearby precincts such as Marrickville and Leichhardt. It is also important to note that much of Leichhardt's uses are local in nature and not easily transferable to other LGAs.

Key messages

- Inner city industrial precincts are evolving. Inner city precincts are still important for a number of
 industries. As larger floorplate industries move out, they are being replaced by emerging industries
 such as higher value urb an manufacturing as well as a number of creative industries that require
 large floorspace but are not classified as 'traditional' industrial uses
- Maintaining the status quo either side of Parramatta Road will not be sufficient. Simply protecting industrial land with current floorspace provision will not meet future demand.
- Many traditional industries are moving westward. A cross Sydney, the competition for land coupled
 with the need for some industries to operate on large lots with few encumbrances has meant that
 some industries have moved out of inner city precincts. The large industrial land releases of western
 Sydney are more attractive to some of these uses.
- Industries that remain do so for a reason. Many businesses that remain in inner-city precincts do so
 as they have strong links to surrounding business networks and are important parts of the supply
 chain. They may support the operations of a nearby centre, rely on infrastructure to operate or act
 as a subregional distribution point for goods and services that cannot locate away from their
 market.
- Industrial land is being rezoned, but not necessarily to residential. Although demand for new
 housing places significant pressure on inner city industrial lands, the need for other commercial uses
 to operate in areas other than commercial cores is driving rezoning away from industrial uses. These
 tend to be towards B5 (Business Development), B6 (Enterprise Corridor) or B7 (Business Park).
- A growing population needs service provisions. Future population growth, coupled with major urban renewal projects, will place pressure on remaining industrial lands to turn over to higher value land uses whilst simultaneously increasing demand for population-serving industries.





PRECINCT PROFILES

Introduction

Leichhardt has eleven industrial precincts scattered throughout the LGA. These vary in size and function. The following profiles provide a snapshot of each precinct's land use, built form and industry characteristics. Information is also provided regarding floorspace by industry for the four largest precincts

FIGURE 5. LEICHHARDT'S INDUSTRIAL PRECINCTS





2.2 Camperdown precinct

FIGURE 6 CAMPERDOWN PRECINCT



Land use and built form

The Camperdown precinct is dominated by local light and bulky goods retail land uses. The large proportion of floor space within the local light category is aligned with the significant amount of large floorplate self-storage buildings located within the precinct. The precinct has the greatest total gross floor area (GFA), as well as the greatest GFA in the local light, bulky goods retail and residential Broad Land Use Categories (BLCs). The precinct contains 27% of the LGA's supply of local light floorspace and 56% of the supply of bulky goods retail floorspace across the entire study area.

TABLE 6. CAMPERDOWN PRECINCT SUMMARY TABLE

	Retail – Bulky Goods	Office	Retail- Main Street	Residential	Freight & Logistics	LocalLight	Dispersed Activities	Vacant	Light Manu	Urben Services
Total floorspace (sqm)	26,339	2,587	330	4,134	÷	40,983	474	677	٠	•
Number of lots	35	1	1	31	-1	38	2	2	15	
Number of buildings	7	1	2	18	17	10	1		[1]	8.
Average FSR:	1.2	1.5	05	0.8	p.i	1.1	0.4	1.2	155	-

Camperdown has a range of lot sizes accommodating a diverse group of land uses. Most lots within the precinct fall between $100\,\mathrm{m^2}$ and $500\,\mathrm{m^2}$, however the Camperdown precinct contains the highest total amount of lots with size in excess of $1000\,\mathrm{m^2}$.

TABLE 7. CAMPERDOWN PRECINCT LOT SIZES

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Min	75	1,691	45 1	89		23	54	683	-	
Max	1,583	1,691	45 1	793	7	5,420	1,050	1,079	-	650
A . 2 . 5 . 5		1.001	45.4	222		1.002	FFS	no.		





FIGURE 7. CAMPERDOWN PRECINCT LOT SIZE RANGE



TABLE 8. CAMPERDOWN PRECINCT BUILDING HEIGHTS

-	Sandle Salle Sands	-	T==0-	-	795 H	Landium	Timerpes James	101	in the	-
Min	1	2	1	1		1	1.		-	
Max	2	2	2	2	-	2	1	-	-	-
Average	2	2	2	1		2	1	-		

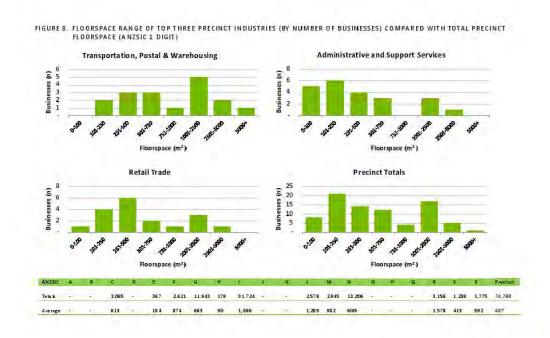
Employment profile

The industries locating within the Camperdown precinct are largely dominated by retailing and wholesaling, reflecting the prominence of floorspace utilised by bulky goods retail. The precinct consists of the following industries (at a three-digit ANZSIC level):

- Beverage Manufacturing
- Printing and Printing Support Services
- Building Installation Services
- Other Machinery and Equipment Wholesaling
- Motor Vehicle and Motor Vehicle Parts Wholesaling
- Textile, Clothing and Footwear Wholesaling
- Fuel Retailing
- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
- Electrical and Electronic Goods Retailing
- Recreational Goods Retailing
- Clothing, Footwear and Personal Accessory Retailing
- Pharmaceutical and Other Store-Based Retailing
- Cafes, Restaurants and Takeaway Food Services
- Warehousing and Storage Services
- Motor Vehicle and Transport Equipment Rental and Hiring
- Real Estate Services
- Architectural, Engineering and Technical Services
- Legal and Accounting Services
- Other Administrative Services
- Sports and Physical Recreation Activities
- Automotive Repair and Maintenance









3.3 Tebbutt Street precinct

FIGURE 9. TEBBUTT STREET PRECINCT



Land use and built form

The Tebbutt Street precinct is the fourth largest by GFA within the Leichhardt LGA. It contains a high proportion of local light and bulky goods retail, with the third (14%) and second highest (24%) total amount of GFA for each of these BLCs respectively. The precinct also contains the highest total amount of office space from the LGAs precincts.

TABLE 9. TEBBUTT STREET PRECINCT SUMMARY TABLE

	Seal- Sulty Souli	Owce	Remil- Manaisser	Cesaeres	Fisher A Lighter	LocalLight	Dopener Variaties	Vecant	Light Manu-	Unique Services
Total floorspace (sqm)	11,108	7,776	2,09 2	1,205	639	21,142	104		3,130	
Number of lots	3	9	5	8	3	42	1	-	1	
Number of buildings	2	2	2	7	1	9	1	-	2	8
Average FSR	1,4	1.7	05	0.6	0.2	1.0	0.4	•	1.2	

There are a range of lot sizes contained within the Tebbutt Street precinct, with the majority being of small-medium size (100-500m²). There is also a substantial proportion of lots greater than 1000m².

TABLE 10. TEBBUTT STREET PRECINCT LOT SIZES

	Frankly Solver		Retail- Main SWEE		Feight & Ligitate		Discerses activities	Valsani	light Many	United Services
Min	804	119	92	268	154	48	283		2513	
Max	4, 257	1,093	740	518	1,981	1,742	283		2513	
Average	2,583	5 26	440	344	916	446	283	· ·	2513	16





FIGURE 10. TEBBUTT STREET PRECINCT LOT SIZE RANGE 51 01 15 15 Number 10 Lot size range (sq m)

TABLE 11: TEBBUTT STREET PRECINCT BUILDING HEIGHTS

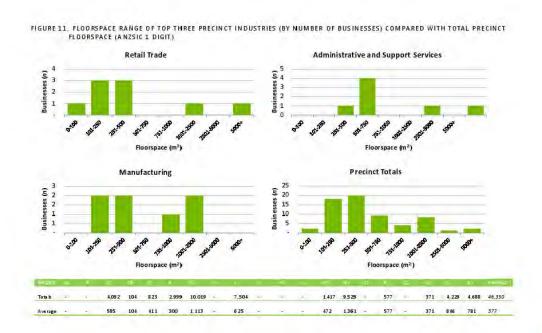
	Table Compa		Contract Contract		Tagl:	Last Light	Agriculture Agriculture		(in entire see	i an ine
Min	1	3	1	1	1	1	1	-	2	-
Max	3	3	2	1	1	3	1.	-	2	8
Average	2.0	3,0	2.0	1.0	1.0	2/2	1.0	-	2.0	-

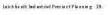
Employment profile

The employment profile of the area reflects the prominence of local light services and bulky goods retail within the precinct. There are also professional services located within the precinct, reflecting its relatively substantial office floorspace. The precinct consists of the following industries (at a three-digit ANZSIC level):

- Other Food Product Manufacturing
- Printing and Printing Support Services
- Specialised Machinery and Equipment Manufacturing
- Furniture Manufacturing
- **Electricity Distribution**
- **Building Installation Services**
- Mineral, Metal and Chemical Wholesaling
- Other Machinery and Equipment Wholesaling
- Motor Vehicle Retailing
- Motor Vehicle Parts and Tyre Retailing
- Specialised Food Retailing
- Recreational Goods Retailing
- Pharmaceutical and Other Store-Based Retailing
- Warehousing and Storage Services
- Legal and Accounting Services
- Advertising Services
- Other Professional, Scientific and Technical Services
- Other Administrative Services
- Educational Support Services
- Creative and Performing Arts Activities
- Automotive Repair and Maintenance











3.4 White Bay precinct

FIGURE 12. WHITE BAY PRECINCT



Land use and built form

The White Bay precinct provides the second largest amount of GFA within the LGA's precincts. It contains a substantially high proportion of the LGA's supply of local lightfloorspace (25%), similar to the Camperdown precinct. The precinct has the highest total GFA for the light manufacturing BLC within Leichhardt's precincts, comprising 37% of supply.

TABLE 12: WHITE BAY PRECINCT SUMMARY TABLE

	Reteil – Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Lo cal Light	Dispersed Activities	Vecant	Light Manu	Urban Services
Total floorspace (sqm)	1,650	897	(3)	8 47	1,483	37,948	480	376	16,393	8
Number of lots	3	3		8	3	49	7	3		
Number of buildings		- 6	2	-	- 12	2.	- 2	-	1-6	8
Average FSR	0.7	1.3		0.7	1.2	1.1	0.6	0.5	1-	*

The lot sizes contained within the White Bay precinct are largely contained within the small-medium ranges (1.00-500m²). The White Bay precinct contains the largest sized lot within the study area, in excess of 19,000m², greater than twice the second largest (in the Lords Rd precinct).

TABLE 13: WHITE BAY PRECINCT LOT SIZES

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Min	259	135		80	260	27	65	1.20	4	-
Max	1,077	395	-	293	997	19,8 20	188	298	3+4	- 5
Average	543	231	-	168	506	911	123	238	-	~





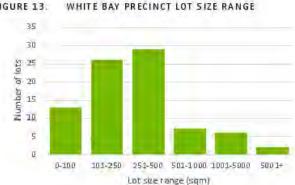


FIGURE 13.

TABLE 14: WHITE BAY PRECINCT BUILDING HEIGHTS

	2,007-		1		Test of 1		Dietes		Split of term	
Min	1	2	-	1.	2	1	1	ì	1	-
Max	2	2		2	2	4	1	1	1	~
Average	1.5	2.0	-	1.3	2.0	2.2	1.0	1.0	1.0	_

Employment profile

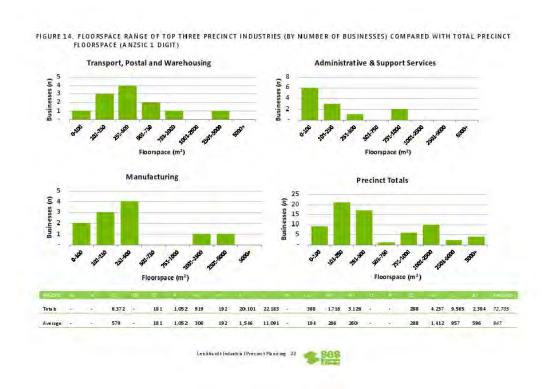
The precinct accommodates a diverse range of industries, including various manufacturing uses. There are also mix of motor vehicle repair and retailing services located within the precinct. The precinct consists of the following industries (at a three-digit ANZSIC level):

- Other Food Product Manufacturing
- Other Wood Product Manufacturing
- Printing and Printing Support Services
- Reproduction of Recorded Media
- Furniture Manufacturing
- Other Manufacturing Other Construction Services
- Grocery, Liquor and Tobacco Product Wholesaling
- Motor Vehicle Retailing
- Motor Vehicle Parts and Tyre Retailing
- Recreational Goods Retailing
- Cafes, Restaurants and Takeaway Food Services
- Postal and Courier Pick-up and Delivery Services
- Warehousing and Storage Services
- Motion Picture and Video Activities
- Motor Vehicle and Transport Equipment Rental and Hiring
- Other Goods and Equipment Rental and Hiring
- Architectural, Engineering and Technical
- Legal and Accounting Services
- Management and Related Consulting Services
- Other Administrative Services

- Allied Health Services
- Sports and Physical Recreation Activities
- Automotive Repair and Maintenance
- Other Repair and Maintenance
- Funeral, Crematorium and Cemetery Services
- Religious Services









3.5 Moore Street South precinct

FIGURE 15. MOORE STREET SOUTH PRECINCT



Land use and built form

The Moore Street South precinct is the third largest by GFA within the study area. It contains the most substantial amount of floorspace occupied by freight and logistics land uses, being 11,375 m², or 73% of the total GFA in the study area, along with a high proportion of light manufacturing uses (13,875m², or 31% of the BLC's GFA within the LGA). There are also notable proportions of bulky goods retail and office floor space (13% and 16% of study area supply, respectively). Moore Street South has the highest vacancy rate of three precincts observed to have vacant lots, at just fewer than 4% of the precinct's total

TABLE 15: MOORE STREET SOUTH PRECINCT SUMMARY TABLE

	Retail = Bully Goods		Featle Main Street	l esidential	Freight år Logishica		Dispesser Salvinies	Vyant	Light Morno	
Total floorspace (sqm)	6,098	3,314	3	1,107	11,375	10, 216	1,111	1,960	13,875	43 4
Number of lots	2	5	.2	11	13	16	7	4	23	1
Number of buildings	3	4	1.7	8	9	7	1	2	6	1
Average FSR	0.8	1.6		0.4	2.6	0.8	1.0	1.6	0.9	3.2

The vast majority of lots within the Moore Street South precinct fall in to the medium size category (250-500 m²). Despite being dominated by lots of this size, there is a substantial proportion of lots which are in excess of 1000 m².

TABLE 16: MOORE STREET SOUTH PRECINCY LOT SIZES

Reput - Bully Soner	Diffee	Rehill— Mein Siteel	Peopertial	Freight A Logistics	Local Light	Ojsperper Assivisies	Shorth	Light Manu	Uvben Services
2,371	332		122	264	13 2	31	180	273	352
2,794	1,127	4	413	2,662	6,998	372	695	4,735	352
2,582	540	4	265	765	1,099	164	313	859	352
	2,794	2,794 1,127	2,794 1,127 -	2,794 1,127 - 413	2,794 1,127 - 413 2,662	2,794 1,127 - 413 2,662 6,998	2,794 1,127 - 413 2,662 6,998 372	2,794 1,127 - 413 2,662 6,998 372 695	2,794 1,127 - 413 2,662 6,998 372 695 4,735





FIGURE 16. MOORE STREET SOUTH PRECINCT LOT SIZE RANGE

50
40
40
30
20
10
10
Begins trans trans trans trans trans trans transcript tr

TABLE 17: MOORE STREET SOUTH PRECINCT BUILDING HEIGHTS

			Response		HOSPILLS Legisla	the tight	Transaction of the second		27.00	
Min	1	1	-	1.	1	1	2	2	1	. 1
M inx	2	2	14	1	3	2	2	2	2	1
Average	1.7	15	-	1.0	1.4	1.3	2.0	2.0	15	1.0

Employment profile

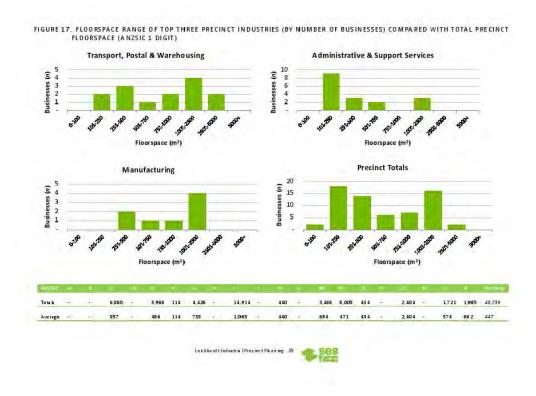
There is a diverse mix of industries located within the Moore Street South precinct. There are a range of manufacturing activities, along with a small mix of retailing, professional and technical services, and maintenance services. The precinct consists of the following industries (at a three-digit ANZSIC level):

- Seafood Processing
- Other Food Product Manufacturing
- Textile Product Manufacturing
- Pulp, Paper and Paperboard Manufacturing
- Glass and Glass Product Manufacturing
- Other Non-Metallic Mineral Product Manufacturing
- Basic Ferrous Metal Product Manufacturing
- Furniture Manufacturing
- Other Manufacturing
- Residential Building Construction
- Building Installation Services
- Building Completion Services
- Min eral, Metal and Chemical Wholesaling
 Motor Vehicle Parts and Tyre Retailing
- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
- Recreational Goods Retailing
- Pharmaceutical and Other Store-Based Retailing

- Warehousing and Storage Services
- Financial Asset Investing
- Architectural, Engineering and Technical Services
- Management and Related Consulting Services
- Veterinary Services
- Other Professional, Scientific and Technical Services
- Computer System Design and Related Services
- Other A dministrative Services
- Local Government Administration
- Other Social Assistance Services
- Automotive Repair and Maintenance
- Other Repair and Maintenance



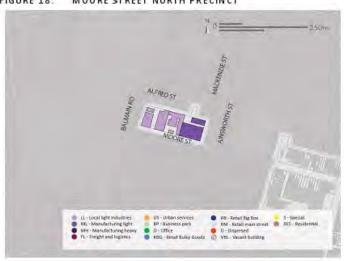






3.6 Moore Street North precinct

FIGURE 18. MOORE STREET NORTH PRECINCT



Land use and built form

The Moore Street North precinct is comprised of only three lots and seven buildings, split between local light and light manufacturing land uses. The light manufacturing within the precinct comprises 12% of the GFA of this BLC within the LGA's precincts.

TABLE 18: MOORE STREET NORTH PRECINCT SUMMARY TABLE

	Retail - Bulky Goods		Reserved Main Street		Freight & Logistics	to inthight	Dispenser Activities		Light Mines	Ultimi Services
Total floorspace (sqm)		4	- 4		÷	6,360	÷	٠	5, 256	
Number of lots		9	14	- 3	-	2	6	•	1	P
Number of buildings	-	7	19.		10	5	14.	3.5	2	
Average FSR		- 4				0.9			13	-

The allot ments within the Moore Street North precinct are all large in size, ranging from 2798 to 4059 m².

TABLE 19: MOORE STREET NORTH PRECINCT LOT SIZES

	Retell Bulky Goods	916=	Fetail− Main Street	Residential	Freight &	Local Light	Dispersed Activities	Vacant	Light Mapu	United Services
Min		10	1.			2,798	10		4,059	
Max	- 0.0		(*0)			3,851	7-0	-95	4,059	- 100
Average						3,324			4,059	1.4





FIGURE 19. MOORE STREET NORTH PRECINCT LOT SIZE RANGE



TABLE 20: MOORE STREET NORTH PRECINCT BUILDING HEIGHTS

				-	Harris III		UI when		-	-
Min						1		-	2	*
Max	9-		-	-	-	2		-	3	×
Average	-	-	-	-	-	1.8	, ,	-	25	- ×

The industries within the precinct reflect its role in manufacturing floor space provision within the LGA, along with its provision of space for local light land uses. The precinct consists of the following industries (at a three-digit ANZSIC level):

- Bakery Product Manufacturing
- Textile Manufacturing
- Printing and Printing Support Services
- Furniture Manufacturing
- Building Installation Services
- Textile, Clothing and Footwear Wholesaling
- Pharmaceutical and Toiletry Goods Wholesaling
- Hardware, Building and Garden Supplies Retailing
- Recreational Goods Retailing
- Clothing, Footwear and Personal Accessory Retailing
- Cafes, Restaurants and Takeaway Food Services
- Warehousing and Storage Services
- Motion Picture and Video Activities
 Sound Recording and Music Publishing
- Architectural, Engineering and Technical Services

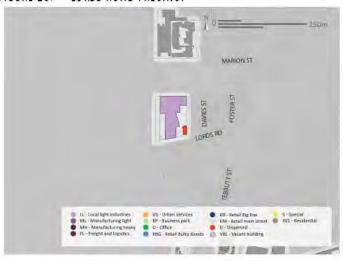
- Other Professional, Scientific and Technical Services
- Other A dministrative Services
- Building Cleaning, Pest Control and Gardening Services
- Automotive Repair and Maintenance
- Civic, Professional and Other Interest Group Services





3.7 Lords Road precinct

FIGURE 20. LORDS ROAD PRECINCT



Land use and built form

The Lord's Road precinct comprises of two lots and two buildings, one being a large floorplate development with a local light BLC. The $11,\!111m^2$ of local light floorspace equates to 7% of the local supply.

TABLE 21: LORDS ROAD PRECINCT SUMMARY TABLE

	Rethill — Buildy Builds		Report Main Street		Freight A Lagistics	Lasiligh	Dispenses Activities		Light Water	Union Services
Total floorspace (sqm)		- 9	4.5	1		11,111	243			
Number of lots		(6)		/9		2	-	-	/9	61
Number of buildings			10.1			1	1		1.9	
Average FSR		13	-	14		1.1	-	-	-	4

Both of the lots contained within the precinct are large, with one being $1599m^2$, with the other being $9025m^2$.

TABLE 22: LORDS ROAD PRECINCT LOT SIZES

	Retail - Bulky Seaso	lower	Retail — Main Suitet	Résidential	Freight & Ligitus	LoalLeh	Dispersed Activities	Vermit	Light Africa	Urtin Services
Min				4		1,599			4	
Max	9	1.	.4	-		9,025	1-	.4	17	
Average	0.90		2+	F + 1		5,312	-	3.5		





FIGURE 21. LORDS ROAD PRECINCT LOT SIZE RANGE



TABLE 23: LORDS ROAD PRECINCT BUILDING HEIGHTS

	Total - Substitution		To the same		Trapile applica	Localida	Acres		(Special sec	in the contract of the contrac
Min	-	-	-	-	-	2	1			-
Max	17	-	-	-	-	2	1	-	-	-
Average		-	-	-	2	2.0	1.0		-	-

Given the small scale nature of the precinct, there is minimal diversity in the industries which occupy this land; the dominant class of industry are local services. The precinct consists of the following industries (at a three-digit ANZSIC level):

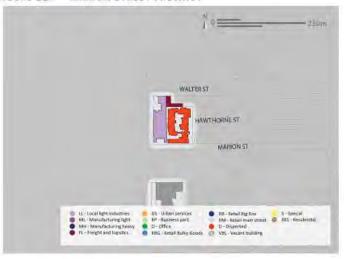
- Furniture Manufacturing
- Building Installation Services
- Warehousing and Storage Services
- Other Administrative Services
- Creative and Performing Arts Activities
- Sports and Physical Recreation Activities
- Civic, Professional and Other Interest Group Services





3.8 Marion Street precinct

FIGURE 22. MARION STREET PRECINCT



Land use and built form

The Marion Street precinct contains three buildings over three lots, consisting of a large aged care facility (the dispersed activities BLC), a development that provides local services at a total GFA of 3752m², and a small amount of floorspace for freight and logistics

TABLE 24: MARION STREET PRECINCT SUMMARY TABLE

	Retail - Sulty Soods		Report		Freight A La gissics	Lasitigh	Dispenses Faryings		Light Walk o	Union Services
Total floorspace (sqm)		- 9	2	9.	651	3,752	8,441	1.0		ė.
Number of lots		(19)		/9	1	1	1	-	/9	81
Number of buildings			10	14	1	1	1			
Average FSR		14	1.2		1.7	0.7	1.1	-	-	1.6

TABLE 25: MARION STREET PRECINCT LOT SIZES

	Relative Bully Shade	Diffee	Retnil – Main Street	Residential	Freight & Lagistiss	Local Light	Dispesses Aminities	Vásam	Light Wines	Urban Jewess
Min	18	- 44			372	5,240	7,852			
Max	4		14		372	5,240	7,852	18		
Average			4	- 4	372	5,240	7,852		- 4	-





FIGURE 23. MARION STREET PRECINCT LOT SIZE RANGE



TABLE 26: MARION STREET PRECINCT BUILDING HEIGHTS

	Salada Salada	346	Report	Lastonitol	iraigi I d lagista	Local Light	Act as	.ior	(6), 200	Upper Contract
Min		-	+		1	1	2	-	-	+
Max		4	-	-	1	1	2	1.0	-	1.8
Average	1.0	-	1-		1.0	1.0	2.0	-	-	12

The precinct consists of the following industries (at a three-digit ANZSIC level):

- Cafes, Restaurants and Takeaway Food Services
- Warehousing and Storage Services
- Auxiliary Finance and Investment Services
- Architectural, Engineering and Technical Services
- Other Professional, Scientific and Technical Services
- Other Administrative Services
- Residential Care Services
- Other Social Assistance Services





3.9 Lilyfield Road precinct

FIGURE 24. LILYFIELD PRECINCT



Land use and built form

The Lilyfield Road precinct is the second smallest precinct within the study area by GFA. It is comprised of a series of small scale lots, with dominant land uses being local light industries and light manufacturing (being 2% and 3% of local supply respectively).

TABLE 27: LILYFIELD ROAD PRECINCT SUMMARY TABLE

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Lo cal Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Total floorspace (sqm)	4	214	311	428	779	2,794	3	(-)	1,150	3
Number of lots		2	7	5	1	2		-	9	8
Number of buildings		1		2	1	1			2	
Average FSR	-	0.6	- 2	05	1.2	13	12	-	0.8	3

Almost all of the allotments within the Lilyfield R d precinct fall within the small size category $(1.00-250\,\text{m}^2)$.

TABLE 28: LILYFIELD ROAD PRECINCT LOT SIZES

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Va cant	Light Manu	Urban Services
Min		145	12	144	651	15.4	2-	8	143	-
Max		233	15	195	651	1,978			28 4	75
Average		189	-	160	651	1.056	-	- 4	165	7-5







TABLE 29: LILYFIELD ROAD PRECINCT BUILDING HEIGHTS

Reside	***	-smil-	RECORDER	Hispania Lagrana	Letter	Distriction	188	MARKET ST.	
1-1	2	-	1	2	2	2	-	1	-
	2	-	2	2	2		-	2	-
	2.0	-	1,5	2.0	2.0		-	15	-
	Resil- Ind - Source	- 2 - 2 - 2	- 2	- 2 - 1 - 2 - 2 - 20 - 1.5	- 2 - 1 2 - 2 - 2 2 - 20 - 1.5 2.0	- 2 - 1 2 2 2 - 2 2 - 2.0 - 2.0 - 2.0	- 2 - 1 2 2 2 20 1.5 2.0 2.0	- 2 - 1 2 2 2	- 2 - 1 2 2 · - 1 - 20 - 1,5 2,0 2,0 · - 15

The most significant industry within the precinct is Automotive Repair and Maintenance, occupying just under 1800 m² of floorspace within the precinct (under a local light BLC). The precinct consists of the following industries (at a three-digit ANZSIC level):

- Textile Product Manufacturing
- Printing and Printing Support Services
- Textile, Clothing and Footwear Wholesaling
- Warehousing and Storage Services
- Other Professional, Scientific and Technical Services
- Other Administrative Services
- Packaging Services
- Automotive Repair and Maintenance
- Other Repair and Maintenance





3.10 Balmain Road precinct

FIGURE 26. BALMAIN ROAD PRECINCT



Land use and built form

The Balmain Road precinct is the fourth smallest of the precincts located within the LGA. Its dominant land use is local light services, however there is a significant component of office floorspace (30% of the precinct; 26% of supply within the study area).

TABLE 30: BALMAIN ROAD PRECINCT SUMMARY TABLE

	Retail – Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Lo cal Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Total floorspace (sqm)	1,027	5,534	533	14		7.365		-	3,613	
Number of lots	6	12	3	1.0	1.2	3	2.1		4	14
Number of buildings	1	2	1			2			1	
Average FSR	0.8	1.9	13	0.		0.8)+(*	1.3	

The precinct is comprised predominantly of small lots $(1.00-250\,\text{m}^2)$, however there are some lots within the precinct which are of larger size, with the largest being $6.874\,\text{m}^2$.

TABLE 31: BALMAIN ROAD PRECINCT LOT SIZES

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Min	197	152	197			189		3.	215	
Max	23.4	816	204			6,874	4	1.0	1,483	
Average	215	260	201	2	74	2,421	1a		653	







TABLE 32: BALMAIN ROAD PRECINCT BUILDING HEIGHTS

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vacent	Light Manu	Urban Services
Min	1	2	2	-		1			2	-
Max	1	2	2	- 1	-	2	- 7		2	150
Average	1.0	2.0	2.0			15			2.0	

Reflecting the precinct's high office component, there are a range of technical and consulting services within the precinct's industry profile, along with some manufacturing and wholesaling activities. The precinct consists of the following industries (at a three-digit ANZSIC level):

- Other Wood Product Manufacturing
- Other Fabricated Metal Product Manufacturing
- Building Installation Services
- Timber and Hardware Goods Wholesaling
- Other Machinery and Equipment Wholesaling
- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
- Cafes, Restaurants and Takeaway Food Services
- Warehousing and Storage Services
- Architectural, Engineering and Technical Services
- Management and Related Consulting Services
- Other Professional, Scientific and Technical Services
- Computer System Design and Related Services
- Other Administrative Services
- Allied Health Services
- Other Repair and Maintenance



3.11 Terry Street precinct

FIGURE 28. TERRY STREET PRECINCT



Land use and built form

The Terry Street precinct is the third smallest within the LGA, holding 12,254m² of floorspace (excluding residential BLCs). The dominant BLC is Local Light, with 8,929m² of floorspace, and most allotments within the precinct (90.7%) fall within the ranges of 100 m² to 500 m².

TABLE 33: TERRY STREET PRECINCT SUM MARY TABLE

	Retail – Bulky Goods	Office	Retail- Main Street	Residential	Freight & Logistics	Lo-cal Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Total floorspace (sqm)	728	4		2,907	560	8,929	1,007		976	52
Number of lots	2			21	2	13	10	3-6	5	1
Number of buildings	2			18	1	9	3	-	2	1
Average FSR	0.5	17		0.6	1.0	0.8	0.3	+	0.4	0.2

TABLE 34: TERRY STREET PRECINCT LOT SIZES

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Min	616	- 4	- 3	105	28 2	115	121	- 1	113	216
Max	701			372	284	4,627	306	14	252	216
Average	659	-		215	283	621	247		207	216







TABLE 35: TERRY STREET PRECINCT BUILDING HEIGHTS

	Retail — Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Min	1		19	1	2	1	1	14	-1:	1
Max	2	-	8	2	2	3	2	- 6	2	1
Average	2.0	- 40		1.0	2.0	1.0	1.0	-	2.0	1.0

The precinct has an employment profile which reflects the dominance of the small scale, local light BLC allotments, with a range of activities including local services and small scale manufacturing. The precinct consists of the following industries (at a three-digit ANZSIC level):

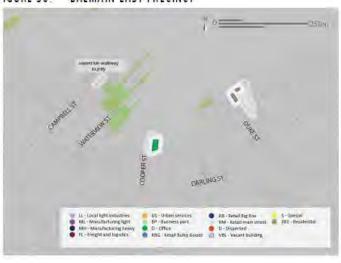
- Sugar and Confectionery Manufacturing
- Other Food Product M anufacturing
- Printing and Printing Support Services
- Other Fabricated Metal Product Manufacturing
- Electricity Distribution
- Building Installation Services
- Motor Vehicle Retailing
- Fuel Retailing
- Furniture, Floor Coverings, Houseware and Textile Goods Retailing
- Cafes, Restaurants and Takeaway Food Services
- Warehousing and Storage Services
- Other Administrative Services
- Sports and Physical Recreation Activities
- Automotive Repair and Maintenance
- Other Repair and Maintenance
- Other Personal Services





3.12 Balmain East precinct

FIGURE 30. BALMAIN EAST PRECINCT



Land use and built form

The Balmain East precinct is the smallest precinct within the study area by GFA. It is comprised of two sites of industrially zoned land, with a total floorspace of just under 1,570 m² (exclusive of residential land uses)

TABLE 36: BALMAIN EAST PRECINCT SUMMARY TABLE

	Retail – Bulky Goods	Office	Retail- Main Street	Residential	Freight & Logistics	Lo cal Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Total floorspace (sqm)		1, 298	-1	2,033	27 2	÷	1	-	3	
Number of lots		1		3	1					*
Number of buildings		1		2		•		-		
Average FSR	-	0.6	7	1.1	1.4	-		-		9

TABLE 37: BALMAIN EAST PRECINCT LOT SIZES

	Retail – Bulky Goods	Office	Retail - Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vacant	Light Manu	Urban Services
Min	- 10	1,298		13	27 2				*	
Max	- 6	1,298	*	1,789	27.2	-				
Average	- 9	1,298		678	27.2	-	-	9	-	(4)





FIGURE 31. BALMAIN EAST PRECINCT LOT SIZE RANGE



TABLE 38: BALMAIN EAST PRECINCT BUILDING HEIGHTS

	Retail — Bulky Goods	Office	Retail- Main Street	Residential	Freight & Logistics	Local Light	Dispersed Activities	Vecent	Light Manu	Urban
Min		2		1		-	7-	15	-	15
Max	(4)	2	F+	2		(4)	0.5	19	3.	0.
Average		20		1.5	-		-			1.0

Data relating to the specific industries of employment within the precinct is not available from the land study.

LIE Summary of issues

The review of trends and influences affecting inner city industrial lands as well as the precinct-level analysis undertaken in the previous chapters has identified four key issues that impact on Leichhardt's industrial precincts and how they are perceived into the future.

- 1 There is a shortage of industrial land at a subregional level. The nature of inner-city industrial lands and the patterns of urban growth that have grown around them limit the ability for these precincts to expand. This constrains the ability of inner-city industrial lands to meet the future demand for industrial uses. This is most acute in subregionally-oriented uses that often require larger floorplate sites, which are increasingly rare in the inner-city.
- There is a shortage of local services within Leichhardt. The 2014 industrial lands study undertaken by SGS identified an industrial floorspace shortfall of between 7,000 sqm and 55,000 sqm by 2036.
 These are services that are traditionally found within local industrial estates, are necessarily located to service a local community and could not operate if forced to move away from this market
- 3. There is a need to provide sufficient floorspace and appropriate built form configurations to support emerging uses. Inner city industrial estates must retain a degree of agility in order to transition from 'traditional' functions and accommodate a range of evolving industries and businesses who require industrial precinct characteristics to operate. These businesses may require the floorplate characteristics, ability to manufacture products or benefit from the lower rents in order to establish thems elves.





4. Industrial precincts are under threat from other uses. Competition for inner city land is placing pressure on industrial precincts to turn over to 'higher value' uses. Residential development is a persistent threat, due to continued demand for inner city living. However, industrial lands also face a threat from other employment uses that compete for larger floorplates and locations but aren't necessarily defined as 'industrial'.







FEASIBILITY TESTING

AL.

Introduction

Following the profiling of Leichhardt's industrial precincts, Leichhardt Council engaged an urban design firm (Architectus) to develop built form options that tested how precincts may be redeveloped in order to increase industrial floorspace. This is driven by the Industrial Land Strategy prepared by SGS in 2014 that identified a shortfall of nearly 55,000 sqm of industrial floorspace by 2036.

The driving force for this is the desire to increase floorspace provision in the LGA and attempt to reduce or eliminate the forecast industrial floorspace deficit.

With this in mind, a feasibility testing process has been applied to Architectus' built form options in order to establish how additional industrial floorspace can be delivered. Feasibility testing is a useful approach as it examines the costs and revenues of a development. Broadly, development where revenues exceed costs is feasible and developments where costs exceed revenues are not feasible.

It is important to note that the feasibility testing process for this report is necessarily high-level. This is because it is limited to only a few sites in a few precincts. The intent is that running several tests on identified sites will reveal sufficient information to guide the development of recommendations that are applicable across the LGA.

4.2 The need for sequential testing

The 2014 Industrial Lands Study identified that the forecast deficit in industrial lands should be reduced. In order to do this, more industrial floorspace is required to be developed because there is almost no chance that additional land within the LGA will be rezoned to IN2. As such, this report examines how this floorspace may be provided, through the lens of feasibility.

It is critical that a logical sequence of options testing is undertaken to provide a strong evidence base for any future policy recommendations. The relatively 'low value' of industrial land (when compared with alternative uses such as commercial or residential) means that it is unlikely that an increase in industrial floorspace alone will deliver a feasible return.

This testing process therefore uses three land-use scenarios to test what can feasibly deliver an increase in industrial floorspace. Throughout this process, both the increase in industrial floorspace and the protection of the existing industrial precincts is central to the development of recommendations. These three scenarios are:

- Industrial only -additional industrial floorspace for industrial only
- Industrial + commercial includes some commercial floorspace as a higher value land use lever to increase feasibility
- Industrial + commercial + residential includes all three land uses as a means of further increasing the likelihood of feasible development

It is important that this sequence be tested because the introduction of alternative land uses to industrial within these precincts increases the risk of land use conflict and potential precinct fragmentation.





- Method

The testing of feasibility in this report uses a Residual Land Value (RLV) model in order to compare costs (construction, land acquisition, professional fees, taxes etc) and revenues (rents) to calculate whether a development option is feasible or not. It also includes consideration of developer profit margins in the equation. Where a development's total revenues exceed costs and profit margins, a development will have a feasibility ratio of 1 and therefore be deemed feasible.

In order to try and achieve a degree of understanding regarding a predict's development potential, three sites of varying sizes (broadly small, medium, and large) were tested in each precinct.

Once initial design options were tested, SGS undertook a 'goal seeking' exercise to determine what floorspace quantum in each scenario needed to change in order to get closer to a feasible result. These were their tested by Architectus prior to further feasibility testing by SGS.

The purpose was not to necessarily identify the exact amount required to feasibly develop, but to identify patterns that could inform policy recommendations.

4 Assumptions

A number of inputs go into the feasibility testing process. The following tables outline broadly these inputs and the assumptions that are made in order to enable the model to run. The inputs and assumptions apply to each precinct

TABLE 39: FEASIBILITY MODEL COST INPUTS AND ASSUMPTIONS

	the state of the s	100
Construction and demolition costs	Rawlinson's Construction Handbook 2015	Va ries
Landacquisition costs	Localised median sales value analysis for industrial land	Values
Professional fees	Various sources using industry standards	Varies

TABLE 40: FEASIBILITY MODEL REVENUE INPUTS AND ASSUMPTIONS

(put)		
Industrial ments (\$/sqm)	Agency consultation —same across all presincts	\$ 200/sq tn
Commercia Irents (5/sqm)	Agency consultation and market analysis	\$350/sq m
Median sales values	Med is a prices for 2-bed units in the immediate area	\$790,000
Median sales values	Med an prices for 2-bed units in the immediate area	5/90,000

Given the high-level nature of the feasibility testing, the same prices have been used across all of the precincts. This is because the product that is being tested is simply floorspace, rather than having a distinction between quality made in the modelling. In reality, there is likely to be some variance between precincts due to the type or age of the building stock, its location in the precinct or the location of the precinct itself. The median sales value of residential units is a conservative number, based on median sales values in the area. If these were to be new-builds, this is likely to be higher. However, as this is for comparative purposes, these inputs are kept consistent for the sake of comparison.

It is important to note that the consideration of residential has assumed that land values are based on the existing land use (i.e industrial zone) and not residential. In practice, if the council were to signal that residential development were to be permitted, it would result in an underlying land value uplift and this would after the feasibility proposition.





45 Camperdown precinct

Lot A

TABLE 41. FEASIBILITY TESTING - LOT A

) promis t		etti v	-141	ir a S
ot A	Existing amalgamated lot area		12536 sqm		12,536 sqm	12,536 sqm
	Tota i Industria i floorspace (sqm)		17,718		17,718	17,718
Development	Total Commercial floorspace (sqm)		11/2		14,508	7,512
Costs	Total Residential filoorspace (sqm)		11/2		11/2	6,996
	Total development costs		\$50,454,378	\$	98,196,008	\$108,677,173
	Industrial GFA (sqm)		15,946		15,946	13, 246
levenues	Commercia IGFA (sgm)		11/2		13,057	6,761
erenue.	Residential (no. of a partments)		11/2		11/2	62
	Tota i revenues (excl.sa les expenses)		\$30,616,320	\$	74,487,840	\$95,170,080
	Residual Land Value		-\$ 19,838,058	-5	23,708,168	-513,507,093
cquisition cost	Estimated land costs		\$9,868,464		\$9,868,464	\$9,868,464
	Feasibility Ratio		-2.01		- 2.40	-1 37
		100%		100%	m	10 0%
Land use mix	■ Residentia	50%		50%	¥.	50%
	■ Commercia) ■ Industrial	096		0.96		0%





Lot I & J

ARIF 42 FEASIBILITY TESTING - LOT 1.8.1

					111		
Lot I & J	Existing amalgamated lot area		2.170 sqm		2,170 sqm		2,170 sq m
	Tota I Industria I floorspace (sqm)		4,330		4,330		4,330
Development	Total Commercial floorspace (sqm)		1/2		3,984		1,99
Costs	Tota Residentia floors pace (sqm)		1/2		n/2		1,99
	Total development costs		\$ 12,28 2,197		\$27,872,458		5 29,9 16,220
	Industrial GFA (sqm)		3,897		3,897		3,897
Revenues	CommercialGFA (sqm)		1/2		3,586	1,793	
ne re na c	Residential (no. of a partments)		1/2		11/2		18
	Total revenues (excl. soles expenses)		\$7,482,240		\$19,531,200		\$27,157,920
	Residual Land Value		-54,799,957		-58,341,258		-52,758,300
Acquisition cost	Estimated land costs		\$5,954,269		\$5,95 4, 269		\$5,954,269
	Feasibility Ratio		-0.81		-1.40		-0.46
		100%		100%		10 0%	
land use mix	- 807000-00	50%		50%	4	50%	
	Residential	(
	= industrial	0%	100	0%		096	-



Lot AC

TABLE 43. FEASIBILITY TESTING - LOT AC Lot AC Existing amalgamated lot area 1,001 sqm 1,001 sqm 1,001 sqm 2.002 2,002 2,002 Tota I Industria I floorspace (sqm) 2,912 11/2 Total Commercial floorspace (sqm) 11/2 Costs Total Residential floorspace (sqm) 2,912 518,216,437 \$15, 229,351 Total development costs 56, 280,019 1.802 Industrial GFA (sqm) 1.802 1.802 Commercia (GFA (sqm) 2,621 n/a Revenues Residentia IGFA (sqm) 11/2 26 11/2 Total revenues (excl. sales \$3,459,840 \$12,266,400 \$22,946,259 expenses) Residual Land Value -52,820,179 -\$2,96 2,951 54,729,822 Acquisition costs Estimated land costs \$2,740,099 \$2,740,099 \$2,740,099 Feasibility Ratio -1.03 -1.08 1.73 100% Land use mix 50% 50%

Residential
Commercial

= Industrial

0%

Leichhardt Industria I Precinct Planning 45

0%

0%



Tebbutt Street precinct

Lot H, 1 & J

TABLE 44. FEASIBILITY TESTING - LOT H, I&J Lot H, T& J Existing amalgam ated lot area 3,110 sqm 3,110 sqm 3,110 sqm Tota i industria i floorspace (sqm) 4,764 4,764 4,764 1,988 Total Commercial floorspace (sqm) 11/2 5,072 Costs Tota | Residentia | floors pace (sqm) n/a 3,156 \$13,757,444 530, 448,840 \$35,889,173 Total development costs Industrial GFA (sqm) 4,288 4,288 4, 288 Commercia IGFA (sqm) 4,565 1,789 n/a Residentia IGFA (sqm) 28 Total revenues (excl. sales \$8,232,960 \$23,571,360 \$35,479,200 expenses) Residual Land Value - \$5,524,484 -\$6,877,480 -\$409,973 Acquisition costs Estimated land costs 59,686,131 59,686,131 \$9,686,131 -057 -0.71 -0.04 Feasibility Ratio 100% 10 0% 100% land use mix 50% 50% 50% Residential 0% 0% 0% Industrial



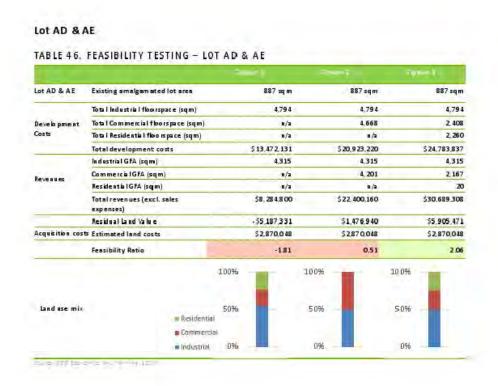
Lot L

TABLE 45. FEASIBILITY TESTING - LOT L

Lot L	Existing amalgamated (ot area		1,592 sqm		1,592 sqm		1,592 sq m
	Total Industrial floorspace (sqm)		3,180		3,180		3,180
Development Costs	Total Commercial floorspace (sqm)		n/a		2,496	1	1,25
	Total Residential floorspace (sqm)		11/2		n/2		1,244
	Total development costs		59,122,176		518,888,829		5 20, 16 4,707
	Industrial GFA (sqm)		2,862		2,862		2,862
Revenues	Commercia IGFA (sqm)			2, 246	1,12		
nevenue	Residentia IGFA (sqm)			11/2		- 11	
	Total revenues (excl. sales expenses)		\$5,495,040		\$13,041,600		\$17,624,160
	Residual Land Value		-\$3,627,136		-\$5,847,229		-\$2,540,547
Acquisition cost	Estimated land costs		\$4,423,511		\$4,423,511	-	\$4,423,511
	Feasibility Ratio		-082		-1.32		-0.57
		100%		100%	1	10 0%	
Land use mix	Residential	50%		50%		50%	
	■ Commercia			200		0%	
	w Industrial	0.96		0%		076	











4.7 Moore Street South precinct

Lot B & C

TABLE 47. FEASIBILITY TESTING - LOT B&C

					See 2		
Lot B & C	Existing amalgamated lot area		8 28 sq m		8 28 sqm	8 28 sq n	
	Tota i Industria i floorspace (sqm)		1,656		3,312	3,31	
Development	Total Commercial floorspace (sqm)		1/2		1,490	n /2	
Costs	Total Residential filoorspace (sqm)		11/2		n/a	62:	
	Total development costs		\$4,671,777		\$13,797,350	512,631,903	
	Industrial GFA (sqm)		1,490		1,490	1,490	
Revenues	Commercia IGFA (sqm)		11/2	1,490		7.45	
nevenue.	Residentia IGFA (sqm)		11/2	11/2			
	Total revenues (excl. sales expenses)		52,860,800		\$7,867,200	\$10,672,80	
	Residual Land Value		-51,810,977		-\$5,930,150	-\$1,959,103	
cquisition costs Estimated land costs			\$2,889,300		\$2,889,300	\$2,889,30	
	Feasibility Ratio		-0.63		- 2.05	-0.6	
		100%		100%		10 0%	
land use mix		50%		50%		50%	
	Resident			0%		096	





Lot H & T

TABLE 48. FEASIBILITY TESTING - LOT H&I Lot H & I 2,682 sqm 2,682sqm 2,682 sqm Existing amalgamated lot area 2,682 1,692 2,692 Total Industrial floorspace (sqm) Total Commercial floorspace (sqm) 4,740 2,370 Total Residential floorspace (sqm) n/a n/a 2,370 Total development costs 57,619,829 523,747,086 528,626,126 Industrial GFA (sqm) 2,423 2,423 2,423 Commercia (GFA (sqm) 4, 266 2,133 n/a Residentia IGFA (sqm) 21 Total revenues (excl. sales \$27,745,440 \$4,652,160 \$18,985,920 -\$2,967,669 -\$4,761,166 - \$880,686 Residual Land Value Acquisition costs Estimated land costs \$3,096,635 \$3,096,635 \$3,096,635 Feasibility Ratio -096 1.54 -0.28 100% 100% 10 0% land use mix 50% 50% 50% Residential Commercial 0% 0% 096 Industrial





Lot S

TABLE 49 FEASIBILITY TESTING- LOT S

Lot 5	Existing amalgamated lot area		4,733 sqm	4.7.	33 sqm		4,733 sqn
	Tota i industria i floorspace (sqm)		9,466		9,466	1	9,46
Development	Total Commercial floorspace (sqm)		8/2		9,466		4,733
Costs	Total Residential floorspace (sqm)		n/a		11/2		4,73
	Total development costs		5 26 68 2,311	543,0	24,503		\$47,878,59
	Industrial GFA (sqm)		8,519		8,519		8,519
Revenues	Commerce IGFA (sqm)	1/2		8,519		4, 26	
NE TENUS	Residentia IGFA (sqm)		1/2		11/2		4
	Total revenues (excl. sales expenses)		5 16,356, 480	544,9	80,320		562,342,20
	Residual Land Value		-\$10,325,831	51,9	55.817		514,463,60
Acqueition cost	Estimated land costs		55 475 8 10	55.4	75,810		\$5,475,810
	Feasibility Ratio		-1.29		0.36		2.6
		100%		100%		10.0%	
land use mix	Residential	50%		50%		50%	
	Commercial Industrial	0%		0%		096	J.

4.0 Summery of findings

The feasibility testing process has identified several headline findings.

Industrial development alone will not provide additional industrial floorspace

Rental in dustrial rates have been used and are capitalised within the feasibility model. The cost of development in all instances was above the revenues generated by industrial floorspace rents. This is because even though development costs are low relative to those of more complicated (or taller) buildings, industrial uses are rarely high-value and therefore cannot afford high rents. This is exacerbated when land acquisition costs are factored in.

Across all precincts, regardless of lot sizes, the industrial only development options uphold a negative feasibility ratio. For development on industrial only sites to be feasible, the rent must increase from \$200 per square metre to over \$400 per square metre and in some cases significantly more than \$400. This creates implications for the industrial rental market as increasing the cost of rent per square metre, means that renting becomes unaffordable.

Alternatively, to achieve feasible result, the amount of additional industrial floorspace must be increased. This creates issues with urban design outcomes, particularly on smaller lots, which in some cases require an increase from 4,000 square meters to 11,300 square meters for development to return a feasible result.





The addition of commercial floorspace brings the result closer to feasible

Adding commercial floorspace to the floorspace mix of buildings increases development costs and requires taller buildings, however the higher rent per sqm can, in some instances, enable a development to cross the feasibility threshold. However, this tends to require a significant amount of commercial floorspace in order to achieve this.

Residential is the easiest way to generate additional industrial floorspace

Residential returns the highest land values on a per square metre basis and it is therefore the most efficient at returning a feasible result. It also does not necessarily require a significant proportion of total GFA, however it does necessitate the construction of taller buildings.

In some cases, the introduction of residential floorspace resulted is a feasible outcome for development. The findings indicate that there are no patterns associated with land size as the smallest lot in Camperdown, Lot AC stands at a feasibility ratio of 1.73. This lot achieved a feasible outcome by providing 1,802 sqm of industrial floorspace and 2,184 sqm of residential floorspace with 26 units. Notably, the site achieved a feasible outcome without commercial floorspace. However, in Camperdown, the largest lot, Lot A, did not result in a feasible outcome. For Lot A to be feasible, the additional commercial and industrial floorspace must more than double, the median residential sales price must increase to \$4,462,155 and the development must supply 80 units.

Lot size does not appear to matter

In the scenarios and sites tested, there does not appear to be a pattern where lot size provides a better or worse feasibility result.





5 MULTI-CRITERIA ANALYSIS

Purpose

To arrive at recommendations for the future planning of Leichhardt's industrial precincts, options have been assessed through a Multi-Criteria Analysis (MCA) framework. This framework brings together the findings of feasibility modelling, urban design assessment and policy/strategy assessment. The purpose of the MCA is to determine which option is most suitable to address the problem of Leichardt LGA's forecast industrial floorspace supply deficit.

Metha

The MCA tests each option against the following criteria:

- Feasibility ratio
- Total floor space demand
- Depth within the likely target market segment
- Impact on the role and function of the precinct
- Impact on the surrounding precinct and broader economy
- Urban design considerations

MCA Structure

Given the number of sites, the MCA has been distilled into tables by precinct. The tables are to be read as a cumulative assessment. For instance, the analysis in Option 1 focuses on Industrial only use against the MCA criteria, whereas Option 2 (which builds on Option 1) focuses on the introduction of commercial floorspace. Finally, the analysis of Option 3 focuses on the introduction of residential floorspace. This is to avoid repetition.

Market analysis and feasibility

An analysis of market conditions, feasibility outputs and data reported in 5 GS's 2014 Industrial Land Use Study has been included in the MCA. It also includes a qualitative assessment of urban design and risk issues that such developments may present

Following the feasibility ratio reported in Section 4, the MCA undertakes a goal seeking exercise to determine what additional floorspace requirements or per square metre value would be needed to return a feasible result. The feasibility ratio for each lot is presented in Section 5.4 under the MCA tables For lots that resulted in a negative feasibility ratio, the feasibility ratio column has assessed the amount of additional floorspace or an increase in rent required to achieve a feasibility ratio of 1. Notably, the feasibility model does not account for the construction and associated costs involved with additional floorspace. Under the floorspace demand column, the additional floorspace for each land use has been calculated as a total of all lots for each predict.

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There is a total industrial floorspace deficit of 20,733 sqm and 38,552 sqm commercial floorspace deficit at the LGA level. Overall, the average annual growth rate of industrial floorspace is 3% to 2036 and 0.4% for commercial floorspace to 2036 at the LGA level.

Scoring

Each criteria has been given a positive, negative or neutral score (see below) to determine whether, on balance, the tested land use mix is of benefit to the LGA. This is considered in terms of its ability to deliver additional industrial floorspace as well as the impact that it will have on the ability to protect the industrial precincts.

Positive
 Neutral
 Negative

The MCA informs the recommendations outlined in Chapter 6.

Policy context

The NSW Government's A Plan for Growing Sydney provides strategic guidance for the future of industrial lands in Sydney. Key directions from the Plan outline the need to:

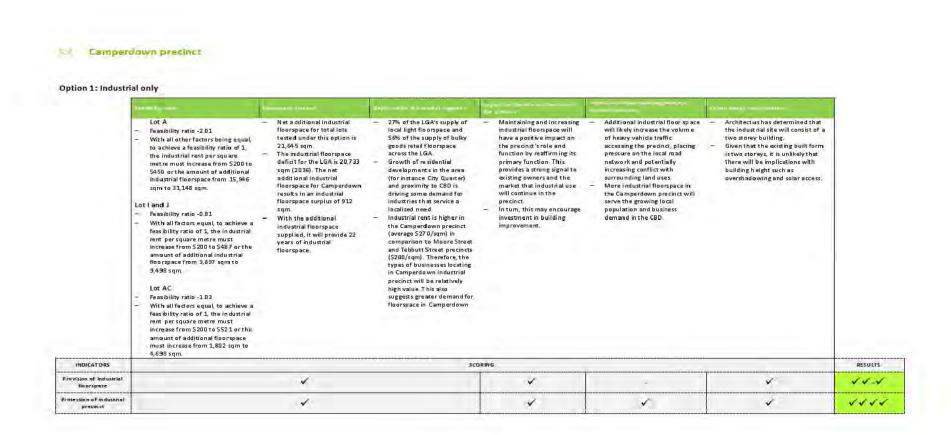
- Support key industrial precincts with appropriate planning controls
- Identify and protect strategically important industrial-zoned land

SGS completed an Industrial Lands Study for Leichhardt Council in 2014. The report contained a series of recommendations to protect industrial lands in the LGA. The recommendations included:

- Protect Leichhardt's industrially-zoned precincts for their important employment and service functions.
- Develop a profile and plan for each industrial precinct.
- Develop a clear vision for the future of the Camperdown precinct and maintain industrial zoning.
- Ensure adequate provision of industrial land for population-serving industries.
- Ensure the vision for Lei chhardt's industrial lands considers possible impacts of the Bays Precinct.
- Work with neighbouring councils to ensure a sub-regional approach to industrial land provision.



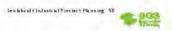




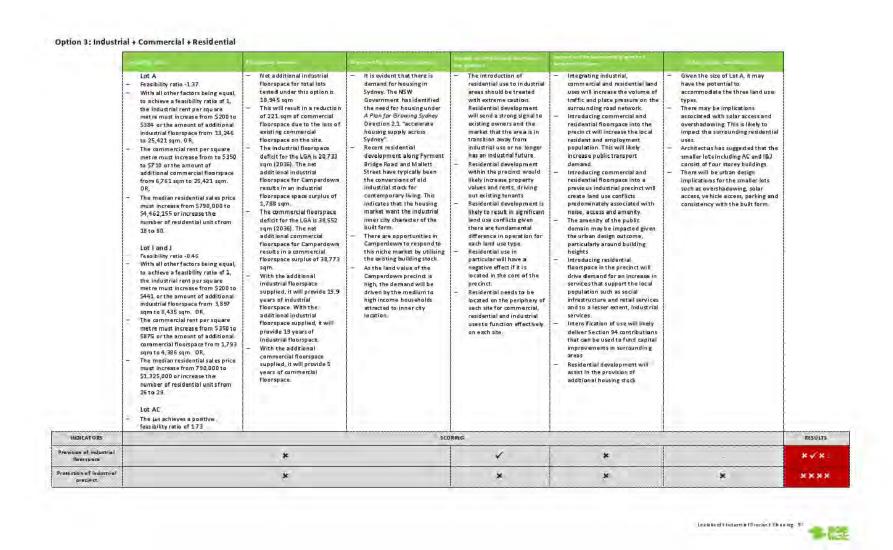




	Lot A	Net additional industrial	The Health Care and Social	Introducing commercial	Commercial floorspace in the	Architectus has determined that	
	Feasibility ratio -2.4 With all other factors being equal, to achieve a feasibility ratio of 1, the industrial rent per square ment increase from 5.200 to 5450 or the amount of additional industrial floorspace from 15, 946 to 33, 434 sqm. 0.8, The commercial rent per square metre must increase from 5.501 to 5618 or the amount of additional commercial floorspace from 11, 1957 sqm to 23,050 sqm. Lot I and J Feasibility ratio -1.40 With all ather factors being equal, to achieve a feasibility ratio of 1, the industrial from 5.200 to 5882 or the amount of additional industrial floorspace from 3,897 to 11,343 sqm. 0.8, The commercial rent per square metre must increase from 5.200 to 5682 or the amount of additional industrial floorspace from 3,897 to 11,343 sqm. 0.8, The commercial rent per square metre must increase from 5.350 to 5765 or the amount of additional commercial floorspace from 1,805 sqm to 7,841 sqm. Lot AC Feasibility ratio -1.08 With all other factors being equal, to achieve a feasibility ratio of 1, the industrial floorspace from 1,802 sqm to 4,772 sqm. 0.8, The commercial rent per square metre must increase from 5.200 to 5530, or the amount of additional industrial floorspace from 1,802 sqm to 4,772 sqm. 0.8, The commercial rent per square metre must increase from 5.350 to 5577 or the amount of additional commercial floorspace from 3,551 to 4,318 sqm.	The commercial floorspace for total lots tested under this option is 21,645 sam Net a dditional commercial floorspace for total lots tested under this option is 9,573 sam The industrial floorspace deficit for the LGA is 20,733 sam (2036). The net additional industrial floorspace for Camperdown results in an industrial floorspace surplus of 912 sam. The commercial floorspace deficit for the LGA is 38,552 sam (2036). The net additional commercial floorspace surplus of 28,979 sam. With the additional commercial industrial floorspace surplus of 28,979 sam. With the additional commercial floorspace surplied, it will provide 22 years of industrial floorspace. With the additional commercial floorspace supplied, it will provide 5 years of commercial floorspace supplied industrial floorspace supplied in the additional commercial floorspace.	Assistances industry and retail industries are expected to experience significant growth to 2036 (BTS 2015). The precinct's proximity to RPA Hospital may enable larger-scale health and allied services to link into the hospital network. The commercial market segmeim of Camperdown is likely to attract fringe CBD seeking premium office space. The precinct is also likely to attract treative industries drawn to its built form and character. Given that the retail industry is forecast to experience significant growth to 2036, the large scale industrial floor plan and premium offices, central location of Camperdown will be attractive to retail investors. The introduction of premium commercial floorspace is likely to compete with other commercial floorspace is likely to compete with the commercial floorspace is likely to compete with other commercial centres that are located on the periphery of the CBD such as Pyrment, Ultimo and Darlinghurst.	introducing characteristics was existed in the precinct. This is dependent on both the type and scale of commercial use, and may position the precinct as something other than industrial. The Sydney CBD averages requires 24-sqm of floorspace per job. This would create approximately 400 additional jobs. This level of employment would affect local traffic movement within the precinct—paricularly at peak times.	Camperdown precinct may compete with Norton Streat, attracting commercial treants that would otherwise locate there and jeopardise the Council's vision for Norton Streat. Introducing commercial floorspace to Camperdown may lead to a competitive commercial market and affect other centres in the LGA with increased vacancy rates and a lack of active investment. The additional workforce will create accessibility and parking issues and impact the local road network.	the building structure would like ly be four storeys of industrial use and two storeys of industrial use. While not out of scale, this type of built form is less of an impact in lower areas. There may be implications associated with solar access and overshadowing. This is likely to impact the surrounding residential uses. This would require further urban design assessment	
INDICATORS			SCOP	SCORMIG			
vision of industrial floorspace		1		1	-	-	44-
							









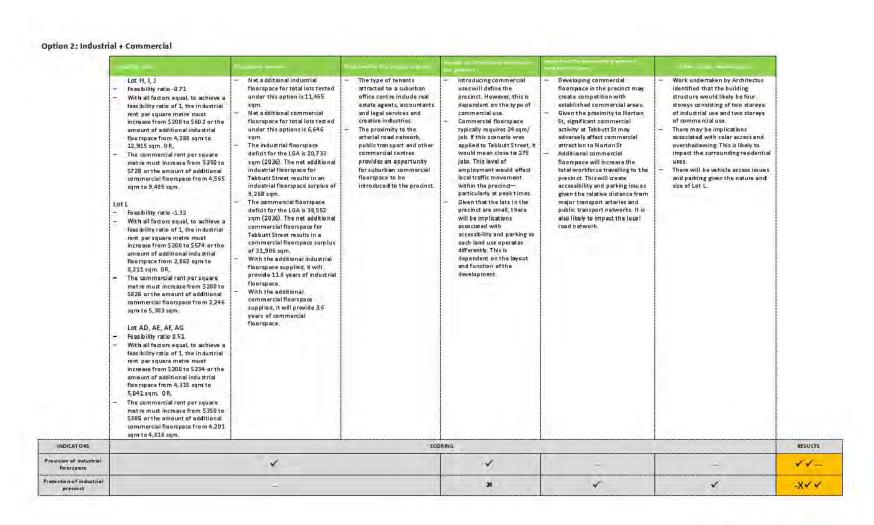
Tebbutt Street precinct

Option 1: Industrial only

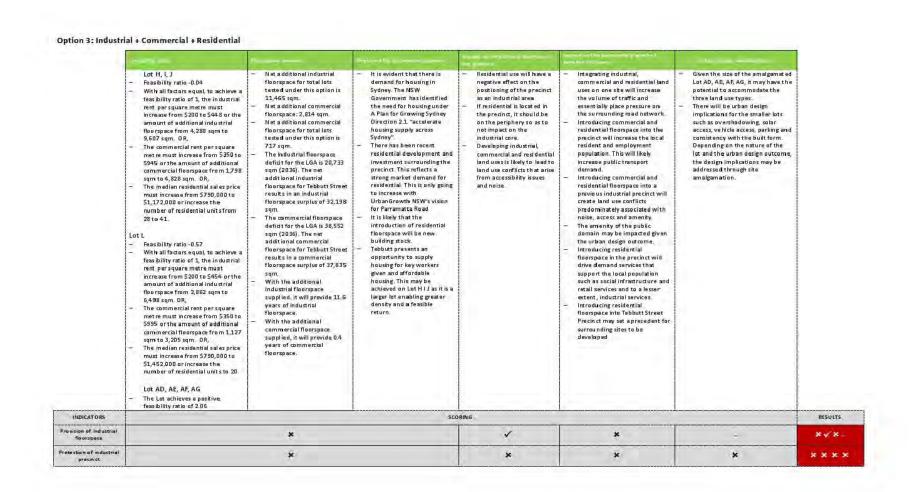
		-	21,7-1-14				
	Lot H, I, J Feasibility ratio -0.57 With all factors equal, to achieve a feasibility ratio of 1, the industrial rent per square metre must increase from \$200 to \$57 0 or the amount of additional industrial floo space from 4,288 sqm to 12,210 sqm. Lot L Feasibility ratio -0.82 With all factors equal, to achieve a feasibility ratio of 1, the industrial rent per square metre must increase from 5200 to \$493 or the amount of additional floorspace must increase from 5200 to \$493 or the amount of additional floorspace must increase from 5200 to \$393 or the amount of additional floorspace from 500 to 5395 or the amount of additional industrial rent per square metre must increase from 5200 to \$395 or the amount of additional industrial floorspace from 4,315 sqm to 8,512 sqm.	Net additional industrial floorspace for total lots under this option is 11,465 sqm. The industrial floorspace deficit for the LQA is 20,733 sqm (2036). The net additional industrial floorspace for Tebbut Street results in an industrial floorspace surplus of 9,268 sqm. With the additional industrial floorspace surplus of 9,268 sqm. With the additional industrial floorspace supplied, it will provide 11.6 years of industrial floorspace.	There are a range of lot sizes contained within the Tebbutt Street precinct, with the majority being of small-medium size (100–500m²). This is likely to attract smaller tenancies The precinct is the fourth largest industrial precinct in the LGA by GFA. Tebbutt Street contains a high proportion of local light and bulky goods retail. Industrial rent in the Tebbutt Street precinct is styrically more affordable than Camperdown at approximately \$200/sqm. The layout of the built form in the Tebbutt Street precinct is styrically more affordable rent and close proximity to arterial roads. The type of industries that are likely to locate in the precinct will predominately be bulky goods retail and local population-driven services due to the increasing population.	Maintaining and increasing industrial floorspace will have a positive impact on the predict of the precipit of the precipit of the predict of the precipit of the predict	- The precinct is located within close proximity to residential uses, if additional industrial floorspace is provided, land use conflicts may arise due to increased traffic volume and noise. - The LGA is experiencing growth in the local residential population. Industrial floorspace will increase the demand for population driven industrial uses such as storage facilities and local services. - Additional industrial floor space will likely increase the volume of heavy vehicle traffic accessing the precinct, placing pressure on the local road network.	Architectus has determined that the industrial site will consist of a two storey building. There may be urban design implications for Lot H, I B. J as the site adjoins residential land uses to the rear and other side of Tebbutt Street.	PESULTS
INDICATORS	scorna						
Provision of industrial flaorspace		¥.		4	4	*	44-4
Protection of industrial precinct		1		1	1	✓	1111











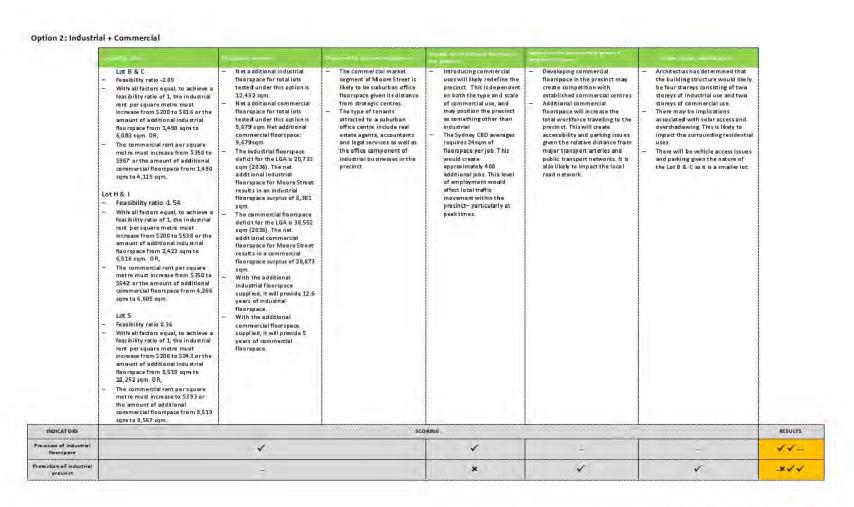
Leich ha of t Industria I Precinct Phaning 60.



Maare Street South precinct Option 1: Industrial only Lot B & C Net a dditional industrial The Magre Street precinct is Maintaining and increasing The precinct is located in close Architectus has determined that Feasibility ratio -0.63 floorspace for total lots the third largest by GFA industrial floorspace will proximity to residential uses, if the industrial site will consist of a tested under this option is within the study area. It have a positive impact on additional industrial floorspace two storey building. With all factors equal, to 12.43 2 sam contains the most the precinct's role and is provided, land use conflicts There may be urban design achieve a feasibility ratio of 1, The industrial floorspace substantial amount of function by reaffirming its may arise due to increased implications for Lot H & Lasthe the industrial rent per square deficit for the LGA is 20,733 floorspace occupied by primary function. This traffic volume and noise. site is surrounded by residential metre must increase from sqm (2036). The net freight and logistics land provides a strong signal to The locality is experiencing uses. \$200 to \$529 or the amount of additional industrial uses, being 11,375m², or existing owners and the growth in the local residential additional industrial floorspace floorspace for Moore Street 73% of the total GFA in the market that industrial use population, Industrial from 1,390 sqm to 3,938 sqm results in an industrial study area, along with a high will continue in the floorspace will increase the floorspace surplus of 8,301 proportion of light precinct. demand for population driven manufacturing uses In tum, this may encourage industrial uses such as storage Lot H& I With the additional (13,875m2, or 31% of the investment in building facilities. Feasibility ratio -0.96 BLC's GFA within the LGA). Additional industrial floor space industrial floorspace improvement. With all factors equal, to supplied, it will provide 12.6 There are also notable will be likely to increase the achieve a feasibility ratio of 1, proportions of bulky goods years of industrial volume of heavy vehicle traffic the industrial rent per square retail and office floor space. floorspace. accessing the precinct, placing metre must increase to from Industrial rent in the Moore pressure on the local road 5200 to 5461 or the amount of Street precinct is typically network additional industrial floorspace more affordable than Camperdown at \$200/sqm from 2.243 sqm to 6,083 sqm. (based on agency consultation). Lot 5 The layout and the built Feasibility ratio -1.89 form in the precinct is With all factors equal, to attractive for industries achieve a feasibility ratio of 1, seeking affordable rent and the industrial rent per square traditional industrial building metre must increase from 5200 to \$393 or the amount of The function of the precinct is predominately local additional floorspace must service industries which are increase from 8,519 sqm to likely to remain attracted to 16,749 sqm. INDICATORS SCORMG RESULTS Provision of industria V V -V 1881

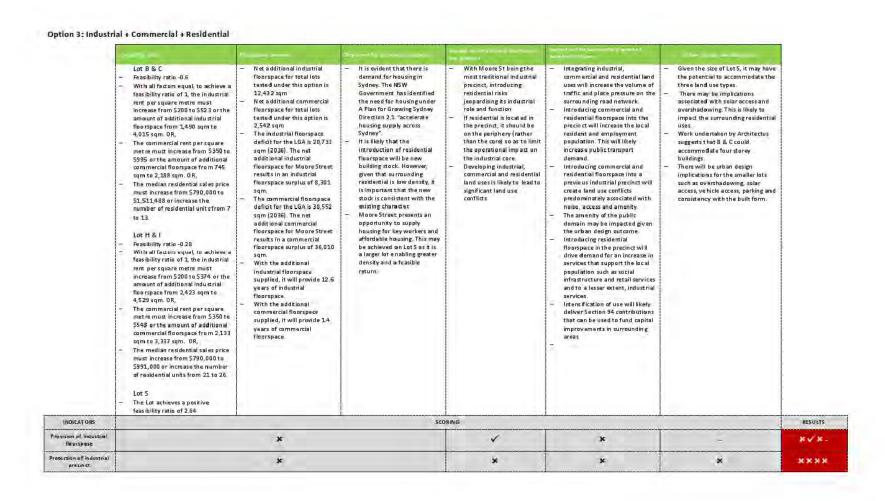














Summary of MCA

Table 40 provides an overview of the positives and negatives of each development option. This consolidates each of the scenarios tested so that key issues are identified based on the potential landuise mix

TABLE 50. SUMMARY OF OPTIONS

Industrial only	Increase in industrial floorspace within	Additional floorspace is likely to
moustrial only	the precinct supports existing industrial function Additional industrial floorspace will provide support for the local population and businesses served by the industrial tenants	increase the volume of traffic and impact on the local road network. For the development of additional floorspace to be feasible, the rent per square metre has to increase. Increased rents will put pressure on the more traditional existing industrial businesses
industria i.a nd commencia i	 Increasing commercial floorspace will provide an opportunity for a range of different commercial types including creative, health services and CBD fringe office space. Supplying commercial floorspace will reduce the commercial floorspace deficit (88,283 sqm) for the LGA. The demand for commercial floorspace is aligned with population and employment growth. Commercial floorspace is less conflicting with industrial activity especially where precincts already have a mix of commercial and industrial activity (e.g. Camperdown) There is the potential to attract new tenants to the Camperdown precinct given proximity to Sydney University and RPA. 	 Potential for cannibalisation of other commercial centres e.g. Norton Street Likely to give rise to increased parking and accessibility problems. High increase in commercial rents. The introduction of commercial floorspace has the potential to change the industrial sense of address in the precincts – jeopardising the continued operation of industrial business as well as the attraction of new industrial activity Feasible development requires significant commercial floorspace which will fundamentally reshape the precinct.
Industrial commercial and residential	 Introducing residential floorspace will contribute to the overall supply of housing There is market demand for residential floorspace in the LGA. There is an opportunity to provide affordable housing and housing for key workers in these precincts. Council can benefit from 5 ection 94 contributions and add value to the surrounding area. 	Integrating three land use types on one site will be likely to generate land use conflicts. Introducing residential land uses will create long term implications as residential is a competing land use and potentially dominate the site and push industrial uses out of the precinct. Pressure on social infrastructure and local services with an increasing residential and business population. If residential is developed in the core of a site, it will be especially harmfulto the function of the precinct. Residential needs to be developed on the periphery. Introducing residential to industrial precincts sets a precedent for the development in other industrial precincts.

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6 RISK ASSESSMENT

61 Introduction

Based on the precinct profiling, feasibility analysis and MCA process, a number of potential outcomes may be available to Council in the planning for the future of IN2 land. These outcomes have been considered both in terms of their ability to deliver additional industrial floorspace and the respective risks that actions present to a precinct or the overall supply of industrial floorspace.

Actions are identified with regard to their risk using the following consideration:

Low risk Medium risk High risk Likely to be suitable for the LGA

Careful consideration should be paid to whether action is considered appropriate Highly likely to fundamentally and adversely impact future industrial floorspace supply

These scenarios inform the recommendations in Chapter 7.

1.2 Industrial only option

This option assumes that the current IN2 zoning remains in place and the focus is on retaining the predominantly industrial nature of the precinct

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Do nothing	Redevelopment of industrial floorspace simply through the increase of industrial floorspace is not feasible under any scenario tested. To achieve a feasible result would require significant amounts of non-industrial floorspace to be introduced, compromising the role of the precincts.	-	LGA continues to have a shortage of industrial floorspace into the future. The protection of the remaining in dustrial area limits the ability of new land uses to erode the primary role of industrial precincts. The demand for residential use will continue to place pressure on industrial land under the do nothing scenario.
Stronger focus on preservation of remaining industrial land	With no ability to increase floorspace, the remaining industrial area is critical in providing floorspace for businesses that require industrial space to provide services for the local population and other businesses in commercial centres and the CBD. This industrial floorspace should continue to be protected.	4.6	As above Stronger focus on the preservation of remaining industrial land through policy will reduce the risk of losing industrial land.
Tighten range of permitted uses in IN2	If no additional floorspace can be induced through development, a longer-term strategy to gradually 'claw back' industrial floorspace from non-industrial users could help to reduce the deficit, albeit marginally. This may	1.	Unlikely to significantly increase floorspace May lead to conflict of industrial land uses

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include limiting non-industrial uses such as offices that seek to locate in industrial precincts due to the character and identity, rather than a specific need. requiring an office component May limit uses that require industrial space but have a legitimate commercial

function

Industrial + Commercial option

This option introduces commercial floorspace as a development feasibility lever to aide the delivery of additional industrial floorspace. Commercial is introduced as a lower impact alternative land use than residential.

Potential action	Pastification	Filt stretchen
Re-zone all IN2 land to a business-use zone (for example B5 or B6)	In acknowledgement of the dynamic nature of inner city industrial precincts, a wider business-focussed zone will encourage commercial development	Higher land values may drive 'lower value' uses out with potential flow on effects to the businesses they serve in existing commercial centres and the CBD The introduction of commercial activity may alter the precinct role and function. This is most pronounced for MooreSt being the most traditional industrial precinct in the LGA Prohibits fundamental light industrial uses such as car repair workshops
Rezone all IN 2 land, or particular precincts, to a Business zoning (85, 86 or 87) with tailored permissible land uses	No B5 or B6 zone currently exists in the LGA. As such, a tailored permissible uses list could be considered that focuses on industrial as the primary land use whilst enabling some office-related floorspace as a means of inducing development feasibility.	Council amalgamations may expose this to weakness Still exposes precincts to non-industrial uses Feasibility te sting suggests that significant commercial floorspace is still required to deliver industrial floorspace This may encourage commercial development in areas that are less suitable than local centres (such as Norton Street)
Retain IN2 zoning, but allow commercial floorspace with a proportional cap	The intention is to increase industrial floorspace. If commercial is necessary to do this, the primary function of the precinct can be maintained by capping the amount of commercial floorspace (either by site or precinct) at a proportion of total floorspace, for instance 25%	Cap may need to be high to reach a development feasibility threshold. Permitting commercial floorspace may result in a loss of the defined

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industrial precinct and a poor urban design outcome

Industrial + Commercial + Residential option

This option introduces residential in addition to commercial floorspace as the most intensive means of delivering development feasibility. Residential development within industrial precincts brings with it increased risk of precinct fragmentation and land-use conflict.

Potential amon	Notification	The Salesinieni
Rezone Camperdown to a Business use classification such as B6 or B7 and allow resident ial flat buildings as apermitted use, as long as industrial floorspace is a majority floorspace component	In order to enable residential development to feasibly deliver additional industrial floorspace, residential development in precincts that are locationally suited to high density residential could trigger an increase in industrial floorspace. Given the housing agenda of the NSW Government with major state significant projects in the pipeline, it would be of Council's interest to get on the front foot and identify the future use of the Camperdown precinct. To respond to pressure for residential development in the Camperdown precinct, Council must permit residential and commercial uses within industrial lands. This will require Council to implement policies that allow the introduction of residential and commercial floorspace, yet protect industrial floorspace, yet protect dominant land use, the DCP must be	High risk of precinct fragmentation or dilution due to conflicting land use Sets a precedent for future industrial lands to undergo similar rezoning process Increases land values to such an extent that industrial uses are priced out
Spot-rezone identified sites on periphery of industrial precincts to allow residential development	amended to implement controls that protect employment land uses. In some precincts, some candidate sites are separated from the main part of a precinct to the extent that residential uses would be unlikely to significantly impact on the industrial function, while still enabling increased industrial floorspace in an industrial area	Individual site rezonings are not strategic in their nature and can lead to increased requests for rezoning on other sites that have more adverse impacts
Develop specific criteria for site consideration, allowing residential use within IN2 if it: Significantly increases industrial floorspace Ensures residential is less than 20% of total GFA Is on a peripheral site Is a lot size over 1,000sqm	These particular criteria could be applied on a case-by-case basis where there is demonstrated focus on increasing industrial floorspace, using residential as a lever.	Gradual erosion of precincts Encourages land speculation and land banking Encourages land owner not to invest in industrial land upkeep

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RECOMMENDATIONS

| Introduction

It is clear that there is a need within Leichhardt to provide additional industrial floorspace to meet the LGA's future demands. However, this objective must be tempered against the risks involved in seeking this additional floorspace. Ultimately, the decision to consider redevelopment within any of Leichhardt's industrial precincts as a means to increasing supply must be considered against a fundamental question:

"Do the risks of development outweigh the reward?"

In this light, the reward is the increase of industrial floorspace while the risks are those listed in the assessments above

Industrial development alone will not facilitate the provision of increased industrial floorspace supply as the cost of development outweighs the revenues received. As a consequence, other land uses are required to improve the feasibility aspect.

The consideration of commercial and/or residential as levers in increasing industrial floorspace supply present a number of risks. The volume of commercial floorspace required to cross the feasibility threshold is likely to fundamentally alter the function of the precinct and shift the commercial gravity of the LGA away from its identified commercial centres.

The introduction of residential development brings with it extremely high risks of precinct fragmentation and land use conflicts that will significantly limit the ongoing function of the precinct. The extreme end of this scenario is that within a relatively short period of time, the pressure of residential will lead to the complete loss of precincts

With this in mind, the strategies below are split into two options that recognise the risks inherent in any rezoning attempt within the precincts

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Dption 1: Business as usual approach

This option assumes that based on the risk equation articulated above, the risk of precinct fragmentation and land use conflict that comes with encouraging addition uses is too great to entertain. As such, it recommends no change to any zoning within the LGA's IN2 zoned land.

Protection

Strategy 1: Retain industrial (IN2) categorisation in majority of industrial precincts

ACTION 1.1 Retain IN2 zoning and continue to protect from re-zoning for the following precincts:

- Balmain East
- Balmain Road
- Lilyfield Road
- Marion Street
- Moore Street North
- Terry Street
- White Bay
- Camperdown
- Moore Street South
- Tebbutt Street
- Lords Road

Rationale

The Industrial Land Use Study (2014) identified a shartage of industrial floorspace in the LGA by 2036. The retention of all IN2-zoned iand and active protection of it against future development or adjacent development that may lead to land-use conflicts will not increase industrial floorspace. However, it is the best way to ensure that there is no continual erosion of remaining stock.

Strengthening of industrial character

Strategy 2: Differentiate between industrial uses in the LGA ACTION 2.1 IntroduceIN1 zoning into LEP land use classifications

Rationale There are subtle differences in the role of Leichhardt's industrial precincts and many of the precincts are small clusters of industrial units which fit into the IN2 category.

> There are some precincts, however, that due to their size and role, are more 'traditional' industrial precincts. The introduction of an IN1 categorisation would add weight to the precincts that have such a zoning. This would send a clear message of intent regarding these precincts.

ACTION 2.2 Rezone Moore Street South industrial precinct to IN1

Rationale

Moore Street South is Leichhardt's largest 'traditional' industrial precinct with regards to role and function. A re-zoning to INI would sign al that this precinct is not one to consider peripheral industrial uses and will not be a location for alternative uses such as commercial or residential. Although feasibility testing suggested that in some instances, the introduction of commercial and/or residential could deliver an increase in floorspace, the possible loss of this precinct due to land-use conflicts is too great to contemplate seeking a marginal increase in floorspace.

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Option 2: Step change approach

This option assumes that a scenario such as the following were in effect:

- a) Pressure from the State Government to redevelop the Parramatta Road Corridor requires council to take a lead in considering alternative land use arrangements; OR
- b) Council wishes to consider options that may deliver additional floorspace.

As such, it is mutually exclusive Option 1's Action 1 and seeks to reconceive the future roles of the Council's major precincts.

The recommendations that follow are predicated on the following visions for how Camperdown and Tebbutt Street precincts may function as non-traditional industrial precincts.

Vision for Camperdown precinct

Camperdown's location in relation to the CBD and other neighbouring institutions such as the University of Sydney and Royal Prince Alfred Hospital means it is well positioned to accommodate supporting industries. The Camperdown precinct could accommodate higher-value industrial and commercial users that support the operations of nearby institutions and businesses operating in the CBD. Leichhardt Council holds aspirations for encouraging creative industries and with an identity that supports physical production in partnership with aligned commercial interests, Camperdown could attract these type of use

Vision for Tebbutt Street Precinct

Tebbutt Street's identification as a centre in the Parramatta Road Urban Transformation Strategy and its location near to the Taverners Hill Light Rail station make it a logical place for mixed use development. A concentrated residential component, with a mix of business and industrial uses could enable a range of land uses to co-exist with minimal conflict Each of these benefit from the precinct's location and transport access.

Step-change in key precincts

ACTION 3.1	Introduce B6 (Enterprise Corridor) zoning into LEP land-use classifications
Rationale	Leichhardt cur rently has four Business use-class zones identified in its LEP. The introduction of B6 (Enterprise Corridor) will enable Council to provide a more nuanced set of business-oriented centres.
	B6 (Enterprise Corridor) provides Council with an additional business zoning that aligns with a number of the uses currently found within the IN2 zoning. This provides Council with a more refined set of zoning classifications to address future land-use pressures, particularly along the Parramatta Road corridor.
ACTION 3.2	Introduce B5 (Business Development) zoning into LEP land-use classifications and include 'Residential Accommodation' as a use permitted with consent
Rationale	Allowing some residential development within business zones will encourage a mix of uses where it is applied. It will also assist with the feasibility equation of new developments where this use is being encouraged.
	Unlike B4 (Mixed Use), which usually has residential providing a significant proportion of floorspace in developments, the intent with this amendment is to retain the predominant land use as business-focus.

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ACTION 3.3 Provide additional direction with regards to floorspace proportions for B5 (Business Park) zoning in Development Control Plan. This would limit the total amount of residential GFA to approximately 20% of total GFA for individual development within a B5 zone.

Retignale. To ensure that residential does not dominate the development and after the intent of the

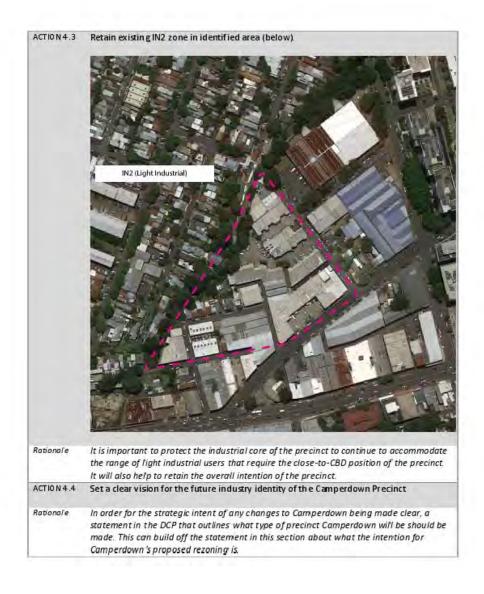
Rationale To ensure that residential does not dominate the development and alter the intent of the precinct, additional directions to limit floorspace to a minimal proportion can provide design guidance to developers to articulate how and why this proportional cap is

Strategy 4: Position Camperdown as a mixed business precinct aligned with surrounding industries ACTION 4.1 Re-zone the identified area to B5 (Business Development). This assumes that the inclusion of residential is permitted in the B5 zone Rationale The Camperdown Precinct's location in relation to the CBD and other neighbouring institutions such as the University of Sydney and Royal Prince Alfred Hospital means it is well positioned to accommodate supporting industries. A B5 zone would permit a more commercial focus while retaining much of the existing industrial uses. The introduction of capped residential development would act as a lever to increase industrial and commercial floorspace. A B5 zone on the precinct's periphery will capture much of the existing land use profiles such as Bulky Goods Retail that current line Parramatta Road.

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Strategy 5: Be proactive in aligning Tebbutt Street with the future of the Parramatta Road Strategy

ACTION 5.1 Re-zone eastern edge of Tebbutt Street to B4 (Mixed Use) north of Number 5 Tebbutt



Rational'e

The intention of Urban GrowthNSW to redevelop this precinct as part of the Parramatta Road Urban Transformation Strategy puts pressure on Tebbutt Street to remain as an industrial precinct. This stretch already has a B4 zone to its east and its location near the Taverners Hill Light Rail Station makes it suitable for residential.

This approach also demonstrates a proactive approach by council to work with UrbanGrowth NSW and may help to protect more of the industrial precinct than otherwise would have.

ACTION 5.2 Re-zone IN2 zoned land in precinct between Tebbutt Street and Hathern Street and between Flood Street and Elswick Street to B6 (Enter prise Corridor).



Rationale

A B6 zoning aligns with much of the current use along Parramatta Road and still retains opportunity for some industrial uses. It does provide a more commercial opportunity to support any future residential development in the area.

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ARCHITECTUS INTERIM INDICATIVE STRUCTURE PLANS AND URBAN FORM ILLUSTRATIONS



OPTION 1: CAMPERDOWN PRECINCT STRUCTURE PLAN

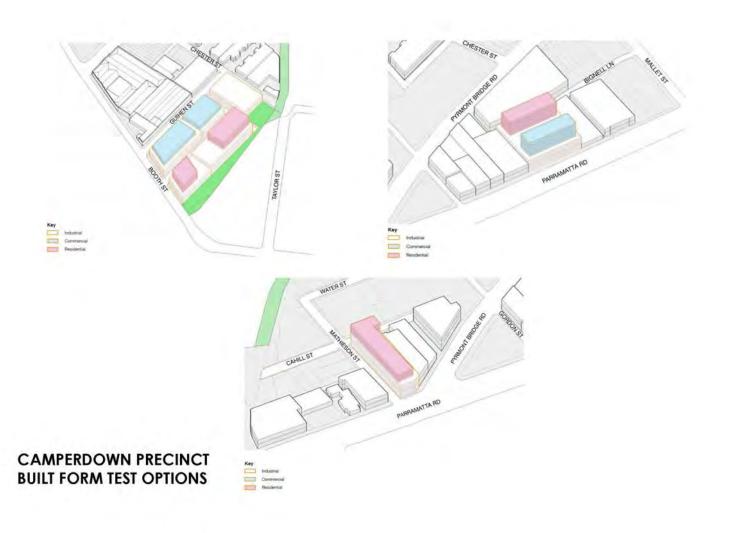




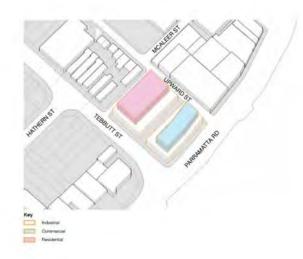
OPTION 1: TEBBUTT STREET PRECINCT STRUCTURE PLAN

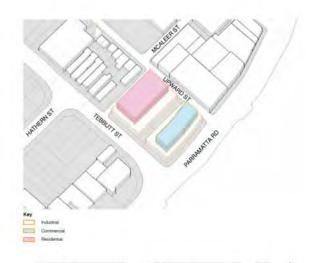


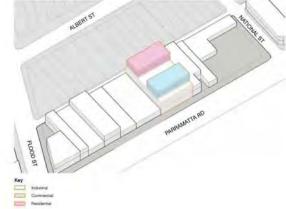












TEBBUTT STREET PRECINCT BUILT FORM TEST OPTIONS



OPTION 2: CAMPERDOWN PRECINCT STRUCTURE PLAN





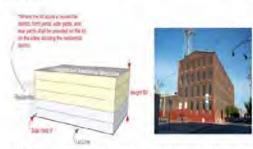
OPTION 2: TEBBUTT STREET PRECINCT STRUCTURE PLAN





International Case studies- planning for mixed use industrial precincts

A critical part of Council's vision for Leichhardt is the retention of the area's diverse, mixed use character. The following projects highlight opportunities for Leichhardt - that could be achieved though revised planning controls and urban renewal of the industrial precincts.



IRMX Zoning Code specifications for adaptive reuse of old industrial warehouses into moved industrial developments, image source Plan Philly by Matt Reuben 2015

South of Market Area (SoMA) District, San Francisco

SoMA District has been zoned as a mixed use industrial district and comprises of several specific land use zones such as SLI (Serviced/light Industrial) and SLR (Serviced/Light Industrial/ Residential) that have been designed specifically to preserve manufacturing and industrial uses from other competing residential and commercial land uses. Additionally, planning regulations within the district require all developments to dedicate a percentage of floor space to Production, Distribution and Repair Services.

At its base, the district uses good design principles to articulate the built form. Street networks are designed as pedestrian and cycle friendly spaces that also cater to service and delivery vehicle requirements.

Several recent proposals such as 100 Hooper Street seek to integrate commercial, manufacturing and retail space with other uses including classroom space for the adjacent California College of Arts.

350 Eighth Street is yet another development of approximately 3.36 acres (1.2 ha) within SOMA district that is being redeveloped for residential blocks containing 444 units, light industrial and artist space including community space.

Navy Yard & Washington Avenue, Philadelphia

Deterioration of existing industrial warehouse sites, coupled with the simultaneous growth of small scale manufacturing and light industries (artisan industries including breweries, wood working and metal working, and engineering-oriented activities, such as software design, electronics, and robotics) has steered Philadelphia to implement new zoning codes such as ICMX (Industrial/commercial mixed uses) and IRMX (Industrial/residential mixed uses) to allow for mixed industrial development.

A strategic remapping process guided by Philadelphia 2035 District Plan Process will consider areas with existing industrial land uses such as Navy Yard and Washington Avenue among others to be zoned for mixed industrial use including residential, commercial. IRMX zoning codes even allows for the conversion of old industrial warehouse buildings into live-work arrangement for artisan industries.





350 Eight Street Project, SoMA Image source: San Francisco Curbed by Michael Conrad 2014



Urban Outlitters Headquarters, Navy Yard, Philadelphia Image source: The American Institute of Architects by Lara Swimmer

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Brooklyn Navy Yard (BYN), New York

Several of New York's industrial precincts (Queens, Brooklyn, Bronx)

experienced a decline in manufacturing in the 1970's attributable to the shift of freight transportation from primarily rail facilities to trucks and road network. As such industries no longer required sites close to city centres and port facilities.

However, manufacturing industries provided employment to a large number of inner city residents and in an attempt to protect the manufacturing economy within the city, rezoning initiatives were introduced as early as 1997 to "encourage investment in, and enhance the vitality of, existing neighbourhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed use communities".

Mixed Industrial land use zones include MX (Mixed industrial and residential) and IBZ (Industrial Business) zones.

BYN is an example of New York's mixed industrial and commercial sites zoned 'Industrial Business Zone' (IBZ). The site is a 300 acre (approximately 121 ha) old navy yard that has been adaptively reused to develop several blocks of mixed use-industrial development. Uses on site range from light industrial, commercial and retail developments, creative industries (film studios, high-end designers) to on-site manufacturing including maritime ship repair and warehouse distribution. The inclusion of

Admiral Row, Brooklyn Navy Yard, New York, image from Municipal Art Society of New York.

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residential development within the site is also being considered. Admiral's Row is proposed to be a 26477 sqm development within BYN industrial site that adaptively reuses two historic buildings and integrates a range of uses within the development including 6875 sqm of supermarket floor space, 7990 sqm of neighbourhood retail, commercial and office space and 11613 sqm of light industrial spaces.

In addition to mixed use-industrial zones, New York City Council recognises the importance of additional zoning controls to preserve the industrial uses against competing residential and commercial developments. Additional controls include vertical zoning, along with proportional floor space incentives for industrial space provisions.

