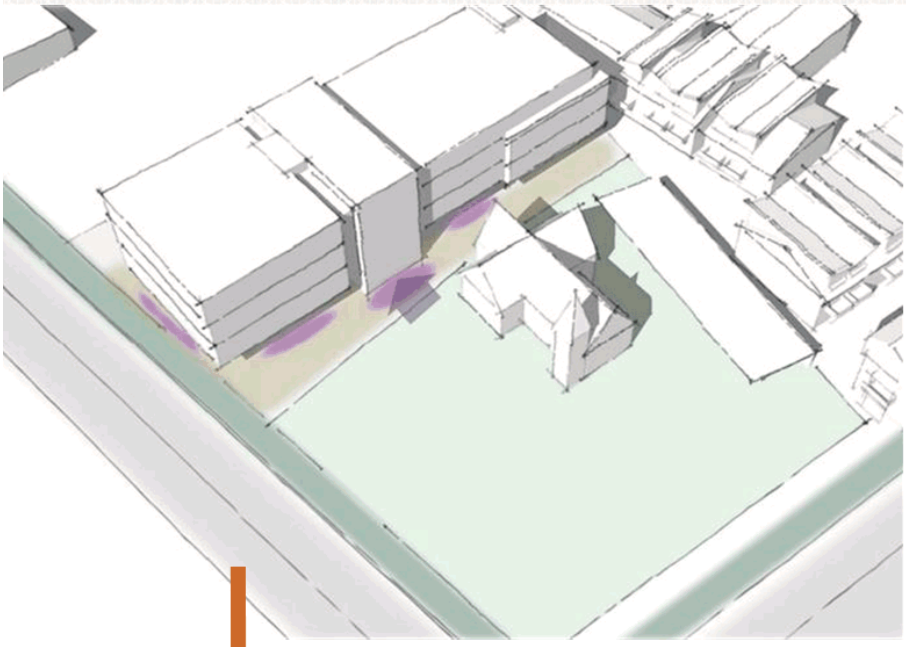
The **Ordinary Meeting** of
Bayside Council
will be held in the Rockdale Town Hall, Council Chambers,
Level 1, 448 Princes Highway, Rockdale
on Wednesday, 10 July 2019 at 7:00 pm.

UNDER SEPARATE COVER ATTACHMENTS

8 REPORTS

8.3 Planning Proposal - 1-3 Lord Street, Botany

CITY PLAN SERVICES



Planning Proposal

Site Specific Amendment to BBLEP 2013

1-3 Lord Street
Botany NSW

Submitted to Bayside Council
On Behalf of The Orth Botany Trust, The Fuz Botany Trust & The Hendrix Botany Trust

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October 2018 | 18-161

Report Revision History

Revision	Date Issued	Prepared by	Reviewed by	Verified by
01	13/07/18	**Sonny Embleton** *B Env Des UWA* *Grad Dip Urb Des Curtin University*	**Helen Deegan** *Grad Dip, Urban Estate Management, UTS* *B Town Planning, (Hons1) UNSW*	**Helen Deegan** H. Deegan.
02 Final	19/07/18	**Sonny Embleton** *B Env Des UWA* ***Grad Dip Urb Des Curtin University***	**Helen Deegan** *Grad Dip, Urban Estate Management, UTS* ***B Town Planning, (Hons1) UNSW***	
02 Final Updated	10/10/18	**Sonny Embleton** *B Env Des UWA* ***Grad Dip Urb Des Curtin University***	**Helen Deegan** *Grad Dip, Urban Estate Management, UTS* ***B Town Planning, (Hons1) UNSW***	

This document is preliminary unless approved by a Director of City Plan Strategy & Development

CERTIFICATION
This report has been authorised by City Plan Strategy & Development, with input from a number of other expert consultants, on behalf of the Client. The accuracy of the information contained herein is to the best of our knowledge not false or misleading. The comments have been based upon information and facts that were correct at the time of writing this report.

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Figures

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Tables

Appendix	Document	Prepared by
Appendix A	Urban Design Review/ Assessment (updated September 2018)	BuiltConsult Pty Ltd (Architects)
Appendix B	Draft Site Specific DCP	BuiltConsult Pty Ltd (Architects)
Appendix C	Economic Impacts Statement	AECgroup
Appendix C-1	Addendum to Economic Impacts Statement	AECgroup
Appendix D	Traffic and Parking Impacts Assessment	McLaren Traffic Engineering
Appendix D-1	Addendum to Traffic and Parking Impacts Assessment	McLaren Traffic Engineering
Appendix E	Heritage Impacts Statement	Tropman & Tropman Architects
Appendix F	Flood Advice	WMAwater
Appendix G	Site Survey	Crux Surveying Australia Pty Ltd
Appendix H	Table of SEPPs	City Plan
Appendix I	Table of s9.1 Directions	City Plan

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Executive Summary

This report constitutes a Planning Proposal request (PP) prepared by City Plan Strategy & Development (City Plan) on behalf of The Orth Botany Trust, The Fuz Botany Trust & The Hendrix Botany Trust. The PP seeks amendments to the Botany Bay Local Environmental Plan 2013 (BBLEP 2013). This PP is submitted to Bayside Council for assessment and determination under Part 3 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The intent of the PP is to facilitate increased commercial and industrial development capacity close to the Botany Town Centre and in close proximity to the major international trade gateways of Sydney Airport and Port Botany, consistent with current state and regional planning policies.

The proposal applies to land at 1-3 Lord Street, Botany (subject site). The site is legally described as Lot 2 in DP 593463 and Lot 4 in DP 593463. A site survey is provided at Appendix F. Refer Figure 1.

Figure 1 Location context of the subject site (Source: BuiltConsult Pty Ltd)

The intent of this PP is to seek amendments to the BBLEP 2013 to increase the maximum building height and floor space ratio applicable to the subject site. The intent of these amendments is to facilitate a commercial and industrial development that will support an increase in employment related land uses in a manner that is consistent with the BBLEP 2013 objectives for development in the existing B7 Business Park zone. The PP seeks the following specific amendments to the BBLEP 2013:

- An increase in the maximum height of building (HOB) limit from the current 10m under the height designation of 'K' to 16.5m under a new height designation of 'O'.
- An increase in the maximum floor space ratio (FSR) limit from the current 1:1 under the FSR designation of 'N', to 1.75:1 under a new FSR designation of S1.

This PP is supported by an Urban Design Review at Appendix A, which has informed the requested amendments to the BBLEP 2013 as well as providing an urban design strategy that demonstrates that a built form can be accommodated in accordance with the proposed controls that results in an acceptable level of impact on the surrounding locality, particularly in relation to the adjacent to the heritage listed St Matthew's church. A draft site-specific development control plan has been prepared as a means of implementing the intended outcomes of the Urban Design Review. This is provided as Appendix B.

This PP is supported by a Heritage Impacts Statement prepared by Tropman & Tropman Architects. This statement concludes the PP is both reasonable and positive as its design is respectful of the adjacent heritage listed St Matthew's Church with only minor impacts to its heritage significance.

Traffic and parking impacts assessment undertaken by McLaren Traffic Engineers concludes that the PP will not result in any unmanageable traffic impacts and is capable of accommodating the necessary parking for the intended use at the scale proposed.

The PP seeks to retain and make more efficient and effective use of the subject site's existing B7 Business Park land use zoning. This PP has been prepared with the purpose of amending the BBLEP 2013 to increase the maximum permissible building height and FSR. This will enable future employment and industrial land uses on the subject site that is of a scale consistent with the context of the site and its strategic location close to the Botany Town Centre, South Sydney employment lands, and major international trade gateways of Port Botany and Sydney Airport. In this regard, the PP is consistent with current state government strategic planning policy as demonstrated further in this PP.

As Sydney's population intensifies, the state government's strategic framework seeks to focus growth efficiently within existing urban areas and to protect and make better use of Sydney's strategically located employment lands. The subject site is ideally located close to the identified Sydney Airport and Port Botany trade gateways within the Greater Sydney Plan with ready access to the future WestConnex Motorway, which will duplicate the M5 and provide a link between Botany and the M4.

Continued strong economic growth in Sydney has provided significant benefits to Sydney and NSW through the increased volume of trade. Forecasted economic growth will only serve to increase the demand placed on Sydney's trade gateways in Port Botany and Sydney Airport. As a result, AEC's has confirmed there is a pressing need for land located near these trading gateways to support and complement business trade through the provision of warehousing and commercial land uses.