Strathcona Village, Port of Vancouver, Vancouver, Canada

The Port of Vancouver involves a range of enterprises such as cargo terminals, cruise terminals, shipyards, tugboats, railways, trucks, shipping agents, freight forwarders, suppliers, builders, and administrative agencies. A new development called Strathcona Village includes industrial uses on the ground and first floor and above ground residential levels. The development is permissible under the new MX zone, a strip bordering the port industrial zone which allows condominiums with production, design and repair industrial (termed PDR) uses. The full residential offer, 280 units, have been sold, with industrial tenants currently being



Vertical Zoning, City of New York, Image Source Engines of Opportunity 2014

investigated. 70 additional units are being dedicated to social housing.

The developer of Strathcona Village, Wall Financial Corp, has taken on additional construction costs to comply with requirements of the zone which seek to minimise conflict between the uses, such as separate ventilation systems for the two uses.

The City of Vancouver have been cautious in implementing the MX Zone and have only applied it in a small strip along East Hastings near the Port of Vancouver, seeking to avoid the kind of speculation on the industrial land that might drive up prices and compromise the preservation of affordable employment lands that the MX Zone aims to achieve.

Industrial uses in the zone are limited to restricted manufacturing and production and research and development (bulk sales and repair-oriented general retail uses are also permissible, as well as most motor-vehicle related services such as car and fuel sales, servicing and repair which would generally be classified as light industrial uses in NSW).

Since the approval of the Strathcona Village project, the City has implemented new requirements for a higher proportion of any similar development to be dedicated to social housing.

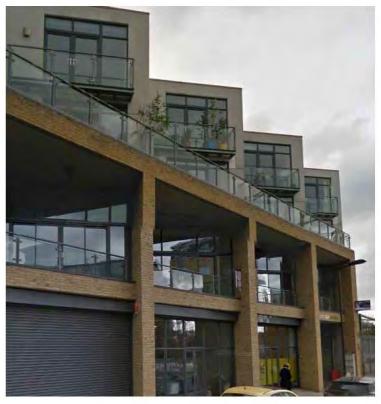


Strathcona Village, image from Vancouver Real Estate by Mike Stewart 2015









Andrews Road, Hackney, London: mixed use industrial (light manufacturing) with residential above.







RPA- THE CHRIS O'BRIEN LIFEHOUSE

119-143 Missenden Road, Camperdown



UNIVERSITY OF SYDNEY BUSINESS SCHOOL

H70, Abercrombie St & Codrington St, Darlington



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ABERCROMBIE STUDENT ACCOMMODATION





Urban Nest Student Accommodation

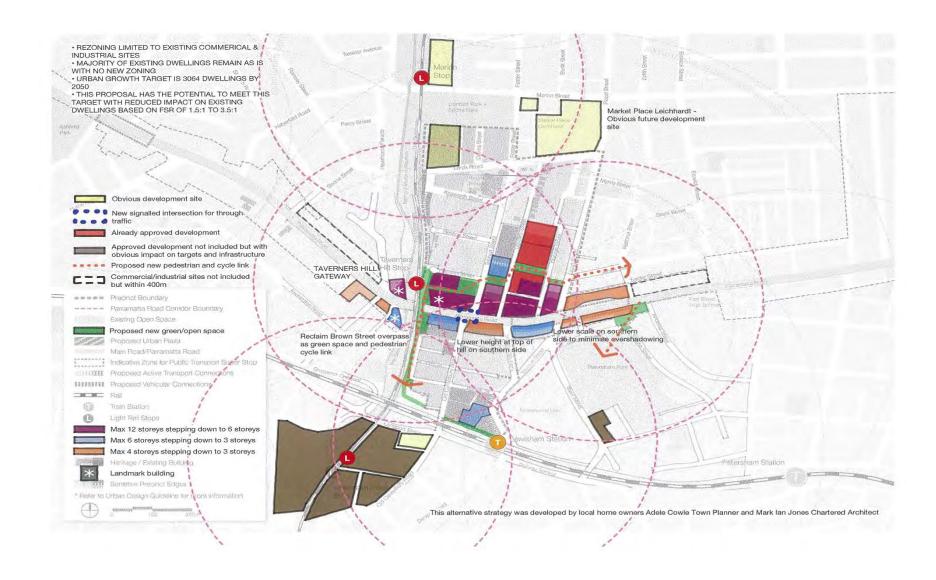
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URBAN NEST STUDENT ACCOMMODATION

152 City road, Darlington









ITEM 2.5 LOCAL GOVERNMENT ACT AMENDMENT PHASE 1

Division	General Manager
Author	Manager Legal Services
Meeting date	8 March 2016 Policy Meeting
Strategic Plan Key Service	Community well-being
Area	Accessibility
	Place where we live and work
	A sustainable environment
	Business in the community
	Sustainable services and assets
SUMMARY AND ORGANISATIONAL IMPLICATIONS	
Purpose of Report	To put forward a submission for the Council to the Office of Local Government's request for input to the Local Government Act Amendment Phase 1 Proposals.
Background	The Office of Local Government has sought input from the public generally on proposed amendments to the Local Government Act.
Current Status	NIL
Relationship to existing policy	NIL
Financial and Resources	This proposal is consistent with the recent s23A
Implications	Guidelines issued by the OLG in relation to
	financial expenditure.
Recommendation	That the draft submission to the OLG be indorsed.
Notifications	NIL
Attachments	Draft submission to OLG



Purpose of Report

The Office of Local Government has sought input from the community, including Councils to its Local Government Act Amendment Phase 1 Review.

Recommendation

That the draft submission attached to this report be endorsed by Council.

Background

By Office of Local Government Circular (**OLG**) 16-01 dated 8 January 2016, the State Government has sought comment on proposed changes to the *Local Government Act 1993* (**Act**).

Following a Councillor briefing on this subject held Tuesday 16 February 2016, the Councillors present indicated a wish that Council make a submission. A draft submission in line with comments made by Senior Staff and Councillors is **attached**.

Report

The OLG has prepared an online survey to allow comment on the proposed amendments to the Local Government Act. The survey takes the form of 37 questions in the form "do you support ... [a particular named measure noted in the document entitled *Towards New Local Government Legislation Explanatory Paper: proposed Phase 1 amendments* (**Paper**) from the OLG dated 2015] which may only be answered "Yes"; "No" or "Neutral". There is also a box allowing up to 200 words comment for each of the 37 measures.

Councillors indicated a reluctance to provide feedback in such a limited form.

The Paper itself which is the basis of the amendments is in some ways little more than a "cut and paste". Rather than set out reforms itself the Paper simply sets out suggestions made by two previous reviews: the *Independent Local Government Review Panel* prepared in October 2013 (**Panel**); and the Local Government Acts Taskforce of 16 October 2013 (**Taskforce**).

In this regard the Paper does little more than recite the previous work from 3 years ago and reiterates the proposed amendments as little more than suggestions. The real work will come when the aspirations of the 37 questions are turned into meaningful amendments as either changes to the current Act or entirely new sections where appropriate.

Further, the proposed amendments to the Act are presented in the form of "aspirational" statements, rather than as draft legislation. Some sections, such as amendments to sections 7 and 8 of the Act, may lend themselves to these types of statements. Other proposed amendments will require stakeholders to consider the actual terms of the draft legislation.



Councillors indicated concern with a survey where one might indicate a positive response to the proposal in circumstances where the actual wording might well result in Council recoiling from the proposal.

The draft submission is in the normal manner of a written proposal without ticking a yes/no box.

This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure

Summary/Conclusions

That the draft submission attached to this report be endorsed by Council.

Attachments

1. Draft submission (This attachment will be circulated once finalised)



SECTION 3 – OTHER REPORTS



ITEM 3.1 ANNANDALE CONSERVATION AREA EXTENSION

Division	Environment and Community Management	
Author	Senior Strategic Planner	
Meeting date	8 March 2016 Policy Meeting	
Strategic Plan Key Service	Accessibility	
Area	A sustainable environment	
SUMMARY AND ORGANISAT	TIONAL IMPLICATIONS	
Purpose of Report	To provide Council with an update on the review of the Godden Mackay Logan Heritage Review Stage 2 (2004) and identify actions required to extend the Annandale Conservation Area (C1).	
Background	At the September 2015 Ordinary Meeting Council resolved that a review of the 2004 Godden McKay Logan Heritage Review Stage 2 be undertaken to identify actions required to extend Annandale Conservation Area.	
Current Status	Response to C458/15	
Relationship to existing policy	Any change recommended to a Leichhardt Council Conservation Area would require a Planning Proposal to amend Leichhardt Local Environmental Plan (LEP) 2013.	
Financial and Resources	Potential cost of heritage study. This proposal is	
Implications	consistent with the recent s23A Guidelines issued	
	by the OLG in relation to financial expenditure.	
Recommendation	That: 1. This report be tabled at the May 2016 Heritage Committee meeting for discussion.	
	 Council undertake the review of relevant properties which lie outside Annandale Conservation Area and which are identified in Figure 2 to determine whether a Planning Proposal is required to amend Leichhardt LEP 2013 and extend the Area; 	
	3. The findings of the strategic planning review reported to the June 2016 Policy meeting with a recommendation on whether a draft Planning Proposal to extend the Area and amend Leichhardt Local Environmental Plan 2013 would be justified on heritage grounds.	
Notifications	NIL	
Attachments	List of development applications and approved works in areas in Annandale outside the current Conservation Area since 2004	



Purpose of Report

To provide Council with an update on the review of the Godden Mackay Logan Heritage Review Stage 2 (2004) and identify actions required to extend Annandale Conservation Area (C1).

Recommendation

That:

- 1. This report be tabled at the May 2016 Heritage Committee meeting for discussion.
- Council undertake the review of relevant properties which lie outside Annandale Conservation Area and which are identified in Figure 2 to determine whether a Planning Proposal is required to amend Leichhardt LEP 2013 and extend the Area;
- 3. The findings of the strategic planning review reported to the June 2016 Policy meeting with a recommendation on whether a draft Planning Proposal to extend the Area and amend *Leichhardt Local Environmental Plan 2013* would be justified on heritage grounds.

Background

At the September 2015 Ordinary Meeting Council resolved (C458/15) the following:

- 1. That a review of the 2004 Godden McKay Logan Heritage Review: Stage 2 be undertaken by Council's Strategic Planning team to identify steps required to implement an alteration to the boundary of the Annandale Heritage Conservation Area;
- 2. A report be brought back to the March 2016 Policy meeting to provide Council with an update in relation to the review; and
- 3. That the report also be tabled at the Heritage Committee for discussion.



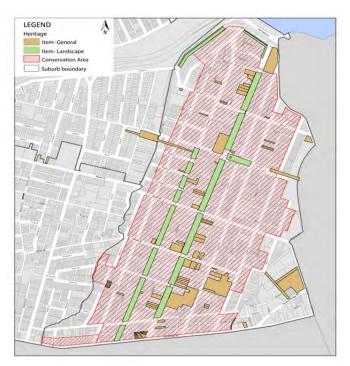


Figure 1: Annandale Conservation Area

The matter was raised as Council was made aware of a complying development certificate being issued by a private certifier to demolish all existing structures at 307 Nelson Street, Annandale. The concern discussed was that the property and adjoining properties on the eastern side of Nelson Street can be demolished under the State Environmental Planning Policy (SEPP) Exempt and Complying Codes because they sit just outside the Annandale Heritage Conservation Area (C1) listed and mapped in *Leichhardt Local Environmental Plan 2013*.

Annandale Heritage Conservation Area currently covers the majority of the suburb, with some properties along the western and eastern boundaries within close proximity of Whites Creek and Johnston Creek being excluded.

Report

Analysis and recommendations of Leichhardt Heritage Review: Stage 2 (Jan 2004)

In 2003 heritage consultants Godden Mackay Logan were commissioned by Council to complete stage two of Council's Heritage Review.

The intended outcomes of the study were as follows:

- Review of conservation areas to include a 'Statement of Significance' and list 'Key Values' for each area;
- Review of existing conservation area boundaries;
- Identification of thresholds/benchmarks for the subsequent assessment of contributory buildings/values by Council; and
- Review of the Local Environmental Plan (LEP) provisions relating to heritage and the structure/framework of the DCP.



This study was completed and provided to Council in January 2004.

The study emphasised that the approach of Council's Residential Development Control Plan (DCP) at the time was towards providing advice about new development and recommended that the guidelines focus on ensuring that the existing fabric within conservation areas should be retained as much as possible with minimal change. This included a recommendation that additional protections for small attached and semi attached houses be incorporated into the DCP.

The study also noted a number of ongoing management concerns with the major one being the inappropriate alterations, the demolition of contributory items within conservation areas and the general demolition of structures within these areas detrimentally affecting the significance of the Area.

With regard to Annandale the study recommended that the existing Annandale Conservation Area boundaries be increased slightly to include the whole suburb from Whites Creek to Johnston Creek. The study highlighted that the suburb of Annandale was largely laid out and formed as a single entity and therefore needed to be managed as a whole.

The study recommendations were endorsed by Council and incorporated into a draft LEP amendment to extend a number of the existing conservation areas. This draft amendment was publicly exhibited and forwarded to the Department of Planning.

In the interim the NSW Government and Department had prepared the Standard Instrument LEP program requiring all NSW Councils to redraft their LEPs using the common format and content required by the standard LEP template. The Department required the proposed amendment to be put on hold until Leichhardt Council could prove that what would become Leichhardt LEP 2013 could meet all obligations and requirements with regard to residential dwelling targets and jobs provision required by the Inner West Subregional Plan.

Progressing extension of Annandale Conservation Area

Any extension of the heritage conservation areas within Leichhardt Municipality listed in Schedule 5 (Environmental Heritage) of LEP 2013 would require an LEP amendment.

The Planning Proposal to facilitate this LEP amendment would need to be prepared in accordance with the Department's published guidelines included stated objectives, intended outcomes, detailed justification for the proposed change and public consultation in accordance with Council / Department of Planning requirements.

Stage 2 of the Leichhardt Heritage Review prepared by Godden Mackay Logan recommended that the Annandale Conservation Area be extended to cover the entire suburb between the two creeks is now over 12 years old. Forwarding the study as the primary justification for the planning proposal and LEP amendment is an option however it is possible that development and approved works since January 2004 may potentially have resulted in a built form for those areas outside the



Conservation Area which is no longer consistent with the Godden Mackay Logan Statement of Significance for the Area.

To determine the extent of the change a list has been compiled of all development applications in parts of Annandale not included within Annandale Conservation Area (C1) since January 2004 (**see Attachment 1**). This list includes development applications for all external works on relevant properties, but does not include modifications to existing consents or applications on heritage items which have their own site specific protections.

A full re-assessment would need to be undertaken to determine whether the development undertaken and approved is likely to have compromised the suitability of those areas for inclusion within Annandale Conservation Area. The full reassessment would include approximately 300 properties.

Part of this re-assessment has already been completed by Council's heritage consultants, NBRS, carrying out the heritage assessment of the Parramatta Road corridor as part of its Strategic Sites and Corridors work (**see Figure 2**). This study will be presented to the March 2016 Policy Council meeting. The area covered by this study includes the southern and eastern parts of the original proposed extension to the Annandale Conservation so the heritage value of all the properties in these localities has been updated. These 90 properties are located along:

- the southern side of Albion Street:
- the eastern side of Susan Street; and
- the eastern side of Taylor Street.

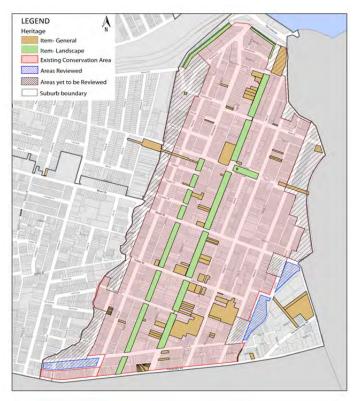


Figure 2: Areas reviewed by NBRS as part of the Strategic Sites and Corridors project



This updated information will therefore be available to feed into any prospective justification for a Planning Proposal to extend the Conservation Area.

Preliminary work indicates that the development approved and undertaken in the areas outside the Conservation Area is consistent with that which has been constructed and approved within the Annandale Conservation Area during the same period resulting in a consistent built form with identified heritage significance.

Update for proposed works at 307 Nelson Street, Annandale

In December 2015 Council received a development application on the site (D/2015/739) proposing the construction of two dwellings, each with rear garage one with roof terrace on garage, the removal of trees and associated landscape works. The application also requested variations to floor space ratio and site coverage planning controls in LEP 2013.

This application was refused by Council on 10 February 2016.

Summary/Conclusions

The review undertaken of the Godden Mackay Logan Heritage Study Stage 2 (2004) and the Strategic Sites and Corridors heritage assessment by NBRS + Partners indicates that many of the properties in Annandale located outside the Annandale Conservation Area may be worthy of inclusion, contribute to the collective heritage significance and protect those properties from demolition.

Further assessment is required, to the same standard as the NBRS survey work using the same methodology, for the relevant properties which lie outside the Annandale Conservation Area and the Parramatta Road Heritage Study Area (see Figure 2). The intended outcome of this assessment would be to provide evidence as to whether the Conservation Area should be extended and to justify any potential Planning Proposal to extend C1 in LEP 2013.

Attachment

1. List of development applications and approved works in areas in Annandale outside the current Conservation Area since 2004



PROPERTY	DEVELOPMENT APPLICATION	DATE APPROVED	
337 Nelson Street	D/2012/267 - Alts & adds incl construction of new garage to Crescent Street		
335 Nelson Street	D/2010/323 – Alts & adds incl elevated deck to rear	18 Aug 2010	
333 Nelson Street	D/2012/574— Alts & adds incl new first floor level and swimming pool to rear	21 Feb 2013	
331 Nelson Street	D/2004/683 - Alts & adds incl rear additions & new attic level/side dormer D/2015/504 - Ground & first floor additions incl alts to existing garage	3 Aug 2005 18 Jan 2016	
323 Nelson Street	D/2004/245 - Alts & adds inclinew deck at attic level	22 Jun 2005	
321 Nelson Street	D/2004/246 – Alts & adds incl new attic level	20 Jul 2005	
319 Nelson Street	D/2015/471 – Alts & adds to existing dwelling inclivariations to FSR & site coverage	3 Dec 2015	
315 Nelson Street	D/2009/347 – Demolition of existing garage incl tree removal & new garage with roof top terrace	1 Dec 2009	
311 Nelson Street	D/2012/491 – Alts & adds incl new two storey addition with first floor balcony, demolition of existing garage and new garage	22 May 2013	
297 Nelson Street	D/2015/227 – Single garage & first floor studio accessed off Nelson Lane	14 Aug 2015	
295 Nels on Street	D/2010/336 — Substantial demolition of existing dwelling requiring retention of front façade and construct new three level dwelling incl rear garage with roof terrace	30 Nov 2010	
293 Nels on Street	D/2014/384- Alts & adds incl constructing basement level	10 Feb 2005	
291 Nelson Street	D/2013/241 – Alts & adds incl additions to lower ground, elevated ground and first floor and rear existing garage	8 Oct 2013	
289 Nelson Street	D/2003/745 – Alts & adds inclextension of existing garage and construct roof terrace D/2015/193 – Alts & adds to ground and first floor at rear of building	18 Jan 2005 27 May 2015	
287 Nels on Street	D/2013/567 – Alts & adds to rear of property incl first floor and subterranean garage		
275 Nels on Street	D/2013/189 – Alts & adds to existing 12 Jun 2013 dwelling incl SEPP 1 for FSR & landscaped area		
273 Nelson Street	D/2013/105 – Alts & adds at ground floor level incl deck to rear	14 May 2013	
269 Nelson Street	D/2004/17 – Alfs & adds to existing 28 Apr 2004 dwelling		
267 Nelson Street	D/2015/174— Alts & adds incl rear extensions at ground and lower ground floor level with variation to landscaped	17 Aug 2015	



	area and FSR requirements			
263 Nelson Street	D/2005/36 – Alts & adds to ground and	17 Aug 2005		
	lower ground levels of existing dwelling			
257 Nelson Street	D/2010/202 – Alts & adds to existing dwelling requiring SEPP 1 objections for FSR and landscaped area	23 Aug 2010		
249 Nelson Street	D/2012/392 – Construct detached studio to rear of existing property	29 Jan 2013		
48 Booth Street	D/2010/497 - Alts & adds to existing buildings and change of use to supermarket, restaurant and childcare centre with basement parking	12 Dec 2011		
41 Taylor Street	D/2011/604 – Alts & adds inclisingle storey rear addition	15 Mar 2012		
37 Taylor Street	D/2004/117 — Alts & adds to ground and first floor levels of existing dwelling	13 Apr 2005		
59 Susan Street	D/2006/539 – New studio to rear of	17 Oct 2006		
	property D/2008/309 – Alts & adds to existing dwelling	27 Aug 2008		
31 Susan Street	D/2010/18 – Alfs & adds to existing dwelling	3 May 2010		
29 Susan Street	D/2005/240 – Alts & adds to an existing dwelling	22 Sept 2005		
23 Susan Street	D/2005/20 - Alts & adds inclinew garage and rear verandah	19 Apr 2006		
51 Nelson Street	D/2013/348 — Use of existing commercial tenancy as a retail shop with signage	30 Jan 2014		
53 Nelson Street	D/2009/480 – Change of use to an indoor plant hire facility	14 Apr 2010		
16 Susan Street	D/2010/30 – Division of ground floor tenancy into three separate commercial tenancies	9 Apr 2010		
7 Albion Street	D/2006/238 – Alts & adds to existing building	22 Mar 2007		
140 Albion Street	D/2013/359 - Alts & adds to existing building with two existing dwellings	5 Feb 2014		
156 Albion Street	D/2005/363 – Alts & adds incl new first floor and replace garage	22 Mar 2006		
162 Albion Street	D/2011/341 – Alts & adds to existing dwelling	3 Aug 2011		
166 Albion Street	D/2005/85 – Install dormer window to street elevation on existing roof form	11 May 2005		
182 Albion Street	D/2011/254- Alts & adds to existing 23 Jun 2011 dwelling and new garage/studio at rear of site			
188 Albion Street	D/2005/119 – Alts & adds incl substantial demolition and erection of new two storey dwelling D/2009/156 – C onstruct dormer window	19 Sept 2005 21 Oct 2009		
	to the front roof of the dwelling	- · - · · - · · · · · · · · · · · · ·		
79 Albion Street	D/2015/136 - Demolish existing	7 Aug 2015		



		T
	outbuilding, alts & adds to rear of existing dwelling and construct a carport with loft to the rear of the site	
111 Albion Street	D/2012/412 – Alts & adds incl constructing two storey rear addition and demolition of detached garage. SEPP 1 objection for FSR	17 Oct 2012
115 Albion Street	D/2008/173 – Alts & adds incl newfirst floor to rear	14 Oct 2008
2 Ferris Street	D/2007/285 – Attic room to existing roof with dormer & balcony	4 Jan 2008
6A Ferris Street	D/2012/561 – Alts & adds to existing dwelling incl deck	12 Apr 2013
10 Ferris Street	D/2005/5 — Alts & adds to ground and first floor incl ground floor rear deck, new roof and front fence D/2006/72 — Construct new two storey dwelling behind existing facade	4 Aug 2005 22 May 2006
7 Clarke Street	D/2013/289 – Alts & adds to rear of existing dwelling	2 Dec 2013
54 Ferris Street	D/2005/207 − Alts & adds to an existing dwelling incl new first floor and new carport at rear	27 Sept 2006
56 Ferris Street	D/2004/235 – Alts & adds to the existing dwelling D/2012/680 – Substantial demolition, retention of front of existing dwelling and construction of ground/first floor additions to the rear with new detached garage. SEPP 1 for FSR and landscaped area	15 Jun 2005 12 Feb 2013
58 Ferris Street	D/2005/208− Alts & adds to existing dwelling incl new firstfloor and new carportto rear	27 Sept 2006
62 Ferris Street	D/2015/276− Alts & adds to existing dwelling incl new first floor level, rear deck and carport	31 Aug 2015
64A Ferris Street	D/2006/136 – New ground and first floor awning to rear	12 May 2006
74 & 76 Ferris Street	D/2015/13 – Alts & adds incl new ground and first floor	5 May 2015
26 Mayes Street	D/2010/596 – Demolition of garage, construct new double garage with studio above	19 Apr 2011
42 Mayes Street	D/2015/508 – Ground & first floor additions incl new front fence and gates	8 Dec 2015
2 Alfred Street	D/2015/49 – Alts & adds to dwelling incl 28 Jul 2015 first floor	
8 Alfred Street	D/2014/419 – Demolish part of rear wing to existing dwelling and construct new two storey addition	
10 Alfred Street	D/2004/420 – Alts & adds to rear of existing dwelling at ground and first floor and a new carport to rear of the site	
16 Alfred Street	D/2009/59 − Alts & adds incl demolition of rear and garage with new ground &	25 Jun 2009



	first floor additions		
36 Alfred Street	D/2009/466 - Construction of a new balcony accessed off existing front dormer window		
38 Alfred Street	D/2006/433 – D emolition of existing dwelling, erection of a new two storey dwelling and carport D/2012/341 – New two storey dwelling	4 Apr 2007 3 Oct 2012	
	with carport		
40 Alfred Street	D/2009/264— Construct swimming pool, extension of rear verandah and roller door to rear lane	6 Nov 2009	
52 Alfred Street	D/2006/243 – Alts & adds to existing dwelling	4 Oct 2006	
64 Alfred Street	D/2007/475 – Alts & adds incl ground and first floor additions	4 Dec 2008	
74A Alfred Street	D/2011/615 – Alts & adds incl ground and first floor addition	1 Mar 2012	
161 Booth Street	D/2006/130 — Demolition of carport, alts & adds to rear of existing dwelling incl new first floor rear balcony	1 Jun 2006	
163 Booth Street	D/2004/106 - Proposed awning & screening devices to rear deck	5 May 2004	
167 Booth Street	D/2012/567 – Alts & adds incl new first floor addition. SEPP 1 re. FSR	14 Dec 2012	
169 Booth Street	D/2013/595 – Alts & adds incl lower ground and ground floor additions with a new front fence	3 Mar 2014	
4 Arguimbau Street	D/2009/144— Alts & adds to an existing dwelling	13 O ot 2009	
8 Arguimbau Street	D/2013/472 — Alts to existing dwelling comprising new dormer window to front roof plane	25 Mar 2014	
22 Wisdom Street	D/2005/228 – D emolition of existing industrial building to allow remediation of the site for future open space D/2008/340 – C onstruction of volunteer	19 Apr 2006 11 Nov 2008	
	nursery		
25 Piper Street	D/2004/744 – Alts & adds to rear of existing dwelling incl new garage	3 Aug 2005	
11 Hudson Street	D/2005/256 – Alts & adds incl new first floor and conversion of garage to carport	11 Apr 2006	
50 Pritchard Street	D/2013/243 – Partial demolition of existing dwelling and alts & adds incl ground & first floor addition and new double garage plus pergola	26 Nov 2013	
38 Pritchard Street	D/2012/59 – Alts & adds to existing dwelling incl replace roof tiles with metal sheeting		
36 Pritchard Street	D/2014/176 – Substantial demolition of existing detached garage and construct new garage with subfloor storage space		
28 Pritchard Street	D/2005/163 – Alts & adds to existing dwelling inclinew first floor	26 Jul 2005	



26 Pritchard Street	D/2008/454— D emolition of existing garage and construction of a new garage	28 Nov 2008
51 Pritchard Street	D/2011/346 – Demolition of existing two storey rear addition and construct a new two storey rear addition with first floor balcony and associated ground floor terrace	26 Aug 2011
53 Pritchard Street	D/2014/224— Alts & adds incl new decks and swimming pool to the rear	14 Oct 2014
59 Pritchard Street	D/2014/330 – Alts & adds to existing dwelling incl two storey rear extension	1 Oct 2014
56 Railway Parade	D/2008/127 – Adds to front verandah incl newstairs D/2015/247 – Alts to existing dwelling incl extens ion to rear of dwelling, outdoor therapy pool and dis abled access from Railway Parade	2 Jun 2008 5 Aug 2015
58 Railway Parade	D/2012/547 – Alts & adds to existing dwelling at ground and first floor	6 Feb 2013



ITEM 3.2 LEICHHARDT ADAPTING TO URBAN HEAT ISLAND REPORT

Division	Environment and Community Management		
_Author	Team Leader Environmental Strategy		
Meeting date	8 March 2016 Policy Meeting		
Strategic Plan Key Service Area	Community well-being Accessibility Place where we live and work A sustainable environment Business in the community Sustainable services and assets		
SUMMARY AND	ORGANISATIONAL IMPLICATIONS		
Purpose of Report	To report to Council on the outcomes of the Adapting to Urban Heat: Leichhardt Municipal Council research report, prepared for Leichhardt Council by the Institute for Sustainable Futures, University of Technology, Sydney and to outline and recommend existing and proposed Council responses to address the research recommendations.		
Background	NIL		
Current Status	The Adapting to Urban Heat: Leichhardt Municipal Council report is complete and attached to this report.		
Relationship to existing policy	Environmental Sustainability Plan Objective 3: Address, adapt and build resilience to climate change.		
Financial and Resources Implications	Nil additional		
Recommendation	 As per the adopted Leichhardt Environmental Sustainability Plan, implement Actions: 1.1.1 (2017/18) Review and update Leichhardt's Development Control Plan (DCP) to further enable sustainable, connected and walkable neighbourhoods; access to green open space; clean air, soil and water; a safe, attractive and comfortable environment; and climate responsive urban design. 1.1.3 Develop ecologically sustainable design guidelines for parks and civic spaces, including how to address heat island effects 2017-18 (\$33,000), 2018/19 (\$30,000). 		



- 4.1.4 Review and update the Leichhardt Council Urban Forest Strategy and incorporate information from Council's urban heat island mapping, canopy cover and adaptive capacity assessments to help inform and prioritise locations and species for planting (2017/18). In addition conduct an analysis of tree canopy cover and set a tree canopy cover target for Leichhardt LGA as part of this project.
- 4.3.1: On an annual basis, identify new or renewed local council infrastructure (i.e. roads, drainage, car parks, buildings) for design from a water sensitive urban design (WSUD) perspective to progressively retrofit the urban landscape with water sensitive urban design thereby promoting urban cooling.
- 2. Present Leichhardt Adapting to Urban Heat Island Report outcomes and recommendations to relevant Council staff to increase their understanding of Urban Heat and how planning, urban design, community services, parks, tree management, WH&S and education staff can contribute to mitigating urban heat and community risk.
- 3. Incorporate recommendations and design principles to reduce urban heat within the upcoming *Functional Road Hierarchy Plan* and Neighbourhood Movement Plans.
- 4. Council active transport capital works projects (e.g. traffic calming, pedestrian and cycling) to consider and incorporate urban heat island mitigation (e.g. consideration of materials, shade, water sensitive urban design, and green infrastructure).
- 5. Consider urban heat island mitigation strategies at major traffic intersections at the time of upgrading or undertaking maintenance works and recommend the same to NSW RMS.
- 6. Consider urban heat island mitigation strategies in the development of policies related to laneway activation.



	7. Prepare and publicise information regarding preventing urban heat and how to reduce exposure to it on Council's website, Council enews, in social media, to schools, community centres, community service organisations and to home maintenance and modification service (HMMS) clients.
	8. That Council write to SSROC requesting that correspondence be sent to the NSW Minister for the Environment and Ausgrid urging that Ausgrid and network owners commence a long-term program of converting powerlines in existing streets to Aerial Bundle Cables or underground powerlines to allow for greater street tree canopy cover to mitigate urban heat.
	9. Write to the Department of Health and the NSW Family and Community Services informing them of the outcomes and recommendations of the Leichhardt Adapting to Urban Heat Report.
Notifications	NIL
Attachments	Adapting to Urban Heat: Leichhardt Municipal Council



Purpose of Report

To report to Council on the outcomes of the Adapting to Urban Heat: Leichhardt Municipal Council research report, prepared for Leichhardt Council by the Institute for Sustainable Futures, University of Technology, Sydney and to outline and recommend existing and proposed Council responses to address the research recommendations.

Recommendation

- 1. As per the adopted Leichhardt Environmental Sustainability Plan, implement Actions:
 - 1.1.1 (2017/18) Review and update Leichhardt's Development Control Plan (DCP) to further enable sustainable, connected and walkable neighbourhoods; access to green open space; clean air, soil and water; a safe, attractive and comfortable environment; and climate responsive urban design.
 - 1.1.3 Develop ecologically sustainable design guidelines for parks and civic spaces, including how to address heat island effects 2017-18 (\$33,000), 2018/19 (\$30,000).
 - 4.1.4 Review and update the Leichhardt Council Urban Forest Strategy and incorporate information from Council's urban heat island mapping, canopy cover and adaptive capacity assessments to help inform and prioritise locations and species for planting (2017/18). In addition conduct an analysis of tree canopy cover and set a tree canopy cover target for Leichhardt LGA as part of this project.
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- 2. Present Leichhardt Adapting to Urban Heat Island Report outcomes and recommendations to relevant Council staff to increase their understanding of Urban Heat and how planning, urban design, community services, parks, tree management, WH&S and education staff can contribute to mitigating urban heat and community risk.
- 3. Incorporate recommendations and design principles to reduce urban heat within the upcoming *Functional Road Hierarchy Plan* and Neighbourhood Movement Plans.
- 4. Council active transport capital works projects (e.g. traffic calming, pedestrian and cycling) to consider and incorporate urban heat island mitigation (e.g. consideration of materials, shade, water sensitive urban design, and green infrastructure).



- 5. Consider urban heat island mitigation strategies at major traffic intersections at the time of upgrading or undertaking maintenance works and recommend the same to NSW RMS.
- 6. Consider urban heat island mitigation strategies in the development of policies related to laneway activation.
- 7. Prepare and publicise information regarding preventing urban heat and how to reduce exposure to it on Council's website, Council e-news, in social media, to schools, community centres, community service organisations and to home maintenance and modification service (HMMS) clients.
- 8. That Council write to SSROC requesting that correspondence be sent to the NSW Minister for the Environment and Ausgrid urging that Ausgrid and network owners commence a long-term program of converting powerlines in existing streets to Aerial Bundle Cables or underground powerlines to allow for greater street tree canopy cover to mitigate urban heat.
- 9. Write to the Department of Health and the NSW Family and Community Services informing them of the outcomes and recommendations of the Leichhardt Adapting to Urban Heat Report.

Background

At the 14 July 2015 Policy Council Meeting the following was resolved:

(C314/15P) 4. That Council notes numerous references to the Urban Heat Island Effect in the draft Environmental Sustainability Plan 2015-2025, for example Action 1.1.3 "Develop ecologically sustainable design guidelines for parks and civic spaces, including how to address heat island effects", and notes the ongoing work by Council in conjunction with UTS on how the LGA can be further adapted to respond to urban heat island effects.

That future reports to Council in regards to the UTS Project and the outcomes of the research currently underway, address the following points in relation to reducing urban heat island effects:

- opportunities for improving Leichhardt Council public works design and delivery for example child care centres and nature strips,
- opportunities for amending our DCP in relation to private development, for example encourage use of more appropriate materials,
- opportunities for reviewing our vegetation controls, for example the selection of more appropriate street trees and landscape treatments
- opportunities for reviewing our social policy, for example our healthy ageing strategy,
- opportunities for expanding the scope of investigations to other areas of the municipality and the need for additional funds to progress Urban Heat Island Investigations, funds which could be identified at a subsequent Quarterly Budget Review.



Report

Urban heat poses a serious risk to the health and wellbeing of Sydney communities. The increased hazard posed by heat is due to two distinct causes;

- 1. An increase in the number and intensity of heat waves (climate change)
- 2. The Urban Heat Island (UHI) effect.

In Australia heat waves cause more deaths than any other natural disaster. With the number of days above 35°C projected to increase, the number of heat wave-related deaths in Sydney is projected to grow.

While increases in the frequency and intensity of heat waves are due to a changing climate, the Urban Heat Island Effect is due to landscape modification and vegetation removal, which occur independently of climate change.

Social groups including the elderly, infants, the socially disadvantaged and the chronically ill are particularly vulnerable to the health risks associated with urban heat. For these groups, escaping the heat may be difficult due to financial constraints, reduced mobility, medical problems, and physical and/or psychological limitations.

Heat risks in Leichhardt are further intensified by the presence of Urban Heat Islands (UHI), which can increase already extreme temperatures. Section 2.1 of the attached report provides a comprehensive overview of how UHI's develop and is summarized within this report below.

Urban Heat Islands (UHI)

Air mostly heats up from being close to surfaces that are hot, not directly from the sun. When the energy from the sun hits a surface it can be reflected or absorbed. If it is absorbed the surface will heat up. The properties of the surface (its colour, texture, density, shininess, wetness) determine how much heat it absorbs, and therefore how much its temperature rises.

Close to the ground, air moves slowly and layers don't mix (as you move away from a surface the air layers mix more freely), so the surface heat then makes the air around it hot (which we measure as air temperature). In cities, this layer of still air (the boundary layer) is quite thick; about the height of the buildings. Cities have lots of hard surfaces and dark colours (roads, buildings, tile roofs), which get very hot in the summer sun. These surfaces then heat up the still layer of air in and around the city. It makes cities hotter than they would be otherwise and is referred to as an Urban Heat Island (UHI).

The thermal properties of roofs, pavements and other impervious land surfaces have a marked effect on urban heat through the attributes of surface properties such as their albedo values (reflection). The albedo of a material is its ability to reflect solar radiation back into the atmosphere rather than absorbing and retaining it. Materials such as asphalt, gravel, dark tiles and dark paints have low albedo values and absorb most of the solar radiation that falls on their surfaces. Materials with higher albedo values, such as white paint and highly reflective (shiny) materials reflect solar



radiation back into the atmosphere, helping to keep the urban environment cooler (Refer Figure 1: Albedo values of surface materials commonly found in urban environments (Akbari et al. 2009)

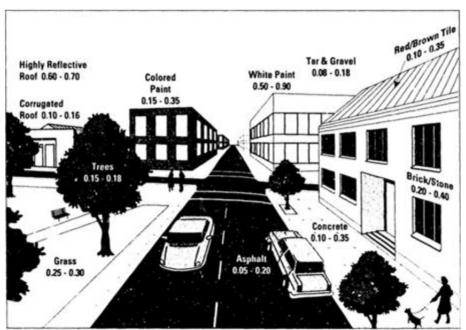


Figure 1: Albedo values of surface materials commonly found in urban environments (Akbari et al. 2009)

Evaporation from water bodies and transpiration from vegetation are natural cooling processes whereby energy from the sun turns liquid water into water vapour. Impervious surfaces such as roads, footpaths and buildings prevent rainfall from infiltrating the ground surface thereby reducing the capacity for natural evaporative cooling.

Other sources of heat in urban areas include machinery such as air conditioners (which can increase the external air temperature by 1–2°C in their immediate vicinity), stationary cars, and vehicle exhausts.

Referring to Figure 2: Map of surface temperature for Leichhardt LGA, the reason we see differences in surface temperature mapped across Leichhardt is because of the variations in the surface properties and in the amount of vegetation. If we want to cool cities down, we have to change the surface properties that drive air temperature.

Adapting to Urban Heat Research Report

The attached report - Adapting to Urban Heat: Leichhardt Municipal Council was cofunded by a Building Resilience to Climate Change grant through the Office of Environment and Heritage (OEH), the Adaptive Communities Node of the NSW Climate Adaptation Research Hub (OEH and the Institute for Sustainable Futures) and Leichhardt Council.

The aim of the research has been to identify heat islands throughout the Leichhardt LGA and make recommendations to reduce the impact of heat on current and future



populations. The information from the research will help guide the implementation of strategies and actions within the *Leichhardt Environmental Sustainability Plan 2015—2025* and other relevant Council plans and programs that address urban heat islands.

Research methodology

- 1. The location of heat islands and identification of priority areas was prepared using Landsat data provided by CSIRO matched to aerial imagery. This spatial analysis provided a heat analysis for the entire Leichhardt LGA (Refer Figure 2: Map of surface temperature for Leichhardt LGA).
- 2. The land surface composition of urban heat islands and two comparison cool sites were quantified to calculate the proportions of hard surface, grass, tree, shrub, and water using iTree canopy, a software package developed by the US Department of Agriculture Forest Service (Refer Table 1: Land surface cover and temperature ranges of sample sites).
- 3. On-ground assessments of selected residential and commercial hotspots (Refer Figure 3: iTree analysis sites. were made to confirm the land surface composition and to better understand the urban design attributes causing heat. The following heat islands were selected for the on ground assessments:
 - Commercial 1: Darling Street, Balmain and Rozelle
 - Commercial 2: Norton Street, Leichhardt
 - Residential 1: Leichhardt
 - Mixed use: Parramatta Road, Leichhardt.
- 4. Interviews with local community service providers and council staff were undertaken to explore the risks facing vulnerable groups and the strategies that service providers have adopted to cope with heat wave conditions.



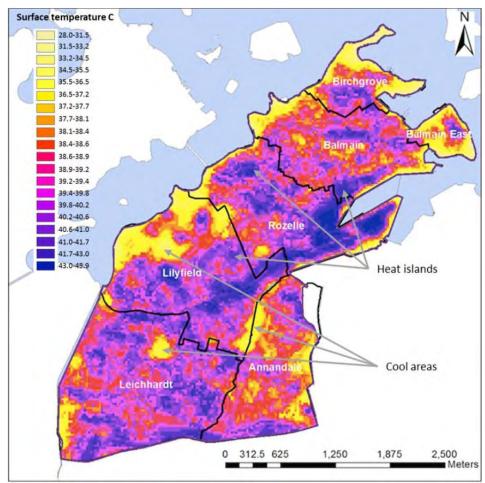


Figure 2: Map of surface temperature for Leichhardt LGA

Table 1: Land surface cover and temperature ranges of sample sites

Land surface cover (%)			Mean surface temperature					
Study Site	Hard surface	Grass	Tree	Shrub	Water	Min	Max	Mean
COOLER SITES								
Annandale East	57.3	9.3	30.3	3	0	35.9	39.4	37.6
Annandale North	62.3	4	30.3	3.3	0	36.5	40.3	37.9
HOT SPOTS								
Residential								
Leichhardt North East	75	5.3	12.7	6.6	0.3	38.8	42.0	40.1
Leichhardt North West	74.7	5.6	16.7	3	0	38.8	42.1	40.5
Leichhardt South East	71.7	8	18	2.33	0	38.8	42.1	41.0
Leichhardt South West	70	5.3	20.3	4.3	0	38.8	42.1	40.7
Commercial								
Darling St Rozelle	80.7	3	13	3.3	0	38.7	43.4	41.1
Darling St Balmain	81.3	0.3	16	2.3	0	38.8	42.6	40.7
Norton St Leichhardt	76	4	18	2	0	38.7	42.6	40.6
Parramatta Rd								
Parramatta Rd East	93	0.6	5	1	0.3	38.7	42.0	40.9
Parramatta Rd West	89	3.3	7.6	0	0	39.3	42.9	40.8



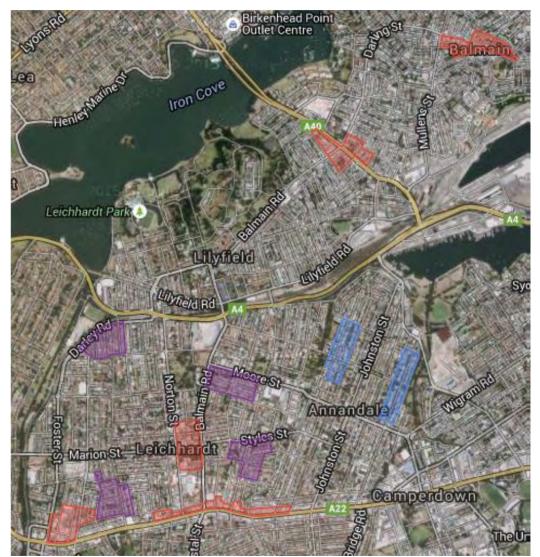


Figure 3: iTree analysis sites. The map shows the Parramatta Rd and commercial sites (orange), residential sites (purple) and cooler residential comparison sites (blue).

What did the Leichhardt Urban Heat Island Research Find?

In summary there are five main findings that emerge from the results:

- 1. Presence of heat islands in Leichhardt LGA: In common with other urban areas in Australia and globally, the Leichhardt LGA has regions where surface temperatures are much higher than ambient temperatures.
- 2. Leichhardt LGA cooler regions: There are also regions within the LGA where surface temperatures are lower than ambient temperatures but these are typically more isolated and cover less surface area than the heat islands.
- 3. Factors causing high surface temperatures: The causes of high surface temperature include most of the factors identified in previous research on urban heat. They are: low shade coverage and vegetation, low proportions of permeable surfaces, minimal water capture in the landscape, high proportions of impervious low albedo materials, and vehicles.



- 4. Features unique to Leichhardt that do not occur in Western Sydney include the patchy nature of heat islands, which is largely attributable to the diversity of land cover and mixed zoning of the LGA.
- 5. In common with other urban centres, Leichhardt LGA has a range of community groups sensitive to urban heat including the elderly, infants, the chronically ill and the socially disadvantaged.
- The ambient temperature on the day of the aerial heat mapping was approximately 31°C. The land surface temperatures on the same day ranged from 28 to 46°C. Therefore the hottest heat islands were 15°C above the ambient temperature.
- Heat islands occurred in all suburbs, and were often, but not always, closely associated with major traffic thoroughfares such as Parramatta Road, Victoria Road and Darling Street.
- The largest heat island in the LGA spanned parts of three suburbs, Balmain, Rozelle and Lilyfield, and covered the Bays Precinct extending along the City West traffic corridor.
- Not all suburbs are uniformly hot. Annual (with 30% tree cover), has fewer heat islands and a greater land area, with cooler surface temperatures than other suburbs.
- Areas close to bodies of water are generally cooler than inland areas. The harbour foreshore areas of Balmain East, Birchgrove, Balmain, Rozelle and Lilyfield were all found to be cooler than the inland parts of these suburbs.
- The influence of the harbour does not extend far inland. The presence of vegetation, in the form of foreshore parks, particularly with established shade trees, had a greater effect on surface temperature than proximity to the harbour.
- Inland areas of lower surface temperature are associated with areas of vegetation. These include parks in Leichhardt, Lilyfield and Annandale that were often linked with attempts to restore and preserve green infrastructure such as creek lines. Whites Creek Valley Park on the Annandale-Leichhardt border is one such example.

Commercial heat islands – Darling Street, Norton Street and Parramatta Road

The commercial areas of Darling Street, Norton Street and Parramatta Road were investigated to determine the factors creating heat. Higher population density in the commercial zones increases the risk of heat related illnesses by exposing greater numbers of people to heat.

The surface temperatures in Darling and Norton Streets were 13°C above the ambient temperature, reaching 42–44°C and were among the hottest in the Leichhardt LGA.



Norton and Darling Streets consist of extensive areas of hard surfaces (76–82% of land cover) comprising shop fronts, rooftops, awnings, footpaths and roads. The biggest contribution to heat in commercial zones is likely to be the high proportion of road surface. Both Darling and Norton Street allow for parking on both sides of the road, and two-way traffic, an urban design that caters for traffic flows but inadvertently also creates urban heat.

Traffic intersections in commercial areas are particularly problematic. They combine large expanses of dark road surface, wider building setbacks to ensure for driver visibility, and often busy pedestrian crossings, which increase heat exposure of pedestrians waiting to cross the roads.

Many intersections, in both residential and commercial areas throughout the LGA, were identified as heat islands. These included: Norton and Marion St, Catherine St and Parramatta Rd; Johnston and Booth St; and Darling and Roundtree St. The surface temperature at the intersection of Darling Street and Victoria Rd in Rozelle were the highest in this study.

Commercial sites were noted by the researchers to be lacking tree cover and shade. In some places, existing plant beds were found to support small hedging plants that although decorative provide limited cooling. On many buildings, awnings have been removed, exposing more of the footpath to solar radiation.

Low albedo materials such as asphalt footpaths and dark coloured buildings contribute to higher temperatures in the commercial zones. As an example, the researchers recorded the temperature of a black coloured building façade at 10.30 am at 58°C and nearby bus stop at 51°C, while the maximum ambient temperature on the day was just 27°C.



Figure 4: Intersections such as at Norton St and Marion St form heat islands because of the combination of expansive road surface, wider building setbacks and stationary vehicles.



The researchers did note areas such as a section in Norton St between Marlborough and Carlisle Street where on-street parking had been removed on one side, footpaths widened and street trees installed with shade over the road and awnings on the shopfronts resulting in a more comfortable environment for pedestrians.

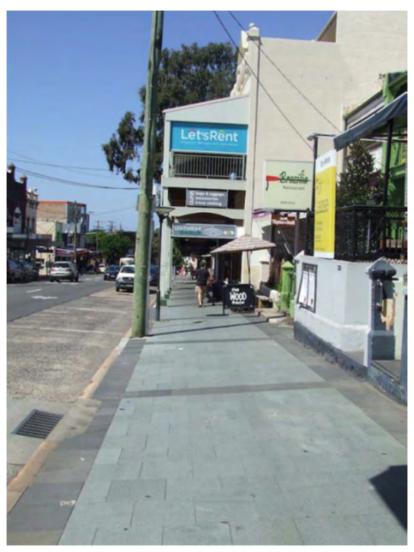


Figure 1: Streetscape in Darling Street Balmain, the high proportion of hard surfaces & low vegetation cover is contributing to heat in commercial areas

Another contributor to heat is the heavy traffic flows through commercial high streets. Exposed parked cars heat up in the sun. Slow moving and stationary cars caught in traffic or stopped at lights also give off heat from the car body and exhaust.

The Parramatta Road commercial district presents many challenges. Hard surfaces form between 89 and 93% of the land surface cover. As with all hotspots in the Leichhardt LGA, the high proportion of hard surfaces, particularly asphalt roads and low albedo ground surface materials, is intensifying local heat. In addition, the contiguous nature of the surface materials currently offers little opportunity for tree cover or rainfall capture. Behind Parramatta Road, rear lanes and exposed carparks contribute further to the issue.



Residential heat island investigation – Leichhardt (suburb)

Residential heat islands in Leichhardt were investigated to determine the factors contributing to heat. Referring to Table 1: Land surface cover and temperature ranges of sample sites, Leichhardt consists of 70-75% percent hard surface cover. Tree canopy cover ranges from 12.7-20%. In comparison Annandale which is up to 3° C cooler has 57.3-62.3% hard surfaces and approximately 30% tree canopy cover.

In Leichhardt, many property parcels are long and narrow. In some cases the house footprint extends to the front and rear property boundaries, with little outdoor space. In other cases the house footprint occupies approximately 50% of the property parcel (Refer Figure 6: Leichhardt, original housing (terracotta tiles) with large extensions (metal sheet) and highly variable amounts open green. In some streets, roofs often form extensive, almost continuous coverage on side boundaries allowing little to no space for green cover and soil moisture.



Figure 6: Leichhardt, original housing (terracotta tiles) with large extensions (metal sheet) and highly variable amounts open green

Many Leichhardt properties have rear laneways. These typically contain little to no vegetation and are sealed with asphalt which heats up in the sun and diverts rain to the drainage system rather than allowing water to be retained in the environment.





Figure 7: Typical residential rear lane showing high proportion of hard surfaces and rear garages

The majority of houses with rear lane access were found to have added garages to the rear of the property, further reducing space for vegetation by between 25-30%. Conversely households without off-street parking were found to be more likely to have adjoining vegetated areas providing an almost continuous corridor of trees and shrubs, thereby creating a cooler microclimate via shading and evapotranspiration.

In terms of the residential streetscapes, having an adequate green verge area is integral to urban cooling as it allows a grass-sward to be established to capture and retain rainwater, and provide soil, nutrients and water for shade trees that protect the road, footpath and surrounding hard surface from absorbing the sun's energy.

In hot streets, verge spaces were found to contain sparse canopy cover, either as a result of the species present and/or low planting densities. Wider streets with sparse tree canopy cover were found to be hottest as this increases the surface cover made up of asphalt. Conversely wide streets also provide an opportunity to reconfigure the street to enable an increase in the area of road envelope dedicated to vegetation where low traffic volume allows.





Figure 8: Many streets in Leichhardt present opportunities to increase green canopy cover



Figure 9: Streets with good canopy cover such as this one in Annandale are several degrees cooler



Social Analysis

A number of groups within the community have been identified as potentially being more sensitive to increasing urban heat. These groups include infants, the elderly, the socially disadvantaged and the chronically ill.

Australian Bureau of Statistics Census data freely available on Council's website (community profile) provides spatial information regarding the proportions of the population within a neighbourhood that may be more vulnerable to heat. An understanding of the intersection of areas of high heat and vulnerable community members can assist Council to prioritise urban heat island mitigation measures.

As an example, Figure 10: Co-location of above average temperature and greater disadvantage (shown as hatched line) below shows areas within the LGA that have higher temperatures co-located with a lower than average SEIFA index score (seen as a hatched black line).

The SEIFA Index of Disadvantage measures the relative level of socio-economic disadvantage of an area based on a range of census characteristics. Low scores on the index occur when the area has many low income families and people with little training and in unskilled occupations. Of the LGA's suburbs, Birchgrove has the highest SEIFA Index (less disadvantage) and Lilyfield has the lowest (greater disadvantage).

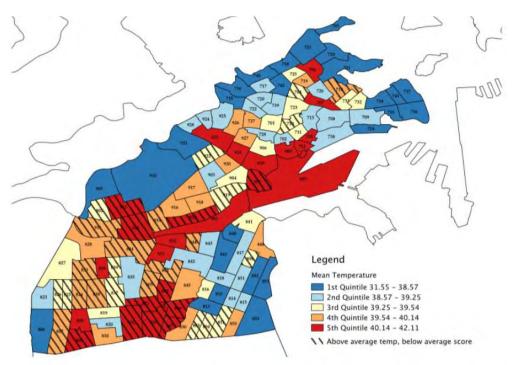


Figure 10: Co-location of above average temperature and greater disadvantage (shown as hatched line)

This type of analysis (co-locating heat and vulnerability) can be replicated for other vulnerable groups such as the elderly, infants or less mobile using Council's GIS system to assist with prioritising heat mitigation activities.



Leichhardt Adapting to Urban Heat Report Recommendations:

In summary the report authors have recommended the following to Leichhardt Council for consideration to mitigate urban heat and reduce risks to the community:

For public spaces:

- 1. Make tree planting and shade cover a priority in urban design, planning and redevelopment.
- 2. Modify the properties of surfaces such as footpaths, paved areas and rear lanes to increase albedo and permeability/surface evaporation.
- 3. Where possible, reconfigure on-street parking to reclaim a portion of the road surface for vegetation.
- 4. Explore opportunities to modify intersections to reduce their contribution to localised heat islands.

For private spaces:

- 5. Aim to educate the general public on the causes and risks of urban heat, and the importance of individual, neighbourhood and community action.
- 6. Develop planning and development guidelines for urban heat.
- 7. Identify barriers and opportunities for heat adaptation.
- 8. Seek opportunities to implement adaptation actions that are innovative and iconic.

In addition, planning and effectiveness of public and private urban heat strategies would also benefit from the following actions within council:

- Consider urban heat mitigation in mainstream policy and planning.
- Set targets for increased canopy cover and decreased sealed surface cover.
- Facilitate urban cooling through Water Sensitive Urban Design (WSUD).
- Develop a diverse list of tree species suitable for urban heat reduction strategies.
- Develop a list of high albedo materials for new and existing building developments.
- Investigate the health and lifecycle stage for existing tree cover.
- Develop an inventory and geo-locate large mature trees in the LGA to maximise existing cooling in the landscape and protect large remnant trees on public and private lands.



For community service organisations:

- 1. Home visits: Include questions about temperature in the home risk assessment for infants. The evaluation could cover the presence or absence of fans, air conditioning and screens on windows.
- 2. Health clinics: Introduce a new standard that all buildings that house health clinics (such as nursing mothers' clinics) are air conditioned or adequately ventilated and insulated to deal with the heat and the cold. Undertake an audit to determine what is necessary for clinics to meet this standard.
- 3. Extreme heat warnings: Family and Community services could be included in the Dept. of Health warning broadcasts or have a similar warning system of its own.
- 4. Information about suitable venues for community activities during heat: Develop a centralised list of venues that community service providers can book that are better matched to the weather (such as air conditioned halls).
- 5. The two libraries that are located within the Leichhardt LGA are air conditioned. These sites could be promoted as heat wave refuges for vulnerable groups such as mothers with young children.
- 6. Fact sheet or checklist for clients: to raise awareness of the impact of heat and generic strategies to cope. For example, tips on ventilation and passive cooling to minimise the impacts of heat could be distributed via community service organisations to their clients. Such information could be displayed on the household refrigerator for ease of access.
- 7. Develop a list home maintenance jobs that can alleviate impacts of heat such as window repairs so that clients can open windows for ventilation, or planting shade trees or installing blinds on the western side of a building to reduce sun exposure.



Responding to Council resolution C314/15P

At the 14 July 2015 Policy Council Meeting the following was resolved:

(C314/15P) 4. That future reports to Council in regards to the UTS Project and the outcomes of the research currently underway, address the following points in relation to reducing urban heat island effects:

- opportunities for improving Leichhardt Council public works design and delivery for example child care centres and nature strips
- opportunities for amending our DCP in relation to private development, for example encourage use of more appropriate materials,
- opportunities for reviewing our vegetation controls, for example the selection of more appropriate street trees and landscape treatments
- opportunities for reviewing our social policy, for example our healthy ageing strategy
- opportunities for expanding the scope of investigations to other areas of the municipality and the need for additional funds to progress Urban Heat Island investigations, funds which could be identified at a subsequent Quarterly Budget Review

Opportunities for improving Leichhardt Council public works design and delivery – for example child care centres and nature strips

Adapting to Urban Heat Report Recommendation	Adapting to Urban Heat Report Comments	Proposed Council Response
Make tree planting and shade cover a priority in urban design, planning and redevelopment.	Shading urban areas with sufficient canopy cover is the most effective way to cool the urban environment. The effectiveness is maximised when water is able to permeate the ground cover rather than being lost to storm water runoff to enable natural evaporative cooling processes to occur via soil and plants	Environmental Sustainability Plan Action 1.1.3 Develop ecologically sustainable design guidelines for parks and civic spaces, including how to address heat island effects is programmed for 2017-18 (\$33,000) and 2018/19 (\$30,000) and will incorporate the findings and recommendations of the Adapting to Urban Heat Report.
		Environmental Sustainability Plan Action 4.1.4 Review and update the Leichhardt Council Urban Forest Strategy and incorporate information from



		 Council's urban heat island mapping, canopy cover and adaptive capacity assessments to help inform and prioritise locations and species for planting is programmed to commence in 2017-18 and will incorporate the recommendations of the Adapting to Urban Heat Report. Copies of the Urban Heat Island Report and a presentation to be given to relevant staff outlining research outcomes and recommended actions. Leichhardt Urban Heat Island Mapping to assist with prioritising locations for annual street tree planting program.
II. Modify the properties of surfaces such as footpaths, paved areas and rear lanes to increase albedo and permeability/surface evaporation.	Dark, low albedo materials are commonly used to form the roads and footpaths throughout the Leichhardt LGA. They also seal surfaces meaning water is lost to storm water rather than infiltrating the ground surface. This reduces natural evaporative cooling processes via soil and plants.	Environmental Sustainability Plan Action 4.3.1 On an annual basis, identify new or renewed local council infrastructure (i.e. roads, drainage, car parks, buildings) for design from a water sensitive urban design (WSUD) perspective is an annual action that will progressively retrofit the urban landscape with water sensitive urban design to increase permeability, retain more water within the landscape and promote evaporative cooling.
		Council engineers and environment staff are currently (2015/16) working with a leading WSUD consultancy to develop a decision support tool and standard designs to enable WSUD to be rolled out progressively across the LGA within Council capital works projects.
		Environmental Sustainability Plan Action 1.1.3 Develop ecologically sustainable design guidelines for parks and civic spaces, including how to address heat island effects is programmed to commence in 2017-18 and will



		address the use of high albedo materials and green infrastructure. Research and provide Council engineers with latest information on cooler pavements and materials for capital works.
III. Where possible, reconfigure on-street parking to reclaim a portion of the road surface for vegetation.	In some residential parts of Leichhardt, wide streets support lower local traffic volumes. A number of potential configurations could be considered to increase the area of road envelope dedicated to green cover.	 Council's Integrated Transport Plan includes Action 6.2 Revise Council's existing functional road hierarchy to reflect Council's current safety and environmental goals and world's best practice in street space allocation including consideration of a functional road hierarchy that is based on the amount of time a user spends in the street (eg. pedestrians spend longer than cyclists who spend longer than drivers). This action is programmed to commence in 2016 and will consider relevant outcomes and recommendations from the Adapting to Urban Heat Report. Traffic calming, pedestrian and cycling facilities and active transport projects to consider and incorporate urban cooling opportunities (e.g. materials, shade, water sensitive urban design, green infrastructure). Incorporate urban heat island mitigation strategies and principles into all upcoming Neighbourhood Movement Plans
IV. Explore opportunities to modify intersections to reduce their contribution to localised heat islands.	Many of the most problematic intersections are not under the control of Leichhardt Council and would require negotiation with NSW RMS.	Consider and incorporate urban cooling opportunities at the time of road restoration, maintenance or upgrades of major intersections and make recommendations to NSW RMS for the same.



V. Seek opportunities to implement adaptation action that is innovative and iconic	Author suggests iconic, high profile approaches to urban heat mitigation to promote the issue and action.	Urban heat island mitigation strategies shall be considered in the development of policies related to laneway activation.
The research report identified four potential opportunities:		 Greening Market Town Carpark is considered a low priority as Council does not own this carpark, Council leading by example and promoting its own urban heat island reduction projects in the 1st instance is the preferred strategy. Investigations are currently underway to develop an active schools study that would address improving conditions for active transport to school. Preferred routes could then be marked and adequate shade cover provided.

Opportunities for amending our DCP in relation to private development, for example encourage use of more appropriate materials,

Adapting to Urban Heat Report Recommendation		Adapting to Urban Heat Report Comments	Proposed Council Response
I.	Develop planning and development guidelines for urban heat.	Requiring new builds and renovations to implement a combination of heat mitigation actions would reduce the risk of local heat	The Leichhardt Environmental Sustainability Plan includes Action 1.1.1 Review and update Leichhardt's Development Control Plan (DCP)
II.	Develop a list of high albedo materials for new and existing building developments.	islands over time. Strategies will need to be underpinned by a sound understanding of the barriers and	to further enable sustainable, connected and walkable neighbourhoods; access to green open space; clean air, soil and water; a safe, attractive and comfortable environment; and
III.	Identify barriers and opportunities for heat adaptation	opportunities for private green infrastructure.	climate responsive urban design and will cover off on these Urban Heat Island Report recommendations.



Opportunities for reviewing our vegetation controls, for example the selection of more appropriate street trees and landscape treatments

Adapting to Urban Heat Report Recommendation	Adapting to Urban Heat Report Comments	Proposed Council Response
Develop a diverse list of tree species suitable for urban heat reduction strategies. In the species of tree species suitable for urban heat reduction strategies.	Existing research and guidelines provides information regarding features of trees that are suited for Urban Heat Island mitigation.	 Environmental Sustainability Plan Action 4.1.4 Review and update the Leichhardt Council Urban Forest Strategy and incorporate information from Council's urban heat island mapping, canopy cover and adaptive capacity assessments to help inform and prioritise locations and species for planting, is programmed to commence in 2017/18 and will include tree species and green cover strategies suitable for urban heat island mitigation and prevention. Environmental Sustainability Plan Action 4.1.5 Develop a list of plant species suitable for residential lots to be incorporated in the DCP is programmed to commence in 2015/16 and will incorporate species and advice for urban heat island mitigation using plants.
II. Investigate the health and lifecycle stage for existing tree cover.	Ensuring a range of tree ages is important for maintaining canopy cover so that younger trees are ready to replace older trees.	This is part of usual maintenance practices within Council's cyclic tree management program and will be addressed within the development of the Leichhardt Urban Forest Strategy.
III. Develop an inventory of large mature trees to protect, track and maximise existing cooling in the landscape.	Protecting and maintaining the existing tree cover is an objective of urban forest management.	Council has a significant tree register covering mature trees on Council owned property. Leichhardt LEP has heritage/significant trees listed.
IV. Protect large remnant trees on public and private lands.	Protecting and maintaining the existing tree cover is an objective of urban forest management.	This recommendation is covered via enforcement of the Leichhardt Council Tree Preservation Order and Urban Forest Policy



Opportunities for reviewing our social policy, for example our healthy ageing strategy

Adapting to Urban Heat Report Recommendation	Adapting to Urban Heat Report Comments	Proposed Council Response
Home visits: include questions about temperature in the home risk assessment for infants.	The evaluation could cover the presence or absence of fans, air conditioning and screens on windows.	 Council's home maintenance and modification services (HMMS) team provide services primarily for the elderly and people with physical disabilities. They currently undertake a risk assessment before starting any work and call for assistance if they find a client in distress, including being affected by heat. The home maintenance providers also provide informal advice to clients about heat. The HMMS team includes a carpenter and gardener who can make repairs, plant trees and clean ceiling fans to help alleviate heat in the home.
II. Health clinics: introduce a new standard that all buildings that house health clinics (such as nursing mothers' clinics) are air conditioned or adequately ventilated and insulated to deal with the heat and the cold.		 This recommendation will be considered in reviews of Council's planning instruments for urban heat island mitigation as detailed previously in the report.
III. Extreme heat warnings: Family and Community services could be included in the DOH health warnings broadcasts or have a similar warning system of its own.	Service providers that fall under the Department of Health jurisdiction receive a NSW Health broadcast in the event of extreme heat. These broadcasts are a key source of information for many community service providers, and they act as a trigger to communicate warnings to staff. Community services that fall under the management of NSW Family and Community Services do not currently receive the NSW Health broadcasts.	A letter will be sent to the Department of Health and the NSW Family and Community Services informing them of the outcomes of the study and that there is a gap in broadcasting heat warnings to the public.
IV. Information about suitable venues for community activities during heat: Develop a centralised list of venues that community service providers can book that are better matched to the weather	The two libraries that are located within the Leichhardt LGA are air conditioned. These sites could be promoted as heat wave refuges for vulnerable groups such as mothers with young children.	Clients who utilise the HMMS will be informed of the libraries as refuges from extreme heat. Council's free community bus will be suggested as a means of transportation to the libraries and other



	(such as air conditioned halls). Provide them with suggested activities for hot days that are inexpensive.		 Information regarding the causes of urban heat, urban heat island mitigation, and how to reduce exposure to be placed on Council's website, eNews, social media and sent to schools and community centres. As part of this the libraries can be promoted as a refuge to avoid heat distress, as well as promoting the community bus as a means of transportation.
V.	Fact sheet or checklist for clients: to raise awareness of the impact of heat and generic strategies to cope.	For example, tips on ventilation and passive cooling to minimise the impacts of heat could be distributed via community service organisations to their clients. Such information could be displayed on the household refrigerator for ease of access.	 Information regarding the causes of urban heat, urban heat island mitigation, and how to reduce exposure to be placed on Council's website, eNews, social media and sent to schools and community centres. A checklist will be compiled for the HMMS team to use during home visits and passed on to their clients for information.
VI.	Develop a list of home maintenance jobs that can alleviate impacts of heat such as window repairs so that clients can open windows for ventilation, or planting shade trees or installing blinds on the western side of a building to reduce sun exposure.		Information will be added to Council's website under a separate urban heat section and distributed as in the above recommendation.



Opportunities for expanding the scope of investigations to other areas of the municipality and the need for additional funds to progress Urban Heat Island Investigations, funds which could be identified at a subsequent Quarterly Budget Review

Adapting to Urban Heat Report Recommendation	Adapting to Urban Heat Report Comments	Proposed Council Response
Not recommended	N/A	The research has identified heat islands throughout the Leichhardt LGA and has made recommendations to reduce the impact of heat on current and future populations. It is considered that the research contained enough representative sites across the LGA to extend the findings and recommendations to the remainder of the municipality. Expanding the scope of investigations to other parts of the municipality would result in the same findings as to the causes of high heat.

Other UTS Recommendations

Adapting to Urban Heat Report Recommendation	Adapting to Urban Heat Report Comments	Proposed Council Response
Aim to educate the general public on the causes and risks of urban heat, and the importance of individual, neighbourhood and community action. Consider urban heat mitigation in mainstream policy and planning	As the frequency of heat waves is predicted to increase, access to information about reducing exposure to urban heat increases in importance	Information regarding the causes of urban heat, urban heat island mitigation, and how to reduce exposure to be placed on Council website, Council e-news, social media, to schools and community centres. Leichhardt Environmental Sustainability Plan objectives, strategies and actions are being integrated across corporate documents including the Delivery Plan, Operational Plan and reflected in individual work plans via Council's Integrated Planning and Reporting Framework.
Set targets for increased canopy cover and decreased sealed surface cover.	Targets help drive change towards a goal	American Forests, a branch of the United States Department of Agriculture – USDA has identified canopy cover targets by land use type. They have recommended for our climatic zone: • 15% central business districts and industrial areas.



- 25% urban residential and light commercial areas.
- 50% suburban residential areas.

Both City of Sydney and North Sydney Councils have conducted an assessment of tree canopy cover by CBD, urban and suburban land types and have set an overall target using the above assessment methodology.

City of Sydney

- Existing canopy cover: 15.5%.
- Targets: 23.25% by 2030, 27.13% by 2050.

North Sydney Council

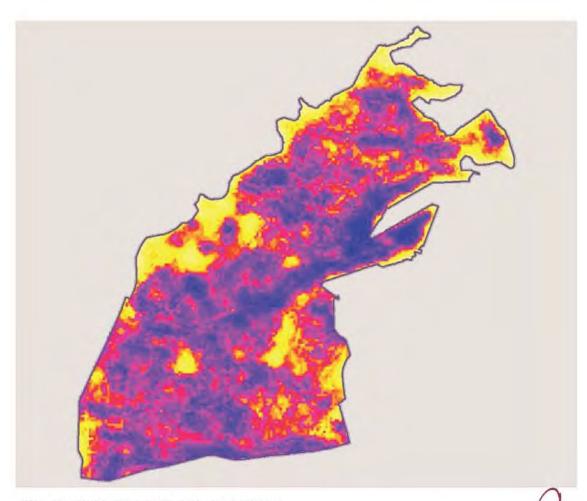
- Existing canopy cover 34%
- Target 35.5%

It is recommended that Leichhardt Council conduct a similar exercise and set its own canopy cover target for the LGA. Setting a target for reduced sealed surface cover may be difficult to measure and is currently not recommended.

Attachments

1. Adapting to Urban Heat: Leichhardt Council





UTS: INSTITUTE FOR SUSTAINABLE FUTURES

ADAPTING TO URBAN HEAT: LEICHHARDT MUNICIPAL COUNCIL



2015





ABOUT THE AUTHORS

The Institute for Sustainable Futures (ISF) was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research and consultancy. Our mission is to create change toward sustainable futures that protect and enhance the environment, human wellbeing and social equity. We seek to adopt an interdisciplinary approach to our work and engage our partner organisations in a collaborative process that emphasises strategic decision-making.

For further information visit: www.isf.uts.edu.au

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EXECUTIVE SUMMARY

Why should Leichhardt Municipal Council prioritise urban heat?

Urban heat poses a serious risk to the health and wellbeing of Sydney communities and compromises the liveability of the Leichhardt region. The increased hazard posed by heat is due to two distinct causes: an increase in the number and intensity of heat waves, and the urban heat island (UHI) effect.

In Australia heat waves cause more deaths than any other natural disaster (Steffen et al. 2015). With the number of days above 35°C projected to increase (AdaptNSW 2015), and with projected increases in population, the number of heat wave-related deaths in Sydney is projected to grow.

Heat risks in Leichhardt are further intensified by the presence of UHIs, which can increase already extreme temperatures. The concentration of heat in urban areas is a direct consequence of vegetation clearing to make way for urban expansion. The shade and evaporation provided by trees are natural cooling processes and their removal from our urban landscapes causes heating of the land surface under exposure to solar radiation. Impervious surfaces such as roads, footpaths and buildings have replaced urban vegetation. These surfaces absorb heat and prevent rainfall from infiltrating the ground surface and contributing to evaporative cooling.

While increase in the frequency and intensity of heat waves are due to a changing climate, the UHI effect is due to landscape modification and vegetation removal, which are occurring independently of climate change.

Social groups including the elderly, infants, the socially disadvantaged and the chronically ill are particularly vulnerable to the health risks associated with urban heat. For these groups, escaping the heat may be difficult due to financial constraints, reduced mobility, medical problems, and physical and/or psychological limitations.

What was the purpose of this study?

Leichhardt Municipal Council (LMC) is taking a proactive approach to mitigating and adapting to urban heat in its local government area. By undertaking this independent research, LMC is developing a robust evidence base to establish processes that target priority hotspots and implement effective heat mitigation strategies where they are most needed.

The aim of this study is to identify existing heat islands throughout the Leichhardt LGA and provide recommended strategies to reduce the impact of heat on current and future populations. The findings from this study will help inform the implementation of actions within the Leichhardt Environmental Sustainability Plan 2015–2025 that address urban heat.

How did we conduct this study?

As a trans-disciplinary study, this research drew on a variety of data sources. The location of existing heat islands and identification of priority areas was done using Landsat data provided by CSIRO matched to aerial imagery provided by Jacobs and Google Earth. This spatial analysis provided a heat analysis for the entire Leichhardt LGA and highlighted regions of high vulnerability.





To understand the biophysical environment, the land surface composition of urban heat islands were quantified to gauge the proportions of tree cover, sealed surfaces, and permeable ground surface using iTree canopy, a software package developed by the US Department of Agriculture Forest Service. The results of this analysis were then 'ground-truthed' through on-site assessment of the residential and commercial hotspots to confirm the land cover proportions and to better understand the urban design that may be driving urban heat.

Semi-structured interviews with local community service providers and council staff were also undertaken to explore the risks facing vulnerable groups in residential areas and the strategies that service providers have adopted to cope with heat wave conditions.

LMC selected the following sites for this three-part assessment:

- Commercial: Darling Street, Balmain and Rozelle
- Commercial 2: Norton Street, Leichhardt
- · Residential 1: Leichhardt North
- . Mixed use: Parramatta Road, Leichhardt.

What did the study find?

There are five main findings that emerge from the results:

- Presence of heat islands in Leichhardt LGA: In common with other urban areas in Australia
 and globally, Leichhardt LGA has regions where surface temperatures are much higher than
 ambient temperatures.
- Leichhardt LGA cooler regions: There are also regions within the LGA where surface temperatures are lower than ambient temperatures but these are typically more isolated and cover less surface area that the heat islands.
- Factors causing high surface temperatures: The causes of high surface temperature include
 most of the factors identified in previous research on urban heat. They are: low shade
 coverage and vegetation, low proportions of permeable surfaces, minimal water capture in the
 landscape, high proportions of impervious low albedo materials, and high anthropogenic
 (exhaust) heat.
- Features unique to inner western Sydney that do not occur in Western Sydney include the
 patchy nature of heat islands, which is largely attributable to the diversity of land cover and
 mixed zoning of the LGA.
- In common with other urban centres, Leichhardt LGA has a range of community groups sensitive to urban heat including the elderly, infants, the chronically ill and the socially disadvantaged.

Heterogeneity of surface temperatures

The most striking feature of the LGA-scale surface temperature map is the high degree of spatial heterogeneity of surface temperature, which is visible as a mosaic of colour across the LGA.

The ambient temperature on the day of the aerial heat mapping used in the current study was approximately 31°C. The land surface temperatures on the same day ranged from 28 to 46°C. Not all suburbs are uniformly hot. Annandale, for example, had fewer heat islands and a greater land area





with cooler surface temperatures than other suburbs. Areas close to bodies of water are generally cooler than inland areas. The harbour foreshore areas of Balmain East, Birchgrove, Balmain, Rozelle and Lilyfield are cooler than inland parts of these suburbs. However, the influence of the shoreline appeared not to extend far inland. Rather, the presence of vegetation, in the form of foreshore parks, particularly with established shade trees, had a greater effect on surface temperature than proximity to the harbour.

The heat patterns across the LGA also show high levels of local variation, both at the neighbourhood and suburb scale, with a large number of microclimates that range from cool to very hot relative to ambient air temperature. These temperature patterns reflect the heterogeneity of land use and variations in land surface characteristics across private, commercial and public spaces (Badcock 1973). Such patterns typify the older established areas in Sydney's inner west and are markedly different from the larger heat islands found in Western Sydney that result from more uniform land surface cover (Jacobs and Delaney 2015). Despite the patchy nature of the surface temperature patterns in the LGA, the heat maps show a much greater proportion of land surface at the upper end of the temperature spectrum. Multiple, diverse factors are responsible for the generation of high surface temperatures in Leichhardt LGA. However, heat islands are always associated with areas of land surface that have been significantly modified from their natural state, including:

- width of streets
- · the presence and use of verges and/or footpaths
- established tree canopy.

Residential Heat Islands

Despite recent significant changes in community demographics, the original housing in the LGA largely remains. However, these predominantly single story, detached, brick properties have undergone transformations over the last 150 years, with the LGA reflecting a range of styles and eras of building design. In some cases this includes demolition and rebuilding. Most residents have made modifications to materials, house footprint and garden space to suit contemporary lifestyles which has made the housing stock in Leichardt an eclectic mix of urban designs (Pinnegar et al. 2010). Consistently limited front set-backs and narrow blocks ensure an almost continuous surface of interconnecting roofs and the high cost of the contemporary retrofits has been a consistent loss of already inadequate outdoor space (Searle 2003; Hall 2010). Until now though, the link between urban renewal/retrofit, surface temperature and urban heat islands has not been widely recognised. By linking surface temperature mapping to aerial imagery of land use and cover, the effect of widespread changes to the original housing stock on land surface sealing (Scalenghe & Marsan 2009) and reductions in open vegetated spaces becomes apparent.

The aerial imagery also reveals that approximately many streets in Leichhardt have laneways, which once served as access to dwellings for waste services. However, they have been repurposed to provide off-street parking for cars, which has resulted in an impediment to connected green infrastructure.

Commercial Heat Islands

Heat islands in commercial areas present some unique problems. The central commercial areas of the Leichhardt LGA are iconic hubs of pedestrian and economic activity. Landmarks in their own right, Darling Street and Norton Street attract both tourists and locals.





The surface temperatures of Darling and Norton Streets in this study reached as high as 42-44°C, which was up to 13°C above the ambient temperature. These heat islands were attributable to a number of factors including:

- extensive areas of hard surfaces
- · low levels of canopy cover
- · selection of building materials
- · anthropogenic sources of heat
- · selection of tree species.

For commercial spaces in particular, strategic, long-term parking solutions need to be devised if the urban heat generated from cars, parking and roads is to be reduced. Balancing the needs of local car owners along with pedestrian health and safety needs to be a primary focus if the heat of commercial high streets is to be mitigated.

Parramatta Road precinct

Like much of the Leichhardt LGA, the Parramatta Road precinct has a hybrid of commercial and residential zoning, creating a mix of local activity. In addition to this local zoning mix, Parramatta Road is the urban spine between the City and the West. Due to the resulting intensive traffic demands and additional commercial activity, hard surfaces form between 89 and 93% of the land surface cover. As with all hotspots in the Leichhardt LGA, the high proportion of hard surfaces, particularly asphalt roads and low albedo ground surface materials, is intensifying local heat. In addition, the contiguous nature of the surface materials currently offers no opportunity for tree cover and rainfall capture. Drawing on the urban cooling toolkit (Figure 31), small improvements can be made in three key ways: creating grass and permeable footpaths; using materials, particularly those exposed to direct sun and reconfiguring intersections. Changing surface materials and increasing vegetation cover have been discussed in previous sections.

Urban heat and social vulnerability

A number of groups within the community have been identified as potentially being more sensitive to increasing urban heat. They include: infants, the elderly, the socially disadvantaged and the chronically ill. All of these groups are represented in the population of Leichhardt.

A range of services provided by the NSW Government, Council and NGOs currently support socially disadvantaged groups. Few of the service providers indicated that they have developed specific policies to deal with the impacts of extreme heat, although they all conceded to varying extents that heat waves could become a greater problem in the future. In common with Western Sydney, the efforts of social service providers to minimise the risks posed by extreme heat ranged from informal to routine to formal/statutory. Informal and routine responses were generally incorporated into day-to-day management actions, such as switching venues or substituting indoor for outdoor activities when required to avoid heat. Services requiring home visitation often afforded opportunities for service providers to assess clients against a range of criteria related to extreme heat events, and to provide them with advice when required. Formal responses were generally associated with statutory health and safety requirements of service provider staff or food delivery services. However, until heat wave sensitivity is formally incorporated into the policies and operations of community service providers,





there is potential for it to be overlooked as a risk to health and wellbeing. At present, however, urban heat is not formally recognised by NSW Government assessment processes as a risk factor for the socially vulnerable.

For children in particular, Council's existing program of providing additional shade in playgrounds to ensure play equipment does not overheat is a sound policy, as this was raised as an issue of concern by child care providers. While schools are spaces outside of Council's control, children travelling on foot to and from school through suburban streets may be at risk of increased heat exposure. Council could consider developing designated 'walking bus routes' to and from schools that incorporate additional shade, other heat mitigating features and even child-friendly street art to engage children and encourage active transport.

What does Leichhardt Council need to do?

Based on the analyses in this report we make eight key recommendations to mitigate urban heat in Leichhardt LGA.

For public spaces:

- 1. Make tree planting and shade cover a priority in urban design, planning and redevelopment.
- Modify the properties of surfaces such as footpaths, paved areas and rear lanes to increase albedo and permeability/surface evaporation.
- Where possible, reconfigure on-street parking to reclaim a portion of the road surface for vegetation.
- Explore opportunities to modify intersections to reduce their contribution to localised heat islands.

For private spaces:

- Aim to educate the general public on the causes and risks of urban heat, and the importance of individual, neighbourhood and community action.
- 6. Develop planning and development guidelines for urban heat.
- 7. Identify barriers and opportunities for heat adaptation.
- 8. Seek opportunities to implement adaptation actions that are innovative and iconic.

Planning and effectiveness of public and private urban heat strategies would also benefit from the following actions within council:

- · Consider urban heat mitigation in mainstream policy and planning.
- Set targets for increased canopy cover and decreased sealed surface cover.
- Facilitate urban cooling through water sensitive urban design (WSUD).
- Develop a diverse list of tree species suitable for urban heat reduction strategies.
- Develop a list of high albedo materials for new and existing building developments.
- Investigate the health and lifecycle stage for existing tree cover.
- Develop an inventory and geo-locate large mature trees in the LGA to maximise existing cooling in the landscape and protect large remnant trees on public and private lands.





1 INTRODUCTION

This report presents the findings of Adapting to Urban Heat for Leichhardt Municipal Council (LMC). The research was co-funded by a Building Resilience to Climate Change grant through the Office of Environment and Heritage (OEH), the Adaptive Communities Node of the NSW Climate Adaptation Research Hub (OEH and the Institute for Sustainable Futures) and Leichhardt Municipal Council.

Like many Sydney LGAs, Leichhardt is facing increased risks related to extreme heat events. Heatwaves are becoming hotter, lasting longer and occurring more often (Steffen et al. 2015). This, combined with steady population growth, poses serious risks to local communities, particularly those made vulnerable through socioeconomic disadvantage or compromised health. Most Australians already experience heatwaves, but the trend towards more frequent and intense heatwaves (Alexander et al. 2007) is of significant concern. Over the past 100 years, heatwaves have caused more deaths than any other natural hazard (Steffen et al. 2015). By 2030, Sydney is projected to experience an average of 4 additional days above 35°C per year, which will continue to rise to 11 additional days per year by 2070 (AdaptNSW 2015). As changes to temperature extremes often result in more severe impacts than changes to average temperatures (Office of Environment and Heritage 2014) an increase in heatwaves places the Leichhardt community at heightened risk.

Heatwaves not only affect community health and wellbeing, but have far-reaching impacts on the economy and environmental health. A technical report released by Nairn and Fawcett (2013) at the Centre for Australian Weather and Climate Research states that the impacts directly or indirectly attributable to heatwaves include:

- increased human morbidity and mortality, particularly among the elderly and infirm
- · stress for outdoor workers
- increased bushfire risk
- stress on animals
- · damage to crops and vegetation
- · increased energy demands, e.g. greater demand for air conditioning
- · stress on energy supply infrastructure
- · increased demand for water, e.g. human consumption, cooling in power stations
- infrastructure stress: buildings, roads, rail and other infrastructure
- shifts in tourism preferences due to higher temperatures
- · increased risks for sporting and outdoor recreation activities.

The urban heat island effect (UHI) compounds the impacts of increasing heat events in Sydney but operates independently of changing climate. As urbanisation of the landscape concentrates heat in cities, materials of high thermal conductivity, high heat storage capacity and low albedo are typically replacing large areas of vegetation. In cities all over the world, the intensity and rapid pace of urban development is placing the social, environmental and economic benefits (ecosystem services) of green infrastructure at risk through substitution with engineered structures.

While the positive relationship between urban vegetation and cooling is well documented, the factors influencing urban climates and heat islands are diverse, and their interactions are complex (Oke 1982;





Taha 1997). Making sense of this complexity requires site-specific evaluations that directly respond to each local area's unique combination of physical characteristics.

1.1 AIM OF THE STUDY

The aim of this research is to provide LMC with an assessment of heat-affected areas in the LGA and their impacts on the community in general and vulnerable groups in particular. This assessment aims to provide actionable recommendations that reduce heat exposure for community groups through adaptation and modification of existing and planned infrastructure. These recommendations will help inform the implementation of actions identified within the Leichhardt Environmental Sustainability Plan 2015–2025 that address urban heat.

To date there has been little site-specific research underpinning extreme heat policy in Australia. Existing policy relies upon desktop reviews and broad-brush assumptions. However, it is generally accepted that actions to adapt to climate change, including extreme heat events, are best informed by an understanding of local contexts and are best co-designed with local communities (Akbari et al. 1992). In Australia there is no evidence of focused and effective implementation of measures to reduce heat risks emerging from a site-specific evidence base. By pursuing this research, LMC has taken the first and most important step to reducing heat risks for the local community. By identifying the most affected areas, the key causes and the groups most at risk, the council can plan investment that targets the greatest need.

A secondary aim of this study is to compare the physical and social characteristics of Leichhardt and Penrith LGAs. Due to climate change, heat is increasingly impacting many regions in Sydney, including Western Sydney, and the suburbs in the city's Inner West. The intensification of heat in particular areas due to the composition of physical structures and urban design, and the ways in which people inhabit the landscape, are key contributors to vulnerability to urban heat. Housing stock, the design of residential areas and commercial districts, and the availability of public spaces are markedly different in Leichardt and Penrith. These differences present an opportunity to gain insights into the causes of vulnerability, and this will inform recommendations for adaptation. By comparing the physical and social drivers in the two areas, and by recommending responses for adapting to urban heat for each of them, the research aims to provide a spectrum of learning that may be applicable and useful for a variety of urban councils.





2 URBAN HEAT

This section provides a brief overview of the factors that create and intensify urban heat islands (UHIs), and the potential impacts of UHIs on human and environmental health. The complexity and site-specific nature of urban heat islands cannot be overemphasised (Oke 1982; Taha 1997; Arnfield 2003). Decades of focused research into both the climate and the anthropogenic causes of urban heat continue to sharpen society's insights into the factors that underpin this growing phenomenon. A wealth of empirical research into urban climatology has provided many insights into key variables that create and intensify urban heat. Due to the breadth of this body of research, only a brief overview of the key climatic and anthropogenic variables will be discussed here. The intention is not to undertake a comprehensive review of the literature, but to identify the factors that need to be considered in addressing UHIs.

This chapter draws heavily on the research of the Victorian Centre for Climate Change Adaptation Research (VCCCAR) and the Heat Island Group at Lawrence Berkeley National Laboratory who have significantly contributed to the body of knowledge on urban heat.

2.1 KEY CAUSES OF URBAN HEAT

The UHI is arguably the most well documented example of anthropogenic climate modification (Arnfield 2003) yet studying UHIs remains a complex challenge. Each urban environment is unique and each site has a different combination of variables that contribute to UHIs. Variations in structural composition are what make systematic comparisons of urban landscapes difficult, as every surface has a unique combination of intrinsic properties. Any urban surface is a mosaic of different materials (roofs, walls, lawns, roads), each possessing a different energy budget (Oke 1982; Arnfield 2003) and these materials interact with each other. It is the heterogeneity of urban landscapes that increases empirical complexity and creates problems in making generalisations.

The urban canopy layer

The temperature of any surface, and of the air near to that surface, are closely related. In simplified terms, any material that is exposed to solar radiation absorbs some of the energy contained in sunlight. A suite of attributes of the material (e.g. density) and its surface (e.g. colour, texture and reflectivity) determine the amount of energy that is absorbed and stored. Energy that is absorbed causes the material to increase in temperature. This temperature rise in turn causes the layer of air (and any other material) near to the surface to also increase in temperature (known as sensible heat). The amount by which the temperature of the air increases depends on how well the layer of air near the surface mixes with cooler layers of air further away from the surface (known as turbulent mixing). The application of these principles to urban environments is best explained using a fundamental distinction in urban climatology between the Urban Canopy Layer (UCL) and the Urban Boundary Layer (UBL). The UCL encompasses approximately the space from ground to roof height. In this layer, airflow and energy exchange is controlled by micro scale, site-specific characteristics and processes (Arnfield 2003). Air-flow and mixing in the UCL is constrained by structures such as buildings, and the

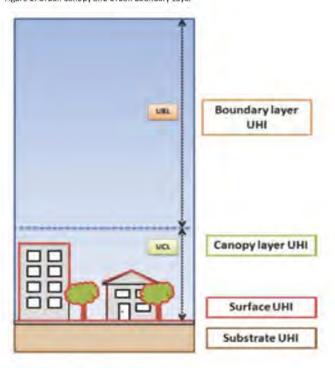
¹ Concepts taken from (Oke 1982; Oke et al. 1989)





temperature within this layer is determined largely by the combination of surfaces. Above the UCL is the UBL, which is the air band above roof level. Processes at large spatial and temporal scales control the movement of air in the UBL. For this reason, it is the Urban Canopy Layer (ground to roof height) that most directly impacts the temperature felt by the local population (see Figure 1). The literature suggests that the key variables influencing urban heat are: moisture and water storage, shade, site geometry, the thermal priorities of materials, and local anthropogenic causes. These key determinants are briefly explained below.

Figure 1: Urban Canopy and Urban boundary Layer2



Moisture and water storage

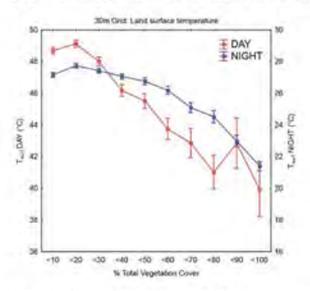
Moisture and water storage capacity are arguably the most important factors in reducing heat within the UCL (Taha 1997; Oke 1982). Water storage capacity is important in that water retention provides a buffering or moderating influence, because gradual moisture depletion allows for evaporative cooling to extend over a period of days or more. Impervious surfaces, which include most urban surfaces, do not absorb moisture from rain, and therefore the cooling effect of rain lasts for only a few hours before run-off and evaporation dry the surface (Oke 1982). Vegetation, primarily trees, are the most effective moisture sources because evapotranspiration from foliage creates 'oases' up to 8°C cooler than their surroundings (Taha 1997)(See Figure 2). Trees can transpire up to 380 litres of water a day and in a hot, dry location. This produces a cooling effect similar to that of five average-sized air conditioners running for 20 hours (Akbari et al. 1992).

Taken from (Norton et al. 2013)





Figure 2: The relationship between land surface temperature and vegetation cover³



In urban areas trees are generally sparsely distributed. When present, trees are often grounded in cement sidewalks, significantly reducing the potential surface area for retaining water, thereby reducing their evaporative cooling effects. In this sense our cities and urban areas have been 'waterproofed' by covering the soil with an impervious layer, reducing the evaporative sink and leading to high surface temperatures (Arnfield 2003).

Increasing the permeability of our urban areas is a primary requirement to allow for water capture and ongoing ground surface cooling. This must be addressed if urban heat reduction strategies are to be effective and achieve long-term objectives.

Shade

The cooling effect of tree shade cannot be overemphasised. A study by Shashua-bar and Hoffman (2000) showed that 80% of urban cooling is due to the shade provided by overhead canopy cover. The level of shade provided by a tree will depend on its physical characteristics such foliage density and leaf area (Lin & Lin 2010) and canopy shape. With correct species selection, trees can block up to 95 per cent of solar radiation, and 'even a leafless tree can intercept up to 50 per cent of the sun's energy' (Akbari et al. 1992).

There are also indirect benefits of shade provided by tree canopies because they reduce the speed of water loss from evapotranspiration at the ground surface, resulting in reduced water requirements. Shade from tree canopies can reduce lawn water requirements by as much as 95 per cent, and the combined water use of a tree and the lawn underneath it is lower than that of an equivalent area of non-shaded lawn. Alternatives to lawns, in combination with tree shading, could extend to drought tolerant native plants, which would likely further enhance water use efficiency. Such plants are a

^{3 (}Norton et al. 2013)





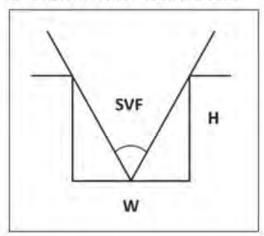
feasible, effective and immediate step toward heat reduction and efficient water use while working towards a longer term Water Sensitive Urban Design strategy.

Urban geometry

The geometry of an urban landscape is another critical determinant of the heat held within the UCL. The geometry of urban areas often consists of a road between two rows of adjacent buildings—referred to as the urban canyon. This geometry partitions the radiant energy into heat, increasing the temperature within the UCL (Oke 1982). The typical geometry of urban landscapes increases the surface area for energy exchange and reduces the loss of heat to the sky, reducing the potential for cooling at night (Nunez and Oke 1977). This 'bouncing' of energy off impervious surfaces in the urban landscape points to the importance, not only of considering the role of the city's ground surfaces, but also of its wall surfaces and broader geometric design.

A second geometric factor intensifying urban heat is the 'sky view' (Figure 3). A significant cooling effect in rural areas at night is due to the extensive sky view factor, which allows daytime heat to be radiated into the atmosphere at night. Dense urban areas with tall buildings and narrow streets have a significantly reduced sky view, and this increases the retention of daytime heat within the UCL.

Figure 3: Diagram of the sky view concept (Norton et el, 2013)



Thermal properties

Studies undertaken in the US estimate that roofs and pavements cover about 60% of urban surfaces, and that they absorb 80% of the sunlight that contacts them. This energy is converted into heat, which results in hotter, more polluted cities and higher energy costs (US EPA 2008). Apart from evapotranspiration, the thermal properties of roofs, pavements and other impervious land surfaces have a marked effect on urban heat through the attributes of surface properties such as their albedo values (reflection).





Albedo

The albedo factor of land surface cover has been a topic of much research over recent decades, and as a result the effect of albedo on the urban environment is comprehensively understood.

The albedo of a material is its ability to reflect solar radiation back into the atmosphere rather than absorbing and retaining it. Albedo is measured on a scale from 0 to 1. A surface with a relatively high albedo of 0.75 reflects most of the incoming solar energy, while one with a low albedo of 0.25 or 0.10 will absorb most of it (Akbari et al. 2009). Today's urban communities contain surfaces with many different albedo values. Materials such as asphalt, tar, gravel, dark tiles and dark paints have a low albedo values and they absorb most of the solar radiation that falls on their surfaces. Materials with higher albedo values, such as white paint and highly reflective (shiny) materials reflect solar radiation back into the atmosphere, helping to keep the urban canopy layer cooler. A study by Taha (1997) found in the early afternoon of a clear summers day a white elastomeric coating with an albedo of 0.72, was 45°C cooler than a black coating with an albedo of 0.08. A white surface with an albedo of 0.61 was only 5°C warmer than the air temperature, whereas conventional gravel with an albedo of 0.09 was 30°C warmer than the air temperature.