Land that is close to existing employment centres and public transport networks is scarce and valuable. As cities grow there is commensurate pressure on scarce lands to be developed to their fullest potential and for a variety of uses. The benefits of enabling more intensive use of land, which is a finite asset, are certain.

AEC has examined a variety of comparable employment areas and concludes that the Botany Precinct and its surrounds experienced very modest employment growth over the 2006-2016 period, averaging a mere 0.5% average annual growth compared to 1.5% to 3.4% in comparison areas. Employment growth in the Botany Precinct and its surrounds has been weak despite strong market demand and occupier interest.

AEC advises that in order to respond to this situation, opportunities to accommodate greater intensity of employment are needed. AEC's investigations highlight a lack of commercial floorspace opportunities in the Botany Precinct and broader South Sydney Region. Given the Botany Precinct's proximity to key centres and Trade Gateways, it is necessary to ensure commercial opportunities are available to attract new business but also facilitate growth and expansion in a diverse range of business activities.

In the case of the subject site, State government policy has focused equally on intensifying employment opportunities and accommodating changing requirements for businesses and how these businesses use land and floorspace. This PP seeks to meet these objectives by providing commercial opportunities for a range of business activity and importantly, maximising the economic intensity of the subject site. In doing so, the PP demonstrates alignment with the objectives and aspirations of overarching local and state planning policies and strategies.

AEC's Economic Impacts Statement at Appendix C has informed the preparation of this PP and concludes that it will result in a net positive economic impact and presents a compelling case for consideration in this regard.

Following its lodgement in July 2018, the PP was considered by Council's independent planning assessor Mecone. A further meeting with Council and its appointed independent planning assessor Mecone was held on 4 September 2018 to discuss an clarify preliminary issues identified. Formal feedback was provided in correspondence dated 4 September 2018. Matters raised related to urban design, heritage, flooding, traffic and economics. These matters have now been addressed in this updated PP and supporting documentation. In response to additional information requested, updates were made to the Urban Design Review at Appendix A, the Draft DCP at Appendix B. Flood advice has now being provided as Appendix F as well as addenda to the Economics and traffic inputs, provided as Appendix C-1 and Appendix D-1 respectively.

1. [Part 1] Objectives and Intended Outcomes

This PP seeks an amendment to the BBLEP 2013 that will enable higher commercial and industrial densities on land that is located within walking distance of a well-established and revitalising town centre, which is in in close proximity to the significant employment and trading hubs of Sydney Airport and Port Botany.

The PP seeks to amend the BBLEP 2013 to establish the necessary development controls that will facilitate the future development of a multi-storey commercial/ industrial building to deliver on the objectives of the subject site's B7 Business Park zone efficiently and effectively. Ultimately, the intended outcome of this PP is to provide the necessary development controls that will enable the future development of a building that will include:

- ground floor warehouse/commercial floorspace (621sqm);
- commercial floorspace (3,750sqm) on the upper levels; and
- a combination of basement and at-grade parking for 92 cars.

The intent of this PP is to provide more high-quality opportunities for commercial and industrial development in a highly strategic employment-oriented location. The site is located within an existing urban area that has the capacity to accommodate the needs of Sydney's growing population and maximise access to employment in existing urban areas with access to public transport, education, health and shops as well as a wide range of other services and facilities.

The site is currently zoned B7 Business Park, with a Floor Space Ratio (FSR) of 1:1 and a maximum building height of 10m within the BBLEP 2013. The PP seeks the following amendments to the BBLEP 2013:

- An increase in the maximum height of building (HOB) limit from the current 10m under the height designation of 'K' to 16.5m under a new height designation of 'O'.
- An increase in the maximum floor space ratio (FSR) limit from the current 1:1 under the FSR designation of 'N', to 1.75:1 under a new FSR designation of S1.

In doing so the PP would:

- provide an opportunity to develop and intensify existing employment lands to provide additional opportunities for warehousing and commercial uses adjacent to the Sydney Airport and Port Botany international trade gateways;
- result in net positive economic impacts by protecting and enabling a more efficient use of available employment lands to ensure commercial opportunities are available to attract new business but also facilitate growth and expansion in a diverse range of business activities;
- provide additional commercial/ industrial floor space to support the significant freight and logistics industries in the Eastern City District that will benefit from competitive advantages and efficiencies afforded by proximity to trade gateways and the District's four intermodal terminals;
- maximise opportunities to increase floor space available to support industrial and commercial uses, while acknowledging the site's location adjacent to a local heritage item, as well as neighbouring residential development;
- facilitate a building form that is respectful to the adjacent heritage listed St Matthew's Church with only minor impacts to its heritage significance;
- enable a future building on the site to be developed in a manner that minimises additional solar overshadowing on existing residential buildings adjacent to the site consistent with the objectives and principles of the Apartment Design Guide;
- result in acceptable and manageable traffic impacts on the local road network as well as enabling the development of a building that can provide sufficient car parking for the intended use; and
- result in acceptable and manageable flooding impacts in the local catchment.