Conventional paving materials can reach peak summer temperatures of 50–65°C, causing heating of the air above them (US EPA 2008). However, using permeable surfaces can alleviate much of the heating effect. There are many kinds of permeable pavements, including reinforced grass pavements that can cool a pavement surface through the evaporation of moisture beneath the pavement.

Permeable pavements not only enable trees to provide cooling via moisture release, but make the soil beneath the pavement more conducive to street tree growth (Beecham 2012).

The albedo of vegetation

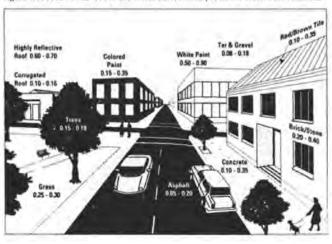
Figure 4 below shows that trees and grass can have a lower albedo value than other lighter, reflective materials in an urban landscape. While vegetation may have a lower albedo value than white paint, it nonetheless has a higher albedo value (0.2–0.3) than many commonly used surface materials (Perini & Rosasco 2013), in addition to cooling through evapotranspiration. Oke (1982; Oke et al. 1989) emphasise that the role of vegetation in cooling is not principally through high albedo values, but through the provision of shade and evapotranspiration. The thermal mass of buildings is vastly larger than the equivalent volume of trees, which means buildings provide a much greater reservoir than trees for heat storage and release.

In New York, Gaffin et al. (2005) compared the impacts of white painted roofs and green roofs with vegetation cover. They found that due to the water component of a green roof, a white roof would require an albedo of 0.7–0.85 to match the green roof's effective cooling capabilities. Due to the immense surface area rooftops occupy in an urban environment, the physical properties of roofs become paramount in working towards urban heat reduction. In the substantial portion of the land's surface area occupied by rooftops, there is an enormous opportunity for significant heat reduction through on this element of the urban mosaic (Gaffin et al. 2005).





Figure 4: Albedo values of surface materials commonly found in urban environments.



Anthropogenic factors

Heating and cooling

The energy demands of air conditioners for both heating and cooling is a double-edged sword. For cooling, air conditioners are drawn upon more heavily as the urban heat islands effect increases, but the emissions from air conditioners make a significant contribution to climate change, and air conditioners also directly heat the local environment. Studies have shown air conditioners can increase the external air temperature by 1–2°C in their immediate vicinity, extending the risk for those who need to move between buildings, work outdoors or rely on public transport (Ohashi et al. 2007). Air conditioners are often heavily relied upon during peak heat days, however this cooling technology is problematic particularly for vulnerable groups as the likelihood of power failures increases on peak days (Rosenzweig et al. 2006).

The single most cost-effective way to increase the efficiency of an air conditioner is to shade it and the area immediately around it (Akbari et al. 2009). Air conditioners become less efficient as the temperature of their operating environment increases. A combination of trees, green walls, roofs and high albedo materials can also reduce the energy load required for cooling a building by 43% (Rosenfeld et al. 1996). This is particularly important for vulnerable housebound groups such as infants, the elderly and the chronically ill who may be at high risk from extreme heat while also struggling with the associated costs of high energy use.

The pollution generated from exhausts can also contribute to the urban heat island effect. Air conditioning and car exhausts can increase local air pollution and local air temperatures, and they can significantly impact air quality (Rosenfeld et al 1998). For this reason the ventilation of roads and of high tree canopies can be an important factor in management of urban heat and should be taken into consideration in the design of trees in a streetscape. However, even a moderate tree shade cover (60%) more than offsets the heating effect of heavy traffic (Shashua-Bar and Hoffman, 2000).

⁴ Akbari et al. 2009

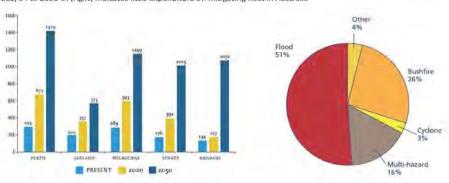




2.2 HEALTH RISKS OF URBAN HEAT

The human health impacts facing urban communities are extensive, with vulnerable and marginalised groups most at risk. A review by Martiello & Giacchi (2010) of 113 European and North American studies of heat wave effects shows an over-representation in mortality rates of the bed-ridden, the hospitalised, pensioners, the socially isolated and those confined to their home on a daily basis. An Australian study suggests that in the absence of adaptive measures, climate change is projected to result in a substantial increase in heat-related deaths. For example, a 1–2°C increase in global temperatures could increase the number of heat-related deaths among the elderly in Australia's capital cities by 89–123% (Steffen 2006). This is illustrated in Figure 5.

Figure 5; Heat related death estimates in Australian capital cities (left); and Government expenditure on disasters by hazard 2003/04 to 2006-07(right) Indicates little expenditure on mitigating heat in Australia



Sources: Steffan 2006; Jones 2008

Australian studies have also found a link between heat and mental health. Hospital admissions for mental and behavioural disorders have been found to rise by 7.3% during heatwaves (Bouchama et al. 2007). Table 1 presents the health effects and potential outcomes for local communities of high temperatures.

Table 1: Health impacts of high temperature⁵

Temperature range (°C)	Effects	Potential outcomes
20-27°C	Comfort zone	Maximum efficiency
As temperature increases	Discomfort: Increases irritability Ioss of concentration Ioss of efficiency in mental tasks	Mental problems
	Increase of errors: loss of efficiency in mental tasks more errors.	Psycho-psychological problems
	When performing heavy work, increases in: disturbed water and electrolyte balance heavy load on heart and circulation fatigue and threat of exhaustion,	Psychological problems
35-40°C	Limit of high temperature tolerance	

⁵ CCOHS (2013) taken from Brown et al. (2013)





People in the Leichhardt community that are socioeconomically disadvantaged, elderly or disabled are likely to be most at risk to high temperatures intensified by urban heat islands, as they often lack the opportunities and resources to escape peak heat events. Keys measure for protecting the health and wellbeing of the Leichhardt communities are identifying vulnerable groups, and identifying the areas in the LGA that need immediate attention to mitigate intense heat conditions.





3 METHOD

Urban heat islands are a truly trans-disciplinary problem, and they require a trans-disciplinary research design. The methodology for this study comprised two complementary stages, each designed to respond to the context-specific nature of urban heat islands. The research stages were:

Stage 1. Heat island identification

Stage 2. Vulnerability assessment

A pilot study was undertaken for the suburb of St Marys in 2014 to test the feasibility of the proposed approach and the acceptability of the outputs (see Jacobs and Delaney (2014) for details).

3.1 HEAT ISLAND IDENTIFICATION

The research sought to determine the location, size, intensity and distribution of urban heat islands across four suburbs in the LGA. This required working with Council to select the study sites, and to obtain three key datasets, outlined below. This approach is consistent with recommendations of Norton et al. (2013) who state "the first step is to identify priority neighbourhoods within the local government area". For the purposes of this project, priority neighbourhoods are determined by the intersection of heat exposure and vulnerable communities. Because all suburbs in the Leichhardt LGA are relatively small, all of them (Leichhardt, Lilyfield, Balmain, Balmain East, Birchgrove, Rozelle and Annandale) were included in the first stage of analysis.

Datasets

Three key forms of data were required to identify heat islands: land surface temperature imagery, selected existing council spatial data layers and aerial imagery. This selection of datasets for these three types of data demonstrates the ability to assemble relevant information to inform local government decision-making on urban heat from existing data at minimal cost (McNamara et al. 2009). Cost is often cited as a major constraint to local government action on climate adaptation (Jacobs, Lee, et al. 2014; Jacobs, Boronyak, et al. 2014).

Land surface temperature (LST) imagery

Landsat LST imagery from 2011, supplied by the CSIRO, provided the basis for heat island identification (Barnett et al. 2013). For details on the collection process see Appendix A. This data is available free of charge to local governments under a license with agreement CSIRO.

Utilising existing LST imagery was a cost-effective and useful way to present the distribution and intensity of heat islands in the selected suburbs. While remote sensing offers more detail due to its higher resolution (i.e. smaller pixel size), the costs associated with this type of data collection technique, which requires aerial photography, was not financially feasible. The choice of heat imagery data collection will depend on the objectives of the study. For many studies responding to urban heat islands, the greater level of detail acquired from remote sensing may not be necessary, as the heat patterns at the local scale can be captured through satellite Landsat imagery, which present the





relationship to vegetation, surface materials and water. For studies that seek to model the impacts of surface properties (such as the albedos of specific buildings and their corresponding energy costs) on urban heat, a remote sensing approach may be more appropriate.

For this study the benefits of this satellite heat imagery outweighed the limitations of the data because it provided the local governments with a feasible way of tracking urban heat, evaluating implementation programs and responding to emerging problem areas.

Aerial imagery

This aerial imagery formed the base vegetation layer of the spatial analysis. This imagery presented the most recent land surface cover in the Leichhardt area, allowing the study to respond to current land compositions, particularly for iTree vegetation analysis.

Google Earth imagery was also used to cross-check the vegetation cover at the time of heat mapping with 2014 aerial imagery. Due to the interactive nature of Google Earth, the software was also useful for identifying the names of local parks and schools that were not supplied in the council spatial data layers.

Leichhardt Municipal Council spatial data

Leichhardt Municipal Council provided GIS layers to co-locate heat distribution data and the local distribution of community and council assets. Council provided the GIS layers delivered as ESRI shape files set out in Table 2.

Table 2: Council spatial data provided

Feature	Feature Type
Road centreline with street names	Line
Footpaths	Line
Bus stops	Points
Parks	Area
Water	Area
Schools	Area
Council Buildings	Area
Council car parks	Area
Commercial Centres	Area
Zoning:	Area
Boarding House	
Community Facilities	
Educational Establishment	
Emergency Service Facilities	
Health Services Facilities	
Place of Public Worship	
Place of Public Worship and Educational Establishment	
Place of Public Worship and Community Facilities	
Public Administration Building	





Feature	Feature Type
Public Administration Building and Car Park	
Public Administration Building and Depot	
Railway	
Transport Depot	
Wharf Facilities	

Hotspot mapping

The datasets for all suburbs in the LMC area were assembled to produce a series of maps that identified the location, size, intensity and distribution of existing urban heat islands in the local communities. For each analysis site two maps were produced:

- a) the suburb overlayed with the land surface temperature layer
- b) the suburb overlayed with the council assets and zoning.

From these overview maps, 2000x2000 metre sections were chosen to cover the entire suburb. For each of the 2000x2000 metre sections, the following two maps were produced (see Figure 6 and Figure 7):

- a) the land surface temperature layer overlayed onto the aerial image
- b) the council assets and zoning

Figure 6: Heat map subsection scale - 2000m x 2000m



The second map presents the same geographic area with the council spatial data (see Figure 7). When presented together these maps provide an overview of heat, land surface cover and council assets and zoning. This combination of data is important for enabling Council to begin an assessment of operational and asset exposure to heat.





Figure 7: Council zoning map subsection scale – 2000m x 2000m



Hotspots can span regions, localities or microenvironments. As the purpose of this study was to provide a local analysis of heat, the selected suburbs were subdivided to provide a 'zoomed-in' analysis of the way heat affects neighbourhoods. Figure 8 presents the series of eight subsections for the Leichhardt LGA region.

Figure 8: LGA scale map divided into subsections







3.2 VULNERABILITY ASSESSMENTS

To undertake the vulnerability assessments, Leichhardt Municipal Council selected four hotspot precincts that presented with extreme heat. To make this selection LMC was provided with spatial outputs from the heat map identification. The hotspots selected for detailed assessments were:

Commercial #1: Darling Street, Balmain and Rozelle

Commercial #2: Norton St, Leichhardt

Residential #1: Leichhardt

Mixed use #1: Parramatta Rd, Leichhardt

Due to the heterogeneity of the heat distribution at the local scale, the research sought to describe the physical composition of the selected hotspot precincts by drawing on three complementary techniques: analysis of aerial imagery, iTree surface cover analysis and on-site assessment of physical attributes. Together, these three approaches provide a comprehensive assessment of the site characteristics influencing heat exposure in each location.

Aerial analysis

To gain insights into the variables influencing surface temperature at local hotspots, the land surface composition was first examined through aerial imagery. This analysis sought to identify correlations between heat and the built environment.

iTree analysis

To understand the relationship between heat and land surface type, the land surface cover of selected hotspot sites was quantified to estimate the proportions of sealed surfaces, tree cover and permeability.

In total 11 hotspot samples (nine hot and two cooler) were analysed using iTree canopy software (see Figure 9). They comprised:

- 3 commercial hotspots
- 4 residential hotspots
- 2 Parramatta Rd hotspots
- 2 cooler residential comparisons.

Figure 10 shows a zoom of the hotspots shown in Figure 9. Based on the literature outlined in Chapter 2, it is known that variations in local land cover cause local variations in temperature. Types of cover were therefore classified into five land cover categories and the percentages of the land area covered by each category were calculated. The categories are presented in Table 3.

Table 3: Land surface cover classes and abbreviations used in the iTree canopy assessment

Hard Surface	HS	Currently Non-Plantable
Tree	T	Canopy Cover
Shrub	5	Understory
Grass & Bare Ground	G/BG	Potentially Plantable
Water	W	Body of Water

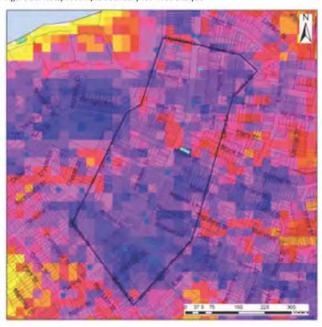




Figure 9: iTree analysis sites. The map shows the Parramatta Rd and commercial sites (orange), residential sites (purple) and cooler residential comparison sites (blue).



Figure 10: Hotspot sample boundary for iTree analysis







On-site assessments

Over the summer of 2015, on-site assessments took place to 'ground truth' the heat maps, aerial imagery and iTree analysis. To systematically assess the physical composition of the sites, an urban heat 'checklist' was developed based on the urban climatology literature discussed in Chapter 2. This checklist ensured that the multiple site attributes and their interrelationships were captured to feed into the physical analysis. See Appendix B for example checklist.





4 RESULTS: SUBURB SCALE

Leichhardt is an urban LGA characterised by relatively small suburbs and a high population density that is typical of inner city Sydney. While the area is predominantly residential, there is more variation in zoning over relatively small areas than there is in suburbs on the city fringes, with less distinction between commercial and residential areas. Suburbs in the Leichhardt LGA include Annandale, Balmain, Balmain East, Birchgrove, Leichhardt, Lilyfield and Rozelle.

Figure 11 presents the surface temperature patterns at LGA scale. The results show significant variations in surface temperature across the Leichhardt area and within individual suburbs. The Landsat thermal imaging was captured on a day when the maximum air temperature reported by the Bureau of Meteorology was 31–33°C. At this time the land surface temperatures across the LGA ranged from 28–46°C.

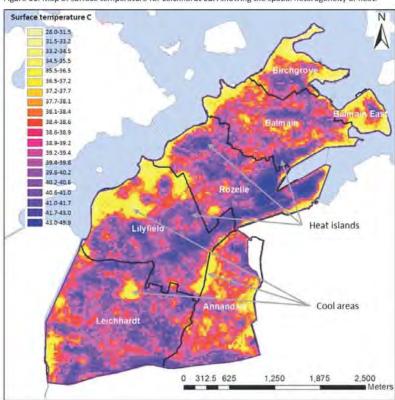


Figure 11: Map of surface temperature for Leichhardt LGA showing the spatial heterogeneity of heat.

Heat islands (discrete areas of high surface temperature) appear as purple shaded regions on the map; areas with cooler surface temperatures are shaded yellow. In general, areas close to the shoreline of Sydney Harbour have lower surface temperatures than 'inland' areas. With the exception of a relatively extensive heat island in Rozelle, most heat islands are landlocked, occurring away from the





shoreline. Heat islands can be seen in all suburbs, including a small area of high surface temperature in East Balmain, which is almost completely surrounded by Sydney Harbour. Small 'inland' areas of relatively low surface temperature are also visible in most suburbs. For example, Annandale, essentially a landlocked suburb, has a greater surface area shaded yellow than other Leichhardt suburbs, indicating that land cover rather than proximity to the Harbour is probably influencing surface temperature.

The analyses in this report focus on the selected residential, commercial and mixed-use sites in the Leichhardt LGA to provide an understanding of the causes, risks of local heat islands and the adaptive strategies that can mitigate their intensity and negative impact on the local community. These areas are:

- Commercial: Darling Street, Balmain and Rozelle
- · Commercial 2: Norton Street, Leichhardt
- · Residential 1: Leichhardt North
- · Mixed use: Parramatta Road, Leichhardt.

The suburb of Leichhardt was selected by LMC as the location for the residential study site, the mixeduse study site and one of the commercial study sites. For this reason, much of the local-scale analysis is focused on this suburb.

Local scale surface temperature

The most striking feature of the LGA-scale surface temperature map is the high degree of spatial heterogeneity in surface temperature, which is visible as a mosaic of colour across the LGA with only a limited number of large blocks of uniform colour. These patterns are largely repeated at the suburb scale. For example, Figure 12 shows the surface temperature map for the Leichhardt North area with and without the underlying land use. This map shows that Leichhardt North has all of the land features, with the exception of a harbour foreshore, that occur throughout the LGA.

In keeping with the rest of the LGA, Leichhardt North shows considerable variation in surface temperature. Three small, cool areas (shaded yellow) are visible: Pioneers Memorial Park, the area surrounding Shields Playground near the Hawthorne light rail stop, and a narrow strip running from Marion Street south along The Greenway to the Taverners Hill light rail stop at Hathern Street. Some small, isolated cool spots are also scattered throughout the suburb, such as an area within the residential block bounded by Macaulay, Cromwell and Carlisle Streets.

Areas of high surface temperature (shaded purple) are less concentrated than cool spots. These areas of higher surface temperature often occur as narrow bands on the map. For example, one of the most prominent hotter areas appears as a narrow band of purple along the Parramatta Road corridor before separating into two branches. One branch to the north-west follows the western side of Elswick St. The other follows along Albert St and re-joins Parramatta Road between Flood and Tebbutt Streets. Another hot area occurs to the east of Pioneer Memorial Park and travels south west roughly along the eastern side of Balmain Road and spreading out to cover several commercial blocks bounded by Wetherill Street and Norton Plaza. A third major area of high temperature occurs in the north in a 'dog-leg' pattern beginning near Falls St and travelling west to James Street and then south to cover part of Macaulay St. As with cool spots, several other more isolated heat islands also occur. However, unlike the cool spots, surface temperatures within the hot spots are far less uniform, and appear as mottled areas of dark purple through to pink shading.





It is clear from Figure 11 that land use is a major determinant of the location of cool spots, as the large yellow shaded areas occur only where the underlying land surface retains well-watered vegetation (such as urban parks). Table 4 shows that the mean surface temperature in the areas of Annandale, which had tree cover of around 30% is several degrees lower than in areas in the LGA with tree cover of 12–20%. The proportions of hard surface in the residential hotspots ranged from approximately 70–75%. The residential areas recorded consistently low levels of grass and bare ground across all sites. These levels ranged from 5-8%. Water made up negligible surface area at all sites.

However, the reasons for the patterns of high surface temperature are by no means consistent. Apart from all hot spots being located where buildings have replaced open space (i.e. relatively high levels of hard surfaces, Table 4, they appear not to be related simply to the influence of zoning (hot spots occur in both commercial and residential areas). Combinations of factors that vary in importance between locations appear more likely to be responsible for both the size and intensity of the hot spots.

Table 4 presents the summary of land surface cover and temperature ranges at each of the 11 sample sites.

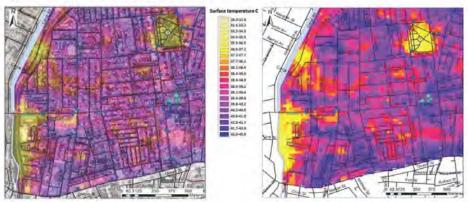
Table 4: Land surface cover and temperature ranges of sample sites.

	Land surface cover (%)					Mean surface temperature		
Study Site	Hard surface	Grass	Tree	Shrub	Water	Min	Max	Mean
COOLER SITES								
Annandale East	57.3	9.3	30.3	3	0	35.9	39.4	37.6
Annandale North	62.3	4	30.3	3.3	0	36.5	40.3	37.9
HOT SPOTS								
Residential								
Leichhardt North East	75	5.3	12.7	6.6	0.3	38.8	42.0	40.1
Leichhardt North West	74.7	5.6	16.7	3	0	38.8	42.1	40.5
Leichhardt South East	71.7	8	18	2.33	0	38.8	42.1	41.0
Leichhardt South West	70	5.3	20.3	4.3	0	38.8	42.1	40.7
Commercial								
Darling St Rozelle	80.7	3	13	3.3	0	38.7	43.4	41,1
Darling St Balmain	81.3	0.3	16	2.3	0	38.8	42.6	40.7
Norton St Leichhardt	76	4	18	2	0	38.7	42.6	40.6
Parramatta Rd								
Parramatta Rd East	93	0.6	5	1	0.3	38.7	42.0	40.9
Parramatta Rd West	89	3.3	7.6	0	0	39.3	42.9	40.8





Figure 12: Heat map and aerial image of Leichhardt area



Factors that result in surface temperature variations

This section will identify the factors that cause variations in surface temperature. It draws mainly on locations throughout the LGA as examples. Other examples where these factors also operate can be seen in the maps in Appendix D.

The major factors inducing surface temperature changes include:

Vegetation, shade and water capture

Approximately 50% of streets in hotspot areas have grassed verges on the public footpaths. Where there is no verge space, street trees are generally not present. Where street trees are present, their distribution is sporadic. Most often, because of the selection of tree species, where street trees are placed on the verge space they offer little connectivity of canopy or shade cover despite often minimal restriction on tree height and canopy spread imposed by the presence of existing power lines. The species selection of existing street trees varies, but the majority are small and ornamental (e.g. crepe myrtle, callistemon) and offer limited shade. There are a small number of large remnant eucalypts scattered throughout the LGA. Where present, these offer considerable shade to the surrounding hard surfaces. The value of street trees for cooling is best illustrated by the contrast between streets such as Nelson Street in Annandale (Figure 13), which shows some of the lowest surface temperatures in the LGA's residential zones, and streets in a hot spot in Leichhardt North.

Vegetation on private land, particularly in the front yards of dwellings, varies considerably throughout the LGA and influences surface temperature. In many areas, front yards of residential dwellings are small and often paved. Where vegetation is present it is made up of a highly diverse range of species and canopy structures, but generally consists of hedging plants and low-lying vegetation. A few households have dense, tall vegetation in their front and rear yards.





Figure 13: Streetscape in Annandale (cool spot, left) and Leichhardt North (heat island, right) illustrating the differences in size, shape and species of street tree.



Variations in the sizes and shapes of property parcels, and variations in the proportion of the property occupied by the building envelope, also influence vegetation cover and surface temperature. For example in Leichhardt North, although houses are frequently detached, property parcels are long and narrow, much narrower than other parts of the suburb. This means that there is substantial variation in the size of outdoor spaces behind residential dwellings. In some cases the house footprint extends to the front and rear property boundaries, with no outdoor space. In other cases the house footprint occupies approximately 50% of the property parcel. Some houses have retained grassed areas but many appear to be paved and/or decked and space is occupied by garages or sheds. Outdoor areas in some hot spots such as Leichhardt North appear smaller than in other parts of the suburb, with minimal space between them. Many houses have undergone renovations to include extensions that occupy the majority of the property parcel. In addition, a combination of small block sizes and large building envelopes often allows very little space between roof surfaces of adjoining properties for the growth of vegetation. These roofs form extensive, almost continuous coverage on the side boundaries of the properties.

The surface temperatures recorded in commercial areas of Rozelle, Balmain and Leichhardt were among the hottest in the LGA (Table 4). In commercial areas tree cover also has an influence on surface temperature. In general, commercial areas have very few trees and their distribution is sparse, severely limiting canopy connectivity (Figure 15) and shading of the road surface. There are, however, stand-alone examples of large trees in commercial districts of Balmain and Leichhardt.

Footpaths are generally impermeable to moisture, despite being wide enough (often 3-4 m) to accommodate a grassed verge. In some places, existing plant beds are highly underutilised, supporting small hedging plants that, although decorative, serve no cooling function.

Parramatta Road presents an extreme example of a commercial site. There is no vegetation along most of this thoroughfare, and all footpaths have impermeable surfaces. The laneways behind Parramatta Road adjacent to residential areas are essentially a series of open car parks and show few signs of vegetation.





Figure 14: Commercial heat islands on Victoria Road, Rozelle and Darling Street, Balmain. Aerial images (left) and surface thermal temperature (right) are shown.

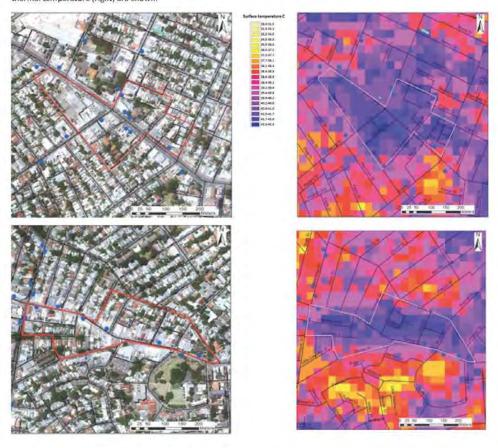


Table 5: Surface cover classified into five cover classes with ITree, and temperature ranges of three commercial areas of the LGA.

		Cove	er classes (9	6)		1	Temperatur	e
Sites	Hard surface	Grass-bare ground	Tree canopy	Shrubs	Water	Mean	Min	Max
Darling St Rozelle	81	3.0	13	3.3	0	41.1	38.7	43.4
Darling St Balmain	81	0.33	16	2.3	0	40.7	38.8	42.6
Norton St Leichhardt	76	4.0	18	2.0	0	40.6	38.7	42.6





Figure 15: Streetscape in Darling St Balmain showing features typical of commercial areas throughout the LGA.



Geometry and urban design

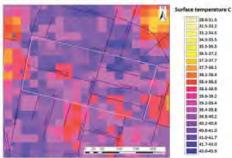
Features associated with the geometry or layouts of the suburbs within the LGA vary, and they influence surface temperatures. These features include road width, orientation and rear lanes, which are a legacy of planning decisions made many decades ago. For example, residential hotspots in the suburb of Leichhardt are often associated with relatively wide, straight roads in comparison to other suburbs in the LGA. The width of roads, which can be up to 12m, often appears to bear little relationship to volume of traffic passing through quiet residential streets. With dwellings generally consisting of detached single storey houses, these areas have a 180-degree sky view. Coupled with limited shade from established trees, these wide roads ensure that a large area of the land surface, covered by black ashphalt, is exposed to full sunlight for much of the day.

In addition, the presence of a laneway at the rear of a property significantly influences surface temperature because it alters the amount private land surface covered by vegetation. Figure 16 shows the houses in the area around Hill, Annesley and Moore Streets. The residential block at the western end of Annesley Street does not have rear lane access between the properties parcels and it has connecting back yards with established vegetation providing interconnecting green space and canopy cover. The block to the east has rear land access separating the properties, shortening the parcel size and preventing shared, connecting canopy cover. Most houses with rear lane access have also used private open space to extend the building envelope of the dwelling and to accommodate off-street parking by building garages, further contributing to local heat islands.





Figure 16: Surface temperature in the vicinity of Annesley St Leichhardt (top), the difference in vegetation between blocks with and without lanes (bottom left) and a typical residential rear lane (bottom right).





In commercial areas and on Parramatta Road, a wider road surface accommodates greater traffic flow. However, unlike residential areas, buildings tend to be taller (typically 2-3 stories) with relatively narrower setbacks. While this can reduce the sky view, coupled with a lack of vegetation and impermeable surfaces, the taller buildings form an almost continuous façade, trapping heat in a deeper urban canopy layer (UCL). On some streets, such as Marion St Leichhardt, the street's eastwest orientation ensures that the road surface is exposed to solar radiation for much of the day in summer. Such high levels of exposure raise the temperature of the footpath to well above ambient, severely impacting human comfort and use of public infrastructure. For example, we recorded spot temperature measurements for a bus seat on Norton Street and for a nearby building façade that had been exposed to morning sun in summer for several hours. By 10.30 am, temperatures had already reached 51 and 58°C respectively (Table 6).

Table 6: Spot temperature measurements in Leichhardt commercial area

Ambient temperature (ma: Time: 10.30am	k.) 27
	Full sun
Bus stops, Norton St	51°C
Footpath	42°C
Black shop facade	58°C





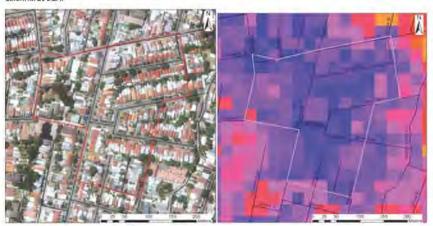
Thermal properties

Throughout the LGA roofing, paving and other building materials vary greatly (Figure 17). Attributes of building materials such as their colour, texture and thermal mass alter the heat reflection and storage properties of surfaces. In Leichhardt LGA existing building designs, styles and properties are the result of over 100 years of construction, renewal and cultural change. There is evidence of both low and high albedo materials. Roofs, in particular, differ greatly in colour and material. More recent extensions to dwellings in residential areas are typically roofed in white or a lighter colour material, while the original roofs are typically orange or brown terracotta or slate. Similarly, the aerial photographs of the LGA reveal the roofs of modern commercial developments (such as shopping centres) to also be composed of light coloured materials, increasing their albedo and reducing their heat signature. However, this is not always the case. Several buildings along Parramatta Road (predominantly car dealerships) incorporate extensive rooftop car parking, which contributes to the heat island effect in this area. In general car parks, which often occur on land adjacent to commercial areas, generate significant heat islands as they are invariably covered by dark asphalt (low albedo) and offer limited shade.

In commercial areas, even though concrete tends to stay cooler, darker coloured asphalt is often used for footpaths and cycleways. Dark coloured building facades and tiled entrances also contribute to higher surface temperatures (see Table 6 and Figure 30:)

In commercial precincts such as Darling St Balmain and Parramatta Rd, older style awnings still line much of streetscape. While the awnings cover the majority of the footpaths, providing shade for pedestrians at street level, surface temperatures above awning height are high and the awnings limit the placement of trees that could provide broader shade for the road surface.

Figure 17: Aerial image (left) and heat map (right) of Leichhardt South showing the variation of roofing materials typical of the



While in general major roads (such as the CityWest Link at Lilyfield and Rozelle, Figure 11) are associated with the formation of heat islands, intersections in commercial areas are particularly problematic. They combine large expanses of dark road surface, wider building setbacks to ensure requirement driver visibility, and often busy pedestrian crossings, which increase heat exposure of pedestrians waiting to cross the roads. Many intersections, in both residential and commercial areas





throughout the LGA, were identified as heat islands. These included: Norton, Marion and Catherine Streets and Parramatta Road in Leichhardt; Johnston and Booth Streets in Annandale; and Darling and Roundtree Streets in Balmain (Figure 18:). The surface temperature at the intersection of Darling Street and Victoria Rd in Rozelle was the highest of the hotspots in this study.

Figure 18:Intersections such as at Norton St and Marion St Leichhardt (left) and Darling St and Roundtree St, Balmain (right), often form heat islands because of the combination of expansive road surface, wider building set-backs and stationary vehicles.



Anthropogenic factors

The major anthropogenic source of urban heat in Leichhardt LGA is vehicle engines. Many of the streets in the LGA are required to cope with local traffic, to act as major thoroughfares such as CityWest Link and Victoria Road, or to serve as linking roads and alternative routes for peak hour traffic flows (such as Norton Street, Booth Street and Darling Street). Slow moving and stationary cars radiate considerable heat in traffic and while waiting for extended periods at traffic lights. Parked cars also contribute to urban heat. The surface temperature of a black car in full sun was measured in Penrith at 60°C (Jacobs and Delaney 2015), again emphasising the need for shading in car parks. High traffic volumes, heat and exhaust emissions make many commercial areas, such as Norton Street, unpleasant and reduce human comfort, particularly during summer.





5 RESULTS: SOCIAL VULNERABILITY

Vulnerability demographics

Exposure to heat

Leichhardt LGA has a population of over 58,000 in an area of just over 1,000 ha (Table 7). The populations of the six suburbs making up the LGA range from just over 3,000 in Birchgrove to over 13,000 in Leichhardt. In aggregate, population density of the LGA at about 55 people per hectare – approximately 15 times higher than the Greater Sydney average (3.5 people per ha).

Sensitivity to heat

The population of Leichhardt LGA is composed of many social groups, some of which are likely to have a greater level of sensitivity to heat and other extreme climate events. These vulnerable groups are generally agreed to be the socially disadvantaged, the poor, the elderly, infants and young children, the physically and/or mentally disabled and the chronically ill. Census data provides statistics that can be used to begin to identify the general level of sensitivity of the population to heat (Table 7). Here, we use statistics on low income earners, age, disability, transport use, housing tenure, mortgage stress and the SEIFA index as proxy measures of social vulnerability.

Levels of financial stress

Median household incomes for the LGA's suburbs (\$1,447/week) are generally higher than in Greater Sydney as a whole. Medians for particular suburbs range from \$1919/week in Lilyfield to \$2707/week in the relatively exclusive harbour foreshore suburb of Birchgrove. The number of low income earners in the Leichhardt LGA is generally lower than for Greater Sydney, particularly in Birchgrove and Rozelle. The exception to this is Lilyfield, which also has the highest levels in the LGA of people renting social housing.

Housing stress is defined as occurring in households in the lowest 40% of incomes who are paying more than 30% of their usual gross weekly income on housing. It is a good indicator of the ability of households to meet their financial commitments. On average the level of housing stress in the Leichhardt LGA is considerably lower than for Greater Sydney (11.5%). Leichhardt has the highest levels of housing stress at 8% while Birchgrove has the lowest at 3%.

Home ownership

Home ownership in the LGA averages 23%, lower than the average of 29% for Greater Sydney, and is relatively consistent across the LGA except for Birchgrove where it rises to 32%. Houses under mortgage make up about 31% of households in the LGA, roughly the same as for Greater Sydney. Rentals account for on average 34% of LGA households and this proportion is higher than for Greater Sydney in all suburbs except Lilyfield.

Age

The proportions of the population aged over 65 and 85 years are 10% and 1.2% respectively, lower than the averages for Greater Sydney (12.8 and 1.8% respectively). This age profile is relatively consistent across Leichhardt LGA's suburbs. The proportion of the aged population classified as older lone persons (+65years) varies from 5% for Rozelle to 8% for Birchgrove and Lilyfield.





At the younger end of the age profile, Leichhardt LGA has a greater proportion of children under four years of age (8% on average) than Greater Sydney (6.8%) with relatively little variation between suburbs.

The proportion of disabled people requiring assistance averages 3% for the LGA with up to 5% in Lilyfield and falls as low as 2% in Birchgrove and Rozelle.

Transport

The most common form of transportation in the Leichhardt LGA is a private car with on average 44% of trips made by private vehicles. Public transport usage averages 29% for the LGA, higher than the Greater Sydney average of 19%. Cycling (3%) and walking (5%) to work are small but significant modes of transport, most likely reflecting the proximity of the LGA to employment locations in the Sydney CBD.

Social disadvantage

The SEIFA Index of Disadvantage measures the relative level of socio-economic disadvantage of an area based on a range of census characteristics. It is a good place to start to get a general view of the relative level of disadvantage in one area compared to others, and it is used to advocate for assistance for an area based on its level of disadvantage. The index is derived from attributes that reflect disadvantage such as low income, low educational attainment, high unemployment, and jobs in relatively unskilled occupations. The SEIFA index for Leichhardt LGA is higher (i.e. less disadvantage) than for Greater Sydney as a whole. Of the LGA's suburbs, Birchgrove has the highest SEIFA Index and Lilyfield has the lowest.





Table 7: Key social statistics for the Leichhardt LGA, its suburbs and Greater Sydney.

	LGA	Annandale	Balmain	Birchgrove	Leichhardt	Lilyfield	Rozelle	Greater Sydney
Statistics								
Population	58,136	8,465	9,808	3,091	13,283	7,316	7,792	
Land area (ha)								
Density (people/ha)	55.11	60	63	55	51	33	44	3.54
Median age	37	37	39	40	37	39	36	36
Median HH income (S/week)	2234	2142	2225	2707	1931	1919	2519	1447
Low income earners (0-	\$600p/w)							
Number of people								256,505
Number of households				-				1,601,530
% of suburb	12%	11%	13%	6%	14%	18%	6,40%	16%
Elderly	-							
65yrs and over (%)	10.0%	9%	11%	9%	11%	12%	8%	12.8
85yrs and over	1.20%	1%	1%	1%	2%	2%	1%	1.8
Older lone persons (65+)	7%	6%	.8%	6%	7%	8%	5%	8
Infants								
0-4 yrs (%)	8%	8%	8%	8%	9%	10%	9%	6.8
Social disadvantage								
SEIFAindex	1104.9	1108.3	1108.5	1148.7	1119.11	1107.3	1133.6	1011.3
Disability							_	
Need assistance (%)	3.0%	3.0%	3.0%	2.0%	4.0%	5.0%	2.0%	4.4%
Transportation						_		
Walktowork	5%	7%	6%	.5%	- 5%	4%	6%	4.1
Cycle to work	3%	4%	2%	1%	3%	3%	496	0.8
Publictransport	29%	29%	34%	34%	29%	25%	29%	19.9
Bycar	44%	40%	41%	42%	44%	47%	44%	58.2
Tenure	_							
Own	23%	22%	23%	32%	22%	25%	21%	29.1
Mortgage	31%	31%	28%	32%	33%	33%	24%	33.2
Rent	34%	38%	34%	30%	35%	24%	36%	25
Rent Social Housing	5%	3%	7%	0%	4%	11%	2%	5%
Housing Stress				-	-			
Household in housing	6%	.7%	6%	3%	8%	7%	496	11.5%

Co-location of heat and disadvantage

An understanding of the intersection of heat and disadvantage in local areas can help to prioritise responses to urban heat. A guide to prioritisation was obtained by plotting average temperatures against SEIFA data at an SA1 scale (Figure 19). Average temperatures and average SEIFA values for the LGA are shown as a blue line on the graph, which separated areas at SA1 scale into four quadrants. The highest priority locations (that is, those with higher than average temperatures and lower than average SIEFAs) appear in the top-left quadrant of the graph (unshaded). Figure 20 presents a closer analysis of the top-left quadrant, with the ten SA1s furthest from the average. The spatial distribution of heat islands and disadvantage are mapped for the LGA in Figure 21.

These averages have been applied as a means of prioritising SA1s within the sample, rather than as a means of indicating a threshold for absolute importance. For example, the average temperature across





the LGA is 39 degrees, however many SA1s fall just short of this average, in the 38-39°C group. Although just shy of the average, this level of heat is still approximately 7°C higher than the ambient temperature, therefore warranting attention. The analysis also does not imply that average SEIFA values indicate individual levels of household advantage within any single SA1. Disadvantaged households undoubtedly exist in all areas of the LGA.

Figure 19: Intersection of temperature and SEIFA index for all SA1s in the LGA

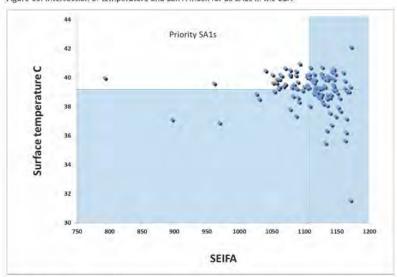
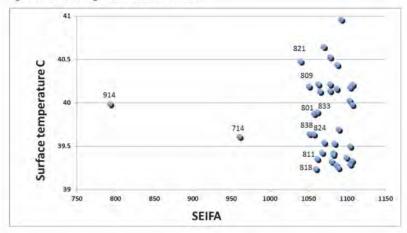
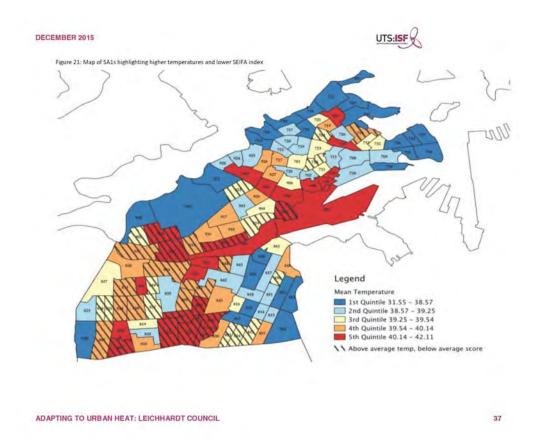


Figure 20: SA1s with high heat and low SEIFA index











Social services sector

The research sought sort to assess the vulnerability of marginalised groups who may be particularly vulnerable to extreme heat events. The first step required identifying potentially vulnerable groups in the residential and commercial areas. These were identified as:

- · the elderly
- infants
- the chronically ill
- the disabled
- low socioeconomic groups.

Interviews were conducted with representatives from service delivery staff operating in the LGA. Representatives from local organisations included:

- · a non-government child and family health service provider
- · an aged care facility managed by a religious organisation
- · a private children's day care centre
- · an ethnic child care, family and community service organisation
- a council-operated home maintenance and modification service
- a council-operated children's long-day care centre.

In addition, we interviewed a number of professional staff within Leichhardt Council about some of the institutional difficulties faced by local government in attempting to incorporate heat as an issue in areas of service provision. These interviews included staff from:

- strategic planning
- transport planning
- parks and open space management
- · community facilities (such as halls and venues).

An initial call was made to the local organisations to explain the project and request their participation. Following this phone call an information sheet was forwarded by email that explained the background to the research and included a request form seeking consent for the interviewee's participation. Once consent to participate was provided, a 20-30 minute phone interview with an organisation representative took place to discuss the thoughts and experiences of service providers working with vulnerable groups in relation to heat waves. See Appendix C for interview questions.

Detailed notes were taken during the interviews. The interviews were then thematically analysed to identify the issues faced by vulnerable groups and the service providers who support them.

The service providers we interviewed represent only a portion of the range of the community services on offer in the Leichhardt LGA. However, they serve to illustrate the problems facing service providers and vulnerable community members in relation to extreme heat events. The range of services provided by those interviewed included: child and family health/infant health; aged and respite care with a focus on mental health; family and community service such as respite care for people with intellectual disabilities; independent living for the elderly; children's long-day care providers; and a home maintenance and modification service. All providers offered services to residents of Leichhardt LGA or nearby Inner West suburbs (e.g. Marrickville) and had a good understanding of the local context.





General response to heat by service providers

Among the service providers interviewed, responses to heat ranged from ad hoc to formal. Ad hoc responses were seen when a provider was not specifically funded to consider extreme heat as part of its operations. Formal responses included those covered by statutory requirements for food safety or worker occupational health and safety.

For example, one service provides multicultural respite and vacation care for children and adults with mild to moderate intellectual disabilities. The vacation care is provided for five hours every Saturday which alternates between adults one Saturday and children the next. The assistant field officer checks the weather forecast each Wednesday as part of the preparations for Saturday. It is considered as part of their responsibility, although it is not formally written into their position description.

The vacation care takes place in a hall usually rented from a local council, for example Marrickville Council. However, the halls they hire may not have air conditioning installed and it is "difficult to find places that are affordable". Furthermore, it is a challenge to keep people entertained "even if we try to provide interesting activities when it's really hot people are lethargic and not engaged". The service provider noted that "in January I bought water pistols and people hung out and spayed each other with water" to keep the children entertained and cool.

Another service provider manages an aged care facility that supports the mental health and recovery of those who experience mental illness, homelessness and other conditions such as dementia. The facility caters to a range of needs. It provides a lower level of care for more mobile and independent patients through to specialist support and attention for people with dementia. The facility provides specially prepared meals, diversional therapy programs and secure indoor and outdoor spaces for its clients. The building that houses the facility has air conditioning installed only in the general purpose areas. During hot days staff encourage people to sit in the general purpose areas to stay cool if their personal rooms are not air conditioned. The majority of residents have fans in their rooms, which the client pays for or the facility supplies if the client cannot afford it. In the area specifically catering for dementia patients, their inability act appropriately in relation to their external environment requires staff ensure that patients are dressed appropriately for the temperature and weather conditions, their fluid intake is increased and their movements are restricted to cooler areas of the facility. The service also takes people on trips (diversional therapy). They have contingencies for heat built into their programs such as encouraging clients to increase fluid intake.

Six health care clinics operating across the Inner West focus on early childhood health. Nursing professionals from the services make home visits to families with newborns within the first two weeks of life and offers breastfeeding support and mental health checks. A range of socioeconomic groups are serviced, with vulnerable families identified in particular in the Redfern, Waterloo and Marrickville areas. Until recently the service also ran a sustained home visit program which provided family visits for up to two years. However this service cannot continue due to funding cuts. Overheating is recognised as a possible contributing factor to sudden infant death syndrome (SIDS). The SIDS guidelines make recommendations about ensuring the baby's sleeping environment is ventilated and warns against co-sleeping as babies can overheat. During home visits the nurses physically check the babies' sleeping environments and undertake a risk assessment by seeking information from parents about the safety of the home, for example if the parents are smokers or if there are dogs living in the home. However, despite overheating being a risk factor for SIDS, there is no formal consideration of the temperature in the home. Informally, the nurses do take note of the temperature within the home for extremes of heat or cold. If the nurses discover a baby in distress they formally refer the parents to emergency ward at the RPA Hospital.





A private children's day care centre caters to a maximum of seven children that range in age from six months to seven years. As the centre operates from a private residence, air conditioning was installed in the play and sleep rooms. The centre does not have any fans because of the risk of injury to children. For home care services, while there is no legal requirement for shade, the property does have some shady, outdoor play areas. To date the centre has not had any heat-related incidents, such as children suffering heat stroke, because children often self-regulate their activity, becoming tired, seeking additional fluids and moving indoors if high temperatures become uncomfortable. Extreme heat is managed by keeping the children indoors between the hours of 12 noon and 3pm; however, this is generally not a problem as it coincides with routine afternoon nap time. Children frequently travel off site to visit neighbourhood parks and other facilities. On hot days, exposed outdoor play equipment can become very hot and could potentially burn children e.g. slippery slides. This is generally managed by visiting sites where play equipment is shaded, conducting off-site visits earlier in the day, or switching to indoor activities.

A home maintenance and modification service operating in the Leichhardt LGA focuses on helping the elderly, and people with a range of physical disabilities so they can live independently in their own homes. The majority (90%) of clients are over the age of 65. The remaining clients are people up to the age of 65 with physical disabilities and their carers. The services offered range from maintenance such as changing light bulbs, to modifications such as widening doors, installing rails, ramps etc. The service does not have an electrician or plumber on staff and is unable to install appliances such as an air conditioners. However, they have had requests from people to maintain an existing air conditioning system for example by cleaning the filter or for cleaning the dust off ceiling fans, but these tasks would usually fall under the domestic (cleaning) service.

Heat does impact their elderly clients, especially those more isolated and less mobile. The interviewee representing the home maintenance service said that "younger people are more mobile. They can usually get out more as a family but an older person does not have that opportunity". When clients call the service to book an appointment they often mention the heat, especially "if there has been a few hot days in a row". When booking in a job, the clients often mention that "they have to stay home" due to extreme weather (heat and cold), which makes it easier to book a service. Informal advice is provided to clients about heat by the person booking the service, with clients often advised to increase their intake of water. When the service provider visits the home, they undertake a risk assessment before starting any work. If they discover a client is in distress they call the aged care assessment team to check on their welfare. They have not had any heat related emergencies so far. The majority of the clients are regular users of the service, so a relationship between the service and the client is built up over time.

Who is vulnerable?

There was general agreement among the service providers that their target client groups were often exposed and potentially sensitive to urban heat. Not surprisingly, these groups included people who are house-bound as a consequence of compromised health and mobility. While these people are vulnerable, they are often connected to weather broadcasts through free-to-air television and are at least aware when an extreme heat event is going occur (although they may not be in a position to act on this information). However, some groups of people are vulnerable but less recognised including:

People with an intellectual disability that may also have physical impairment, which may
make them unable to modify their environment without assistance.





- People with mental health issues who often become more irritable and may display "some
 escalated behaviours" during extreme heat. Patients with schizophrenia or dementia are
 reported as being particularly at risk. Service providers reported a few occasions when people
 felt "very unwell, which has been in the height of summer". Generally, these incidences are
 managed through routine patient management plans, and other times people have been
 transferred to hospital.
- Babies and toddlers are at an increased risk especially premature babies or pre-term babies (before 36 weeks) as they are unable to regulate their body heat. Young parents (under 20) may require more support to monitor their children's health during a heat wave.
- Children lacking experience of the dangers of play equipment exposed to the sun, or those
 that become deeply engaged in play and fail to remain adequately hydrated, which could
 predispose them to heat stress.
- The elderly, especially those with limited close family support networks and limited mobility.
 Although most service providers reported the elderly as 'suffering' from feeling cold even during warm weather, this may predispose them to being unable to recognise the effects of heat or dehydration.
- Socially isolated migrants, although less of an issue for Leichhardt than in the past, present a
 problem for some neighbouring LGAs. For example, the Bengali community in Canterbury is
 relatively large, close-knit and non-English speaking, and remains unconnected to the rest of
 the community. These features may increase the social vulnerability of such groups because
 they often fail to actively seek support outside of their ethnic group, probably due to language
 barriers.

Some adaptation strategies of service providers

Community service providers have adopted a range of strategies to enable their operations to continue during heat events. The information they provide to clients will be dealt with in a later section of the report.

Modification of operations

Community service providers modify their operations during heat events in a number ways:

- Changing the time of services nurses that undertake home visits try to start the day earlier and try to get back to clinic in the middle of the day to avoid the heat. If this is not possible then they "manage the situation in relation to the services" and adapt by using a spray bottle to keep cool. For some service providers, for example home modification services, noise restrictions on the use of power tools before 7:30am limits the scheduled start time for work. However, in keeping with practices in the building industry staff usually finish work by 3 pm.
- Modifying activities such as relocating the activity or outing from an outdoor to indoor an indoor activity such as taking people to the movies or on a shopping visit to "Westfield shopping centre because it is air conditioned". For private children's day care the location of activities may be changed from the park to an indoor play centre or, if there are small numbers of children, they may go on an excursion to a water park, or carers may schedule activities for earlier in the day. For providers of respite and diversional therapy for the disabled, heatwaves require locating and booking air conditioned venues for activities.





• Modifying the delivery of services in home modification and maintenance is determined following a 'check of the BOM [Bureau of Meteorology web site] 7 day forecast' (checking for heat and rain). Weather appropriate jobs are allocated to days when the forecast is poor to "adapt for conditions". This service provider noted "we wouldn't want staff in a place where there is no shade so they are working in the sun all day. But other outdoor council workers may not have a choice".

Cancel services

Cancellation of essential services is often not an option for community service providers. For example, nurses who conduct home visits of newborns have such full schedules they rarely cancel due to weather extremes: "its part of working in the community". However, some services are discretionary or can be rescheduled to a more suitable time. The provision of diversional therapy for the elderly in the form of outings may be cancelled at the discretion of the manager "if it's going to be extremely hot". This service provider felt that elderly clients would be unlikely to want to participate in outdoor activities during heat waves. Although they had not had any heat-related incidents on any outings, the service said that it routinely called for ambulance service support if clients were found to have heat-induced health impacts.

Extra monitoring of care patients

During extreme heat aged care services clients are provided with extra fluids and are regularly monitored for the effects of heat. Some groups require extra monitoring. For example, people with schizophrenia seem to 'layer on clothes' and 'wear a woollen coat in the middle of summer'. Staff monitor these patients to ensure they don't overheat. People with dementia are generally unaware of their environment and also require close monitoring on extreme heat days. Some of the more independent residents of the aged care facility which was part of this research are allowed discretionary access and may leave the facility during the day, returning at meal times. In these cases, the facility manager checks for extremes of temperature (heat and cold) and initiates extra procedures to care for these patients, The facility also makes available additional supplies of bottled water in case of an issue with the mains water supply.

The children's day care centre also monitors the children to ensure they remain hydrated. Water is available at regular breaks in play. 'Older children might say they need water at other times but this depends on their age'. One rule of thumb offered by the facility manager was that 'especially young and fair skinned children are monitored as an indication of susceptibility to heat' as signs of stress are generally more obvious in these children.

Weather appropriate clothing

In the aged care facility "about 60% the patients are dressed by the staff to ensure they are wearing appropriate clothes for the weather". The children's day care centres ensure that the children have hats, clothing that provides cover from the sun, and sunscreen when they are outdoors.

OH&S issues

All of the service providers were acutely aware of the statutory requirements on employers to ensure a safe work environment. Unavoidably, staff that make home visits or conduct outdoor activities are exposed to heat, either within a client's residence, in transit to and from client visits, or in parks,





playgrounds or off-site venues. Often there is limited scope to control the work environment in these settings. Most of the organisations interviewed suggested management of heat was covered under existing arrangements, although some routinely reminded staff to keep hydrated, wear weather-appropriate clothing and sunscreen and take additional breaks if required. Council offers its outdoor staff free swimming at council-operated pools during lunch hour to help them cope with heat exposure.

However, for services where staff are required to wear a uniform or are bound by OH&S rules which specify aspects of clothing (such as appropriate footwear), adaptation of clothing to the conditions may not be an option. This is often "difficult when it is hot because you can't wear sandals or though."

Most service providers agreed that they may have to adopt a more explicit OH&S policy for heat in the future

Shading

Outdoor play equipment can become very hot and could potentially burn children e.g. slippery slides. To manage this issue Leichhardt Council has recently completed an audit on the level of shade for all playgrounds. Natural shade provided by trees is preferred but until they grow shade sails are often used as an interim measure.

Adaptation advice provided to vulnerable groups

Service providers that fall under the Department of Health jurisdiction receive a NSW Health broadcast in the event of extreme heat. These broadcasts are a key source of information for many community service providers, and they act as a trigger to communicate warnings to staff. At the aged care facility staff are informed of heat waves during the 'handover' of nursing shifts, which happens twice a day. Similarly, nursing staff engaged in home visits for infant care are alerted to extreme weather conditions by management as 'they are out in the heat all day'. However, community services that fall under the management of NSW Family and Community Services do not receive the NSW Health broadcasts. Consequently, warnings from management are not routinely passed onto staff, although it is not uncommon for management to pass on information about extreme weather gathered from weather forecasts, or through mobile phone-based weather applications. Staff also reportedly monitor these sources of weather information.

While LMC currently does not have information on its website about heat, Council has recognised heatwaves as an issue in its risk management policy and action plan. The primary benefit of web-based information is its dissemination to service providers with likely further dissemination to clients. Communication within Council to heat-exposed staff takes the form of email advice of predicted extreme weather events from human resources or the work health and safety officer.

What advice is provided to clients?

Current advice to clients by service providers may include:

- Infant care: Nurses provide advice on exposure of infants (stay indoors), the inability of young babies to effectively regulate their body temperature, ways to keep infants cool such as dressing them in a nappy only and not leaving children in cars especially on hot days.
- Hydration: encouraging clients to increase their fluid intake on hot days to maintain hydration.





- Appropriate clothing: some clients with mental illness such as dementia are not aware of the need to wear weather appropriate clothing.
- Alternative cooling: using a fan and a spray bottle, this works like an air conditioner.
- Reduce exposure: encourage people especially children and the elderly to stay indoors in the air conditioned areas to stay cool and avoid exercise during heat waves.

Recommendations

We recommend the following measures for responding to urban heat and social vulnerability.

Home visits: include questions about temperature in the home risk assessment for infants. The evaluation could cover the presence or absence of fans, air conditioning and screens on windows.

Health clinics: introduce a new standard that all buildings that house health clinics (such as nursing mothers' clinics) are air conditioned or adequately ventilated and insulated to deal with the heat and the cold. Undertake an audit to determine what is necessary for clinics to meet this standard.

Extreme heat warnings: Family and Community services could be included in the DOH health warnings broadcasts or have a similar warning system of its own.

Information about suitable venues for community activities during heat: Develop a centralised list of venues that community service providers can book that are better matched to the weather (such as air conditioned halls). Provide them with suggested activities for hot days that are inexpensive. Council staff suggested that most council meeting halls currently do not have air conditioning and are 'not good in winter or summer'. However, they tend to be older buildings, constructed in heavy masonry that remains cooler than the ambient temperature (most often the complaint is that they can be too cold even in summer). Retrofitting with insulation or air conditioning would improve the comfort of these community spaces. The two libraries that are located within the Leichhardt LGA are air conditioned. These sites could be promoted as heat wave refuges for vulnerable groups such as mothers with young children.

Fact sheet or checklist for clients: to raise awareness of the impact of heat and generic strategies to cope. For example, tips on ventilation and passive cooling to minimise the impacts of heat could be distributed via community service organisations to their clients. Such information could be displayed on the household refrigerator for ease of access.

Develop a list home maintenance jobs that can alleviate impacts of heat such as window repairs so that clients can open windows for ventilation, or planting shade trees or installing blinds on the western side of a building to reduce sun exposure.





6 COMPARATIVE ANALYSIS: PENRITH AND LEICHHARDT

Urban heat is affecting most of Sydney yet the variations in geography, demography, culture and land use patterns across the city are influencing local causes as well as the range of feasible and recommended responses. An objective of this study was to compare the findings from two LGAs (Penrith in Western Sydney and Leichhardt in the Inner West) to understand the drivers in each area, immediate and long-term opportunities and challenges. Adaptation occurs at local scale and is heavily influenced by local context, which places local government in a unique position of influence with respect to climate change. However, state governments need to provide social, economic and regulatory conditions tailored to local context that enable adaptation to occur in communities (Fankhauser, 1999).

The following discussion aims to compare regional vulnerability in Penrith and Leichhardt, and is framed under three components of vulnerability (Jacobs et al 2014): exposure (spatial distribution and extent of hot spots), sensitivity (the extent of social disadvantage within heat affected areas) and adaptive capacity (the extent to which change in the environment or behaviour is possible).

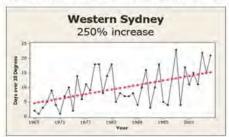
6.1 EXPOSURE

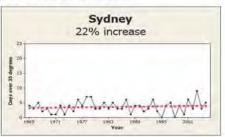
To compare exposure to heat in Penrith and Leichhardt we examined the relevant geographical features and land surface cover, and climate projections (primarily from AdaptNSW) of each LGA:

Climate projections

Exposure to heat events is currently unequally distributed across the Sydney Basin with Western Sydney having already experienced an increase in hot days (Figure 22:).

Figure 22: Trends in number of very hot days (above 35°C) per year in Western Sydney and Sydney.

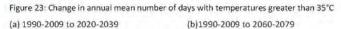




NSW climate projections suggest the Metropolitan Sydney Region is expected to experience more hot days in the near and far future (see Figure 22) Further increases are projected for Western Sydney and the Hawkesbury with an additional 5–10 days in the near future, increasing to over 10–20 additional hot days per year by 2070 (OEH, 2014). The inner west will experience an increase in hot days, but fewer than Western Sydney.









Geography and surface cover

The geography of the Sydney Basin (Figure 24) and the location of individual LGAs within the Basin change the level of exposure to heat and are underlying causes of the differences in climate projections. Proximity to the coast and the influence of coastal sea breezes are major drivers of heat in the Basin. In comparison with Leichhardt, Penrith LGA is landlocked and inland at the foot of the Blue Mountains. The harbour foreshore makes up approximately one third of Leichhardt's external boundary. Unlike Leichhardt, Penrith experiences negligible influence of sea breezes (Adams and Smith 2014).

Figure 24: A topographical view of the Sydney Basin (left) and tree canopy cover (right).



A lack of tree canopy cover is one of the causes of urban heat (Shashua-bar and Hoffman 2000). Tree cover is roughly equivalent in both LGAs at between 20-30%. Neighbouring LGAs that form part of the corridor of development along the Great Western Highway have considerably lower tree canopy cover (<10%). However, other attributes of surface cover that also influence heat exposure in these LGA's differ (Table 8).

All heat islands have similar land surface proportions and temperatures. Open space tends to be at a premium in the inner west areas. Grass surface cover is a surrogate measure of open space as it includes areas such as sporting fields and golf courses. In residential areas the LGAs differed in the proportion of land surface covered by 'grass' with Penrith residential areas having about 5-times





greater coverage than Leichhardt. In comparison with Penrith, a larger proportion of the land surface in Leichhardt has been sealed reducing the potential for evapotranspiration from these surfaces.

In commercial areas, the differences between LGAs are reduced. Leichhardt had slightly higher tree cover and Penrith higher grass cover (Table 8).

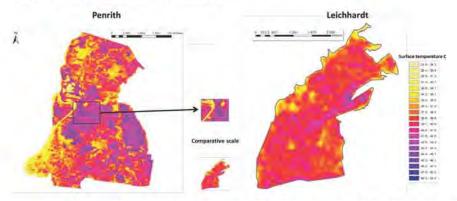
Table 8: Range of land cover types in selected heat islands

	Tree (%)	Shrub (%)	Grass (%)	Sealed surface (%)
Penrith Residential	2-16	2-6	25-41	44-66
Leichhardt Residential	12-21	2-7	5-8	70-75
Penrith Commercial	5-10	0-3	2-15	77-89
Leichhardt Commercial	5-18	0-4	0-4	76-93

Distribution and scale of heat islands

Areas of high land surface temperatures (LST) occur throughout Penrith and Leichhardt LGAs. However, the surface temperature data used to construct the heat maps was collected on days with different ambient temperatures. While suitable for identifying heat islands within an LGA, a direct comparison of the scale and extent of heat islands across LGAs presents some difficulties. On the days of measurement, both LGAs had temperatures in heat islands above average air temperature. When presented using a common temperature scale Penrith had a greater range of LSTs at both ends of the temperature scale, albeit recorded on a hotter day than for Leichhardt (Figure 25). However, in relative terms Leichhardt had a greater proportion of LSTs at the higher end of its temperature spectrum compared to Penrith, as well as a more patchy distribution of heat.

Figure 25: LGA scale heat maps using same temperature scale. The entire Leichhardt LGA is roughly equivalent in area to the suburb of Penrith within the Penrith LGA.



Leichhardt's heat islands appeared to be closely associated with major roads running through the LGA, such as Victoria Rd, Darling Street, Parramatta Road and City West Link. Penrith's heat islands





appeared to be associated with large residential developments, emphasising the substantial differences in scale between the two LGAs.

For the most part, cooler surface temperatures in Penrith either followed riparian zones (such as the Nepean River) or were associated with remnant areas of peri-urban land use (and some reserves), particularly in the northern part of the LGA. Areas of irrigated open space, such as golf courses, were also locally important cooler regions. For Leichhardt, the harbour foreshore forms a large section of the LGA boundary and provides the major localised cooling effect. Within the LGA, smaller cool areas were associated mainly with public parks. The suburb of Annandale was somewhat unique because a combination of relatively high levels of tree canopy cover (in both public and private spaces) and restored riparian areas on the suburbs boundaries make it one of the few cool residential areas found in either LGA.

Scale is one of the fundamental differences between inner west and Western Sydney LGAs. Viewing the suburbs at a common scale facilitates a comparison of relative exposure across the LGAs. Penrith LGA is approximately 400km^2 in area. The entire Leichhardt LGA (11km^2) is roughly equivalent in area to a single suburb in the Penrith LGA. These scale differences result in extensive areas of uniform land surface coverage that cause large, suburb-scale regions of high LST in Penrith. In contrast, Leichhardt LGA has relatively small, patchy variations in LST at local/neighbourhood scale appearing as a granular mosaic of surface temperature.

The influence of scale on exposure is mediated through population density (an aspect of sensitivity). The distribution of cool areas coupled with geographical scale means that residents of Penrith LGA must travel a greater distance to access a cool location during heat wave conditions than residents of Leichhardt. The cooler areas of Leichhardt, albeit much smaller than Penrith, are closer to dense population centres and therefore may be more accessible to a larger proportion of the population.

6.2 SENSITIVITY

Demography and social attributes

Unlike other extreme climate events (e.g. floods, storms or bushfires), extreme heat rarely produces lasting impacts on infrastructure and dwellings. The primary impact of extreme heat events falls on people. Accordingly to assess differences in sensitivity between LGAs we compared selected statistics from census data. These statistics are summarised in Table 9 illustrating the differences in land area, population density and relative levels of affluence in these LGAs.

In absolute terms, Penrith LGA has 37-times greater land surface supporting 3.3-times the population of Leichhardt. Accordingly, Leichhardt LGA has an average population density about 10-fold higher than that of Penrith.





Table 9: Summary of social attributes by LGA

LGA	Penrith	Leichhardt	
Geography	Western Sydney Land locked	Inner West Coastal	
Land area (km²)	404	11	
Population	190,428	57,266	
Population density (persons/km ²)	456	5274	
Median income/ week	1398	2234	
Elderly (85+yrs)	1% (1876)	1% (629)	
Infants (0-4yrs)	7.3% (13,818)	7.8% (4,471)	
SEIFA index	996	1104	
Public transport use %	11	29	

Demographic comparisons also reveal a significant socioeconomic difference in the two regions. Leichhardt has a median household income of \$2,234 per week making it the 5th most affluent LGA in the greater Sydney area, whereas the median household income of Penrith is \$1398 per week. This difference is reflected in the SEIFA index of disadvantage, which incorporates employment, education, income and unskilled occupations into the analysis. This index shows Penrith LGA to have higher levels of disadvantage that Leichhardt.

Using the proportions of elderly and infants in the population as measures of the presence of heat sensitive community segments indicates little relative difference between the LGAs with approximately 1% and 7% of each LGA's population classified as elderly and infants respectively. However, because of the large absolute difference in population there are at least three-times the number of elderly and infants in Penrith compared to Leichhardt. Density also influences service delivery to at-risk community groups; lower densities in Penrith requiring community services to operate over larger geographical areas than Leichhardt. Greater reliance on private transport in Penrith is a reflection of public transport availability and population density, which potentially can further isolate the disadvantaged in the community.

6.3 ADAPTIVE CAPACITY

This section will focus on the constraints to adaptation that show regional differences between Penrith and Leichhardt LGAs and that provide some insight into variations in adaptive capacity between inner west and Western Sydney regions. Points of difference between these regions lie largely in issues related to scale, social context and the residential built environment. The ways in which mitigation of heat can be addressed in urban heat islands, i.e. through living greening infrastructure, changed surface properties and reconfiguration of spaces, and through the need for broad public education about heat risk, have been covered in other sections of the report.





Scale.

Differences in scale of heat islands in Penrith and Leichhardt affect the capacity to effectively mitigate heat. Residential heat islands in Penrith are large, uniform blocks of high LSTs, primarily due to the interconnected sealed surfaces and very low levels of tree cover. These patterns are intensified in newer suburban developments where houses occupy most of the area of the blocks, are closer together have negligible areas of vegetation. Houses are often very similar in size, design, materials and vegetation, which is a feature of Master Planned Estates. In contrast, Leichhardt has a greater diversity of housing stock in the residential areas, presenting an array of housing types, styles, materials and vegetation. This variation extends from the LGA to a micro scale, where houses within the same street can show considerable variation, particularly in the amount of green space. This diversity underpins the variations in LSTs, with the microclimates in Leichhardt changing within a single residential street. This variation was less pronounced in Penrith, primarily due to the lack of private vegetation and greater uniformity within streetscapes.

The smaller scale and more distributed nature of heat islands in Leichhardt allows for better identification and targeting of actions to priority areas than for Penrith. In Penrith effective heat mitigation in residential areas requires action at suburb scale, consultation with a greater number of householders and considerably greater cost.

Social context

Vulnerable community groups are present in both locations. However, there was evidence of differences in isolation of the disadvantaged. Social isolation is an increasing issue in urban communities as is evidenced by high profile media reports of isolated individuals found deceased in urban dwellings. In both LGAs the disadvantaged may be socially isolated within the urban community (Korte 2010, Grenade and Boldy 2008). However, in Penrith (and Western Sydney in general) there is a greater likelihood of geographical isolation. Geographical isolation is a function of scale, and therefore the distance to services. Distance to facilities that might relieve the impacts of heat waves, such as public transport, medical facilities and air-conditioned shopping centres is greater in Penrith than in Leichhardt. Better geographical connectedness increases the adaptive capacity of vulnerable groups because it provides a greater range of options to cope with extreme heat. A community with higher population density enables more cost effective services to be provided by Council and other community groups. For example, the scope for providing a regular shuttle bus service to allow voluntarily relocation of the elderly to cooler premises during heat waves is greater in a more compact, denser-settled LGA such as Leichhardt than it is in a large, more sparsely-settled LGA such as Penrith.

While more difficult to define, there was some evidence that cultural differences between the inner west and Western Sydney may constrain adaptive responses. There appeared to be less acceptance of the value of 'greening' and a greater acceptance of heat as part of the Australian lifestyle in Penrith than in Leichhardt. These issues are problematical to social change because they make attempts to enlist public support for urban greening in both public (streetscapes) and private (backyards) spaces difficult, and they limit the perception among the broader community of heat as a risk to health and well-being (Boronyak-Vasco and Jacobs in press). Cook et al. (2012) concluded that the management of residential landscapes results from a complex set of human drivers (attitudinal, structural, and institutional factors) at multiple scales of influence and incorporates feedbacks with biophysical





characteristics. As yet, the impacts of urban heat do not appear to be a major driver residential landscape management in Sydney.

Table 10: Major differences in social context between Penrith and Leichhardt LGAs

Criterion		Differences between LGAs		
Vulnerable populations	Elderly, disadvantaged, chronically ill, housebound, socially isolated	Social disadvantage higher in Western Sydney		
Access to 'cool spaces' Household air condition	Household air conditioning	Energy cost limits use for disadvantaged (both regions)		
	Shopping malls	Geographical isolation in Western Sydney		
	Public transport	Limited service in Western Sydney – car dependent		
Cultural differences	Attitudes to 'greening'	Less acceptable in Western Sydney		
Social housing	Style of housing	Inadequately adapted to heat (both regions)		
Acceptance of heat	Part of 'Australian life-style'	More acceptance in Western Sydney		

Residential built environment

Differences between LGAs in aspects of the residential built environment that affect adaptive capacity are related primarily to the style of development (green field versus urban renewal/infill), the extent of legacy effects from past developments, management of private cars and the degree of reliance on public open space for amenity (Table 11).

Housing construction in Penrith (and Western Sydney generally) takes place primarily via relatively large-scale developments on greenfield sites. This should enhance the capacity to adapt housing to increased heat through innovation in form, style and materials. However, development in Penrith is characterised by urban sprawl, which is a major constraint to adapting to urban heat. The current urban design that underpins new residential developments in Western Sydney prioritizes larger houses over tree cover and outdoor space. This design is predominantly low density, with wide roads for easy car access. This type of urban design is expanding throughout Western Sydney as greenfield sites are released and developed into Master Planned Estates (MPEs). Western Sydney developments are often driven by the need for affordability, rely on standard housing models where the building envelope occupies most of the land parcel and seldom account for climate performance of the building. This style of development fails to encourage adaptation in property owners who rely on air-conditioning to cope with extreme temperatures.





Table 11: Some differences between Penrith and Leichhardt in capacity to adapt residential development to urban heat.

Penrith	Leichhardt		
Green field development	Urban renewal/infill/ apartment blocks		
Post-war 1950-60s developments	Victorian era housing 120+ years old		
Low thermal mass – air conditioning	High thermal mass		
Master planned estates	Heritage restrictions		
Low traffic – cul de sacs	High traffic – grid layout		
Off street parking - garages	On street parking		
Poor local public transport	Excellent local public transport		

In Leichhardt, urban renewal and a more affluent population should enhance capacity to adapt the existing, Victorian-era buildings to climate. Other researchers have reported a link between urban heat and affluence (e.g. Buyantuyev & Wu 2010). In this situation, the desire to preserve the heritage of the suburb may constrain adaptive capacity by restricting the extent of change to existing buildings and the style of new construction that is allowable. There are instances where densification of population through construction of apartments has allowed retention of open green space. However, too frequently, apartment developments fail to include adequate space for resident amenity; mitigation of urban heat is not considered as part of the development.

In both LGAs there appears to be a growing demand for larger indoor spaces at the cost of outdoor space. This trend is having a clear impact on the microclimate in residential areas (Hall, 2010), limiting proportions of outdoor areas for tree planting, and preventing connectivity and shading of non-porous materials. It also limits the areas of grass and permeable land cover, preventing rainfall capture in the soil layer, which is integral for localized cooling and tree health.

Cars play an important role in determining the layout of suburbs. In Penrith, modern MPEs are generally laid out as cul-de-sacs to provide an optimum number of land parcels per unit area, to accommodate low traffic flow and to limit through-flow of traffic in residential areas. Cul-de-sacs may, however, also limit airflow and reduce pedestrian activity through the residential areas. Cozens and Hillier (2008) concluded that there was limited evidence from empirical studies to support many of the claims about the pros and cons of cul-de-sac versus grid layouts for residential developments.

In Leichhardt, main streets serve not only to allow cars access to properties but also act as conduits for traffic between the city centre and outer suburbs. This heavy traffic movement affects local air quality and is a source of anthropogenic heat. In addition, many roads are controlled by Roads and Maritime Services (RMS), rather than by local government, because of their importance as alternate routes for city ingress/egress. The capacity for local government to undertake action to better adapt these streets for heat is constrained by RMS's institutional control. RMS's management is focussed on maintaining these streets for traffic flow and pays minimal attention to the design of the streetscape, despite the important multipurpose nature of these streets for local residents (e.g. Johnston Street, Annandale).





Conclusions

Adapting Sydney to urban heat is a complex, multifaceted problem that requires action by a range of institutional actors and local communities. While both the inner west and western regions of Sydney will need to adapt, differences in exposure, sensitivity and adaptive capacity between these regions suggest that effective uniform approaches are unlikely to be forthcoming.

Urban design plays an important role in determining local microclimates for both residential and commercial areas. There are clear differences in the urban design between regions of Sydney, which are influenced by issues of scale, population density, levels of affluence and cultural preferences. Urban heat and its impacts of existing and future local communities cannot be excluded from consideration of the growth and ongoing transformation of Sydney's urban environments. The difficulty, however, is to ensure that consideration of heat is sensitive to local context.

It is hoped that this comparative analysis promotes further local government collaboration, regional connectivity of urban tree cover and ultimately improves the health and wellbeing outcomes for the Greater Sydney population.





7 DISCUSSION

The analysis of heat in the Leichhardt LGA detailed in this report has revealed a complex relationship between landscape, the built environment and land surface temperatures. The vision of Leichhardt Council's Environmental Sustainability Plan 2015–2025 is that 'Community and Council will work together to promote and develop Leichhardt as a sustainable, liveable and connected community'. Mitigating urban heat and preventing the systematic creation of new heat islands due to future development is a key principle which Council has identified as underpinning this vision. Working towards achieving connected green spaces that reduce surface temperatures can create safer and healthier environments with multiple co-benefits that promote community wellbeing. This chapter discusses the Adapting to Urban Heat findings that support the recommendations outlined in Chapter 8.

There are four main findings that emerge from the results:

- Presence of heat islands in Leichhardt LGA: Like other urban areas in Australia and globally, Leichhardt LGA has regions where surface temperatures are much higher than the ambient temperature.
- Leichhardt LGA cooler regions: There are also regions within the LGA where surface temperatures are lower than the ambient temperature but these are typically more isolated and cover less surface area that the heat islands.
- Factors causing high surface temperature: The causes of high surface temperature include
 most of the factors identified in previous research on urban heat and include: low shade
 coverage and vegetation, low proportions of permeable surfaces, minimal water capture in
 the landscape, high proportions of impervious low albedo materials, and high
 anthropogenic heat.
- Features unique to Sydney's Inner West, that do not occur in Western Sydney, include the
 patchy nature of heat islands. This is largely attributable to the diversity of land cover and
 mixed zoning of the LGA.

In common with other urban centres, Leichhardt LGA has a range of community groups sensitive to urban heat, including the elderly, infants, the chronically ill and the socially disadvantaged. The responses of social service providers to extreme heat range from informal measures through routine to formal/statutory measures to minimise risk. However, Leichhardt LGA differs from Western Sydney in that while disadvantaged, vulnerable groups are often equally socially isolated, they are less geographically isolated from community services, and this has the potential to endow these groups with higher levels of adaptive capacity.

Presence of heat islands in Leichhardt LGA

Discrete regions of higher than ambient surface temperature (or heat islands) are a feature of urbanisation throughout the world (Adams and Smith 2014). The ambient temperature on the day of the aerial heat mapping used in the current study was approximately 31°C. The land surface temperatures on the same day ranged from 28 to 46°C. Therefore the hottest land surface areas were 15°C above the ambient temperature. Heat islands occurred in all suburbs, and were often, but not always, closely associated with major traffic thoroughfares such as Parramatta Road, Victoria Road and



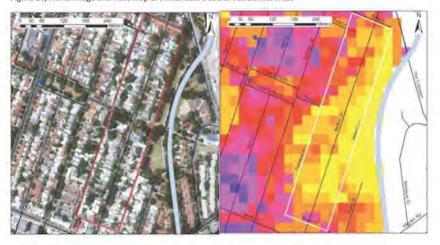


Darling Street. The largest heat island in the LGA spanned parts of three suburbs, Balmain, Rozelle and Lilyfield, and covered the Bays Precinct extending along the City West traffic corridor.

Leichhardt LGA's cooler regions

Not all suburbs are uniformly hot. Annandale, for example, had fewer heat islands and a greater land area, with cooler surface temperatures than other suburbs. Areas close to bodies of water are generally cooler than inland areas. The harbour foreshore areas of Balmain East, Birchgrove, Balmain, Rozelle and Lillyfield were all cooler than the inland parts of these suburbs. However, the influence of the water appeared not to extend far inland. Rather, the presence of vegetation, in the form of foreshore parks, particularly with established shade trees, had a greater effect on surface temperature than proximity to the harbour. Inland areas of lower surface temperature were always associated with areas of vegetation. These included parks in Leichhardt, Lilyfield and Annandale that were often linked with attempts to restore and preserve green infrastructure such as creek lines. Whites Creek Park on the Annandale-Leichhardt border is one such example.

Figure 26; Aerial image and heat map of Annandale's cooler residential area.



Factors affecting surface temperatures

Multiple, diverse factors are responsible for the generation of high surface temperatures in Leichhardt LGA. However, heat islands are always associated with areas of land surface that have been significantly modified from their natural state. These modifications occur as a consequence of expansion of the built environment. The causes of heat islands are attributable to a combination of land use and surface cover in both public and private spaces. Properties of public space that increase surface temperatures include:

Width of streets: street widths vary throughout the suburbs. Wide streets generally increase
the surface cover made up of asphalt, a highly heat absorbing material that intensifies local
urban heat (Ding et al., 1995; Rosenzweig et al. 2006; Block 2012; Norton et al. 2015). Wide
streets can also provide opportunities for wide verge spaces that support a combination of
short dense shrubs and large shade trees, however this use of urban street design is rare
Leichhardt's residential areas. For example, in wide streets such as Falls Street, Leichhardt, the





combination of low traffic volumes and rear lane access appears to have resulted in an oversupply of on-street parking. This space might be put to better use if it is modified to mitigate heat.

- Presence of verges and/or footpaths: The size, shape and distribution of street trees and other vegetation, the width of footpaths and the presence of verge space are not consistent across the LGA. In the selected hotspots, verge space featured in most, but not all areas, despite there being sufficient width on the footpath in all cases. Verge space is integral to the urban cooling potential of an area as it allows a grass-sward to be established to capture and retain rainwater, and to provide soil, nutrients and water for shade trees that protect the road, footpath and surrounding hard surface from absorbing the sun's energy. Verge space in many hotspot sites was not utilised to its full potential to support urban cooling due to the distribution and type of vegetation. Tree cover was variable in most cases it was sparse and patchy. In a small number of locations (e.g. the intersection of Allen St and Darley Rd), verge spaces were being used more effectively.
- Established tree canopy: Residential sites in Annandale with the lowest surface temperatures were up to 4°C cooler than similar sites Leichhardt. The differences in temperature were largely attributable to differences in land surface cover, with areas of Annandale having up to double the amount of canopy cover (30%) than Leichhardt hotspots (13%), as well as much reduced hard surface areas and more grassed areas (Table 4). Although cooler due to their greater canopy cover, the heat imagery shows variation within the cool spots. Hotter pockets are evident due to variations in the width of streets and private landscape choices that underpin the heat patterns across the LGA.

For private spaces a number of drivers of change in the built environment are associated with increased surface temperature including:

Gentrification and preservation of heritage

The built environment in Leichhardt has a rich heritage that is evident throughout the residential areas. With an industrial and working class history, the street and housing design reflect the social structure and lifestyles of the mid-1800s (McManus 2007). The built environment of the Leichhardt LGA is now home to a well-educated and relatively affluent community, with a high proportion of professionals and managers, as well as a high average income (Leichhardt Council 2015).

Despite the significant change in community demographics, the original housing in the LGA largely remains. However, these predominantly single story, detached, brick properties have undergone transformations over the last 150 years, with the suburb reflecting a range of styles and eras of building design. In some cases this has included demolition and rebuilding. Most houses have undergone modifications to materials, house footprint and garden space to make them more suited to contemporary lifestyles and this has made the housing stock in Leichardt an eclectic mix (Pinnegar et al. 2010). Consistently limited front set-backs and narrow blocks ensure an almost continuous surface of interconnecting roofs and the contemporary retrofits have resulted in a progressive loss of already inadequate outdoor space (Searle 2003). Until now though, the link between urban renewal/retrofit, surface temperature and urban heat islands has not been explicitly recognised. The linking of surface temperature mapping to aerial imagery of land use and land cover has revealed the effect of changes to the housing stock on land surface sealing and on reductions in the amount of open vegetated space (Scalenghe & Marsan 2009).





Changes in building materials

Figure 27 shows the extent to which original dwellings have been extended in a typical residential area of Leichhardt, clearly demarcated by the change in roof materials. This pattern of redevelopment of the rear of the dwelling is at least partly driven by the requirement to preserve heritage aspects of the building facades. The use of modern, lighter roofing materials (such as sheet metal) shows the hybrid housing design, aiming to retrofit modern lifestyles to heritage buildings (Judson et al. 2014). The older terracotta and slate roof materials have a low albedo value, meaning that they retain much of the sun's heat rather than reflecting it (Block et al., 2012). This is evident on the heat maps across the LGA. The newer materials appear to be consistently lighter in colour and lower in thermal mass, countering to some extent the loss of outdoor vegetated areas.

Figure 27: Original housing (terracotta tiles) with large extensions (metal sheet) and highly variable amounts open green space.



Repurposing of residential laneways

Previous research has demonstrated that the nature of the built environment influences how people use urban spaces (Byrne & Sipe 2010). Parts of Leichhardt LGA are renowned for preserving laneways at the rear of properties. The aerial imagery reveals that approximately 50% of streets in Leichhardt have such laneways, which once served as access to dwellings for waste services. However, they have been repurposed to provide off-street parking for cars, which has resulted in three changes to the local microclimates:

- Construction of rear garages: most households in the Leichhardt LGA have at least one car, with
 approximately 44% using cars as their primary mode of transport (Leichhardt Council Community
 Profile, 2015). Off-street parking can add to a property's real estate value, and reduces car
 insurance premiums. For these reasons it is unsurprising that the large majority of houses with
 lanes have added garages to the rear of the property. However, the addition of the private garage
 space at the rear of the dwelling reduces (by approximately 25-30%) private open outdoor space.
 Coupled with extension to the original houses, rear garages can substantially reduce urban green
 space and contribute directly to urban heat.
- Impediments to connected green infrastructure: the addition of covered off-street parking not only
 reduces private outdoor space, it also interrupts the potential for connectivity of green
 infrastructure. Aerial imagery suggests that households without off-street parking are more likely





to have adjoining outdoor, vegetated areas that provide an almost continuous corridor or trees and shrubs at the rear of these properties. The connected green infrastructure of adjoining backyards creates cooler microclimates, indicating that the domestic backyard and residential outdoor spaces have an ecological function and importance that goes beyond the interests of individual households (Hall 2010). Houses without rear land access also appear more likely to have installed backyard swimming pools.

3. Car-dominated function: Lastly, laneways are exacerbating urban heat in Leichhardt as their function has evolved purely to support vehicular access. Unlike residential streets that have footpaths and verges, rear lanes are pedestrian and vegetation-free zones, functioning to support rear off-street parking. Laneways are often much narrower than surrounding streets and roads, often just wider than a single car, which makes pedestrian access and revegetation difficult. However, rear lanes are sufficiently common across the LGA to warrant further consideration as part of a broad cooling strategy.

Patchy nature of Leichhardt's heat islands

The heat patterns across the LGA show high levels of local variation at both the neighbourhood and suburb scales. The heat signatures across the LGA form a mosaic, with a large number of microclimates that range from cool to very hot relative to ambient air temperature. Heat islands and cooler areas are often found in close proximity to each other, sometimes within a hundred metres. These temperature patterns reflect the heterogeneity of land use and variations in land surface characteristics across private, commercial and public spaces (Badcock 1973). Such patterns typify the older established areas in Sydney's Inner West and are markedly different from the larger heat islands found in Western Sydney that result from more uniform land surface cover (Jacobs and Delaney 2015). Despite the patchy nature of the surface temperature patterns in the LGA, the heat maps show that in total, the heat islands cover much more land area than cool spots.

Leichhardt LGA is an urbanised inner city area with a relatively dense, growing population. In common with many inner city areas, the LGA consists of a combination of residential, commercial and, in parts, remnant industrial areas rather than distinct, well-bounded planning zones. This merged zoning provides much of the appeal of inner city living, creating a melting pot of urban co-existence. However, urban densification often occurs at the expense of local vegetation and the natural cooling features of an area, resulting in rising land surface temperatures and concomitant effects on the local population.





Figure 28: Impact of vegetation on households with (yellow line) and without rear laneways.



Urban heat and social vulnerability

A number of groups within the community have been identified as potentially being more sensitive to increasing urban heat. These groups include infants, the elderly, the socially disadvantaged and the chronically ill. All of these groups are represented in the population of Leichhardt.

Socially disadvantaged groups are currently supported by a range of services provided by the NSW Government, Leichardt Council and NGOs. Few of the service providers indicated that they have developed specific policies to deal with the impacts of extreme heat, although they all conceded to varying extents that heat waves could become a greater problem in the future. In common with findings from Western Sydney, the responses of social service providers to the risks posed by extreme heat range from the informal through routine to formal and statutory. Informal and routine responses were generally incorporated into day-to-day management actions, such as switching venues or substituting indoor for outdoor activities as required to avoid heat. Services requiring home visitation often afforded opportunities for service providers to assess clients against a range of criteria related to extreme heat events and to provide advice as required. Formal responses were generally associated with statutory health and safety requirements of service provider staff or food delivery services. However, until heat wave sensitivity is formally incorporated in the policies and operations of community service providers, there is potential for it to be overlooked as a risk to health and wellbeing. At present, however, heat stress is not formally recognised by the NSW Government in assessment processes as a risk factor which can trigger assistance for at-risk individuals.

While vulnerable groups in Leichhardt LGA may be socially isolated in the urban community (Korte 2010, Grenade and Boldy 2008), their degree of geographical isolation is less than in areas of Western Sydney. This difference in geographical isolation is a function of the distance to services and facilities that might relieve the impacts of heat waves, such as public transport, medical facilities and air conditioned shopping centres. This is not intended to downplay the problem of social isolation, which is an increasing issue in urban communities, as is evidenced by high profile media reports of isolated individuals found deceased in urban dwellings. Better geographical connectedness does, however, increase the capacity of vulnerable groups to take advantage of options to cope with extreme heat. It also enables more cost-effective services to be provided by councils and other community groups. For example, in a compact LGA such as Leichhardt, it would be much easier to provide a regular bus





service to voluntarily relocate the elderly to cooler premises during heat waves than it would be in a large, more sparsely-settled LGA such as Penrith.

For children in particular, Council's existing program of providing additional shade in playgrounds to ensure play equipment does not overheat is a sound policy, as this was raised as an issue of concern by child care providers. While schools are spaces outside of Council's control, children walking to and from school through suburban streets may be at risk of increased heat exposure. Council could consider developing designated 'walking bus routes' to and from schools that could incorporate additional shade, other heat mitigating features and even child-friendly street art to engage children and encourage active transport.

Commercial heat islands

Aside from the issues identified above, heat islands in commercial areas present some unique problems. The commercial high streets of the Leichhardt LGA are iconic hubs of pedestrian and economic activity. Landmarks in their own right, Darling Street and Norton Street attract both tourists and locals.

The surface temperatures of Darling and Norton Streets in this study reached approximately 42–44°C, which was 13°C above the ambient temperature. The existence of these heat islands was attributable to a number of factors:

Extensive areas of hard surfaces: Interconnecting hard surfaces comprise 76–82% of the land cover on these streets. This leaves little room for trees and grassed areas. These surfaces comprise shop fronts, rooftops, awnings, footpaths and roads. However, the biggest single contribution to heat in commercial spaces is arguably the high proportion of road surface. Both Darling and Norton Street allow for parking on both sides of the road, and two-way traffic, an urban design that caters for traffic and inadvertently creates urban heat.

Low levels of canopy cover: In combination with the high proportions of hard surfaces in commercial zones, the low levels of canopy cover, the ad hoc distribution and small size of existing street trees is a major co-contributor to urban heat in the Leichhardt LGA. Existing street trees are not performing a cooling function due to a lack of connectivity, their small stature and their narrow canopies. To maximise urban cooling, street trees need to be tall and broad enough to cover the roofs, roads and other hard surfaces. If they don't provide significant shade coverage, street trees will do little to mitigate the urban heat island effect. In both Darling Street and Norton Street the street trees are short and sparsely distributed (Figure 29 and Figure 30) and appear to serve a decorative function only.

Selection of building materials: Extensive use of low albedo materials of low permeability, such as asphalt for footpaths and uncovered car parks, systematically creates heat islands. The choice of dark coloured building facades often appears to be dictated by fashion rather than common sense. Mid-morning spot temperature measurements on commercial buildings in Norton Street (Table 6) demonstrated the impact of commercial shop front materials on the localised urban heat. In some areas that have undergone commercial redevelopment (such as parts of Norton Street in Leichhardt), shopfront awnings, an important part of the area's heritage and identity, have been removed, exposing more of the footpath to solar radiation.

Anthropogenic sources of heat: Amplification of heat islands due to the high levels of anthropogenic heat from local traffic exhausts and low albedo car materials reduce human comfort in zones of high pedestrian activity. As the high streets struggle to cope with increased traffic





demands, traffic jams have become a normal feature in these areas, further adding to urban heat. The challenge is to meet the expectations of local populations in providing parking and accessibility while at the same time addressing the causes of high surface temperatures.

Selection of tree species: There are examples of attempts to revegetate commercial areas with small curb-side garden beds (for example in Darling Street Balmain), hedging plants (see Figure 30:) or small trees. While this type of urban design is a positive step, these features are not at a scale sufficient to offset the land surface properties driving urban heat islands. A small section in Norton St provides a more encouraging example of pedestrian focused urban design. Between Marlborough and Carlisle Street, on-street parking has been removed on one side, the footpaths widened and street trees installed. There is shade over the road and awnings on shopfronts. As a result, this section is the coolest part of the commercial area and conditions for pedestrians have improved. While there are improvements to be made to this current design to further increase the cooling function (permeability, tree species and diversity), this reconfiguration is a positive step towards rebalancing the commercial landscape and cooling the community centres.

Figure 29: Curbside hedging on Darling Street, Balmain.



Figure 30: :A section of the commercial section of Darling Street Balmain showing the incorporation of some heat mitigating features: trees, albeit small, providing limited footpath shading, permeable paving material beneath the tree to allow moisture penetration and a light-coloured building façade.







Site-specific strategies are needed

For commercial spaces in particular, strategic, long-term parking solutions need to be devised if the urban heat generated from cars, parking and roads is to be reduced. Balancing the needs of local car owners with pedestrian health and safety is a primary focus. These conflicting pressures have been acknowledged in the City of Melbourne's Urban Forest Strategy (2012), which states the "increased pressures on public spaces to accommodate more uses — whether for recreation in parks or for traffic and parking in streets — which can result in direct competition with plantings for space as well as making more demanding growth conditions due to more extensive hard or compacted surfaces" (p. 33). Acknowledging this conflict and working strategically to satisfy these competing requirements will be pivotal to increasing the liveability of the Leichhardt LGA, and to ensuring the vitality of the commercial hubs. Rebalancing pedestrian areas in commercial hubs can provide opportunities for increasing the number and size of street trees, and ensuring the ongoing health of the existing vegetation is critical to the long-term effectiveness of green infrastructure investments.

The high proportion of sealed surfaces is one of the primary causes of heat in both Darling and Norton Streets, yet different circumstances in the two suburbs in which these streets are located will require unique, site-specific combinations from the urban cooling toolkit (Figure 31). In assessing the options for potential reconfigurations of land surface cover and commercial function, the following questions need to be asked:

- · What are the long-term alternatives to on-street parking?
- · Is purpose built off-street parking a solution?
- · How can parking be provided without further contributing to urban heat?
- Will limits to on-street parking ease traffic pressures?
- Has this road been earmarked by the RMS as a 'pressure valve'? If not, how can this road be
 modified to increase tree cover and rain capture in the soil profile?

Figure 31: The toolkit of major options available to mitigate urban heat.







Parramatta Road precinct

The analysis of Parramatta Road examined how the current configuration was creating urban heat. However this area is earmarked for large-scale urban renewal, and therefore discussion will focus on how the strategic planning and design of future developments can respond to urban heat by maximising opportunities and ensuring safeguards against increasing urban heat are in place.

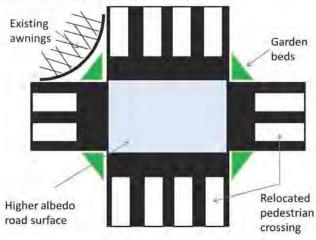
Like much of the Leichhardt LGA, the Parramatta Road precinct is a hybrid of commercial and residential zoning, creating a mix of activities. In addition to this local zoning mix, Parramatta Road is the urban spine between the City and the West. It is a route for industry, trade and suburban travel, supporting up to 100,000 vehicle trips per day (Urban Growth NSW 2015). With such intensive traffic demands and additional commercial activity, it is unsurprising that hard surfaces form between 89 and 93% of the land surface cover. As with all hotspots in the Leichhardt LGA, these hard surface proportions, particularly when combined with the impact of asphalt roads and low albedo material ground surface materials, are intensifying local heat. In addition, the contiguous nature of the hard surfaces currently offers no opportunity for tree cover and rainfall capture. These arrangements have clearly been established to facilitate car access and parking facilities without recognising the impact this has had urban heat and liveability.

There are many stakeholders involved in the Parramatta Road area, particularly on Parramatta Rd itself. Small businesses manage the shop fronts, tenants manage the larger commercial enterprises, the state government manages the road, and Leichhardt and Marrickville Councils share the local government boundary. This multi-stakeholder arrangement means that Leichhardt Council is constrained in the changes that it can make to significantly cool the area. Drawing on the urban cooling toolkit (Figure 31), small improvements can be made in three key areas: the increased use of grass and permeable footpaths; the use of surface materials, particularly those exposed to direct sun; and the reconfiguration of intersections. Changing surface materials and increasing vegetation cover have been discussed in previous sections. Intersections, however, are major local heat islands. Intersections increase the exposure of pedestrians to direct sun and urban heat while waiting at traffic lights. Large shade trees, ground hedging and ground cover at Parramatta Road intersections would improve the liveability and walkability for community members accessing public transport. Figure 32 shows one possible reconfiguration of these intersections. Changes could include: changing the colour of the road surface in the centre of the intersection, moving the pedestrian crossings away from the corners of the intersections (providing shade for pedestrians under existing awnings, and installing garden beds at the corners of the intersections to grow vegetation that complies with road visibility standards. We make no claims as to the technical feasibility of these changes. Detailed modelling may well identify other configurations that would serve equally well to reduce heat islands at intersections.





Figure 32: A potential reconfiguration of major intersections on Parramatta Road.



Opportunities behind Parramatta Road

The large commercial buildings and apartment blocks on Parramatta Road extend into residential laneways in Leichhardt and Annandale. These areas at the rear of Parramatta Road are currently a combination of car parks, laneways, unused spaces, commercial areas and residential areas. The land surface proportions are much the same at the front and rear of these Parramatta Rd premises, in that interconnecting hard surfaces dominate the landscape, with little evidence of shade cover or vegetation, particularly in public areas. In the Parramatta Road area, between Johnston Street and Balmain Road, traffic volumes on side streets are considerably lower that on Parramatta Rd itself. Despite the close proximity to the noise and traffic flows of Parramatta Rd, the adjacent residential area mostly supports local traffic. The associated significant drop in anthropogenic heat provides an opportunity to cool the precinct as well as support the liveability and wellbeing principles outlined in Leichardt Council's Environmental Sustainability Plan.

Heritage meets modernity: repurposing Leichhardt's laneways

As discussed in the residential section of this report, laneways are an important part of the cultural heritage and appeal of Leichhardt. For this reason it is important that any new development maintains the character of the suburbs while mitigating urban heat. While the large number of laneways is currently contributing to urban heat islands by adding to hard surface proportions and limiting vegetation cover, with careful planning and a pedestrian focus, laneways could provide an opportunity to transform current hotspots into cooler social hubs. This could also help to stimulate the commercial, economic and cultural vitality of the area.

Developing a laneways reactivation strategy could mitigate urban heat and improve liveability for the following reasons:

Uncomfortable conditions along Parramatta Road currently limit pedestrian activity;
 reactivating laneways to increase pedestrian/cyclist use would improve the liveability of this





section of the LGA.

- Laneways weave throughout the Parramatta Road precinct, forming connections throughout Leichhardt and Annandale. These connections could offer pedestrian access and commercial routes that avoid the urban hotspots and minimise pedestrian—vehicle conflict.
- Pedestrian-focused laneways can provide areas for urban vegetation and opportunities to increase the proportion of the land surface covered by vegetation and permeable materials.
- Pedestrian-focused laneways can improve the walkability of an area.
- Laneways can provide cycle routes to add to the accessibility of the area and help the community adopt alternative modes of transport.
- Laneways can provide pilot sites for permeable pavements and green walls, offering potential
 for expansion and connectivity, and providing opportunities to engage commercial and
 residential stakeholders in collaboration on local green infrastructure projects.
- A laneway strategy could incentivise and stimulate pop-up commercial enterprises, creating
 opportunities for new and innovative small businesses.
- Laneways strategies can enhance existing mixed-use in the Parramatta Road precinct by
 providing space for work and leisure. These strategies can respond to the shift towards remote
 working situations and provide areas for local residents to work remotely, while contributing
 to the social and economic vitality of the neighbourhood.
- New housing developments can contribute to laneway culture through sympathetic design, urban green infrastructure and pedestrian-focused planning.

The potential for laneway re-activation is best illustrated by an existing Leichardt laneway: Pig Lane. Pig Lane runs parallel to Parramatta Road, between Hay and Catherine Streets. Most of this area is currently used as council and/or private car parks with no shade, vegetation or water capture opportunities. For these reasons Pig Lane is an urban heat island, but through careful design and planning it could become an urban cool spot. Revegetating this space and cooling the environment will encourage visitation and promote local commercial activity. For local Leichhardt residents, this type of development could provide much-needed respite from local urban heat, potentially raise local property values and benefit struggling businesses on Parramatta Road, who have already attempted to provide rear entrance points to encourage greater trade.





8 RECOMMENDATIONS

Based on the analyses in this report, we make eight key recommendations to mitigate urban heat in Leichhardt LGA. The actions taken at any particular site will require changes consistent with the recommendations of the urban cooling toolkit.

For public spaces:

- 1. Make tree planting and shade cover a priority in urban design, planning and redevelopment.
 - Shading urban areas with sufficient canopy cover is the most effective way to cool the urban environment (Rosenzweig et al. 2006). The effectiveness of this approach is further maximised when water is able to permeate the ground cover rather than being lost to storm water runoff.
- Modify the properties of surfaces such as footpaths, paved areas and rear lanes to increase albedo and permeability/surface evaporation.

Dark, low albedo materials are commonly used to form the roads and footpaths throughout the Leichhardt LGA. The use of grass as a groundcover offers the best replacement option due to its capacity to absorb water, the associated evapotranspiration, and the provision of nutrients and water supply for local tree cover. When neither grass nor permeable pavements are feasible, look to high albedo (light coloured) materials. However, to maintain their effectiveness some light coloured materials may require regular cleaning. It is important to note that the replacement of materials alone without shade cover will have only a minimal impact on local temperatures.

Where possible, reconfigure on-street parking to reclaim a portion of the road surface for vegetation.

In some residential areas of Leichhardt, wide roads support very low flows of local traffic, with many households having off-street parking, particularly in streets with rear lanes. A number of potential configurations could be considered:

- Replace one side of high street parking with a wide nature strip to support the growth of large streets trees. If appropriate tree species are used, this would shade the majority of the road and awnings on commercial buildings.
- b) Replace one side of high street parking with separate bike path and nature strip. The nature strip could provide the boundary between the road and the bike path while providing shaded coverage to all ground materials. Line nature strip boundaries with a selection of large native trees. This would encourage cycling and provide connected shade for the area, and remove a portion of anthropogenic heat.
- Remove parking from both sides of the road. Replace with nature strips and bike paths.
 Parking would need to be provided elsewhere.
- d) Remove parking on both sides and create a wide nature strip in the centre of the high streets. This would ensure shade coverage.





4. Explore opportunities to modify intersections to reduce their contribution to localised heat islands

This may require a combination of strategies to achieve the desired outcome, including increasing the albedo of a portion of the road surface, planting garden beds/shade trees on corners, and relocating pedestrian crossings. We recognise that many of the most problematic intersections are not under the control of Leichhardt Council and will require negotiation with NSW RMS.

For private spaces:

Aim to educate the general public on the causes and risks of urban heat, and the importance of individual, neighbourhood and community action.

Engaging households to implement local- and neighbourhood-scale cooling initiatives could be the lynchpin to success. Commercial tenants and landowners also need to understand the causes and risk of the urban heat island effect, and the potential consequences for commercial vitality.

6. Develop planning and development guidelines for urban heat.

Much of the LGA comprises private residential and commercial properties, and each property can play a role in mitigating and adapting to urban heat. LMC can help to influence the adaptation of the private built environment through planning and development processes. Developing a BASIX-like system that requires new builds and renovations to implement a combination heat mitigation actions will reduce the risk of local heat islands over time. Building approvals could encompass:

- percentage shade coverage
- percentage vegetation coverage
- percentage grass and permeable surface coverage
- green walls
- green roofs
- maintenance plans
- WSUD features (e.g. rain gardens)
- contribution to shading surrounding public areas
- high albedo materials.

Developing benchmarks and minimum percentage covers for shade, permeability and high albedo materials would provide households and businesses with a suite of options for heat adaptation as well as clear guidance and shared community expectations.

7. Identify barriers and opportunities for heat adaptation.

Residential and commercial cooling strategies will need to be underpinned by a sound understanding of the barriers and opportunities for private green infrastructure. LMC strategies need to support community green infrastructure, but also need to respond to the local community's needs and attitudes. Promoting action among residential groups may be challenging due to the diversity of households across the community and the complex social and cultural factors driving and/or hindering the installation of trees and vegetation.

Unpacking these physical, financial and cultural constraints, as well as identifying actions that align with community values, can ensure any LMC programs and strategies provide residences





with the appropriate support. Better understanding the drivers, barriers and opportunities is also critical in cooling the commercial areas where premises are often owned by landlords but leased to business operators. However, engaging commercial tenants and landowners will involve a different set of techniques to focus on increasing the commercial and property values. Assisting the commercial sector to contribute to urban cooling strategies must start with a firm understanding of what will encourage these stakeholders to act.

8. Seek opportunities to implement adaptation action that is innovative and iconic.

This may require action in partnership with commercial stakeholders. Collaborative large-scale approaches to urban heat mitigation can create local appeal as well as heat reduction. This analysis has identified four opportunities:

Activation of Leichhardt LGAs laneways

This option was discussed at length in the discussion section and involved the reconfiguration of existing commercial activity and the promotion of temporary commercial businesses ('popups') to make the existing laneways a feature of the LGA.

The Norton Street arboretum

The section of Norton Street between Marion Street and Parramatta Road is a local heat island that combines a major commercial centre with a busy, but declining, social and cultural hub that is in need of reactivation. Dealing with the heat island is problematic because of the high traffic and pedestrian flow along Norton Street, the presence of a variety of styles of shop frontages, the loss of shop front awnings and the lively 'café society' that spills out onto the footpath in several places. In addition to rebalancing the land surface cover, we suggest Council consider constructing a lightweight, perhaps wire canopy spanning a section of the street between rooftops. Suitable vegetation, such as vines, could be grown over the canopy to provide shade and interest in the area.

Greening Market Town's car park

The commercial hub of Market Town in Leichhardt is characterised by a large multi-storey car park, occupying the majority of the block. Due to the scale of this car park and its east/west aspect, a collaborative initiative to 'green' the car park through large green walls would significantly cool the area as well as provide an iconic statement about addressing urban heat. Green walls and green infrastructure statements can attract positive attention (media, tourism, increased visitation) and offer opportunities to further stimulate economic activity in the area. Developing collaborative relationships with key local stakeholders to address urban heat is a way to leverage resources and demonstrate commitment to adaptation through partnership.

Cool-kids walking-bus routes

In selected locations Council could consider establishing child-centred walking-bus routes near schools in recognised hot spots. These would be corridors in which heat mitigation was a priority to protect children from urban heat in travelling to and from school and they would also promote active transport.





The planning and effectiveness of public and private urban heat strategies would also benefit from the following institutional actions within Council:

- · Mainstream urban heat mitigation into policy and planning.
- · Set targets for increased canopy cover and decreased sealed surface cover.
- Facilitate urban cooling through water sensitive urban design (WSUD).
- Develop a diverse list of tree species suitable for urban heat reduction strategies.
- Develop a list of high albedo materials for new and existing building developments.
- Investigate the health and lifecycle stage for existing tree cover.
- Develop an inventory of large mature trees to protect, track and maximise existing cooling in the landscape.
- Protect large remnant trees on public and private lands.





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APPENDIX A: CSIRO LANDSAT IMAGERY COLLECTION

Title:

Landsat 5 TM derived land surface temperature (LST) and normalized difference vegetation index (NDVI) data for the Leichhardt Municipal Council, captured on 17th January and 2nd February 2011.

Description:

Orthorectified Landsat 5 TM imagery was obtained from Geoscience Australia under the terms of the Creative Commons Licence v3 (http://creativecommons.org/licenses/by/3.0/). Images were acquired for 17 January and 2 February 2011, loosely representing non-heatwave and heatwave conditions respectively, as BOM declared the period from 30 January to 6 February 2011 a formal heatwave.

Imagery from Geoscience Australia was calibrated to adjust for sun and sensor geometry, with the thermal (Band 6) data converted from digital numbers to radiance values using the ENVI software. The next step was to apply atmospheric corrections. The Atmospheric Correction Parameter Calculator (http://atmcorr.gsfc.nasa.gov/) was used to estimate local values for key parameters required in the formula of Coll et al (2010) for scene-specific atmospheric correction. Differences in emissivity of different land covers were addressed using the NDVI approach of Van de Griend & Owe (1993). The final step was to convert the atmospherically corrected radiance values to temperature.

NDVI is a measure commonly used as a proxy for vegetation density and vigour, which is derived using an equation based on values for the red and near infrared bands. NDVI values range from -1.0 to +1.0, with higher values indicating healthy green vegetation, while lower values, particularly those approaching zero, indicate hard impervious surfaces including bare soil, rock, concrete and roads.

Terms of Use:

CSIRO has agreed to provide access to the data on the terms set out in the Data License Agreement,

Data Limitations:

Geoscience Australia resampled the Landsat 5 TM imagery during orthorectification from 30 m to 25 m for the multispectral bands used to derive NDVI, and from 120 m to 25 m for the thermal band used in LST. As such, the data is best considered for area averages and not at the individual pixel.

The satellite return period for Landsat 5 TM is 16 days. Both images were captured at 10:33 am local time as the satellite passed over. Consequently, LST is indicative of variations in the land surface temperature, but does not capture the maximum Surface Urban Heat Island (SUHI) effect which would be expected to occur later in the day with clear skies during hot /dry weather conditions.

The derivation of LST from Landsat 5 TM is difficult as there is only one thermal band. In the absence of ground measurements, there are limited means of validating our modelling results. As such, the LST values should be regarded as estimates only. The relative difference in values between pixels will be informative, but care should be taken when making use of absolute values of pixels, particularly those relating to linear features, which given the original 120 m pixel resolution may contain error.

Preferred Citation:

Barnett, G, Beaty, RM, Chen, D, McFallan, S, Meyers, J, Nguyen, M, Ren, Z, Spinks, A & Wang, X, 2013, Pathways to climate adapted and healthy low income housing, National Climate Adaptation Research Facility, Gold Coast, 95 pp.





APPENDIX B: ON-SITE ASSESSMENT CHECKLIST

BIOPHYSICAL CHECKLIST	.OCAT	ION:	
Time of day:			Comment
Water sources			
Irrigation			
Natural water flow			
Local water bodies	П		
Tree height			
More than two storey		Detail heig	hts
1-2 story			
Less than 1 story			
Shade		%	
Diameter of shade on the ground			m
Canopy density		%	
No canopy cover			
Canopy height			
More than two storey		Detail heig	ht:
1-2 story	П		
Less than 1 story			
Spacing		-	
Spacing between trees trunks			m
Space between canopy crown			m
Tree type (s)			
Trunk width, Roots, Leaf size and d	ensity,	form etc.	
Tree location			
On road			
On footpath			
On property	П		
Roads		%	
Width of road			m
Cul de sac	1		
Windy	П		
Straight			
Medium strip	П		
Topography			
Flat	П		
Hill	D		
Undulating	П		



	1
UTS:ISI	FIN
-	

Sky view			
Building height		-	m
Sky view (in degrees) NB: full sky	view is 1	.80°	
Aspect		14	
North			
South			
East			
West			
Albedo		%	
Roofs and covers			
Colour			
Dark			
Light			
Green roof			
Roof/ materials: (Use aerials and	plannin	documents if can'	't see)
Pavements	B		
Materials			
Colour			
Width of footpath			m
Dark	П		
Light			
Verge			
Width of verge			m
Walls			
Materials and colour:			
Dark			
Light			
Green walls			
Traffic flow			
Number of cars per 30 seconds:		1	
Air conditioning		If visible	





APPENDIX C: SERVICE PROVIDER INTERVIEW QUESTIONS

Current

- 1. What is your role within the organization?
- 2. What social groups do you focus on in the greater Leichhardt area?
- 3. From your experience, does heat pose a particular problem for these groups? How? Why?
- 4. Do people behave differently during heat waves? Examples if any.
- 5. How does the service usually deal with heat waves? Does anything change?
- 6. Are there any particular problems that are presented during heat waves?
- 7. Are there any changes to the services provided before, during or after a heat have?
- 8. During a heat wave are there any other service providers you work with more regularly?

Future

- 9. In your opinion, what can further assist these vulnerable groups during heat waves?
- 10. What can assist your organization to help these groups during heat waves?

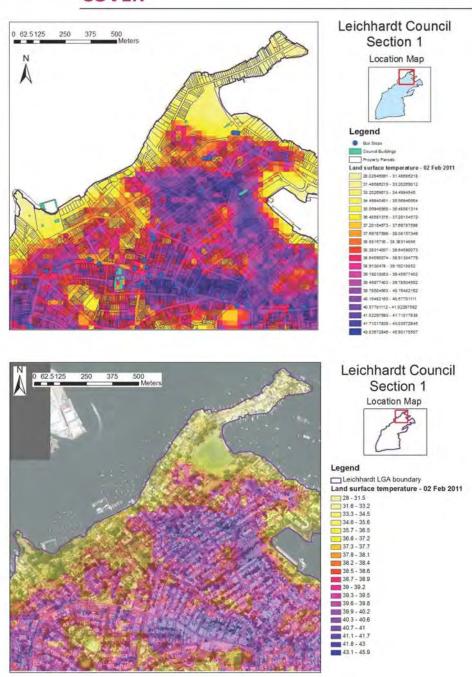
Data

- 11. Is there any data or record keeping that your organization collects on a regularly basis (e.g. number of call, house visits, emergence responses, crisis situations)?
- 12. Possible to access if any?
- 13. Case studies on vulnerable groups. Can you recommend any individuals within these vulnerable groups who may be interested in be interviewed?





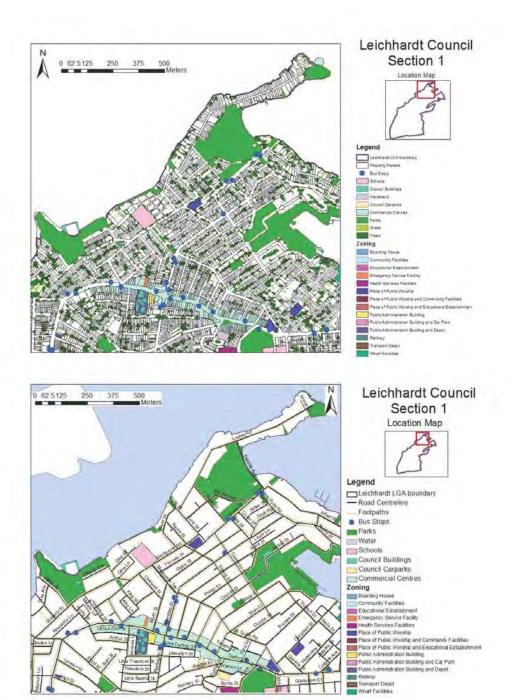
APPENDIX D: HEAT AND LAND SURFACE COVER



ADAPTING TO URBAN HEAT: LEICHHARDT COUNCIL



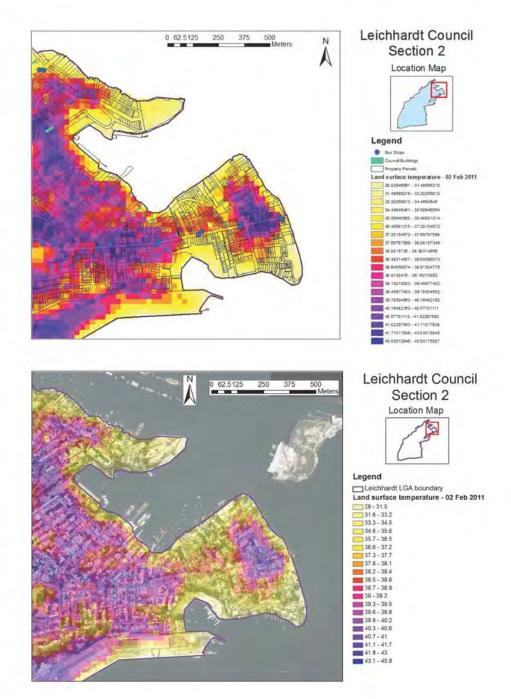




ADAPTING TO URBAN HEAT: LEICHHARDT COUNCIL



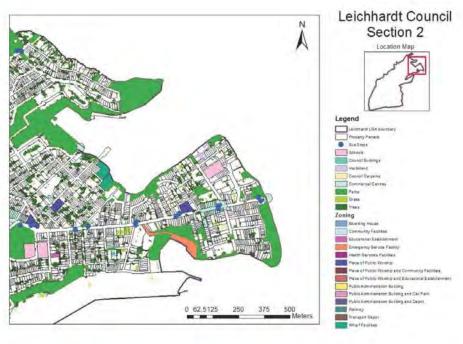


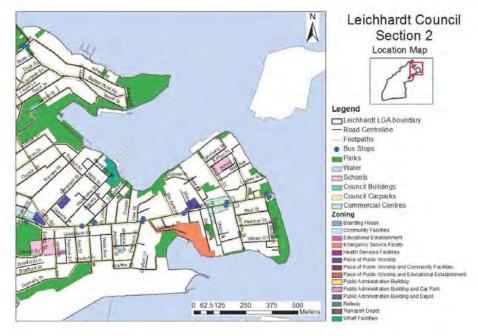


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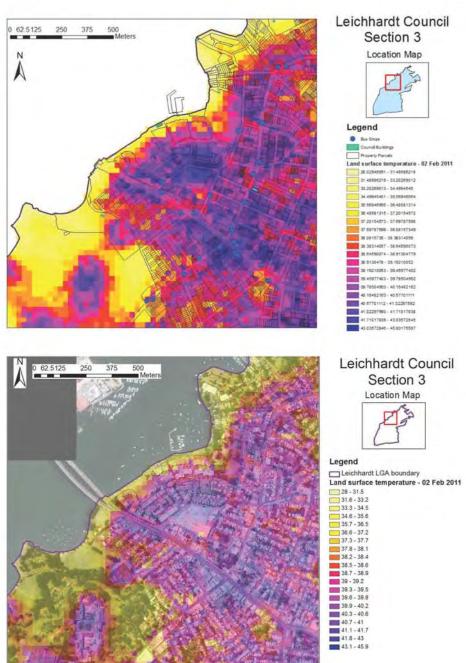






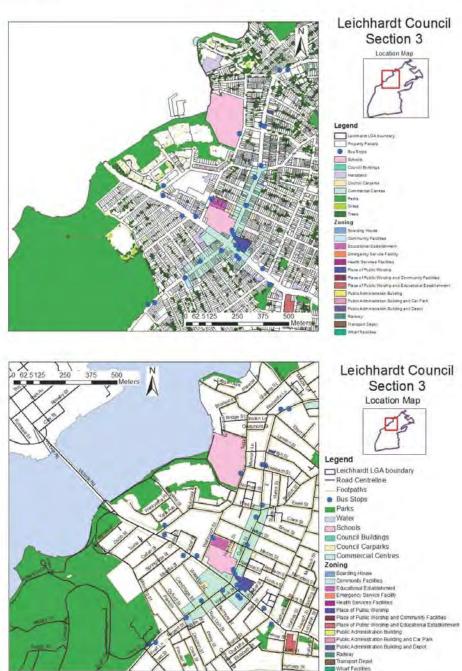






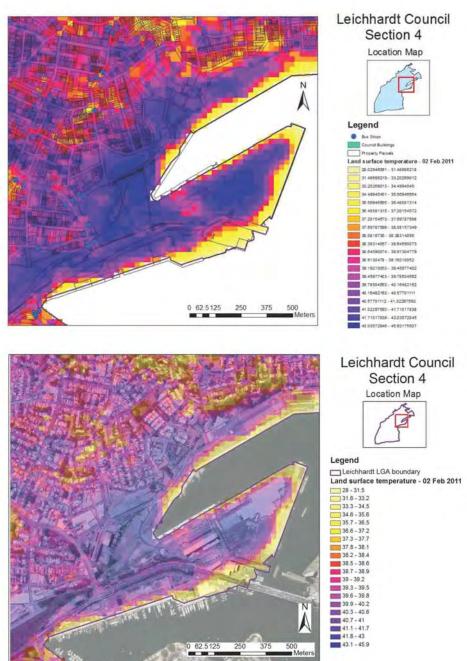






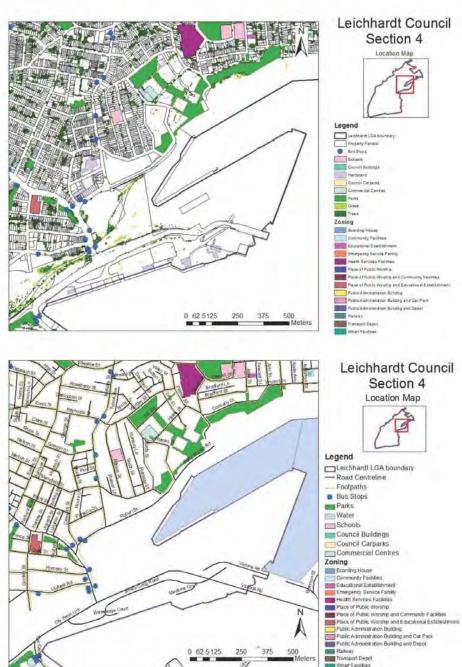






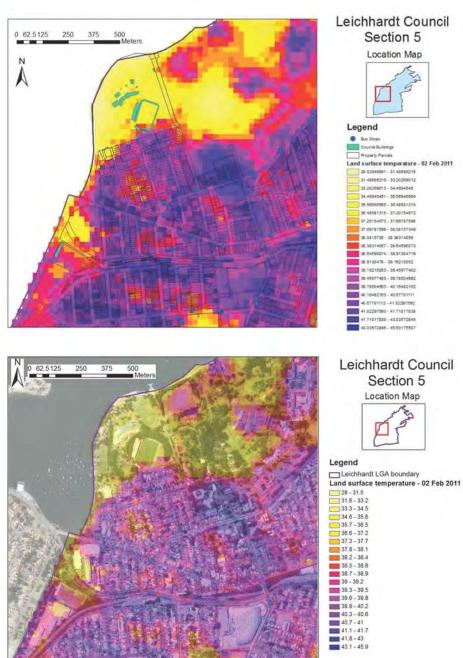






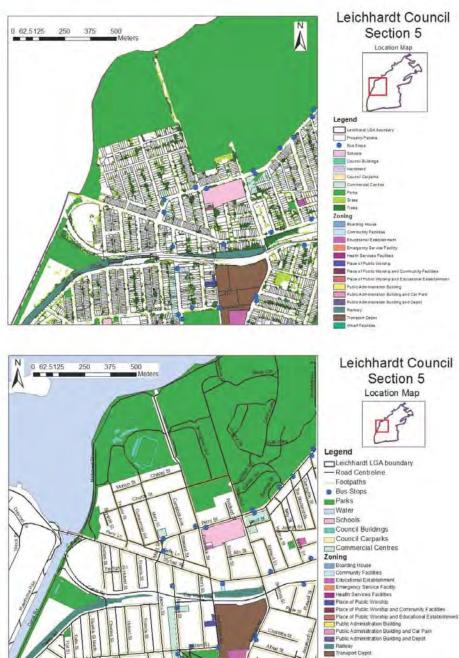






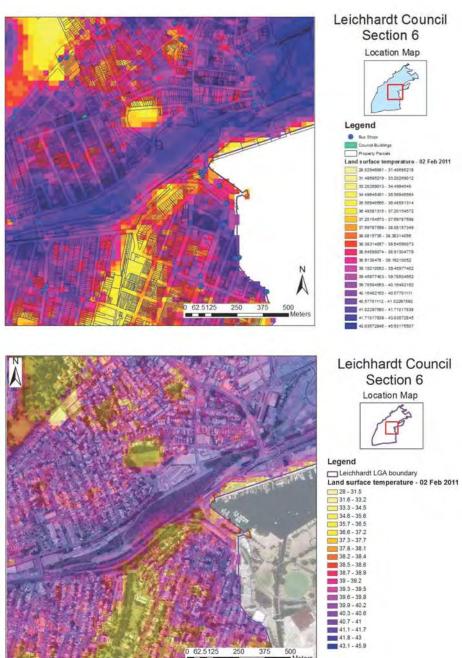






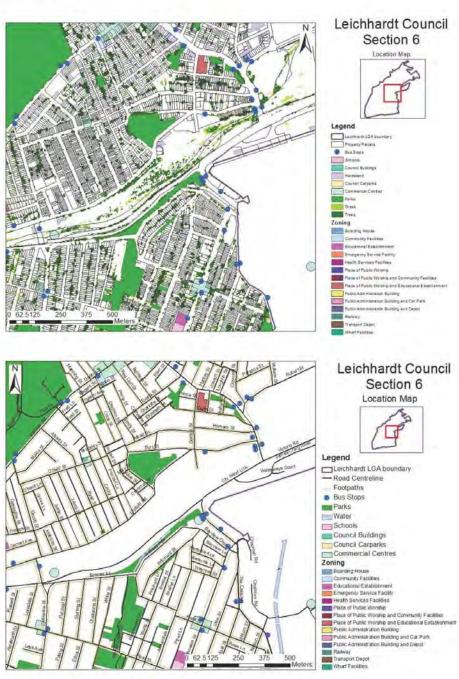








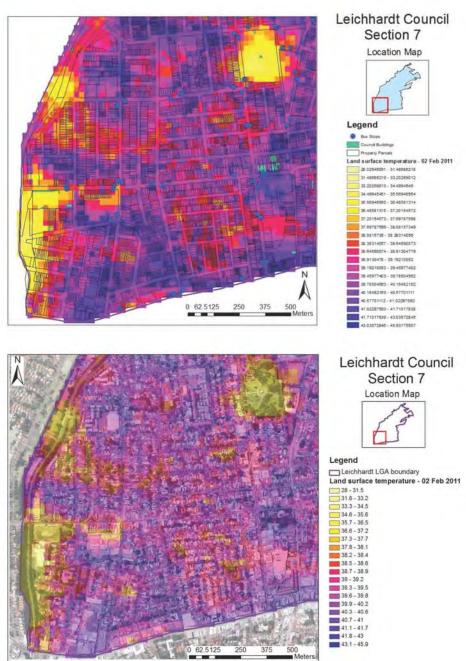




ADAPTING TO URBAN HEAT: LEICHHARDT COUNCIL

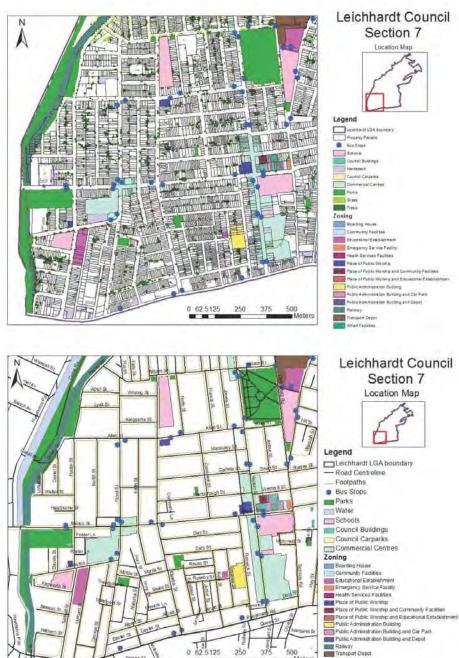






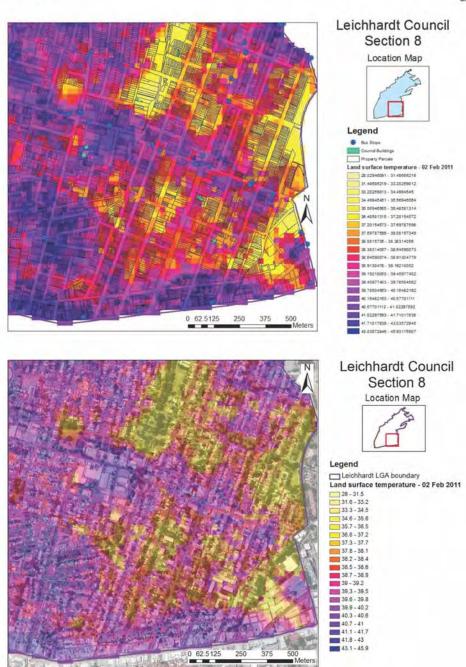






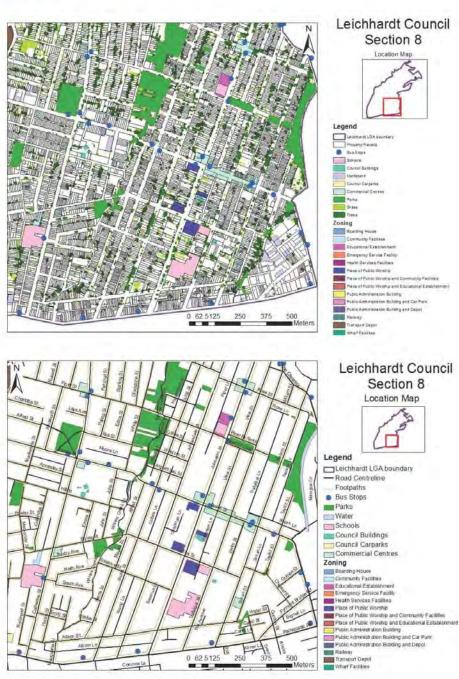












ADAPTING TO URBAN HEAT: LEICHHARDT COUNCIL











Attachments

ITEM 3.3 SUMMARY OF RESOLUTIONS

Division	Corporate and Information Services
Author	Manager Governance and Administration
Meeting date	8 March 2016 Policy Meeting
Strategic Plan Key Service	Sustainable services and assets
Area	
SUMMARY AND	ORGANISATIONAL IMPLICATIONS
Purpose of Report	To advise of the status of resolutions until such time as they have been fully actioned.
Background	At the 25 August 2015 Ordinary Meeting Council resolved to include the status of all resolutions until such time as they have been fully actioned.
Current Status	NIL
Relationship to existing policy	NIL
Financial and Resources Implications	NIL
-	This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure.
Recommendation	That the information be received and noted.
Notifications	NIL

1. Summary of resolutions



Purpose of Report

To advise of the status of resolutions until such time as they have been fully actioned.

Recommendation

That the information be received and noted.

Background

At the 25 August Ordinary Meeting council resolved;

That the business papers of ordinary meetings include the status of Mayoral minutes, motions of which due notice has been given and motions arising from reports where further action is required until such time as the Mayoral minute or motion has been fully actioned.

A resolution has been actioned if:

- A requested letter has been written and sent.
- A requested report has been tabled at a Council Meeting.
- Where Council has resolved that capital works or maintenance works be undertaken, that the works are completed.
- Where Council has resolved that a public meeting be held, that the meeting has been held and any resolutions of the meeting be reported back to Council.
- Where Council has required that material be circulated to residents, that the material has been dispatched.

Attachments

1. Summary of resolutions



MAYORAL MINUTES

MEETING DATE & TITLE OF REPORT	SUMMARY OF RESOLUTIONS	ACTION/TAKEN	TIMEFRAME	OFFICER
8 September 2015 C419/15P NAMING OF THE NEW SOUTH ANNANDALE NEIGHBOURHOOD PARK DOUGLAS GRANT MEMORIAL PARK	1. Adopt the recommendations of the Leichhardt Aboriginal & Torres Strait Islander Consultative Committee and the naming of the new South Annandale Park in honour of Douglas Grant with the name of the new park being known as the "Douglas Grant Memorial Park". 2. Recommend the naming of the new park to the Geographical Names Board 3. Develop an interpretation strategy as part of the development of the new park to acknowledge and educate the community on the life and times of Douglas Grant and that funding for such works be identified in 2016/17 budget.	Park opened 19 September 2015 2. Geographical Names Board has agreed to the naming subject to consultation which is currently being undertaken. 3. In progress	1. Completed 2. April 2016 3. 2016/17	Senior Parks and Open Space Planner GIS/Property Systems Coordinator
6 October 2015 C474/15P C475/15P C476/15P C477/15P REVITALISING OUR MAIN STREETS	That Council: 1. Investigate methods for encouraging landlords of commercial properties to maintain their building, including street frontages, regardless of whether they are tenanted. 2. Investigate processes for expediting the approval of short term uses of commercial properties, pending the arrival of longer term tenants. 3. Investigate possible rating formulas and amendments to state and federal taxation legislation that would encourage full occupancy of commercial premises. This should include examination of;	1. Follows on from Shopfront Audit completed in 2014. Investigation will be incorporated into Shopfront Improvement Project to be commenced early 2015 2. This investigation will be incorporated into streamlining approvals for events, short term uses and live entertainment reporting back to Council by March 2016	1-2. March 2016	Pt 1, 2 and 4 Economic Development Officer Pt 3 Director Corporate Information Services



MAYORAL MINUTES

	a. Allowable rating systems under the NSW Local Government Act b. The Land Tax Act c. Existing Commonwealth tax arrangements relating to commercial property. 4. Council Officers investigate the perceived financial incentives for keeping shops untenanted while owners pursue redevelopment opportunities	Reported to November 2015 Ordinary Meeting. Reported to November 2015 Ordinary Meeting.	Completed Completed	
	That Council:			
09 February 2016 C07/16P 2016 ANZAC DAY DAWN SERVICE	Allocate \$10,000 from the Miscellaneous Priorities Budget for the 2016 Anzac Day Dawn Service memorial event to proceed.	1. Noted	Completed	Group Manager Community and Cultural Services
	 Instruct Council's Events Co-Ordinator to collaborate with the RSL in the planning and presentation of the Event, including assisting with a Traffic Management Plan to be submitted to the next available Traffic Committee. 	Underway TMP to be completed		
	 Report back to the February Ordinary Meeting on Plans for community notification and promotion of the event. 	3, Completed		
	 Ensure the format of the event is the same as last year and all Councillors are invited to lay a wreath. 	Discussion in progress with RSL who guides the protocol of Anzac Day		

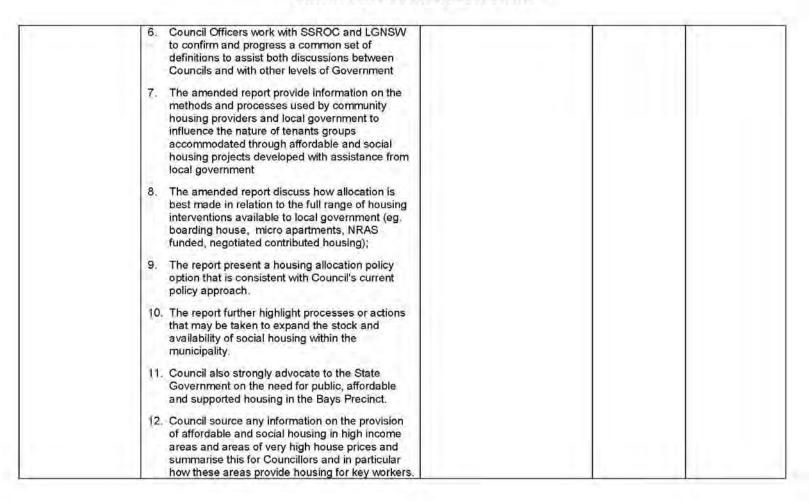


MEETING DATE & TITLE OF REPORT	SUMMARY OF RESOLUTIONS	ACTION/TAKEN	TIMEFRAME	OFFICER
11 August 2015 C369/15P PIONEERS MEMORIAL PARK REVISED PARK PLAN OF MANAGEMENT	That Council defer exhibition of the revised Pioneer Memorial Park Plan of Management pending a report on appropriate core objectives and relevant performance indicators for inclusion in the Plan of Management and in particular those concerning the conservation of biodiversity. In recognition of the historical significance of Pioneers Memorial Park, Council develop appropriate heritage interpretation panels which can be displayed within the park to educate and inform the community on the park and its history.	In progress subject to carry forward of 2014/15 project funds In progress	Mid 2016	Team Leader Environmental Strategy
11 August 2015 C370/15P REVIEW OF OCCASIONAL CARE UTILISATION	That Council note the preferred option to close Annandale Occasional Care and combine the Occasional Care service with Long Day Care at the Balmain premises. That Council undertake consultation regarding Option 2 for Council's Occasional Care services and report the outcome back to Council for consideration.	Consultation complete. Results to be reported to March Policy Council.	Completed	Manager Community Operations



8September 2015 C426/15P DISCUSSION PAPER - HOUSING ISSUES AND OPTIONS	1. The report be received and noted 2. The discussion paper be amended to note that Aged Housing Information such as information regarding the number of 'low care" and "high care" beds is 2014 data and no longer published on Commonwealth Government websites. 3. The discussion paper be deferred from public exhibition, and reviewed in regards to the following sections: a. Key worker definition - that Council approach and convene a meeting with representatives from Unions NSW and neighbouring Councils, and develop an agreed definition of key worker. b. Officers revise discussion paper strategies to reflect that Council supports a range of affordable housing options for each identified category c. Options be included in the discussion paper in respect of value capture from all developments within the municipality for the purpose of funding affordable housing.	Report to March Policy Council Meeting.	Completed	Group Manager Community and Cultural Services
	developments within the municipality for the purpose of funding affordable housing.			







8 September 2015 C430/15P STREAMLINING AND SIMPLIFYING LEICHHARDT LGA EVENT APPROVAL PROCESSES	That: 1. The report be received and noted 2. Council Officers develop a draft Local Approvals Policy whereby a range of pre-determined activities, promotions & related events could be licenced to occur on Public Land in certain locations within the Leichhardt LGA on a maximum number of occasions per annum 3. Council Officers develop a draft Planning Proposal to expand the Exempt & Complying Development Provisions of Leichhardt LEP 2013 pursuant to the EP&A Act 1979.	Manager of Legal Services is developing the Local Approvals Policy as set out in the report. The Local Approvals Policy will be prepared in consultation with Council's Assessments and Enforcement departments and the Complying Development element will be prepared in concert with Council's Planning staff.	Report to 3rd Quarter 2015/16	Manager Legal Services
8 September 2015 C434/15P OFF BROADWAY LIVE MUSIC AND CULTURAL PRECINCT	That: 1. The report be received and noted. 2. The draft "Implementation Program" be endorsed and implemented 3. Council Officers prepare quarterly reports to Council regarding the ongoing implementation of the program. 4. A further report be brought back to Council on how this program could be better resourced to enable the delivery of the action items within a shorter time frame and identification of any additional funding required in the budget.	1. Noted 2. Completed 3. Ongoing 4. Completed	Completed	Group Manager Community and Cultural Services
8 September 2015 C437/15P PROPOSED MEN'S SHED LOCATION AT BLACKMORE OVAL	That Council approve use of the Storage room at Blackmore Oval for a Leichhardt Men's Shed. That promotional activities be undertaken to seek community interest in the group.	Completed Completed.		Community Development Officer - Aging and Disability



	 initial 3 year licence & option of a 1 year extension. That provision be made for operating hours of the Men's Shed to be up to four days between Monday to Friday, between the hours of 9am and 3pm. That opportunities to expand community shed programs at Blackmore Oval and other venues in the LGA be investigated, should interest from other community groups arise. This review to occur one year from the establishment of the Leichhardt Men's Shed. 	hours and licence agreement will occur once the independent Men's Shed organisation is established. Incorporation of the Leichhardt Men's Shed has been confirmed 4. Noted 5. Review to be undertaken September 2016.	4. Completed 5. September 2016	
6 October 2015 C472/15P POST EXHIBITION REPORT DRAFT LEP 2013 RECLASSIFICATION AMENDMENT	 Resolves to adopt the following proposed amendment to Leichhardt Local Environmental Plan 2013 to reclassify land at Lot B DP 159831 and part of Lot 2 DP 599686 near Church Street, Lilyfield from 'Community' to 'Operational' land. Delegates the making of the LEP amendment to the General Manager & that following receipt of an opinion from Parliamentary Counsel's Office, the General Manager sign the front page of the LEP. Requests Parliamentary Counsel to draft and finalise the amendment to LEP 2013 as a result of the reclassification. Following the completion of above (Point 3), the Department of Planning and Environment be advised that the LEP has been made and be requested to notify the Plan. 	1-4 Completed.	1-4. Completed	Manager Environment and Urban Planning



	effect that it cannot be built on other than for car parking or open space, with the restriction able to be released only by agreement of both Council and the owner of 67 Church Street, Lilyfield.	5. To be actioned after finalisation of Amendment.	5. 3rd Quarter 2015/16	
	That Council: 1. Endorse the attached planning proposal and forward to the Minister for Planning for Gateway Determination in accordance with section 56 of the Environmental Planning and Assessment Act 1979;	1. Noted		
6 October 2015	Endorse the attached draft amendments to the DCP 2013, and place on public exhibition at the same time as the planning proposal.	2. Noted	2. April 2016	No.
C484/15P SMALL BARS PLANNING PROPOSAL	Request the Department of Planning and Environment to delegate the plan making functions, in relation to the subject Planning Proposal, to Council;	Request for Gateway Determination has been submitted.	3. Competed 4. April 2016	Manager Environment and Urban Planning
	 Place the Planning Proposal (Attachment 6) and supporting documentation on public exhibition for a minimum of 28 days and public authorities be consulted on the Planning Proposal in accordance with the Gateway Determination, when issued; 	Awaiting Gateway Determination		
	 Consider a report at the completion of the public exhibition period detailing submissions received & the outcome of consultation with public authorities. 	5. Noted.	5. Mid 2016	
10 November 2015 C537/15P LCAMP REVIEW WHITES CREEK	That Council:- 1. Adopt the proposed new Companion Animal Regulations for Whites Creek Valley park as recommended in Attachment 3.	1, Completed	1 - 2 Completed.	Senior Parks and Open Space Planner
VALLEY PARK	2. Undertake the installation of new Companion	2. Completed		



	Animal Access signage within Cohen & Whites Creek Valley Parks noting the expected timeline for the completion will be mid-December 2015. 3. Consider funding installation of new BBQ area in the community Orchard (on leash area) in the 2016 /17 budget process & removing the existing BBQ facility in the south eastern area of the park (off leash area).	3. To be actioned as part of a budget bid for the 2016/17 financial year.	3. June 2016	
10 November 2015 C539/15P GLOVER ST SPORTING GROUND	That Council:- 1. Consents to the lodging of the Development Application for improvements at Glover Street Sporting Ground, Callan Park Rozelle: a) Seating and roofing works to the senior and junior baseball cages. b) Extension of senior baseball cage c) Install 1 x 25m floodlight to the north of the Glovers Community Garden Site to achieve compliance with Australian Lighting Standards for outdoor sports and provide a more uniform level of lighting spread on the outfield area. d) Install a 1.2m fence to the northern boundary of the field between the junior and senior baseball diamonds to address the issue of wayward soccer balls ending up on the Iron Cove Bay Run. e) Replace existing Glovers Community Garden Group Boundary Fencing with a fence to a height of 6m. 2. Allocate \$35,000 for preparation of the Development Application in the first quarterly review of the 2015/16 budget.	DA lodged 24 December 2015. Public Exhibition closes 29 February 2016.	Completed	Part 1 Manager Urban Design and Project Management Part 2 Manager Financial Services
10 November 2015 C544/15P FUTURE	That a report be brought back to the March 2016 Council meeting which provides an update in relation to: a. the response from the Department	Noted. The NSW Parliamentary Committee Office have advised that the findings of their inquiry have not yet been	1, April 2016	Manager Environment and Urban Planning



MANAGEMENT OF SHORT TERM ACCOMMODATION IN THE LEICHHARDT LGA	of Planning and Environment b. Council's next steps based on this advice 2. That the attached submission be forwarded to the Parliamentary Inquiry into Short Term Accommodation	released. The Department has not progressed it's study. 2. Submission lodged	2. Completed	
10 November 2015 C546/15P DRAFT CONCEPT DESIGN-DARLEY ROAD NETBALL COURTS	 Exhibit the draft concept plans for the Darley Road Netball Courts for a period of 28 days and seek community feedback on the proposed design. Hold a public meeting to present the draft plans to local residents and key stakeholders during the exhibition period. Noting the estimated costs in delivering this project, Council allocates funding shortfall from lighting budget for the Hawthorne Canal Shared Path Upgrade Receive a further report to the February 2016 Policy Meeting of Council on the outcomes of community consultation 	1. Exhibition completed, Subject to the outcomes of traffic modelling a report will be presented to the March Policy Council Meeting. 2. Public Meeting was held in early December. 3. Completed 4. Has been deferred to March 2016 due to traffic modelling works which are required.	Completed	Senior Parks and Open Space Planner Part 3 Manager Financial Services
10 November 2015 C548/15P DRAFT MEMORIAL PLANTINGS AND PLAQUES POLICY	That Council: Exhibit the Draft Memorial Plantings and Plaques Policy for a period of 28 days and a further report be submitted to Council containing feedback received, and a policy for adoption. Consider an annual program of historical markers and interpretative signage in the forthcoming budget process. The budget proposal is to contain cost and resourcing implications, and broad assessment guidelines.	Draft policy exhibition November – January. Report to March Policy Council Budget Proposal prepared	Completed	Group Manager Community and Cultural Services



10 November 2015 C549/15P LEICHHARDT LOCAL ENVIRONMENTAL PLAN 2013 HOUSEKEEPING AMENDMENT - POST EXHIBITION REPORT	 Adopts the proposed amendments to Leichhardt Local Environmental Plan 2013 as attached to the report. Delegates the making of the LEP amendment to the General Manager and that, following receipt of an opinion from the Parliamentary Counsel's Office, the General Manager sign the relevant pages of the LEP. Requests Parliamentary Counsel to draft and finalise the amendment to LEP 2013. Following the completion of above (Point 3), the Department of Planning and Environment be advised that the LEP has been made and be requested to notify the Plan. 	Forwarded to Parliamentary Counsel, Draft instrument received. Discussions are ongoing.	April 2016.	Manager Environment and Urban Planning
10 November 2015 C552/15P HAWTHORNE CANAL SHARED PATH UPGRADE	That Council approve the Hawthorne Canal Shared Path Upgrade Plans dated 6th October 2015. That the budget for lighting for this upgrade be considered in the 2016/17 budget process.	Budget bid prepared.	Completed	Manager Urban Design and Project Management



10 November 2015 C553/15P ASSESSMENT OF APPLICATIONS TO LICENCE COUNCIL FACILITIES FOR AFTER SCHOOL	1. Allocate three Council facilities, Leichhardt Town Hall (main hall and supporting spaces), Annandale Community Centre (back hall and supporting spaces) and Jimmy Little Community Centre (entire centre) for After School Care five days per week during school terms (40 weeks per year), from 2:15pm or 2:30pm to 6pm; for a three year period, commencing in January 2016. 2. Endorse Whoosh Care to licence three Council facilities, Leichhardt Town Hall, Annandale Community Centre and Jimmy Little Community Centre for After School Care, for a three year period, commencing in January 2016 (until 31 December 2018); with annual licence fees of \$6,000 for each facility and a maximum fee to be paid by parents of \$23.00 per child per session. 3. Delegate to General Manager to enter into the	1- 3. Licence agreements executed in November 2015	1- 3. Completed	Team Leader Community Planning and Development
CARE	Licence Agreements for the provision of After School Care at Leichhardt Town Hall, Annandale Community Centre and Jimmy Little Community Centre. 4. Defer the licence of Balmain Town Hall to 2017 (pending further assessment of unmet demand in this area).	4. Noted.	4.Completed	
	5. Make available free of charge the small community bus with a driver for the transportation of children to After School Care Services in Council facilities (up to 1 hour per afternoon, five days per week during school	5. To be implemented when service approval is provided. Department of Education has advised site inspection date for	5.Term 2 2016	



	terms). 6. That a further report be brought to Council following the application from the provider to the Department of Education and Communities providing details of that application. 7. Develops a fee waiver policy for Council's community bus. 8. That the licence is amended to prevent transfer to a new owner of the business without Council consent.	JLCC, 19/2/16 6. Report being prepared for February Council Meeting 2016. Completed 7. Noted. 8. Clause added to licence agreements	6.Completed 7. Policy will be developed 4th Quarter 2015/16 8. Completed	
10 November 2015 C554/15P LEGAL SERVICES REPORT	That the Report be received and noted and the actions taken by the Manager of Legal Services be endorsed. That Council proceed with Option 2 in regards to the enforcement action referred to in the report.	Noted Currently Reviewing payments received and preparing brief of evidence for court.	1. Noted 2. April 2016	Point 1 Manager Legal Services Point 2 Manager Compliance and Enforcements
9 February 2016 C05/16P LEGAL SERVICES REPORT	That the Report be received and noted and the actions taken by the Manager of Legal Services be endorsed. That Council proceed with action to secure payment of outstanding debts as outlined in the report.		Completed	General Manager Manager Legal Services
9 February 2016 C07/16P 2016 ANZAC DAY DAWN SERVICE	That Council: 1. Allocate \$10,000 from the Miscellaneous Priorities Budget for the 2016 Anzac Day Dawn Service memorial event to proceed. 2. Instruct Council's Events Co-Ordinator to		Completed	Group Manager Community and Cultural Services



	collaborate with the RSL in the planning and presentation of the Event, including assisting with a Traffic Management Plan to be submitted to the next available Traffic Committee. 3. Report back to the February Ordinary Meeting on Plans for community notification and promotion of the event. 4. Ensure the format of the event is the same as last year and all Councillors are invited to lay a wreath.			
9 February 2016 C08/16P MERGER PROPOSAL - ASHFIELD, LEICHHARDT AND MARRICKVILLE COUNCILS; DRAFT SUBMISSION TO THE DELEGATE	That Council: 1. Agree to publicly exhibit the draft 'Submission to the delegate on the Merger proposal for Ashfield, Leichhardt and Marrickville Council' provided at Attachment 1 2. Note that the exhibition period will conclude in late February and the final submission to the delegate (incorporating any community feedback) will be reported to the Ordinary Meeting of Council in February 2016. 3. Note that Council's submission to the delegate is due by no later than 5pm on Sunday 28 February 2016. 4. Amend the draft submission to highlight the policy inconsistency in the NSW Government's position on Council amalgamations which will result in a diminution in local decision making and representation. Other state wide policy/organisational	Completed	Completed	Director Corporate Information Services



reforms, designed to improve management efficiency and cost savings, have been recently reviewed in order to restore local decision making. Two examples illustrate this policy inconsistency: (a) The creation of Local Hospital Networks in 2011 which were driven primarily by a desire to restore greater decision-making (to meet local needs) through new Local Health Districts and boards; and (b) The government's stated policy to return local planning powers to local communities (through their Councils).

- Amend the executive summary of the draft submission for criteria number 2 to be reviewed to include more examples of our community and identity.
- Amend the sustainable environment section of the draft submission with detailed discussion on criteria number 5 to be reviewed in regards to impact of the proposed merger
- 7. Amend the section of the executive summary and Council's full submission in respect of scale and capacity be expanded to include details of Council's range of comprehensive and innovative policies which provide evidence of Council's capability in meeting the key elements set out on page 5 of the amalgamation proposal for Ashfield, Leichhardt and Marrickville.
- Amends its submission to challenge the State Government assertion, that the Local Government Sector is broken as being false and misleading. There is no evidence to suggest this from State Government

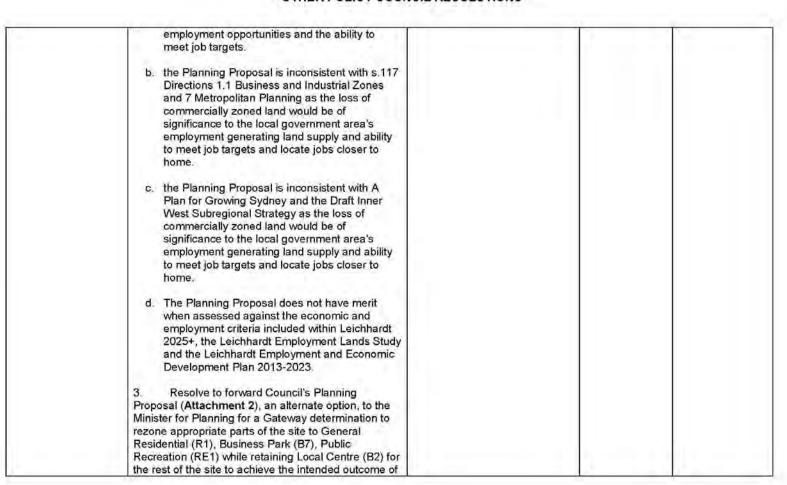


	reports and records such as OLG Annual Reports and Performance Reviews nor the IPART FFF Process. State Government should either provide support for its comments or apologise to the NSW public. 9. Amends its submission to state that the Merger proposal will see a reduction in representation for 2.5 million people across Sydney and A further 1.8 million will see no improvement at all. The public expects improvements in representation as part of Local Government Reform. 10. Amends its submission to include that a thorough review of Local Government funding should be commissioned by State Government in cooperation with Local Government to ensure Strong and stable funding for the Local Government Sector. Whether big or small, Local Government cannot perform to a high level without strong and stable funding. 11. Amends its submission to be include that financial problems seem to have higher incidence for large Councils rather than smaller Councils yet the focus of State Governments is on merging smaller Councils. This seems counterintuitive.			
9 February 2016 C09/16P C10/16P C11/16P C12/16P MATTER ARISING -	That Council write to the delegate, Cheryl Thomas, the Minister for Local Government, the Premier as well as the Leader of the Opposition, Shadow Minister for Local Government, David Shoebridge MLC, Hon Rev Fred Nile MLC and hon Robert Borsak outlining our concerns (as recorded in Councillor Porteous' tabled Motion).	1. Completed	1. Completed	



PUBLIC INQUIRY	That Council asks the delegate that a further Public Inquiry meeting be convened for the Leichhardt, Ashfield and Marrickville Forced Amalgamation	2. Completed	2. Completed	Parts 1,2 & 3 General Manager
	proposal as soon as possible to provide the opportunity to all residents and organisations to speak if they have been prevented from doing so up to now.			
	3. That the delegate be requested to run a plebiscite / poll for all electors in the three LGAs (as provided in the Local Government Act) asking whether they support the forced amalgamations of the three councils.	3. Completed	3. Completed	
	4. That Council supports the community organised Save Local Democracy Rally against the forced amalgamation of Leichhardt Council on February 20 outside the Balmain Town Hall. That all staff, the Staff Consultative Committee and United Services Union representatives be notified about the rally.	4. Completed	4. Completed	Part 4 Manager Employee Services
9 February 2016 C14/16P PLANNING PROPOSAL for 100- 102 ELLIOTT STREET, BALMAIN	That Council: 1. Receive and note this report and attachments; 2. Resolve not to support the request the subject of the Proponent's Planning Proposal to rezone 100-102 Elliott Street, Balmain from Local Centre (B2) to General Residential (R1) for the following reasons: a. the rezoning would further reduce the supply of commercially zoned, employment generating		Completed	Director Environment and Community Management





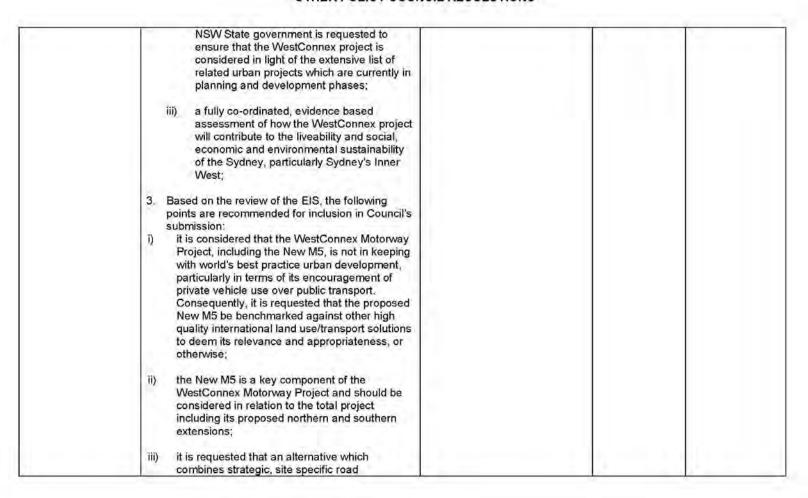


	the proponent's Planning Proposal that is the subject of this report and protect employment generating lands in Leichhardt Municipality.			
9 February 2016 C16/16P DRAFT AMENDMENTS TO THE CODES SEPP TO EXPAND COMPLYING DEVELOPMENT TO INCLUDE TWO STOREY MEDIUM DENSITY HOUSING TYPES	That Council: 1. Receive and note the information provided in this report; and 2. Endorse the submission, as outlined in Attachment 1, to the Department of Planning and Environment in relation to the Discussion Paper on Expanding Complying Development to include two storey medium density housing types.	1.Noted. 2. Completed	Completed	Director Environment and Community Management
9 February 2016 C17/16P IPART REPORT - REDUCING THE REGULATORY BURDENS ON LOCAL GOVERNMENT	1. That Council provide feedback to IPART on the Draft recommendations as detailed in the report subject to the following a. Not support recommendation 29 – Shifting employment protections from the Act to the Regulations diminishes their effectiveness, and creates greater uncertainty as regulations may be more easily changed b. Not support recommendation 30 – Limits employment security and would negatively impact on recruitment and retention of staff c. Not support recommendation 49 d. Recommendation 42 be amended to read; Supported subject to Council's having the flexibility to consult on poms in accordance with	Completed	Completed	Director Corporate information Services

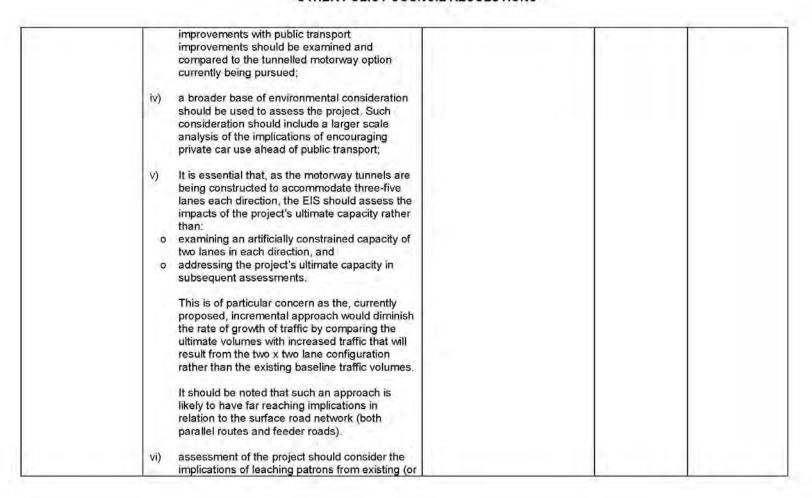


9 February 2016 C18/16P WESTCONNEX STAGE 2 M5 - ENVIRONMENTAL IMPACT STATEMENT PUBLIC EXHIBITION	its own community engagement framework at any time of the year. 1. Forward a submission to the Department of Planning and Environment (based on the submission points included in this report) and advise that Council is opposed to the State Significant Development Application (SSI 14 6788) for the New M5 (WestConnex Stage 2) as the proposed development, as outlined in the Environmental Impact Statement is inconsistent with the relevant aims of Leichhardt Council's strategies, most particularly its Integrated Transport Plan, and will not: i) create a legible, direct and safe pedestrian and cycling environment; ii) encourage public transport use; iii) provide a safe and efficient road network for all road users; iv) facilitate integration of land use, transport and community & cultural activities; v) promote health and wellbeing; vi) improve environmental conditions; and vii) support Councils adopted 10 Year mode shift targets, including a reduction of private car use from 44% to 28%. 2. Advise the Department of Planning and Environment that Council requests additional information and data as outlined in Section 2 - Review of the New M5 Environmental Impact Statement, including: i) detailed information about Stage 3 of the WestConnex Motorway Project;	Completed	Completed	Director Environment and Community Management
	ii) further information and consideration by the			

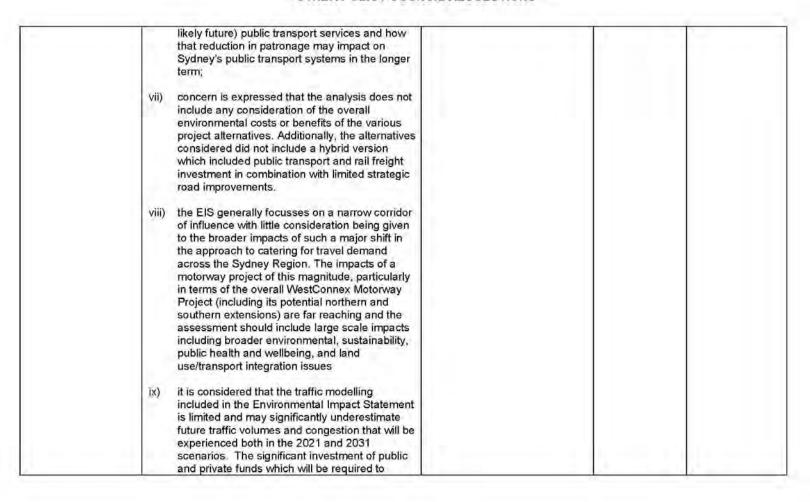




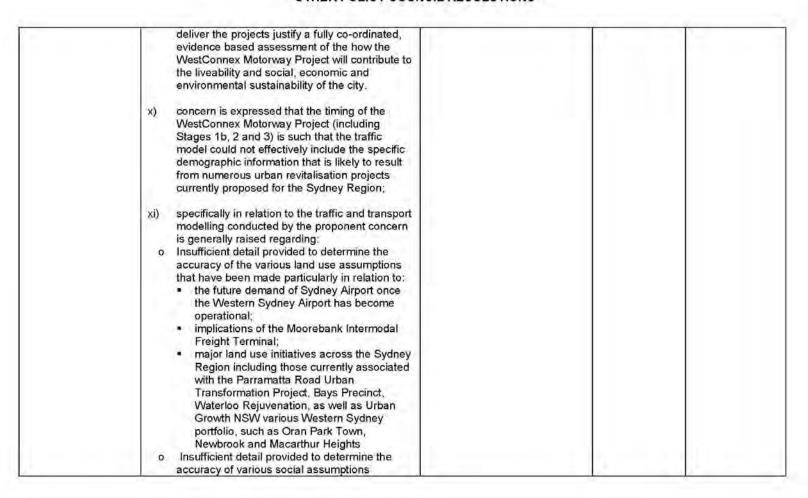








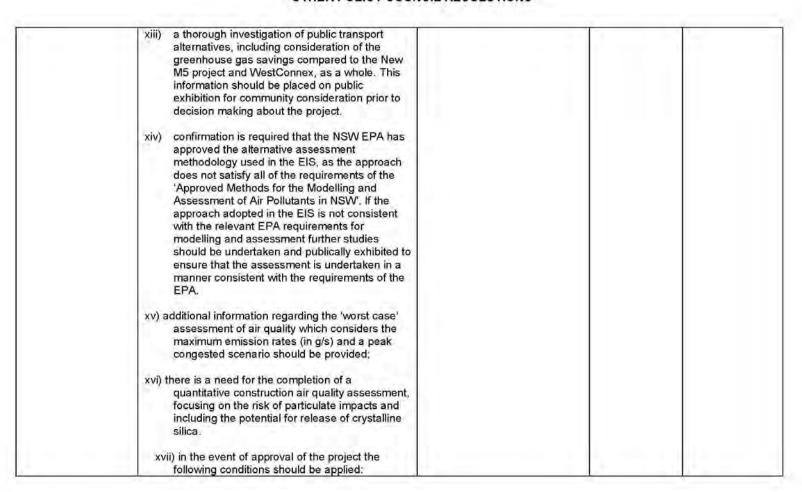




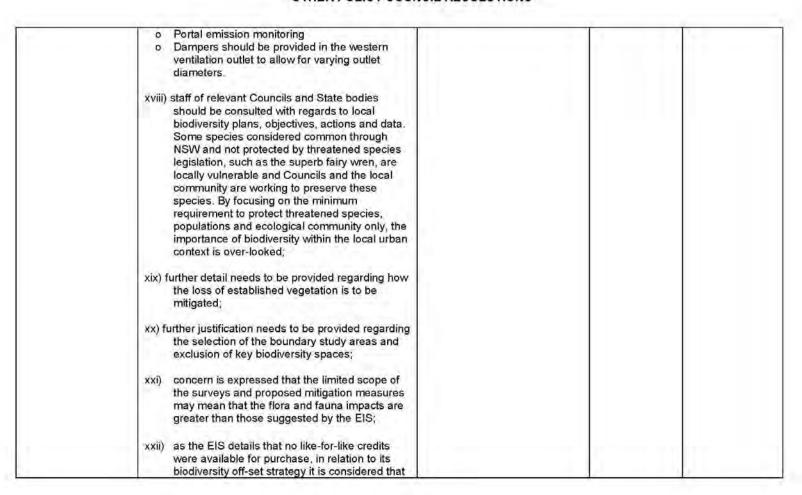


The value of time to different classifications of traveller; Toll sensitivity for freight vehicles in contrast to private drivers; Whether potentially reduced travel times will encourage residents of western Sydney to remain in existing areas, or travel for the same amount of time and move further afield to more affordable areas (thus travelling greater distances in the same time as they currently travel); o Existing and likely future mix of heavy vehicles (particularly in relation to the proportion of dangerous goods vehicle, which are unlikely to be permitted to use the tunnels); while the Secretary's Environmental Assessment Requirements specifically includes reference to consideration of the implications of induced traffic on both existing public transport and future public transport opportunities there does not appear to be any quantification of: The total amount of additional traffic induced by the creation of the motorway (ie car trips that would not have been made if the motorway was not constructed); o The total amount of public transport patrons who would move from public transport to private vehicles as a result of the increased road capacity (on both the motorway and the surface road network), and the impact this migration of patrons will have on the viability of public transport;

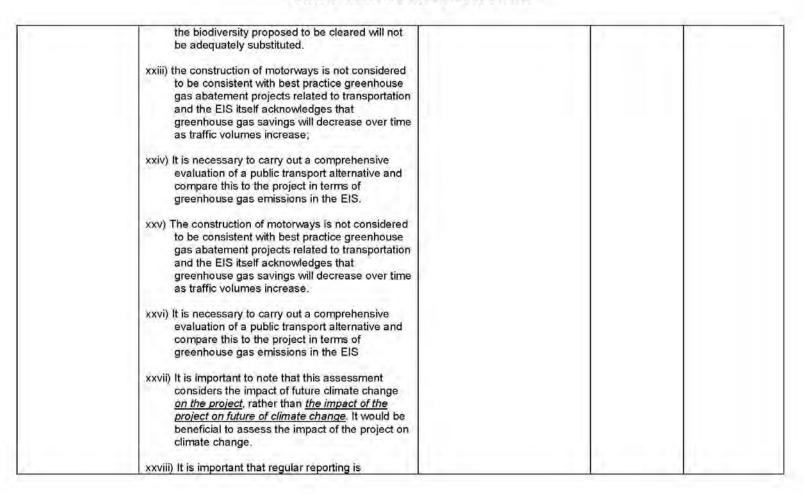














	conducted on the sustainability objectives and targets throughout the construction and later phases of the project. 4. That Leichhardt Council write to the City of Sydney and Marrickville Councils seeking advice about their assessment of the impact of West Connex on King Street Newtown			
9 February 2016 C19/16P RMS PROPOSED CHANGES TO BUS STOPS IN ANNANDALE, CAMPERDOWN, LEICHHARDT, LILYFIELD AND ROZELLE	 That Council forwards a submission as detailed in Attachment 2 to RMS with its concerns on the proposed alterations to bus stops as indicated in the RMS Community update December 2015. That RMS be requested to consult with Council on the community feedback prior to any further action being taken in this project and RMS then arrange a public meeting on the outcomes, inviting Council officers, affected businesses and residents within Leichhardt LGA. That the cost of the following and any associated works be met by RMS, subject to the RMS proposal proceeding: removal of bus shelters and RMS agree to fund the on-going financial impacts with the existing street furniture contract; removal of street trees and associated installation of road pavement; construct new facilities to meet DDA requirements; reprograming of parking meters and changes to signposting and provision and installation of new bus shelters without advertising. 	Submission forwarded to RMS	Completed	Manager Traffic
	4. That council additionally inform RMS that it:		2 2	4 14 1



a. Gives high priority within its Integrated Transport Plan to the encouragement of increased patronage of bus services and decreased reliance on private car use across the Leichhardt LGA, and so opposes, in principle, any proposed changes to bus stop location and frequency within the LGA serving to discourage patronage of public transport;

b. Notes that the proposed decrease in the frequency of stops will decrease the accessibility of public transport to all users, with significant effects for the least mobile in the community - aged, persons living with a disability - discouraging public transport use by these groups in particular, and so would be contrary to Council's Access and Healthy Ageing strategies;

- c. Noting the value of the current stop (stops F and C on p.222) in close proximity to the Norton St Plaza shopping complex, and the current frequent access of that complex by public transport users, opposes the removal of this stop and the related reduction/reconfiguration of the Norton St stops 7-10 for this and other reasons provided in Council's submission.
- That the reference to splitting bus stops be removed from this submission.
- That Council in its submission oppose the changes to bus stops and bus routes



+	contained in the RMS proposal.			
9 February 2016 C20/16P DRAFT TRANSPORT CORRIDOR OUTDOOR ADVERTISING AND SIGNAGE GUIDELINES	That Council: 1. Receives and notes this report: 2. Make a submission to the Department of Planning and Environment in relation to maximum luminance levels and prohibiting or restricting the use of mobile electronic displays for advertising along road corridors. 3. Opposes the proliferation of these advertising signs in the submission	1. Noted. 2. Completed. 3. Noted.	Completed	Director Environment and Community Management
9 February 2016 C22/16P LEICHHARDT DEVELOPMENT CONTROL PLAN 2013 HOUSEKEEPING AMENDMENT (DCP REVIEW STAGE 1A)	That Council: 1. Endorse the draft amendments to Leichhardt Development Control Plan 2013 shown in Attachments 1 and 2 of this report for public exhibition; 2. Delegate authority to the General Manager to make changes to the draft amendments to Leichhardt Development Control Plan 2013 prior to the public exhibition as a result of consideration by Council or are minor changes that do not affect the substance of its provisions; and 3. Endorse the Community Engagement Plan for the draft amendments to Leichhardt Development Control Plan 2013 as outlined in this report.	1-3 Noted.	April 2016	Director Environment and Community Management
9 February 2016	That Council:			Director Environment and



C23/16P REVIEW OF WESTCONNEX BUSINESS CASE	Forward the findings of the attached review of the WestConnex Updated Strategic Business Case to the Department of Planning as part of Council's Submission on the 'New M5" Environmental Impact Statement;			Community Management
	2. Forward the findings of the attached review of the WestConnex Updated Strategic Business Case to the Minister for Planning, Minister for Roads and the NSW Premier as part of a separate submission supporting Council's opposition to the WestConnex Motorway Project. 3. That Council send an electronic copy to all the Councils along the WestConnex corridor and to all NSW Members of Parliament. 4. That Council note that its request for a study providing comparison between the cost benefits of WestConnex with another transport infrastructure development based on underground rail / rail or other mode has yet to receive a response from State Government.	Completed	Completed	
9 February 2016	- Coroningon:			
C24/16P DEVELOPMENT APPLICATION - BIRCHGROVE TENNIS COURTS CLUBHOUSE	That Council consents to the lodging of the Development Application for alterations to the Club House at Birchgrove Park Tennis Court as outlined in the Report.	In progress	May 2016	Manager Property and Commercial Service
9 February 2016 C25/16P LEICHHARDT PARK	That Council adopt the Second Amendment to the Plan of Management for Leichhardt Park (D500207) Reserve in the form of Attachment 2 to the Report with the date of adoption to be inserted	In progress	March 2016	Manager Property and Commercial Service



- AMENDMENT OF PLAN OF MANAGEMENT - FUNCTION CENTRE AT LEICHHARDT OVAL No. 1	on the cover page.			
9 February 2016 C26/16P LOCAL GOVERNMENT AMENDMENT (COUNCILLOR MISCONDUCT AND POOR PERFORMANCE) ACT 2015	That the amended Code of Conduct shown attached as Attachment 1 be adopted.	Completed	Completed	Manager Governance and Administration
9 February 2016 C27/16P REQUEST BY COUNCILLORS TO ATTEND CONFERENCES	That Council endorse the requests from Councillor Emsley to attend the Sustainable Refugee Settlement Conference from 8-9 March 2016 and Councillor Kelly to attend the Australian Local Government Women's Conference from 10-12 March 2016.	Completed	Completed	Manager Employee Services
9 February 2016 C28/16P NSW CONTAINER DEPOSIT SCHEME DISCUSSION PAPER	That Council: Endorses the broad elements proposed by the LGNSW for a CDS as outlined in this report. Works with the Southern Sydney Regional Organisation of Council's (SSROC's) CDS Working Group on a submission to the NSW government. Notes the opportunity made available for the	The submission process will be finalised week of 22 February. SSROC intends to brief the SSROC General Managers at their SSROC meeting 3rd March (1st of the year).	Completed	Service Delivery Coordinator



	community to comment on the CDS Discussion Paper via its existing website portal on Container Deposit Schemes.			
9 February 2016 C29/16P SYDNEY INTERNATIONAL WOMEN'S DAY 2016 BREAKFAST	That Council: Purchase a corporate table for ten persons valued at \$1850 for the Sydney International Women's Day Breakfast in March 2016 (to be held at the Australian Technology Park) and to be funded from Council's Miscellaneous Priorities budget. Invite students from Sydney Secondary College to join staff and Councillors at the Council table.	Completed	Completed	Group Manager Community and Cultural Services



ITEM 3.4 DRAFT LEICHHARDT HOUSING ACTION PLAN 2016 - 2025

	T 10 11 11		
Division	Environment and Community Management		
Author	GROUP MANAGER COMMUNITY AND		
	CULTURAL SERVICES		
	DIRECTOR ENVIRONMENT AND COMMUNITY		
	MANAGEMENT		
Meeting date	8 March 2016 Policy Meeting		
Strategic Plan Key Service	Place where we live and work		
Area			
SUMMARY AND	ORGANISATIONAL IMPLICATIONS		
Purpose of Report	To present the Draft Leichhardt Housing Action Plan for Council to place on exhibition.		
Background	A Draft Housing Issues and Options Paper was submitted to September 2015 Policy Council Meeting. Council resolved C426/15P to include additional material, review some definitions, and that that the reviewed paper be brought back to Council prior to public exhibition.		
Current Status	Revisions made to the September 2015 document have been incorporated in the attached document, now named "Draft Leichhardt Housing Action Plan 2016-2025.		
Relationship to existing policy	Aligns with existing Council resolutions. Gives direction to LEP, DCP, s.94. Requires further policy development		
Financial and Resources Implications	Specialist housing planning and policy skills required to prioritise and implement actions in the Plan, to be considered in conjunction with the 2016/17 Delivery Plan for those priorities which will not be addressed in the course of developing the s.94 Plan.		
	This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure.		
Recommendation	That:		
	 The report be received and noted That the Draft Housing Action Plan 2016-2025, including draft strategies and actionsbe placed on public exhibition for a period of 30 days a) copies of the Draft Housing Action Plan be forwarded to key stakeholders including SSROC, Local Government NSW, Unions 		



	NSW, neighbouring councils and NSW Government and statutory bodies for their review and comments b) interested stakeholders including neighbouring Councils be invited to participate in a discussion of the Draft at the next Housing Advisory Committee Meeting of 23 March 2016 3. A further report be brought to Council outlining the feedback from the community and key stakeholders and recommending the final strategies and actions for endorsement and resources required for future implementation by Council. 4. Note that an allocation of funds in 2016/17 is required to assist in the implementation of Housing related actions included in this report and as part of the Draft Housing Action Plan.
Notifications	Members of the Housing Advisory Committee; Key stakeholders including SSROC; Neighbouring Councils; LG NSW; Unions NSW
Attachments	Draft Leichhardt Housing Action Plan



Purpose of Report

To present the Draft Housing Action Plan and propose that Council exhibit the Draft Plan, and engage stakeholders in a public discussion at the Housing Advisory Committee Meeting on 23 March 2015.

Recommendation

That:

- 1. The report be received and noted
- 2. That the Draft Housing Action Plan 2016-2025, including draft strategies and actions- be placed on public exhibition for a period of 30 days
 - copies of the Draft Housing Action Plan be forwarded to key stakeholders including SSROC, Local Government NSW, Unions NSW, neighbouring councils and NSW Government and statutory bodies for their review and comments
 - interested stakeholders including neighbouring Councils be invited to participate in a discussion of the Draft at the next Housing Advisory Committee Meeting of 23 March 2016
- 3. A further report be brought to Council outlining the feedback from the community and key stakeholders and recommending the final strategies and actions for endorsement and resources required for future implementation by Council.
- 4. Note that an allocation of funds in 2016/17 is required to assist in the implementation of Housing related actions included in this report and as part of the Draft Housing Action Plan.

Background

A report prepared in response to a series of Council resolutions dating back to March 2013 was presented to Policy Council Meeting in 2015. Council resolved a number of amendments for inclusion in the report **C426/15P**, including consultation with key stakeholders Unions NSW, SSROC and local Councils.

- 1. The report be received and noted
- The discussion paper be amended to note that Aged Housing Information such as information regarding the number of 'low care" and "high care" beds is 2014 data and no longer published on Commonwealth Government websites.
- 1. Actioned.
- 2. Actioned. Refer Section 2.3.1



- 3. The discussion paper be deferred from public exhibition, and reviewed in regards to the following sections:
 - Key worker definition that Council approach and with convene а meeting representatives from Unions NSW and neighbouring Councils, and develop an agreed definition of key worker.
 - Officers revise discussion paper strategies to reflect that Council supports a range of affordable housing options for each identified category.
 - c. Options be included in the discussion paper in respect of value capture from all developments within the municipality for the purpose of funding affordable housing.
 - 4. The reviewed paper to be reported back to Council prior to public exhibition.
 - 5. Copies of the revised final discussion paper be forwarded to key stakeholders including Council's Committees, SSROC and Unions NSW, for their review and comments.
 - 6. Council Officers work with SSROC and LGNSW to confirm and progress a common set of definitions to assist both discussions between Councils and with other levels of Government
 - 7. The amended report provide information on the methods and processes used by community housing providers and local government to influence the

- 3.a Actioned. Refer Key Housing Terminologies and Definitions
- 3b Actioned. Refer Sections 3 and 6.
- 3c Actioned, Refer Section 3.

- 4. Actioned. March 2016 Policy Council
- 5. To be actioned in Exhibition period.

- 6. Actioned at a meeting held on 2 November 2015. Refer introductory section on Key Housing Terminologies and Definitions
- 7. Actioned. refer Sections 3 and 6 which identify strategies and actions to be undertaken.



nature of tenants groups accommodated through affordable and social housing projects developed with assistance from local government

- 8. The amended report discuss how allocation is best made in relation to the full range of housing interventions available to local government (eg. boarding house, micro apartments, NRAS funded, negotiated contributed housing);
- 9. The report present a housing allocation policy option that is consistent with Council's current policy approach.
- 10. The report further highlight processes or actions that may be taken to expand the stock and availability of social housing within the municipality.
- 11. Council also strongly advocate to the State Government on the need for public, affordable and supported housing in the Bays Precinct.
- 12. Council source any information on the provision of affordable and social housing in high income areas and areas of very high house prices and summarise this for Councillors and in particular how these areas provide housing for key workers.

8. Actioned. Refer Sections 3 and 6 and 7 which identify strategies and actions to be undertaken.

- 9. Actioned. Refer Sections 3 and 6 and 7 which identify strategies and actions to be undertaken.
- 10. Actioned. Refer Section 8.

- 11. In progress
- 12. Actioned. Refer Section 3.



Report

The Draft Housing Action Plan presents the evidence base, current context and further proposed directions to address housing issues in Leichhardt. The Plan delivers outputs under all of the Leichhardt 2-25+ key service areas, principally *Place where we live and work*

1. Executive Summary of the Draft Housing action Plan

Section 1 presents information on why Council commissioned this research with the aim to explore new pathways to deliver more housing options in Leichhardt. It also provides a short history on the changing urban landscape of Leichhardt and housing supply impacts.

Section 2 provides a concise overview of statistical information and related research on population and housing characteristics for Leichhardt and metropolitan Sydney.

Section 3 outlines key issues and pathways for delivering a percentage of affordable housing in urban renewal projects. It provides a number of case study examples from projects that embraced new housing supply in combination with housing choice, and affordability requirements.

Section 4 presents an outline of land use planning mechanisms used by local government to deliver housing supply, choice and affordability. This section presents examples where inclusionary zoning, land dedication, joint ventures, Masterplans and financing initiatives (affordable housing bond guarantees) that can be used to deliver diverse housing models in high land value areas.

Section 5 includes an assessment of the current NSW State Government planning reforms as outlined in the NSW Government's Green and White Papers. Its principle focus is on the role of metropolitan plans, sub regional plans, local housing strategies, housing supply requirements and affordable housing targets.

Section 6 offers an overview of the NSW Environment Planning and Assessment Act 1979, State Environmental Planning Policy No 70—Affordable Housing (Revised Schemes) (2009) (SEPP 70) and its connection to Leichhardt LGA. It looks at Leichhardt Councils ability to deliver housing choice and affordability through the use of planning mechanisms.

Section 7 addresses the issue of housing choice and affordability in the form of secondary dwellings/laneway housing, dual key apartments, micro apartments, manor houses, and boarding houses, with reference to Local Environmental Planning controls (LEP) and Development Control Plan (DCP) (especially in regard to Urban Design and Heritage conservation considerations). This Section explores pathways to support the delivery of different housing options with the capacity to offer opportunities for older residents to age in place and address the housing needs of lower income residents.



Section 8 presents an overview of potential strategic urban development sites and corridors in the Leichhardt LGA, including the Bays Precinct, Parramatta Road, and High Street Retail strips.

Section 9 outlines future draft strategies and potential actions for Leichhardt Council to consider regarding the delivery and management of an affordable housing program.

2. Next steps

The Draft Housing Action Plan has been developed with input from key stakeholders in the government, non-government and community sector, and has been driven by a specialist consultant with expertise gained working in the sector, and Council officers. The next step will be to circulate the Draft to key stakeholders, and invite all interested parties to both respond with written comments during the exhibition period, and to participate in a discussion of Draft Strategies and Actions at the Housing Policy Committee of 23 March 2016.

3. Implementing the Draft Action Plan

Once the Draft Report comes of Exhibition, Council Officers will prioritise actions for delivery in the 2016-17 Delivery Plan and report to Council. A dedicated resource with specialist Housing Policy expertise will be required to implement prioritised strategies and actions, and the resource implications will be advised to Council in reporting the Exhibition Draft to Council, and in briefings and reports on the Draft Budget for 2016/17.

Some of the actions contained in the Housing Action Plan can be funded through the s.94 Review. Other actions will require additional resources. The Director of Environmental and Community Management has outlined, in the current budget process, a need for an additional \$60,000 to be allocated for implementation of housing related actions. This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure

Summary/Conclusions

Housing is a key issue in Leichhardt, in particular the availability of affordable housing, and the need to continue to ensure that residents are able to access housing at all stages of life, including residential aged care. The Draft Housing Action Plan presents the evidence base, current context and further proposed directions to address housing issues in Leichhardt. The Plan has been developed with input from government, non-government and community stakeholders, lead by an expert consultant and Council officers. It is proposed a further report be brought to Council outlining the feedback from the community and key stakeholders and recommending the final strategies and actions for endorsement and future implementation by Council

Attachments

1. Draft Leichhardt Housing Action Plan





Pathways for Delivering Housing Supply, Choice and Affordability





Amend No	Date Change	Author	Subject of Amendment
1	January 2016	Stacey Miers; Erla Ronan	Amendments to Report submitted September 205 Policy Meeting

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The research paper was prepared by Stacey Miers from SLM Consulting on behalf of Leichhardt Council



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Pathways for Delivering Housing Supply, Choice and Affordability

Report Structure

Section 1 presents information on why Leichhardt Council commissioned this research and how it aims to explore new pathways for delivering more housing choice. It also provides a short history on the changing urban landscape of Leichhardt and housing supply impacts.

Section 2 provides a concise overview of <u>statistical information</u> and related research on <u>population</u> and housing characteristics for Leichhardt and metropolitan Sydney.

Section 3 outlines key issues and pathways for <u>delivering a percentage of affordable housing in</u>
<u>urban renewal projects.</u> It provides a number of case study examples from projects that embraced new housing supply in combination with housing choice, and affordability requirements.

Section 4 presents an outline of <u>land use planning mechanisms</u> used by local government to deliver housing supply, choice and affordability. This section presents examples where inclusionary zoning, land dedication, joint ventures, Masterplans and financing initiatives (affordable housing bond guarantees) have been used to deliver diverse housing models in high land value areas.

Section 5 includes an assessment of the current NSW State Government planning reforms as outlined in the NSW Government's Green and White Papers, its principle focus is on the role of metropolitan plans, <u>sub regional plans</u>, <u>local housing strategies</u>, housing supply requirements and affordable housing <u>targets</u>.

Section 6 offers an overview of the NSW Environment Planning and Assessment Act 1979, State Environmental Planning Policy No 70-Affordable Housing (Revised Schemes) (2009) (SEPP 70) and its connection to Leichhardt LGA. It explores Leichhardt Councils relationship to SEPP 70 and its ability to deliver housing choice and affordability through this planning mechanism.

Section 7 addresses the issue of housing choice and affordability in the form of secondary dwellings/laneway housing, dual key apartments, micro apartments, manor houses, and boarding houses, with reference to Local Environmental Planning controls (LEP) and Development Control Plan (DCP) (especially in regard to Urban Design and Heritage conservation considerations). This Section predominantly explores pathways to support the delivery of different housing options that offer opportunities for older residents to age in place and address the housing needs of lower income residents.

Section 8 presents an <u>overview of potential strategic urban development sites and corridors</u> in the Leichhardt LGA, including the Bays Precinct, Parramatta Road, and High Street Retail strips.

Section 9 outlines future_draft <u>strategies and potential actions</u> for Leichhardt Council to consider regarding the delivery and management of an affordable housing program.



Key Housing Terminologies and Definitions

The supply of affordable cuts across many different policy and legislative frameworks. However, there is often a lack of consistent terminologies, which can lead to a high level of confusion regarding different housing forms and the types of housing products being delivered to a variety of target groups. In response to this issue a list of key terms and definition has been provided below.

Table-Key Housing Terminologies

Affordable Housing & Key Workers

Key workers are reliant on limited income so the definition of affordable housing for key workers is those households whose gross income falls within the following ranges of percentages of the median household income for the Sydney Statistical Division according to the Australian Bureau of Statistics. Definition of "affordable housing"

- Very low income household-less than 50%
- Low income household 50% or more but less than 80%
- Moderate income household 80-120%

Source: The affordable housing definition outlines above is from State Environmental Planning Policy No 70-Affordable Housing (Revised Schamas) (2009). The use of this definition was the product of a workshop held with Unions NSW and stakeholder from key inner city councils. This income definition has been used in relation to key workers and affordable housing, as key workers are reliant on limited income.

Identified key worker shortages impacting on Leichhardt's local economy

An analysis of regional and local key workers shortages undertaken on behalf of Leichhardt Municipal Council by; 'The Public Practice- Making Sense of Census (November 2015) Company indicated the following key worker shortages for Leichhardt LGA (from highest to lowest):

- · Food Trades Workers,
- · Automobile, Bus and Rail Drivers,
- · Personal Carers and Assistants,
- Child Carers.
- Health and Welfare Support Workers,
- · Automotive Electricians/Mechanics,
- · Hairdressers,
- · Checkout Operators Office Cashiers,
- Food Preparation and Assistants.

In addition, Leichhardt identifies the arts playing an important role in contributing towards the development of a sustainable vibrant city and in line with this people employed in the creative art sector such as; artists, actors, writers and musicians have been identified as an importance component in any key worker target.

Source: Data on key worker shortages is based on research undertaken on behalf of Leichhardt Council by; The Public Practice: Making Sense of Census (November 2015) Company, Note: The figures for local labour supply shortage are based on the number of employed residents in an occupation that is less than the number of people who work in Leichhardt. It should be noted that Bus Driver shortage are likely to be caused by the bus depot being a major local employer, creating a supply shortage. Artists are often very reliant on grants or very low incomes.



Affordable Rental Housing (also referred to as 'community housing')

Rental housing delivered and managed primarily by community housing providers (CHPs) for very low to moderate-income earners, including key workers essential to economic sustainability and social diversity.

Note: Community-housing rents are typically less than 30 % of the gross household income for very low to moderate households.

Aging In Place

'Ageing in Place' has been described as the ability to live in one's own home and community safely, independently and comfortably, regardless of age, income and physical ability.

Homelessness

When a person does not have suitable accommodation alternatives. If their current living arrangement; is in a dwelling that is inadequate; or has no tenure; or if their tenure is short and not extendable; or does not allow them to have control of and access to a space for social relations. Source: ABS Statistical Definition of Homelessness - Paper 2012.

Housing Diversity

A mix of housing types that meet the needs of a socio-economically diverse community. This includes student housing, boarding housing, affordable rental housing, social (including public and community) housing and private market housing.

Housing Stress

A household is considered to be in housing stress when rental or mortgage costs are greater than 30 per cent of a households disposable income and their household earnings are in the bottom 40 per cent of the household income range ('the 30/40 rule').

Source: The above Housing Stress definition is from the National Centre for Social and Economic Modelling Measuring housing stress at small area levels: How much do definitions matter? - University of Canberra Australia (http://www.natsem.canberra.edu.au/storage/housing%20stress.pdf)

Inclusionary Zoning/Value Capture

Inclusionary zoning or value capture is a requirement for a percentage of affordable housing to be delivered in connection with new development. It is linked to planning benefits such as rezoning or density bonuses in high land value areas. The aim is to create mixed income neighbourhoods linked with diverse labour force participation rates.

Market Housing

Housing delivered by the private sector, including private homes for sale to the broader community, and specialist housing such as boarding houses and student accommodation, which are rented to certain target markets.

Shared-Ownership Housing

Housing made affordable for lower income earners through a shared-equity mortgage model, by which the homebuyer shares the capital cost of purchasing a home with an equity partner, such as a not-for-profit trust or community-housing provider.



Social Housing (including public housing)

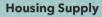
Housing for low-income earners and people experiencing disadvantage, accessed through a State regulated housing application system. This includes:

- Public housing owned and managed by the state government
- Housing owned and/ or managed by community housing providers
- Housing owned by the Aboriginal Housing Office.
- Housing owned or managed by government regulated housing co-operatives

Note: This housing is primarily accessed through government housing application system. It includes public housing owned and managed by the state government, along with housing owned and/or managed by CHPs, and Aboriginal housing owned by the Aboriginal Housing Office.

Chart - Housing Supply Categories with Regard to the Australia Housing Policy Environment

	Housing Sup	oly Categories			
Non-Market Temporary	Assisted Housing		Market Permanent		
Transitional shelter	Social housing	Housing supplied at	Market rental	Home ownership	
Emergency shelters	Public housing	below market value			
Crisis accommodation	Community				
	housing	Affordable home			
Supported Housing		ownership			
	Housing co-				
	operatives	Shared equity ownership			
	Private rental				
	assistance				





Section 1.0 Report Background & Overview

This research aims to address the growing economic and social disparity within Leichhardt and the Sydney metropolitan housing markets, in terms of housing choice and affordability. It explores ways to deliver better housing options and to address current and future unmet housing needs for Leichhardt Council.

In addition, this report has also been undertaken in response to a number of Leichhardt Council resolutions (Referred to in Appendix 1) concerned with housing supply and ways to:

- better deliver housing choice options
- support the capacity of older residents to age in place
- address the ongoing problem regarding affordable housing supply, in high-value land areas such as Leichhardt.

This research also builds on previous work undertaken by Council in the housing policy space: Leichhardt Councils' 'Affordable Housing Strategy' adopted in 2009.

1.1 Leichhardt's Development History and Housing Impacts

Industrial factories and small lot worker housing, located along narrow streets historically dominated and formed the basis of Leichhardt's early development history. In line with this, its population was predominantly made up of residents who worked in factories or industries such as boat building.

Over the years, many industries ceased to operate or relocated to areas with lower land costs. The loss of polluting industries combined with access to water frontages made the area a more desirable place to live. In addition to its water locations, inner city areas like Leichhardt have a high level of accessibility to social and environmental amenity, transport, services and jobs.

Leichhardt's historical development patterns reflect those of many inner city areas, predominantly made up of narrow lots with terrace housing. These historical patterns also impact on opportunities to deliver new housing aimed at meeting the accommodation needs of today's cities and their residents.

These days Leichhardt attracts higher-income professionals due to high housing costs and land values and it is transitioning from an area dominated by industry and blue-collar employment to an area predominantly made up of white-collar professionals. In line with this, the income of Leichhardt residents has been rising, however, rents are rising even faster, putting pressure on the 38.3% of residents who rent in the LGA (Source: ABS, 2011, Census data, Profile ID from Leichhardt Council Community Profile). For those tenants in the rental market reliant on limited incomes this situation can lead to increasing levels of housing stress.