2. [Part 2] Explanation of Provisions

2.1.1 The Planning Proposal

This PP has been prepared in accordance with the requirements of Section 3.33 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and addresses the guidelines set out in 'A guide to preparing local environmental plans' and the subsequent 'A guide to preparing planning proposals'. These guidelines were prepared by the NSW Department of Planning and Environment (DPE) in 2016.

The PP has been prepared with the purpose of amending the BBLEP 2013 to increase maximum height and floor space ratio (FSR) controls for the subject site. No change to the existing B7 Business Park land use zoning for the site is proposed.

Table 1 summarises the amendments to the BBLEP 2013 requested by this PP.

Table 1 Proposed Amendments to the BBLEP 2013

	Existing	Proposed
LZN - Land use zone	B7 Business Park	No change
HOB - Height of Buildings	10 metres	16.5 metres
FSR – Floor Space Ratio	1:1	1.75:1

The above will require amendments to mapping within the BBLEP 2013.

This PP is supported by the following technical documentation:

- Urban Design Review/ Assessment prepared by BuiltConsult Pty Ltd (Architects) - Appendix A.
- Site Specific Draft DCP prepared by Built Consult - Appendix B.
- Economic Impacts Statement by AECgroup - Appendix C and addendum Appendix C-1.
- Traffic and Parking Impacts Assessment by McLaren Traffic Engineering - Appendix D and addendum Appendix D-1.
- Heritage Impacts Statement prepared by Tropman & Tropman Architects - Appendix E.
- Flooding Impacts Statement by WMAwater - Appendix F
- Site Survey – Appendix G.

The above studies confirm that the PP can be achieved with an acceptable level of impact and will in fact result in significant opportunities to establish more employment opportunities in a well-positioned and highly accessible location.

3. [Part 3] Justification

3.1 Section A – Need for the Planning Proposal

3.1.1 Q1 - Is the planning proposal a result of any strategic study or report?

a) Does the proposal have strategic merit? Is it:

- **Consistent with the relevant regional plan outside of the Greater Sydney Region, the relevant district plan within the Greater Sydney Region, or corridor/precinct plans applying to the site, including any draft regional, district or corridor/precinct plans released for public comment; or**
- **Consistent with a relevant local council strategy that has been endorsed by the Department; or**
- **Responding to a change in circumstances, such as the investment in new infrastructure or changing demographic trends that have not been recognised by existing planning controls.**

The strategic merits of this PP have been demonstrated by a number of supporting technical studies. The Economic Impacts Statement prepared by AEC at Appendix C (supported by AEC's addendum at Appendix C-1) takes into account the site's location in close proximity to Sydney Airport and Port Botany and demonstrates significant strategic and economic benefits that will be brought into effect as a result of this PP. The Urban Design Review at Appendix A has been prepared as a key guide for determining the preferred FSR and height and the various urban design measures intended to ensure an appropriate response to local context and the adjacent heritage item, which is supported by the Heritage Impacts Statement at Appendix E.

The PP has been developed with consideration for state level and local strategic plans. The Botany Bay Planning Strategy 2031 was prepared in 2009 and sought to addresses the (then) Draft East Subregional Strategy dwelling and job targets and provides a framework for growth and development to 2031. The Botany Bay Planning Strategy 2031 also guided the preparation of the Botany Bay LEP 2013 (now implemented).

Since the preparation of Botany Bay Planning Strategy 2031, a new suite of state level strategic metropolitan and district plans has come into effect. These include:

- Greater Sydney Region Plan - A Metropolis of Three Cities 2018; and
- Eastern City District Plan.

These new plans contain strategies and objectives that achieve alignment on many levels with the Botany Bay Planning Strategy 2031 and are addressed in detail in Section 3.2.1.

An economic analysis prepared by AEC and provided as Appendix C, demonstrates the need for employment land and supports the proposed increase in building height and FSR to achieve greater business/ industrial floorspace in this location. A summary of key strategic and economic matters taken into consideration in the preparation of this PP are outlined in commentary derived from AEC's Economic Impacts Statement below. The following confirms the specific strategic circumstances that warrant the need for this PP.

Business and Industrial Activity

A range of factors influence business activity and land uses in the immediate Lord Street Precinct and other areas in Sydney's inner ring. Some of these are central to the local area while many are not. Significant influences on business activity are driven at the global and national level. Understanding the broader context in which the business activity within the Lord Street Precinct operates is essential to understanding future demand and the nature of that demand for employment on the subject site.

Traditional manufacturing in Australia is rapidly changing in a bid to survive on the global market. Manufacturers are redefining their operations and the scope of their activities through the use of technology and knowledge. A structural shift in Australian business is affirmed by

historical declines in employment in traditional industry sectors and the rise of employment in the service sectors.

Diversification of Function and Uses

In order to remain competitive, businesses recognise the need to leverage technology and knowledge and embrace new ways of doing business.

Many high-tech and creative industrial businesses are located in the South Sydney area (specifically Alexandria, Zetland, Rosebery and Waterloo) where they are able to collocate various functions under one roof. This has led to a proliferation of new development types that combine factory and industrial space with commercial suites, high-tech industrial units and warehouse space.

The collocation of warehouse and office functions is an increasing trend observed across employment areas, particularly those close to Sydney's urban centres. This is in line with the clustering of multiple business functions within the same premises. Warehouses with floorspaces circa 300-700sqm have a notable presence in the Botany Precinct, which is notable given that contemporary requirements for occupants do not necessarily require large floorplates, but rather, smaller spaces to accommodate commercial showrooms and wholesalers, niche manufacturing and small-scale production, as well as retailers and sales support services.

This trend is emerging in the Botany Precinct and presents an opportunity for the subject site to facilitate more business activity and employment, also allowing tenants to combine a variety of functions under one roof.

Service Industry/Urban Services

As Sydney continues to grow, population growth will be a major driver of household and business consumption. In response to consumption growth it is likely that trend for growth of imports will continue, leading increasing local demand for warehousing, transport and logistics industries to service imports growth. Continued growth in e-commerce has implications for demand to accommodate time-critical supply chain logistics across metropolitan Sydney.

Many urban support services have time critical requirements for delivery to inner/middle ring locations. Owing to service delivery standards (particularly where there are cold storage requirements), this industry requires accommodation in easily accessible locations in proximity to key markets.

There are numerous service industry businesses within the Botany Precinct that service a local market. Many of these businesses are locally owned and operated as small businesses. AEC advises that there will always be a role for local service industry to play in the Botany area, given the proximity to Sydney CBD, Sydney Airport, Port Botany and its central locality to the rest of metropolitan Sydney.

Intensification of Commercial Floorspace

Over the years, the economic theory of agglomeration has been increasingly examined to understand the benefits that firms enjoy when collocating in areas with a higher density of economic and employment activity. Taking up premise in an area of dense economic activity encourages the flow of knowledge and spill-on effects, is more efficient in resource-matching and enables businesses to take advantage of economies of scale.

The Lord Street Precinct's proximity to key economic assets (Sydney CBD, Sydney Airport, Port Botany and populous catchments) and affordability make it a popular choice for businesses who need commercial floorspace but not a CBD location. The large commercial floorplates provide opportunities for a wide range of businesses to take up accommodation on the subject site. As businesses are increasingly preferring to locate their business functions in one location rather than dispersed in multiple smaller locations, more commercial floorspace opportunities are needed.

Permitting a greater amount of commercial floorspace on the subject site, as proposed by this PP, will enable accommodation of mixed business activity and some industrial-type activity and will respond to occupier need.

b) Does the proposal have site-specific merit, having regard to the following:

- **the natural environment (including known significant environmental values, resources or hazards); and**

There are no known natural hazards affecting the subject site The PP is for land in an existing urban commercial and industrial precinct and therefore the environment significance of the site is minimal. The site is currently built upon with a large-scale warehouse storage facility. While the PP will enable more intensive use of the site for existing permissible uses, it is not expected that the PP would result in any additional impacts on the natural environment.