Other issues are impacting on housing choice at a broader level; the housing development industry has been focused on supplying known housing products with an assured profit margin. This provides the industry with a level of security but also impacts on housing supply in terms of location and housing choice with a bias towards housing developments on the urban fringe. Governments across Australia have responded to this problem, predominately through the use of planning incentives and code based assessment frameworks aimed at expanding housing choice and affordability within existing urban areas.



On and offshore investment in apartment development is also driving up housing prices in Sydney's high-value land location such as Leichhardt, as identified in research by the City of Sydney Council (Housing Issues Paper, 2015).

Finding ways to deliver housing choice and affordable housing in an environment of high land costs, restrictive development options and an investment-driven housing supply market is all part of a bigger problem for many inner city Councils such as Leichhardt as they try to address the unmet housing needs within their neighbourhoods.

Some metropolitan Sydney Councils, including Leichhardt, have been exploring ways to retain a level of housing supply (predominantly rental housing) targeted at maintaining a socially and economic diverse community profile into the future. This report is part of that journey for Leichhardt and it explores ways to deliver more housing choice. As a preliminary point, Council's current housing initiates are outlined below.

1.2 Leichhardt Municipal Council - Current Initiatives to Address Affordable Housing Supply Shortages

- Council established a 'Housing Committee' that meets on a quarterly basis and the Committee aims to support Council in advocating in the area of affordable housing, market housing, social housing, and supported housing supply.
- . Council has a Memorandum of Understanding (MOU) with Housing NSW.
- Council has an MOU with Uniting Care regarding the redevelopment of their site and the
 provision of affordable housing.
- Council continues to strongly advocate for the inclusion of housing affordability in the Bays Precinct Redevelopment Project.
- Council continues to strongly advocate for the inclusion of housing affordability in the NSW Government sub-regional planning framework being undertaken by the NSW Department of Planning and Infrastructure,
- Council has advocated and campaigned against the sale of public housing (including support the Friends of Millers Point).
- Council works in collaboration with Leichhardt Women's Health Centre advocating on the housing needs of women.
- Council supported the Save our Services Campaign to retain Women Only Services, including crisis accommodation with the review of resources under the Going Home Stay Home reforms.
- Council has advocated on initiatives with the NSW Local Government Association (LGA) to
 prioritise the delivery of affordable and supported housing in the development of all new
 housing estates.
- Council supported the Leichhardt Housing Competition in partnership with Sydney
 University, This was a design competition aimed at developing new models for highdensity housing based on a 21st century workers cottage. This project was launched in
 October 2015 with prizes awarded to both undergrad and graduate students.



Section 2.0 Key Population and Housing Characteristics

This section provides a brief overview of statistical information on population and housing characteristics within Leichhardt. The data is based on the 2011 Australian Bureau of Statistics (ABS) census data. In addition, the ABS data is informed by related research findings for Leichhardt, the greater Sydney region and Australia.

2.1 Leichhardt a Snapshot

The Gadigal and Wangal people of the Eora Nation are the traditional custodians of the area now known as Leichhardt Local Government Area (LGA). After colonisation, in 1871 Leichhardt became a municipality and was named after the early Australian explorer Ludwig Leichhardt. The municipality's boundaries have changed many times over the decades seeing suburbs amalgamated and unamalgamated with adjoining Councils.

These days Leichhardt LGA covers 1,300 ha in Sydney's inner west and significant parts of the LGA include harbour frontages. The area incorporates the suburbs of Leichhardt, Lilyfield, Balmain (and Balmain East), Birchgrove, Rozelle and Annandale, with a combined population of 56,307 (Source: ABS 2011 Census data. ProfileID from Leichhardt Council Community Profile).

2.2 Population Characteristics

The Chart below presents information on Leichhardt's population profile and provides an overview of population changes between 2006 and 2011. It confirms that between 2006 and 2011 Leichhardt's population increased with 3,423 additional residents (7.0%). The data also confirms that Leichhardt recently experienced a 'Baby Boom' in 0-4 year olds. It shows that Leichhardt has a high percentage of people aged between 25 and 49 compared with greater Sydney. Conversely, it indicates that people aged between 18 and 24 are lower in Leichhardt compared with greater Sydney and this is also the care for those aged 70 years and older.

Chart-Leichhardt's Population and Age Structure Age structure - service age groups, 2011 Total persons Leichhardt Council area. Greater Sydney Bables and pre-schoolers (0 to 4) Primary schoolers (12 to 17) Secondary schoolers (12 to 17) Tertiary education and independence (18 to 24) Young workforce (25 to 34) Parents and homebuildars (35 to 49) Older workers and pre-retirees (60 to 69) Empty nesters and retirees (60 to 69) Seniors (70 to 64) Elderly aged (85 and over) C 5 10 16 20 25 30 Not the population Suntalization and pre-senies in profile in by st. the population and placetimes parts.

Source - ABS 2011 Census data. ID profile from Leichhardt Councils Community Profile



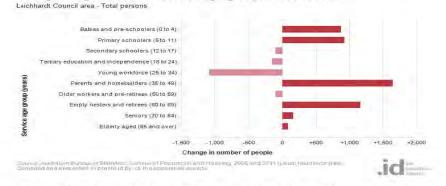
To gain a clearer picture of Leichhardt's population, you need to look at changes in the population's age structure between the census periods as shown in the following Chart. Although Leichhardt population increased between the two census periods, the data shows that between 2006 and 2011 Leichhardt experienced significant demographic shifts, in particular age categories. Although Leichhardt has a high percentage of 25 to 49 year olds it experienced a decline in residents aged between 18 and 34, moving out of the LGA, specifically those aged between 25 and 34.

Some younger residents' aged between 18 and 34 may have moved because they wanted to live independently and left the family home, other may have moved to access employment opportunities. For this group high housing costs, combined with access to employment opportunities would be an important consideration in making locational choices. Confirmation of these observations would require a deeper investigation in order to understand the principle drivers behind relocation decision for this age group in Leichhardt.

A percentage of Leichhardt residents aged between 50 and 59 left the LGA between 2006 and 2011. Such changes may have been associated with older residents deciding to move out due to retirement, health or employment issues. The Council on The Ageing (COTA) (2014) identified other potential drivers regarding locational and accommodation choice for this age group. Their research indicated a trend towards older people experiencing higher levels of unemployment with a growing concern about future access to affordable housing options. The study also found that a number of respondents under 60s years of age had converted their primary asset (their home) to income.

In the 60 years and over category Leichhardt experienced an increase between 2006 and 2011 and Council's own investigations confirmed a significant increase in 60 - 69 year olds. This may indicate that Leichhardt is a destination for people over 60 making the transition to retirement and downsizing. These observations are based on somewhat limited data and over time will require greater investigation and scrutiny to assess their applicability to Leichhardt.

Chart-Changes to Leichhardt's Population and Age Structure Between 2006 and 2011 Change in age structure - service age groups, 2006 to 2011



Source - 2011 Census data by ID profile from Leichhardt Councils Community Profile

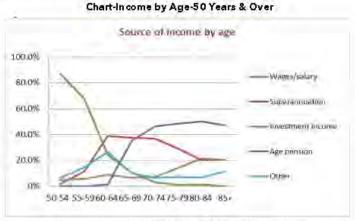


2.3 Income and Accommodation Issues for Ageing Australians -

A study by the Council on Ageing (COTA)(2014) found that a growing proportion of older Australians were struggling to retain secure housing and that housing was increasingly an important issue for many Australians over 50 years of age, primarily women. The study points out that due to soaring property prices, particularly in metropolitan centres that the traditional model of owning a home and living on superannuation or on an aged pension was becoming increasingly unfeasible (COTA, 2014).

One of the interesting findings of the COTA (2014) research as shown in the following Chart below on 'Income by Age', was a trend showing that many older Australians were moving from superannuation income towards the aged pension after 64. A percentage of those aged between 50 and 64 also moved from accessing a wage to accessing superannuation in connected with unemployment.

The COTA (2014) study also indicated a trend towards unemployed for older Australians over 50 years of age which was confirmed by New Start Allowance data, which showed that nearly 200,000 Australians in their 50s and 60s had accessed New Start Allowance in 2013, an increase of 40% between 2010 and 2013.



(Source: Council on The Ageing (2014) 50+report with a focus on how and where older people are living).

On housing tenure and aging the COTA (2014) study found that almost three out of four respondents (73%) owned their home outright, another 10% were paying off a mortgage and 11% paid rent or board as shown in the following Chart on "Housing Tenure". For older Australians with a mortgage, the COTA survey found that a significant proportion paid off their mortgage leading up to age 64 and in line with this the proportion of respondents who fully owned their home increased between 50 and 64 years of age.



Those who paid rent or board accounted for 11% of aged respondents. Of these and 66% were in the private rental market, 24% were in public/community housing. The study indicates that around 20% of older Australians will be reliant on the private rental market to meet their accommodation needs and that the provision of public/community housing is an important safety net for many older members of the community.



Chart- Housing Tenure Profile of Older Australians

(Source: COTA, 2014, 50+ report with a focus on how and where older people are living)

2.3.1 Ageing Population and Aged Care Issues

Ageing in Place has been described as the ability to live in one's own home and community, safely, independently and comfortably, regardless of age, income and physical ability. Many older Australians express a strong desire to stay in their home or alternately to remain living in their local communities for as long as possible and preferably until they die (COTA "A Conversations on Ageing", 2012). In Leichhardt a percentage of older residents 3.2% (1,655 people -2011 Census) indicated that they needed help due to a disability, pointing to the need for support services to help older residents to age in place.

As will be discussed later in Section 8 of this report, Council Officers are currently progressing a Strategic Sites, Centres and Corridors Study and the principle focus of this work is the consideration of opportunity to locate aged housing options on the ridgelines, within walking distance of street shops, services and transport infrastructure. The location of aged housing in such locations would provide older residents with the opportunity to continuing living within the municipality surrounded by their friends, family and community and able to access essential services.



Leichhardt is losing many of its existing aged care accommodation services as shown in the following Tables on 'Aged Care Places' in 2009 and 2014. Between 2009 and 2014 Leichhardt lost 131 aged care places. These losses were associated with the closure of two aged care accommodation facilities.

Aged Care Places in Leichhardt LG/ 2009		Capacity 2009		
Org Name	Suburb	Low Care	High Care	Not Specified
Annandale Nursing Home	Annandale		88	
Crest Nursing Home	Annandale		64	
Sister Dorothea Village	Annandale	82		
Uniting Care Ageing - Annesley House	Leichhardt	86		
Uniting Care Ageing - Aldersgate House	Lilyfield		100	
St Dominic's Hostel	Leichhardt	50	-	100
Uniting Care Ageing - The Marion	Leichhardt			130
Montrose Aged Care	Balmain			44
Sub-Totals		218	252	174
TOTAL		644		

Suburb		Capacity 2014		
Org Name Annandale Nursing Home	Suburb Annandale	Low	High Care 68	Not Specified
Sister Dorothea Village	Annandale	83		
Uniting Care Ageing - Annesley House	Leichhardt	73	13	
Uniting Care Ageing - Aldersgate House	Lilyfield		102	
Uniting Care Ageing - The Marion	Leichhardt	112	18	
Montrose Aged Care Plus Centre	Balmain	14	30	
Sub-Totals		282	231	
TOTAL		513		

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longer publishers data on low and high care beds.



Council is committed to supporting its older residents to age in place; however, Council is concerned that it will be difficult to monitor any additional losses in the aged care sector as the Commonwealth Government since August 2015 no longer publishers data on low and high care beds.

Council has been actively seeking ways to ensure that the existing aged care facilities are maintained and that alternative accommodation options are delivered. As part of this Council has been collaborating with Uniting Care and exploring options for the redevelopment of their sites to ensure that a percentage and affordable aged housing is preserved within the LGA. This work has seen the development of Memorandum of Understanding (MOU) between Council and Uniting Care.

#8 Aged Housing Motion 25/2/2014 Leichhardt Municipal Council Resolution C20/14

2.4 A Snapshot of Housing Issues

The following Table presents a snapshot of housing related information for Leichhardt, greater Sydney and NSW. The data is principally drawn from the 2011 census data and from Shelter NSW housing snapshot (2015). It provides some preliminary insight into accommodation issues for older residents, homeowners, renters, social housing and homelessness.

Table-Housing Snapshot, Housing Related Issues in Leichhardt, Sydney and NSW

Homeownership

- In Leichhardt, 31.2% had a mortgage in 2011
- In Leichhardt, 23.2% owned their house outright in 2011
- In terms of home ownership only 2% of home purchase stock in NSW was affordable for people on very low incomes and only 10% was available to those households on low incomes in 2014, while 35% was affordable for moderate-income households.
- In 2014, the median house price in Sydney was \$760,000 while in the Inner West it was \$1.13 million.

Rental

- In Leichhardt, 33.8% of residents were renting in 2011
- Only 9% of rental stock in NSW was affordable for very low-income households in (2014)
- Only 25% of the rental stock in NSW was affordable for low-income households in (2014)
- 64% of rental stock was affordable for moderate income households (2014)



Social Housing

- In Leichhardt, 4.7% of residents were living in some form of social housing in 2011
- In NSW, there were 59,534 applicants waiting for social housing in June 2014. This
 represented an increase of 2% over the previous year.
- Across NSW, there has been a decrease of 11% in the supply of public housing stock over the last decade.

Homelessness

- In Leichhardt, 339 people indicated that they lived in a non-traditional form of accommodation (* see footnote re description on non-traditional forms of accommodation)
- . In 2011, there were 28,190 homeless people in NSW.
- In 2013-14, 21% of people who used homelessness services in NSW reported their main reason for doing so was domestic or family violence.
- In 2013-14, the percentage of Aboriginal persons using homelessness services in NSW was nearly 12 times higher than their representation in the general population.

Older Residents

- In Leichhardt, 15.7% of the population were aged 60 or over.
- Leichhardt is seeing an ongoing decline in aged care facilities and affordable housing options for older residents.
- Between 2009 and 2014 Leichhardt LGA lost 131 aged care places.
- The population of 60 -69 year olds increased by over 1,000

Source: The Data in the Table is based on available data from the following sources: The ABS Data 2011 Census, Shelter NSW-housing: a factsheet. February 2015. Domain editorial director, Toby Johnstone, 2014, Leichhardt Council Community and Cultural Asset Audit 2009 to 2014 (3).

*Non-traditional forms of accommodation definition relates to the ABS data categorisations which includes: people who are homeless, sleeping out, staying temporarily in a household, improvised home, a tent, or a house or a flat attached to a shop or an office, people living in supported accommodation, prison, and people, boarding houses or other temporary forms of lodging. This data includes 4 people who stated that they lived in a caravan, cabin or houseboat.

2.5 An Undersupply of Affordable Rental Accommodation

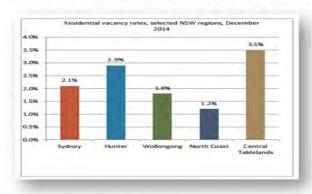
As data indicates median rental price for new tenancies across the whole of NSW are increasing and there is an undersupply of affordable rental accommodation. As a result lower income groups are experiencing higher levels of rental stress (Shelter NSW Housing Factsheet Feb 2015).

In Leichhardt the average weekly rent for a 1 bedroom in 2015 was \$440, two bedroom \$650, three bedroom \$850 and \$1,195 for a four bedroom (Rent and Sales Report, June Quarter 2015, Issue 112). While in 2015 the average weekly wage for an Australian employee was \$1,136.90 a week, indicating that even on an average income, rental costs in Leichhardt would be a significant components of household income for a standard person with a family. The impact of these rental costs would be even greater for lower income households (Source ABS, Average Weekly Earnings, Australia-May 2015).



Rental stress is dependent on a number of factors. At the supply end of the rental market it's affected by rental vacancy rates. A vacancy rate of around 3% or higher will indicate the capacity of the market to create a balance between rental supply and demand, whereas rates below 3% indicate shortages in housing supply which can lead to increased rents and higher levels of rental stress. The 'Residential Vacancy Rates' for Sydney in 2014 was around 2.1% rising and falling across regional NSW as evident from the following Chart (Shelter NSW. Housing Factsheet Feb 2015).

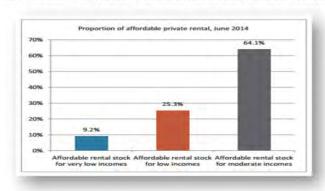
Chart-Residential Vacancy Rates- selected NSW regions (2014)



Source: Shelter NSW Housing: a factsheet. February 2015.

An undersupply of rental accommodation will affect particular segments of the private rental market and will usually create additional barriers for lower income workers. An example of this can be seen in the following Chart presenting the percentage of affordable private rental stock in NSW for low to medium income groups in 2014.

Chart-Percentage of Affordable Private Rental Stock in NSW (June 2014)



Source: Shelter NSW Housing: a factsheet. February 2015.



2.6 Leichhardt's Housing Tenure Profile

A breakdown of Leichhardt housing tenures, compared with greater Sydney is presented in the Table below. It shows the ongoing process of declining rates of home ownership across greater Sydney and in Leichhardt. In addition, around 45% of the Leichhardt population are locked into either the private rental market or social/or community housing options.

Home ownership rates across NSW are declining making up only 60.6% in 2011. However, in Leichhardt home ownership rates were significantly lower at 54%. Just over a third (33.8%) of Leichhardt residents were renting privately while 4.7% were in social housing (Source: ABS 2011 Census, ID profile from Leichhardt Councils Community Profile). As can be seen from the Table the amount of people renting privately slightly increased in Leichhardt and greater Sydney between the 2006 and 2011 Census periods.

Leichh Area	ardt Council	2011		2006	
Tenur	e type	Leichhardt %	Greater Sydney %	Leichhardt %	Greater Sydney %
Fully o	wned	23.2	29.1	22.7	30.1
Mortg	age	31.2	33,2	29.3	31.1
Rentir	g	38.8	30.4	38.5	29.7
>	Renting - Social housing	4.7	5.0	4,4	5.0
۷.	Renting - Private	33.8	25.0	33.4	24.0
*	Renting - Not stated	0.4	0.5	0.6	0.6
Anoth	er tenure type	0.4	0.8	0.3	0.7
Notst	ated	6.3	6.5	9.1	8.4
Total I	nouseholds	100.0	100.0	100.0	100.0

2.7 Housing Stress Across all Housing Tenures

Housing stress increased across all Australian cities for all housing tenures has increased. This can also lead to significant social and economic problems (National Housing Supply Council, Housing Supply and Affordability Issues, 2012 to 2013). A study by Williams and Macken (2012) "Homes for All" undertaken for the McKell Institute points out that housing stress, whether it's the cost of mortgage or rent, affects half of all Australia's and that Sydney is Australia's most expensive city.

The Domain report reveals that Sydney's median house price is now higher than average house prices in London, is fast approaching New York and that the Sydney's housing market now has a median house price of a million dollar (Domain Real Estate. Domain House Price Report June Quarter 2015)



The following Table presents Census data on housing stress for all housing tenures (rental and home purchase) across the Leichhardt LGA. As shown in the Table the total number of households experiencing housing stress in Leichhardt accounted for 6.4%, which was lower, than the NSW average of 11.4%. However, in suburbs such as Leichhardt (south) the percentage increased to 8.1%. Overall these figures reflect the changing social demographics of Leichhardt and the picture is somewhat different when looking at rental stress alone as outlined in the following Table.

Table -Housing Stress for all Housing Tenure in Leichhardt, Greater Sydney, NSW in 2011

Area	Number	Total Households	Housing Stress Percentage %
Annandale (North)	118	1,743	6.8
Annandale (South)	159	1,989	8.0
Balmain	288	4,561	6.3
Balmain East	42	785	5.4
Birchgrove	42	1,342	3.1
Leichhardt (North)	238	3,345	7.1
Leichhardt (South)	194	2,385	8.1
Lilyfield (North)	162	2,075	7.8
Lilyfield (South)	48	889	5.4
Rozelle (East)	60	2,042	2.9
Rozelle (West)	73	1,469	5.0
Annandale	277	3,732	7.4
Balmain Peninsula	372	6,687	5.6
Leichhardt	431	5,729	7.5
Lilyfield	210	2,964	7,1
Rozelle	133	3,511	3.8
Leichhardt Council Area	1,441	22,638	6.4
Greater Sydney	183,761	1,601,530	11.5
SSROC	65,141	584,898	11.1
New South Wales	297,202	2,599,174	11.4
Australia	878,404	8,181,750	10.7

Source: Leichhardt Council - Community Profile. (profile.id.com). Data collected by the Australian Bureau of Statistics, Census of Population and Housing 2006 and 2011. Housing Stress is defined as per the NATSEM (National Centre for Social and Economic Modelling) model as households in the lowest 40% of incomes, who are paying more than 30% of their usual gross weekly income on rent (NSW Census 2011).



2.8 Rental Stress

Rental stress grew significantly across all Australian's major cities between 2002 and 2012. This situation was exacerbated because average rents increased by 75.8% while at the same time average earnings only rose by 57% (National Housing Supply Council, Housing Supply and Affordability Issues, 2012 to 2013). This increasing gap between earnings and housing costs will have long-term consequences in the way Australia cities function.

Compared with greater Sydney, Leichhardt LGA had a lower proportion of households suffering rental stress 13.4%, however, this varied across the LGA with some suburbs such as Lilyfield (North) experiencing higher concentrations of rental stress 17.9% as shown in the following Table.

Table-Rental Stress for Leichhardt, Greater Sydney and NSW in 2011-Enumerated

Area	Number	Total Renting Households	Percentage %
Annandale (North)	102	673	15.2
Annandale (South)	137	873	15.7
Balmain	258	1,873	13,8
Balmain East	36	316	11.4
Birchgrove	36	407	8.7
Leichhardt (North)	184	1,242	14.8
Leichhardt (South)	153	958	15.9
Lilyfield (North)	138	770	17.9
Lilyfield (South)	37	283	13.1
Rozelle (East)	44	822	5,3
Rozelle (West)	62	540	11.5
Annandale	239	1,546	15.5
Balmain Peninsula	329	2,596	12,7
Leichhardt	337	2,201	15.3
Lilyfield	175	1,053	16.6
Rozelle	106	1,362	7.8
Leichhardt Council area	1,178	8,793	13.4
Greater Sydney	122,165	487,404	25.1
SSROC	47,287	207,154	22.8
New South Wales	201,792	756,821	26.7
Australia	590,163	2,348,901	25.1

Source: Leichhardt Council - Community Profile, (profile.id.com). Data collected by the Australian Bureau of Statistics, Census of Population and Housing 2006 and 2011. Note: Housing Stress is defined as per the NATSEM (National Centre for Social and Economic Modelling) model as households in the lowest 40% of incomes, who are paying more than 30% of their usual gross weekly income on rent. (NSW Census 2011).



2.9 A Lack of Low-Cost Accommodation - The Impact on Key Workers and Research Students

Data from the ABS, Census on Population and Housing (2006-2011) shows that Leichhardt is becoming a very expensive place to live in terms of housing costs, which means that lower paid, key workers will have difficulty accessing affordable accommodation options.

The impact of high housing costs on lower paid key workers was identified in a study by Bankwest; called The 3rd Key Worker Housing Affordability Report - 2011. This research showed that housing affordability across Australians capital cities will continue to deteriorate, principally due to rising house prices, and this was particularly significant in Sydney and Melbourne.

The Bankwest research found that key workers faced house prices more than five times their earnings in 84% of Sydney LGAs (in 2010) and this percentage was an increase from 77% in 2009. The report points out that key workers such as; paramedics, nurses, teachers, police and fire fighters are struggling in the Sydney property market (See footnote re keyworker definition).

An analysis of regional and local key workers shortages undertaken on behalf of Leichhardt Municipal Council by; 'The Public Practice- Making Sense of Census (November 2015) Company identified the following key worker shortages in the Leichhardt LGA (from highest to lowest):

- · Food Trade Workers,
- Automobile, Bus and Rail Drivers,
- Personal Carers and Assistants,
- Child Care Workers,
- Health and Welfare Support Workers,
- Automotive Electricians/Mechanics,
- Hairdressers,
- Checkout Operators Office Cashiers,
- · Food Preparation and Assistants.

In addition, Leichhardt has identified that the arts play an important role in contributing towards the development of a sustainable vibrant city environment and in line with this individuals employed in the creative art sector such as artists; actors, writers and musicians have been identified as an importance component in any key worker target.

¹ The definition of affordable housing for key workers is those households whose gross income falls within the

- Very low income household-less than 50%
- Low income household 50% or more but less than 80%
- Moderate income household 80–120%

In addition, Leichhardt has identified that the arts play an important role in contributing towards the development of a sustainable vibrant city environment and in line with this people employed in the creative art sector such as; artists, actors, writers and musicians have been identified as an importance component in any key worker targets.

The inclusion of the Arts in the Key Worker category supports Leichhardt commitment to its: Leichhardt Public Art Policy 4-Year Service Delivery Plan 2015 - 2018 March 2014 Leichhardt Public Art Policy- 10-Year Strategic Plan 2015 - 2024 March 2014 Leichhardt Community and Cultural Plan 2011 – 2021 - 10 Year Strategic Plan

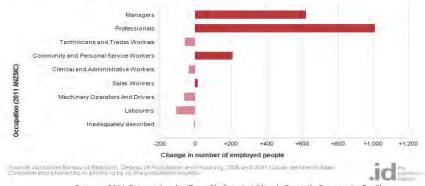


As can be seen in the following Chart on "Changes in Occupation and Employment" between 2006 and 2011, Leichhardt is experiencing an ongoing decline in key workers. Employment categories such as technical and trade, clerical and administrative, machine operators, drivers and labourers all declined in the Leichhardt LGA. While, on the other hand, there was a significant increase in residents who work in higher paid white-collar employment sectors such as management and professional occupations. This ongoing decline of lower paid workers is the result of people no longer being able to afford to live in locations experiencing increasing high accommodation costs.

Chart- Changes in Occupation and Employment-Between 2006 & 2011 for Leichhardt

Change in occupation of employment, 2006 to 2011

Leichhardt Council area - Iotal employed persons



Source - 2011 Census data by ID profile from Leichhardt Councils Community Profile

2.9.1 Accommodation Costs - Do We Need Researchers?

A number of significant research institutions and medical facilities are located in Leichhardt and adjoining LGAs. Researches make an important contribution to society in general and play and important role in the overall function and operation of our hospitals and educational facilities. However, for many researcher access to affordability accommodation is a growing problem, as they are often reliant on limited income streams.

A study by Dowling and Ruming (2013) from Macquarie University found that medical researchers and Ph.D. students have very different accommodation needs to university students. They were typically older and often had dependents. They were often reliant on very low research grants and their principle accommodation option was the private rental market. The study found that this group also experienced higher levels of discrimination within the private rental market because they couldn't always provide proof of income, as they are mostly reliant on a scholarship funds combined with part-time work.

2.10 Summary of Key Population Issues and Housing Characteristics

Leichhardt's population profile shows a high percentage of people aged between 25 and 49 compared with greater Sydney. Between 2006 and 2011 Leichhardt experienced significant demographic shifts, in specific age categories. A high percentage of 18 to 35-year-olds moved out. This was also the case for a lower percentage of those aged between 50 and 59 who left the LGA.



It is unclear how much access to housing affordability options may have influenced some of these demographic shifts. Younger people may be moving because they couldn't access affordable housing when making the transition from the family home to independent living. Some residents in their early 50s may be converting their housing assets to income and moving to cheaper areas.

This research also indicates that a percentage of older residents are in the private rental market and that they will experience higher levels of housing stress due to declining income and lack of housing security. In addition, changes to employment opportunities for those over 50 will also impact on the accommodation choices of many older Australians.

In terms of homeownership in Leichhardt, only 23% of people owned their home outright and the LGA is experiencing declining homeownership rates, which are currently lower than the state average.

Although the Leichhardt LGA does have a lower proportion of households suffering housing stress compared with greater Sydney, housing stress varied considerably across the LGA and different sectors of the populations experience higher level of stress, in particular, those on the private rental market.

Leichhardt LGA also has over 300 people who fit the ABS homelessness category. Housing safety nets such as access to public housing are also declining and only 4,7% of housing stock within Leichhardt LGA is public or community housing.

It is clear from the statistical data and research that housing affordability is a growing problem and that particular income groups and age cohorts in Leichhardt are experiencing higher levels of housing stress - predominantly those renting. What is also evident is that a significant proportion of rental stock is unaffordable even for middle-income households and is beyond the capacity of people on a lower income to rent or purchase.

The research in this section shows that Leichhardt is becoming a very expensive place to live, which will impact on the housing choice options for lower paid workers, students, researchers and artists who are finding it increasingly difficult to access any affordable accommodation options within the LGA. In order to address this situation and maintain a mixed population profile, Leichhardt will need to provide additional affordable housing options as an essential safety net for a percentage of the population dependent on lower incomes.



Draft Strategy 1: Understanding Key Population and Housing Characteristics (Demographic Analysis)

Potential Actions

- Action 1 Council investigate options to better monitor population and housing issues. The aim of this work will be to assist Council in its understanding and response to any long-term economic and social impacts associated with changes in local and regional demographics.
- Action 2 Council work in collaboration with other councils and Government agencies on creating uniformity across the different 'housing definitions' and data collection regimes. The aim of this work is to support a level of consistency regarding the collection of housing data so that any future response to housing supply issues at a regional, subregional and local level can be better understood and addressed.
- Action 3 Council monitor, document and benchmark approvals for all relevant housing types, including affordable rental housing, diverse living models and aged housing options.
- Action 4 Council to monitor and report on population change and housing supply shifts in the LGA on an annual basis. Staff will regularly report on data collection results to Council, sub regional partners and the wider community.
- Action 5 Council continue to purchase Profile ID Census data analysis and purchase forecasting data to be updated regularly and made available on the Council website
- Action 6 Council to explore the potential to use State Environmental Planning Policy Housing for Seniors and People with a Disability (2004) to allow for vertical villages in the R1 Residential Zone (or other residential zones). The aim will be to create more innovative options for older residents to age in place.



Section 3.0 Initiatives to Address Housing Supply Deficiencies In Line with Urban Renewal

Governments in Australia have historically addressed housing supply shortages by facilitating land release on the urban fringe, however; this has become increasingly problematic for a number of reasons. Firstly, as cities spread rural land conversion to residential use results in the loss of high-quality agricultural land close to cities. Secondly, there is the mounting cost of providing essential infrastructure to the urban fringe, which has become increasingly expensive for governments. Thirdly, urban fringe developments are associated with a social and economic cost as they are often removed from transport, employment and essential services.

This problem is exacerbated in Sydney due to an ongoing inward shift of jobs towards central business districts and Sydney's inner ring suburbs as identified in the study by SGS Economics & Planning (June 2013). In relationship with this is a growing concern about the increasing disconnect between employment opportunities and affordable housing locations.

Metropolitan planning strategies have stressed the need to contain population growth within established urban areas to alleviate the impacts associated with the growing disconnect between employment, transport access and housing costs. The principal strategy being uses by State Government authorities for containing population growth has been to increase requirements for higher density housing, close to transport and services, particularly on inner city urban renewal sites. However, these redevelopment sites can become very controversial, as they are often located in high land value areas dominated by historical lower density development.

Leichhardt has a number of identified urban renewal projects, combined with levels of community resistance to higher density developments. In line with this, the following section outlines a number of identified key issues connected with housing supply initiatives in high land value locations and different ways to deliver community benefits in the form of housing choice and affordability.

The research is principally drawn from literature reviews and existing case study examples centred around urban renewal projects that delivered a percentage of housing choice and affordability in combination with new housing supply. It includes examples from overseas, Australia and NSW.

3.1 Delivering Affordable Housing a Global Challenge

The difficulties in delivering affordable housing in global cities are recognized internationally. A report by The McKinsey Global Institute; "A blueprint for addressing the global affordable housing challenge" (October 2014) tackled the problems faced international to deliver affordable housing products. The reports principle findings are that housing supply programs need to address the housing needs of all income groups and take into account the circumstances of all residents, the cities demographics, and its economic drivers. The report identifies why affordable housing supply is so important to the overall financial function and wellbeing of cities that are outlined below.

- Affordable housing in the right locations will boost a city's productivity by integrating lower-income populations into the economy and thus reduces the cost of providing shelter and services.
- It enables labor mobility, and opens up pathways to increase incomes and helps to drive economic growth.
- Cities need to be made up of integrated housing markets with a mix of household incomes.



- Market failure will have a trickledown effect on all income groups and will have ramifications across citywide and regional economies.
- Urban renewal is as important as new housing construction.
- Existing poorer quality housing with good connections to employment and services may better serve the needs of lower income residents.
- Affordable housing supply is an important part of the supply chain and if development standards are set too high, lower income households are priced out of the housing market (without subsidies).
- All cities have land in appropriate locations that could be unlocked.
- Land can be freed up for redevelopment in connection with transit-oriented development through regulatory reform, land readjustment, and land pooling.
- Proven technologies and regulatory support can enable large-scale, low-cost housing to be produced.
- Developer financing costs can be cut in many ways, including by derisking projects through a system of guaranteed occupancy and the streamlining of risk.
- The problem for some affordable housing failures has been associated with weak asset management practices and a reduced capacity for residents to connect with employment or vital services due to locational disadvantages from essential services and jobs.
- Well-located, properly maintained, affordable housing can be quite profitable.
- Lack of access to decent housing is a national issue, but the solutions need good local responses.
- A cities capacity to delivering affordable housing may be the most important factor in a cities success.



3.1.1 Identified Key Issues For Addressing The Housing Affordable Gap

The Report by The McKinsey Global Institute "A blueprint for addressing the global affordable housing challenge" (October 2014) identified four key areas for addressing the housing affordable gap, which are outlined in the following Table.

Table-Key Approaches in Addressing the Growing Gap in Affordable Housing Supply Land-securing land for affordable housing in the right location, unlock land for affordable housing in connection with transit- oriented development, release public land, and use inclusionary zoning. Development-develop and build housing at a lower cost by improving capital productivity through lean construction methods. Operations and maintenance-set standard to ensure that affordable housing properties are operated and maintained efficiently, improve energy efficiency and set standards to avoid dilapidation. Financing-improving access to financing for home purchase, reduce borrowing costs to buyers; develop cross financing frameworks. Source: A blueprint for addressing the global affordable housing challenge. October 2014. The McKinsey Global Institute Report

The McKinsey Global Institute Report also identifies the key principle needed to deliver affordable housing options on urban redevelopment sites and they highlighted in the following Table.

Community engagement	Manage stakeholders and qualify the benefits of the project.
Funding	Create mechanisms to pursue all possible funding option.
Delivery model	Choose a combination of delivery models that fit the local context.
Governance	Build local governance with dedicated delivery units, streamline and performance manage the process.

3.2 Urban Renewal Case Studies and Addressing Affordable Housing Deficiencies

The Australian Housing and Urban Research Institute (AHURI) commissioned a research project looking at "Affordable Housing, Urban Renewal and Planning: Emerging Practice in Queensland, South Australia and New South Wales" (The Gethin, Gurran, Nouwelant, Pinnegar, Randolph, and Bramley (2012). Principally the research considered urban renewal projects, housing supply and



the capacity of the planning system to deliver a percentage of affordable housing across different Australian State Government jurisdictions.

The study identified 20 specific urban renewal sites in which the planning system had contributed to the procurement of affordable housing for moderate to low-income households. It assessed each project and the different affordable housing options that were delivered including affordable rental, shared equity and home purchase. Not surprisingly the research found that delivering affordable housing in urban renewal projects is one of the key urban growth management challenges facing policymakers in Australia and is a highly contentious issue.

Overall the Study found that in South Australia, NSW and Queensland, a variety of social and affordable housing products had been delivered on urban renewal projects that were located close to transport and infrastructure through government planning requirements and joint venture initiatives.

A study by Rowley and Phibbs (August 2012) point to the increasing disconnect between two arguments regarding urban housing developments. There is the historical economic argument that less public involvement in the housing supply market will allow it to operate effectively, whilst on the other hand, there is increasing public expectation for more public sector intervention in order to secure affordable housing options in high land value areas and urban renewal sites.

In looking at financial feasibility Rowley and Phibbs (August 2012) identify the following key financial barriers to delivery affordable housing in high land value locations. Landowners on the one hand have very high price expectations and don't take into account the cost of delivering higher density housing. Whilst on the other hand, the development industries primary financial aim is a profit margin above 20%.

Land price was viewed as a major impediment to achieving affordable housing on urban infill sites. Once the land is rezoned for high-density development the land value uplift is significant and this, in turn, pushes up the price of land. Urban redevelopment sites located close to transport nodes or those sites with good public transport access demand an even high price. In the end, the cost of land matched with development costs does not allow the developer to deliver affordable housing in high land cost locations. (Rowley and Phibbs, August 2012)

The research points out that the market is unlikely to deliver affordable housing products in high land value locations without some form of government intervention or policy requirement. This would need the landuse planning system to ensure that a percentage of the land value uplift can be captured prior to rezoning and redevelopment in order to supply a percentage of affordable housing (There is a range of tools available for capturing value uplift and these are discussed in Section 4 of this report). The following section presents case studies where affordable housing products have been delivered in line with housing supply in inner urban environments.

3.3 Urban Renewal Case Studies and Affordable Housing Outcomes

This section presents a number of urban renewal case study proposals that address housing supply shortages and delivering a percentage of affordable housing. Some of these initiatives include shared equity arrangements; land trusts and joint venture arrangements between government and not for profit housing organisations. The majority of projects were undertaken in connection with surplus publicly owned land and both public and private sector delivered on a number of fronts including housing affordability.



3.3.1 Affordable Housing Supply Initiatives - Western Australia

The Western Australian Government's Department of Housings "Affordable Housing Strategy 2010-2020, Opening Doors to Affordable Housing"; outlines the Governments housing supply delivery framework, which includes joint venture partnership with the private development sector on government-owned land. All joint ventures are required to deliver a component of affordable and/or social housing products in connection with all housing supply initiatives.

The financial benefit in the Western Australian framework is the Governments role in reducing the financial risk to the private partner/builder through a Government guarantee joint venture arrangement. The projects include government land holdings and arrangement with the Government to purchase a percentage of the units from the private developer/builder. As a result the joint ventures development projects are highly regarded by the private development industry.

Stella Orion is one such joint venture. It is a three staged redevelopment project on government land and the construction is being undertaken by a private developer/builder. Stage 1 of the project had a housing target of 109 dwelling, Stage 2 has a housing supply target of 130 and Stage 3 has a housing supply target of 197 dwellings. The site plan below shows the overall site plan for Stages 2 and 3.



Site Plan-Stages 2&3 Western Australia Stella Orion

Source: Planning Western Australian. Delivering directions 2031, Diversity by Design. Planning.wa.gov.au.



The following Table outlines the key components for Stage 2 in the Stella Orion residential development project.

Table-Case Study - 'Stella Orion' Stage 2 - The City of Cockburn and the Department of Housing Western Australia Joint Venture Housing Development that Included Affordable Housing Products

- The land is owned or purchased by the Department of Housing, Western Australia (DoHWA)
- Stella Orion Stage 2 aims to deliver 130 dwelling units in the form of medium density apartment blocks.
- A percentage of the units are to be released for sale to the market at an affordable price below \$400 000.
- The DoHWA had a guarantee to purchased 70 dwellings; sell 48 units on the private market and retaining 22 for units for affordable housing.
- 10 apartments were sold under the DoHWA National Rental Affordability Scheme.
- 10 apartments were sold under the DoHWA shared equity key start scheme.
- The land was developed through a joint venture arrangement between the Western Australian Land Development Corporation and the private sector.
- The builder was Goodland Properties Pty Ltd and the designer was Campion Design Group.
- · The development design included a five-star energy efficiency rating.
- The role of Western Australian Government through the Land Development Corporation
 co-ordination and land acquisition and the DoHWA commitment towards purchasing a
 significant number of units was seen to reduce the financial risk for the developer and
 was a key issue in delivery of housing choice and affordability.

Sources: Planning Western Australian. Delivering directions 2031. Diversity by design. planning.wa.gov.au. "Infrastructure Investment and Housing Supply" by SGS Economics & Planning. 2013. Goodland Building Company. (goodland.com.au). The policy framework for affordable and social housing supply is outlined in the Department of Housing (DoHWA) "Affordable Housing Strategy 2010-2020. Opening Doors to Affordable Housing.



3.3.2 Affordable Housing Case Study City of Port Phillip Fisherman's Bend Victoria

The Government of Victoria has undertaken a number of urban infill redevelopment projects resulting in significant increase to the existing urban densities. The principle aim of these projects has been to increase housing supply and deliver a percentage of affordable housing in key locations. One such project is the Port Philip Fisherman's Bend redevelopment, which has the added benefit of being serviced by a new light rail initiative. The following Table provides an outline of the key components of this project.

Table-Case Study - City of Port Phillip Fisherman's Bend Victoria, Housing Supply Project and its Housing Affordability Policy Objectives

- · Fisherman's Bend was a 40ha site.
- The existing site contained very little housing; so the redevelopment provided significant new housing supply in an existing urban environment,
- The redevelopment aimed to increase both housing supply and employment lands.
- It was a strategic redevelopment with shared responsibilities between the Victorian Government and Port Phillip Council.
- The project aims to deliver dwelling for 40,000 new jobs and 80,000 dwellings.
- The sites controls aimed to significant increase dwelling densities with an average target of 200 dwellings per hectare.
- The project aims included housing mix suitable for singles, couples, and people with children, older households and students.
- The Fisherman's Bend strategic framework provided a clear desire by the relevant Government authorities to deliver a percentage of affordable housing on the site.
- The project aims included a requirement for a percentage of affordable housing to be delivered and managed by a registered community housing association.
- . The project included a new light rail station.
- Open space initiatives include the upgrading of existing open space and the creation of sufficient new open space to match population growth.

Sources: Port Philip Draft Vision in 2013. Metropolitan Planning Authority. Fisherman Bends Strategic Framework Plan-July 2014. Infrastructure Investment and Housing Supply, by SGS Economics & Planning.



3.3.3 Urban Renewal, Affordable Housing Supply and Best Practice, Key Findings from Case Study Report Commissioned by City of Sydney Council

The City of Sydney Council commissioned SGS Consultants to prepare a discussion paper documenting best practice planning principles and governance arrangements in relation urban renewal sites with an affordable housing component. The principle aim of the paper was to inform the Bays Precinct renewal summit in November 2014 (Source: SGS Economics and Planning. November 2014. Best practice urban renewal. Input into Bays Precinct forum. Research commissioned for the City of Sydney).

The SGS discussion paper reviewed at a number of international and local urban renewal initiatives and identified what was considered best practice principles in the application of the Bays Precinct redevelopment framework. A brief summary of the key elements from each of the case studies is provided in the following Table.

Table-SGS Case Studies - Best Practice Urban Renewal - Key Points

Kings Cross site in London

27ha site (two land components to the site).

The site was privately owned and was being developed by a consortium.

The redevelopment included an overall housing target of 1000 new homes and a 50% affordable housing target on the first stage and a 35% affordable housing target on the second stage. The development objectives included specific affordable housing and job targets, energy

efficiency requirements and public access requirements.

The redevelopment included significant new transport infrastructure connected to the redevelopment of London's Kings Cross Rail Station.

Hafen City Redevelopment Site in Hamburg Germany

157 ha site

The land was owned by the government and had been the old port area of Hamburg.

The site had a housing supply target of 5,500 new residential dwellings.

Planning objectives included specific affordable housing, commercial and energy efficiency targets.

Docklands Site Melbourne Australia

200ha site

The land was government owned and had been part of the Melbourne docklands port area. The redevelopment includes 20,000 new residential dwellings with specific policy requirements for affordable and diverse housing.

A private developer based on overriding strategic plan delivered the project.

Barangaroo Sydney Australia

22 ha site

The land was owned by a NSW Government entity and located on Sydney harbour.

The Strategic Plan includes energy efficiency targets, high public transport modal share and a specific affordable housing target of up to 2.5% of residential GFA.

The NSW State Government created 'The Barangaroo Development Authority' to manage the redevelopment.

Lend Lease won the redevelopment tender and is the principle builder.

Equally interesting, is the fact that although Lend Lease have actually agreed to a 35% affordable housing target on the Elephant and Castle site in London, on Barangaroo site their target is only 2.5%.

Note: The SGS study included the Elaphant Castle redevelopment projects however, it have not been include as the end produce has not delivered the proposed affordable housing outcomes from the agreement.

Source: SGS Economics and Planning, November 2014, Best practice urban renewal, Input into Bays Precinct forum.



3.3.4 Identified Best Practice Principles in Urban Redevelopment Projects

The following Table provides a list of identified best practice from the urban renewal case studies undertaken by SGS for the Bays Precinct.

Table- Urban Renewal Case Studies -Identified Best Practice Principles

- Develop a plan for engagement with stakeholders.
- Take a long-term view regarding project outcomes.
- Create agreement from the start in relation to non-negotiable issues regarding redevelopment options.
- Agree on a reasonable financial profile, which reduces risk to the developer while providing an appropriate return on government land and infrastructure investment.
- Establish clear development options for meeting stated aims and objectives.
- Ensure that local character is embedded in the development proposal.
- Evaluate options from a holistic perspective and aim to maximise community benefits.
- Ensure that procurement models are aligned with vision and desired outcome.
- Provide a mix of housing types suitable for singles, couples, and people with children, older households and students.
- Provide dwellings that are affordable for low and moderate-income households.
- Build homes that are flexible and adaptable.
- Provide higher densities around public transport hubs and activity centres and lower densities at the interfaces with existing residential areas.
- Provide for a building scale that allows natural sunlight to streets.
- Provide buildings that minimise the impact of wind to ensure a comfortable pedestrian environment.
- Design buildings that create a positive pedestrian experience at street level.
- Ensure that the location of high-rise buildings do not adversely impacts on the quality of streets and parks through overshadowing.
- Include careful consideration of the location and design of tall buildings.
- Aim to upgrade existing open space by creating sufficient new open space to match population growth.

Source: SGS Economics and Planning, November 2014. Best practice urban renewal. Input into Bays Precinct forum. Research commissioned for the City of Sydney.



3.3.5 Case Study, NSW Housing Co-operatives Delivering Small-Scale Affordable Housing Projects

The case studies outlined in the previous section predominantly dealt with larger scale urban infill site. However, smaller scale projects can deliver a higher percentage of affordable housing as evident in the following NSW co-operative housing case study.

Common Equity NSW (CENSW) is the peak community housing provider supporting the not for profit co-operative housing sector across NSW. It currently has 35 member housing co-operatives under its umbrella. Its principal purpose is to promote the development of safe, affordable and secure housing for people who want to live in housing co-operatives.

Co-operatives have a different income criteria system from that of social housing. This is based on the principle that they are self-managed and members provide a significant amount of sweet equity. Approximately 35% of tenants can be on higher incomes while 65% of tenants have to meet the Housing NSW income eligibility. As a result, well-managed housing co-operatives can also accumulate rental surpluses.

In 2006, two housing co-operatives decided to use their rental surpluses to purchase land and develop affordable housing projects aimed at addressing the unmet housing needs of particular target groups within their existing co-operative membership. CENSW worked with these co-operatives to purchase land and acquire government funds. A brief overview of the two co-operative housing projects is outlined below.

3.3.5.1 Van Lang and Kapit Bahayan Co-operative Housing Development

Both Van Lang and Kapit Bahayan Housing Co-operatives were established in the 1990s. Van Lang is one of the larger housing co-operatives under the umbrella of CENSW and its principal target group is the Vietnamese community located in Cabramatta and Canley Vale in western Sydney. Kapit Bahayan was located principally in Auburn and its primary target group is the Filipino community.

The two housing co-operatives had an unmet housing demand that they wanted to address. For Van Lang, they had an ageing population and needed purpose-built aged housing. This would also allow them to free up a number of 3 bedroom dwellings that were under-occupied by older residents. Kapit Bahayan had a growing community of families in Western Sydney in need of affordable housing close to public transport. With the support of CENSW both housing cooperatives used their rental surpluses to purchase land in western Sydney.

Van Lang purchased a large suburban lot adjacent to an existing housing co-operative site in 2008 on Fairview Road in Canley Vale. The Van Lang project used the planning benefits available through State Environmental Planning Policy (SEPP), Housing for Seniors and People with a Disability (2004) to build a two storey multi unit aged housing development consisting of 17 purpose-built aged housing units and associated community facilities.



Kapit Bahayan purchased a large site in 2007 on the corner of Canley Vale Rd and Sackville Rd in Canley Vale. Co-operative members worked with architects to develop a project around their identified needs. Kapit Bahayan used the planning benefits available through SEPP, Affordable Rental Housing (2009). The Kapit Bahayan project resulted in the construction of six purpose-built townhouses as shown in the following image.

Image 2 - Kapit Bahayan 6 Town House Project



The projects combined land ownership with development approval to create the principal equity base to acquire finance and funding. The projects also acquired matched funding from the NSW State Governments, Centre for Affordable Housing of \$1.3 million and accessed the National Rental Affordability Scheme (NRAS) incentives provided over a ten-year period of \$1.3 million. The two projects jointly contributed 23 affordable dwellings in perpetuity and provided opportunities to free up existing stock to house those on community housing waiting lists. The key elements of the co-operative projects are outlined in the following Table.

Table-Case Study - Overview of Key Issues Regarding the Co-operative Housing Projects

Outlines below are some of the essential elements associated with the Co-operative housing developments.

- Average land costs The cost of the land for the combined sites were less than \$1 million.
- Development approval costs were around \$90,000 this included consultant fees; council fees and CENSW support staff wages.
- Both projects used State Environmental Planning Policies to access additional planning incentives, resulting in increased value.
- Once the land had development approval its value became the principle equity.
- The projects were owned outright with no holding costs.
- The initial outlay costs from the housing co-operative sector were matched with over \$2
 million in government grants.
- In two projects jointly contributed 23 affordable dwellings in perpetuity.
- The projects expanded housing choice through the construction of different dwelling types and responded in the needs of older residents allowing them to 'aging in place'.



3.3.6 Affordable Developed Above Council Car Parks "Air Space" at Port Phillip

Another good example of a smaller-scale infill affordable housing project is one initiated by the City of Port Phillip Council in Victoria. This Council has been actively involved in finding ways to supply affordable housing options for lower income members of the community impacted by gentrification and rising housing costs.

The Council outlined its commitment to supplying affordable housing in the City of Port Phillip, Housing Strategy 2007-17. A requirement of the Study was to provide more adaptable housing and deliver diverse housing options close to shops, public transport and services.

In addition, the City of Port Phillip supported the establishment of the Port Phillip Housing Association, a not-for-profit housing organisation. This Associated is now actively involved in joint venture arrangements with Council and the Victorian State Government to deliver affordable housing (Spivak, May 2012. Affordable Housing in Port Phillip the Roles of the City Of Port Phillip Housing Officer).

A site assessment was undertaken by Council to evaluate any opportunities to redevelop underutilised Council land holding and deliver affordable housing, in high land value areas close to transport and services. This work resulted in the development of what is now know as the Kyme Place Rooming House project, which saw the redevelopment of a car parking included affordable housing. The end project houses lower income member of the community by providing 27 affordable dwelling units and also supported local retailers by maintaining the Council car park (Ray Edgar. 13.9 2013. Living on Air, The Age Newspaper).

The Kyme Place Rooming House was developed as part of a joint venture arrangement between the City of Port Phillip, Port Phillip Housing Association and the Victorian Government. MGS Architects who had a long-term commitment to social housing took on the projects development and as can be seen, from the image below all the dwellings are elevated over the existing Council car park.



MGS Architects designed 'Kyme Place Rooming House'. Port Phillip Council carpark redevelopment (http://architectureau.com/articles/kyme-place-rooming-house/)



3.3.7 Exploring Opportunities to Develop the Air Space above Leichhardt Councils Car Parks

Leichhardt Municipal Council has been exploring opportunities based on the City of Port Phillip, project to develop a similar initiative regarding its parking facilities. As part of this work Council staff have undertaken a background feasibility study to assess the viability of developing the airspace above the Hay Street carpark in Leichhardt.

The initial research by Council staff found that particular restrictions on the existing land title of the carpark needed to be determined before the project can move forward. The matter is currently being investigated to resolve the land title restrictions, which will require negotiation and agreement from other parties. In parallel with this work and in order to resolve this impasse with the other parties, planning staff have been progressing an amendment to the LEP to permit an expanded range of residential uses on the Hay Street site as well as other sites in the LGA.

Council considered the initial planning proposal for the rezoning of a Council owned carpark in December 2013; it was considered again (post public exhibition) by Council in October 2014 and was forwarded to the NSW Department of Planning and Environment in December 2014 for approval. Council is currently awaiting a response from the Department. Once it has been received Council Officers will be in a position to pursue negotiations with the other parties.

#3 - Hay Street Car Park - Motion Leichhardt Municipal Council 27/6/2013 Resolution HC35/13

3.4 Delivering Affordable Housing Options Through the Social and Affordable Housing Supply Fund

When elected in 2015 the NSW Government made a commitment from the sale of the electricity 'poles and wires' towards the development of a new social and affordable housing fund. As part of this work, the Government released, Future Directions for Social Housing in NSW (2016). The first phrase in these reforms is the "Social and Affordable Housing Fund" (SAHF) that aims to deliver 3000 new social and affordable housing dwellings across metropolitan and regional NSW.

Organisations have been asked to register their initial interest through an Expressions of Interest (EOI) for Phase 1 of the SAHF funding program. Interest parties who wish to put forward a housing proposal are able to register their interest to participate in the EOI process before the 29th February 2016. The closing date for EOI is the 15th March 2016. Council has expressed an interest in supporting community housing organisation that may be interested in deliver new social and affordable housing dwelling in Leichhardt through either Phase1 or any following phases.

Once the matters regarding the Hay Street Care park are resolved, funding opportunities connected with SAHF may also provide Council with a financial base to move forward and redevelop the Hay Street site to include an affordable housing project.



3.5 Summary Table - Urban Renewal Case Studies and Housing Supply Impacts

The following Table provides a list of the key deliverables regarding the affordable housing case studies discussed previously in this section of the report.

Development Site	Site Size and Capacity	Housing Deliverable
Stella Orion Stage 2 Aurora	Staged Development	130 apartment units
- City of Cockburn WA		22 affordable housing units for
		purchase and rental
City of Port Phillip	40 ha site	80,000 new dwellings
Fisherman's Bend Victoria		200 dwellings per ha on average
		40,000 new jobs
		Housing Supply Aim- to provide a mix
		of housing types suitable for singles,
		couples, and people with children,
		older households and students
Kings Cross site in London	27 ha site	Stage 1-1000 dwellings
	Two staged site	50% affordable housing target
	redevelopment	Stage 2-35% affordable housing
		target.
Hafen City Redevelopment	157 ha site	5,500 residential dwellings
site in Hamburg Germany		
Docklands Site Melbourne	200 ha site	20,000 residential dwellings
Australia		Housing Supply Aim- Policy
		requirements to deliver affordable
		and diverse housing
Barangaroo Sydney	22 ha site	Mixed commercial and residential
Australia		redevelopment
		2.5% of residential GFA as affordable
		housing target
Van Lang and Kapit	700m ² sites	100% affordable rental housing
Bahayan Housing Co-	2 sites approximately	100% owned by NSW housing co-
operative Projects	700m ²	operative sector
Port Phillip Housing	800 m ² approximately	Rooming house for 27 people
Association		100% affordable rental housing
		100% of the housing development
		owned by Port Phillip Housing
		Association.
Leichhardt Council Hay	800 m ² approximately	Feasibility of developing air space
Street Car Park		above car park for affordable housing
		Aimed to deliver 100% affordable
		rental housing



3.6 An Overview of Local and International Affordable Housing Supply

The case studies and research touched on in this section show that in order to deliver housing mix you will need to include either a strategic requirement to deliver a percentage of affordable housing, or provide a mechanisms to capture the increased land value to ensure that the proportion of affordable housing is delivered in high land cost urban areas. The case studies also indicated that without some form of government intervention, affordable housing options for people on low to moderate incomes will not be delivered in high land value environments.

Importantly the research demonstrates that when governments put in place mechanism and policy frameworks to derisk new housing developments on government land linked with guaranteed purchase that housing choice and affordability can be achieved.

Notably, the research also shows that affordable housing delivered in the right location connected to jobs and services will help to boost a city's productivity and can be the most important factor in a cities success. These are an important issue for Leichhardt, particularly in light of its location to a number of strategic development corridors and identified urban redevelopment sites.

#4 Affordable Housing for key Workers - Motion Leichhardt Municipal Council 27/6/2013 Resolution HC36/13

Draft Strategy 2: Addressing Housing Choice and Affordability on Urban Renewal Projects		
Potential A	Actions	
Action 1	Council to work with other local government and Government agencies aimed at supporting opportunities to deliver a mix of housing types. This work will focus on the development and implementation of a sub-regional policy framework aimed at addressing the identified unmet housing need at a local and regionally level.	
Action 2	Council to develop implement clear and transparent governance arrangements for addressing identified unmet housing need linked with rezoning, value uplift and density bonuses in connection with Councils Voluntary Planning Agreement Policy.	
Action 3	Council aim to deliver a percentage of affordable housing as rental or via a shared equity model on urban renewal sites	
Action 4	Council undertake research to identify governance and financial arrangements required to deliver joint-venture equity projects (or other joint-venture projects).	
Action 5	Council evaluate any opportunity to support an 'Expression of Interest' to the Social and Affordable fund that is consistent with Council polices and would deliver new social and affordable housing dwelling in Leichhardt through either Phase1 or any following phases (given that Phase1 ends on the 29th February).	
Action 6	Pending a response from the Department of Planning, Council staff to conclude their assessment on the financial feasibility of developing the air space above the Hay Street Car Park for affordable housing	



Section 4.0 Mechanisms to Supply Affordable Housing in NSW

This section of the research offers an outline of the mechanisms currently in place for addressing housing supply, housing choice and affordability at a local level, predominantly associated with initiatives undertaken by the City of Sydney. It deals with the current frameworks available to capture a percentage of land value uplift and provides material on the different ways for councils to deliver affordable housing in urban renewal projects such as; inclusionary zoning, land dedication, joint venture arrangements and Masterplans. This section also provides a brief outline on the potential role of financing affordable housing bond guaranties.

4.1 Value Capture/Inclusionary Zoning

Land value capture often referred to as inclusionary zoning mechanisms are the principal planning mechanism used to deliver affordable housing products in many parts of the world. Although inclusionary zoning originated in the United States it has become standard practice in planning systems around the world including the United Kingdom.

The main argument in support of inclusionary zoning is that it provides for a percentage of new housing supply to be affordable housing in areas undergoing urban renewal and gentrification and helps in maintaining a level of economic and social diversity. The addition benefit is that it is seen to have little or no direct financial cost to government (Burchell & Galley. 2000. Inclusionary Zoning: A Viable Solution to the Affordable Housing Crisis? Inclusionary Zoning: Pros and Cons).

4.2 Value Capture/Inclusionary Zoning and the NSW Planning System

A number of Sydney Metropolitan Councils' have responded to a growing affordable housing crisis and developed policy frameworks aimed at delivering affordable housing through their planning instruments or in connection with rezoning and value capture mechanism. These are Canada Bay, North Sydney, Parramatta, Randwick, Sydney City, Waverley and Willoughby. Most of the affordable housing units are being deliver by these Councils are acquired through negotiated planning agreements however, Sydney City and Willoughby use inclusionary zoning in connection with land value capture.

The American planning system has provision for inclusionary zoning and although the Environmental Planning and Assessment Act (1979), includes many of the provision of the American system it does not embrace statewide inclusionary zoning clauses, However, State Environmental Planning Policy No70 (SEPP 70) Affordable Housing (Revised Schemes) (SEPP 70 Affordable Housing) does provide for councils covered by the SEPP to use inclusionary zoning.

The City of Sydney, and the City of Willoughby are covered by SEPP 70 (Affordable Housing) and have affordable housing program based on inclusionary zoning and land value capture. Leichhardt LGA is also listed in SEPP 70 Affordable Housing (Revised Schemes) and this issue will be addressed in Section 5 of this report.



4.2.1 The Use of Value Capture/Inclusionary Zoning for Affordable Housing- City of Sydney

The City of Sydney has a long history of involvement in the supply of affordable housing. At one point the Council itself even provided purpose-built housing for Council workers. These days it has joint venture arrangements with community housing organisations to provide accommodation options for key workers and lower income groups.

The Council's policy framework aims to deliver affordable rental housing for low and moderate-income households, to protect existing low-cost rental stock and encourage housing diversity. These aims are outlined in two overriding Council policies: 'The City of Sydney Affordable Rental Housing Strategy 2009-2014' and 'Sustainable Sydney 2030'. These policies identify that the primary tool used in facilitating and protecting new affordable housing and diverse living models will be through the use of planning mechanisms linked to value capture/inclusionary zoning. In addition, Council has a commitment to forming strategic partnerships and financial arrangements to deliver broader affordable housing options. The City currently has a new Housing Issues Paper (2015) on exhibition for comment.

A brief overview of the various tools used in inner Sydney to deliver affordable rental housing through inclusionary zoning, Masterplan frameworks, joint venture arrangements and land dedication are provided in the following sections.

4.3 The City West Urban Renewal Project - Ultimo/Pyrmont

Until the 1980s, Pyrmont/Ultimo had been a traditional working class Sydney harbour suburb with terrace housing co-located near major industry. Its redevelopment from the 1980s onwards became known as the City West Urban Renewal Project. This initiative saw this traditional industrial working class suburb transformed into higher density residential and commercial buildings with new recreation activities.

The area's redevelopment was a jointly funded project under the Commonwealth "Better Cities" program and involved using Commonwealth, State and local government resources and funding frameworks.

Early in the development stages, it was evident that the redevelopment would increase land value and that the cost of buying or renting a dwelling would go beyond the reach of many existing low to moderate-income residents. In response, there was a joint agreement between all levels of government to create an inclusionary zoning framework to support a percentage of affordable housing to be delivered as part of the long-term Pyrmont/Ultimo strategy.

The inclusionary zoning framework developed to enable the City of Sydney to levy for affordable housing contributions operates under the following planning legislation and policy frameworks:

- Section 94 of the Environmental Planning and Assessment Act 1979 (EP&AAct, 1979).
- State Environmental Planning Policy (SEPP) No.70 Affordable Housing (revised schemes),
- Sydney Local Environmental Plan 2012 (SLEP 2012),
- The South Sydney Local Environmental Plan (1998),
- Sydney City Council Affordable Housing DCP (2002),
- Revised City West Affordable Housing Program (June 2010) (RCW AHP, 2010).

The associated affordable housing projects being delivered under this framework are outlines in the following sections.



4.3.1 The City West Urban Redevelopment and Its Inclusionary Zoning Scheme

The City West Ultimo/Pyrmont urban renewal scheme enables contributions from new developments to be collected and used towards the provision of new affordable housing. The affordable housing contributions can be provided within the development or as a monetary contribution and is based on the total floor area and is calculated as follows:

- · Residential uses: 0.8% of the total floor area
- Non-residential uses: 1.1% of the total floor area.

The end aim for the Ultimo/Pyrmont scheme is to provide for around 600 affordable rental dwelling units for very low to moderate-income households over a 15 to 20-year period. Based on 2013 and 2014 City West Housing Annual Reports it had delivered around 470 dwellings in the Pyrmont/Ultimo precinct by 2014.

4.4 The Development of City West Housing

A second important initiative in the City West, Ultimo/Pyrmont urban renewal scheme was the establishment of City West Housing in 1994 as a not-for-profit community housing organisation. Its principal role was to develop and manage the housing stock and provide long-term affordable rental housing in Ultimo/Pyrmont with contribution generated from affordable housing levies.

4.5 Green Square Urban Renewal Project -Affordable Housing and Inclusionary Zoning

The Green Square redevelopment project is a more recent urban redevelopment initiative between the City of Sydney and Landcom (now Urban Growth NSW). The redevelopment project is focused on rezoning industrial land and lower density residential land to higher medium density housing with new transport and social infrastructure.

Similar concerns were raised with the redevelopment of Green Square to that of Pyrmont/Ultimo. That affordable housing for low to moderate income households would be diminished as a result of redevelopment and gentrification.

The South Sydney Local Environmental Plan (1998) included detailed provisions on the need to promote a variety of housing options for both new and existing communities to maintain social mix. An inclusionary zoning program was developed for the Green Square precinct similar to City West, However, the inclusionary zoning provisions are linked through the South Sydney Local Environmental Plan (1998) and Sydney City Council Affordable Housing DCP (2002).

The affordable housing contribution rate for Green Square, is based on the total floor area and calculated as follows:

- 3% of Gross Floor Area (GFA) for residential development
- 1% of the total non-residential area on-residential developments

The end goal of the scheme is to provide around 330 dwelling units for rental to low and moderate-income households over 15 to 20 years.

4.6 City West Housing and Green Square

The existing arrangement between the City of Sydney Council and City West Housing has been expanded beyond the Pyrmont/Ultimo Peninsula to include the Green Square precinct. Presented below is an image of an affordable housing development in Green Square by City West Housing.



City West Affordable Housing Development - Green Square Urban Renewal



Source: http://citywesthousing.com.au/news-and-media/130-portman-street-zetland Local Government Area

Table-Overview of the City of Sydney Affordable Housing Delivery Programs

History - Sydney Council historically provided purpose-built housing for Council workers

Local Delivery Framework for Affordable Housing

- > The Environmental Planning and Assessment Act 1979 has a provision for Council to collect contributions for affordable housing under Section94 of the EP&A Act.
- State Environmental Planning Policy No.70: Affordable Housing (Revised. Schemes) identifies Councils in need of affordable rental housing which includes SCC.
- CoS current policy framework -'The City of Sydney Affordable Rental Housing Strategy 2009-2014'. The policies aim:
 - To deliver affordable rental housing for low and moderate income households. To protect existing low-cost rental stock and encourage housing diversity.

Development of City West Housing

City West Housing was established in 1994 as a not-for-profit community organisation to deliver affordable housing.



Pyrmont/Ultimo Redevelopment

- Urban renewal in Pyrmont Ultimo saw its transition from an industrial working class Sydney harbour suburb to commercial and medium density residential in 1980.
- A State Government Authority was established to oversee the redevelopment.
- Commonwealth, State and Local Government Authorities jointly funded the redevelopment project.
- The principle mechanism used to deliver affordable housing in Pyrmont Ultimo is value capture and levies. The contribution rate is calculated on the total floor area as follows:
- · Residential uses: 0.8% of the total floor area
- . Non-residential uses: 1.1% of the total floor area.

Green Square Redevelopment

- Green Square urban redevelopment transition and rezoning of older industrial land and lower density residential to higher medium density housing in connection with new transport and social infrastructure.
- The Policy framework was the Green Square Structural Masterplan in 1997.
- A redevelopment partnership was formed between the City of Sydney Council and Landcom (now Urban Growth NSW).
- The overriding planning control for Green Square was South Sydney Local Environmental Plan (1998) and it included detailed provisions to promote a variety of housing options for both new and existing communities to maintain social mix.
- The principal mechanism for delivering affordable housing was value capture through inclusionary zoning provisions linked to the South Sydney Local Environmental Plan (1998) and City of Sydney Affordable Housing DCP (2002).
- These policies outline the affordable housing contribution rate for Green Square. The contribution is based on the total floor area and calculated as follows:
- . 3% of Gross Floor Area (GFA) for residential development
- . 1% of the total non-residential area on-residential developments

Source: City of Sydney, Green Square Affordable Housing (2012). Adopted by City of Sydney on 12 March 2012. Green Square Structural Masterplan in 1997.

4.7 The Redevelopment of South Sydney Hospital - A Master Plan Delivering Affordable Housing - The Green Square Urban Renewal Project

The following case study deals with a Masterplan model that included the dedication of land to deliver affordable housing. The Masterplan was for the old South Sydney Hospital site, which had been owned by South Sydney, City Council and included a number of historical buildings.

The overall site became part of the Green Square urban renewal project and was earmarked to provide a number of community facilities such as childcare, a community hall and a medical facility. The 'Green Square-Royal South Sydney Hospital Site Master Plan", was undertaken by Hill Thalis Architects in collaboration with the City of Sydney Council in 2013. A portion of the Master Plan site was identified for affordable housing and included heritage listed buildings. A Memorandum of Understanding (MOU) was developed in connections with the site for an affordable housing project and City West Housing was the successful bidder. They are currently undertaking the affordable housing development on the site.



4.8 Barangaroo Affordable Housing Initiatives

This was a 22-hectare site located on Sydney Harbour, historically used for maritime and industrial uses, being redeveloped for residential, retail and commercial functions. The City of Sydney lobbied the NSW Department of Planning and Environment for 10% of the all-new residents dwellings on the site to be dedicated for affordable housing. This resulted in an agreement with the developer Lend Lease to provide at least 2.3% of the residential floor space for affordable housing principally targeted towards key workers.

4.9 Glebe Affordable Housing Initiatives

The Glebe Affordable Housing Project is a joint venture redevelopment project that includes land owned by the City of Sydney Council and land owned by the NSW Land and Housing Cooperation. The overall project includes an obsolete Council Depot and an adjacent social housing site identified for redevelopment.

The City of Sydney and Housing NSW developed a Memorandum of Understanding (MOU) in connection with the Glebe redevelopment project. The site is approximately 1.6 hectares and aims to deliver a range of affordable housing options for key workers within walking distance to the city. The proposal aims to dedicate 7% of floor space above the existing floor space ratio of 1.5: 1 as affordable housing. It aims to deliver some 893 square metres of floor space devoted to affordable housing. This has been a staged process and includes an MOU through to the development and implementation of a Development Control Plan (DCP) (2011) known as the Glebe Affordable Housing Project.

4.10 Harold Park Affordable Housing Initiatives

The redevelopment of the redundant Harold Park harness racing track at Glebe Point provided an ideal opportunity to deliver a percentage of affordable housing in a high land value urban redevelopment project.

The City of Sydney and the Central Sydney Planning Committee in line with a Planning Agreement gave planning approval. The Planning Agreement included the dedication of land for affordable housing. The land will be sold at a discounted rate by the City of Sydney to an affordable housing provider to deliver 76 affordable rental units for low and moderate-income households. Up to 20 of the units will be required to comply with disability design guidelines (Source: City of Sydney, http://www.cityofsydney.nsw.gov.au/vision/major-developments/harold-park).

4.11 Facilitating Affordable Housing Supply in Inner Sydney- Identified Barriers

A Study was commissioned by the Inner City Mayors Alliance called Facilitating Affordable Housing Supply in Inner City Sydney (July 2011). It Study's aim was to evaluate the capacity of 22 identified urban renewal sites to deliver a percentage of affordable rental housing through value uplift capture. There were 11 participating councils in the study, including Leichhardt. The research found that out of the 22 identified sites, 15 had the capacity to deliver affordable rental housing through value capture. The principal conclusion was that site-specific issues often determining the overall capacity of the site to deliver the additional uplift required so that a dedication could be made toward affordable housing.

²Note: There are ongoing legal lissues associated with Lend Lease affordable housing contribution with an argument on an alternative location. Sydney Morning Herald. http://www.smh.com.au/nsw/lend-lease-baulking-at-providing-affordable-homes-in-barangaroo-20140815-1049rr.html. Nicole Hasham, August 15, 2014, Lend Lease baulking at providing affordable homes in Barangaroo.



A Study by Rowley and Phibbs ('Delivering diverse and affordable housing on infill development sites. 2012) had similar findings and identified the principal barriers to delivering affordable housing on urban infill sites were; construction costs, revenue and financing framework and the ability to capture land value prior to redevelopment.

4.12 Overview of Land Value Capture

As evident from the research presented local councils can delivery affordable housing products through a variety of mechanisms, principally via the planning system. The ability to capture a percentage of the increases value from a rezoning was often the essential component in the mix. Importantly, the projects presented show that a supportive a strategic planning framework can deliver a significant percentage of the affordable housing through land value capture and partnership arrangements.

4.13 Exploring Opportunities to Support the Development of Affordable Housing Bonds

The not-for-profit affordable housing sector in Australian has historically experienced difficulties in accessing bank finance. In response to this situation there is a growing interest in the use of financial bond guarantees under a government framework. The following section provides a brief overview on what are often referred to as 'Affordable Housing Bond Finance Guarantees'.

4.13.1 Housing Bond Guarantee-How do they work

In other countries 'Bond Guarantees' are usually issued by a government institution and have predominantly been targeted at supporting public infrastructure, often in the form of social or community housing. Bond Guarantees are in essence a borrowed debt with a promise by a government authority to repay the debt within a specific period if the borrower defaults. The authority issuing the bond can also require a repayment above the amount borrowed and bonds can be issued against landholding.

Bond Guarantees principally reduce investor risk, because it ensures that the lender will get their money back if anything goes wrong. The reduced risk associated with the government guarantee will generally translate into a lower interest rate paid on the bond, particularly if the organisation supplying the guarantee has an excellent risk rating such as a government authority (Lovering, Matthew, Wed 4 Jun 2014, AHURI Evidence Review 056).

4.13.2 Current Research on the Development of Housing Bond Guarantees in Australia

There is a number of research projects by the Australian Housing and Urban and Research Institute (AHURI) exploring ways to finance a 'Bond Guarantee' system principally aimed at assisting affordable housing developments. The AHURI research outlines the different frameworks requires for progressing the establishment of a housing bond financing system. One such project was by Lawson, Berry, Hamilton & Pawson (April 2014) called 'Enhancing Affordable Rental Housing Investment via an Intermediary Guarantee'. Much of this research draws on research undertaken by the World Bank.

There is also the work by Milligan, Yates, Wiesel, Pawson, & Hamilton (March 2013) called 'Financing Rental Housing through Institutional Investment' (Volumes 1&2.). This research points out that government Bonds Guarantees are one of the most viable options for community housing organisations to deliver affordable housing products. However, the research points out that for an affordable housing guarantee system to operate effectively in Australia, mechanisms would need



to be established for financing such bonds or securities in collaboration with a supportive intermediary such as; a government authority. The paper indicated that 'Finance Bond Guarantees' are a complex and highly specialised area of financial services, demanding specific knowledge, skills and expertise.

4.13.3 New Zealand and Housing Bond Guarantees

Auckland Council in collaboration with community housing and the national Community Housing Regulatory Authority developed a 'housing bonds' framework to grow the community housing sector and supply affordable housing. Auckland Council provides a limited guarantee for the housing bonds. This government guarantee, in turn, provides for lower interest rates and more favourable terms for borrowing and creates greater confidence for investors.

Prior to the developed of the housing bonds Council commissioned professional advice on the proper risk management and operational requirements needed to satisfy the delivery of the housing bonds with the aim of limiting financial risk exposure for Councils and its ratepayers.

In the Auckland setting, Council is not the lender nor does it manage the funds. Philanthropic investors and private developers provide the funding framework for the housing bonds. The housing bonds are administered by a separate entity with strong government and management arrangements. The housing bonds are technically structured as a socially responsible investment with a Council guarantee. Registered community housing organisations can access the funds to build affordable housing projects (Auckland Council (Auckland Housing Bonds, December, 2014).

4.13.4 Establishing a Framework for Issuing Affordable Housing Bond Guarantees

Leichhardt Council raised the issue of local government authorities becoming guarantors for "Affordable Housing Bonds" at the SSROC and a commitment was established to investigate the feasibility of developing such a framework. The SSROC committee is currently investigating ways to provide discounted investment capital to community housing providers who are delivering local affordable housing projects.

In terms of future work in this area the research indicated that local councils should initially seek detailed advice in relation to:

- 1. Any potential legal impediments to Council involvement,
- Details on options for investing Council funds in order to achieve actually affordable housing outcomes,
- 3. Options to limit Councils financial risk.

An 'Affordable Housing Bond Guarantee" framework would help the community housing sector, to borrow money and delivery more affordable housing products. However, as identified in the AHURI research you need firstly to develop a transparent framework to ensure that all financial transactions are secured. Any framework would also require an evaluation structure so that each project could be assessed on a case-by-case basis against a clean set of criteria. While at the same time ensuring that the funding framework is flexibility enough for the system to operate effectively.

#9 Supported Housing and Financing Housing - Motion Leichhardt Municipal Council 25/2/2014 Resolution C44/14



Draft Strategy 3: Mechanisms to Support the Supply of Affordable Housing including	ı
Affordable Housing Bonds	

Potential Actions

- Action 1 Council consider expanding its existing policy position to address housing deficiencies.
- Action 2 Council identify sites appropriate for redevelopment that would support mixed-use development and address identified deficiencies in respect of key worker housing, student housing, supported living and aged housing and consult with land owners and relevant stakeholder in keeping with Councils Community Engagement
- Action 3 Council amend Leichhardt Local Environmental Plan 2013 to include a definition of affordable housing.
- Action 4 Council continue to work with the Centre for Affordable Housing and other organisations to develop criteria for the allocation of affordable housing funds or dedication of units to community housing providers.
- Action 5 Council to develop governance arrangements for an affordable housing fund to manage the collection or funds and expenditure and/or units dedicated for affordable housing.
- Action 6 Pending a response from the Department of Planning, Council staff to conclude their assessment on the financial feasibility of developing the air space above the Hay Street Car Park for affordable housing.
- Action 7 That Council continue to seek the support of Inner City Mayors to prioritise a study on:
 - The broader social and community impacts regarding the lack of affordable housing in the inner city region,
 - · The economic impact (costs) to business,
 - The development of affordable housing bond guarantees.

The impact on the health and wellbeing of key workers in connection with limited affordable housing in the inner city region.

- Action 8 Council develop strategic guidelines to underpin its relationship with affordable housing providers. The guidelines should outline Council role and responsibilities regarding affordable housing allocation, tenancy eligibility and property management.
- Action 9 Council to continue its work with SSROC towards the development of a briefing paper on "Affordable Housing Bonds".
- Action 10 Council prepares a report on the feasibility and possible application of "Affordable Housing Bonds Guarantees in collaboration with other council's.
- Action 11 Council to work with other councils to lobby State and Federal Government to support funding arrangements, which encourage investment opportunities to deliver affordable housing options.



Section 5.0 Affordable Housing Targets

This section provides a brief outline on the use of affordable housing targets in the broader Australian context. It makes reference to the current NSW State Government's planning framework as outlined in the NSW Government's 'A New Planning System for NSW', Green Paper in 2012 and White Paper in 2013, regarding future Metropolitan Plans, Sub-Regional Plans, housing targets and requirements for local housing strategies.

5.1 Affordable Housing Targets an International Example

In many planning systems around the world, housing supply targets include affordable housing targets as a subset. This is part of everyday planning practice and is particularly true when dealing with urban land release and urban renewal projects.

Successive London Plans have housing supply targets that include affordable housing targets. The 2011 London Plan had a housing supply target of over 32,000 additional dwellings for Greater London (based on an average per annum). Within this overall housing supply target, the Plan includes an affordable housing target to deliver 13,200 dwelling units. The Plan also identified where the additional affordable dwellings would be located such as: town centre renewal projects, urban intensification projects, growth corridors, mixed-use development and the renewal of existing residential areas.

The London Plan has a requirement for local authorities/councils to achieve affordable housing targets by identifying and bringing forward surplus land, providing land to registered affordable housing organisations at a discounted cost and by prioritising affordable housing in seeking development contributions.

5.2 Housing Supply Targets and the Inclusion of Affordable Housing Targets In Australia

Some Australian State planning authorities do include affordable housing targets as a subset of their broader housing supply targets. This is true in South Australia, Queensland, The Northern Territory, Western Australia and the Australian Capital Territory. The Table below shows the percentage of affordable housing targets required in each of these jurisdictions.

Table-The Australia States and Territories - Affordable Housing Target

South Australia - 15% state-wide affordable housing target on all urban renewal sites and new release areas.

Australian Capital Territory - 20% affordable housing target as part of new development projects.

Northern Territory - 15% affordable housing target on Crown release land

Queensland - 15% affordable housing target on designated development areas

Western Australia - 15% affordable housing target to be secured on government land redevelopments

Source: these percentages are based on unpublished research undertaken in 2013 by Peter Phibbs and Nicole Gurran from the University of Sydney.



This following section provides a brief overview on the different approaches to housing targets in Austrálian.

5.3 Western Australia and Housing Targets

Recent work by the Western Australian Government Indicates a commitment to development a solid methodology for identifying and meeting not only housing supply targets but also for measuring the demand for affordable housing and social housing as a subset of broader housing demand.

The Western Australian Government work in this area was outlined in a paper by Julie Considine from the Western Australian Department of Housing, titled "Estimating unmet housing demand and priority areas of public and affordable housing at the local government area level a housing practitioners approach" (2015). Considine, points out that the methodology used by the Western Australian Government was developed in response to a broader housing policy framework that recognised housing supply targets along had not been able to address shortages in affordable housing supply in Western Australia.

The methodology uses a combination of data sources: the Australian Bureau Statistics Census (ABS), the Western Australian Housing Authority and the Western Australian Government's population projection data. The methodology cross tabulates key data need and breaks it down into three categories:

- 1. Current and future housing supply demand,
- Unmet housing need for low to moderate income earners targets affordable housing supply in the form of both purchase and rental,
- Unmet housing need for low-income earners predominantly targets social housing need and supply.

The data is then broken down by local government area with the aim of identifying where future housing supply, affordable housing and social housing should be delivered.

5.4 NSW Government Planning Reforms Housing and Employment Targets

The NSW Government "A Plan for Growing Sydney" (December 2014) in principle aims to provide homes close to Jobs and transport corridors by accelerating urban renewal projects across Sydney. The Report states that its key action for accelerating housing supply and addressing housing affordability will be through a requirement for Councils to undertake 'Local Housing Choice Strategies'. These strategies are identified as the first step in a coordinated approach for delivering state-funded infrastructure in connection with local infill development projects and urban renewal projects.

A framework for the new local housing choice strategies was outlined in the NSW Government's Green Paper (July 2012) and the White Paper (April 2013) "A New Planning System for NSW". These reforms also included a related planning bill, which currently has not been adopted by the NSW Parliament. Nonetheless, many of the initiatives outlined in the White Paper have been included in the strategic planning framework for greater Sydney and NSW as outlined in the following Table.



Table - NSW Strategic Planning Reform Framework

Strategic Plans - Metropolitan and Regional Plans (Housing Supply Targets)

Facilitate the delivery of housing, retail, commercial and industrial development

Sub Regional Delivery Plan

NSW State Government housing and employment targets

Set key policy actions for delivering housing supply targets

Housing and employment targets to inform land use zones and development decisions-adopted through local planning controls

Establish framework for monitoring and reporting on agreed targets

Local Plans

Local housing choice strategies prepared by Local Government in partnership with the NSW State Government

Local housing choice strategies will be informed via existing housing supply and market forecasts

Source: A New Planning System For NSW. White Paper April 2013 and the A New Planning System For NSW. Green Paper July 2012

The NSW Governments Sydney metropolitan strategy, "A Plan for Growing Sydney" (2014) aims to achieve a housing target of 664,000 new dwellings by 2031³. The Strategy does not include any affordable housing targets. It states that the affordable housing targets will be part of the sub regional planning system.

As indicated earlier, the proposed sub regional planning framework will require local councils to undertake 'Local Housing Choice Strategy'. One could argue that sub regional plans are the appropriate place to locate affordable housing targets. However, the framework does not identify how the planning system will deliver affordable or universal housing and the report provides very little information on how the system will work. It indicates that additional guidance will be provided on the scope of local housing strategies and their role in relation to community strategic plans and local environmental plans in the future.

There is growing apprehension regarding what any new strategic plan will do to address the growing economic divide in Sydney and the difficulties that exists in delivering housing choice and affordability. One way to address this would be for metropolitan and regional plans to include employment targets linked with housing supply and affordable housing targets. Or at the very minimal broader housing supply targets should include an affordable housing requirement.

³ Sydney Metropolitan Area- 41 Local Government Areas. Ashfield, Auburn, Bankstown, Blacktown, Blue Mountains, Botany, Burwood, Canada Bay, Camden, Campbelltown, Canterbury, Fairfield, Hawkesbury, Holroyd, Hornsby, Hunters Hill, Hurstville, Kogarah, Ku-Ring-Gai, Lane Cové, Leichhardt, Liverpool, Manly, Marrickville, Mosman, North Sydney, Parramatta, Penrith. Pittwater. Randwick, Rockdale, Ryde, Strathfield, Sutherland, Sydney, The Hills, Warringah, Waverley, Willoughby, Wollondilly and Woollahra.



5.5 Local Government-Housing Strategies and Housing Targets

In NSW, the Local Government Act 1993 established a requirement for Councils to prepare "Community Strategic Plans" and "Disability Access Plans". Within these plans many councils have identified the need for affordable housing. In addition, numerous local government authorities have prepared local affordable housing strategies or policies. Some local government housing strategies do include affordable housing targets and mechanisms for achieving their stated housing targets as outlined in the following section.

5.5.1 City of Sydney Housing Targets

Sydney City Council's strategic planning document 'Sustainable Sydney 2030' establishes affordable housing targets that must be met by 2030 and their affordable housing targets are a subset of Council's overall housing supply targets. The target requires that 7.5% of social and affordable housing is to be delivered by the year 2030. In addition, Sydney City's Housing Strategy 2006-2030 adopted the following targets.

Target Years	Housing Supply Target	Social Housing Target	Affordable Housing Target
	Total Dwellings	Social Housing	Affordable Housing
2006	90,000	9397	2091
2030	134.000	10,050	10,050
Growth to 2030	44,000	653	7959

5.5.2 Parramatta City Council Affordable Housing Target

The City of Parramatta Affordable Housing Policy (2009) identified the need for around 1,400 new affordable homes to be delivered in Parramatta in order for it to maintain the proportion of affordable homes at existing levels (8% of all dwellings). The Council made a commitment to facilitating the delivery of 160 new affordable homes through the land use planning system.

5.5.3 Willoughby City Council Affordable Housing Target

Willoughby's affordable housing program operates under an inclusionary zoning system linked to its Local Environmental Plan (LEP). The LEP identifies sites, where affordable housing is required linked to an affordable housing target, is to deliver 4% of the total floor space for affordable housing when any of the identified sites is rezoned (details of the scheme are outlined in appendix 1).



5.6 Inner Cities Mayors Alliance - Affordable Housing Target

Sydney's' Mayors' Forum recognised the growing problem of delivering affordable housing options in Sydney and growing disparity between income, employment and access to services. In response, the Mayors' forum applied for Commonwealth funding to undertake a study to evaluate 22 inner city sites to assess their capacity for; 'Facilitating Affordable Housing Supply in Inner City Sydney (July 2011). The study confirmed the growing problem of housing affordability across Sydney inner suburbs. This Draft study was followed by a report 'Facilitating Affordable Housing Supply in Inner City Sydney - A Best Practice Guide for Planners (October 2011).

5.6.1 Metropolitan Mayors

In December 2014 the 'Sydney Metropolitan Mayor's Alliance' made the following declaration:

- · That affordable housing is part of the core infrastructure for a functioning city
- · Agreement on the need to establish a citywide target for affordable housing
- Advocate for strong, uniform planning mechanisms to deliver affordable housing across

(Source: Metropolitan Sydney (Sydney City Council Minutes. Meeting No 1558 Monday 8 December 2014. Item - Sydney Housing Diversity Forum).

5.7 NSW State Government, Social, Public and Affordable Housing Reforms

In November 2014 the NSW Government undertook an inquiry into 'Social, public and affordable housing (NSW Legislative Council, Select Committee on Social, Public and Affordable Housing November 2014). In January 2016, the Minister for Housing and the Minister for Planning and Environment provided advice on the recommendation from this inquiry. A number of the recommendations from the inquiry mirror some of the research and strategic action outlined in this report including the introduction of affordable housing targets as shown below.

Recommendation - That the Department of Planning and Environment ensure each local council has considered having an affordable housing strategy in place, including **affordable housing targets**, by 1 September 2016, and further, that they develop critical pathways to enable local councils to achieve these targets.

Recommendation - That the Department of Planning and Environment set **affordable housing** targets at the state and regional level.

Draft Strategy 4 Support the introduction of Affordable Housing Targets

Potential Actions

- Action 1 Council work with the other Councils and the NSW State Government and statutory bodies on the inclusion of affordable housing targets linked to income as a subset of the broader housing supply targets for inclusion in metropolitan, regional, subregional and district plans.
- Action 2 Council develop and implement a methodology for delivering housing choice and affordable housing targets as a subset of broader housing supply targets.



Section 6.0 Local Governments Capacity to Deliver Affordable Housing Through the NSW Planning System

A number of metropolitan Sydney Councils developed affordable housing programs in the mid to late 1980s. These affordable housing programs predominantly operated under the Environmental Planning and Assessment Act (EP&AAct) (1979) and used Section 94 of the Act (introduced in 1985). This Section of the Act allows councils to require contributions from developers for economic and social infrastructure and some contribution schemes included affordable housing.

In 2000 Meriton initiated an appeal to the NSW Land and Environment Court (NSW L&EC) against Sydney City Council questioning the capacity of Councils to use Section 94 (of the EP&AAct) to acquire contributions for affordable housing (Meriton Apartments Pty Ltd v Minister for Urban Affairs and Planning [2000] NSWLEC 20 (18 February 2000). The Court found in favour of Meriton.

In response to the Meriton case, the NSW State Government worked with local government to protect some of the existing affordable housing schemes. This work saw an amendment to the EP&AAct (1979) and the introduction of clauses promoting affordable housing. The clauses allowed for those councils identified in a State Environmental Planning Policy (SEPP) to prepare affordable housing schemes and collect developer contributions (through inclusionary zoning). These sections of the EP&AAct 5(a) (viii), 94F, 94G, remain today.

Around the same time a proposed comprehensive SEPP (Affordable Housing) (2000) linked to Section94F was developed. Due to a lack of consensus the NSW Government never adopted this SEPP.

In 2002, the State Government introduced 'SEPP 70 - Affordable Housing (Revised Schemes)' (2002). This Policy creates the necessary link with the EP&AAct 5(a) (viii), 94F, 94G. However, this was seen to be an interim measure aimed at protecting the existing affordable housing contributions schemes while a more appropriate framework was developed. The operation framework for SEPP 70- Affordable Housing (Revised Schemes) (2002) is outlined later in this section.

In 2009, the NSW State Government introduced another affordable housing Policy, SEPP (Affordable Rental Housing) (2009). This Policy was principally based on providing incentives for the promotion of new social and affordable rental housing, but it did not provide any provision for councils to collect development levies or contributions.

6.1 The Operation of State Environmental Planning Policy SEPP 70 Today

SEPP No 70 - Affordable Housing (Revised Schemes) (2002) has endured and it provides those Local Government Area (LGAs) listed to collect affordable housing contributions. The Policy identifies the need for affordable housing in the following local government areas:

City of South Sydney City of Sydney City of Willoughby Leichhardt

Note: there have been some local government boundary changes and amalgamations since the introduction of SEPP No 70 (Affordable Housing - Revised Schemes).



SEPP 70 - Affordable Housing (Revised Schemes) (2002) is one of three levels of legislation that ultimately enables local government authorities to acquire affordable housing contributions linked to Section 94f of the EP&AAct (1979). The following Table outlines the enabling framework.

Table - The SEPP 70-Affordable Housing (Revised Schemes) (2002) Framework

Environment Planning and Assessment Act (1979)

- Division 6A outlines the conditions requiring land or contributions for affordable housing.
- Division 6A 94F (1) identifies that an area must be identified in State Environmental Planning Policy before affordable housing contribution can be required.
- Division 6A 94G outlines the provision for LG in acquiring affordable housing contribution.

State Environmental Planning Policy No 70 -Affordable Housing (Revised Schemes) (2002)

This Policy identifies the need for affordable housing in the following local government areas:

- City of South Sydney,
- · City of Sydney,
- · City of Willoughby and
- · Leichhardt.

Local Planning Controls (LPC)

 LPC outline the clauses and mechanisms for acquiring affordable housing contribution within the identified LGA.

Note: In this situation the controls/tools and procedures for administration of affordable housing are not contained in SEPP 70 (Alfordable Housing-Revised Scheme) but are contained in the affordable housing program created by the identified local povernment authorities.

Under SEPP 70-Affordable Housing (Revised Schemes) (2002) the City of Willoughby and the City of Sydney leverage for affordable housing in line with the stated clauses in their LEPs and DCPs planning instruments. Because Leichhardt is named in the Policy it is able to develop a contribution program for affordable housing under an agreed framework. The related local government clauses for both Willoughby and Sydney are included in Attachment B.

Leichhardt Councils' Affordable Housing Strategy adopted in 2009 makes a commitment towards the development of planning provisions to encourage housing mix and affordability. Council staff has commenced the development of such a program in association with Council's current review of its Section 94 Plan and LEP amendments.

Other councils that are not protected by SEPP 70-Affordable Housing (Revised Schemes) (2002) but who have active affordable housing programs such as Randwick, Waverley, Canada Bay and Parramatta predominantly use a combination of planning agreements connected to value capture and joint venture arrangements.



#9 Supported Housing and Financing Housing - Motion Leichhardt Municipal Council 25/2/2014 Resolution C44/14

Draft Strategy 5: A Framework for Leichhardt to Deliver Affordable Housing Supply into the Future

Potential /	Actions
Action 1	Council review its Local Environmental Plan (LEP) and Development Control Plan (DCP) to include objectives and clauses for affordable housing, thus creating the necessary linkages with State Environmental Planning Policy 70 - Affordable Housing (Revise Schemes) (2002) in which Leichhardt Council is identified as needing affordable housing.
Action 2	Council undertake a review of its Housing Policy (and associated planning controls) on a five yearly basis.
Action 3	Council amend its Development Control Plan 2013 to include affordable housing contribution rates.
Action 4	Council complete it's Section 94 review to include a contribution plan to support affordable housing options.
Action 5	Council work with the NSW State Government to introduce affordable housing targets.
Action 6	Council work with the NSW State Government to introduce a framework that would permit local government to deliver on identified affordable housing targets.



Section 7.0 Delivery Housing Choice Options - Design and Affordability

Earlier sections of this Report dealt with the capacity to deliver a small percentage of affordable housing on urban redevelopment sites. Still, a variety of housing options are needed to address both the current and future unmet housing needs within the broader community.

This section looks at ways to promote the provision of housing choice aimed at addressing some of the unmet housing needs of people from different age and socio-economic groupings. It explores different ways to deliver a variety of housing choice and affordable housing products such as secondary dwellings/laneway housing, dual key/studio apartments and manor houses.

The following Table outlines the identified target groups that have an unmet housing need in Leichhardt and the different housing products that may provide more choice both in terms of design, choice and affordability.

Population Sectors	Products
Aged Housing - independent	Laneway/Second dwellings
Supported aged housing	Dual-key apartments
Key worker	Micro apartments
Student housing / Ph.D. Researchers	Manor houses
Single parents	Accessible designed housing
Supported Living	Affordable housing on urban redevelopment
Women	sites
Aboriginal and Torres Straits Islander peop	le

7.1 Delivering Housing Choice -Secondary Dwelling/Laneway Housing

Smaller lot developments such as second dwellings and laneway housing can help to address the housing needs of older residents and allow them to age in place. The benefits of products such as secondary dwellings/laneway housing and small lot housing are that they can provide accommodation options for ageing parents, older children, students or family members in built-up inner city areas. This form of housing is recognized as an inexpensive way of growing housing supply and increasing housing choice in line with the efficient use of land and infrastructure.



Secondary dwellings are permissible under the NSW planning system and Leichhardt Council's LEP (sometimes referred to as granny flats, in-law apartments, fonzi flats, or laneway housing). The provisions for secondary dwellings are located in SEPP Affordable Rental Housing (AH SEPP) (2009). The NSW Growth Centres 2013, Housing Diversity in Sydney's Growth Centres, July 2014 also includes provisions for delivering rear lane and secondary dwellings options in new release areas.

Jessica Carmichael outlines the role that secondary dwellings/laneway housing can play in addressed both housing choice and affordability in her work called "Revitalising Laneways in Inner City Brisbane" (2011). The cost benefit of these housing options is also acknowledged in "City of Vancouver Greenest City 2020 Action Plan" (February 2012).

The following section aims to ascertain the role that secondary dwelling/laneway housing could play in providing additional housing choice options as well as addressing housing affordability in the context of Leichhardt.

#6 Secondary Dwellings - Motion Leichhardt Municipal Council 8/10/2013

7. 1.1 Laneway Housing - Secondary Dwellings - What Do They Look Like

Secondary dwellings/laneway housing can come is variety of forms as seen in the images below. They can easily be included in a typical residential suburb, as a garage conversion or incorporated within the main dwelling. Their central function is to provide a small, self-contained living space that is either attached or separate from the principal dwelling house.



Example: self-contained secondary dwelling. Pod Systems designer by Order Architects, winner of Australian International Design Award 2007.



Example: Laneway housing JDL Homes Vancouver http://www.jdlhomesvancouver.com



7. 1.2 Secondary Dwellings and Planning Permissibility

Secondary dwellings are permissible under SEPP (Affordable Rental Housing) (2009) (AH SEPP) (2009) and this SEPP provides two pathways for the development of secondary dwelling as outlined in the following Chart:

Chart-Secondary Dwelling Development Approval Pathway

(1) Complying Development Certification - Certifiers or Councils are the consent authorities for secondary dwelling development proposals that meet specific complying development standards.

Under this pathway, secondary dwellings can only be assessed if they conform to strict development standards. The majority of these standards are outlined in Schedule (1) of the AH SEPP (2009). These standards include a non-discretionary standard lot size of 450 square metres and a 60 square metre floor area for the secondary dwelling. Either a Council or an accredited certifier can issue a Complying Development Certificate when a development proposal meets the specified development standards.

(2) Development Assessment - Council is the consent authority for secondary dwelling developments that cannot meet the complying development standards.

If the secondary dwelling proposal cannot address the complying development standards of the AH SEPP (2009) then a development application (DA) will need to be lodged with council. Council will assess each application before approval or refusal. Under this pathway, the proposal would still need to be permissible within the identified land use Zone in the AH SEPP (2009) and meet the specified development standards. Council can also approve a secondary dwelling on a lot that is smaller than 450 square metres, dependent on Council's own standards.

The Department of Planning and Infrastructure - Local Development Performance Monitoring (2011- 2012) showed that there had been a limited uptake of secondary dwelling products in Leichhardt LGA. In 2011-2012 Leichhardt approved only one secondary dwelling, whilst the City of Sydney Council and Marrickville Council approved around 10 secondary dwellings each.

There may be reasons behind such a low approval rate for secondary dwellings in Leichhardt. Existing residents may be unaware of the opportunities available to build secondary dwellings, or there may be other issues such as lot size constraints, urban design issues, heritage conservation concerns or Section 94 fees.

Technically laneway housing is not dealt with specifically in any planning instruments, however, Leichhardt Council's controls do allow for this type of development but with some fairly specific restrictions. Council staff have been evaluating opportunities for delivering secondary dwellings and laneway housing within the Leichhardt LGA. Council is exploring options such as allowing secondary dwellings and laneway housing to be developed on lots smaller than 450 square metres and Zoning Permissibility to allow secondary dwellings and laneway housing to be developed in appropriate Zones with clear guidelines to address amenity impacts and heritage concerns.

#6 Secondary Dwellings - Motion Leichhardt Municipal Council 8/10/2013 Resolution BDC 221/13



7.1.3 Section 94- Secondary Dwellings/Laneway Housing

One disincentive often associated with delivering secondary dwellings and laneway housing can be high Section 94 fees. Councils impose a levy on developments under Section 94 (EP&AAct, 1979) in line with a 'Contribution Plan'. The principle purpose of the levy is to meet the costs associated with development's impact linked with future public amenity and services demands.

An issues paper by the Department of Planning and Infrastructure (DofP&I) in October 2011 dealt with the matter of Section 94 charges for secondary dwellings. It indicated that in some circumstances, secondary dwellings might involve only a minor development such as the conversion of an existing garage into a self-contained residence, with no additional density impacts. In other cases, the secondary dwelling development may increase existing residential densities and may place additional demand on local infrastructure. However, overall the accumulative density tends to be minor and may be no more than that those created through a home extension, which generally does not incur any Section 94 contributions fees.

A review of secondary dwellings and Section 94 contributions fees showed that they varied significantly across different LGAs. Councils such as Ashfield, Kiama, Parramatta, Sutherland, Warringah and Waverley Councils had a consistent methodology where no Section 94 contribution fee was required for dwellings below \$150,000 in construction costs. Other Councils treated secondary dwellings as if they were a new dwelling unit or a dual occupancy and thus they incurred significant \$94 fees of up to \$30,000. Leichhardt Council's Section 94 fee structure does not differentiate secondary dwellings and they can incur significant Section 94 fees.

As secondary dwelling/laneway housing proposals predominantly have a minimal impact on the local infrastructure, they could be acknowledged as a separate residential class in Leichhardt Council's Section 94 contribution plan and thus incur a lower contribution charge. One option would be to have a standard Section 94 fee for secondary dwellings/laneway housing. This could be around 2% of the construction costs. Based on the average construction cost of \$60,000 (the average cost of a secondary dwelling) this would result in a Section 94 fee of \$1,200 per dwelling.

7. 2 Dual-Key Apartments

New apartment products have entered the housing supply market with options such as dual key apartments in a residential flat building. Dual-key apartments are essentially a single unit with an adjoining studio or one bedroom apartment. They usually have a shared foyer but separate doors and are designed to function as independent spaces, with a separate kitchen and laundry. These types of two-in-one apartments have been available for the past decade through a number of Fraser and Meriton developments and provide the option of two separate living arrangements within one residential apartment.



The Victorian Government's discussion paper (May 2013) on housing and community options identified dual key apartments as an important tool in addressing housing choice and affordable housing options. In addition, the 2013 Brimbank Planning Scheme includes dual-key apartments in response to the State Metro Strategy and the Western Regional Housing Statement that required additional dwelling targets by 2030. See the following layout for an example of a dual-key apartment by Edgewater Yarra Valley Development-www.edgewateryarravalley.com.au.



7.3 Boarding Houses

Boarding houses have a long history in Leichhardt and have historically provided low-cost accommodation, predominantly catering for the needs of lower-income residents. However, over the years many boarding houses have disappeared and only 40 traditional style boarding houses remain in Leichhardt (Boarding house data supplied by LMC staff. Traditional boarding houses usually include shared facilities such as kitchen and shared bathrooms).

A growing concern over the loss of boarding house accommodation across metropolitan Sydney saw incentives to support boarding house developments included in SEPP, Affordable Rental Housing (2009). Although this planning instrument helps protect against the loss of existing boarding houses it also allows for newer style developments, often referred to as new generation boarding houses to be built.



7.3.1 New Generation Boarding Houses

New generation boarding houses can cater to either key workers, older residents or can be developed as purpose-built student accommodation. However, the term boarding house has become stigmatised and many communities object fiercely to any boarding house development proposals.

New generation boarding house models are generally small self-contained studio style units, which include bathroom and kitchen facilities. Some may also contain communal spaces, but this is usually dependent on the size of the development and the target group. The most common feature is that they are medium density development, with a minimum room size ranging between 12 to 24 m.

New generation boarding houses are an attempt to address rental housing supply shortages at the lower end of the rental market, as they cannot be strata titled and remain in the rental market in perpetuity. The other benefit of this type of housing product is that it can be delivered easily in key locations close to services and transport infrastructure.

Leichardt Council's existing development control framework is largely silent on boarding houses. This means that there are few standards on matters such as; operational issues/management impacts; internal amenity issues for residents; safety and security. Concerns have been raised that due to a lack of standards these developments can result in unnecessarily or poor accommodation standards.

There are also concerns around the higher rents associated with new generation boarding houses compared with the older style boarding houses. Higher rental fees can mean that a person reliant on social security benefits may not be able to afford this form of accommodation.

In response to concerns regarding newer generation boarding houses and a lack of standard, Council should develop a policy that provides guidance to both applicants and staff regarding boarding house development proposals.

7.4 Micro Apartments

Micro apartments have been included in a number of American and Melbourne planning schemes principally aimed at providing single living accommodation at a reasonable cost. They are in many ways equivalent to small-scale residential flat buildings made up of studio apartments. This type of housing product could be delivered in key locations close to employment opportunities.

7.5 Manor Houses

'Manor Houses' offer separate studio apartments designed to look like a larger single dwelling. They are described as a house that include 4 apartment style units in the form of a big house. Access to each unit can be either through a common entry point or separate street access. Manor house products are currently being delivered in the NSW Growth Centres (The NSW Government established Growth Centres in 2005 to support new housing supply on its urban edge⁴). Housing Diversity /Sydney's Growth Areas - Dwelling Density Guide (2014) includes built form principles for

⁴Over the next 30 years, the Growth Centres will provide 181,000 homes (http://growthcentres.planning.nsw.gov.au/TheGrowthCentres.aspx.) NSW Government. Department of Planning and Environment. July 2014. Housing Diversity /Sydney's Growth Areas. Dwelling Density Guide



Manor Houses on a lot area of 600m2 (see image below). This type of housing product could be delivered in key locations close to support services and have to capacity to meet the housing needs of key workers and older residents with limited income.



Source: NSW Government. Department of Planning and Environment. July 2014. Housing Diversity /Sydney's Growth Area. Dwelling Density Guide

7.6 Housing Choice Overview

The housing products summarized in this section tackle broader housing choice supply issues. Many of the products are targeted at people on limited income across a number of target groups including older residents with changing accommodation needs.

Leichhardt Council could explore opportunities to support the delivery of different housing products in connection with zoning permissibility and clear development standards linked with design, character, scale and location. Council could look also explore location and topography impacts to evaluate opportunities for delivering manor houses and micro apartments close to public transport infrastructure and support services.

The NSW Department of Planning and Environment currently has a proposal on exhibition to expand State Environmental Planning Policy (Exempt and Complying Codes) 2008 to include two storey medium density housing types such as dual occupancy, manor home, townhouse and terrace housing. The Discussion Paper has been released and Submissions close on the 15 February 2016 and Leichhardt Municipal Council has made a submission.



#7 Solar Access, Development Control Plan - Motion Leichhardt Municipal Council 26/11/2013 Resolution C535/13

#5 Strategic Sites, Centres and Corridors study - Motion Leichhardt Municipal Council 23/7/2013 Resolution C320/13

#8 Aged Housing - Motion Leichhardt Municipal Council 25/2/2014 Resolution C20/14

Draft Strategy 6: Ways to Facilitate Housing Choice & Affordability Potential Actions

- Action 1 Council continue its work with other councils in requesting that the NSW

 Department of Planning and Environment include additional housing types (as
 defined in the Standard Instrument LEP land use matrix) with the aim of delivering
 broader housing choice.
- Action 2 Council continue to work with other councils in calling on the NSW Government to introduce Sydney wide diverse living targets and to support the development of planning mechanisms to deliver better housing choice.
- Action 3 Council to identify aspirational benchmarks/targets per capita for diverse dwelling types. The aim is to deliver more housing choice options (including housing for older people, supported living, student housing, key workers and people employed in creative industries).
- Action 4 Council will continue to develop a framework to supply secondary dwellings/laneway housing in line with clear design principles for inclusion in Leichhardt DCP. The design principles will address issues such as; laneway accessibility, sight line provisions, urban design, heritage and conservation concerns, garbage disposal, lot size, solar access and parking.
- Action 6 Councils Section 94 contributions plan should be reviewed to ensure that secondary dwellings/laneway housing are a separate development category that is reflective of the lower development impacts associated with this form of dwelling.
- Action 7 Council should review its planning controls to assess the potential to deliver 'Manor Houses' and 'Multi-Dwelling Housing' with the goal of expanding housing choice options.
- Action 8 Council should continue its work with Universities and other relevant institutions to develop best practice examples and principles in addressing housing supply impacts and urban design issues.
- Action 9 Council to develop a policy that provides standards and guidance on boarding house development applications for both applicants and staff. In line with this work, Staff should review Leichhardt Development Control Plan (2013) with regard to Boarding House amenity and design standards.



Section 8.0 Overview of Key Strategic Urban Development Opportunities in the Leichhardt LGA - Including the Bays Precinct, Parramatta Road and the High Street Retail Strips

8.1 Council Resolution on Key Strategic Urban Development Opportunities

In November 2014 Council carried a resolution (C409/14) and resolved to support the following two matters:

- Any Master Plan for the Bays Precinct area should make provision for a diversity of housing types, including housing that meets the needs of older members of the Leichhardt local government area, such as independent 'retirement' living and low and high care accommodation including residential aged care facilities, and which includes opportunities for indoor and outdoor community spaces such as performance spaces, community gardens, and open space.
- Council officers investigate relevant 'best practice' examples of housing types, in urban renewal projects including housing for older people, as well as different purchasing and leasing models ('best practice' examples of urban renewal projects and housing supply were presented in Section 3 of this report)

Consideration of these matters has resulted in Council Officers identifying the Bays Precinct and a range of other locations across the Leichhardt Local Government Area where higher density housing products could be delivered with limited impacts for particular target groups. Over time this work has resulted in Council Officers identifying areas where redevelopment opportunities may achieve the following:

- · An increase in the overall supply of housing
- A greater diversity in housing stock
- An increase in aged housing, key worker housing, student housing and supported living.

By formally identifying and prioritising locations, Council may also be in a stronger position to negotiate with landowners and NSW State Government authorities regarding redevelopment priorities in terms of infrastructure investment, housing diversity and amenity impacts. The Commonwealth Government is responsible for planning and providing funding for aged care housing and Council will need to engage with the Commonwealth to ensure they are planning ahead for the significant population increases in inner Sydney.

A principle aim for Council is to ensure that any future urban renewal or rezoning proposal has the capacity to deliver housing choice and affordable housing options and to address a percentage of the current unmet housing needs within the Leichhardt community.

The following Table and attached Map identifies the precincts and redevelopment corridors that have been investigated. These locations have the capacity to achieve housing diversity in connection with integrated transport options and future land-uses within the LGA.



Table - Potential Sites where Opportunities for Redevelopment Exist

Potential Locational Opportunities	
Balmain Precinct	
Darling Street	
Balmain Road	
Bays Precinct	
Former Goods Yard and rail lines covered by SREPP 26	
Lilyfield to Dulwich Hill - light rail route	
Land Owned by Land and Housing Cooperation	
Elliott Street Precinct	
Lilyfield Precinct	
White Creek	
Norton Street Precinct	
Norton Street	
Uniting care site	
Civic Area	
Parramatta Road Precinct	
Parramatta Road	
Victoria Road Precinct	
Balmain Road	

8.1.1 Evaluation of Sites in Line with Identified Criteria

The next stage is for Council to investigate these sites in line with the following criteria:

- Achieve orderly and efficient development through a clear planning framework
- Integrate transport and land-use planning within each locality
- Deliver a greater diversity of housing, including aged housing, key worker housing, student housing and supported living
- Ensure that each redevelopment initiative is of strategic importance to the Council



1. Copy Housing Unjeed Precion 1. Copy Housing White Core Precion

8.2 Map of Key Strategic Urban Development Opportunities in the Leichhardt LGA, Including the Bays Precinct, Parramatta Road and High Street Retail Strips

8.3 Urban Development Opportunities and Social Housing Reforms

Some of the identified urban redevelopment sites in this section include social housing estates. As indicated earlier in this research the Government has a new Policy Platform: 'Future Directions for Social Housing in NSW' which was released in January 2016. The document sets out the government's vision for social housing over the next 10 years and identifies a number of interconnected strategies. One strategy is for greater involvement by the private and non-government sector in financing, owning, managing social and affordable housing assets principles through the redevelopment of existing public housing land and dwelling stock.



The NSW Government plans directly reflect similar Government reforms undertaken in England. However, questions have been raised regarding a lack of clarity around the social and affordable housing deliverables resulting from these proposals.

These concerns seem valid based on research undertaken Oliver Wainwright from the Guardian (Thursday, June 2015) into Joint venture redevelopment initiatives in London England. As identified by Wainwright there is evidence showing that the Australian developer Lend Lease exploited the planning controls to minimize the affordable housing deliverables regarding the Elephant Castle project in London.

The Elephant Castle' redevelopment included the Heygate Housing Estate which housed around 3000 people in high-rise blocks and comprises 1,194 social rental dwellings at the time of its demolition. The new Lend Lease Elephant Castle project will provide 74 social housing units, amongst its 2500 units. Under planning controls it was required to deliver 432 social housing units. There are 500 units targeted as affordable housing and rented out at 80% of the local rental market, in what is an extremely expensive and overheated rental market, which means they will not be very affordable. In 2015, a studio apartment unit in the Elephant Castle project was selling for \$569,000 pounds; based on the current Australian exchange rates this is over a million at \$1,137,806.

The lack of affordable housing deliverable in this project happened in spite of a partnership agreement between Council and the developer with related planning policies required to the developer to deliver 432 social dwelling units not 74. The justification for not delivering on the required social housing units was based on a financial viability assessment by the developers, arguing why the planning policies could not be met. The Council has also had to spend funds trying to get the developer to deliver on the requires social housing units unsuccessfully.

Future Directions for Social Housing in NSW (2016) includes similar strategies regarding the redevelopment of existing social housing areas. Leichhardt has a number of large and small social housing sites owned by the NSW Government. Some of these include small pockets of social housing close to water frontages in areas such as Balmain. With this in mind Council will need to ensure that any planning approvals is truly pioneering in delivering sustainable communities into the future and that due diligence is taken to ensure no net loss of social housing results from the redevelopment of public housing.

#8 Aged Housing - Motion Leichhardt Municipal Council 25/2/2014 Resolution C44/14

#14 Bays Precinct, Diversity of Housing, Aged Housing - Motion Leichhardt Municipal Council 25/11/2014 Resolution C409/14



Potential A	Actions
Action 1	Council continue its Strategic Sites, Centres and Corridors study.
Action 2	Council to identify and adopts criteria (including distance from major transport nodes, access to open space and community infrastructure) in its strategic plans and planning controls to facilitate housing diversity in appropriate locations.
Action 3	Council to identify sites that have the potential to provide viable housing options for older residents.
Action 4	Council Officers will continue to seek opportunities to deliver aged housing along the ridgelines within walking distance of the high street shops and essential services. The location of aged housing in such locations would provide older residents with the option of continuing to live within the municipality and age in place.
Action 5	Council will advocate that the NSW Government and statutory bodies deliver affordable rental housing and diverse living models in accordance with evidence-based benchmarks in the Bays Precinct and other urban renewal projects.
Action 6	Council should work with relevant NSW State Government and statutory bodies on redevelopment opportunities to include affordable and social housing in identified sites/precincts.
Action 7	Council to advocate for a ratio of 40% private, 30% affordable and 30% social housing on urban renewal project on government owned land.
Action 8	Council to advocate that any social housing redevelopment project result in no net loss in the percentage of social housing dwelling.



Section 9 Summary Strategies and Actions for Delivery Housing Choice and Affordability in Leichhardt

9.1 Strategies for Delivering Housing Choice and Affordability In Leichhardt

Draft Strategy 1: Understanding Key Population and Housing Characteristi	cs
(Demographic Analysis)	

Potential Actions

- Action 1 Council investigate options to better monitor population and housing issues. The aim of this work will be to assist Council in its understanding and response to any long-term economic and social impacts associated with changes in local and regional demographics.
- Action 2 Council work in collaboration with other councils and Government agencies on creating uniformity across the different 'housing definitions' and data collection regimes. The aim of this work is to support a level of consistency regarding the collection of housing data so that any future response to housing supply issues at a regional, subregional and local level can be better understood and addressed.
- Action 3 Council monitor, document and benchmark approvals for all relevant housing types, including affordable rental housing, diverse living models and aged housing options.
- Action 4 Council to monitor and report on population change and housing supply shifts in the LGA on an annual basis. Staff will regularly report on data collection results to Council, sub regional partners and the wider community.
- Action 5 Council continue to purchase Profile ID Census data analysis and purchase forecasting data to be updated regularly and made available on the Council website
- Action 6 Council to explore the potential to use State Environmental Planning Policy Housing for Seniors and People with a Disability (2004) to allow for vertical villages
 in the R1 Residential Zone (or other residential zones). The aim will be to create
 more innovative options for older residents to age in place.



Draft Strategy 2: Addressing Housing Choice and Affordability on Urban Redevelopment Projects

Potential Actions

- Action 1 Council to work with other local government and Government agencies aimed at supporting opportunities to deliver a mix of housing types. This work will focus on the development and implementation of a sub-regional policy framework aimed at addressing the identified unmet housing need at a local and regionally level.
- Action 2 Council to develop implement clear and transparent governance arrangements for addressing identified unmet housing need linked with rezoning, value uplift and density bonuses in connection with Councils Voluntary Planning Agreement Policy.
- Action 3 Council aim to deliver a percentage of affordable housing as rental or via a shared equity model on urban renewal sites
- Action 4 Council undertake research to identify governance and financial arrangements required to deliver joint-venture equity projects (or other joint-venture projects).
- Action 5 Council evaluate any opportunity to support 'Expression of Interest' to the Social and Affordable fund that is consistent with Council polices and would deliver new social and affordable housing dwelling in Leichhardt through either Phase1 or any following phases.
- Action 6 Pending a response from the Department of Planning, Council staff to conclude their assessment on the financial feasibility of developing the air space above the Hay Street Car Park for affordable housing.

Draft Strategy 3: Mechanisms to Support the Supply of Affordable Housing including Affordable Housing Bonds

Potential Actions

- Action 1 Council consider expanding its existing policy position to address housing deficiencies.
- Action 2 Council identify sites appropriate for redevelopment that would support mixed-use development and address identified deficiencies in respect of key worker housing, student housing, supported living and aged housing and consult with land owners and relevant stakeholder in keeping with Councils Community Engagement framework.
- Action 3 Council amend Leichhardt Local Environmental Plan 2013 to include a definition of affordable housing.
- Action 4 Council continue to work with the Centre for Affordable Housing and other organisations to develop criteria for the allocation of affordable housing funds or



dedication of units to community housing providers. Action 5 Council to develop governance arrangements for an affordable housing fund to manage the collection or funds and expenditure and/or units dedicated for affordable housing. Pending a response from the Department of Planning, Council staff to conclude Action 6 their assessment on the financial feasibility of developing the air space above the Hay Street Car Park for affordable housing. That Council continue to seek the support of Inner City Mayors to prioritise a study Action 7 The broader social and community impacts regarding the lack of affordable housing in the inner city region, The economic impact (costs) to business, The development of affordable housing bond guarantees. The impact on the health and wellbeing of key workers in connection with limited affordable housing in the inner city region. Action 8 Council develop strategic guidelines to underpin its relationship with affordable housing providers. The guidelines should outline Council role and responsibilities regarding affordable housing allocation, tenancy eligibility and property management. Action 9 Council to continue its work with SSROC towards the development of a briefing paper on "Affordable Housing Bonds". Action 10 Council prepares a report on the feasibility and possible application of "Affordable Housing Bonds Guarantees in collaboration with other council's. Action 11 Council to work with other councils to lobby State and Federal Government to support funding arrangements, which encourage investment opportunities to deliver affordable housing options.



Draft Strategy 4: Support the introduction of Affordable Housing Targets

Potential Actions

- Action 1 Council work with the other Councils and the NSW State Government and statutory bodies on the inclusion of affordable housing targets linked to income as a subset of the broader housing supply targets for inclusion in metropolitan, regional, subregional and district plans.
- Action 2 Council develop and implement a methodology for delivering housing choice and affordable housing targets as a subset of broader housing supply targets.

Draft Strategy 5: A Framework for Leichhardt to Deliver Affordable Housing Supply into the Future

Potential Actions

- Action 1 Council review its Local Environmental Plan (LEP) and Development Control Plan (DCP) to include objectives and clauses for affordable housing, thus creating the necessary linkages with State Environmental Planning Policy 70 Affordable Housing (Revise Schemes) (2002) in which Leichhardt Council is identified as needing affordable housing.
- Action 2 Council undertake a review of its Housing Policy (and associated planning controls) on a five yearly basis.
- Action 3 Council amend its Development Control Plan 2013 to include affordable housing contribution rates.
- Action 4 Council complete its Section 94 review to include a contribution plan to support affordable housing options.
- Action 5 Council work with the NSW State Government to introduce affordable housing targets
- Action 6 Council work with the NSW State Government to introduce a framework that would permit local government to deliver on identified affordable housing targets.



Draft Strat	egy 6: Ways to Facilitate Housing Choice & Affordability
Potential A	Actions
Action 1	Council continue its work with other councils in requesting that the NSW Department of Planning and Environment include additional housing types (as defined in the Standard Instrument LEP land use matrix) with the aim of delivering broader housing choice.
Action 2	Council continue to work with other councils in calling on the NSW Government to introduce Sydney wide diverse living targets and to support the development of planning mechanisms to deliver better housing choice.
Action 3	Council to identify aspirational benchmarks/targets per capita for diverse dwelling types. The aim is to deliver more housing choice options (including housing for older people, supported living, student housing, key workers and people employed in creative industries).
Action 4	Council will continue to develop a framework to supply secondary dwellings/laneway housing in line with clear design principles for inclusion in Leichhardt DCP. The design principles will address issues such as; laneway accessibility, sight line provisions, urban design, heritage and conservation concerns, garbage disposal, lot size, solar access and parking.
Action 6	Councils Section 94 contributions plan should be reviewed to ensure that secondary dwellings/laneway housing are a separate development category that is reflective of the lower development impacts associated with this form of dwelling.
Action 7	Council should review its planning controls to assess the potential to deliver 'Manor Houses' and 'Multi-Dwelling Housing' with the goal of expanding housing choice options.
Action 8	Council should continue its work with Universities and other relevant institutions to develop best practice examples and principles in addressing housing supply impacts and urban design issues.
Action 9	Council to develop a policy that provides standards and guidance on boarding house development applications for both applicants and staff. In line with this

work, Staff should review Leichhardt Development Control Plan (2013) with regard

to Boarding House amenity and design standards.



	egy 7: Identified Key Strategic Sites, Centres and Corridors with the ties to Deliver Housing Choice and Diversity
Potential A	CONTRACTOR OF THE CONTRACTOR O
Action 1	Council continue its Strategic Sites, Centres and Corridors study.
Action 2	Council to identify and adopts criteria (including distance from major transport nodes, access to open space and community infrastructure) in its strategic plans and planning controls to facilitate housing diversity in appropriate locations.
Action 3	Council to identify sites that have the potential to provide viable housing options for older residents.
Action 4	Council Officers will continue to seek opportunities to deliver aged housing along the ridgelines within walking distance of the high street shops and essential services. The location of aged housing in such locations would provide older residents with the option of continuing to live within the municipality and age in place.
Action 5	Council will advocate that the NSW Government and statutory bodies deliver affordable rental housing and diverse living models in accordance with evidence-based benchmarks in the Bays Precinct and other urban renewal projects.
Action 6	Council should work with relevant NSW State Government and statutory bodies on redevelopment opportunities to include affordable housing in identified sites/precincts.
Action 7	Council to advocate for a ratio of 40% private, 30% affordable and 30% social housing on urban renewal project on government owned land.
Action 8	Council to advocate that any social housing redevelopment project result in no net loss in social housing dwelling.



Attachment A Key Council Resolution to Deliver Housing Choice

Ref No #	Date	Resolution	Resolution
#1	26/03/13	C107/13	Inner City Housing Bonds
			That Council propose to SSROC an investigation into the feasibility of an Inner City Housing Bond, contrived to provide discounted investment capital to community housing providers undertaking affordable housing projects within local government areas of participating councils, the cost of this research being shared by Councils of the Forum.
#2	28/05/13	C213/13	Design Competition
			That Council:
			 Seek the co-operation of the Universities of Sydney and NSW, the University of Technology and other relevant educational institutions, in conducting a design competition for the modern inner-west terrace. Support the project by offering prize money of \$5000 for the best examples of the modern innerwest terrace. Officers complete an audit of the Local Government Area and identify all sites affected by the Detached Workers Cottages provision, so that owners will know if they own a relevant site.
#3	27/06/13	HC35/13	Hay Street Car Park
	277,00710	11000, 10	That the report is received and noted.
			An update is provided at each Housing Advisory Committee meeting.
			3. The Mayor and the General Manager seek to work with Inner City Mayors to investigate the efficacy of a trust to accumulate and protect affordable housing assets in the inner city region (with reference to the City of Port Phillip trust model).
#4	27/06/13	HC36/13	Affordable Housing for key Workers
			The Mayor and General Manager seek the support of Inner City Mayors to prioritise a study on the economic impact (costs) to business and the health and wellbeing of key workers of a lack of affordable housing in the inner city region. This study will also note the social and community impacts of a lack of affordable housing.



#5	23/07/13	C320/13	Strategic Sites, Centres and Corridors study
			That: The report be received and noted
			That Council encourage neighbouring Councils which border Parramatta Road to undertake a similar study
			That a Strategic Sites, Centres and Corridors study for Parramatta Rd from Johnston St to Mallet St and Johnston's Creek (see Fig. 1 in report) - the defined area to be subject to minor adjustments recommended by staff following further refinement of the study's scope - be brought forward to be commenced as soon as possible, the scope of the study to include all matters flagged for consideration, specifically:
			Future employment and economic possibilities, including business incubators to facilitate small 'start-up' enterprises
			Housing opportunities, in particular aged housing, student housing and key worker housing
			Transport considerations, including public transport, cycleways and pedestrian linkages
			Public domain improvements
			Place-making and activation of the public domain;
			And with reference to:
			Council's flagged intention to develop Parramatta Road as a live music and entertainment precinct
			The regeneration of transport corridors and high street precincts
			The need to develop a more detailed response to opportunities implied by the proposed West Connex Corridor
			The study to be funded from carryovers from the financial period 201213 or those identified in the first quarterly review of 2013-14.
#6	08/10/13	BDC221/1	Secondary Dwellings
		3	Staff to produce a report collating Council's existing codes and planning objectives pertaining to the construction of secondary dwellings enabling a diverse and affordable housing stock and address implications of relaxation of laneway controls regarding secondary dwellings.



#7	26/11/13	C535/13	Solar Access, Development Control Plan
			That Council officers prepare a discussion paper that reviews options for:
			Protecting solar access to common open space areas within residential flat Building Developments
			And prepare draft controls for Council's Development Control Plan and report back to Council.
#8	25/02/14	C20/14	Aged Housing
			That Council write to the Commonwealth Minister for Ageing advocating for effective planning and consideration of economic and business incentives to ensure continued, and sustainable provision, of aged care residential services in Leichhardt and inner Sydney local government areas.
			That council investigate ways it can protect existing aged care centres and bring a report on these investigations to council within three months.
			3) That a report be presented to Council that:
			a) Identifies the location and age of the Residential Aged Care Facilities within the LGA
			 b) Nominates options available to Council to preserve and grow the supply of Residential Aged Care Facilities or aged care housing.
			That council continue to investigate ways it can wor with affordable and supported housing providers to provide affordable housing serving all demographics
#9	25/02/14	C44/14	Supported Housing and Financing Housing
			Council adopted the following motions of the Housing Advisory Committee held on 18 February 2014.
			HC 05/14 Motion
			Council Officers investigate and advise on the impediments to Council investing capital funding to support mixed developments inclusive of supported and affordable housing models. The advice should consider how Council could play an active role in the funding while achieving a financial return to Council. The investigations should take into account the presentations to the Housing Advisory Committee on supported and affordable housing models.
			HC 10/14 Motion



			Request that the draft submission to the Select Inquiry into Social, Public and Affordable Housing be brought to Council on February 25 th as a supplementary report, to be endorsed by Council.
			That the minutes of the Housing Advisory Committee held on 18 February 2014 be received and noted.
#10	15/04/14	HC14/14	Invitation to address Housing Committee
			That Paul Vevers, Executive Director, Housing Services, Department of Family and Community Services be invited to present at a Housing Advisory Policy Committee in 2014. Note to request that Mr Vevers particularly address the matters raised in the Mayor's letter to the Minister.
#11	26/08/14	C259/14	Voluntary Planning Agreements Policy and Community Housing Organisation
			That Council Officers:
			Complete the drafting of the Voluntary Planning Agreements Policy and related documents and bring them back to Council for endorsement and subsequent implementation by November 2014.
			Develop the criteria for appointing a Community Housing Provider to work with Council in relation to:
			The development of plans to increase the supply of affordable housing within the Local Government Area
			Manage the expenditure of funds and/or units gathered for affordable housing pursuant to Voluntary Planning Agreements and the like
			Manage Affordable Housing premises on behalf of Council.
#12	23/09/14	C309/14	Community Housing Organisation
			That in relation to Resolution HC19/14, Council resolve that:
			Council officers establish an expert panel to assist in the development of the documentation and the selection of a preferred provider/s
			Council Officers commence the process of establishing a formal relationship with a Community Housing Organisation
			Council Officers provide regular reports - including when establishing selection criteria, at key points throughout the process.



	28/10/14	C341/14	Extension of Strategic Sites, Centres and Corridors study
			Include consideration in the pending strategic sites and corridors study of identifying Norton Street as a location for increased density. This should include an assessment of the benefits of focusing on residential, commercial, entertainment land uses on Norton Street to improve the viability of businesses and reduce impacts on the amenity of the non-main street residential dwellings.
#14	25/11/14	C409/14	Bays Precinct, Diversity of Housing, Aged Housing
			That Council resolve that:
			Any Master Plan for the Bays Precinct should make provision for a diversity of housing types, including housing that meets the needs of older members of the Leichhardt local government area, such as independent 'retirement' living and low and high care accommodation including residential aged care facilities, and which includes opportunities for indoor and outdoor community spaces such as performance spaces, community gardens, and open space.
			Council officers investigate relevant 'best practice' examples of housing types, in urban renewal projects including housing for older people, as well as different purchasing and leasing models.
			The findings of these investigations should be presented to Council for consideration in the development of Council's proposals for the Bays Precinct
			Trodings
#15	24/02/15	C60/15	Affordable Housing, Section 94
#15	24/02/15	C60/15	Affordable Housing, Section 94 That Council: Adopt a policy position of supporting an affordable housing contribution to form part of its S94 Plan as per S94E and SEPP70. Undertake a review of its S94 plan with a view to
#15	24/02/15	C60/15	Affordable Housing, Section 94 That Council: Adopt a policy position of supporting an affordable housing contribution to form part of its S94 Plan as per S94E and SEPP70. Undertake a review of its S94 plan with a view to having a draft plan presented at the November Council
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#15	24/02/15	C60/15	Affordable Housing, Section 94 That Council: Adopt a policy position of supporting an affordable housing contribution to form part of its S94 Plan as per S94E and SEPP70. Undertake a review of its S94 plan with a view to having a draft plan presented at the November Counci meeting. As part of the review prepare a submission for the State Government to allow the inclusion of affordable housing in Council's S94 plan. Provide regular updates on the progress of the draft plan and submission.
#15	24/02/15	C60/15	Affordable Housing, Section 94 That Council: Adopt a policy position of supporting an affordable housing contribution to form part of its S94 Plan as per S94E and SEPP70. Undertake a review of its S94 plan with a view to having a draft plan presented at the November Council meeting. As part of the review prepare a submission for the State Government to allow the inclusion of affordable housing in Council's S94 plan. Provide regular updates on the progress of the draft



Attachment B - Local Land Use Planning Framework and related clauses used by Randwick, Willoughby and the City of Sydney to deliver Affordable Housing

Randwick City Council - Affordable Housing Program

Randwick Council Local Environmental Plan 2012 includes the following aim: (g) to encourage the provision of housing mix and tenure choice, including affordable and adaptable housing that meets the needs of people of different ages and abilities in Randwick.

This aimed then operates in lime where Randwick City Councils affordable housing policy (June 2006) which outlines how they will acquire affordable housing and how these will be managed.

Example - Planning Agreements and Joint ventures

Randwick Council has a long-term commitment to the provision of affordable housing. Council has dedicated a number of dwelling units and or land predominantly through planning agreements and joint venture arrangements with a community housing organisation.

Willoughby City Council-Inclusionary Zoning Affordable Housing Program

Willoughby City Council has a long-term commitment to the provision of affordable housing. Council originally implemented its affordable housing program in 1999. The principal purpose of the program was to address issues of social mix and diversity and to find ways to retain a level of lower income workers.

Willoughby's affordable housing program technically operates as an inclusionary zoning system and its Local Environmental Plan (LEP) identifies sites where affordable housing is required. When those sites are rezoned there is a requirement for an affordable housing contribution either in the form of units or financial compensation. The scheme requires 4% of the total floor space be dedicated to affordable housing (see appendix 1 regarding Willoughby City Council local environmental plan and related affordable housing clauses).

Willoughby local environmental plan 2012 includes the following aim linked to affordable housing: (f) for housing-to provide opportunities for a range of housing choice in Willoughby to cater for changing population needs in accessible locations.

Willoughby local environmental plan provides additional provisions under Part 6. Part 6.8 clauses relate to the provision of affordable housing as outlined below:

Affordable housing

- (1) For the purposes of this clause, the Willoughby Affordable Housing Principles are as follows:
- (a) affordable housing must be provided and managed in Willoughby so that accommodation for a diverse residential population representative of all income groups is available in Willoughby, and
- (b) affordable housing must be rented to tenants whose gross household incomes fall within the following ranges of percentages of the median household income for the time being for the



Sydney Statistical Division according to the Australian Bureau of Statistics:

Very low income household	less than 50%
Low income household	50% or more, but less than 80%
Moderate income household	80-120%

and at rents that do not exceed a benchmark of 30% of their actual household income, and

- (c) dwellings provided for affordable housing must be managed so as to maintain their continued use for affordable housing, and
- (d) rental from affordable housing received by or on behalf of the Council, after deduction of normal landlord's expenses (including management and maintenance costs and all rates and taxes payable in connection with the dwellings), must be used for the purpose of improving or replacing affordable housing or for providing additional affordable housing in Willoughby, and
- (e) affordable housing must consist of dwellings constructed to a standard that, in the opinion of the consent authority, is consistent with other dwellings in Willoughby, especially in terms of internal fittings and finishes, solar access and privacy.
- (2) Development consent must not be granted to the erection of residential accommodation on land identified as "Area 3" on the <u>Special Provisions Area Map</u> unless the consent authority has taken the following into consideration:
- (a) the Willoughby Affordable Housing Principles,
- (b) the impact the development would have on the existing mix and likely future mix of residential housing stock in Willoughby,
- (c) whether an affordable housing condition should be imposed on the consent.

Note. The affordable housing principles set out in Schedule 2 to <u>State Environmental Planning</u>
<u>Policy No 70–Affordable Housing (Revised Schemes)</u>may also apply to the development.

- (3) The following are affordable housing conditions:
- (a) a condition requiring the payment of a monetary contribution to the consent authority by the applicant to be used for the purpose of providing affordable housing in accordance with the Willoughby Affordable Housing Principles that is the value, calculated in accordance with subclause (4), of 4% of the accountable total floor space to which the development application relates, or
- (b) if 4% of that accountable total floor space provides a sufficient amount of gross floor area, a condition requiring:
- (i) the dedication in favour of the consent authority, free of cost, of land of the applicant comprised of one or more complete dwellings with a gross floor area of not more than the amount equivalent to that percentage, each dwelling having a gross floor area of not less than 50 square metres, and
- (ii) if the total amount of gross floor area of the complete dwelling or dwellings is less than the amount equivalent to that percentage, the payment of a monetary contribution to the consent authority by the applicant that is the value, calculated in accordance with subclause (4), of the gross floor area equivalent to the difference between those amounts,



to be used for the purpose of providing affordable housing in accordance with the Willoughby Affordable Housing Principles.

(4) The amount of the contribution to be paid under a condition imposed under subclause (2) (c) is the value of the gross floor area concerned calculated by reference to the market value of dwellings of a similar size to those proposed by the development application.

Note. Section 94F of the Act permits the imposition of such a condition and specifies the circumstances under which such a condition may be imposed. Any condition imposed is subject to section 94G of the Act.

- (5) This clause does not apply to development for the purpose of any of the following:
- (a) boarding houses,
- (b) community housing (as defined in section 3 of the Housing Act 2001),
- (c) group homes,
- (d) hostels,
- (e) public housing (as defined in section 3 of the Housing Act 2001).
- (6) An affordable housing condition must not be imposed in relation to an amount of accountable total floor space if the consent authority is satisfied that such a condition has previously been imposed under this clause in relation to the same or an equivalent amount of accountable total floor space on the site.
- (7) In this clause:

accountable total floor space means the gross floor area of the residential component of the development to which the development application relates.

market value means the most current median sales price of such dwellings for Willoughby as documented in the Rent and Sales Report NSW published by the Department of Family and Community Services or, if another document has been approved for that purpose by the Director-General, that document.

City of Sydney Council-Inclusionary Zoning Affordable Housing Program

Sydney Local Environmental Plan 2012 includes the following aim related to affordable housing:

(e) to encourage the growth and diversity of the residential population of the City of Sydney by providing for a range of appropriately located housing, including affordable housing, the local environmental plan then also includes detailed clauses related to the affordable housing contribution levy under Division 3 Affordable housing.

Clause 7.13 Contribution for purpose of affordable housing

- (1) The consent authority may, when granting development consent to development (other than development that is excluded development) on land at Green Square or Ultimo-Pyrmont, impose a condition requiring a contribution equivalent to the affordable housing levy contribution, being:
- (a) for development on land at Green Square:
- (i) 3% of so much (if any) of the total floor area of the development that is intended to be used for residential purposes, and



- (ii) 1% of so much (if any) of the total floor area of the development that is not intended to be used for residential purposes, or
- (b) for development on land at Ultimo-Pyrmont:
- (i) 0.8% of so much (if any) of the total floor area of the development that is intended to be used for residential purposes, and
- (ii) 1.1% of so much (if any) of the total floor area of the development that is not intended to be used for residential purposes.
- (2) The floor area of any excluded development is not to be included as part of the total floor area of a development for the purposes of calculating the applicable affordable housing levy contribution.
- (3) A condition imposed under this section must permit a person to satisfy the affordable housing levy contribution:
- (a) by way of a dedication in favour of the Council of land comprising one or more dwellings (each having a total floor area of not less than 50 square metres) with any remainder being paid as a monetary contribution to the Council, or
- (b) if the person so chooses, by way of a monetary contribution to the Council.
- (4) The rate at which a monetary contribution is to be taken to be equivalent to floor area for the purposes of this clause is to be calculated in accordance with:
- (a) for development on land at Green Square, the Green Square Affordable Housing Program adopted by the Council on 12 March 2012, or
- Note. The Program is made available by the Council on its website (www.cityofsydney.nsw.gov.au).
- (b) for development on land at Ultimo-Pyrmont, the Revised City West Affordable Housing Program published by the NSW Government in June 2010 and held in the head office of the Department of Planning and Infrastructure.
- (5) To avoid doubt:
- ⁵(a) it does not matter whether the floor area, to which a condition under this clause relates, was in existence before, or is created after, the commencement of this clause, or whether or not the floor area concerned replaces a previously existing area, and
- (b) the demolition of a building, or a change in the use of land, does not give rise to a claim for a refund of any contribution.
- (6) In this clause:
- excluded development means any of the following development:
- (a) development for the purposes of residential accommodation that will result in the creation of less than 200 square metres of gross floor area,



- (b) development for purposes other than residential accommodation that will result in the creation of less than 60 square metres of gross floor area,
- (c) development for the purposes of residential accommodation that is used to provide affordable housing or public housing,
- (d) development for the purposes of community facilities, public roads or public utility undertakings.

total floor area means the total of the areas of each floor of a building within the outer face of the external enclosing walls and including balconies, but excluding the following:

- (a) columns, fins, sun control devices, awnings and other elements, projections or works outside the general lines of the outer face of the external walls,
- (b) any area of a balcony that is more than the minimum area required by the consent authority in respect of the balcony,
- (c) the maximum ancillary car parking permitted by the consent authority and any associated internal vehicular and pedestrian access to that car parking,
- (d) space for the loading and unloading of goods.



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ITEM 3.5 OCCASIONAL CARE

	1
Division	Infrastructure and Service Delivery
Author	Manager Childrens' Services
Meeting date	8 March 2016 Policy Meeting
Strategic Plan Key Service	Community well-being
Area	Place where we live and work
	Sustainable services and assets
SUMMARY AND	ORGANISATIONAL IMPLICATIONS
Purpose of Report	To seek Council's approval to relocate Annandale
	Occasional Care and extend operations at Balmain Occasional Care
Background	Council has been involved in provision of
	Occasional Care for 30+ years. Council operates
	Occasional Care from two locations, one in Balmain
	and one in Annandale. In recent years there has
Course at Status	been a decrease in utilisation of the services.
Current Status	Two information sessions have been held and an online survey of users of Occasional Care
Relationship to existing	NIL
policy	INIE
Financial and Resources	Initial costs to extend operations at Balmain are
Implications	nil as Development Consent allows use for 5 days
	per week. To extend hours to start at 8:30 and/or
	increase numbers a Section 96 will be required
	accompanied by addendum to the Traffic and
	Acoustic Reports. This proposal is consistent with
	the recent s23A Guidelines issued by the OLG in
	relation to financial expenditure.
Recommendation	That Council:
	Approve the relocation of Annandale
	Occasional Care from the end of first Term 1, 7 th
	April 2016 and extend operations at Balmain
	Occasional Care from 11 th April.
	·
	2. Lodge a S96 to support the extension of hours
	to open the service from 8:30am.
	3. Promotion of the Occasional Care service be
	increased across the Leichhardt community.
	4. Review of Occasional Care utilisation be
	undertaken at least 12 months after relocating to
	Balmain and the implementation of a promotional
	campaign.
Notifications	Users of the services NSW Department Education
	Website
Attachments	Occasional Care User Survey Comments



Purpose of Report

To seek Council's approval to relocate Annandale Occasional Care and extend operations at Balmain Occasional Care

Recommendation

That Council:

- 1. Approve the relocation of Annandale Occasional Care from the end of first Term 1, 7th April 2016 and extend operations at Balmain Occasional Care from 11th April.
- 2. Lodge a S96 to support the extension of hours to open the service from 8:30am.
- 3. Promotion of the Occasional Care service be increased across the Leichhardt community.
- 4. Review of Occasional Care utilisation be undertaken at least 12 months after relocating to Balmain and the implementation of a promotional campaign.

Background

Leichhardt Council has been involved with the provision of children's services for more than 30 years. Rozelle Occasional Care, established in 1972, was passed on to Council management in 1976. In the late 1970's, Annandale Occasional Care was established in response to community demand at the rear of Annandale Town Hall. The Rozelle service operated from a shared premise which was not a Council owned building. In October 2010, the Rozelle service was relocated to the old John McMahon Child Care Centre located behind the Balmain Town Hall. Balmain-Rozelle Occasional Care now operates from a purpose built premises, which complies with current National Regulations. In addition, the licence was expanded from 20 children per day to 25 children per day as part of the relocation. Annandale's licence allows for 20 children per day.

The Occasional Care service allows parents some respite, to attend medical appointments, tend to sick family members, attend interviews and meetings or socialise their children. Council operates the only Occasional Care service in the Leichhardt Local Government Area. In 2015 Occasional Care accommodated 74 children. The services operate for a total of 28.5 hours per week, providing irregular care for up to 4½ hours on Mondays, Wednesdays and Thursdays and up to 6½ hours on Tuesdays and Fridays. Monday Tuesday and Friday are at Balmain, Wednesday and Thursday are at Annandale. In the neighbouring suburbs, Sydney City and Canada Bay Councils operate Occasional Care Services in Redfern, Drummoyne and Concord. These services are run from Council owned premises which are purpose built for child care. The premises are not shared by other user groups, except for weekend groups run by Council for various related activities such as Parenting Courses.



Council's Occasional Care services have been experiencing a steady decrease in utilisation over a number of years which is ultimately costing Council approximately \$96,000 for the 2015/2016 financial year. For the calendar year 2015, Annandale service continued to be the least utilised with an average attendance of 44% for the period January 2015 to December 2015 while the Balmain service was better utilised at 51% for the same period. These figures are indicative of the 2015 year with Annandale Occasional Care operating between 29% and 52% each month, interestingly only one month reached above 50% utilisation. In comparison, the Balmain service operated between 35% and 66%, reaching a utilisation of more than 50% 5 months of the year.

At the August 2015 Policy meeting Council resolved:

- 1. That Council note the preferred option to close Annandale Occasional Care and combine the Occasional Care service with Long Day Care at the Balmain premises.
- 2. That Council undertake consultation regarding Option 2 for Council's Occasional Care services and report the outcome back to Council for consideration.

Report

Council wrote to all families that have used Occasional Care in the past 2 years and invited them to attend one of 2 information sessions held at Annandale and at Balmain and also to complete an online survey. On Thursday 21st October 2015 and Monday 26th October 2015 information sessions were held at the Annandale and Balmain Occasional Care services respectively. These were attended by parents using the services as well as staff. 4 parents attended Balmain meeting, 5 attended Annandale meeting. Of the 5 at the Annandale session, only one had not used Balmain Occasional Care. The general feedback from parents was that there is a greater need for Occasional Care than perhaps Council realises and that long day care for the parents using Occasional Care is not a need.

The information sessions outlined the following points:

- Overall Occasional Care is not being as well utilised as in past years
- Balmain is the most utilised premises of the 2 locations
- Legislative changes anticipated by 2019 will require extensive building renovations to continue to operate from Annandale, involving taking over storage which is currently used by other users of the service
- A number of ongoing WHS issues operating a Children's Service from the shared premises at Annandale (providing poorer conditions for staff than at other centres)

Generally attendees understood the consideration Council was making on relocating Annandale, with the exception of one parent who stated it would not be possible for her to attend the Balmain service as she walked to the service; many others already use both and one who used only Annandale said she would be happy to attend Balmain as that was the day she needed care and it wasn't the location so much as the days of care she needed.



Many questioned the need for another long day care "...when there are so many new ones opening, one of which is a Council service...". All attendees at the Balmain meeting proposed that council consider operating Occasional Care for 5 days from the Balmain premises for at least a year with increased promotion to better gauge the need for Occasional Care as compared to long day care. Many attendees at the Balmain meeting suggested that starting the service at 8:30am instead of 9am would allow parents more flexibility and therefore may result in more parents being able to utilise the service. This suggestion was echoed in the online survey with at least 2 respondents suggesting earlier opening hours would be beneficial to their own and most likely other families.

It was also suggested at the information session at Balmain that the new Leichhardt Local Link free community bus service will be beneficial to families in Annandale who may not have access to a car as the route has a number of stops in Annandale, 2 of which are within a block of the Annandale Neighbourhood Centre and 2 stops within 3-5 minutes walking distance to Balmain Occasional Care, which will have parents at the centre soon after 9am. Unfortunately the Leichhardt Local Link does not enable parents to pick up and transport children back home due to the current timetable of the route. However, at the time of writing this report, it is understood that a review of the Leichhardt Local Link is to be undertaken in the near future and potentially changes may be made to the route and timetable.

The online survey was distributed to all users of Occasional Care via Survey Monkey which remained open for 3 weeks, closing on 30th October 2015. Approximately 130 families were emailed with a link to the survey as well as notices being displayed at the sign in and out areas of both services. From the survey, 33 replies were received with not all respondents answering all questions. An overwhelming majority of almost 67% (21 respondents) indicated that Occasional Care was their primary care need, with only 31% (10 respondents) indicating they would use long day care hours should the service be a combined long day care/occasional care service.

A question was asked which service respondents currently use. Of the 33 replies, 20 indicated they use Balmain, with 11 indicating they use Annandale only. In addition the survey asked whether Annandale users would consider using Balmain. 8 respondents said yes they would use Balmain, 6 said no with a further 3 already using both services. Of the 33 respondents, 28 reside in the Leichhardt LGA with only 4 being from Annandale and 3 from Leichhardt/Lilyfield. The table below illustrates residential suburbs of the respondents

Suburb	Number of respondents
Balmain/Birchgrove	13
Rozelle	8
Annandale	4
Leichhardt/Lilyfield	3
Camperdown	1
Summer Hill	1
Stanmore	1
Forest Lodge	1



1.44	4
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In addition to the consultation results, discussions with the Occasional Care Coordinator indicate that since October 2015 at least 4 parents using Annandale have recently begun to use Balmain.

The online survey also provided room for respondents to comment (Attachment 1). Of the 33 respondents to the survey, 26 provided comment. The majority of comments cite that Occasional Care is a valuable service to the families of the area. Concerns from respondents about the service becoming a combined Long Day Care/Occasional Care include:

- a possible reduction in the quality of the Occasional Care service
- reduced number of Occasional Care places when parents need flexibility in obtaining time out and respite
- the impact of socialisation and children's friendships created through Occasional Care that could be compromised by a combined service
- parents without support networks nearby such as other family members may miss out on using Occasional Care when they require it if numbers are reduced to accommodate a combined service
- parents who work casually may be prevented from working if Occasional Care numbers are reduced as work is not always consistent hours and Occasional Care provides flexibility

Analysis

The results of the consultation support the review of the utilisation figures gathered in 2015 and outlined in the August 2015 report to Council, indicating that Balmain is the better utilised service. Recent figures show that if Occasional Care can operate at above 80% utilisation the service could potentially operate at break even. With improved promotion of the service operating 5 days at Balmain, a 12 month period (or longer) would allow a good amount of time to determine the feasibility of how well-utilised the service could become.

The current Develop Consent at Balmain allows operation of an occasional service 5 days per week and so there is nil initial cost to begin operation at Balmain the week following the relocation of Annandale. While Council proposes to relocate the Annandale Occasional Care service, Occasional Care will still be available in the LGA at the Balmain premises with a proposal to increase the operation of the service to 5 days per week to cater for the parents requiring care needs across all days of the week.

DEC funding

Both Occasional Care services receive historical recurrent funding from the State Government through the Children's Services Program administered by the NSW Department of Education. Annandale Occasional Care receives \$11,400 while Balmain receives \$19,600. The funding section of the Department has been contacted via phone and email for advice in regards to how relocating Annandale



and extending operations at Balmain would impact the funding. Council is seeking to have the Annandale funding rolled over to the Balmain service.

The request has been passed on to Senior Management within the Finance Section of the Department. Verbal advice from the Department is that no commitment will be made in regards to transferring the funding from Annandale to the Balmain service until such time as the notification to cease operation at the Annandale premises and the application to extend the days at Balmain have been acknowledged and approved, respectively, by the licensing section of the Department.

Promotion of Occasional Care

Promotion of the service has not yet begun as a determination on Council's decision needs to be sought resolved prior to developing promotional material. Increased promotion of the service will encompass:

- Information stall at Market Town
- Developing posters and updating existing brochures for
 - o Community Boards
 - o LPAC
 - Early Childhood Health Centres
 - o Playgroups
 - o Community Centres
 - o Libraries
 - Other Children's Services, including Family Day Care
- Investigating permanent signage on external Library wall at Balmain and/or at street front
- Promotional flags/banner at street front
- Updating Occasional Care information on the Leichhardt Council Website
- Promoting Occasional Care's open day
- Approaching local schools for addition to school noticeboards or newsletters

Out of School Hours

On 8th February 2016 the Out Of School Hours (OOSH) service began operation from the Annandale premises. As a result of the OOSH service operating, the existing Occasional Care service has reduced its operating hours on Thursday to accommodate the OOSH service. Parents have been notified of this change and as there are very few children (average less than 4 per day) utilising the Occasional Care service after 1:30 on a Thursday, the impact is minimal.

The reduced hours due to the OOSH service means the Annandale Occasional Care service will be operating for 9 hours per week only (from the original 11), 4.5 hours per day.

By relocating to Balmain, Council will be able to re-establish the hours on Thursdays.

This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure



Summary/Conclusions

From the two information sessions and the online survey it is clear there are concerns regarding a combined Occasional Care/Long Day Care service. In particular a reduced number of Occasional Care places per day will not meet the needs of the community requiring Occasional Care.

Neighbouring LGA Occasional Care Services operate from purpose built premises. The premises at Balmain is purpose built and will not require any renovation to enable extension operations to 5 days per week.

Upcoming legislative changes will require extensive renovation of the Annandale premises in order to continue operating from 2019. The renovations would impose on storage space utilised by current users of the service.

Relocating Annandale Occasional Care and operating full time from Balmain will allow better utilisation of the Balmain premises as well as the Annandale Neighbourhood Centre; enabling the Neighbourhood Centre to be hired out to users in the community or used generally by other community groups.

Relocation to Balmain will also enable Council to re-establish the Occasional Care hours on Thursdays that were reduced in order to accommodate the After School Care service at Annandale.

A majority of parents using Annandale Occasional Care have also used Balmain Occasional Care as their care needs fall on the days that Occasional Care is open.

Operating at Balmain 5 days per week can be done immediately and a S96 will be lodged to extend the operating hours to start at 8:30 in order to tap into a potential market of users that previously may not have been able to use Occasional Care.

A fee re-structure will be required to accommodate the extended hours. This can be done as part of the budget development for 2016/2017.

Therefore it is recommended that Council promote and continue to operate Occasional Care only from the Balmain premises and review after at least 12 months operation to determine utilisation.

Attachments

1. Occasional Care User Survey Comments



Occasional Care User Survey

Q8 Please add any further comments

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N	Responses	Date
1	I am a previous user of both the Annandale/Balmain Occasional care service which both were brilliant. Even though Annandale may not be purpose built, my children loved the centre there, more than the purpose built Balmain centre. I am concerned with the move to a combined Long/Occasional care centre that the unique service & environment that dedicated Occasional care offers, which for me was a much needed time out as having no family support in the state was very difficult will eventually be lost to long day care. Not all parents are in need of a permanent long day care arrangement so the council must continue to provide adequate number of places of occasional care places. I do feel the Occasional Care students won't enjoy the centre as much if combined as friendship groups will form will the long day care students making the social interaction difficult for the Occasional care places. I know there is also to pressure on providing additional long day care places but I believe if people want long day care as an option there are places available in the council area but just may not be in the centre of their choice (ie private where the fees are substantially higher than council run). I feel the lack of OOSH places in the council area are more of a concern than long day care places at the present moment. I'm happy to discuss any feedback. Thanks Jane 0413131211	10/25/2015 9:40 AM
2	The Occasional Care service at Balmain is an excellent one. If any changes are made, I hope that this doesn't affect the level of service, as all the children that attend and the parents are extremely happy.	10/23/2015 5:36 PM
3	I will be extremely disappointed if the Annandale site closes but, given I wouldn't have a choice, I would move to occasional care at Balmain. Losing the occasional care service altogether would be terrible for me and many other parents who use this service. Occasional care provides help to a different population of parents than long day care those who are staying home to raise their own children. There are so many long day care centres in this area and, although they have waitlists, I have never known a family who was unable to find an appropriate placement. New long day care centres are opening up all the time. As far as fin aware, this is the only occasional care centre in this area and it is an incredibly important service for stay-at-home parents. It is a very difficult job and, with families (including my own) often far away from grandparents and other family, there is very little support and it's nearly impossible to get a much needed break to attend appointments, get jobs done, or just have a little time out to maintain good mental health! It is also a fantastic environment for kids who are not in long day care to have some social interaction with other children. My son has a great time when he attends and I think is learning some good social skills. This service has also a allowed me to do a few hours of casual work from home each week. I don't want to commit to long day care because we don't need that many hours and we need more flexibility. Many centres don't allow less than one day and it is expensive to pay for so many unwanted hours (consider also that many of these parents won't have access to the childcare rebate). I don't want to hire a nanny because they are expensive and don't provide social interaction with other kids and they need to be at my home, which is where I often do my jobs and work. This is the only service of it's kind and it works really well so I don't understand why you are proposing to change it. Nobody who I speak to who doesn't use this service is aware that it even exists b	10/21/2015 8:06 PM
4	Occasional Gare is a great service, and for my children has been their first experience of childcare affering them apportunities for social and emotional development.	10/21/2015 3:04 AM
5	Occasional Care is the essential and perfect fit for our circum stances.	10/19/2015 9:27 PM
6	Balmain occasional daycare has been an extremely valuable resource for me in the last month. Highly recommend that occasional daycare is kept available as there are some parents where this is invaluable esp where we have no family in the area and need to have time out for practical and also to allow us time to ourselves.	10/19/2015 3:31 PM
7	Treally enjoy the flexibility, I really like being able to pack my sons lunch as firm not a fain of catered foods. I really enjoy the staff. Longer hours and rebate would be great though. Not being able to get sufficient rebate is a reason to vote for long daycare.	10/19/2015 1:36 PM
8	Annandale needs a OCC for parents who assist other schools. I am a volunteer at Annandale public school	10/19/2015 11:43 AM
9	Depending an cast, would consider Long Day Gare in the future.	10/18/2015 9:32 PM
10	Occasional care is great in Annandale, as the service is close geographically for it's users. Parents will usually get a call to work later rather than earlier, so having something convenient for dropoff/ pickup means getting to and from last minute work commitments more manageable.	10/15/2015 1:47 PM
11	I will supply further comments by emial as I feel very strongly that the occasional care service is needed by families in Annandale.	10/15/2015 1:38 PM



Occasional Care User Survey

12	(would use both!	10/15/2015 12:46 PM
13-	I am responding as an interstate grandparent. The Annadale Occ care service is critical to many families of young children who are not in the workforce and do not have extended family within reach to provide the odd respite and care when necessary. Please do not close it. It is an essential part of the parents' and children's lives.	10/15/2015 9:48 AM
14	Would consider long day care on a Thurs if it was the same staff as occasional care and also it was 'approved' care in order to claim the rebate.	10/14/2015 8:52 PM
15	Occasional care is absolutely essential to our family. Without it I would be unable to work.	10/14/2015 5:10 PM
16	If you could use occasional care but for longer hours I would use it so much more, I stopped using the service as the hours were too restrictive. The care is were amazing though!	10/14/2015 4:35 PM
17	Once I return to work I might use the Long Day Care, but for now I really need the annundale OCC. Im skeptical that OCC would remain the quality it is if merged into LDC	10/14/2015 2:39 PM
18	The staff are doing a great job and we really like the Balmain centre.	10/14/2015 1:47 PM
19	It seems that demand is already quite strong at Balmain for under 2s. I hope that capacity would increase if the two premises amalgamated. It is a great service, keep it up! Thank you.	10/14/2015 8:09 AM
20	Having an option for long daycare would be fantastic!	10/13/2015 10:06 PM
21	It's important to know that there is a good chance that you can get the occasional care when you need it. If it's generally oversubscribed, it takes a way from the advantage of being able to rely on getting occasional care as needs must.	10/13/2015 8:13 PM
22	If all services move to Balmain then the staffing levels or arrangements should be reconsidered. I do not find that Friday's in particular have as strong or engaging staff as Wed and Thur do at Annandale location, for example.	10/13/2015 8:01 PM
23	1. It would be great if there was greater flexibility with the start time ie open earlier from 8am, if that was the case 1 would most likely use the long day care. 2. Would the child care at Balmain be changed to group the kids by their age? This is how other long day care centres do it, Or would Balmain continue to have all the kids age mixed in together? 3, flove using Balmain OCC. The teachers are fantastic. They enjoy their jobs and really care about the kids. Its great to see their passion for their job each day. I hope that if it changes to LDC the same teachers stay on, and any additional staff are well experienced, mature, and passionate to keep doing a great job. 4. Would there be more spots available? At the moment Balmain OCC only has 4 spots for under age of 2, which is really not enough to cope with demand. Would this be increased as a result?	10/13/2015 7:46 PM
24	The carers and the setup is amazing. My concern having a child under 2 that it would become more difficult to get him in occasionally if we then have a lot more children to compete with from Annandale.	10/13/2015 7:44 PM
25	The occasional care is an important service allowing parents the option of care at short notice to fit in appointments etc Longer hours available for Occasional care would enhance the service. I used the service weekly until about Mayl-June this year (we frequently came down with code etc) and would be more likely to use occasional care if longer hours were available (that is longer than 4 to 5 hours).	10/13/2015 6:18 PM
26	Thave been on a waiting list at Balmain childcare for 2.5 years for both of my children (2 and 4) and have been unable to secure a spot. I desparately need another childcare option. In 2016 I will put my son in occasional daycare on 3 days because I have no local options and I will not be at my work in the city where they are currently located for long day care.	10/13/2015 5:34 PM



ITEM 3.6 REPORT ON MEMORIAL PLANTINGS AND PLAQUES POLICY FOR ADOPTION

Division	Environment and Community Management			
Author	Group Manager Community and Cultural Services			
Meeting date	8 March 2016 Policy Meeting			
Strategic Plan Key Service	Community well-being			
Area	Place where we live and work			
	Sustainable services and assets			
SUMMARY AND ORGANISATIONAL IMPLICATIONS				
Purpose of Report	To advise Council on amendments to the Draft			
	Memorial Plantings and Plaques Policy as			
	suggested during the exhibition period November			
	2015 to January 2016, and propose Policy for adoption.			
Background	Council resolved C548/15P to Exhibit the Draft			
Background	Memorial Plantings and Plaques Policy for a			
	period of 28 days and a further report be			
	submitted to Council containing feedback			
	received, and a policy for adoption. Council			
	further resolved to consider an annual program of			
	historical markers and interpretative signage in			
	the forthcoming budget process. The budget			
	proposal is to contain cost and resourcing			
	implications, and broad assessment guidelines.			
Current Status	Submissions received during exhibition period are			
	summarised in report.			
Relationship to existing	Aligns in particular Naming of Roads, Parks,			
policy Financial and Resources	Reserves, and Public Spaces Consider allocation of an ongoing fund for an			
Implications	implementation program for installation of			
implications	historical plaques 2016/17			
Recommendation	That Council adopt the Memorial Plantings			
	and Plaques Policy shown attached as			
	Attachment 1.			
	2. That Council consider an annual program of			
	historical markers and interpretative signage			
	in the forthcoming budget process.			
	3. That fees applicable under the policy be			
	addressed in the course of the budget			
	process.			
	4. Following adoption, existing requests for			
	plantings, plaques and historical markers and interpretative signage that require			
	Council's consideration and consent under			
	Council a consideration and consent under			



	the policy be reported to Council.
Notifications	To be published on Council website and notified through Residents E-News and to Committees including Precinct Committees.
Attachments	Memorial Planting and Plaques Policy for adoption



Purpose of Report

To advise Council on amendments to the Draft Memorial Plantings and Plaques Policy as suggested during the exhibition period November 2015 to January 2016, and propose Policy for adoption.

Recommendations

- 1. That Council adopt the Memorial Plantings and Plaques Policy shown attached as Attachment 1.
- 2. That Council consider an annual program of historical markers and interpretative signage in the forthcoming budget process.
- 3. That fees applicable under the policy be addressed in the course of the budget process.
- 4. Following adoption, existing requests for plantings, plaques and historical markers and interpretative signage that require Council's consideration and consent under the policy be reported to Council.

Background

From time to time Council receives requests from individuals and organisations for permission to plant trees, install plaques, and erect commemorative statues or install interpretative signage, to honour an individual, organisation or event. Council currently draws on a number of sources to determine the installation of seating, memorials, plaques and historical markers. Council endeavours to respond to the often heartfelt requests with sensitivity and at the same time balancing the community, cultural and historical significance of the request with the practicalities of public domain design and amenity

Council resolved (C568/13, December 2013) that Council Officers consult with neighbouring councils, key stakeholders and interested community members in drafting Council's Memorials and Plaques Policy and Procedure

A Draft Memorial Plantings and Plaques Policy was drafted to assist in responding to these requests and provide direction for Council and the community on the principles and protocols guiding commemorative plantings and plaques in our local government area. Contributions to drafting the Policy were received from LATSICC, Community, Culture and Recreation Committee, Heritage Committee and a public meeting. The Draft Policy was presented to November 2015 Policy Council.

Council resolved C548/15P to:

- 1. Exhibit the Draft Memorial Plantings and Plaques Policy for a period of 28 days and a further report be submitted to Council containing feedback received, and a policy for adoption.
- 2. Consider an annual program of historical markers and interpretative signage in the forthcoming budget process. The budget proposal is to contain cost and resourcing implications, and broad assessment guidelines.



Report

The Draft Memorial Plantings and Plaques Policy was exhibited from 26 November 2015 to 24 December 2015, and extended to 17 January 2016 at the request of community members. The Policy was exhibited in Libraries, Customer Service, and was notified through the website and to Committee members and Precincts, and key stakeholders including community members who have contacted Council seeking memorial plantings, plaques and seats.

Matters raised in submissions, and response.

- a) Pleased that guidelines have been developed. 1 submission. Noted
- Request previous request as aligned with the draft policy. 1 submission.
 Noted that all outstanding requests will be addressed following adoption of Policy.
- Planting needs to be specific to Adopted Plan of Management. 1 submission. Noted - Plans of Management are adopted by Council.
- d) Request that exhibition period be extended beyond 28 days given the Christmas period, and that Policy be circulated to committees and precincts with extended period for response. 1 submission. **Actioned. Exhibition Period extended to 17 January.**
- e) Request that Register of Memorials be published on Council website and with local history collection. 1 submission. **Included in final draft**
- f) That flowers and tributes be removed after initial ceremony. 1 submission
- g) Include Adopt a Verge Program and Leichhardt Urban Forest Policy in list of related policies. 1 submission. **Included in final draft**
- h) Request that drinking fountains be included in the draft Policy. 1 submission. Noted however a drinking fountain is a significant infrastructure asset, and would be dealt with as a separate project particularly regarding ongoing maintenance and operation. Not included in the policy.
- Request for comparison with Centennial Park Policy. 1 submission. Noted, no amendment made to the Exhibition Draft.
- j) When applicants apply for a DA to refurbish a commercial or private residence identified to be of heritage, historic, conservation or architectural interest that it should be a condition of DA approval by Council that Council install a simple plaque on the façade. 1 submission. Recommended that this be considered through the ongoing review of the LEP and DCP.
- k) Council to consider wider use of pathway brass memorials e.g. in Circular Quay and the Presidio in San Francisco and at Loyalty Square, Balmain. 1 submission. Recommended for inclusion in budget proposal to develop criteria and design guidelines for historical markers program, and allocate an annual fund.
- I) Individual residential properties, retail, commercial and industrial property owners should be encouraged to add a plaque if they can substantiate heritage, historic or community interest applies to their property.1 submission.
 - Plaques could be purchased from Council, standard parameters applied to limit the number of characters and also placement on their building.
 - All plaques should be a standard shape and size with a light coloured background with white readable writing. E.g. suggest oval or round



(NOT square or rectangle) with light coloured background (not black or dark), with white large readable text (NOT brass with small text). Note too many signs are unreadable after weathering and due to the small text size

- Maybe add a link to a Library app for further research
- Recommended for inclusion in budget proposal to develop criteria and design guidelines for historical markers and interpretative signage program, and allocate an annual fund
- m) That Clontarf Cottage Management Committee is consulted on the installation of any plaques on site. 1 submission Included in Internal Procedure: including consultation with relevant Committees of Council

Policy summary

The Draft Memorial Plantings and Plaques Policy seeks to guide Council and the community on the proposal, approval, installation and management of memorials, commemorative plantings, and plaques.

Section 5 sets out the key criteria for considering applications made under the Policy.

Plantings

The policy proposes that Council formalise its provision of community plantings and adopts criteria for applicants, and a standard application form. It further proposes:-

- that community members liaise with Council to identify an approved location and approve species in keeping with relevant Parks Plans of Management and public domain plans
- a fee is involved
- no physical plaque will be installed, due to high frequency of damage and cost of ongoing maintenance.

Plaques on seats

Council receives requests for the installation of plaques to commemorate individuals on a frequent basis. A number of requests have sought to have plaques installed on stone plinths, and some requests have been for plaques on seats, or plaques colocated with planted trees. The policy will assist the community and Council identify and respond to frequently occurring situations with a transparent and consistent process.

The Policy proposes that plaques will apply only to plaques on seats, and proposes criteria for the installation of public seating, and proposes a standard application process with a fee to be involved. The policy identifies Plaques as small (A7) metal tablets, and gives design specifications and site specific guidelines for installation. The policy recognises that costs are incurred, and proposes that fees be charged to manage Council's response to such requests.



It is proposed that once Council has adopted the Policy, that existing and future requests for seating and memorial plaques be reviewed by an internal working party of Council Officers, and that recommendations from the Working Party made within the Policy guidelines be delegated by the General Manager to the Director Infrastructure and Service Delivery for determination, and installation if required.

Historical Markers and Memorials

The Policy recognises that historical markers and memorials require a different assessment, as they occur less frequently, they are of a different order of magnitude and significance, and are more costly to install and maintain. They therefore require durable materials, capable of a lifespan beyond 20 years.

The Policy proposes that these largely be treated on a case by case basis, and typically these proposals require consultation and an officer's report to Council.

Recognising the importance of Council commemorating and marking significant people, events, and community and cultural experiences throughout the local government area, it is proposed that Council consider an annual program commemorating significant places, people and/or community and cultural matters. Preferably a theme-based design should be developed that over time, can be linked into walking trails and enhance place making qualities of our local neighbourhoods as well as high streets and the public domain.

In developing the program Council should consider whether amendments are required to the LEP and DCP.

Summary/Conclusions

The Draft Memorial Plantings and Plaques Policy have been prepared with input from LATSICC, Community, Culture and Recreation Committee, Heritage Committee and a public meeting. The Draft has been amended in response to submissions received during exhibition period, summarised in report. A proposal for the development of an annual program of historical and interpretative markers will be submitted to Council for consideration during the budget period. The Policy is recommended to Council for adoption. Following adoption, Council will be advised on any existing requests that require Council's consideration and consent under the policy.

Attachments

1. Memorial Planting and Plagues Policy for adoption.





LEICHHARDT COUNCIL DRAFT MEMORIAL PLANTING AND PLAQUES POLICY

Date Adopted:	Submitted to 8 March 2016 Policy Meeting		
Council or Corporate Policy	Council Policy		
Responsible Division:	Environment and Community Management		
Supporting documents, procedures & forms of this policy:	Application for memorial planting Application for memorial plaque on seat		
References & Legislation:	The policy sits alongside, and is consistent with the following Council policy and practices: Community and Cultural Plan 2011 Community Engagement Framework 2013 Environmental Sustainability Strategy 2010-2014 Public Art Policy 2013 Reconciliation Action Plan 2013 Naming of Roads, Parks, Reserves and Public Spaces Parks Plans of Management Local Environment Plan 2013 Development Control Plan 2013 Environmental Sustainability Strategy 2015 Conservation Management Plans Council register of Plaques (internal) Council register of Memorials Preferred planting catalogues (internal) Urban Forest Policy Adopt a verge program Council Street Furniture Contract Council Heritage listings Heritage Map Legislative Framework There is no legislation governing memorial plantings, plaques, interpretative signage and historical markers other than the War Memorials Act. Council requests individuals in the LGA installing memorials and plaques do so using the criteria and guidelines in this Policy.		



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1. Purpose of Policy

The purpose of Leichhardt Council's Memorial Plantings and Plaques Policy and Procedures is to provide a framework for memorial plantings in the public domain and for the installation of plaques on seats in the public domain. The Policy also gives direction on historical markers and interpretative signage.

2. Definitions

Word/Term	Definition (with examples if required)
Applicant	A person or group which proposes a memorial planting or the installation of a memorial plaque on a seat,
Memorial Planting	The Memorial Planting is established in memory of a person/s and is not accompanied by plaques or markers. The Planting is in keeping with the function, character, landscape, flora or fauna, of the site proposed. The location should be consistent with current planning, succession planning, heritage and environmental policies and Plans of Management.
Memorial Plaque on seat	The Memorial Plaque on a Seat is established in memory of a person, association, anniversary or event that has made a significant and outstanding contribution to the local community.
	Installation comprising an appropriately designed plaque based on 10 year tenure, for example A7 small rectangular metal plaque.
	Installation applies to an existing Council seat.
Interpretative signage	Commissioned as a site-specific installation and is established to enhance the experience and perceptions of the site by interpreting and drawing attention to features associated with the site. May include signage in a variety of durable formats, based on 20 year+ tenure.
	may include signage in a variety of durable formats, based on 20 year tendre.
Historical markers	Commissioned to enhance understanding of the unique history and identity of people and events associated with the location.
	May include steel fabrication, engraved or pressed metal, based on 50 year + tenure.
Local Government Area (LGA)	A reference to the LGA in this policy refers to the Leichhardt Local Government Area.
Public Domain	Public domain refers to all land that is under the care, control and management of Leichhardt Council and includes public open space which is accessible to the community.

3. Scope

This policy applies to memorial plantings and plaques on seats in public domain under the care, control and management of Leichhardt Council.

The policy also gives direction to Council on the installation of interpretative signage and historical markers.

The policy does not apply to privately owned spaces and places within the LGA, nor to public space within the LGA not owned by Leichhardt Council.

A schedule of fees and charges applies to this policy. (Insert link to fees and charges)



4. Objectives

The Policy acknowledges the importance to the community of Memorial Plantings and Memorial Plaques on Seats, while at the same time addresses environmental and aesthetic considerations and the need to mitigate maintenance costs. Memorial Plantings, Plaques on Seats,

Interpretative Signage and Historical Markers will:

- Be consistent with, and not interfere with, the intended purpose of the public domain and the surrounding environment
- · Enhance the landscape, recreational and cultural value of the public domain
- · Build community connections; and
- · Connect people to place

5. Policy Guidelines

- Council will not approve a plaque installation or planting for a person who is not yet deceased; and approved installations require consent from the surviving partner or immediate family members.
- Council recognises that the community may wish to privately commemorate a person/s or event in the public domain and this may be supported with a tree planting.
- People who have made an outstanding contribution to the local community may be acknowledged by a plaque on a seat.
- Interpretative signage or historical markers may be installed to assist interpretation of
 particular sites, and enhance understanding of the unique history and identity of people and
 events associated with the location.
- Council does not support proliferation of plaques, monuments, and markers in the public domain and all proposals will be assessed...
- Council will not permit the installation of temporary fixtures to existing structures under this
 policy. At Council's discretion, unapproved installations will be dealt with sensitively and with
 regard to safety, with the intent of removing installations after a maximum of 3 months

5.1. Memorial Tree Planting

This is primarily a private and individual acknowledgement.

5.1.1. Under What Circumstances will Council consider a Memorial Tree Planting?

- For personal or private remembrance
- Small scale neighbourhood community development or commemoration activity
- The proposed location must be consistent with current planning, heritage design and environmental policies and Plans of Management

5.1.2.Locations for Memorial Tree Plantings

- · Include parks and open spaces
- · Exclude streets, roads, carparks and built environments

5.1.3. Specifications

- The planting must reflect the function, character, landscape, flora or fauna of the site
- The preferred species are listed in Council's Urban Forest Policy and associated documents.
- · A fee applies which is to be paid by the applicant.

5.1.4.Ongoing operation and replacement

- · Council is responsible for site preparation and planting
- The applicant is responsible for the ceremony associated with the planting
- Council will not enable a physical plaque on the site of the commemorative planting due
 to the wear and tear issues associated with gardening and landscape maintenance



- The timeframe for the commemorative planting will be no longer than 5years.
- Council reserves the right to remove any tree which in its opinion places a public safety
 risk or is damaged beyond reasonable repair, or no longer aligns with the purpose and
 function of the public open space.

5.2. Plaque on a Seat

This is a public acknowledgement of the outstanding and significant contribution a person has made to the local government area.

5.2.1. Under What Circumstances will Council consider a Plaque on a Seat?

- The nominated person/s are publicly acknowledged and of outstanding local significance, and may also have national or international standing.
- There is a strong connection between the person being commemorated and the location
 of the plaque, as well as to the Leichhardt local government area.

5.2.2. Council's guidelines for locations

- Include parks and open spaces provided there is no conflict with other uses defined in Parks Plans of Management
- Exclude main street documented streetscapes where the design character and features
 have been developed into a theme, subjected to public consultation, and implemented,
 with the exception of Historical Markers (Refer Section 7below)
- · There is no permissible installation in
 - Pioneers Memorial Park,
 - War Memorial Park
 - 36 Battalion Park
 - 2-8 Weston St
 - Loyalty Square
 - Crown Reserve land

5.2.3. Design specifications for inscriptions to be placed on seats

- Plaques shall be affixed in the centre of the upper most lath of the back of the bench and should have the following design specifications
 - i. Small rectangular metal plaque maximum size A7
 - ii. 1.6mm stainless steel
 - iii. Acid etched (black paintfill if appropriate)
 - iv. Typeface Gills Sans
 - v. Maximum text of 140 characters in a language that is accessible to the public
 - vi. Completed plaque is to be approved by Council
- · The Applicant is required to pay for the design and manufacture of the plaque

5.2.4. Operation and Period of tenure.

- · Council will install the plaque in the approved location.
- The Applicant is responsible for any ceremony associated with the installation.
- All installations are based on 10 year tenure, and can be renewed after this period if the
 applicant wishes.
- Upon the end of the 10 year period any memorial plaques shall be removed and may be collected by the applicant.
- The Council reserves the right to remove or relocate any seating or installation, which in
 its opinion is damaged or beyond reasonable repair, or no longer aligns with the purpose
 and function of the public open space.

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5.3. Interpretative Signage and Historical Markers

Interpretative signage can enhance the experience and perceptions of a site by drawing attention to features associated with the site.

Historical markers including monuments can enhance understanding of the unique history and identity of the place, the people and the events associated with the location.

Acknowledging the role Council plays in observing and documenting the life of its community, Council will implement at its discretion a program to add historical markers in relevant places in the public domain.

5.3.1.Under What Circumstances will Council consider Interpretative Signage or Historical Markers?

Council at its discretion may consider installing interpretive signage and/or historical markers in the public domain and will take into consideration (as a minimum) that the feature/ person / event being recognized should be:

- · historical or other information relevant to the site/location proposed
- an individual or Association that has contributed significantly to the cultural, political or social aspects of Leichhardt local government area's development;
- an individual or Association strongly linked to Leichhardt LGA and its history; and/or
- · a significant anniversary of an event unique to Leichhardt local history and development;

5.3.2.Design specifications for interpretative signage/historical markers/monuments

- · The design used must be relevant and applicable to the site,
- The materials must be durable in nature.
- · The decision must be made by Council.

6. Implementation

Existing memorial plaques will generally be retained. If the existing site is inappropriate, maintenance costs prohibitive or the condition of the plaque or memorial is poor, those originally involved in its placement should, where practical, be consulted before re-siting or removal.

7. Roles & Responsibilities

Determine Memorial Plantings and Plaques on Seats: General Manager's Delegate: Director Infrastructure and Service Delivery

8. Policy Review

This policy is owned by the Group Manager, Community and Cultural Services.

This policy must be reviewed by 1 July 2017.

This policy can be amended or rescinded by Council resolution unless delegated authority is given by the Council to the General Manager to do so.

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Version	Action	Date Published
V1 Draft Memorial Plaques and Commemorative Plantings Policy and Procedure 2014	Submitted to SMT Consulted with LATSICC Published in Community, Culture, Recreation Committee Agenda	August 2014 March 2015 April 2015
V2 Draft	Consultation at Public Workshop	May 2015
V3	Reported to Council	November 2015

9. Version Control and Change History

Version Control	Date Effective	Approved By	Amendment
1	YYMMDD (the date the policy takes effect	Contact person – full name & title.	<first amendment="" and="" any="" document.="" include="" is="" superseded="" the="" to="" version.="" versions="" what=""></first>

10. Contacts

Further information about this policy can be obtained from Group Manger Community and Cultural Services.

Phone: 9367 9222



Schedule 1. DRAFT PROCEDURES FOR REQUESTING A MEMORIAL PLANTING OR A PLAQUE ON A SEAT.

Any person may make a written application to Council proposing a memorial planting or plaque on a seat, using the online or downloadable application form.

1) Council procedure assessing requests for a memorial planting.

Council will take the following steps in approving a commemorative planting in a Park or Public Space:

- 1. Council will only consider complete applications made in writing.
- Applications will be lodged in Council's document management system and a reference number generated.
- The Application will be acknowledged by the Receiving Officer and applicant will be advised of the reference number.
- 4 Council's Receiving Officers will consider whether the requested planting meets the criteria and guidelines listed in Section 5 of Policy. Council will check
 - (a) Its register of Plaques and Asset Tree Register
 - (b) Parks Plan of Management
 - (c) Mainstreets Program
- 3. If, due to any of steps 1-2, the proposal is to be rejected, the Receiving Officer will write a letter providing reasons for the rejection to the applicant.
- A decision to proceed with the planting will be made by the Director of Infrastructure and Service Delivery.
- Where the proposed commemorative planting is approved the Director of Infrastructure and Service Delivery, Council will
 - (a) nominate / purchase the plant and prepare the ground
 - (b) Register the location on Council's Asset Tree Register
 - (c) replace damaged/dead trees for a 5 year period after planting

2) Council procedure for assessing requests for a plaque on a seat

Council will take the following steps in assessing an application for a plaque on a seat.

- 1. Council will only consider complete applications made in writing.
- Applications will be lodged in Council's document management system and a reference number generated.
- The Application will be acknowledged by the Receiving Officer and applicant will be advised of the reference number.
- Council's Receiving Officers will consider whether the proposed installation meets the criteria and guidelines. Council will check
 - a) its register of Plaques
 - b) Parks Plan of Management
 - c) Mainstreets Plans
- If, due to any of steps 2-4, the proposal is to be rejected, the receiving officer will write a letter providing reasons for the rejection to the applicant.

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- 6. An internal working party of Council Officers will advise the Director of Infrastructure and Service Delivery on the installation.
- 7. Once agreement upon a proposed installation has been made, Council will ensure the installation has been clearly identified and recorded in Council documents.
- 8. If Council wishes to proceed with the installation, notifications will be made to the applicants.

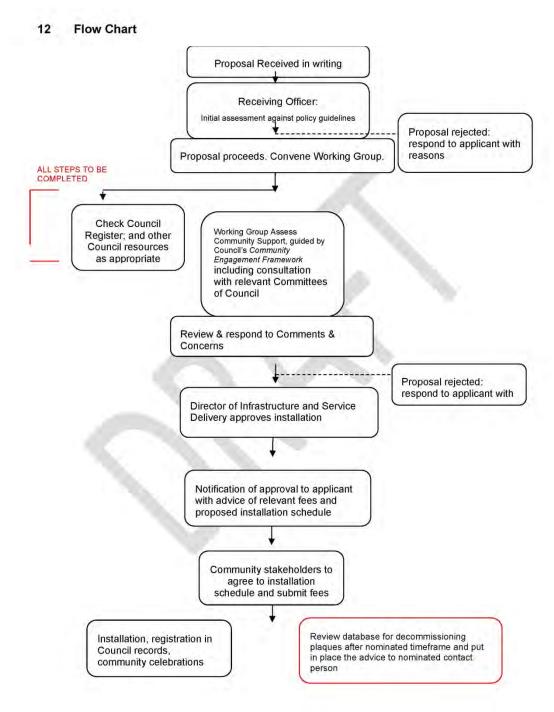
Council procedure for assessing requests for interpretative signage and/or historical

Council will take the following steps:

- 1. Council will only consider proposals made in writing.
- Council Receiving Officers will convene an internal working party to assess the 2
- Council Receiving Officers will consider whether the proposed installation meets the 3 criteria and guidelines listed in 5. Council will check
 - (a) its register of Memorials, Plaques and Commemorative Plantings
 - (b) Parks Plan of Management (c) Mainstreets Program

 - (d) Strategic plans and policies
- Council officers may seek input from community members of Council Committees including (and not limited to) Heritage, LATSICC, Community, Culture, Recreation Committees, Youth, Seniors, LGBTQI Action Group and other committees and community stakeholders as required, in order to inform Council of the [proposal and recommend an outcome, including advice on
 - Financial implications
 - Policy alignment
 - Community benefit





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ITEM 3.7 PROPOSED NETBALL COURT PROVISION- DARLEY ROAD LEICHHARDT

Division	Environment and Community Management	
Author	Senior Parks and Open Space Planner	
	Traffic Manager	
Meeting date	8 th March-Policy Meeting	
Strategic Plan Key Service	Community well-being	
Area	Accessibility	
	Place where we live and work	
SUMMARY AND	ORGANISATIONAL IMPLICATIONS	
Purpose of Report	To report to Council the outcomes of community consultation, planning and design considerations associated with the proposed Shields Playground/Darley Road Netball Courts.	
Background	At its November 2015 Policy meeting Council considered concept plans on Netball Courts at Shields Playground, Darley Road and resolved to undertake the following (refer to C546/15P)	
	Exhibit the draft concept plans for the Darley Road Netball Courts for a period of 28 days and seek community feedback on the proposed design.	
	2. Hold a public meeting to present the draft plans to local residents and key stakeholders during the exhibition period.	
	3. Noting the estimated costs in delivering this project, Council allocates funding shortfall from lighting budget for the Hawthorne Canal Shared Path Upgrade	
	Receive a further report to the February 2016 Policy Meeting of Council on the outcomes of community consultation	
Current Status	Public Consultation has been completed. A traffic and parking study has been completed and the results of resident parking survey are also presented in this report	
Relationship to existing	Provision of up to five netball courts for netball	
policy	training is a key adopted priority in the adopted	
	Recreation and Needs Study 2005.	
Financial and Resources	Council has set aside a budget of \$704,465 for	
Implications	this project.	



Recommendation	That Council:-
	1. Proceed with detailed design works and the lodgement of a Development Application for the development of three hard surface netball Courts, public toilet facilities and associated landscaping improvements works at Shields Playground, Darley Road Leichhardt.
	2. Subject to the granting of development approvals, commit to developing netball courts on the Darley Road site.
Notifications	Local residents and Leichhardt Netball clubs
Attachments	Attachment 1 - Draft Concept Plans
	Attachment 2 - Public Submissions
	Attachment 3 - Traffic Study Report



Purpose of Report

To report to Council the outcomes of community consultation and planning and design considerations associated with the proposed Shields Playground/Darley Road Netball Courts

Recommendation

That Council:-

- 1. Proceed with detailed design works and the lodgement of a Development Application for the development of three hard surface netball Courts, public toilet facilities and associated landscaping improvements works at Shields Playground, Darley Road Leichhardt.
- 2. Subject to the granting of development approvals, commit to developing netball courts on the Darley Road site.

Background

At its November 2015 Policy meeting Council considered concept plans on Netball Courts at Shields Playground, Darley Road and resolved to undertake the following (refer to C546/15P):

- 1. Exhibit the draft concept plans for the Darley Road Netball Courts for a period of 28 days and seek community feedback on the proposed design.
- 2. Hold a public meeting to present the draft plans to local residents and key stakeholders during the exhibition period.
- 3. Noting the estimated costs in delivering this project, Council allocates funding shortfall from lighting budget for the Hawthorne Canal Shared Path Upgrade
- 4. Receive a further report to the February 2016 Policy Meeting of Council on the outcomes of community consultation

Report

Following the outcomes of the November 2015 Policy Meeting of Council, the draft concept plans (Attachment 1) for the proposed Darley Road Netball Courts were exhibited for a period of 28 days from 12th November 2015 through to the 11th December 2015. A public meeting was held at Shields Playground on Saturday 5th December 2015 to present the draft plans and invite community feedback.

Public Meeting Outcomes

A total of 25 local residents and park users attended the public meeting. The Mayor, Councillor Byrne, Councillor Kelly and Councillor Emsley also attended. Council staff



present included the Traffic Manager, the Senior Parks and Open Space Planner and Council's Senior Traffic Engineer.

The public meeting highlight significant opposition and concern to the proposed netball courts with support only forthcoming from the netball clubs themselves. The netball clubs did however also highlight concerns with parking issues. The key issues highlighted from the public meeting are outlined in Table 1.0

Table 1.0 Public Meeting-Saturday 5th December 2015 Summary of Issues

Key Issues	Council Officer Response
There are currently No netball courts in LGA – why don't you wait till amalgamation then there will be!	This would need to be a determination of Council. However the Ashfield Courts are currently at full capacity and additional courts are needed to address the needs of local netball clubs. Leichhardt netballers currently have no facilities and this project seeks to address the needs of our local clubs and citizens.
More Noise Pollution -Darley Road the worst Road in Leichhardt	The courts would be limited to evening training on weeknights. Weekend use is not anticipated at this stage as the majority of netball games are currently held at Cintra Park in Concord.
Loss of Parking- we Can't find a park during the week	As part of the project brief Council engaged a traffic consultant to undertake a study of parking needs in the area and assess similar projects in terms of parking demand. The attached consultant's report demonstrated that the parking demand for the netball courts could be met by the proposed parking changes on the Reserve side of Darley Road. Council also recognises the change in parking conditions which have arisen as part of the Light Rail Station development (Hawthorne Light Rail Stop). As part of the review of this proposal a resident parking survey was undertaken to assess residents' needs and concerns. A Resident Parking Scheme (RPS) was prepared and residents' views sought. The outcome of the RPS survey is being reported to the 3rd March 2016 Traffic Committee meeting for consideration.
The space is being privatised just for netballers. In Lyall St parking is at	The space is not being privatised. Like sporting grounds the facility will be open



capacity. The noise will be unbearable what about spaces for our Dogs?	for other users to enjoy and use when not being utilised for netball training. In addition to this Council is happy to work with the community on facilitating alternative uses for the courts when not in use. School use for example is expected to be a feature during weekdays as is bike riding and learning to ride events
Passive space v active Recreation. Space and Data. Council needs to do its homework on this issue we need more passive space. How is this space currently used?	There are significant deficiencies in active recreation provision, especially in terms of the provision of netball courts as training venues. Netball Clubs are currently growing in numbers Wanderers - 27 teams, Tigers – 29 teams, Wolverines – 10 teams.
A proper traffic and parking analysis is required including safe crossing points.	In the last few years Council successfully lobbied the RTA (now RMS) to have the speed limit reduced on Darley Road from 60km/h to 50km/h. RMS is currently investigating the provision of pedestrian facilities at this location to assist pedestrians crossing Darley Road. The attached consultant's report demonstrated that the parking demand for the netball courts could be met by the proposed parking changes on the Reserve side of Darley Road. Council also recognises the change in parking conditions which has arisen as part of the Light Rail Station Development (Hawthorne Light Rail Stop). As part of the review of this proposal a parking survey was undertaken to assess residential parking. A Resident Parking Scheme (RPS) was prepared and residents' views were sought. The outcome of the RPS survey is being reported to the 3rd March 2016 Traffic Committee meeting for consideration.
This is a constrained space why here? What about the Land next to Le Montage?	Refer to the Alternative Options Section of the report.
What about balls going on to the road or rail line?	We are confident that the courts are set back sufficiently to prevent this. In addition landscaping and fencing works will also be part of the overall design of the project.



You should rezone Callan Park and put netball courts on the Veterans Site.	Callan Park is subject to its own draft Master Plan which is yet to be formally adopted by the NSW Government and amending this would require some work by Council including detailed community consultation.
How many trees will be lost-? we need more trees not less	Two Trees will be removed in total- one of which is already dead and will most likely be removed shortly. Landscaping works including further tree planting will be undertaken as part of the landscaping component of the park development.
Why can't schools be used instead of parkland?	Schools are State Government owned and generally not open to the community after school hours. Our local schools rely significantly on Council in the provision of open space for physical instruction and are space poor.
Build the courts in Ashfield in the on leash area on the other side	The Ashfield Courts are currently at full capacity and additional courts are needed to be constructed to address the needs of local netball clubs. Leichhardt netballers currently have no facilities and this project seeks to address the needs of our local clubs and citizens.
40km/h speed limit needed on Darley road	In the last few years Council has successfully lobbied the RTA to have the speed reduced on Darley Road from 60Km/h to 50km/h. RMS has no current plan to further reduce the speed limit on this road to 40km/h.
What other sues would the courts have? I am concerned about the loss of valuable green space.	These courts can be used for many other activities e.g. riding scooters, kids learning to ride bikes etc.

Public Submissions

In addition to the public meeting held on 5th December 2015 the draft concept plans for the proposed Darley Road Netball Courts were exhibited for a period of 28 days from 12th November 2015 through to the 11th December 2015. A total of 26 submissions all in opposition to the proposed netball courts were received. A full summary of the submissions received is attached as **Attachment 2**.