- **the existing uses, approved uses, and likely future uses of land in the vicinity of the proposal; and**

The PP does not seek to amend the land use zoning for the subject site. It seeks to support increased employment related floor space consistent with the existing B7 Business Park zoning of the site in close proximity to the Sydney Airport and Port Botany international trade gateways. Given that local and state government policies are clear in seeking to retain existing strategic employment lands in existing urban areas such as Botany, the likelihood that the existing use of the surrounding precinct for business purposes will continue in the long term is without question.

In terms of its relationship with the immediate surrounding context, the subject site is part of a cluster of commercial, industrial, and warehousing land uses commensurate with the permissible uses in a B7 Business Park zone. This PP will maintain the site's existing zoning and establish building height and floor space ratio development controls that enable more effective and efficient use of available employment land whilst ensuring a compatible built form outcome in relation to existing and likely future surrounding land uses.

While the subject site is zoned for B7 Business Park uses, it is situated in a transitional location adjacent to R3 Medium Density Residential zoned land, which accommodates the St Mathews Church to the west and residential flat buildings to the south. This PP and supporting Urban Design Review at Appendix A is predicated on the assumption that the adjacent R3 Medium Density Residential will remain and that impacts of a future built form of the subject site will need to be appropriately managed to respond to those ongoing uses.

As this PP seeks an increase in building height and FSR is proposed adjacent to residential zoned land, the Urban Design Review at Appendix A seeks to demonstrate that a built form outcome that would result from applying the proposed development controls to maximum effect can be achieved with an acceptable and manageable level of impact on adjacent uses.

We note that the planning proposal does not seek approval for a specific built form on the site. It is intended that in seeking to amend height and FSR controls, the planning proposal will provide sufficient flexibility to allow for a number of different built form massing configurations to be considered as part of detailed design and development application processes.

A draft site specific DCP has been prepared to appropriately guide the future development of the site and is provided as Appendix B. The draft DCP seeks to establish design principles and criteria to manage impacts between a future built form on the subject site and the adjacent Church and residential buildings.

In relation to the Church, the DCP sets out design principles to ensure that a future built form on the site is sympathetic with the church as well as providing an appropriate backdrop and reinforcing its visual prominence.

In relation to the adjacent residential buildings, the draft DCP aims to facilitate appropriate levels of solar access for the adjacent residential buildings in accordance with Objective 3B-2 of the Apartment Design Guide. The solar analysis diagrams provided in the Urban Design Review demonstrate that a built form solution can be achieved that result in a similar levels

of solar overshadowing as that currently results from the existing warehouse building located on the subject site. This is achievable by applying the proposed development controls and with consideration of southern setbacks.

As provided for above, the site specific merits of the proposal are adequately demonstrated in the Urban Design Review at Appendix A, supported by a draft DCP which will ensure that the outcomes are implemented with an appropriate level of certainty and design quality.

- **the services and infrastructure that are or will be available to meet the demands arising from the proposal and any proposed financial arrangements for infrastructure provision.**

The PP is for land in an existing metropolitan urban area, which is already serviced by the existing road network and serving infrastructure. The Traffic Impacts Statement at Appendix D and the addendum to the Traffic Study at Appendix D-1 demonstrates that the PP will not result in any unmanageable traffic impacts that would necessitate infrastructure upgrades.

The subject site presently has good access to the existing M1 and M5 motorways. The future development of the subject site will also benefit from planned WestConnex upgrades being in close proximity to the following major projects:

- New M5 from Beverley Hills to St Peters (planned to be open to traffic early 2020); and
- M4-M5 Link from Haberfield to St Peters (planned to be open to traffic in 2023).

The above projects will significantly increase the capacity of the metropolitan road network, which will further support the accessibility and operation of business/ industrial uses in the locality.

Specific infrastructure and servicing are more appropriately addressed as a part of a future development application process, when the servicing needs of a particular development outcome and any necessary infrastructure contribution requirements under s7.11 of the EP&A Act will be assessed and considered. Refer also to Section 3.4.1.

3.1.2 Q2 - Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

In this circumstance, where there is a suitable large-scale site under single ownership, that is located adjacent to two international trade gateways of Sydney Airport and Port Botany with limited available land to support business and industrial land uses, facilitating a more efficient and intensive use of the land represents an appropriate and logical approach to land use planning in a well-located business and employment area.