The key concerns highlighted by submitters mirror the issues which were raised at the community consultation meeting. The submission issues have been summarised below in Table 1.1 and the Council officer responses are provided.



Table 1.1 Key Issues Raised in Submissions and Council Officer Response

Issue	Council Officer Response
Loss of Green Space and growing population needs for open space	While there will be removal of grass to provide netball courts there will be no net loss of open space. Open space does not just consist of green space. Open space is land which is accessible to the public and can include:
	Green space (land that is partly or completely covered with grass, trees, shrubs, or other vegetation).
	 Parks, community gardens, and cemeteries, Schoolyards, Playgrounds, Public seating areas, Public plazas and vacant lots.
	Open space provides recreational space for play for both residents and visitors and helps to enhance the beauty and environmental quality of neighborhoods.
Council Amalgamation and the Provision of Netball Courts in the Ashfield LGA	The Ashfield Courts are currently at full capacity. Council is seeking to provide recreational training space for its local netball clubs, the members of which reside in the Leichhardt local government area. In the future opportunities for expanding the courts in the Ashfield LGA may be an option for any new or existing Council.
Lack of Parking and Darley Road Safety Issues.	This issue is addressed in the "Traffic and Parking Impacts" section of this report.
Alternative Site Considerations	This issue is addressed in the "Alternative Site Considerations" section of this report.
Noise Generated form the Proposed Development	The proposal is for three netball courts which will be used for evening training during the weekdays and not on weekends. Noise is anticipated to be minimal given the location of the training facility adjacent to Darley Road and the Hawthorne Light Rail Stop.



Traffic and Parking Impacts

Council has investigated opportunities to enhance parking availability in Darley Road (Foster Street-Daniel Street) and Daniel Street to cater for the parking demand for the proposed netball courts. Therefore, it is proposed to implement a section of '90° Angle Parking, Rear to Kerb, Vehicles Under 6m Only' parking restrictions on the western (Reserve) side of Darley Road between Foster Street and Daniel Street. The angle parking proposal will increase the existing on-street parking spaces on the Reserve side of Darley Road by approximately ten (10) spaces and the parking supply on the western side of Darley Road to 30 spaces (26 spaces along the Light Rail Corridor and 4 spaces fronting the Shields Playground). This will be supplemented by '2P 8am-8pm; Mon-Fri' parking restrictions to improve parking turnover for the full length from Daniel Street to Foster Street, including the parallel parking spaces.

Council also recognises the change in parking conditions which have arisen as part of the Light Rail Station development (Hawthorne Light Rail Stop). As part of the review of this proposal, a resident parking survey was undertaken to assess residents' needs and concerns. A Resident Parking Scheme (RPS) was prepared and residents' views sought on parking restrictions '2P, 8am-8pm, Mon-Fri, Permit Holders Excepted, Authorised Area L1' outside the residential properties in Darley Road (Foster Street - Daniel Street) and Daniel Street, Leichhardt to further improve parking for residents, subject to resident support. The outcome of the RPS survey is being reported to the 3rd March 2016 Traffic Committee meeting for consideration.

According to Council's Resident Parking Scheme policy, a minimum of 50% support from the properties in the subject section of the street is required for consideration to implement resident parking. The survey closes on 1st March 2016 and the results will be tabled at the Traffic Committee Meeting to be held on 3rd March 2016.

GTA consultants were engaged to undertake a car parking and traffic assessment of the proposed netball courts in Shields Playground, Darley Road. Their report is attached (**Attachment 3**). The assessment detailed in the report estimated a combined car parking demand for the three (3) netball courts of 30 spaces, based on a review of similar facilities and proximity to public transport and advised that the proposed 30 spaces signposted '2P 8am-8pm; Mon-Fri' could cater for the parking demand (including the additional 10 spaces provided by converting parallel parking to 90 degree angled parking in Darley Road) during the proposed weekday evening training periods.

The report estimated a traffic generation of 60 vehicles/hour when training would be held and that this volume of traffic was not expected to have a significant impact on the adjacent road network. Also, the section of Darley Road on the north-south corridor between Foster Street and James Street is a classified road carrying regional traffic volumes.

Roads and Maritime Services (RMS) have advised that they could investigate the introduction of 2 hour parking during training times in Darley Road along the Shields Playground frontage (currently unrestricted parking). This could provide additional parking opportunities for netball court users. RMS is currently investigating the



provision of pedestrian facilities at this location to assist pedestrians crossing Darley Road.

Alternative Site Considerations

As part of the public consultation process a commitment was given by Council to review two other locations which were suggested by members of the public for the Netball Courts. The two locations in question are Hawthorne Canal Reserve (Alternative Site 1) in the recently rezoned on leash section in the south of park and secondly the area of open space known as the Peace Grove in Leichhardt Park (Alternative Site 2).

Both sites have been assessed by Council officers and the appointed landscape consultants. Both sites have significant constraints which are highlighted in the site analysis below:

Alternative Site 1-Southern Area of Hawthorne Canal Reserve (On Leash Area)

This area is currently used as a passive recreation area and as a major access point to the off leash area of Hawthorne Canal Reserve. It would be possible to develop three netball courts in this areas however there would be significant impacts on the park which need to be considered by Council. There are significant **Hills Fig - Ficus microcarpa** trees present in the reserve which would need to be removed. Up to six significant trees would need to be removed to allow three netball courts to be developed in this area. Two courts could be delivered with fewer impacts on trees. The nearest public toilets are located on the Ashfield side of the canal which is not ideal. Opposition from dog walkers may also be an issue given the popularity of the park. On the positive side there are no neighbours in the immediate vicinity of the Alternative Option 1. Car parking issues would still be a factor on the Leichhardt side particularly in the southern part of Darley Road.



Image 1.0-Alternative Site 1-Southern Area of Hawthorne Canal Reserve (On Leash Area)





Alternative Site Option I

Hawthorne Canal Reserve







Alterative Option 2-The Peace Grove Leichhardt Park

The Peace Grove is currently utilised as an informal and passive area of open space in Leichhardt Park. Geographically the site is constrained between Maliyawul Street and the residential housing which back on to the park from Bayside Street, Leichhardt. An analysis of the park has highlighted the possibility of developing two netball courts on this site. Development of this nature would be problematic given the close proximity of residential properties to the park and the need to floodlight the facility for winter evening training needs (Refer to Fig 1.3). The site does however have good practical surveillance and car parking facilities are already provided on site.



Image 1.2-Alternative Site 2-The Peace Grove-Leichhardt Park.











Alternative Site Option 2

Peace Grove Leichhardt Park

Key:

Tree to be Removed

Lighting for courts

Photo location marker

Seating for parents/friends

- + Passive surveilance busy area + Close to existing cafe + Access to parking and drop off areas

- No public toilets
 Very little shade
 Residential properties back on to park
 Light and noise issues for residents
 Loss of public open space
 Only two courts coud be provided







Summary/Conclusions

The Darley Road, Shields Playground site is the preferred location for the development of three netball courts in the Leichhardt local government area. It is noted that there is residential opposition to the project and that concerns have been raised in relation to parking needs, traffic flows, noise pollution and the loss of open space. The proposed development will not result in a net loss of open space but will provide a much needed recreational facility which will support the needs of local netballers and can be used for other recreational uses when not utilised for netball training.

Currently there are 66 local netball teams in the Leichhardt local government area and this number is growing as the population increases. Training facilities are desperately needed to support local netballers.

The alternative sites which have been identified and investigated for netball court provision have merit but both alternative sites also have significant issues in terms of the impacts of the development proposed. The site with the least impacts is that of the Darley Road, Shields Playground site.

In moving forward it is recommended that Council proceed with detailed design works and the lodgement of a development application for the proposed netball courts. Subject to the granting of development approvals Council commit to developing netball courts on the Darley Road site.

Attachments

Attachment 1 - Draft Concept Plans Attachment 2 - Public Submissions Attachment 3 - Traffic Study Report







ATTACHMENT 2 Summary of Written Submissions received Netball Court Provision Shields Playground (November/December 2015).

Number	Date Submission Received	Submitter	Issues
1/.	27/11/2015	Residen t/ Park User	As you would know Shields Playground is a roughly triangular strip of green area with a playground at the northern end located between the light rail line at Darley Road. Darley Road is a busy main road.
			The concept plan manages to squeeze three netball courts into this triangular space with two of the courts back-to-back and the pedestrian/cycle shared path running through the middle of the courts.
			The concept plan does not show a scale, so I am uncertain as to the accuracy of the concept plan.
			The rationale seems to be that Leichhardt has three netball clubs and 66 teams and it is somehow inappropriate that we do not have our own netball courts. Presumably the three netball clubs manage at the moment, although evidently practicing out of the area, presumably just on the other side of the canal. These courts ain't that far away.
			Does it really matter anyway. It seems rather too precious and suggests that each Council should be able to provide facilities for all and sundry. Makes more sense to pool resources. Surely the users of the dog off-leash area between the light rail and the canal do not all come from Leichhardt. In other words we supply a facility that is used by non-Leichhardt residents.
			The concept plan does indicate how parking is to be managed. Streets west of Darley Road and Foster Street cater for resident parking, Aussie Bum employees, users of the dog-off leash area and commuters. The streets are



at capacity. Adding more demand will overload parking supply.

The concept plan shows the courts in close proximity to Darley Road. Parents taking a child sports training may often have a second, younger child in tow. A parent's attention can be divided. There is the potential for the younger child to "escape" and run onto Darley Road.

In any sport involving a ball, there is the potential for the ball to go out of court. In this case it could reasonably get onto Darley Road, with the potential for someone going after it. Drivers taking avoidance action can be expected. This may be reasonably frequent. The proposed fencing will not "retain" an "errant" ball on the courts. Higher fence would, but would be quite unattractive.

As for use. Sporting teams/clubs in my experience (Balmain Little Athletics (9 years with two children) and football (three codes, three clubs, 10 years, one child) is that teams play competitively on weekends. Practice does not occur on Mondays (too far from the weekend) and Fridays (too close to the weekend). This leaves Tuesday to Thursday to practice. Practice sessions would run 1.5 hours. One hour is too short; a fair bit of time is wasted at the start getting organised. So even a one hour training session would consume 1.5 hours of time. Training starts after school and ends at a reasonable time, so kids can go to bed and school the next day. Practically you would get two sessions onto a court. Which means 6 teams can train per night. Over three nights 18 teams get to train.

So the three courts would accommodate less than 30% of the teams in Leichhardt. For this, the cost is close to \$0.75 million, crammed into a small space with no suitable parking available and very, very close to a busy main road.

I consider this concept plan to a poor benefit:cost ratio. The benefit is to



	some netball teams. The cost is the financial outlay, the loss of a bit green space (netball court surfaces do not replace grass), the accident potential and overload of the current parking supply. May sound like a NIMBY complaint, but I have no problems with the dog off leash area as such (apart from dog-owners being unable to comply with dog on-lead areas) and the netball courts west of the rail line. As a professional traffic engineer, this concept plan is pretty poor proposal. I do not support it.
2/. 27/11/2015 Re t/Ps	Thank you for giving us the opportunity to see the proposed plans. I wont be able to attend the public meeting as I have a prior commitment.



	T T	
		area is contemplated for a netball court area.
		Even with the smaller number of courts planned for this area the likelihood of at least 14 cars needing safe parking for each court (being each players parent.
		Perhaps an area on the other side where the park is much larger would be a suitable area for netball courts and the appropriate and necessary parking.
3/.	Residen t/Park	To whom it mat concern.
	User	I am shocked at the proposal to build courts in this small green space! The LCC must be desperate, as there are already courts on the other side of the canal. I use to live in Daniel Street, and the noise form that was ridiculous!
		Table to five in Barner circlet, and the holde form that was haloulous.
		1/ Due to the situation of the proposed courts, it is a busy road already, and will be an unsafe area and not suitable for children etc.
		2/ There is insufficient parking now, let alone when there will be many more people coming
		to the area to play. What provision has been made for this or has that been overlooked too.
		3/ What consideration has been made for residents in the area, being one, I strongly oppose this, as the general noise, the extra traffic noise, and
		the extreme lack of parking is already a nightmare, as it is bad hard enough now, what hell are we going to have to put up with?
		4/The bright lights are disturbing, the noise especially the screaming of the players, will be intolerable!!
		I strongly protest the building of these courts on Shield park and request that the LCC looks elsewhere to build them.
		<u>J</u>



			I look forward to your explanation as to this crazy and ridiculous proposal
4/	28/11/2015	Residen t/Park User	This plan is madness and I am sure all of Leichhardt will be against it, as we are.
			The traffic on Darley road bottlenecks morning and afternoons and you would be mad to add to this. How could you possibly want to ruin the Park land where the entrance to the Hawthorne light rail is which has just been upgraded after the tunnel went through and you want to ruin it again? It should remain as it is. There are plenty of netball courts already in the park on the other side of the canal that are hardly use and plenty of room over there in the Hawthorne park. Why cant you see that is where more additions should be made if more netball courts are needed as it is already built for it. Spend \$704,00 to ruin the entrance to Leichhardt, you have got to be joking. Is the Mayor blind or just mental.
			We cant believe that anyone could even think about it let alone proposed doing this
5/.	29/11/2015	Residen t/Park User	I am writing in response to the plan to build netball courts in Shields playground on Darley Road Leichhardt. I live on Darley Road and walk through and use this playground 7 days a week.
			I am appalled that Leichhardt Council is looking to reduce the green space.
			I am equally appalled that your plans are to use a park which is utilised by the local residents for relaxation, games and picnics.
			This playground on Darley Road has no parking available. This will prove problematic for residents.



			This playground is on a main road and is therefore not safe for children to be playing beside. A 500 metre walk away are the netball courts on the other side of the hawthorne canal. These courts are not effectively used and are more often empty. It would be more suitable to rebuild those courts and have them utilised. I am unable to attend the public meeting, however, please take this email as my vote AGAINST the netball courts being built on the Shields Playground site. As a resident of Leichhardt Council, I enjoy the open spaces and greenery which contributes to my overall health and wellbeing. Every other council is becoming more congested. I was of the belief Leichhardt Council under the Greens had more interest in maintaining this. I am disappointed this is proving
6/.	1/12/2015	Residen t/Park User	I think the playground for little children that live in the numerous surrounding townhouses should be extended rather than making it a netball court. There are already a bunch over the bridge. As a mother of small children you cannot always venture far and this area is the ideal area to take them without having to travel to jubilee park or across to haberfield. It works as a backyard for many parents. There are not many small parks close by. What needs to be done is to install traffic lights and a safety wall so cars cannot accidently drive off the road. Also where are the parents of the netballers going to park?
7/.	1/12/2015	Residen t/Park User	I am writing to find out if there will be any basketball facilities at the proposed netball courts. Also will there be some sort of crossing or traffic light installed to deal with the increased pedestrian traffic.



8/.	1/12/2015	Residen t/Park User	I have, last week, received your notification about the proposal to install netball courts in the park area.
		3301	I can not express enough my disappointment in this proposed location. I support the concept of creating netball courts within the council area, however, there are other locations which would better suit the users and local residents.
			Since the light rail has commenced, the parking situation has become horrific for residents. I raised with both council and transport for NSW during that planning stage about parking. In particular I suggested cutting the southern end of park into a small car park or imposing residential parking signs. Both were rejected by TfNSW and council, who indicated that parking was not going to be a problem.
			Now, with the proposed netball courts, where are all the parents going to park? It is fruitless to suggest or think that they will lot drive there, like what was suggested with the light rail?
			What consideration has been given to the proposed location and the fact Ashfield council has netball courts on the opposite of the canal/dog park. I acknowledge this is, at this stage, is a different council area. (When the council merger goes ahead, there is plenty of space on the Haberfield side for additional netball courts)
			Since receiving the notice, I have been informing my neighbours of the proposal, none of which are supportive. I have asked them to also write to you and Council to politely object to this proposed location.



			I accept that the park may be needed for something, however the impact on residents, again, does not seem to be an matter considered by those charged in council with responsibility. Dog Park - additional fence and flood lighting
			I also draw your attention to my previous emails to Council seeking that flood lights been installed in the Hawthorne canal dog park for use in winter to allow increased times of usage and increased safety. I also asked Council consider paying for a fence to run along the existing foot path, which runs from the canal bridge, through the middle of the dog park, to the light rail stop. This would completely enclose the footpath and provide an ability for council to designate an area for small dogs only or puppies to run around - currently this area can not be used by dogs unless on a leash. Prior to the installation of the footpath - the entire area was used by dogs. Two of your fellow ward councillors wrote back to me, expressing their support, however no progress has been made on the lights or fence.
			my suggestions.
9/.	2/12/2015	Residen t/Park User	I am writing to object in the strongest possible terms to the Council plan to take away parkland at Darley Road Leichhardt and replace it with hard surface netball courts. The reasons for my objection include that there are better options both within the LGA and within metres of the LGA that don't involve loss of greenspace, that it is a very expensive waste of ratepayers money particularly when there is about to be a Council merger, and that it would exacerbate existing parking, traffic, noise and safety issues.
			I have read the related Council report from 2014, as well as the current draft concept plan (the plan). I ask that Councillors review the report as well as the concept plan when considering my comments.



The greenspace ratio is Leichhardt LGA is already low. This makes it worse. Further, the upcoming construction of 140 units in Allen St, a block away, means that there will soon be up to 400 more residents accessing Leichhardt parkland and light rail in the immediate area. This plan would remove the closest parkland to what will be a very large unit development, which is in the same two-block area as the existing very large Allen/Lyall Street and Darley Road/ William Street developments. The plan takes away greenspace from one of the most densely populated area in the Leichhardt LGA.

The Council's 2014 report says there are other options in the LGA that are already hard surface, but that these can only hold up to 3 courts and 4 courts are required so Darley Rd is the preferred option. The current Council plan at Darley Rd is only for 3 courts anyway so the rationale for the site as the preferred option because of 4 courts, doesn't make sense. The other options seem more sensible, and one is close to Leichhardt High School where there are sporting facilities and with a small amount of vision and cooperation with the Dept of Education, there could be an arrangement to share the school facilities out of hours and in return, give the school additional nearby facilities.

Courts could be multipurpose, to maximise sporting involvements.

There are longstanding netball courts on Hawthorne Parade, within a few metres of this proposal. They are easily accessible from light rail and there is local parking available. According to the Council's 2014 report, there are only 3 clubs in the Leichhardt LGA with 600 odd netball members. The report says that these clubs are already using the existing Hawthorne Parade courts and have done for many years and gives no reason why they can't continue apart from they are not in the Leichhardt LGA. Surely Council is not planning to spend that amount of money and create the problems the plan will create, simply because current facilities are a few metres outside the current LGA



boundary. I note that the current merger proposal with Ashfield and Marrickville Councils would remedy the LAG reasoning invalid anyway. It would make more sense for Council to wait until after the merger, and have all sporting facilities in the new LGA considered as a whole, rather than to try to create expensive niche infrastructure legacy projects in the meantime.

Financially, given the inevitable merger it seems incredibly irresponsible to spend \$704k of ratepayers money on a niche sport for less than 600 people who are already being serviced. Surely there are capital projects of greater need. Why not consult with Ashfield council and put money towards upgrading their courts to multipurpose courts which would cost less and deliver more sport options to all residents in the area. The type of narrow thinking demonstrated by this plan is unfortunate and leads to a perception that perhaps merged areas do deliver better resident services.

Parking in the area and in Lyall Street in particular is already insufficient on evenings and weekends. This has become worse with the light rail and residents in Lyall Street who don't have parking, like me, often have to park as far away as Flood Street. Add to this the new units in Allen St which will have 132 spaces for up to 400 people. A residents 2 hour parking scheme may resolve the current parking issues, but not if there are sporting/netball courts as the parking for those is short term. This is an unfair burden on Lyall St residents who are directly opposite the proposed courts. I did contact Council about the possibility of a residents parking scheme when the light rail was being constructed, but I was told that Council would only conduct an assessment of the street's parking use during business hours (which is the only time when parking is not a problem) so the assessment would be pointless in terms of the parking issue, both current and in terms of the proposed plan.

Lyall St is already quite noisy, with Darley Rd traffic noise, plane noise (up to and beyond 11pm and after, often restarting at 6am), light rail



announcements and St Columbas school announcements all heard clearly from Lyall St houses. Most houses are wooden and have little protection from noise even if insulated, and as they are close to the kerb, people talking in the street and getting in and out of cars already wakes residents up in the morning and evenings. The longstanding courts on the Hawthorne Parade side are very noisy, and they are only used during the day. However those residents don't have the Darley Rd traffic noise and the direct plane noise as well, and those houses are brick and generally more set back from the street. 7 day night and day announcements, sporting noise and people coming and going is an unfair noise burden on Lyall St residents who already taking on more than their fair share of noise. I noted with wry amusement that the Council's 2014 report basically said the area was already prone to noise so it would be fine to make it worse. I disagree with that logic.

The light rail station at Hawthorne was welcomed by residents as there was the existing greenspace on the approach from the Leichhardt side, and both the station and the approach can be clearly seen from Darley Road and so it is aesthetically appealing, and safer for residents. This proposed plan removes both of those positives, and means that children who currently exit the light rail and walk home themselves, could easily be followed with much more limited vision from the street and with it being much easier for someone to loiter in the light rail station area or near the proposed netball courts without attracting attention. This is particularly the case at night, where the Shields Playground park immediately adjacent and Lyall Street itself are poorly lit and where any incident would be masked by the noise of the netball courts. Worse, there are public toilets proposed right next to the light rail exit path and fencing around the courts, where anyone approaching or leaving the light rail station has to go directly past there and has no avenue of escape if approached, and could not be easily seen. This creates a real safety risk.

The crossing at the bottom of Lyall St across Darley Rd is dangerous and speeding well above the 50km limit is commonplace. The plan involves more



crossings, people being dropped off and picked up with cars stopping frequently. The 50km limit is there because that stretch of road is too narrow to safely accommodate the traffic flow it already has.

In summary, for the reasons above, I urge Council not to proceed with its plan to construct netball courts on the Darley Road parkland.

(Additional Comments 9/12/2015) 1. It is clear that there are other alternative sites for netball or better still, multipurpose courts that would not affect residents and would not remove almost all of a greenspace area. These include Callan Park, Leichhardt Bus Depot, White Bay and other parks in the area. At the meeting explanations like 'we've asked the State Govt but they didn't get back to us' were given. Council seems intent on hastily spending \$704k without a measured approach and without any proper approach to what are obviously better solutions that might take a little time and persistence, and perhaps a small financial contribution rather than a large one. I understand that netball clubs are lobbying for fast action, but Council should ensure that it doesn't create a permanent problem in the LGA, because it was in too much of a hurry to be seen to be doing something, or because it was flagged in the year's budget. I request that all options are explored thoroughly and with innovative thinking.

- 2. Any review of parking in Lyall Street needs to be conducted on the nights and weekends when the courts are proposed to be used.
- 3. The Council flyer says the courts are for training and competition for 66 clubs, yet at the meeting this was described as a bit of training for 3 clubs during the week. It appears that Council is intending to say that to residents that the use is minor, construct the courts and then use them 7 days and nights as originally intended. None of these issues arise if the courts are not right next to houses.



			4. There was a suggestion at the meeting that the greenspace is not heavily utilised by residents. Firstly this ignores the well documented mental health benefits from simply walking through or viewing greenspace, eg when walking to or viewing from the light rail. Given the construction about yo happen within a block, and the constant view of passengers passing on the light rail, this is a significant impact. Secondly, Council said they intend to study the physical usage of the greenspace. Council has put no infrastructure, shade, seating, fencing or amenities on the greenspace site, which significantly limits its possible uses. Any study of physical use must consider what the usage would be if Council put in minor infrastructure of the kind that it puts in every other park in the LGA. The dog park and Hawthorne Parade show what usage is with a few facilities. Otherwise it could easily appear that Council deliberately did not provide infrastructure on this site so that it could not be used properly, and then proceeded with a study that unsurprisingly, showed it was underused.
10/.	3/12/2015	Residen t/Park User	I have been reading the submission to put netball courts on the corner of Darley road Leichhardt and am greatly disturbed by the proposal. It is almost as absurd as the proposal to put a child care centre on this busy corner. I have been a resident of Leichhardt for nearly 5 years and currently reside on Foster Street near the Darley/Foster Street roundabout. When I moved here parking near or outside my home was no issue, traffic flowed freely along Foster Street and people held picnics in Shields playground. Within the 5 years of my residency here, we have had green space taken away, traffic regularly comes to a standstill outside my house on any given day, I often have to park a block away from my house and picnics in Shields playground are limited due to the often long grass and the path that now goes through the middle of it.



All this, I attribute to the introduction of the light rail which was initially a fantastic way to travel part way into the city however no parking was provided which means our street parking is often filled with commuters. The park where we used to picnic in was cut in half for a pathway to the light rail, only one of the 6 trees planted as a token to keep the area green, has survived and because path from the south is not in the local 'track' dirt paths have become apparent. There are plans for 100's of units on Allen Street that I believe don't have at least one car park per unit and now you want to install netball courts on an incredibly busy road with very little extra parking, more lights, traffic and noise.

This proposal also blocks the path to the light rail and if the current plans are followed from my house I may have the added delight of having to walk past a public toilet block twice a day to get to the light rail and each morning when we go to the dog park.

Crossing at or near the Darley/Allen/Foster Street roundabout is always a game of Russian roulette and with the added traffic the thought of adding lights or a road crossing will only hinder the already dysfunctional traffic flow. There is also the issue that when driving, you cannot turn right into Foster Street from Marion Street heading west, because of this, many of us who live on the west side of Foster Street use Daniel Street as a rat run to access parking on the west side of Foster Street or we do U turns at the end of Walter Street. With the angle parking in Darley Street, the traffic along Daniel Street will increase dramatically and accessing the west side of Foster Street will be further hindered. Daniel Street will no longer be a peaceful side street to walk down on the way to the park but a main thoroughfare. Is this why recently and currently there are so many house sales in this street?

This proposal is enough to make me seriously consider selling my house that I planned to live in for many years as the traffic will be a huge issue. Traffic is



			the reason I moved out of Surry Hills and this type of proposal combined with the lack of added parking is ludicrous. Netball courts, increased units and public transport with minimal increased public parking is outrageous. I am unable to attend the meeting on the 5th and would like to acknowledge that I as a local rate payer who access the dog park twice a day, 7 days a week and the light rail twice a day at least 5 days a week, I am completely against his development
11/.	5/12/2015	Residen t/Park User	Please save the grass! We don't need anymore hard surfaces. There are netball courts within cooee of this green space that are under utilized even during netball season. A new housing development at Allen and Flood Street has very little green space included and this patch with become even more important. Lots of locals with small gardens use this green space for kicking a ball, playing games that can't be played in their own small spaces and relaxing. Parking is already a huge problem in surrounding streets due to the draw card of the light rail. We strongly object to the building of netball courts on this green space - it is unwarranted and a waste of council time and taxpayers funds.
12/.	5/12/2015	Residen t/Park User	Whilst I support encouraging all people to get out and exercise and playing sports like netball are a good way of getting people active, I question the location of these courts. 1. There are netball courts located within 200m of your proposed location. Yes, they are across the canal in Haberfield, but I don't see why we are so insular that we can't



			have residents in Leichhardt, particularly the western side of Leichhardt gain easy access to these courts. \$700k is a lot of money if the justification is that the courts have to be in Leichhardt. Have you also considered how this position may change following proposed council amalgamations? 2. What are the plans for parking for these courts? I see very few families walking to local sports. 3. The proposed location and plans show the courts extremely close to a busy road (Darley Rd). I question the safety of this location. Leichhardt has limited space for the development of this type of facility, however I have seen the sporting fields developed in Callan Park and I would think this is a better location for some more recreational facilities.
13/.	5/12/2015	Residen t/Park User	Dear Council, Why on earth are you considering this option. My kids (and plenty of others) grew up using this patch of grass why would you get rid of it. It has already been halved in size with the light rail access, we do not want to lose the rest of it to more netball courts when there are already netball courts within 100 metres of this green space that are under utilized even during netball season. A new housing development at Allen and Flood Street has very little green space included and this patch with become even more important. Lots of locals with small gardens use this green space for relaxing, kicking a ball, playing games that can't be played in their own small spaces.



			Parking is already a huge problem in surrounding streets due to the draw card of the light rail. We strongly object to the building of netball courts on this green space - it is unwarranted and a waste of council time and taxpayers funds.
14/.	5/12/2015	Residen t/Park User	We are writing to strongly object to the proposed netball courts on Shields Playground Leichhardt. This objection is due to the following 3 points: • Increased traffic and parking
			Safety
			Removal of general use green space
			Increased Traffic and Parking Since the opening of the Hawthorne light rail stop the roads around Shields Playground have seen a significant increase in traffic, and the full utilisation of the limited available parking. The proposed construction of close to 200 apartments at 141 Allen Street, will also see significant pressure on local roads from both an increase in traffic and also from a parking perspective. We therefore feel that it is unacceptable to further add to the parking and traffic congestion in the area by building 3 netball courts.
			Safety We are extremely concerned about the safety of both the proposed users of the new facilities and those living in the surrounding area. Darley road is very busy, especially at Peak times, and this would be when the proposed netball courts would be used for evening training. The increase in traffic, and pedestrians accessing the facilities, which border the already busy Darley Road is a recipe for disaster, with the likelihood of serious injury to pedestrians trying to cross the road increasing significantly. We also believe that an increase in ball sports in the park is likely to lead to balls landing either on the road or rail tracks, again increasing the likelihood of



			a significant accident for both road users and players/parents running onto the road to retrieve balls. Removal of General Use Green Space Shields Park provides general use green space, of which other similar areas are extremely limited. With the building of close to 200 new apartments in Allen Street, the necessity for such open space becomes an even stronger requirement for the residents who will have no outside space in this development. To turn this space into specific use, limited to winter evenings only (the netball season) is unacceptable, and rather than increasing sporting facilities in the area, is actually severely restricting local resident's access to recreational facilities and green space. Alternative Sites We are keen supporters of local sport, and understand the need for netball facilities to be made available, but believe the selected site is completely inappropriate. We believe that suitable alternatives would be: • Callan Park
			The unused area of land previously part of the Leichhardt Dog Park — we understand to locate netball courts here would require the removal of a long standing fig tree, but in our view better to lose one tree than a unique open space. This location is safer for players/parents, located nearer to additional parking on Hawthorne Parade and would mean that local Leichhardt residents would not lose usage of a valuable green space.
15/.	6/12/2015	Residen t/Park User	I am disappointed to hear of plans for netball courts at Darley Road, given how many courts there are just on the other side of the canal.
			I support use of some of that land for public purposes, as I know it's not a park. And I'm not a complete nimby, as I support childcare use there. How



			much better to have childcare near a light rail. Much more likely to be used. Slim chances of people catching the light rail to netball matches or practice. My objections are: 1. The area would be much better used for a childcare centre, a more useful, and used, idea. I suggest the location for such childcare facilities would be in the larger area, where the two courts are drawn on your plan. 2. Weekend traffic and parking. I hope there will be a way this doesn't spill into residential area, including Daniel Street. 3. The single court (on the south? side) had a tunneling works to do with some infrastructure a few weeks ago. Presumably you know about the access needs of the utilities that have cables or pipes under here, however. If there weren't four courts already just across the canal, it might be different. Who cares if they're Leichhardt or Ashfield council courts? Who cares if they need to train "outside of local government area"? However, I do care if they have to travel a long way from home to travel. But have you done proper analysis of that? It doesn't matter where the teams are based, it matters where the families are based. And it matters how far they have to travel for sport compared to how far other sports have to travel for sport. Have you done that analysis?
			If there really is a desperate shortage of netball courts, then in my mind it comes down to which need is more desperate, childcare or netball? I say childcare.
16/.	7/12/2015	Residen t/Park	I am writing to object to the Councils Plans at Darley Road Leichhardt.
		User	I have been in Lyall Street for the past 32 Years and it has become near impossible to park in our own street, Many times I have to park in Flood Street since the Light rail has opened, With this introduction of netball courts on Darley road where there is no provision for the amount of cars there on the



			weekend and nights people will park in Lyall Street adding to the problems with parking. Just about all the residents including myself that parallel park in Lyall Street since the Introduction of the Angle parking have had their Cars damaged by people not familiar with the street and its width, I have been out the front of my house and a Car reversed into a trailer I borrowed and just driven off. I have Four grand children and we love playing ball down the park, This proposal is ridiculous as there is a netball courts less than 100 meters from Darley Rd which already has all the infrastructure and Netball courts. Also with netball courts on Darley road you will have small children running around and with their parents watching the net ball game and not concentrating on the younger children there could be a Tragic Accident, The park is to small as is.
17/.	7/12/2015	Residen t/Park User	I urge you to consider this and do not destroy our small park. I am writing to object to Council's proposal to remove passive open space area at Darley Road Leichhardt and replace it with hard surface netball training courts. I am a resident and ratepayer from 1/8-26 Darley Road Leichhardt. I have lived in this location for the past 11 years. I seek that Council and councillors who are to vote on this proposal review Council's 2014 report as well as the concept plan when considering my comments. Firstly let me say I understand that everyone suggests improvements are required, just not in my backyard, which is difficult for Council. It is clear that development and progression must take place, however the proposal for netball courts in Darley Road has, in my view, a number of detrimental effects on the area as follows: 1. Consideration by Council of this proposal, just because the four netball



courts, less than 100 metres away, are located in another Council area, is to use the words in the Mayors recent correspondence, "simply unacceptable". The longstanding netball courts on Hawthorne Parade, less than 100 metres southwest from this proposal are easily accessible whilst there is established parking available, traffic volumes on adjoining roads are less, with traffic calming devices already installed to facilitate player safety.

According to the Council's 2014 report, there are 3 netball clubs in the Leichhardt LGA with circa 600 members. The report and a website search indicate the clubs are actively using the existing Hawthorne Parade courts, have done so for many years and provide no rationale why that cannot continue. Leichhardt Council has also invested into multipurpose two flood lit courts at Cohen Park in Annandale which will shortly be completed providing two courts for winter netball training. These courts will likely reduce some participation from the Hawthorne Parade courts, further diminishing the value of the Darley Road proposal.

I also understand that Council's Recreation and Needs Study (2005) highlighted a shortage of netball courts within the Leichhardt LGA, notwithstanding for Council to spend significant funds and affect residents, simply because current well utilised and purpose built facilities are a few metres outside the current LGA boundary is short sighted.

2. According to its own report, Leichhardt has significant deficiencies in open space provision: Leichhardt has an open space ratio of 1.65 ha /1,000 people. The national standard is benchmarked at 2.8 /1,000 people. To further diminish passive open space area based on a dated and soon to be irrelevant Recreation and Needs Study is wasteful and



inflammatory.

3. Council is currently facing amalgamations under the "Fit for the Future" program and it is clear that for council to remain ignorant of this potential is simply unacceptable. Should the amalgamation occur with Ashfield then Council would be in the position of duplicating infrastructure within 100 m of existing. Whilst I understand that Council business cannot be placed on hold for all developmental progress", announcements in regards to the "Fit for the Future" program are expected within weeks and it would validate the NSW Government position, if Council acted unilaterally without an understanding of the final outcome.

This outcome may also result in Council's 2005 Recreation and Needs Study being null and void, requiring a new study across any revised boundary and resulting in this proposal being an expensive and unwarranted niche infrastructure legacy with ill-considered ongoing OpEx costs to rate payers to maintain.

4. Councils mandate means that it is required to consider strategically, developments such as these. Council also has traversing the various processes, a development proposal for 141 and 159 Allen Street, Leichhardt. Council should be aware of this given that the Voluntary Planning Agreement is indicatively valued at \$3.9m. This location is some 100m east of the proposal. This development proposal identifies a potential for up to 178 units, which means that there may soon be up to 400 or more residents accessing Leichhardt parkland and light rail in the immediate area. The hard surface netball training courts proposal effectively removes existing passive open space area at Darley Road, the closest parkland to what will be a significant unit development and



will result in a more dense population area.

5. Parking in the area is already insufficient and availability for rate paying residents has diminished since the Light Rail was established. Despite written suggestions that parking post light rail may be problematic, appeals for a solution were summarily dismissed, suggesting passengers would walk to the station. I live here and I can tell you that does not happen. The reality though is that parking in Darley Road, Allen Street and Lyell Street have all been affected to the extent that residents are no longer able to park in proximity to the homes.

In terms of traffic impact, it is clear there will be significant impact on the surrounding road network as a result of the proposal, pedestrian traffic will increase, specifically in winter (when netball is played). This area has consistently demonstrated a propensity for wet road motor vehicle accidents emanating from traffic northbound on Foster through the roundabout onto Darley where vehicles lose control and slide across the footpath and into the reserve. I am understand that the Mayor is aware of this, as correspondence outlining the recurring problem previously has been referred by the mayor onto the relevant Minister for reply by the road operator, NSW RMS.

I note that item 6.05 in Councils meeting of 24 June 2014 advises that the investigations into the hard surface netball training courts proposal were to include reporting the financial implications of such development and any traffic or other impacts that the development may create.

This seems to be lost in item 2.4 of the November 2015 meeting, where it has changed to... "Council has set aside a budget of \$550,000 for this project (this does not include the car parking improvements which will be funded separately).... Council's paper suggested parking



			will be dealt with separately, however there is no visible understanding of potential costs, traffic volumes, pedestrian requirements and alterations to the amenity of the area. The program must be considered and funded holistically, not as a piecemeal solution. Council should take into consideration and take some guidance from the traffic and transport review related to the proposed residential development at 141 – 159 Allen Street, Leichhardt, some 100m from the proposed netball court location. 6. Item 6.05 in Councils meeting of 24 June 2014 "Netball Provision Within The Leichhardt LGA" indicates that for the two larger clubs (Tigers Netball Club and Leichhardt Wanderers Netball Club) up to four courts would be required to support the number of teams training at one time and clubs advised they would not hire two courts from Council. Two courts would be sufficient for the Balmain Wolverines. The 3 court proposal for Darley Road only addresses the needs of a single club, which will be satisfied by the soon to be competed Cohen Park courts in Annandale. In summary, for the reasons above, I object to the Council proposal to construct netball courts on the existing Darley Road passive open space area.
18/.	8/12/2015	Residen t/Park User	We are residents of Daniel Street and this is the next proposal on this site following on from a Daycare Centre a few years ago. The Public Meeting was missed by both of us due to the short notification of time and date plus the fact we work on weekends. There are a few points to consider as to why we deem the courts unsuitable for the location.



Just across the light rail tracks and canal, there are the netball courts and although not deemed as Leichhardt they are very accessible and are dormant for the majority of time. We are active users of the parkland and cannot imagine why we need such a saturation of courts in such a close proximity. A timeshare between councils/netball clubs could be arrange therefore not costing Leichhardt residents for installation and ongoing maintenance of something they may not ever use.

The Shields playground and the surrounding park are a wonderful green space for what is a busy road corridor from the city west link. The site is visually a great champion of Leichhardt as it opens up into what otherwise is a built up area.

The proposal of the 6 storey complex on Allen Street is still planning underway and still more resident and council consultation is required.

The business of Darley Road and the location of the courts could add extra pressure on our street for parking. We currently have an increase of cars in the space due to visitors parking to access light rail, the dog park, and the Aussie Bum Company's workers parking to work.

Another disturbing factor is the Toyota Mechanics located on Marion Street that have a back exit on Walter Street. They use the backstreets including Daniel Street as a service test area. We have not written to council thus far about this but there is considerable compression braking and speed associated.

We believe that there are many residents that would be opposed but are not aware of the letter.

Please note the link on the letter dated 27 November 2015 was not correct



			and was a 404 error. Thank you. We look forward to a response and an update on councils finding.
19/.	8/12/2015	Residen t/Park User	I would like to present the following objections to the above proposal. The green space on Darley Rd is adjacent to an increasingly busy state road. If children are using the park for sport and recreation, I fear that children's lives may be in danger as they get in and out of cars on Darley Rd. Safely crossing this road is quite challenging.
			Passive green space serves both an aesthetic function and a way to reduce heat and pollution.
			3) Many changes have been proposed for Leichhardt including the ridiculous Urban Growth proposal that involves building many apartment blocks. Green space is becoming increasingly valuable and we should not pave it over with asphalt.
			 There are many netball courts across the Hawthorne Canal in Ashfield Council. They are hardly ever used.
			 The green space that is being proposed is very narrow. Balls may escape the courts onto roads, causing problems.
			6) A lack of parking space in the area may become problematic for residents. Many people park at the bottom of Allen Street to go to the dog park, go on the light rail etc.
20/.	8/12/2015	Residen t/Park User	To whom it may concern, It has been brought to my attention that council has decided that it may



	1		1
			consider constructing netball courts on Darley Road, near the Hawthorne light rail station.
			I'm not sure on the wisdom on this proposal and as such, object to it, as outlined below
			- Lack of parking - Lack of green space
			- Noise pollution - Safety
			- Waste of money, especially considering there are netball courts not even 200 metres away, across the canaloperated by the soon to be merged Ashfield Council
			This is not a smart idea
21/.	9/12/2015	Residen t/Park	I object to the location of these Netball Courts on Darley Road near Hawthorne Station.
		User	There is not enough parking for the light rail station, let alone, the addition of netball courts. Additionally the units which are going to be put on the corner of Flood and Allen will put pressure on parking and they have not gone in yet. Hence the Netball courts in this proposed location will put TOO much pressure on the existing local residents parking.
			Additionally Darley Road is a very 'fast' road, adding a sporting area so close to such a fast road seems to be a bit dangerous.
			Please review and find an alternative location, I've been lead to believe there was a proposal done in 2010 that had better locations suggested.
22/.	9/12/2015	Residen t/Park User	A neighbor has brought the following item to our attention just in time for us to submit comment as local residents.



http://www.leichhardt.nsw.gov.au/About-Council/Have-your-say/Other-Matters-for-Consultation/Draft-Concept-Plans-for-Shields-Playground-Darley-Road-

We've really enjoyed the amenity that living in our particular street in the Council area for over three years has brought. We also believe we well understand Council's responsibility to ensure the area develops to meet the needs of all in its community.

But given the paucity of open space in our particular location, the decision to propose a development of three netball courts in a narrow space corridor, that provides very little footprint for anything else seems very odd indeed. Even more odd is that just across the canal, albeit in a competitor Council's zone, there are at least five (perhaps seven?) existing netball courts available.

Further to this, there is not a lot of detail about the proposal on the Council website that provides any indication that there's been due consideration of the relevant issues associated with access, traffic management and vehicle parking.

Given where we live in Lyall Street, we fear the worst for our local environs and quality of life when we know that a team sport such as netball will bring with it many cars requiring access and parking in the surrounding streets. I'm not sure if you've spent a lot of time in Lyall Street, but I can comment with some knowledge and experience that the advent of a light rail stop just 200 metres from our front door has already given rise to significant additional commuter parking in the local area. Add to this a large number of cars parking and vehicle movements as a consequence of a team sports facility development that barely appears to fit within the footprint of the current Shields Playground, we anticipate there'll be significant parking and child safety issues for us to have to consider and respond to.



			We understand if you feel our opinion is subjective given where we've chosen to reside, but we're assuming that is the reason why the Council puts such proposals up (albeit in a less than prominent location on the website) – to gauge public opinion and determine if the proposed investment will be worthy of the undoubted grief that should be loudly communicated by affected local residents.
			I reiterate that we feel privileged to live where we do within the Council area – that sense of privilege will, however, dramatically diminish if Council proceeds with this particular plan. With limited detail available to comment on, we can only advise that the current plan appears largely impractical and we oppose it strenuously.
23/.	10/12/2015	Residen t/Park User	Hello I attended the meeting on 5 December, and along with every other person there (including the 4 women behind us from the netball associations) voiced our opinions about the inappropriateness of the courts. Your proposal also contains a bunch of "errors" which leads a number of us to believe the whole proposal is untrue. For example, point 1 below. • How can the toilets be locked at dusk if the courts are only to be used
			 3 nights per week for training - totally inconsistent. And what a waste of money to install toilets for less than 6 hours use per week, which is what you promised at the meeting The site is not safe given Darley Rd traffic volume & accidents. This will only worsen when the Allen St development goes ahead. 195 properties with an average of at least 2 cars each. Don't kid yourself that this won't be the case. And if the parking is secure underground, then the spots will be used for storage in a lot of instances & the occupiers will look for street parking. Leichhardt council promised it would bring in residents parking around the whole area and NOT issue



- residents stickers to anyone in the complex. It only works if you enforce it & book people.
- The parking is a major issue. The road West of the roundabout is already dangerous it is IMPOSSIBLE to safely navigate the LH curve at the railway line when people are parked on the curve. This whole section needs to be made "NO STOPPING" and monitored. At the moment, with the huge truck/vehicle that has been parked there for weeks, you cannot even fit 2 cars through (1 each way) at once when people park on the Darley Rd side of the street from the roundabout down & around the curve.
- There are numerous more appropriate locations for courts if the council can suddenly decide to house up to 12,000 refugees in Callen Park, then they can certainly get courts put in there also. Or War Memorial Park; Pioneer Memorial Park; Hawthorne Canal in the area no longer needed as off-leash dog park (southern side) The bridge there could be fixed and the toilet block in the Ashfield Park used for both locations. Up near Leichhardt Pool; down near Le Montage; some of the parkland in Whites Creek area (northern); Annandale down the bottom (east side). There's plenty more
- We lose this whole green area to everyone in the area (and it would be used more if the trees you removed were replanted AS PROMISED to provide shade. And maybe a bench or two for people to sit in the shade. It's very biased to say "the park isn't used" - you removed a whole swathe of trees, and the area is forever being used as a site from pipes, cable, works, etc. At the moment, half the southern side is totally inaccessible.
- The land belongs to the state government unless you have managed to pinch it since the whole "let's stick a child care centre in here". And we know how badly that went. People at that meeting who lived in Daniel St, Walter St, Loftus St and Darley Rd said they wouldn't put their children in there.



			FINALLY, WE WERE PROMISED THIS PARK WOULD BE LEFT ALONE AFTER THE LIGHT RAIL DISRUPTED OUR LIVES FOR HOWEVER MANY MONTHS. The nice park was the carrot.
			 As a flow-on from all of this: Where are our park rangers? I am tired of being jumped on by offleash dogs in the area that is now on-leash. I was walking with my neighbour & her 3 year old granddaughter on Sunday. We were coming back over the canal bridge that services Hawthorne LR (our only option since you closed the other bridge) from the Ashfield side children's park. A women walking THREE dogs, 2 of which were easily 25-30kg, was approaching. Dogs NOT under control, not on lead. They ran at the child, who was terrified - she weighs 15kg. We told the woman to put them on-leash. She ignored us. YOU NEED TO FINE PEOPLE.
			 As above. The dogs off-leash problem continues from this park, through the tunnel under the railway line & into the Darley Rd closure. It is often the same offenders. I don't care how well behaved they think their dogs are THE AREA IS ON-LEASH.
24/.	10/12/2015	Residen t/Park User	Dear Sir/Madam, We attended the public meeting held last Saturday on site and wish to formally object to the proposed Darley Road (Shields Playground) Netball Courts. This objection is based on several grounds which are outlined below.
			PARKING It was advised at the meeting that there is the <u>possibility</u> to provide around seven parking spaces in Darley Rd to the west of the roundabout (Daniel St) & maybe some angle parking adjacent Shields Reserve to a total, in all, of around 20-30. The document <i>RTA Guide to Traffic Generating Developments</i> details the parking requirements for specific land uses. It does not advise the parking spaces required for a netball court specifically. It does however



advise that a tennis court would require 3 parking spaces per court. One netball court alone would require significantly more parking than a tennis court. The document *Parking & Vehicular Access Code* produced by the ACT Planning & Land Authority recommends between 15 and 25 spaces per basketball or netball court. This would therefore require between 45 & 75 spaces for three courts. It is already hard enough to find parking near our residence as it is at the moment. Further, there has been a development application lodged for 140 units on the corner of Allen St & Flood St. It is noted that the number of parking spaces to be provided in this development is actually less than the number of proposed units. This will mean parking in this area will be near impossible. We therefore feel the proposal should be rejected on parking grounds alone.

SAFETY

Darley Road links Parramatta Road to the City West Link and is an extremely busy road, one of busiest roads in the area. We have had several incidents with cars leaving road at the roundabout at the corner of Darley Road and Allen Street (the site of the proposed netball courts) crashing into trees and into the park adjacent to the light rail station. One of the proposed netball courts will be at this roundabout and stray balls from the courts may cause even more problems for drivers here. Children attempting to retrieve stray balls is even more of a safety issue.

GREEN SPACE

There is very little passive recreation in the Leichhardt LGA in the vicinity of our residence. The Development application mentioned above is only 120 metres from this area. This will obviously bring many more families to this area who will need such areas for recreation. The loss of this area will put more strain on other such passive recreation areas in the LGA.

LIGHT SPILL & NOISE

Darley Road is very noisy already. There is heavy vehicular traffic, pedestrian traffic from both the light rail and the off leash dog park, as well as aircraft noise. Three netball courts will add another level of noise that will impact significantly on residents already burdened with high noise levels. The proposal states that the courts will be used at night, including floodlights, which, together with the lights from passing traffic, will increase the disruption to night time peace and quiet for the residents on Darley Road.

ALTERNATIVE SITES



		l	,
			There are plenty of sites that could accommodate the netball courts without major change to the current recreational areas or parking. For example: (a) The area to the south of the dog off-leash area (between Hawthorne and Marion light rail stations and the canal) (b) Adjacent to the existing netball courts in Ashfield LGA
			(c) Either side of La Montage reception venue (d) Eastern end King George Park, Rozelle
			All these areas have adequate space for netball courts, have existing parking areas that can be utilised, are not near residential areas, are safe for children and do not impact on the amount of green space available for residents.
			Please re-consider the proposal for the netball courts at Darley Road and ensure that our netballers have a safe and appropriate area for training and competition. We are certainly not against the idea of providing netball courts – there should be plenty – but they need to be in the best place.
			Please feel free to contact us if you would like to discuss this further.
25/.	13/12/2015	Residen	I am a resident in Lyall St Leichhardt.
		t/Park User	The idea of netball courts in the area is not a problem but my concerns are.
			 There is very little green space, anywhere really, so I would assume NO TREES would be cut down to accommodate the netball courts.
			This is a extremely busy road where are the kids and parents going to park and access the courts.
			3. Will courts be fenced in? how do you stop balls and kids from running on the road.
			4. This is also now a busy access point for the light rail stop how will this be



			impacted.
			Its really not a big space it seems like a odd spot to consider.
26/.	18/12/2015	Residen t/Park User	I wish to advice you of my strong opposition to what I consider an unacceptable proposal to replace an existing safe playground for small children with netball courts. Why would you want to replace this valued open space for sealed netball courts in this location? The choice of this area is inexplicable if local values and amenity are considered: Your proposal for such a destructive change in usage of this area is inexplicable to local residents: it is not only valued as an existing community resource for our children, but an unacceptable waste of residents money to destroy something that Council funded not so many years ago. The choice of this area is inexplicable if local values and amenity are considered. 1. The loss of open space and safe play area for children in a built up area. 2. The pending overdevelopment of Flood Street/Allen Street site make a change of usage of this park in favour of a special interest group unacceptable for local residents. 3. There are a number of netball courts in the Hawthorne Parade Park only 200 m's from the Shield's Playground on the other side of the canal; I suggest you drive past on a netball night and see the parking/traffic chaos there. 4. Darley Street hasn't parking availability and traffic congestion would make
			this already unsafe road more unsafe.5. Since you are so firmly in favour of merging Leichhardt Council with
			Ashfield Council we suggest you recommend funding extra courts at the city



west link end of Hawthorne Parade Park – Richard Murden Reserve; this end
of the park is rarely used except as a walk way to the Bay Run area.
6. Callen Park has a number of existing sports areas; netball courts could be included in these space where there are already carious playing fields.
Please take not of the local community interest and concern and look elsewhere for a more appropriate site for these courts. Council has failed us in recommending the rezoning of the Allen Street site for development; the destruction of Shield Street Playground would compound the reduction of local resident amenity.





Reference: #1681442000

26 February 2016

Leichhardt Municipal Council 7-15 Wetherill Street LEICHHARDT NSW 2040

Attention: Mr. Jason Scoufis (Traffic Team Leader - Infrastructure Delivery)

Dear Jason

PE SHIELDS PLAYGROUND, CARLEY ROAD, LEICHHARDT - WETBALL COURTS

Background & Proposal

A new netball court facility and associated amenities are proposed within the Shields Playground in Leichhardt. The proposal includes three (3) netball courts located within the existing open space on the eastern side of the Dulwich Hill Line light rail adjacent to the Hawthorne light railstop.

It is undestood that the courts are to be used for weekday training only, typically between $4:00\,\mathrm{pm}-9:00\,\mathrm{pm}$

The proposal also includes the reconfiguration of parallel on-street car parking spaces to 90° spaces on Darley Road between Foster Street and Darlel Street (net increase of 10° car spaces) and the implementation of 2-hour car parking restrictions (2P Barr-Bprn Mon-Fi). The proposed car parking restrictions are to support the proposed netball courts by ensuring that parking adjacent to the Shields Playground and the railway corridor (non-residential frontage) is available during weekday evening periods, and to provide parking for Shields Playground uses during the day.

GTA was engaged by Leichhardt Municipal Council in February 2016 to undertake a car parking and traffic assessment of the development proposal. The following sets out this assessment

The development proposal is illustrated in Figure 1 and the proposed car parking modifications are shown in $\overline{\text{Figure 2}}$

melbourne
sydney
brikbane
canberra
adelaide
gold coast
to wn svile

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Figure 1: Shields Playground - Netball Court Proposal



Figure 2: Proposed Car Parking Amendments (Immediately south of Shields Playground)



Subject Site

The subject site includes Shields Playground located in Leichhardt and is bound by Darley Road to the east and the Dulwich Hill Line Ight rail to the west (and Richard Murden Reserve on the other side of the Ight rail). Shields Playground currently includes public open space and a children's playground, and is zoned "Public Recreation" (REI) in the Leichhardt LEP.

Shields Playground includes a shared bicycle/pedestrian path connecting Darley Road to the south to the Hawthorne light rail stop to the immediate west and Lyall Street to the northeast.

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The surrounding properties in the wider area predominantly include residential uses, except for the light rail line and Richard Murden Reserve to the immediate west of the site.

The location of the subject site and its surrounding environs is shown in Figure 3

Figure 3! Subject Site & Its Environs



Basemap source: Sydway Publishing Pty Ltd

Car Parking

Car parking occupancy and turnover/ duration of stay surveys have been undertaken by Council on Darley Road between Foster Street and Dariel Street, and Dariel Street between Darley Road and Walter Street during the following times:

Thursday 11 February 2016
 Fild ay 12 February 2016
 Monday 15 February 2016
 5:30 pm and 6:30 pm
 5:30 pm and 6:30 pm

Tuesday 1 6 February 2016
 Wednesday 1 7 February 2016
 B:30am, 1:30pm, 5:30pm and 6:30pm
 Wednesday 1 7 February 2016
 B:30am, 1:30pm, 5:30pm and 6:30pm

Occupancy

The parking occupancy results are summarised in Figure 4 and Figure 5 with detailed results in Attachment 1.

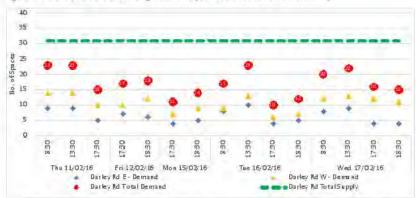
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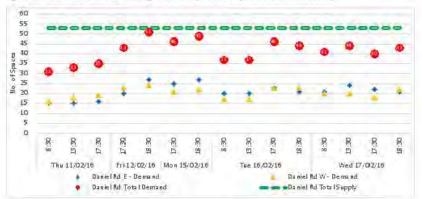


Figure 4: Darley Road Car Parking Demands (b.tw Foster Street & Daniel Road)



The surveys indicate that parking demands on Darley Road are generally moderate to high, with peak demands observed in the AM and midday periods. In terms of evening periods when the netball courts are expected to operate, peak demands were equal to 18 spaces (58% occupancy) with a minimum of 13 vacancies.

Figure 5: Daniel Street Car Parking Demands (btw Darley Road & Walter Street)



Parking demands on Daniel Street are generally moderate to high, with peak demands generally observed in the evening periods. In terms of evening periods when the netball courts are expected to operate, peak demands were equal to 51 spaces (9.6% occupancy) with a minimum of two vacancies.

Duration of Stay

In addition to car parking demand surveys, number plate turno ver/ duration of stay surveys were also undertaken. These surveys help understand whether on-street car parking demands are short-stay or long-stay demands.

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The results indicate that a majority of vehicles parking on Darley Road and Darlel Street are long term parking demands, where vehicles were parked for either half or all of the surveyed peliods [on days where parking surveys were completed from 8:30 am – 5:30 pm/ 6:30 pm).

Specifically, between 56-79% of peak parking demands on Darley Street were long-stay demands, and 58-89% of peak parking demands on Darlel Street we were long-stay demands. The proportion of vehicles parking for either half or an entire day is summarised in Figure 5 and Figure 7.



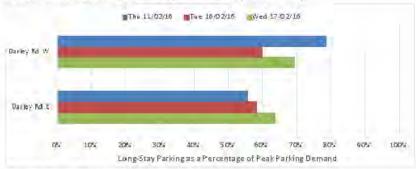


Figure 7: Daniel Street Long-Stay Parking Demand (% of peak demand)



On the above basis, in the order of 60-80% of peak parking demands on Darley Road and Daniel Street could be considered as either long term commuter or resident car parking demands. Indeed, a number of vehicles parking on-street appear to be residential in nature (including a trailer and a caravan) and appear to be from residents using on-street parking for long term parking/storage of vehicles. Some images of the existing parking activity are shown in Figure 8 and Figure 9.

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Figure 8 Danley Road Parking Activity



Figure 9: Darley Road Parking Activity



Car Parking Requirements

DCP Requirements

The car parking requirements for different development types are set out in Leichhardt Municipal Council's DCP and LEP documents. A review of these documents indicates that no specific car parking rate is nominated for netball courts or recreation facilities.

Empirical Car Parking Assessment

An empirical desktop assessment of similar facilities (on a per game basis) indicates the following:

- Willoughby Leisure Centre: 19 vehicles per court (GTA, 2012)
- Thros by Playing Fields, Canberra: 11 Vehicles per court (AECOM, July 2011)
- Bungaribee Parklands, Blacktown: 9 vehicles per court (Maunsell AECOM, August 2007)
- Me adowbank Park Netball Courts, Ryde: 10 vehicles per court parking demand (Ryde Council, December 2009)
- Woodward Park Complex, Liverpool: 10 vehicles per court parking demand.
- John Fisher Park, Warring ah: 20 vehicles per court
- Canoon Road, Ku-iing-gai: peak parking demand of 30 vehicles per court (KMC, November 2005).

A review of the above sites and their proximity to public transport, surrounding residential areas and metropolitan Sydney indicates a parking rate of approximately 10 spaces per court per game could be expected.

It is noted that the above rates are based on a "per court per game" basis and that the proposed netball courts are intended for training purposes only. On this basis, the site's car parking generation characteristics are expected to be lower than 10 spaces per court, noting that there would also be some changeover activity and therefore a localised parking peak could also occur. For the purposes of this assessment, the 10 spaces per court has been adopted and considered appropriate for planning and parking management purposes.

The three netball courts could therefore be expected to generate a car parking demand of up to 30 spaces.

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Car Parking Availability

During proposed weekday evening training times, the minimum number of vacancies available on both Darley Road and Daniel Street is 15 car spaces. Assuming that the implementation of 2P parking on Darley Street adjacent to the park and rail contains resulted in these 30 parking spaces being typically available during netball training times. This immediate parking supply would equal the parking demand discussed above.

If is further noted that, while not surveyed, additional unrestricted parking is available on Darley Road directly adjacent to Shields Playground between Allen and Athol Streets. This parking could also be converted to 2-hour (2P) parking to better leverage the available onstreet parking.

Car Parking Assessment Summary

Noting the proposed parking adjustments on the park side frontage of Darley Road between Foster Street and Daniel Street (+10 spaces and amenaed 2P parking restrictions), it is expected that sufficient parking will be available for the proposed netball courts during the proposed weekday evening training periods.

Car Park Layout

Noting that Darley Road between Foster Street and Daniel Street provides limited connectivity and largely provides local access, the proposed parking 90° parking space modifications are generally provided in accordance with the requirements of the Australian Standard for Off-Street Car Parking (AS2890 1:2004), and are considered satisfactory. The remaining road width would provide adequate manoeuvring space for both the 90° parking and the driveways opposite.

It is recommended that additional bicycle logos are marked within the travel lanes adjacent to the 90° parking spaces and that the parking is rear-to-kerb only to maximise the awareness of the bicycle route and the visibility of cyclists.

In retaining 2 parallel parking spaces at the southern end of Darley Road, cyclist access and sight lines to the Greenway shared path are maintained.

During the site visit, it was observed that there are some pavement and kerb irregularities in the wicinity of the proposed 90° parking spaces, primarily due to tree roots (f) is recommended that this is added to Council's maintenance program for tuture resolution and improvement.

Traffic Impact Assessment

As noted previously, it is expected that approximately 10 vehicles per court could be expected at any one time (i.e. 20 vehicle movements). Assuming training sessions turn over every 1-2 hour, it is expected that each court could generate 20 vehicle movements in any hour during weekday evening periods.

The development proposal could therefore be expected to generate in the order of 60 vehicle movements in any hour during weekday evening periods when training is being held.

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This level of traffic (i.e. an average of one vehicle per minute) could not be expected to adversely or notably impact the safety or operation of the surrounding road network. The roundabout at the intersection of Darley Road/ Foster Street/ Allen Street has appropriate additional capacity for any increase in turning movements and would also facilitate access to the Hawthorne light rail stop pick-up and drop-off zone for any such activity associated with the netball courts.

Other Considerations

Bicycle End-of-Trip Facilities

The Leichhardt DCP states that bicycle parking should be provided at the following rates for Trecreational facility lindoor and outdoor and major)" land uses:

- 2 staffspaces + 1 space per 10 staff
- 2 visitor spaces + 1 space per 100s qm GFA

Noting that staff are not expected at the netball courts (rather these courts are to be used to training purposes), and that each netball court is approximately 465sqm. (i.e. a total of 1,395sqm), the proposed netball courts could be considered to generate a bicycle parking requirement of 1 á visitor bicycle parking spaces.

It is therefore recommended to provide I a parking spaces for bicycles

Conclusion

On the basis of the above discussion and analysis, the following conclusions are made

- A new netball training court facility with three courts and associated amenities to proposed within the Shields Playground in Leichhardt.
- I In the order of 60-80% of peak parking demands on Darley Road and Darlei Street could be considered as either long-stay commuter or resident car parking demands, with an element of on-street storage activity.
- Based on empirical assessment, the three netball courts could generate a car parking demand of up to 30 spaces
- IV The proposed reconfiguration and 2P parking restriction for the Darley Road onstreet parking (south of Allen Street) adjacent to Shields Playground and the railway corridor (non-residential frontage) would make 30 short-stay parking spaces available for park users including the netball courts.
- V It is expected that sufficient parking will be available for the proposed netball courts during the proposed week day evening training periods.
- M. It is recommended that additional bicycle logos are marked within the travel lanes adjacent to the 90° parking spaces and that the parking is rear-to-kerb only to maximise the awareness of the bicycle route and the visibility of cyclists.
- If is recommended that the pavement and kerb irregularities in the vicinity of the proposed 90° parking spaces are added to Council's maintenance program for future resolution and improvement.
- VIII The anticipated additional traffic is not expected to have any significant impact on the adjacent road network.

ŝtandard ne ball court dimensione are 30.5m % 15.25m. 1x court assumed to be 4 65s gm

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IX If is recommended to provide 16 bicycle parking spaces in accordance with the Leichhardt DCP

I trust the above is clear and consistent with your expectations. Naturally, should you have any questions or require any further information, please do not hesitate to contact Ben Simpson or myself in our Sydney office on (02) 8448 1800

Your sincerely

GTA CONSULTANTS

Brett May nard Director

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Attachment 1 - Car Parking Demand Survey Results







Car Parking Demand Survey Results

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ITEM 3.8 RESIDENT PARKING SCHEME PROPOSAL FOR BATTY STREET, ROZELLE

Division	Infrastructure and Service Delivery
Author	Traffic Manager and Senior Traffic Engineer
Meeting date	8 March 2016
Strategic Plan Key Service	Accessibility
Area	Place Where We Live And Work
SUMMARY AND	ORGANISATIONAL IMPLICATIONS
Purpose of Report	To provide Council with information in regards to the proposed Residential Parking Scheme (RPS) for Batty Street and Mansfield Street, Rozelle
Background	At its meeting on 4 th February 2016, Leichhardt Traffic Committee considered a report on Residential Parking Restrictions for Batty Street and Mansfield Street, Rozelle. A number of residents including the Owners Committee Representative for No. 1 Batty Street and residents from Smith Street and Mansfield Street addressed the Committee with views for and against the proposed restrictions.
	 The Committee recommended: a) That a '2P, 8am-10pm (7 Days) Permit Holders Excepted, Area R1' restrictions be installed on the western side of Batty Street, Rozelle between Mansfield Street and property No. 24 Batty Street (northern boundary inclusive). b) That a '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions be installed on northern side of Mansfield Street, Rozelle between Mullens Street and Smith Street. c) That the proposed '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions in Smith Street, Rumsay Street, Reynolds Avenue, Batty Street (eastern side) and Mansfield Street (Smith Street-Batty Street) not be supported due to less than 50% support received from the residents. A copy of the Traffic Committee Minutes is in the Attachment.
	Concerns were later raised by the Owners Committee Representative for No. 1 Batty Street,



	Rozelle in regards to lack of transparency in the RPS investigation/consultation process and the eligibility of residents of No.1 Batty Street for parking permits based on the date of registration of the strata scheme.
	Additionally, at its meeting on Tuesday 23rd February 2016, Council resolved (C43/16): "That this Item be deferred pending confirmation about the date of registration of the strata scheme, with representatives of the strata management to be consulted. The information to be reported back to the March policy meeting and residents to be notified".
	 This report seeks to: Clarify the RPS investigation/consultation process in situations where parking demand varies along the street and is composed of different user groups. Provide confirmation about the date of
	registration of the strata scheme for No.1 Batty Street, Rozelle.
	 Provide confirmation that the carparking provided is in excess of that required in the original approval of the site.
Current Status	Nil
Relationship to existing policy	Nil
Financial and Resources Implications	Nil
Recommendation	That Council adopts the recommendation of the Local Traffic Committee meeting held on 4th February 2016 for item 2.5 (Batty Street & Mansfield Street, Rozelle – Resident Parking Restrictions) as follows: a) That a '2P, 8am-10pm (7 Days) Permit Holders Excepted, Area R1' restrictions be installed on the western side of Batty Street, Rozelle between Mansfield Street and property No. 24 Batty Street (northern boundary inclusive). b) That a '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions be installed on northern side of Mansfield Street, Rozelle between Mullens Street and Smith Street.
	c) That the proposed '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions in Smith Street, Rumsay Street, Reynolds



	Avenue, Batty Street (eastern side) and Mansfield Street (Smith Street-Batty Street) not be supported due to less than 50% support received from the residents.							
Notifications	Nil							
Attachments	Copy of Item 2.5 Traffic Committee Minutes, meeting of 4th February 2016.							



Purpose of Report

To provide information in regard to the RPS investigation/consultation process in situations where parking demand varies along the street and to confirm the date of registration of the strata scheme for No.1 Batty Street, Rozelle.

Recommendation

That Council adopts the recommendation of the Local Traffic Committee meeting held on 4th February 2016 for item 2.5 (Batty Street & Mansfield Street, Rozelle – Resident Parking Restrictions) as follows:

- a) That a '2P, 8am-10pm (7 Days) Permit Holders Excepted, Area R1' restrictions be installed on the western side of Batty Street, Rozelle between Mansfield Street and property No. 24 Batty Street (northern boundary inclusive).
- b) That a '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions be installed on northern side of Mansfield Street, Rozelle between Mullens Street and Smith Street.
- c) That the proposed '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions in Smith Street, Rumsay Street, Reynolds Avenue, Batty Street (eastern side) and Mansfield Street (Smith Street-Batty Street) not be supported due to less than 50% support received from the residents.

Background

In May 2015 Council received a petition from a number of residents along the western side of Batty Street, Rozelle requesting the implementation of a Residential Parking Scheme for the amenity of the residents without available off-street parking. Council also received submissions from residents of Mansfield Street and Smith Street, Rozelle requesting the installation of Resident Parking restrictions in their streets.

The introduction of resident parking restrictions in one street could cause overflow of vehicles into nearby streets; as such Reynolds Avenue and Rumsay Street were included in the investigation/consultation process to reduce the possible future parking impacts in these streets.

Accordingly, a RPS investigation was initiated for the following streets:

- Mansfield Street, Rozelle (Mullen Street-Batty Street);
- Smith Street, Rozelle;
- Batty Street, Rozelle;
- · Reynolds Avenue, Rozelle; and
- Rumsay Street, Rozelle.

Council officers undertook parking occupancy surveys in Smith Street, Mansfield Street, Batty Street and also nearby streets and the results indicated that only some streets experience high occupancy levels. As the introduction of Resident Parking restrictions in one street could cause parking impacts in nearby streets, all residents



within the area that have unrestricted parking, were consulted to assess their views on parking conditions in their streets.

RPS proposal letters were mailed out to the residents of Batty Street on 5th November 2015. The following table demonstrates the response rates received from the residents of Batty Street.

Street	Number of properties	Number of properties responded	Number of properties supported	Response Rate	Support Rate						
Batty Street (Reynolds Ave-Mansfield St):											
Batty Street (Eastern Side)	24	11	3	46%	13%						
Batty Street (Western Side)	14	12	10	86%	71%						

Council's RPS Policy states "A support rate of 50% based on all properties is required to consider the proposal favourably". The above data demonstrates a much higher support rate from the residents on the western side of Batty Street in comparison to the eastern side. This difference in support rate can be attributed to the lack of off-street parking for the residents along the western side of the street. The original RPS proposal was then modified to maintain the unrestricted parking on the eastern side of Batty Street and implement '2P, 8am-10pm (7 Days) Permit Holders Excepted, Area R1' restrictions on the western side of Batty Street, Rozelle between Mansfield Street and property No.24 Batty Street. The modified proposal only gives RPS entitlement to the properties fronting the restrictions.

This is in line with the objective of the RPS scheme outlined in the Roads and Maritime Services' Permit Parking guidelines to "improve amenity for particular classes of road users who do not have sufficient off-street parking facilities or unrestricted on-street parking facilities available".

Report

At the Ordinary Council Meeting held on 23rd February 2016, Council considered the Local Traffic Committee's Minutes for the meeting held on 4th February 2016 and resolved (C43/16):

"That Council adopt the minutes of the Local Traffic Committee meeting held on 4th February 2016 subject to the following change to Item 2.5;

TR16/006

2.5 Batty Street & Mansfield Street, Rozelle – Resident Parking Restrictions

Committee Recommendation (unanimous support):

That this Item be deferred pending confirmation about the date of registration of the strata scheme, with representatives of the strata management to be consulted. The



information to be reported back to the March policy meeting and residents to be notified."

The above task has been investigated and officers have gathered the following information:

Council's RPS Policy states "Dual occupancies, multi dwelling housing and residential flat buildings, subdivisions into two or more lots and the strata subdivision of residential flat buildings, approved after January 2001 are not allowed to participate in a RPS as off-street parking should be provided in accordance with Council's DCP - Parking."

Contact was made with the strata management (Mr J Macdonald) who advised the following:

 SP65243 is a subdivision of the original SP64162 and does not supersede or overwrite the original strata plan, but simply adds lots to the original plan for No.1 Batty Street.

Council's Manager for Legal Services has been consulted on the above and has advised the following:

- The SP 65243 is the more recent strata plan and it was incorporated after Council's RPS policy and as such should be excluded from participating in a RPS scheme.
- An application for a section 96 modification was lodged by Meriton
 Apartments in April 2000 to seek reduction of seven residential parking
 spaces for No.1 Batty Street. This reduced the total number of car parking
 spaces associated with the development from 241 to 234.
- The RPS Policy was enacted to produce some equity in a situation where the State Government is insisting on the approval of units with insufficient parking in the hope that this will reduce car dependency. If Council continues to issue permits we are merely thwarting that objective.
- The RPS Policy is designed to fairly give precedence to people who do not have off-street parking facilities available and cannot otherwise find a space within reasonable distance from their place of residence.

In addition to the above, a review of Development Control Plan No.31 that was prepared and set the guidelines for developing the Ampol site bounded by Robert Street, Buchanan Street, Reynold Street, Reynolds Avenue and Batty Street indicated that the DCP provided traffic management controls on and around the site i.e. street widening and on-street parking guidelines. This is evident on the Batty Street frontage of the site with street widening and on-street parking. This was intended for visitor parking according to the DCP.

Also, under "Item 3.4 Access, traffic management and parking" of the DCP indicated one of the objectives was "To provide adequate parking on the site."



As indicated above, Council in September 2000 approved a reduction of the residential carparking spaces and this was supported as the carparking requirement was still in excess of the amount required by the original approval of the site.

Conclusion

Based on the above review, it is considered that:

- There is adequate off-street parking provided for No.1 Batty Street and this development should be excluded from participating in a RPS scheme and
- the Traffic Committee's recommendation of its meeting held on 4 February 2016 should be adopted by Council as it provides resident parking to the properties in Batty Street on the western side (even numbered) and northern side of Mansfield Street (Mullens Street - Smith Street), whilst retaining unrestricted parking in the area and on the eastern side of Batty Street (as per the adopted DCP) for visitors etc.



2.5 Batty Street & Mansfield Street, Rozelle - Resident Parking Restrictions

Precinct: White Bay	Ward: Wangal-Rozelle

Background

Council received parking concerns from a number of residents in Batty Street, Mansfield Street and Smith Street, Rozelle. They have requested the installation of Resident Parking restrictions in those streets to prevent all-day parking by non-residents in a street with limited on-street parking availability.

The nature of mixed land uses in the area and being within 500m of the bus services on Victoria Road (prior to Anzac Bridge), there is a considerable parking demand generated from residents, commuters, employees and customers.

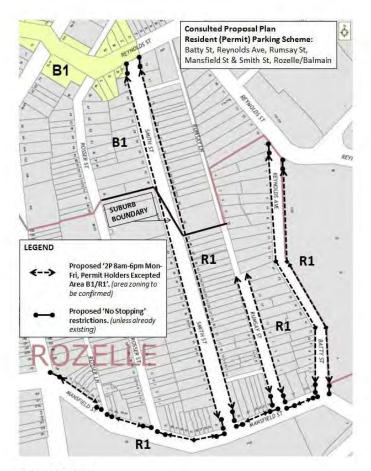
As shown on the following map, the subject streets are currently unrestricted with only a small section of Reynolds Street to the north with existing Resident Parking restrictions.

Consulted Proposal

Council officers undertook parking occupancy surveys in Smith Street, Mansfield Street, Batty Street and also nearby streets and the results indicated that only some streets experience high occupancy levels. As the introduction of Resident Parking restrictions in one street could cause parking impacts in nearby streets, all residents within the area (see consulted proposal below) that have unrestricted parking, were consulted to assess their views on parking conditions in their streets.

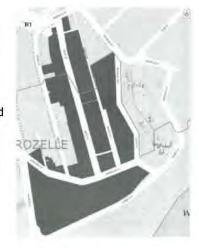
The subject streets were Mansfield Street (Mullen Street-Batty Street), Smith Street, Batty Street, Reynolds Avenue and Rumsay Street.





Consultation

A questionnaire was mailed out to the affected properties (280 properties) in Mansfield Street (Mullen Street-Batty Street), Smith Street, Batty Street, Reynolds Avenue and Rumsay Street as indicated on the attached plan, requesting residents' and businesses' views on current parking conditions and Resident Parking restrictions in their street.





Analysis

The questionnaire survey results are summarised as follows:

Street	Number of properties	Number of properties responded	Number of properties supported	Response Rate	Support Rate
Ma	nsfield Street	(Northern Si	de) in Sectio	ns:	
Mullens Street - Rosser Lane	7	2	2	29%	29%
Rosser Lane - Rosser Street	4	2	2	50%	50%
Rosser Street - Smith Street	11	5	5	45%	45%
Smith Street - Batty Street	9	3	2	33%	22%
В	atty Street (Re	eynolds Ave-	Mansfield St	t):	
Batty Street (Western Side)	14	12	10	86%	71%
F	Reynolds Aver	ue (Reynold	s St-Batty St):	
Reynolds Avenue	11	8	5	73%	45%
	Smith Street (F	Reynolds St-	Mansfield St):	
Smith Street (Both Sides)	71	39	25	55%	35%
	Rum	say Street/La	ane:		
Rumsay Street & Rumsay Lane (Both Sides)	18	11	6	61%	33%

According to Council's policy on Resident Parking, a minimum of 50% support from the properties in the subject section of the street is required for consideration to implement a RPS.

Based on the above results, only Batty Street indicated the minimum 50% support for a Resident Parking Scheme in those streets,

The following information is provided in response to the concerns raised by residents:

Batty Street, Reynolds Avenue and Rumsay Street:

- Residents' Response (3 similar responses);
 - If a residential parking scheme is implemented in the proposed streets it is essential that it is regularly supplemented by active patrols and the routine enforcement of breaches of the illegal parking of motor vehicles contrary to the 2P limit by Council officers.
 - 2. That the residential parking scheme be extended to 2P 8am to 10pm, Mon Sun. The proposed streets are all within close vicinity to commercial business that operate on the weekends including two popular hotels The



Balmain which affects parking on Smith Street and the Bald Rock Hotel which affects parking on Batty Street, Rumsay Street, Mansfield Street, Smith Street and Reynolds Avenue.

- 3. It is noted that residents of the 1 Batty Street apartment complex are ineligible from participating in any proposed residential parking scheme as the complex was approved after January 2001.
- 4. A piecemeal approach would cause an enormous overflow effect which would create further parking amenity and road safety issues for residents in streets without a RPS and off-street parking.

Officer's Comment:

If the proposed resident parking scheme (RPS) restrictions are installed the subjects streets will be added to the roster for regular patrols.

An extended 2P RPS to 10pm and the inclusion of the weekend can be considered based on feedback and its merits being close to commercial and hospitality related businesses.

Council resolved that multi-unit developments approved after January 2001 are not eligible to participate in any existing or future Resident Permit Parking Scheme.

Council's policy on implementing RPS restrictions requires a minimum of 50% support from residents of the subject street to be approved. This may result in RPS restrictions being installed in sections with depending on the results. In some cases a mixture of unrestricted and restricted parking restrictions provides balance for those who are disadvantaged by the restrictions.

Residents' Response (3 similar responses):

There are limited amount of unrestricted on-street parking areas in the Balmain/Rozelle area. My concern is these restrictions may have a negative impact on local businesses, as staff would be using the unrestricted spaces to park for work in Balmain.

Officer's Comment:

The proposed 2P RPS restrictions are meant to provide equitable parking for all road users in areas with high demand by inducing regular turnover for vehicles not eligible for parking permits. For this instance some residents in the area are experiencing immense pressure competing with parking generated from the nearby businesses and Inner Sydney Montessori School. Ideally we encourage business employees working in the area to consider alternative modes of transport if restrictions are implemented. It is difficult to maintain a balance in parking to cater for businesses and residents alike.

· Residents' Response (2 similar responses):

The proposed changes will have significant negative impact on our amenity and the way we live. We are a three person household with 3 cars and a trailer boat. Under the proposal we would not be eligible for parking permits for all our vehicles.

Officer's Comment:

The objective of the Resident Parking Scheme is to manage the limited onstreet parking amongst all road users on a public road. Therefore, it is vital



that the parking demand generated by properties, businesses and School in the area is controlled, so that the number of parking permits issued does not exceed the number of available on-street parking spaces. It is unlawful for Council to reserve parking permits to only residents without limits, under the RMS Guidelines on Permit Parking. Residents may obtain up to a maximum of two resident parking permits per household, less one for each off-street parking space available at the property and a visitor parking permit.

· Resident's Response:

There is no commuter parking problem in the area. The advantage of living in this area is because there are no parking restrictions in place.

Officer's Comment:

The demand for on-street parking in the area is not necessarily from commuters. The nature of the mix of land uses with businesses, a School and proximity to Victoria Road is generating parking pressures which to many residents have noticeably become worst to compete with.

· Resident's Response:

I would prefer 4P RPS restrictions this would allow visitors and still dissuade commuter parking.

Officer's Comment:

2P provides a better turnover as the generated parking demand is not entirely from commuters due to the mixed land use of commercial businesses and School nearby.

· Resident's Response:

Council permitted construction of No. 1 Batty Street units with insufficient parking, too many cars have been generated from the unit complex and they take up on-street parking spaces from residents in Batty Street, who do not have off-street parking.

Officer's Comment:

In the proposed RPS, No.1 Batty Street units would be excluded from the eligibility due to Council's Policy and Development Control Plan, multi-unit developments approved after January 2001 are not eligible to participate in any existing or future Resident Permit Parking Scheme as units should be providing enough off-street parking and not impact on existing on-street parking.

· Resident's Response:

My off-street parking access is via Rumsay Street. The parking issue is caused by so many of the residents with garage access are using it for storage instead. It is hard to find parking on high activity nights at the Bald Rock Hotel. People with garages should be forced to use their garages for cars not junk.

Officer's Comment:



As per Council's Parking Permit Conditions of Operation, residents may obtain up to a maximum of two resident parking permits per household, less one for each off-street parking space available at the property. This will encourage those with garages to use them as the parking permits are limited.

· Resident's Response:

I am disabled and need to find parking close to home.

Officer's Comment:

The Australian Mobility Parking Scheme (MPS) permit issued by Roads & Maritime Services (RMS) allows you to park in any Resident Parking restricted areas. If you hold a MPS permit then you do not need to apply for a Parking Permit.

Alternatively, you can apply for a 'Disabled Parking' Space near your residence by completing the 'Disabled Parking Zone Application Form' available at Council (see http://www.leichhardt.nsw.gov.au/Living-Here/Parking/Accessible-Parking). You will need to provide a medical certificate and a copy of the RMS Mobility Permit.

Mansfield Street:

· Business's Response:

We have over 25 employees and clients so we are opposed to the proposed RPS restrictions as it will be detrimental to our business.

Officer's Comment:

The proposed 2P RPS restrictions are meant to provide equitable parking for all road users in areas with high demand by inducing regular turnover for vehicles not eligible for parking permits. The impact to clients is minimal as the 2 hour turnover should be sufficient for business. This does impact employee parking; however, it is difficult to provide on-street parking catering for all stakeholders: residents, businesses, and school, and ideally we encourage business employees working in the area to consider alternative modes of transport if restrictions are implemented.

Residents' Response (3 similar responses):

For the RPS restrictions to work effectively all streets nominated must be included or else it would impact surrounding streets.

Officer's Comment:

Council's policy on implementing RPS restrictions requires a minimum of 50% support from residents of the subject street to be approved. Therefore it is entirely dependent on the feedback received and this may result in RPS restrictions being installed in sections with some unrestricted spaces remaining to balance out for those who are disadvantaged by the restrictions.

Resident's Response:

There are 5 adults in our household and we share 3 cars. We oppose of the proposed RPS restrictions if we cannot have 3 parking permits.



Officer's Comment:

In accordance with the RMS guideline on Permit Parking, Council can only issue a maximum of 2 x resident parking permits minus one for each off-street parking space that the subject property can facilitate and 1 x visitor parking permit. The proposed RPS is meant to manage the parking situation therefore we cannot have more permits issued than there are spaces available.

Smith Street

Resident's Response:

Would I be eligible for a visitor parking permit so that friends or and family can visit for longer than 2 hours.

Officer's Comment:

All eligible properties are able to apply for a maximum of 1 visitor parking permit which allows a visitor vehicle to park longer than 2 hours during the restricted times e.g. within 8am-6pm Mon-Fri.

· Resident's Response:

I have a normal size car that does not fit in my off-street parking facility so I have to park on the street. I have no issues finding a space to park on Smith Street at any time of the weekday or weekend.

Officer's Comment:

A parking permit may be issued subject to an inspection by a Council officer of the garage/off-street parking facility to determine whether the garage can be used.

Resident's Response:

What is the cost to hold a permit? How will it be verified how many off-street spaces a property has? How many complaints have been made regarding long term commuter parking? Local residents being fined for parking their registered vehicles is not an acceptable situation

Officer's Comment:

Currently, the cost of an eligible resident/visitor parking permit(s) is free of charge. However, there is a replacement fee for lost and stolen parking permits (that cannot be returned) as stated in Council's Fees and Charges. There have been at least 3 residents from each surrounding street requesting Council to investigate the installation of RPS restrictions. Vehicles can only be fined if they are parking contrary to the NSW Road Rules or to the parking restriction in place indicated by signage.

· Residents' Response (3 similar responses):

The major problem for parking in Smith Street is caused by the ISM School with teachers and parents parking during school and evenings. Then there are patrons to Balmain and Bald Rock Hotels parking at night.

Officer's Comment:



Council acknowledges that the nature of mixed land uses in the area and being within 500m of the bus services on Victoria Road, generates parking demand i.e. from the nearby School and Hotels that do not have their own onsite parking which creates further parking pressures for the area. Hence, Council has been requested to investigate a resident parking scheme to provide equitable on-street parking for residents.

· ISM School's Response:

Inner Sydney Montessori School (ISMS) is a specialised school and recruits teachers with additional teaching qualifications from a wide range of areas across Sydney. The school attracts a diverse range of children from the inner west. Staff travel to school by car and require nearby parking on a daily basis. There is no on-site parking available for staff and generally public transport is not an option due to works hours. There are limited unrestricted parking nearby and no public car parks. We understand that only very limited parking permits would be made available for use by ISMS if the RPS proposal is adopted.

Officer's Comment:

Council is aware that any resident parking restrictions will adversely impact the School's staff, however the proposed 2P RPS restrictions are meant to provide equitable parking for residents and other road users in areas with high demand by inducing regular turnover. It is difficult to provide on-street parking catering for all stakeholders: residents, businesses, and school, and ideally we encourage employees working in the area to consider alternative modes of transport if restrictions are implemented. ISMS will be considered as a business and will only be eligible for up to 3 business parking permits based on the school having no on-site parking. Any on-site(off-street parking) facility reduces the parking permit eligibility by one.

Revised Proposal

Based on the analysis and the feedback from consultation, the Resident Parking Restrictions have been revised as shown in the following plan.

Mansfield Street (between Rosser Lane and Rosser Street) indicated 50% support rate while Mansfield Street (between Rosser Street and Smith Street) indicated 45% support rate. However, if the (Rosser Lane-Rosser Street) section becomes restricted it will cause parking impact to the adjacent section of Mansfield Street (Rosser Street-Smith Street). Mansfield Street (Rosser Lane-Smith Street) is also directly opposite a busy auto repair business and the Rosser Street-Smith Street section of Mansfield Street received support from all residents that responded. With all the above factors, it is recommended that Mansfield Street (Rosser Lane-Smith Street) be included for the proposed RPS.





Officers Recommendation:

- a) That a '2P, 8am-10pm (7 Days) Permit Holders Excepted, Area R1' restrictions be installed on the western side of Batty Street, Rozelle between Mansfield Street and property No. 24 Batty Street (northern boundary inclusive).
- b) That a '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions be installed on northern side of Mansfield Street, Rozelle between Rosser Lane and Smith Street.
- c) That the proposed '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions in Smith Street, Rumsay Street, Reynolds Avenue, Batty Street (eastern side) and Mansfield Street (Mullens Street-Rosser Lane and Smith Street-Batty Street) not be supported due to less than 50% support received from the residents.

Discussion:

A number of residents from Smith Street, Batty Street and Mansfield Street addressed the committee and raised the following concerns:

Chair of the Body Corporate advised that the block of units at No.1 Batty Street
was built before 2000 and as such residents of these units should be entitled
to parking permits. Concerns were also raised about the proposed 7 day
restrictions and its impact on visitors.



- A resident of Smith Street raised concerns regarding teachers and staff from Inner Sydney Montessori School parking along Smith Street and hence reducing parking availability for the residents. The resident requested RPS on the western side of Smith Street.
- A resident of Mansfield Street requested that Mansfield Street between Batty Street and Smith Street be included in the RPS scheme, despite lack of resident support at this section.
- A resident of Smith Street advised that he supported the scheme only if all streets are included not a partial scheme as now proposed.

A petition was distributed to the committee members on behalf of the residents of Mansfield Street between Mullens Street and Rosser Lane, requesting extension of the proposed RPS Scheme to include this section of Mansfield Street.

Committee Recommendation: (unanimous support):

- a) That a '2P, 8am-10pm (7 Days) Permit Holders Excepted, Area R1' restrictions be installed on the western side of Batty Street, Rozelle between Mansfield Street and property No. 24 Batty Street (northern boundary inclusive).
- b) That a '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions be installed on northern side of Mansfield Street, Rozelle between Mullens Street and Smith Street.
- c) That the proposed '2P, 8am-6pm, Mon-Fri, Permit Holders Excepted, Area R1' restrictions in Smith Street, Rumsay Street, Reynolds Avenue, Batty Street (eastern side) and Mansfield Street (Smith Street-Batty Street) not be supported due to less than 50% support received from the residents.



ITEM 3.9 REFUGEE WELCOME CENTRE PROGRESS REPORT MARCH 2016

Division	GENERAL MANAGER			
Author	MEDIA OFFICER			
	GROUP MANAGER COMMUNITY AND			
	CULTURAL SERVICES			
Meeting date	8 March 2016 Policy Meeting			
Strategic Plan Key Service	Community well-being			
Area				
SUMMARY AND ORGANISATIONAL IMPLICATIONS				
Purpose of Report	To advise Council on current situation regarding a Refugee Welcome Centre in Callan Park.			
Background	Council resolved (Ordinary Meeting February 2016):			
	That Council, having now received responses from both the State and Federal Governments in respect to a proposal to establish a Refugee Welcome Centre in Callan Park, report to the March Policy Meeting providing an update on the correspondence and any other developments.			
Current Status	Updates Council on recent correspondence regarding a Refugee Welcome Centre in Callan Park.			
Relationship to existing policy	Aligns			
Financial and Resources	This proposal is consistent with the recent s23A			
Implications	Guidelines issued by the OLG in relation to financial expenditure.			
Recommendation	That Council receive and note the report.			
Notifications	Continuing notifications to stakeholders through Enews, website and social media.			
Attachments	 Letter to Father Smith Letter to Minister Dutton Letter to Minister Speakman Letter to Peter Sheargold Position Statement Refugee Welcome Centre Response from Minister Speakman Response from Peter Shergold AC Response from Peter Dutton - Department of Social Services Second Letter to Peter Shergold AC Letter to the Premier 			



Purpose of Report

Report to Council responses from both the State and Federal Governments in respect to a proposal to establish a Refugee Welcome Centre in Callan Park.

Recommendation

That Council receive and note the report.

Background

Council resolved (Ordinary Meeting February 2016):

That Council, having now received responses from both the State and Federal Governments in respect to a proposal to establish a Refugee Welcome Centre in Callan Park, report to the March Policy Meeting providing an update on the correspondence and any other developments.

Report

A range of discussions in respect to the proposal to establish a Refugee Welcome Centre in Callan Park have now occurred and are also in progress and these include:

- Local residents and community groups who have made many offers of strong support and who are indeed already active in refugee support and Council has established an online volunteer registration program.
- Habitat for Humanity NSW representatives who have expressed their willingness to work in partnership with State and Federal agencies to rehabilitate facilities in Callan Park for this project.
- Settlement Services International (SSI), who have developed the enclosed model for a Welcome Centre for refugees including co-location of relevant settlement support services such as the much needed support services such a health and English language and mental health.
- Other relevant and interested community organisations such as Catholic Care who have indicated a willingness to be involved.
- An open letter has been drafted from the Mayor to Premier Mike Baird seeking support for the Welcome Centre with signatories from a number of refugee support services as well as local Church organisations.
- A meeting with the Justice and Peace Office of the Catholic Archdiocese of Sydney, regarding volunteer support for the initiative.

Summary/Conclusions

Council is committed to full and thorough community consultation that is in line with Council's Community Engagement framework, subsequent to a response being received from State and Federal governments.



In partnership with Settlement Services International, Leichhardt Council is seeking to initiate a joint meeting with relevant Ministers and tours of the site will be offered in that context.

The support and involvement of other not for profit and Government organisations will be sought as well as continuing discussions with Habitat for Humanity and the Justice and Peace Office.

This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure

Attachments

- 1. Letter to Father Smith
- 2 .Letter to Minister Dutton
- 3. Letter to Minister Speakman
- 4. Letter to Peter Shergold AC
- 5. Position Statement Refugee Welcome Centre
- 6. Response from Minister Speakman
- 7. Response from Peter Shergold AC
- 8. Response from Peter Dutton Department of Social Services
- 9. Second Letter to Peter Shergold AC
- 10. Letter to the Premier





23 February 2016

Fr Peter Smith
Justice and Peace Promoter
Justice and Peace Office, Catholic Archdiocese of Sydney
Level 12, Polding Centre
133 Liverpool St
Sydney NSW 2000

Council ref: C606/15

Dear Peter.

I am writing to seek your support in establishing a Refugee Welcome Centre in Callan Park, Lilyfield.

Our Council has resolved to offer support and assistance to the State and Federal Governments in the settlement of refugees, specifically through the provision of accommodation and other services in Callan Park.

As discussed at our recent meeting, a working model for the Centre has been developed with the assistance of Settlement Services International (SSI).

I would like to invite the Justice and Peace Office to work with Leichhardt Council in achieving our joint vision with SSI of welcoming refugees into inner Sydney. We are keen to bring other partners to the table, and to tap into our strong offers of support from local volunteers, to get the service up and running.

I understand your Office may be able to dedicate a paid co-ordinator to progress this initiative. This would be invaluable - indeed, necessary, for implementing SSI's model for the Refugee Welcome Centre.

Phase 1 of the initiative commences with a Day Centre providing access to specialist care for refugees. This can readily be achieved by Council and SSI working together, using the existing community hall (building 504) within Callan Park which is currently licensed to Leichhardt Council for recreational and community use. I understand that you are meeting Council's Group Manager of Community and Cultural Services at the site on 4 March 2016.

We would welcome the involvement of the Justice and Peace Office as a third partner in this project. I invite you to enter into formal negotiations to confirm what services we may be able to jointly provide at this Day Centre.

Please find enclosed a copy of Council's full resolution, and a copy of the draft Working Model prepared with SSI.

I look forward to working closely with you and SSI. In the meantime, please do not hesitate to contact myself or Council's Group Manager of Community and Cultural Services, Erla Ronan on 9367 9149 or erlar@lmc.nsw.gov.au.

Yours sincerely,

Cr Darcy Byrne \
Mayor of Leichhardt

Customer Service, 7-15 Wetherill Street, Leichhardt NSW 2040 PO Box 45, Leichhardt NSW 2040 Phone: (02) 9367 9222 Fax: (02) 9367 9111 Email: eichhardt:@lmic.nsw.gov.au www.leichhardt.nsw.gov.au





11 December 2015

The Hon. Peter Dutton, MP Minister for Immigration and Border Protection PO Box 6022 Parliament House Canberra ACT 2600

Council ref: C606/15

Dear Minister,

I am writing to seek your cooperation in establishing a Refugee Welcome Centre in Callan Park, Lilvfield.

Our Council has resolved to offer support and assistance to the State and Federal Governments in the settlement of refugees, specifically through the provision of accommodation and other services in Callan Park.

Given the commitment from the Federal Government to accept a cohort of Syrian refugees on humanitarian visas, there are a number of compelling reasons for utilising Callan Park to help in the settlement of a portion of this contingent.

Council believes it will be more cost effective to provide short term accommodation in existing centres such as Callan Park, which can be rehabilitated, than to build new centres from scratch.

An existing drug and alcohol rehabilitation service located at Callan Park offers residential accommodation for 130 clients. We imagine any refugee resettlement centre located within Callan Park would be of a similar scale.

The costs of redeveloping buildings there have been specifically formulated in the Callan Park Master Plan, which the NSW Government received in 2011.

Many of the properties were used for accommodation and other services until recently and could be rehabilitated and available for use quite quickly.

We would appreciate the opportunity to brief you on the Callan Park Master Plan and the buildings themselves in more detail as needed.

Furthermore, it is important that a variety of regions, including the inner west of Sydney, contribute directly to supporting the resettlement of Syrians and other refugees, rather than having large concentrations of newly arrived migrants located in any single region.

Many people in the inner west have a proud history as advocates for humanitarianism. This is an opportunity for the Government to work with our Council and our local community to put those principles into practice.

Please find enclosed a copy of Council's full resolution.

I would appreciate if you would make an appropriate officer of your Department available to discuss how we can progress this proposal.

Please feel free to contact the office of our acting General Manager Peter Gainsford on 9367 9285 or via email PeterG@lmc.nsw.gov.au to discuss this opportunity.

Yours sincerely,

Dury Exprise

Cr Darcy Byrne Mayor of Leichhardt

Customer Service, 7-15 Wetherill Street, Leichhardt NSW 2040 PO Box 45, Leichhardt NSW 2040. Phone: (02) 9367 9222 Fax: (02) 9367 9111 Email: leichhardt@imc.nsw.gov.au www.leichhardt.nsw.gov.au



ITEM 1.3 REFUGEE WELCOME CENTRE

Background

Following Council's recent resolution not to support the establishment of a Refugee welcome centre in Callan Park, as proposed in Councillor Emsley's notice of motion to the November Ordinary Meeting of Council, public statements have been made to the effect that Councillors who voted against the proposal do in fact support it.

To allow the proposal to proceed I am resubmitting Councillor's Emsley's motion as put to that meeting.

C606/15 RESOLVED Leichhardt Municipal Council / EMSLEY

That Council

- Note the excellent drug and alcohol residential rehabilitation, mental health, ambulance, health training and tertiary education services currently located in Callan Park and restate its support for these services remaining there.
- Further note the potential for state and federal government investment in any upgrade of facilities to benefit all existing services there.
- Approach State and Federal Governments to request the funding of a
 permanent Refugee Welcome Centre for refugees to support refugee
 settlement in the Inner City through provision of temporary accommodation for
 new arrivals and to act as a settlement hub providing relevant support
 services and facilities;
- 4. Work with State and Federal Governments to ensure the Centre be located in Callan Park and use existing buildings or new structures consistent with existing regulation of the Park, supplemented by temporary accommodation facilities and infrastructure, to enable the Inner West of Sydney to:
 - Contribute significantly to the absorption of the Syrian/Iraqi refugee intake and other refugees from the UNHCR program.
 - b. Provide permanent infrastructure supporting the arrival of refugees in Australia.
- Commit to full and thorough consultation, in line with Council's Community Engagement Framework, on this proposal, subsequent to a response being received from the State and Federal governments
- Reaffirms its position that Callan Park should be a Centre of Excellence in Mental Health as per the Callan Park Masterplan and upholds the Callan Park (Special Provisions) Act 2002
- 7. That the matter be discussed with the Callan Park taskforce
- Write to State and Federal Governments to request funding for the completion of the Callan Park Masterplan, the wellness centre and mental health facilities





22 December 2015

The Hon, Mark Speakman, MP Minister for the Environment GPO Box 5341 SYDNEY NSW 2001

Council Ref: C606/15

Dear Minister Speakman,

I am writing to inform you that last week I wrote to the Federal Minister for Immigration and Border Protection in seeking assistance to establish a Refugee Welcome Centre in Callan Park, Lilyfield.

Our Council has resolved to offer support and assistance to the State and Federal Governments in the settlement of refugees, specifically through the provision of accommodation and other services in Callan Park.

Given the commitment from the Federal Government to accept a cohort of Syrian refugees on humanitarian visas, there are a number of compelling reasons for utilising Callan Park to help in the settlement of a portion of this contingent.

Council believes it will be more cost effective to provide short term accommodation in existing centres such as Callan Park, which can be rehabilitated, than to build new centres from scratch.

As you are aware, many of the Callan Park properties were used for accommodation and other services until recently and could be rehabilitated and available for use quite quickly.

The existing drug and alcohol rehabilitation service located at Callan Park offers residential accommodation for 130 clients. We imagine any refugee resettlement centre located within Callan Park would be of a similar scale,

Furthermore, it is important that a variety of regions, including the inner west of Sydney, contribute directly to supporting the resettlement of Syrians and other refugees, rather than having large concentrations of newly arrived migrants located in any single region.

Many people in the inner west have a proud history as advocates for humanitarianism. This is an opportunity for the Government to work with our Council and our local community to put those principles into practice.

Please find enclosed a copy of Council's full resolution.

We would appreciate the opportunity to meet with you given your management role over Callan Park to discuss how we can progress this proposal.

Our acting General Manager Peter Gainsford will shortly be in contact with your office to this end.

He can also be contacted on 9367 9285 or via email PeterG@lmc.nsw.gov.au.

Yours sincerely,

Cr Darcy Byrne \(\) Mayor of Leichhardt

CC: NSW Premier Mike Baird

Administrative Centre, 7-15 Wetherill Street, Leichhardt, NSW 2040 PO Box 45, Leichhardt, NSW 2040 Phone: (02) 9367 9191 Fax: (02) 9367 9103 Email: leichhardt@imc.nsw.gov.au www.leichhardt.nsw.gov.au





22 December 2015

Peter Shergold NSW Coordinator - General for Refugee Resettlement Via email: kylie.keogh@dpc.nsw.gov.au

Council Ref: C606/15

Dear Mr Shergold,

I am writing to inform you that last week I wrote to the Federal Minister for Immigration and Border Protection in seeking assistance to establish a Refugee Welcome Centre in Callan Park, Lilyfield.

Our Council has resolved to offer support and assistance to the State and Federal Governments in the settlement of refugees, specifically through the provision of accommodation and other services in Callan Park.

Given the commitment from the Federal Government to accept a cohort of Syrian refugees on humanitarian visas, there are a number of compelling reasons for utilising Callan Park to help in the settlement of a portion of this contingent.

Council believes it will be more cost effective to provide short term accommodation in existing centres such as Callan Park, which can be rehabilitated, than to build new centres from scratch.

An existing drug and alcohol rehabilitation service located at Callan Park offers residential accommodation for 130 clients. We imagine any refugee resettlement centre located within Callan Park would be of a similar scale.

The costs of redeveloping buildings there have been specifically formulated in the Callan Park Master Plan, which the NSW Government received in 2011.

Many of the properties were used for accommodation and other services until recently and could be rehabilitated and available for use quite quickly.

Given your distinguished career and experience in multicultural and indigenous affairs, we welcome your appointment as the NSW Coordinator-General for Refugee Resettlement.

We would appreciate the opportunity to meet with you to brief you on the Callan Park Master Plan and the buildings themselves in more detail as needed.

Furthermore, it is important that a variety of regions, including the inner west of Sydney, contribute directly to supporting the resettlement of Syrians and other refugees, rather than having large concentrations of newly arrived migrants located in any single region.

Many people in the inner west have a proud history as advocates for humanitarianism. This is an opportunity for the Government to work with our Council and our local community to put those principles into practice.

Please find enclosed a copy of Council's full resolution.

We would appreciate the opportunity to meet with you to discuss how we can progress this proposal.

Our acting General Manager Peter Gainsford will shortly be in contact with your office to this end.

Yours sincerely.

Cr Darcy Byrne Mayor of Leichhardt

Administrative Centre, 7-15 Wetherill Street, Leichhardt, NSW 2040. PO Box 45, Leichhardt, NSW 2040. PO Box 45, Leichhardt, NSW 2040. Phone: (02) 9367 9191. Fax: (02) 9367 9103. Email: leichhardt@imc.risw.gov.au. www.leichhardt.nsw.gov.au.





Refugee Welcome Centre in Callan Park

Background

Leichhardt Council is strongly committed to assisting the establishment of a Refugee Welcome Centre in the Inner City and has resolved at its meeting of 8 December 2015 to take immediate steps to secure this outcome with Commonwealth Government, State Government and the local community, as well as with the involvement of relevant service providers.

Council is seeking the cooperation of the State and Federal Governments to establish such a Centre in Callan Park. A copy of Council's full resolution follows as Attachment 1.

Council has recently approached the Federal and State Ministers to request the funding of a permanent Refugee Welcome Centre to support refugee settlement in the Inner City, potentially through the provision of temporary/transitional accommodation for new arrivals and to act as a settlement hub providing relevant wrap-around support services and facilities.

About Callan Park

Callan Park is a rare and significant parkland in the Leichhardt Local Government area, owned and managed by the NSW State Government. At over 80 hectares and equivalent to the size of the Sydney Botanical Gardens, Callan Park is one of the largest and most regionally significant public facilities in Sydney's Inner West. Built as a hospital for the insane in 1885, it has a number of heritage buildings, with twenty three (23) of these classified as being of exceptional or high heritage status.

Following extensive community wide consultation, Leichhardt Council adopted the Callan Park Masterplan in 2011. The Masterplan is structured around the objectives of the Callan Park (Special Provisions) Act 2002 (see details following at Attachment 2) to preserve open space and heritage, provide active and passive recreation space, and develop health, community and education facilities.

Callan Park has a critical legacy as Sydney's premier site for mental health and support services. Council seeks to maintain the excellent drug and alcohol residential rehabilitation, mental health, ambulance, health training and tertiary education services located in Callan Park.

A Welcome Centre for refugees within Call an Park is consistent with the Masterplan objectives and meets the requirements stipulated in the Callan Park Act. In establishing such a Centre, it will be far more cost effective to rehabilitate the existing facilities within Callan Park than to build new premises from scratch.

This is consistent with the existing regulation of the Park and could be supplemented by new accommodation and other infrastructure, if required.

Refugee Welcome Centre in Callan Park

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The Vision

Callan Park and its many vacant buildings could provide a settlement and welcome hub as well as temporary/transitional accommodation for an estimated 100 to 150 people.

It could plan to host immediate health, mental health and other support services required. We understand that these services are already being offered by a range of settlement, mental health and physical health services. The Refugee Welcome Centre presents an ideal site to support and co-locate this work.

Very importantly, Council will play a leading role in establishing and promoting a welcoming attitude in the local community and local support networks for the refugees arriving there and contribute to long term social cohes ion.

It is envisaged that the Welcome Centre would:

- Contribute significantly to the resettlement of Syrian and Iraqi refugees (recently announced)
- Contribute significantly to the resettlement of other refugees from the UNHCR program
- Provide permanent infrastructure supporting the arrival of refugees in Australia.

Partners & Collaborators

A range of discussions have occurred and are also in train and these include:

- Local residents and community groups who have made many offers of strong support and who are indeed already active in refugee support and Council has established an online volunteer registration program.
- Habitat for Humanity NSW representatives who have expressed their willingness to work in partnership with State and Federal agencies to rehabilitate facilities in Callan Park for this project.
- Settlement Services International (SSI), who have developed the enclosed model (Attachment 3), for a Welcome Centre for refugees including co-location of relevant settlement support services such as the much needed support services such a health and English language and mental health.
- Other relevant and interested community organisations such as Catholic Care who have indicated a willingness to be involved.

Next Steps

Council is committed to full and thorough community consultation that is in line with Council's Community Engagement framework, subsequent to a response being received from State and Federal governments.

In partnership with Settlement Services International, Leichhardt Council is seeking to initiate a joint meeting with relevant Ministers and tours of the site will be offered in that confext.

The support and involvement of other not for profit and Government organisations will be sought as well as continuing discussions with Habitat for Humanity.

Refugee Welcome Centre in Callan Park

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Attachment 1

COUNCIL MEETING 8 DECEMBER 2016

C606/15

RESOLVED

BYRNE / EMSLEY

That Council

- Note the excellent drug and alcohol residential rehabilitation, mental health, ambulance, health training and tertiary education services currently located in Callan Park and restate its support for these services remaining there.
- Further note the potential for state and federal government investment in any upgrade of facilities to benefit all existing services there.
- Approach State and Federal Governments to request the funding of a permanent Refugee Welcome Centre for refugees to support refugee settlement in the Inner City through provision of temporary accommodation for new arrivals and to act as a settlement hub providing relevant support services and facilities;
- 4. Work with State and Federal Governments to ensure the Centre be located in Callan Park and use existing buildings or new structures consistent with existing regulation of the Park, supplemented by temporary accommodation facilities and infrastructure, to enable the Inner West of Sydney to:
 - Contribute significantly to the absorption of the Syrian/Iraqi refugee intake and other refugees from the UNHCR program.
 - Provide permanent infrastructure supporting the arrival of refugees in Australia.
- Commit to full and thorough consultation, in line with Council's Community
 Engagement Framework, on this proposal, subsequent to a response being
 received from the State and Federal governments
- Reaffirms its position that Callan Park should be a Centre of Excellence in Mental Health as per the Callan Park Masterplan and upholds the Callan Park (Special Provisions) Act 2002
- 7. That the matter be discussed with the Callan Park taskforce
- 8. Write to State and Federal Governments to request funding for the completion of the Callan Park Masterplan, the wellness centre and mental health facilities

Refugee Welcome Centre in Callan Park

Page 3

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Attachment 2

The Callan Park (Special Provisions) Act 2002 http://www.austlii.edu.au/au/legis/nsw/consol_act/cppa2002304/

The Callan Park Act was legislated to preserve the public ownership of the Park, to protect its open space and heritage features including its many historic buildings and landscapes, and to restrict future development that is not for the purpose of health, educational or community (not for profit) facilities.

The Act specifically prohibits the erection of new buildings (other than temporary structures) outside the footprint or building envelopes of existing buildings. There are over 140 existing buildings in total with more than half of them empty and in poor condition.

Consistent with the Act restrictions, there are a number of tenants within Callan Park including Sydney College of the Arts, University of Tasmania, NSW Ambulance Service, the NSW Writer's Centre and several non-government organisations (NGOs) such as the Mental Health Coordinating Council, We Help Ourselves (WHOs) and Foundation House Drug, Alcohol and Gambling treatment centre.

Refugee Welcome Centre in Callan Park

Page 4

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Attachment 3

MODEL: REFUGEE WELCOME CENTRE WITHIN CALLAN PARK

Key ingredients to success:

- The support of Government and other key stakeholders
- · An understanding of the settlement services programs in existence
- · A phased approach with realistic milestones
- Allowing a role for volunteer community members and service providers



Key elements of the model:

- Family support to ensure refugees feel welcome and are provided with accessible and relevant supports immediately following arrival
- Community Building to ensure adequate community integration and support through volunteering and community participation in the model
- Housing to meet on arrival demand and to develop a sustainable refugee settlement in the inner west.
- Partnerships to ensure adequate collaboration and sustainable access to
 existing support infrastructure. This includes access to education and employment.

Refugee Welcome Centre in Callan Park

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It is proposed that the model be rolled out in three phases to ensure appropriate planning, consultation and sustainability

Phase 1

The first phase of development could include the establishment of The Refugee Welcome Centre which provides a hub for:

- Day activities in a supportive and accessible environment.
- Psycho-social support groups and mental health couns elling
- Orientation to Australia sessions provided by SSI as per the regular program currently operating.

Judging by settlement patterns in Sydney some support with transportation may be required to ensure people fully utilise these programs.

Phase 2

This phase could encompass the above and also include a transitional reception model, where people could stay at Callan Park for 3-4 weeks while they are oriented to the local environment in Australia. This could be similar to the Migrant Hostels model which operated during post war migration.

This phase could be for all refugees arriving or it could focus on a particular vulnerable group like Women at Risk, families with complex health needs, young people or unaccompanied minors. It would allow people some time to assess their options and then move into longer term accommodation either in the local area or elsewhere.

Phase 3

This phase would include phases one and two and seek to embed longer term accommodation options in the local and surrounding areas. Given housing and tenancy affordability pressures in and around the Inner West, this phase would need the support and investment in the form of rental subsidies or similar. Therefore this phase could include partnerships with community housing providers, real estate agents, churches and local charities who may be able to assist in gaining greater access to longer term accommodation.

This phase allows for greater diversity in longer term settlement patterns in Sydney and would ensure that cultural and religious diversity is a feature of the Inner City as well as in Western Sydney.

Refugee Welcome Centre in Callan Park

Page 6

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Refugee Welcome Centre Model







Refugee Welcome Centre in Callan Park

Page 7

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Mark Speakman

Minister for the Environment Minister for Heritage Assistant Minister for Planning

MD16/40 C606/15

Cr Darcy Byrne Mayor Leichhardt Council PO Box 45 LEICHHARDT NSW 2040

Dear Councillor Byrne

Resettlement of refugees in Callan Park

Thank you for your letter about Leichhardt Council's support for the resettlement of refugees in Callan Park. I appreciate you bringing council's position to my attention.

Callan Park is a welcome addition to the Environment and Heritage portfolio where it joins other substantial urban open space areas in inner Sydney including the Botanic Gardens and Centennial and Moore Parks. The resettlement of refugees in Callan Park, however, is not an appropriate use of this space because many of the buildings are not fit for human habitation. The vacant buildings in Callan Park have significant structural damage, asbestos contamination or do not meet current building fire and safety codes.

The NSW Government is committed to the resettlement and support of refugees. While Callan Park is not suitable for resettlement, I encourage the use of this valuable inner city green space for recreational and relaxation purposes by all members of the community.

If council has any further questions about Callan Park, Dr Greg Storrier, Director, Office of Chief Executive, Office of Environment and Heritage, can be contacted on 9995 6099 or at greg.storrier@environment.nsw.gov.au.

Yours sincerely

Mark Speakman

Minister for the Environment

THE EEE 2018 *

GPO Box 5341, Sydney NSW 2001 Phone: (61 2) 8574 6390 Fax: (61 2) 9339 5562 Email: office@speakman.minister.nsw.gov.au







Reference, 2016-A1458790 Your Ref; C606/15

Councillor Darcy Byrne Mayor of Leichhardt Leichhardt Council P O Box 45 LEICHHARDT NSW 2040

Dear Mayor

Thank you for your letter informing me of the resolution of your Council to offer support and assistance to refugees through the establishment of a Refugee Welcome Centre in Callan Park, Lilyfield.

As the NSW Coordinator General for Refugee Resettlement, I have responsibility for ensuring that NSW is prepared for the arrival of the additional refugee intake from Syria and Iraq. This includes coordinating activities across the government, non-government, community, education and business sectors to resettle refugees in NSW as they arrive over the next 18-24 months. I've been fortunate to receive many offers of assistance from councils throughout NSW which is very encouraging.

I appreciate Leichhardt Council's interest in supporting the resettlement of refugees in NSW with the establishment of a Refugee Welcome Centre at Callan Park. I understand that you have met with Settlement Services International (SSI) to discuss your concept and it was agreed that you would put forward a more developed model to bring forward, including a phased approach to resettlement and one that considers likely rental accommodation. I look forward to receiving your more advanced proposal when it becomes available and then meeting with you.

I note from Heritage NSW that many of the vacant buildings have significant structural damage and asbestos contamination and do not meet current building fire and safety codes. In this regard, it would be advantageous if your proposed model could suggest alternative locations in the area.

I'd like to reiterate, as I have said publicly, that where refugees are settled is a Commonwealth responsibility and depends on several factors, including the proximity of family and community links, availability of both settlement services and mainstream services, community readiness and housing affordability. The Commonwealth has advised that they are not accepting private home stay or short term accommodation services (although long term private rental offers may, in some cases, be discussed).

Enrolling children and young people into schooling and educational pathways is also an important part of this process - to promote stability at the earliest opportunity, the opportunity to make friends and develop life-long relationships in their new community. It would be appreciated if your proposal could also address these long term issues.



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I commend the Council and your community for their support and thank you for bringing your proposal to my attention.

Yours sincerely

PETER SHERGOLD AC

NSW Coordinator-General for Refugee Resettlement

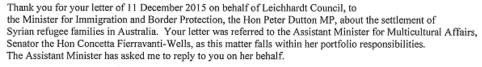




MC15-016665

Councillor Darcy Byrne Mayor of Leichhardt PO Box 45 Leichhardt NSW 2040





Since the Government announced that Australia will resettle an additional 12,000 refugees who have been displaced by the conflict in Syria and Iraq, there has been a significant level of goodwill extended to the new refugees, including offers of support and assistance from Australian governments, companies, community groups and individuals. This response from across Australia has been heartfelt and pleasing. It reflects the long standing tradition of pitching in and helping others in times of need.

I note Leichhardt Council's offer to redevelop existing buildings in Callan Park to provide short term accommodation for the Syrian and Iraqi refugees. Humanitarian entrants will be supported to find accommodation through the Humanitarian Settlement Services (HSS) programme that is administered by the Department of Social Services (DSS). As this accommodation is sourced through private rental markets the Australian Government is not considering housing humanitarian entrants outside of this framework.

I also note your comment regarding the importance of a variety of settlement locations. When settling particular groups of humanitarian entrants, the Australian Government considers the size and ethnic/cultural/religious composition of an existing community, including other migrants in that location, and the potential for a harmonious settlement. This is a normal part of the decision making process which is managed by the Department of Social Services (DSS) before refugees arrive in Australia. Discussions are currently taking place between the Commonwealth, states and territories and local government to gather this information and look at options for settlement locations.

If Leichhardt Council is interested in providing assistance to refugees then you may like to consider contacting Local Government NSW. Local Government NSW represents the Australian Local Government Association in discussions with the Australian Government and the NSW government relating to the settlement of these refugees. Please note that Syrian and Iraqi refugees may not be settled in an area close Leichhardt.

Thank you again for writing on behalf of Leichhardt Council.

Yours sincerely

Laura Angus Branch Manager

Multicultural and Communities Branch

こと January 2016

PO Box 7576 Canberra Business Centre ACT 2610
Telephone 1300 653 227
National Relay Service: TTY: 133 677, Speak and listen: 1300 555 727, Internet relay: www.relayservice.com.au www.dss.gov.au





23 February 2016

Mr Peter Shergold
NSW Coordinator – General for Refugee Resettlement
Via email – kylie.keogh@dpc.nsw.gov.au

Dear Mr Shergold,

Re: Refugee Welcome Centre in Callan Park

I refer to your letter of the 18th January 2016 and am pleased to enclose further information about our proposal including a working model for the Centre that has been developed with the assistance of Settlement Services International (SSI).

Most importantly, phase 1 of this model commences with a Day Centre providing access to specialist care for the refugees. This can readily be achieved by Council and SSI working together, using the existing community hall (building 504) within Callan Park which is currently licensed to Leichhardt Council for recreational and community use purposes. It is in a safe and satisfactory condition, has a large open area with kitchen facilities and toilets, and is used occasionally by local community groups and sporting clubs. Both current and proposed uses could certainly co-exist together – obviating the need, at least initially, to rehabilitate any vacant buildings.

I see this option as a great opportunity to start contributing to the welfare of Syrians and other refugees within a reasonably short timeframe and at minimal expense.

Our most recent access to other buildings in Callan Park was during 2011 when their condition was assessed in developing the Callan Park Masterplan. Whilst some of these buildings would be relatively easy to rehabilitate, we require cooperation from the NSW Government to allow us access in order to undertake a further evaluation.

In relation to the issue of integrating children into local schools and other services, which you raised, it is very clear from the offers of assistance received to date from local families, churches and schools that this can be achieved successfully. We will now begin to undertake further investigation in this regard.

Council looks forward to your further response about this proposal and to meeting with you in the near future. If you require further information, please do not hesitate to contact Council's General Manager, Peter Head, on 9367 9285.

Yours sincerely

Cr Darcy Byrne Mayor of Leichhardt

Customer Service, 7-15 Wetherill Street, Leichhardt NSW 2040 PO Box 45, Leichhardt NSW 2040 Phone: (02) 9367 9222 Fax: (02) 9367 9111 Email: leichhardt@imc.nsw.gov.au www.leichhardt.nsw.gov.au





29 February 2016

The Hon. Mike Baird, MP Premier of NSW GPO Box 5341 SYDNEY NSW 2001

Dear Mr Baird,

We the undersigned would like to voice our support for the establishment of a Refugee Welcome Centre in Callan Park.

We congratulate you for the leadership you have taken on the issue of accepting additional Syrian and Iraqi refugees into our society.

In the same vein, we were pleased to see that Leichhardt Council recently moved a motion to establish a Refugee Welcome Centre in Callan Park.

We believe that it is important to send a message to these people that they are welcome in our local community.

It is also vital that they are embraced and integrated into communities across Sydney, including the Inner West.

Temporary accommodation, health, mental health, settlement and other social service's are important for the successful settlement of refugees in our country.

We believe that Callan Park is an ideal environment not only to provide such services, but to also to help them recover from their traumatic experiences.

We urge you to work collaboratively with Leichhardt Council to implement their positive and compassionate plan for a Refugee Welcome Centre in Callan Park.

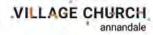
























ITEM 3.10 SOCIAL AND AFFORDABLE HOUSING - EXPRESSIONS OF INTEREST AND HOUSING BONDS

Division	Environment and Community Management
	Corporate and Information Services
Author	Group Manager Community and Cultural Services Director, Corporate and Information Services Director, Environment and Community Management
Meeting date	8 March 2016 Policy Meeting
Strategic Plan Key Service Area	Community well-being Place where we live and work Sustainable services and assets
SUMMARY AND ORGANISAT	HONAL IMPLICATIONS
Purpose of Report	The purpose of this Report is twofold: (1) To provide information to Council on the call for Expressions of Interest in the NSW Government Social and Affordable Housing Fund, and (2) To provide Council with a report on the feasibility and possible application of a Council-guaranteed or part-guaranteed housing bond, developed (i) in isolation and (ii) in collaboration with other council's, to assist community housing providers of affordable housing within the Leichhardt LGA.
Background	The Report provides a response in relation to two Council Resolutions from the 23 rd February 2016 Ordinary Meeting, namely: 1. Council resolved C75/16 to evaluate requests from Community Housing Providers to support Expressions of Interest in the NSW Affordable and Social Housing Fund and report to Council at the next Policy meeting. 2. Council resolved C74/16 that Officers prepare a report on the feasibility and possible application of a Council-guaranteed or part-guaranteed housing bond, developed (i) in isolation and (ii) in collaboration with other council's, to assist community housing providers of affordable housing within the Leichhardt LGA.
Current Status	Council has registered for an expression of interest in the NSW Affordable and Social Housing Fund with the registration stating that it is to be confirmed whether there will an associated entity or consortium members. This preserves



	Council's ability to take part but does not commit Council.
	A report on housing bonds is provided herein.
Relationship to existing policy	EOI in Affordable and Social Housing Fund aligns with Council existing policy.
Financial and Resources Implications	This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure, but should the housing bonds scheme be actioned the processes outlined in the Guidelines will need to be followed accordingly.
Recommendation	That Council:
Notifications	 Receive and note the report on the call for Expressions of Interest in the NSW Government Social and Affordable Housing Fund. Make a submission to the Commonwealth Treasury requesting that they explore housing bond schemes in both New Zealand and Europe (particularly the Auckland City Council housing bonds trial) as an innovative method to deliver affordable housing in the Australian context as part of their current review. Write to the NSW Minister for Social Housing, the Hon. Brad Hazzard MP, to seek funds to develop a business case on housing bond schemes and a council guarantee as a means to deliver affordable housing in NSW. Initiate talks with local community housing providers and other SSROC Councils on the need for a housing bond scheme, and in particular a council –guaranteed housing bond, and their level of interest in working with council to develop such a scheme. Note that a report has been tabled at the March Policy meeting in relation to the Draft Housing Action Plan. Note that an allocation of funds in 2016/17 is required to assist in the implementation of Housing related actions included in this report and as part of the Draft Housing Action Plan.
Notifications	Nil
Attachments	Expression Of Interest in the Social and Affordable Housing Fund Ministerial Investment Order



Purpose of Report

The purpose of this Report is twofold: (1) To provide information to Council on the call for Expressions of Interest in the NSW Government Social and Affordable Housing Fund, and (2) To provide Council with a report on the feasibility and possible application of a Council-guaranteed or part-guaranteed housing bond, developed (i) in isolation and (ii) in collaboration with other council's, to assist community housing providers of affordable housing within the Leichhardt LGA.

Recommendation

That Council:

- 1. Receive and note the report on the call for Expressions of Interest in the NSW Government Social and Affordable Housing Fund.
- Make a submission to the Commonwealth Treasury requesting that they
 explore housing bond schemes in both New Zealand and Europe
 (particularly the Auckland City Council housing bonds trial) as an innovative
 method to deliver affordable housing in the Australian context as part of
 their current review.
- 3. Write to the NSW Minister for Social Housing, the Hon. Brad Hazzard MP, to seek funds to develop a business case on housing bond schemes and a council guarantee as a means to deliver affordable housing in NSW.
- 4. Initiate talks with local community housing providers and other SSROC Councils on the need for a housing bond scheme, and in particular a council —guaranteed housing bond, and their level of interest in working with council to develop such a scheme.
- 5. Note that a report has been tabled at the March Policy meeting in relation to the Draft Housing Action Plan
- 6. Note that an allocation of funds in 2016/17 is required to assist in the implementation of Housing related actions included int his report and as part of the Draft Housing Action Plan.

Background

Council resolved at its 23rd February 2016 Ordinary Meeting (C75/16):

That Council:

- 1. Evaluate as soon as possible any request to support an Expression of Interest to the Social and Affordable Housing Fund which seeks a future contribution of Council's currently accumulated affordable housing funds.
- 2. Delegate to the General Manager authority to consider supporting a non-binding EOI from Bridge housing that is found to be consistent with Council's existing policies for affordable housing;



a. in the event of more than one suitable request for support be received by Council, that the General Manager convene a suitably qualified panel and interested Councillors to determine selection of the best applicant;

b. a detailed report on the EOI be brought to the next Policy Meeting of Council.

At this same meeting, Council also resolved (C74/16) that:

- Council prepare a report on the feasibility and possible application of a Council-guaranteed or part-guaranteed housing bond, developed (i) in isolation and (ii) in collaboration with other council's, to assist community housing providers of affordable housing within the Leichhardt LGA.
- 2. A report be brought to the March Policy Meeting of Council and be drawn upon to inform Council's submission, on the topic of bonds, to the related federal government Treasury inquiry on potential affordable housing funding models closing 11 March 2016.

This Report addresses both Resolutions (C74/16 and C75/16). Part 1 examines the Expressions of Interest process, and Part 2 explores the issue of housing bonds.part

Report

PART 1. AFFORDABLE AND SOCIAL HOUSING FUND (SAFH) STAGE 1

The NSW Government released the Social and Affordable Housing Fund (SAHF) on 29 January 2016, with registration for EOIs closing 29 February 2015 and EOIs closing 15 March 2016. The EOI invites organisations, including property owners, to register for an invitation to submit an Expression of Interest in the Fund.

The EOI (Attachment 1) states: Those entities who have registered in accordance with this form (Registrants) will be provided with the Invitation for EOI, together with additional supporting documents to enable them to respond to the Invitation for EOI.

Council Officers have registered Council to receive an Expression of Interest in the fund, consistent with Council's:

- Policy commitment to affordable housing enshrined in the LEP and DEC, and SEPP;
- Potential as a landowner or financier (stated in the EOI information to include to integrators, arrangers, equity and debt financiers) to lodge an EOI; and
- Obligation under s23A to not make decisions that will impose a significant and/or ongoing financial commitment on a new council.



Council resolved C75/16

To Evaluate as soon as possible any request to support an Expression of Interest to the Social and Affordable Housing Fund which seeks a future contribution of Council's currently accumulated affordable housing funds.

Officer Comment

Council has not received a request as at 26 February 2016 (closing date for March Policy Agenda) to support an EOI to the Fund seeking a future contribution of Council's currently accumulated affordable housing funds.

An enquiry has been received from a community housing provider (CHP), Bridge Housing in relation to building a local government/ community housing provider consortium. Community housing providers in the consortium would engage with their local government (s) to discuss land holdings they may be willing to provide to SAHF to develop 500 dwellings to deliver 30/70 affordable /social housing mix required under SAHF. Following discussion with the CHP, this enquiry has been referred to SSROC as the organisation best suited to facilitating discussion of a consortium of local government/s of the scale identified by Bridge Housing.

Council further resolved C75/16

Delegate to the General Manager authority to consider supporting a nonbinding EOI from Bridge housing that is found to be consistent with Council's existing policies for affordable housing;

a. in the event of more than one suitable request for support be received by Council, that the General Manager convene a suitably qualified panel and interested Councillors to determine selection of the best applicant;

b. a detailed report on the EOI be brought to the next Policy Meeting of Council.

Officer Comment

Council has not received a request as at 26 February 2016 (closing date for March Policy Agenda) an expression of interest from Bridge Housing. Should Council be approached by Bridge Housing or other Community Housing Providers to participate in an Expression of Interest, Officers will report to Council in keeping with C75/16. Registering by 29 February keeps Council's options open to lodge (with others) an EOI by 15 March 2016 if there is a request before then for Council to provide support to a community housing organisation, but does not commit Council. It is noted that the information for the EOI states that it is inviting private and non-government organisations and its preferences are for proposals which (amongst other things) maximise land contributions from outside of Government and have a minimum transaction size of 500 dwellings (200 dwellings for regional).

This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure



PART 2. HOUSING BONDS

This Report is divided into three sections. The first section provides background information on housing bonds and discusses the issue of whether Council could either issue or underwrite (i.e. guarantee) a housing bond by itself or in partnership with other councils. The second section provides an overview of the Auckland City Council housing bond trial. The third and final section provides a suggested way forward on the issue of housing bonds.

1. Housing Bonds

This section provides a brief outline of housing bonds, namely what they are and how they operate, and then examines whether council could develop or underwrite such a bond scheme in isolation or in partnership with other councils.

What is a housing bond?

Housing bonds pool investor capital to provide loans for eligible (i.e. affordable) housing developments. With the provision of relevant guarantees (provided by government) they result in lowering the cost of borrowing for eligible persons.

How they work?

A housing bond is a mechanism to raise a pool of investor (i.e. philanthropic and socially responsible investment) capital that allows a separate entity to make loans to community housing providers at lower interest rates and on more favourable terms.

Housing bonds have proven effective in delivering lower cost capital for affordable housing in Europe. More recently, housing bonds (with a council guarantee) have been introduced in Auckland by the City Council.

What is a council housing bond guarantee?

A council housing bond guarantee is the provision of a limited guarantee by the council that provide greater bond investor confidence and hence lowers their expected return requirements from an investment in housing bonds.

Could council develop a housing bond?

Yes, council could develop a housing bond scheme but it could <u>not</u> implement such a scheme either in isolation or in partnership with other councils unless it meets the following two fundamental pre-conditions:

 Council, either individually or in partnership with other councils, partners with a third party entity (e.g. financial institution) that has the appropriate authority and regulatory approvals to issue bonds in the Australian financial system. This is a highly specialised and regulated field and council would have to rely on the services of an entity that has such approvals to issue bonds on its behalf.



2. Ministerial approval is granted to enable Council to participate in such a scheme. In this regard, there are severe restrictions on the Council placing money with anyone for a purpose not consistent with the Act. Section 625 of the Local Government Act 1993 specifies that the ability to put money into any particular venture must only be done in accordance with directions that the Minister gives from time to time. Any deviation from this Order (which this scheme would most definitely be) requires explicit Ministerial approval. The last Ministerial Direction in the Gazette that covered the issue of investments was from 2005 and is provided at Attachment 1.

Could council, either in isolation or in collaboration with other councils, provide a guarantee to underpin a housing bond?

Yes (on both counts), but again the guarantee would have to satisfy the two preconditions cited above. In this regard, if a council guarantee scheme were implemented, it would have to be tightly controlled to minimise risk and limit the financial exposure of the council in the event of default. Auckland's housing bonds guarantee provides a good working model of how this can be achieved by a local council.

The benefit of more councils participating, and hence the bond guarantee pool being larger, is that the pool of likely funds generated through the issuance of bonds would be much greater. Thus the outcome – the construction of affordable housing - would be much greater.

Council currently has just over \$1m in its affordable housing fund. This amount (as a guarantee) will not provide much leverage in the financial markets. A much larger guarantee would be required and thus the need for other councils or other bodies would need to participate to make this proposal economically viable. By way of example, Auckland City Council put up \$6m (plus \$200K in non-redeemable operational capital) to leverage \$30m from the market.

It is noted that there are some unique challenges in operating a bond guarantee scheme in Sydney – namely, the challenge of attracting philanthropic investors in such as scheme at a time when the cost of capital (Interest Rates) is at historically low levels. Hence the rate of return is already low for investors and any further reduction may prove problematic.

2. The Auckland housing bonds trial: A case study

In December 2014, Auckland City Council announced a 3 year pilot housing bond guarantee program to boost the supply of affordable housing in Auckland. The target is the building of around 214 affordable homes across Auckland (homes to cost around \$345,000).

The trial sees the council provide a limited guarantee on bonds issued by a housing fund agency which is independent of council to philanthropic investors. The housing fund agency (known as New Zealand Community Housing Finance) will then provide the money raised from the bond sales as loans to community housing providers.



The council guarantee of \$6 million over three years is expected to allow the community housing sector to raise \$30 million at a slightly lower interest rate than would be available from other lending institutions – the lower rate is achieved as the council partially guarantees the investment (i.e. 20c for every \$1 of Bond up to \$6m) and thus investors can take a reduced rate of interest. The modelling assumes that the value of the guarantee to the investor is around 0.36%. That is the required rate of return on the bond falls from 6% to 5.64%.

The council's guarantee provides greater confidence to bond investors, and enables cheaper and more favourable loan terms to be offered to community housing providers. This guarantee is estimated to reduce the cost of homes by up to \$6,000 to \$8,000 per dwelling.

A quick summary of how the scheme works is provided below:

- 1. Investors lend to New Zealand Community Housing Finance (CHF)
- 2. CHF lends to Community Housing Organisations (CHO). CHOs either on a project finance basis with each advance being secured only against specific properties or on a general basis with each advance being secured against specific properties as well as there being a general charge over the other assets of the CHOs (if any). Lending on a project finance basis means that CHF would only have access to the specific property being funded for security purposes and not to any of the borrower's other assets in the event of default
- 3. CHOs borrow from CHF to develop residential properties
- 4. Qualified affordable buyers buy the developed properties from the CHOs
- 5. The purchase price is in theory sufficient for the CHOs to repay CHF and for CHF to repay the investors
- 6. Auckland City Council provides a partial guarantee to the investors (and therefore it is a partial guarantee of CHF rather than the CHOs)
- 7. In the event of default, CHF would have to rely on there being sufficient value recovered from the sale of the secured property and / or the other assets of the CHOs to fully repay the investors. In the event that there was not sufficient value, the investors would call on the Council partial guarantee. Councils provides up to 20c in the dollar.

The risks are contained by Auckland City Council by placing a cap on its exposure – that is, 20c for every \$1 Bond. Auckland Council's total contingent exposure under this guarantee is limited to \$6 million. Bond holders will be able to call on the Auckland Council guarantee in the event of CHF not being able to meet its financial commitments to Bond holders as they fall due.

It is still too early in the trial to determine its success or otherwise at this time. Council Officers will continue to monitor this trial and report to Council when results are known.

3. The recommended way forward on housing bonds

To develop the housing bond scheme (but without committing Council at this time) a full business case (including a risk assessment) needs to be developed. In this regard, we recommend that we approach the State Government to provide funds to



develop the business case. A consultant is required to undertake this work as it is highly specialised and beyond the expertise of council staff (estimated cost up to \$50,000).

Before we approach the State Government for funding, Officers will need to liaise with community housing providers and other councils to gauge their level of interest in a bond scheme. Officers will then develop a project proposal (based on the Auckland City Council trial) as the basis of its approach to the State Government for funding.

At the same time, we can approach the Commonwealth Treasury to review the concept of housing bonds scheme in New Zealand and Europe and their applicability or otherwise to Australia. This work does not negate the need for a business case for the Treasury analysis will be at a very high level and will not provide the level of detail that will be included in the aforementioned business case.

The reasons for suggesting we approach the Commonwealth Treasury are that are the secretariat to the newly established Affordable Housing Working Group. This Working Group is now seeking submissions on innovative ways to improve the availability of affordable housing in Australia - submissions close on 11 March 2016. More information on the Working Group and Terms of Reference are available at the following

http://www.treasury.gov.au/ConsultationsandReviews/Consultations/2016/CFFR-Affordable-Housing-Working-Group.

Conclusions

Council Officers have registered interest in lodging and Expression of Interest regarding the NSW Government Social and Affordable Housing Fund (SAHF). This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure

The recent Auckland City Council housing bond guarantee program may be applicable in the Australian context as a means to delivery more affordable housing. However, much work needs to be undertaken to comprehensively review the merits or otherwise of such a scheme, including the development of a full business case. In this regard, the following suggested course of action is proposed:

- 1. Council Officers develop a project proposal on a housing bonds guarantee scheme similar to that being implemented by Auckland City Council
- Council initiate discussions with community housing providers on the need for such a scheme (or another such scheme) and their level of interest in participating in same. These discussions will be based on the project proposal developed above.
- 3. Approach other SSROC Councils on the concept and there support in developing a business case
- 4. Approach the State Government to provide funds to develop a Business Case to assess a housing bonds scheme and council guarantee scheme. The project scope outlined at point 1 will inform this request.



5. Write to the Commonwealth Treasury to request that they explore the issue of housing bonds as part of their current review and explore housing bond trial in NZ applicability to Australian context and appropriate funding vehicles.

If Council were to proceed with this scheme, it would need to be mindful of the s23A Guidelines in this regard. These Guidelines are available at www.olg.nsw.gov.au.

Attachments

- 1. Registration for Expression Of Interest in the Social and Affordable Housing Fund
- 2. Ministerial Investment Order



Department of Family and Community Services - Social and Affordable Housing Fund Page 1 of 1



Social and Affordable Housing Fund

The NSW Government has launched the first phase of procurement for projects to be supported by the Social and Affordable Housing Fund (SAHF). The aim of SAHF is to boost the delivery of social and affordable housing and associated services across NSW.

The first phase of the SAHF seeks proposals from proponents interested in contributing to the delivery of 3,000 new social and affordable dwellings in metropolitan and regional NSW.

This phase includes establishing service agreements for social and affordable housing accommodation which comprises the delivery of housing, along with tenancy and asset management, as well as coordinating access to social support programs and services where appropriate.

The SAHF has been designed with support and input from Infrastructure Partnerships Australia (IPA) and the NSW Council of Social Services (NCOSS), who were signatories to a Memorandum of Understanding (MOU) with the NSW Government in March 2015.



Social and Affordable Housing Fund — Invitation for Expression of Interest

The Invitation for Expression of Interest (EOI) process for Phase 1 of the Social and Affordable Housing Fund (SAHF) commenced on 29 January 2016. The Invitation for EOI seeks submissions from consortia, including community housing providers, financiers, developers and other non-government organisations to help build new social and affordable housing and provide future tenants with the support services required to meet their needs.

This is a unique and long term opportunity for highly professional organisations to provide services for the social and affordable housing sector for up to 25 years.

Organisations are required to register their interest to participate in the EOI process. Once registered, organisations will be provided with an invitation to take part in the EOI process.

The closing date for E01 responses is 15 March 2016.

Organisations may register to participate until 29 February 2016.

To register, interested organisations must complete the registration form online.

Further queries regarding the Invitation for E01 process can be directed to sahf@facs.nsw.gov.au



2. Ministerial Investment Order

LOCAL GOVERNMENT ACT 1993

Investment Order

(Relating to investments by councils)

- I, David Campbell, MP, Acting Minister for Local Government, in pursuance of section 625 (2) of the Local Government Act 1993 and with the approval of the Treasurer, do, by this my Order, notify for the purposes of section 625 of that Act that a council may only invest money (on the basis that all investments must be denominated in Australian Dollars) in the following forms of investment:
- (a) any public funds or Government stock or Government securities of the Commonwealth or any State of the Commonwealth;
- (b) any debentures or securities guaranteed by the Government of New South Wales:
- (c) any debentures or securities, issued by a public or local authority, or a statutory body representing the Crown, constituted by or under any law of the Commonwealth, of any State of the Commonwealth or of the Northern Territory or of the Australian Capital Territory and guaranteed by the Commonwealth, any State of the Commonwealth or a Territory;
- (d) any debentures or securities issued by a Territory and guaranteed by the Commonwealth;
- (e) any debentures or securities issued by a council (within the meaning of the Local Government Act 1993);
- (f) mortgage of land in any State or Territory of the Commonwealth;
- (g) purchase of land (including any lot within the meaning of the Strata Schemes Management Act 1996) in any State or Territory of the Commonwealth;
- (h) interest bearing deposits in a bank authorised to carry on the business of banking under any law of the Commonwealth or of a State or Territory of the Commonwealth;
- (i) interest bearing deposits with a building society or credit union.
- (j) any bill of exchange which has a maturity date of not more than 200 days; and if purchased for value confers on the holder in due course a right of recourse against a bank, building society or credit union as the acceptor or endorser of the bill for an amount equal to the face value of the bill;
- (k) any securities which are issued by a body or company (or controlled parent entity either immediate or ultimate) with a Moody's Investors Service, Inc. credit rating of ``Aaa", ``Aa1", ``Aa2", ``Aa3", "A1" or "A2" or a Standard & Poor's Investors Service, Inc credit rating of ``AAA", ``AA+", ``AA", ``AA-"; "A+", or "A" or a Fitch Rating credit rating of "AAA", "AA+", "AA-", "AA-", "A-" or "A";
- (I) any securities which are given a Moody's Investors Service Inc credit rating of ``Aaa", ``Aa1", ``Aa2", ``Aa3", "A1"; "A2" or ``Prime-1" or a Standard and Poor's Investors Service, Inc credit rating of "AAA", "AA+", "AA", "AA-", "A+"; "A1+" or "A1" or a Fitch Rating credit rating of "AAA", "AA+", "AA-", "AA-", "A+" or "A";



- (m) any debentures or securities issued by a bank, building society or credit union;
- (n) a deposit with the Local Government Investment Service Pty Ltd;
- (o) a deposit with the New South Wales Treasury Corporation or investments in an Hour-Glass investment facility of the New South Wales Treasury Corporation.

Dated this 15th day of July 2005.

Hon DAVID CAMPBELL, M.P.,

Acting Minister for Local Government



ITEM 3.11 REQUEST BY COUNCILLOR JOBLING TO ATTEND MIXED USE DEVELOPMENT CONFERENCE

Division	Corporate and Information Services
Author	MANAGER GOVERNANCE AND
	ADMINISTRATION
Meeting date	8 March 2016 Policy Meeting
Strategic Plan Key Service	Sustainable services and assets
Area	
SUMMARY AND	ORGANISATIONAL IMPLICATIONS
Purpose of Report	To advise Council that approval has been given under delegation for Councillor Jobling to attend the Mixed Use Development Conference in Melbourne from 16-18 March 2016
Background	NIL
Current Status	NIL
Relationship to existing	Aligns
policy	-
Financial and Resources	This proposal is consistent with the recent s23A
Implications	Guidelines issued by the OLG in relation to
	financial expenditure.
Recommendation	That Council receive and note this report.
Notifications	NIL
Attachments	Program for Mixed Use Development
	Conference



Purpose of Report

To advise Council that approval has been given under delegation for Councillor Jobling to attend the Mixed Use Development Conference in Melbourne from 16-18 March 2016

Recommendation

That Council receive and note this report.

Report

Councillor Jobling submitted a written request to the General Manager to attend the Mixed Use Development Conference in Melbourne from 16-18 March 2016. A copy of the program is shown attached as Attachment 1.

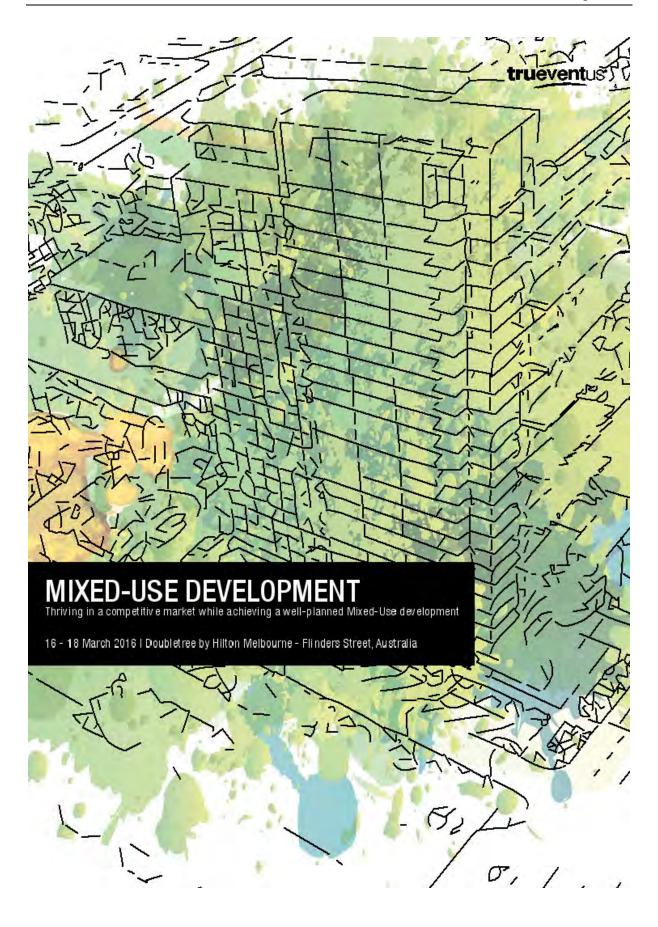
As the deadline for registration was between meetings, the Mayor and General Manager approved this request in accordance with the Councillor Policy on Payment of Expenses and Provision of Facilities. The cost for attendance at the Conference including accommodation and travel is approximately \$2,500 and there are funds available in the Councillor Conferences budget.

This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure

Attachments

1. Program for Mixed Use Development Conference







XED-USE DEVELOPMEN

16 - 18 MARCH 2016 I DOUBLETREE BY HILTON MELBOURNE - FLINDERS STREET, AUSTRALIA

"The Australian property market has remained strong through tough economic conditions,"

- Knight Frank 2015

WHY YOU CANNOT MISS THIS EVENT

High-density commercial and residential development has become an engine for economic growth in Australian cities. The convergence of residential and retail development has proven difficult in large part because cities have become car-oriented. Suburban development has fostered the idea that housing, amenities and workplaces should be isolated from each other and visited by car as required. This, in turn, has led to property investment becoming highly specialised and to the sequestering of risk into seemingly tidy silos, presenting new risks as cities consolidate around them.

Development of Mixed-Use is a substantial addition to the area and local city infrastructure - it cannot be compromised. Local developers, architects, urban planners and engineers are in the verge of identifying types of properties into the Mixed-Use project. This kind of property is known as a 'Golden Egg' in each developer's portfolio thus making it alive is always very vibrant yet challenging. Amenity is the new value differentiator. 2015 also saw strong growth in the net number and value of Mixed-Use accommodation projects, with an additional 28 new projects (valued at \$11.9 billion) taking the amount of identified Mixed-Use developments to 69 projects (valued at \$33.6 billion).

Come join us at Mixed-Use Development a learning platform with a unique range of topics. Learn from industry leaders about their winning approaches and methods in MXD plus developments, from horizontal and vertical.

THIS UNIQUE CONFERENCE BRINGS DELEGATES THE BENEFITS OF:

- Thinking ahead: Assessing investment opportunities for Mixed-Use Projects
- Tapping into location specific factors in designing profitable projects
- Creating an innovative strategic plan in determining high Return on Investment
- · Harnessing effective construction and building material technology for sustainable
- · Learning best practices in Mixed-Use development projects
- Developing new Mixed-Use planning and zoning designations for key Mixed-Use and commercial areas

WHO SHOULD ATTEND?

This conference is designed for Director Generals, CEO's, COO's, CEO's, Real Estate Developers, Property Developers, Property Investors, REIT Advisors, Leasing Directors, Managing Directors, Executive Directors, Operation Directors and key decision makers from the property development, management and investment sectors who are responsible for:

- Property development Property investment Property management Leasing management
- Marketing
- Sales
- Business development Real estate development
- Financial advisors
- Head of retail Operation management
- Facilities management Building management

- Industry
 Government agencies
 Property developers
 Property investment houses
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- Shopping malls Hotels and Resorts
- Apartment management services
- Casino/Gaming
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MIXED-USE DEVELOPMENT

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16 - 18 MARCH 2016 I DOUBLETREE BY HILTON MELBOURNE - FLINDERS STREET, AUSTRALIA

FEATURING PRESENTATIONS AND CASE STUDIES BY DISTINGUISHED EXPERTS:



Sean Hogan Senior Development Manager ISPT, VIC

Speaking on: Creating the Perfect Blend: Strategic design considerations in successful Mixed-Use Development

Sean's background is in design with over 25 years' experience in many aspects of the development industry. His role includes sourcing, acquiring and development of large scale residential and Mixed-Use projects around Australia. These include BPT owned projects and joint ventures with Australian and international developers.



Frank McMahon Business Development Director, Construction + Development Brookfleid Multiplex Australasia, VIC

Speaking on: High rise residential Mixed-Use projects from a construction delivery perspective – Case study of Australia 108 project

Frank was appointed as Business Development Director managing all development management activity in Victoria, South Australia and Tasmania. He is also responsible for managing all Asian clients in new business across China, Hong Kong, Singapore, and Malaysia.



Phil Cuttone General Manager - Project Development LWP Property Group, WA

Speaking on: Mixed-Use Communities: Fostering a sense of belonging in your neighbourhood

After a 16 year career in State and Local Government, Phil joined the group in 1997: Phil has managed the development of a variety of projects for LWP, including masterplanned communities and boutique lifestyle developments.



Ben Dodwell Head of Real Estate Folkestone, NSW

Speaking on: Amenity, amenity, amenity - Creating a difference in project development

Ben has held a number of senior executive roles at Stockland and Lend Lease for the operations and profitability of development pipelines worth in excess of \$500 billion. Ben's project includes traditional retail shopping centres, integrated mixed use, and urban renewal townhouse and apartments projects.



Matt Burns Director Sinciair Brook, VIC

Speaking on: to be advised

Matt is an Executive Director of Sinclair Brook and has more than 15 years experience advising clients, managing and delivering complex property and infrastructure projects. His experience includes large scale residential projects, both high rise, medium density and master-planned communities. Matt has a solid understanding of what drives core project value and how to manage complex teams with numerous stakeholders.



Tomas Simpson National Director of Projects Chiwayland International, NSW

Speaking on: Mixed-Use Development around transport nodes

Tomas has over 25+ years of experience in commercial and residential construction, property investment and development across Asia, including international posting and delivered large and mega scale residential, hotel, commercial, industrial, subdivision and infrastructure projects including high rises and marinas.



Rhys Quick Director Economics & Market Research Urbis Development, VIC

Speaking on: Assessing effective site selection process for long term benefits

this has 17 years of experience, specialising in retail and mixed use property development. Some of thys' recent project experience includes the Melbourne Metro Rail Project and the expansion of Chadatone Shopping Centre including retail, entertainment, office and hotel developments.



Mohan Du Managing director and founder Capital Alliance

Speaking on: Creating viable in ixed-use developments: opportunities and challenges

With a drive and vision to transform Melbourne's Dock lands into an international destination for visitors and locals alike, 28-year-old Mohan Duis a property developer committed to the future of his city. He founded local development company Capital Alliance three years ago and was recently named the Australian Property Institute's Young Achiever of the Year for Victoria.

For further details, contact

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FHRIVING IN A COMPETITIVE MARKET WHILE A CHIEVING A WELL-PLANNED MIXED-USE DEVELOPMENT

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FEATURING PRESENTATIONS AND CASE STUDIES BY DISTINGUISHED EXPERTS:



Dean LaVigne Senior Development Manager ASF Consortium, NSW

Speaking on: Exploring boundaries: Creating an Innovative Mixed-Use development district

Dean is a Development Director with ASF Consortium 17 years of experience in major mixed-use projects in Australia, Middle East, Eastern Europe, USA, and Canada. A pre-construction specialist who has worked for property development companies over the last 12 years focusing on hospitality and residential projects.



Rick! Hersburgh Manager Sustainability Urban Development Institute of Australia, VIC

Speaking on: A recipe for success – infusing sustainability initiatives into Mixed-Use Developments – Benefits v Challenges: Case Study – An Urban Infili redevelopment - Alphington Paper Mill

Ricki collaborates with community groups, councils, state government, utility organisations and other cohorts as required to achieve in utually beneficial outcomes for the environment and community.



Dominic Hunt Development Manager - Apartments, Residential Development Mirvac. NSW

Speaking on: Reviewing the effectiveness of MXD zone: Residential aspect

Dominic works on major mixed-use developments in Mirvac's Residential Development Division in NSW; For over 40 years, Mirvac has produced some of Australia's most renowned residential projects including Walsh Bay in Sydney, NSW; Ephraim Bland on the Gold Coast, QLD; Yarra's Edge, VK; and The Peninsula at Burswood in Perth, WA.



Will Leong General Manager Wellink Group, WA

Speaking on: Let it grow: Stakeholders engagement in building new projects

Will is a property developer delivering a wide range of commercial projects mainly mixed use residential apartments. Other projects including aged care facilities, hospital/chemistry projects, multi-level and on grade car parts, restaurants and bars, retails, casino and hotels.



Leo Wang Project Director Enhance Group, NSW

Speaking on: Retrofitting existing buildings into a profitable MXD project

teo is a registered Project Manager and holds Master degree on Architecture. Leo practised as an architect in a number of projects across various disciplines, project value range from \$20 million to \$3.50 million. Leo also project managed the Greenland Centre project consisting of the tallest residential tower in Sydney CBD and bout ique heritage hotel conversion project.



Ben Anderson Founder & Managing Director Future Estate, VIC

Speaking on: Creation of Mixed-Use Development District through redevelopment

Ben founded Future Estate in 2009 with a vision to create a residential property and serviced apartment portfolio encompassing landmark developments that enrich the urban fabric in which they sit. To date, Future Estate has quickly carved a name as one of Australia's most progressive developers and a champion of urban renewal.



Carolyn Chudleigh Partner Holman Fenwick Willan, NSW

Speaking on: Assessing on responsive Sales & Leasing mechanisms

Carolyn has acted for develope is and owners on a range of projects, in particular for international investors in Australia, including Mixed-Use projects. Carolyn is currently an appointed member of the Property Council Academy's Property Development Committee in Australia and a former Board member of the Property Council of Australia.



Adam DI Marco Director Marquette Properties, QLD Speaking on: to be advised

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PG. 3



IXED-USE DEVELOPME

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DAY ONE

0200 Registration and coffee

0845 Opening address by Chairperson

0900 Session One

Creating the Perfect Blend: Strategic design considerations in

successful Mixed-Use Development Understanding the investment criteria and managing the outcomes in line with these criteria is fundamental to the success of any development. Adding the correct ingredients to the mix and getting the balance right is critical. Leveraging the various components to create a more vibrant and eclectic precinct can boost profitability. Utilising place making techniques and working with the community are key considerations in the concept u-al design which must be translated to the finished product. Finally, what is the future of living and working in Nived Use Developments? Sean Hogan Senior Development Manager

ISPT, VIC

0945 Session Two

Exploring Boundaries: Creating an innovative Mixed-Use development district

Mixed-use developments are now focusing on increased proportion of affordable housing. Delivering affordable housing is now at the or attorisable nousing. Detrieting attorisable housing is now at the top of the Mixed-Use agenda. Affordable housing is a vital component of every mixed use community. Allowing people to like in the same communities where they work and shop improves the quality of life, increases residents' sense of belonging, and reduces traffic congestion. Having employment, shops, and schools healthy significantly reduces communing and transportation costs.

Dean LaVigne Senior Development Manager

ASSCORDATUM. MSSCORDATUM.

ASF Consortium, NSW

1050 Morning refreshments

1100 Session Three

menity, amenity, amenity - Creating a difference in project development

Developers are competing in winning tenants into their buildings by offering gold star amenty packages of which includes sophisticated (2b and high end fusury shopping, tearn the significance of having high-end, hotel-style facilities outside the apartment. Not only that, developes should also look at creating common area spaces, where small business owners can work from or meet clients, saves on renting office space. Now what developers need is to improve on engaging, connecting and entertaining the community. Cinemas, markets, local exhibitions, food vans, are just some of the engage-

ment platforms available Ben Dodwell Head of Real Estate Folkestone, NSW

1145 Session Four

Creating viable in ixed-use developments: opportunities and challenges

challenges
Nearly anything that brings people downtown needs to be facilitated and enhanced as "Friendly" to locals and y bitors. Pedestrian environment, transit, vehicles, programs, events, parking and retail—these bases matter to current vibinors and those, we are trying to attract and need to pass the "friendly" test, Polic is and initiatives yital to the revitalization of downtown with a successful Mixed-Use retail core must be created and facilitated.

Mohan Du Managing director and founder Capital Alliance

Networking luncheon

1400 Session Five

High rise residential Mixed-Use projects from a construction delivery perspective —Case study of Australia 108 project Planned unit development is called cluster conings that allows Mixed -Use developments, it comes with commercial and light industrial uses in order to blend together a traditional downtown environment, but with at a suburban scale. Many recent studies have confirmed the impact of strong industrial clusters which delivers positive benefits to workers, individual companies, and regions. It is now widely accepted that strong localised industrial clusters foster innovation and investment through deep knowledge and understanding which passes between participating organisations. Learn the significance of creating commercial and inclustrial zones.

Frank McMahon Business Development Director, Construction +

Development Brookfield Multiplex Australasia, VIC

1445

Session Six Vibrant developments in MXD: Ensuring a diverse growth in

commercial development.

This session will be exploring effective ways of integrating retail, hotel and other commercial development components in your development. Selecting the mix of amenities is more than what is just grood for the project and its residents. Not only does it have to be compatible with the lifestyle that is being created for the project, it has to meet the needs of the trade area as well. The retail component for example must create a Teeling of a district, where residents and non-residents alike can experience a real shopping ambiance. 5 peaker to be advised

1530 Afternoon retreshments

1600 Session Seven

Creating a landmark: Vertical Mixed-Use projects

Creating a fainting to the control of the control o tevel below ground, a note in the hist gazenhoos of the building above ground, and residential condominiums on the upper floors of the same building. A vertical Mixed-Use project is routinely more difficult to design, construct, sell, lease and finance. However, developers may choose to develop a vertical Mixed-Use project because of the physical constraints of the site, land use regulations. private development restrictions on the needs and desires of co-times-

Speaker to be advised

A recipe for success – infusing sustainability initiatives into A recipe for success — Intuising sustainability initiatives into Mixed-Use Developments — Benefits v Challenges: Case Study — An Urban Intill redevelopment — Alphington Paper Mill The Alphington Paper Mill dedevelopment which is one of Mebournes largest stategic infill projects that Will house 5000 people and 1500 workers over the next 5-7 years. This case study explores the role of ESD along with the complex challenges of brownfield mixed use sites including heritage, environmental degradation, infrastructure constraints and community expectation.

The role of a dynamic nationally recognised ESD rating tool –
EnviroDevelopment will be discussed and explored in detail across

these common key areas of brownlield sites. Rick! Hers burgh Manager Sustainability Urban Development Institute of Australia, VIC

1730 End of Day One

For further details, contact

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IXED-USE DEVELOPME

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DAY TWO

0300 Registration and coffee

0845 Welcome address by Chairperson

0900 Session One

Let it grow: Stakeholders engagement in building new projects

What are the potential benefits of the developers long-term commitment to the project. Large development projects can be highly complex, involve a wide range of stakeholders and have significant impacts on time and resources. Increasingly, successful organisations chapse to more actively invade stakeholders in the decision-making process particularly with regard to new project developments. They aim is to encourage and ensure wider, more positive engagement with the project outcomes.

WII Leong General Manager

Wellnk Group, WA

0945 Session Two

Creation of Mixed-Use Development District through redevelopment

Mixed-use coning districts may be huge in scale, or confined to one small site. A common pattern consists of storefronts or restaurants with apartments on second and third levels. Mixed-use development can feature a functional blend of residential, commercial, retail. can leature a unicologial viend of respective, commercial, result institutional, community, cultural, and in relevant cases industrial, uses within the same area. These areas would be connected by pedestrian and in ultimodal transportation options.

Integrating segregated areas into Mised Use Development District Ben Anderson Founder & Managing Director.

Future Estate, VIC

1050 Morning refreshments

1100 Session Three

Retrofitting existing buildings into a profitable MXD project. This session will highlight the transformation of an existing building into a profitable. Mixed-use development projects. This could be an historic area or even a dead project. Retrofitting holds a number of commercial and environmental advantages over redevelopment. Hom a financial perspective, retrofitting is more cost effective and means landlords can continue to generate income from their properties as opposed to missing out on what could be as many as four to five years of rental income if they redevelop the property. Indeed, nedevelopment is a long and expensive process conducted over a period of several years and requires landlords having to wait for leases to expire, pay for the existing structure to be demolshed, the site cleared and the construction of the new structure to be completed. etrofitting existing buildings into a profitable MXD proje

Leo Wang Project Director Enhance Group, NSW

1145 Session Four

Assessing effective site selection process for long term

penents
This session will be looking at procedures in developing Mixed-Use developments to meet customers' immediate and long-term needs, site selection and space are high-demand commodities. Mixed-Use construction creates the all-inclusive community experience within just a couple blocks. Multi-housing construction, alongside parking structures, office buildings and retail all require an array of construc-tion techniques and methods. The complexity of such a well-planned development makes this sector one of the most challenging Constant.communication.consistent quality control and impeccable safety standards are imperative. In order to achieve an effective

Mixed-Use development project, site selection is the most important agenda Rhys Quick Director Economics & Market Research Urbis Development, VIC

1230 Networking luncheon

For further details, contact

John Karras T: +603 2775 0001 | F +603 2775 0005 | E: johnk@trueventus.com 1400 Session Five

Mixed-Use development around transport nodes TOD is an essential component of developing Mixed-Use. location-efficient communities. Speaker will explore how private developers are looking at place-making infrastructure as well as transit stations in attracting private sector development. Transit-Ori-ented. Development (TOD) is a land-use pattern and development

style with unique characteristics, based on the proximity and relationship of property to a transit facility, such as a light rail station, special regulations and plans are developed to take advantage of the development potential in the area surrounding a transit facility.

Tomas Simpson National Director of Projects

Chiwa yland international, NSW

1445 Session Six

Mixed-Use Communities: Fostering a sense of belonging in

your neighborhood Niced-Use projects should promote diversity, include people of different income levels, integrate special needs populations, and improve access to services. This should happen by incorporating residential, retail and commercial properties. It implies developing neighborhoods and lowns with walkable streets that provide easy access to services and amenities such as schools. Ibraries, parks, and

Phil Cuttone General Manager - Project Development LWP Property Group, WA

1530 Afternoon letreshments

1600

Session Seven
Assessing on responsive Sales & Leasing mechanisms
For all advisers in a MXD project, understanding the client's goals is
key to a successful project. This often requires an intrivate knowledge of the relevant market. This is important in particular when
identifying the appropriate strategy to use in connection with
pre-sales bunches and pre-leasing negotiations. This session will

- The "bigger picture" legal issues to consider for a pre-sales programme
- for Mixed-Use developments Using anchor tenants to attract speciality tenants
- The importance and influence of the project financier.
 Managing legal risks at this stage of the project.
 Carolyn Chudleigh Partner.

Holman Fenwick Willan, NSW

1645 Session Eight

Reviewing the effectiveness of MXD zone- Residential as pect Mirvac is a leading brand in Australian property, consistently delivering innovative and high quality products that exceed expectations. Mirvac's Development Division has projects across Australia including large-scale residential, commercial, retail, industrial and Mieed-Use projects. Learn the importance of MXD coning for residential areas. Dominic Hunt Development Manager - Apartments, Residential

Mirvac, NSW

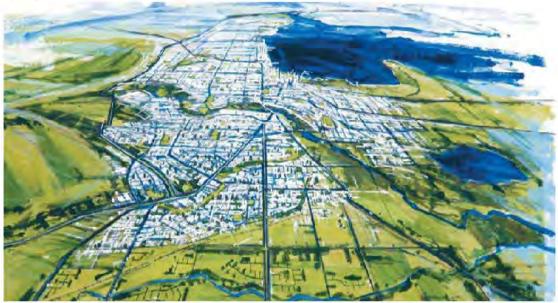
End of Conference 1730



MIXED-USE DEVELOPMENT

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DAY THREE Friday 18 March 2016 Armstrong Creek - Urban Growth Area Geelong, Victoria





The Armstrong Creek growth area is one of the largest contiguous growth area in Victoria, consisting of 2,500 hectares of developable land, and is one of the largest growth fronts in the Australian.

The Geelong region is regional Victoria's fastest growing area with a population base of a pproximately 300,000 people and a forecasted growth rate 1.6%. The Armstrong Creek Urban Growth Area is a masterplan ned urban expansion of the Geelong urban area; plan ned to accommodate 55 - 65,000 people, 22,000 residential homes and 22,000 jobs.

The growth area will be developed as a sustainable community, with a focus on natural vegetation and landscape, walkability, public transport provision and sustainable water use. The growth area include two major employment precincts, four residential precincts and a central mixed use town centre development. The growth area is current well advanced in its delivery with approximately 1,800 homes constructed and a current estimated population of 4,500 people.

ltinerary

0830 1000

Departing from The DoubleTree by Hilton Hotel, Melbourne Arrival and site Tour lead by: Rob Anderson - Coordinator Urban Growth Area - Geelong

Departure of attendees

* Please RSVP, seats are on first come first serve basis.

For further details, contact John Karras

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ITEM 3.12 FLOOR SPACE RATIO GATEWAY DETERMINATION

Division	Environment and Community Management		
Author	Manager Environment and Urban Planning		
Meeting date	8 March 2016 Policy Meeting		
Strategic Plan Key Service Area	Community well-being Accessibility Place where we live and work A sustainable environment Business in the community Sustainable services and assets		
SUMMARY AND ORGANISAT	TIONAL IMPLICATIONS		
Purpose of Report	The purpose of this report is to:		
	advise Council of the Gateway Determination issued by the Department of Planning and Environment in relation to the Floor Space Ratio Planning Proposal; and seek council endorsement to proceed to exhibition.		
Background	Council initiated a Floor Space Ratio (FSR) Review in 2009. Council considered a report at the Policy Meeting 9 June 2015 in relation to the Floor Space Ratio Review for land within the R1 General Residential zone and resolved (C263/15P) that Council:		
	 Adopt the recommendations of Option 2 FSR Controls (Minimal change) Prepare and submit a Planning Proposal to the Department of Planning and Environment to amend the Leichhardt Local Environmental Plan (LLEP) 2013 to introduce changes to the Floor Space Ratio that are consistent with the recommendations of Option 2 FSR controls (Minimal change) for a Gateway Determination. 		
	A Planning Proposal which proposed changes in accordance with Option 2 was forwarded to the Department of Planning and Environment (the Department) for a Gateway Determination on 14 October 2015.		



Current Status	Council has received a Gateway Determination in
	relation to the Floor Space Ratio Planning
	Proposal
Relationship to existing policy	Leichhardt Local Environmental Plan 2013
Financial and Resources	This proposal is consistent with the recent s23A
Implications	Guidelines issued by the OLG in relation to
-	financial expenditure.
Recommendation	That Council:
	 a) note that the a Gateway Determination has been issued in relation to the Floor Space Ratio review, b) amend the planning proposal to be consistent with Option 3 and proceed to public exhibition.
Notifications	Potential Gateway Review application to the Department of Planning and Environment
Attachments	Gateway Determination



Purpose of Report

The purpose of this report is to:

- advise Council of the Gateway Determination issued by the Department of Planning and Environment in relation to the Floor Space Ratio Planning Proposal; and
- 2. seek Council endorsement to proceed to exhibition.

Recommendation

That Council:

- a) note that the a Gateway Determination has been issued in relation to the Floor Space Ratio review; and
- b) amend the planning proposal to be consistent with Option 3 and proceed to public exhibition.

Background

Council initiated a Floor Space Ratio (FSR) Review in 2009. Council considered a report at the Policy Meeting 9 June 2015 in relation to the Floor Space Ratio Review for land within the R1 General Residential zone and resolved (C263/15P) that Council:

- Adopt the recommendations of Option 2 FSR Controls (Minimal change)
- Prepare and submit a Planning Proposal to the Department of Planning and Environment to amend the Leichhardt Local Environmental Plan (LLEP) 2013 to introduce changes to the Floor Space Ratio that are consistent with the recommendations of Option 2 FSR controls (Minimal change) for a Gateway Determination.

A Planning Proposal which proposed changes in accordance with Option 2 was forwarded to the Department of Planning and Environment (the Department) for a Gateway Determination on 14 October 2015.

Report

On 19 February the Department of Planning and Environment issued a Gateway Determination in respect of this planning proposal (refer attachment). The Department has not accepted Council's position for the planning proposal to adopt Option 2 and have instead directed Council to use Option 3. The Department's Assessment Report considers that Option 2 contains provisions which will reduce the permissible residential density of land.

The Determination also requires that no lots will have an FSR that is reduced from the current FSR (i.e., for parts of Rozelle where lots are greater than 450 square metres in size).



Lot Size	Annan	dale	Balmain		Birchgrove		Leichhardt		Lilyfield		Rozelle	
	Opt.2	Opt.3	Opt.2	Opt.3	Opt.2	Opt.3	Opt.2	Opt.3	Opt.2	Opt.3	Opt.2	Opt.3
0-149.9	8.0	0.9	0.9	1.0	1.0	1.0	0.7	0.8	0.9	0.9	0.8	0.9
150-299.9	0.7	8.0	0.7	0.9	0.8	0.9	0.6	0.7	0.6	0.8	0.6	0.8
300-449.9	0.6	0.7	0.7	8.0	0.6	0.8	0.5	0.6	0.5	0.7	0.6	0.7
450+	0.6	0.6	0.5	0.7	0.6	0.7	0.5	0.5	0.5	0.6	0.5	0.6
Current	0.6		0.7		0.7		0.5		0.5		0.5/0.7	
Control												

Comparison Table: proposed FSRs for Option 2 and Option 3.

The options which are available to Council in relation to this matter are:

- a) Council can accept the Gateway Determination conditions for the Floor Space Ratio Planning proposal, amend the planning proposal and proceed to public exhibition; or
- b) Council can consider lodging a Gateway Determination Review Application within 14 days of the decision (4 March 2016). This application would require that Council provide further justification to support a review of the Determination.

This proposal is consistent with the recent s23A Guidelines issued by the OLG in relation to financial expenditure.

Attachments

Gateway Determination



1.



Gateway Determination

Planning proposal (Department Ref: PP_2015_LEICH_005_00): to amend the Leichhardt Local Environmental Plan 2013 to amend Clause 4.4 'Floor Space Retio' for Residential Development in the General Residential (R1) zone

I, the Deputy Secretary, Planning Services at the Department of Planning and Environment, as delegate of the Greater Sydney Commission, have determined under section 56(2) of the Environmental Planning and Assessment Act 1979 (the Act) that an amendment to the Leichhardt Local Environmental Plan 2013 to amend Clause 4.4 'Floor Space Ratio' for Residential Development in the General Residential (R1) zone, should proceed subject to the following conditions:

- 1. Prior to exhibition, the planning proposal is to be updated to:
 - · adopt Option 3 of the Floor Space Ratio review:
 - ensure that no lots will have its FSR reduced below its current FSR provision (i.e. for Rozelle (east));
 - further justify and provide adequate consideration of s117 Directions 3.1 Residential Zones, 4.1 Acid Sulfate Soils and 4.3 Flood Prone Land; and
 - ensure all maps are checked, labelled and updated for accuracy.
- 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 26 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 & Environment 2013).
- 3. 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).
- The timeframe for completing the LEP is to be 9 months from the week following the date of the Gateway determination.

Dated

199

day of

2016

Marcus Ray Deputy Secretary Planning Services

Delegate of the Greater Sydney Commission

PP_2015_LEICH_005_08 (16/02608)







Mr Peter Head General Manager Leichhardt Municipal Council PO Box 45 Leichhardt NSW 2040 16/02608

Dear Mr Head

Planning Proposal to amend Leichhardt Local Environmental Plan 2013

refer to Council's letter requesting a Gateway determination under section 56 of the *Environmental Planning and Assessment Act* 1979 (EP&A Act) in respect of the planning proposal seeking to amend the Floor Space Ratio controls in the General Residential (R1) zone of the *Leichhardt Local Environmental Plan 2013* (LEP).

As delegate of the Greater Sydney Commission. I have now determined that the planning proposal should proceed, subject to the conditions in the attached Gateway determination.

The Gateway determination is conditioned to require Council adopt the FSR controls in Option 3 of the Floor Space Ratio review (the FSR review) prior to public exhibition. In making this decision, I have considered the recommendations of the FSR review and the advice of the Leichhardt Independent Planning Panel Co-chairs, which support Option 3.

The Department considers implementing Option 3 of the FSR review will improve planning processes and outcomes by better aligning the patterns of development approvals in the LGA with the FSR controls. Reducing the number of development applications reliant on Clause 4.6 Exceptions to development standards to vary the FSR controls will improve transparency and reduce the risk of corruption in decision making and reduce processing times for development applications.

To ensure the planning proposal is consistent with s117 Direction 3.1 Residential Zones, the Gateway Determination is further conditioned to require that no lots have their FSR reduced below the current FSR controls. Council should update the planning proposal to address consistency with s117 Directions 4.1 Acid Sulfate soils and 4.3 Flood Prone Land, prior to exhibition.

The amending Local Environmental Plan is to be exhibited for a minimum 28 days and finalised within 9 months of the week following the date of the Gateway determination. Council should aim to commence the exhibition of the planning proposal as soon as possible.

Department of Planning & Environment
25-33 Sndge Street Sydney NSW 2001 | 3PO Box 39 Sydney NSW 2001 | 702-9228 8333 | 02-9228 8455 | www.planning.new gov.au.



Council's request for the Department of Planning and Environment to draft and finalise the Local Environmental Plan should be made at least 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 Commission may take action under section 54(2)(d) of the Act if the timeframes outlined in this determination are not met.

If you have any further enquiries about this matter, please contact Mr Martin Cooper of the Department's Sydney Region East branch on (02) 9228 6582.

Yours sincerely

Marcus Ray

Deputy Secretary Planning Services

19(02/2016 Encl. – Gateway determination



ITEM 3.13 MORT BAY PARK PLAN OF MANAGEMENT-REVISED IMPLEMENTATION PRIORITIES

Division	Environment and Community Management
Author	Senior Parks and Open Space Planner
	Manager Parks and Assets
Meeting date	8 th March 2015
Strategic Plan Key Service	Community well-being
Area	Accessibility
	Place where we live and work
	A sustainable environment
	Sustainable services and assets
SUMMARY AND	ORGANISATIONAL IMPLICATIONS
Purpose of Report	To update Council on the outcomes of community consultation and the preparation of a revised priority action and master plan for Mort Bay Park.
	To seek Council adoption of a revised master plan for the park.
Background	In December 2014 Council considered a report on the implementation status of the Actions in the Mort Bay Park Plan of Management (adopted in 2005) and resolved to undertake the following: 1. That the report be received and noted.
	2. Council notes that the report provides a suitable basis for further consultation with residents concerning the outcomes of the implementation of the Mort Bay Park Plan of Management (2004)
	3. Council considers that it is now timely to conduct a further round of consultations and resolves to seek comments from residents on further action that may be appropriate in respect of the implementation of the current plan of management for the park.
	4. That Council provide costings to the 2015/16 budget considerations on the installation of unified palisade fencing to replace the temporary cyclone fencing on the perimeter of Bay, Short and Philip Streets (Refer C450/14).
Current Status	Community consultation has been completed and priority actions revised.
Relationship to existing	Adopted Master Plan and Plan of Management for



policy	Mort Bay Park (2004)		
Financial and Resources Implications	A number of priorities have significant cost implications including the proposed new public toilets which are recommended for the Thames Street entrance to the park and the proposed swimming enclosure. The cost implications of such projects require further analysis and reporting to Council.		
Recommendation	 Adopt the revised priority action plan for Mort Bay Park and proceed with actioning the high priority maintenance actions highlighted in the plan in 2016/17. Receive a report on detailed costings of identified capital items contained within the revised priority action plan and opportunities for funding and delivery. Note that further investigation on the feasibility of the proposed swimming enclosure is required prior to Council 		
	committing to any future delivery of this particular project. 4. With regards to tree management along the peripheral edges of Mort Bay Park, adopt a policy of selective tree removals to create view corridors and filtered views from the streetscape through to the Harbour Foreshore. In addressing biodiversity and habitat needs, Council develop a landscape scheme in the bush regeneration areas of the park which focuses on the development of lower understory shrub and smaller specimen tree planting.		
	5. Note the recent influx of boat trailer parking in Mckell Street and refer this issue to the Traffic Committee for further investigation on options for addressing parking concerns.		
Notifications	Local residents and park users.		
Attachments	Attached 1 Adopted Master Plan 2004 Attachment 2 Revised Master Plan 2016		



Purpose of Report

To update Council on the outcomes of community consultation and the preparation of a revised priority action and master plan for Mort Bay Park.

To seek Council adoption of a revised master plan for the park.

Recommendation

That Council:

- 1. Adopt the revised priority action plan for Mort Bay Park and proceed with actioning the high priority maintenance actions highlighted in the plan in 2016/17.
- 2. Receive a report on detailed costings of identified capital items contained within the revised priority action plan and opportunities for funding and delivery.
- 3. Note that further investigation on the feasibility of the proposed swimming enclosure is required prior to Council committing to any future delivery of this particular project.
- 4. With regards to tree management along the peripheral edges of Mort Bay Park, adopt a policy of selective tree removals to create view corridors and filtered views from the streetscape through to the Harbour Foreshore. In addressing biodiversity and habitat needs, Council develop a landscape scheme in the bush regeneration areas of the park which focuses on the development of lower understory shrub and smaller specimen tree planting.
- 5. Note the recent influx of boat trailer parking in Mckell Street and refer this issue to the Traffic Committee for further investigation on options for addressing parking concerns.

Background

In December 2014 Council considered a report on the implementation status of the actions in the Mort Bay Park Plan of Management (adopted in 2005) and resolved to undertake the following:

- 1. That the report be received and noted.
- 2. Council notes that the report provides a suitable basis for further consultation with residents concerning the outcomes of the implementation of the Mort Bay Park Plan of Management (2004)
- Council considers that it is now timely to conduct a further round of consultations and resolves to seek comments from residents on further action that may be appropriate in respect of the implementation of the current plan of management for the park.



- 4. That Council provide costings to the 2015/16 budget considerations on the installation of unified palisade fencing to replace the temporary cyclone fencing on the perimeter of Bay, Short and Philip Streets (Refer C450/14).
- 5. With regards to tree management along the peripheral edges of Mort Bay Park, Council adopt a policy of selective tree removals to create view corridors and filtered views from the streetscape through to the Harbour Foreshore. In addressing biodiversity and habitat needs, Council develop a landscape scheme in the bush regeneration areas of the park which focuses on the development of lower understory shrub and smaller specimen trees.

Report

Mort Bay Park is a regional level parkland which supports a wide range of recreational activities and is highly focal and popular within the local community. The park and its use has increased since the inception of a Plan of Management and its associated master plan in 2004 (Attachment 1). The installation of the children's playground, the development and success of the community gardens, the multi-purpose courts, the child care centre, bush care activities, the connectively with Ballast Point Park and the maturing of the natural features of the park all contribute to the success and popularity of the park.

As an events space, Mort Bay Park is a popular venue for children's' birthday parties, picnics and family gatherings, community outdoor theatre events and as a key vantage point for the new years eve firework celebrations. The Yeend Street pontoon and dingy/kayak storage racks along with the ferry services to and from the Thames Street ferry wharf are other key attractors which support use and enjoyment of the park.

Park Renewal Works 2013-15

The adopted 2004 Plan of Management and Master Plan (Attachment 1) provides the overlying management framework for the park, its management and development. In the last three years a number of priority renewal works have been completed at Mort Bay Park. Table 1.0 highlights key renewal projects which have been commissioned and completed in recent times..

Table 1.0 Mort Bay Park Completed Renewal Projects 2013-16.

Year	Completed works
2013/14	Renewed all lighting / new poles with LED lights installed.
	Raised height of the seawall and replaced weathered
	stone blocks in seawall in the Yeend St section of the park.
	Tree trimming of figs around all light poles.
2014/15	Renew spray seal path Yeend St side of park
	Repair stone seawall steps near dock
	Renew all metal seats with Aluminium seats/ stage 1
	Renew hardwood logs around Dock /stage 1
	Deco granite repairs/ top up, and concrete dish drain
	installed along McKell St path for stormwater run off
2015/16	Installation of Public Toilet Wayfinding signage
	Replace 2 old bubblers with drink stations



Replace Remaining metal seats with Aluminium seats/
Stage 2
Replace hardwood timber logs around dock/ stage 2.
Replace gal handrails around docks where rusted.
Yeend St stairs; replace treads with non-slip treads,
replace gal handrail where rusted.
Quotes obtained for Bay Street fence renewal. Works to
be commenced in 2016

Community Engagement

On the 31st October 2015 Council held a public meeting at Mort Bay Park to discuss with the community implementation priorities associated with the adopted plan of management and master plan for Mort Bay Park. The public meeting was advertised through the following means:

- Notification to the Precinct Committee
- Letter drop to local residents
- Notices throughout the park
- Notification on Council's web site.

A total of 79 residents attended. the public meeting. Councilors in attendance included: Councillor Byrne, Councillor Stamolis and Councillor Breen. Council Officers present: included the Senior Parks and Open Space Planner and the Manager Parks and Assets. The appointed consultant from Environmental Partnership was also in attendance. The key issues and opportunities which were discussed at the public meeting are summarised in Table 1.1 below

Table 1.1 Public Meeting-Issues and Opportunities

Biodiversity and Tree Management	Choice of trees-Don't like fig trees- they are nonnative Council should to consider removal ?
	Casuarinas should be thinned and the height reduced-views have been lost from Mort Street residents
	Height of Casuarinas has removed the winter sun element from residential properties. Tree management of Casuarinas should be looked at
	Replace the biodiversity area with smaller shrubs remove all large trees See above – selected thinning of native tree canopy to open corridors / access to views
	Restore City skyline views and views of the harbour.
	Replace the biodiversity area with smaller shrubs remove all large trees
	Undertake selected thinning of native tree canopy to open corridors / access to views
Art and Culture	Interpretation of our Indigenous culture is required in the park
	Sculpture work-What is it? where is the interpretation-can it be relocated?
General Park Management Issues	Picnic area near the community garden not being maintained properly by Council



	The state of the s
	Weeds between child care center and the community garden need addressing
	Shift bins away from seating areas
Lighting	Lighting improvements across the path network-need to be reviewed
Key Developments	Move forward with the development of the Philip/Bay Street
Proposals Put	Lookout
forward by the	
Community	
	Steel Railing Bay Street-remove review as part of lookout project
	Develop some seating in the sunny areas for winter sunshine enjoyment
	Consider swimming area off finger wharfs and investigate Waste Pollutant traps
	Place public toilets near the ferry wharf
	Mckell Street introduce no parking to address boat trailer storage
	and a residential parking scheme along Mckell Street and Yeend Street
	Provide a large shelter in the park Perhaps rather than one large – several smaller shelters
	Educate the community on after dark noise
	Install a community notice board in the park
	Address boat trailers in McKell Street and Yeend Street- the park
	is becoming a boat trailer park. Council to review
	Shade over the Child care center and the child care car park
Maintenance Issues	Open up area behind the basketball and remove thick vegetation - stranger danger too dense-encourages anti-social behavior. This area was not implemented as per plans – the POM suggested more open terracing here
	Picnic area near the community garden not being maintained properly by Council to review
	Weeds between child care center and the community garden need addressing. See notes above
	Fig trees damaging Short Street wall-could fall over Council Arborist should review
	Signage for the Public Toilets required (note: actioned and completed)
	Additional Bins and dog dispensers required Bin Frequency Needs to be reviewed-Bin numbers and frequency
	of emptying
	Address as a matter of urgency the hole in the park near the
	former container wharf
	Rotten Timber remove replace
	Lighting Improvements need to holistically review
	Pocket Park-Poorly maintained-not mowed for some time
	More dog dispensers required in the park
İ	Bottom two stairs near container wharf are collapsing
	Restore Short Street views



The minutes and key issues arising from the public meeting were published on Council's web site and were also sent to residents who registered their attendance at the public meeting.

Revised Implementation Plan

Following the outcomes of the public meeting Council officers and the appointed consultant reviewed the 2004 park master plan and its implementation priorities. The plan has subsequently been updated to reflect community views and incorporate Council officer recommendations. A revised implementation plan has been developed (**refer to Attachment 2**).

Revised Implementation Plan Key Priority Action Items

The key priorities area highlighted in the revised implementation plan (Attachment 1) are highlighted below in Table 1.2

Key H 1-2 years target M 3-7 years target L 8- 10 years target	Plan Reference	Action Item	Indicative Cost Estimate
Priority	1.0	Art and Culture	
Н	1.1	Interpretation of Indigenous culture required in the park – location to be determined along the foreshore / indicative location shown	\$5000
Н	1.2	Interpretive artwork / signage to former Stanley Works building Site and Dry Dock	\$5000
	2.0	Biodiversity and Tree Management	
Н	2.1	Review management of Bushland regeneration areas - Develop landscape scheme to address view concerns and rehabilitate vandalised areas with agreed lower level planting	\$3,000
M	2.2	Review existing Casuarina sp planting to Mort Street & Yeend Street - Consider thinning out of Casuarina's to improve filtered views	\$5,000
	3.0	Lighting	
M	3.1	Assess lighting across the main path routes from the ferry wharf to Mckell Street and from Cameron street to the off leash area of the park Implement required lighting improvements	\$15,000



	4.0	Seating	
М	4.1	Install seating in sunny areas of the park location to be determined	\$10,000
	5.0	Additional Proposals in response to Community Issues	
Н	5.1	Develop a landscape scheme from the Bay Street Look out which will include removal of the steel railings and replacement of the mesh wire fence along Bay Street. The landscape plan should include design proposals to enhance the existing entrance from Bay Street to Mort Bay Park	\$3,000
М	5.2	Investigate the provision and potential of gross pollution traps to address water quality issues. Consider swimming area off finger wharfs subject to water quality	\$3,000
M	5.3	Develop a concept plan and undertake community consultation on the provision of public toilets near the children's playground and ferry wharf	\$3,000
Н	5.4	Liaise within Council to investigate parking management to address boat trailer storage including potential for residential parking scheme along Mckell Street and Yeend Street	N/A
L	5.5	Provide additional shelter in the park - review benefits of one large vs several smaller shelters - location to be determined / indicative location shown	\$10,000
L	5.6	Install a community notice board in the park	\$2,500
M	5.7	Liaise with Child Care over potential for shade over the Child care centre play area and the child care car park	\$25,000
L	5.8	Provide Shade Sail over the picnic area adjacent to the community garden	\$25,000
Н	5.9	Address weeding issues to areas adjoining community garden - consider review of fence location to assist	\$2,500

Proposed Swimming Enclosure



A significant proposal which arose from the 2004 master plan is the development of a swimming enclosure off the finger wharfs in the park. This proposal requires a detailed feasibility study and future reporting and consideration by Council. The costs associated with addressing storm water runoff and windblown material in this area of the harbour needs to be carefully assessed as does the cost benefit analysis of such a proposal. Council already has a harbour pool located in close proximity to Mort Bay Park at Elkington Park (a distance of 1.3km from the park). Further reporting on this issue is a consideration for Council.

Boat Trailer Parking Issues

In the last year a significant issue has arisen with an influx of boat trailers being parked in Mckell Street. The area is currently free for parking and up to 12 boat trailers are parking along the park boundary. It is recommended that Council consider restricted parking in this area and that the matter is referred to Council's Traffic Committee for further investigation and consideration.

Trees and their value in Parks

Trees are integral components of parks and open space areas. Trees provide a range of benefits. Benefits which are summarised below:

Aesthetics Trees are one of the most important natural landscape elements in parks and open space areas. Trees provide shade in the heat of summer and can significantly cool an area.

Sense of continuity-Trees can provide linkages to the past, present and future. **Improving health** Tree canopies trap dust, absorb pollutants, provide shade and reduce noise.

Benefitting the environment By absorbing carbon dioxide, trees help to slow the rate of global warming. They reduce wind speeds, lower urban air temperatures and prevent flooding by absorbing storm water.

Boosting wildlife A habitat for birds, bats, insects, fungi and lichen..

Strengthening communities Trees contribute to the distinctive character of a place and encourage local pride. They are useful teaching resources, places to play and reflect.

Mort Bay Park Tree Management -Policy Directive

A policy directive is required from Council on tree management within Mort Bay Park. Tree Management is a significant issue which has been raised by local residents and park users. The adopted Plan of Management (2004) was ambiguous in terms of providing directive to Council on the appropriate tree specimens for planting within the park. The Mort Bay Park Plan of Management maintains that tree planting should be aimed at improving the quality of vegetation within the park whilst maintaining views over the park. The adopted Plan of Management also recommends that the open character of the park should be maintained for CBD and harbour views.



The landscape scheme which was subsequently enacted after 2004 did not maintain these policies and the native trees which were planted resulted in time with view corridors being marginalised and in some areas lost.

A new landscape scheme and policy directive from Council is required which maintains biodiversity and habitat provision while at the same time creating and maintaining view corridors through the park to the Harbour Foreshore.

It is recommended that selective tree removals along the edges of the park are undertaken to create view corridors from the streetscape. View corridors with filtered views should be created and a revised planting regime within the designated bush care area of the park developed with a key focus on lower understory planting to promote habitat and biodiversity.

Selective tree removal is recommended only along the peripheral edges of the park but not within the central areas of the parkland.

Summary/Conclusions

Community consultation with residents concerning the implementation of the adopted Park Plan of Management for Mort Bay Park has been completed. Community participation in the review has been positive. Following the completion of community engagement a revised priority implementation plan has been developed for Council consideration. The revised implantation plan highlights future actions which will enhance Mort Bay Park and its use as a regional recreational facility

High priority items identified in the revised implementation plan are largely park operational issues which require a policy directive form Council. This includes addressing bush regeneration issues and tree management in both Bay Street, Yeend Street and Mort Street.

It is proposed that Council undertake selective tree removals along the edge of the parkland to restore view corridors to the harbour foreshore. It is not proposed however to remove all trees along the edge of the park but to create view corridors and filtered views. Bush regeneration works which focus on understory planting and habitat creation is also recommend in the key bush regeneration areas.

A number of the priority projects identified have significant cost implications for Council into the future. This includes the proposed new public toilet facilities and the proposed swimming enclosure. This review has highlighted the need for a feasibility and cost benefit study on the proposed swimming enclosure The provision of public toilet facilities near the ferry wharf can be considered as part of the 2016/17 budget process.

Attachments

- 1. Attachment 1 2004 Mort Bay Park Master Plan
- 2. Attachment 2 Revised Master Plan and Implementation Priorities











SECTION 4 – CLOSED COUNCIL



ITEM 4.1 LEGAL SERVICES REPORT

Reason for Confidentiality

This report is **CONFIDENTIAL** in accordance with Section 10A(2)(g) of the Local Government Act 1993, which permits the meeting to be closed to the public for business relating to the following: -

(g) advice concerning litigation, or advice that would otherwise be privileged from production in legal proceedings on the ground of legal professional privilege



ITEM 4.2 LEICHHARDT OVAL NO. 1 - HIRING AGREEMENT TO WESTS TIGERS

Reason for Confidentiality

This report is **CONFIDENTIAL** in accordance with Section 10A(2)(c) of the Local Government Act 1993, which permits the meeting to be closed to the public for business relating to the following: -

 information that would, if disclosed, confer a commercial advantage on a person with whom the council is conducting (or proposes to conduct) business