Given the overarching local and state government strategy is to retain business and industrial land in existing urban areas, making better use of the site's existing zoning is the best means of ensuring ongoing availability of employment opportunities.

Noise related constraints associated with development adjacent to a major airport render the subject site less suitable for sensitive residential uses. Intensifying the use of site under its existing zoning will ensure that the most appropriate land uses with the least sensitivity to noise to maintain ongoing operations in an existing business and industrial agglomeration.

Amending the building height and floor space ratio controls under the BBLEP 2013 is the only possible means to achieve the intended outcome of this PP.

It is therefore considered that amending the BBLEP 2013 to increase maximum allowable building height and FSR as proposed is the most appropriate, efficient and effective means of achieving the intended outcomes of the PP.

3.2 Section B – Relationship to Strategic Planning Framework

3.2.1 Q3 - Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy (including exhibited draft strategies)?

Greater Sydney Region Plan - A Metropolis of Three Cities 2018

The Greater Sydney Region Plan - A Metropolis of Three Cities has been prepared by the GSC and was adopted in March 2018. It is 20-year plan to manage growth and change and is built on a 40-year vision where the people of Greater Sydney live within 30 minutes of their jobs, education and health facilities, services and great places. This vision is consistent with the 10 Directions established in the Directions for a Greater Sydney that are a set of common guiding principles that will assist in navigating Greater Sydney's future as follows:

A city supported by infrastructure.	A well connected city.
A collaborative city.	Jobs and skills for the city.
A city for people.	A city in its landscape.
Housing the city.	An efficient city.
A city of great places.	A resilient city.

Within the Greater Sydney Region Plan these Directions are presented via the three cities concept, with the cities being the Western Parkland City, Central River City and Eastern Harbour City. District Plans have also been developed to support the three cities concept at a more localised level.

The subject site is located in the Eastern Harbour City and is located in close proximity to Botany Town Centre, Port Botany and Sydney Airport, with the two latter being identified as major international trade gateways under the plan, as shown in Figure 2 below. The plan notes the importance of supporting trade and transport whilst enhancing connectivity and employment growth.

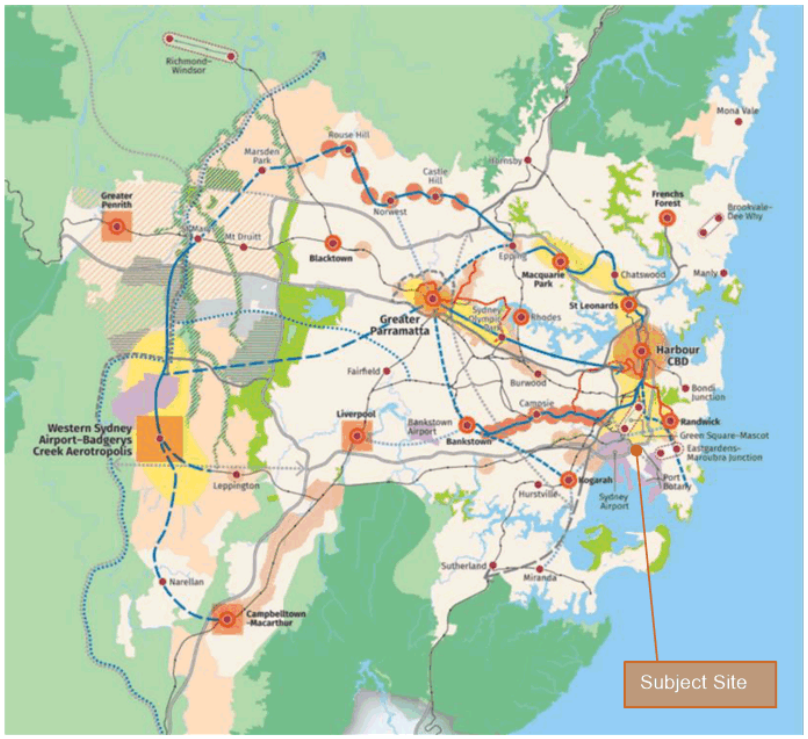

Figure 2 Metropolis of 3 Cities Vision to 2056 (Source: Greater Sydney Region Plan 2018)

The PP is consistent with the following objectives of the Plan:

Objective 4 Infrastructure use is optimised in that it provides for the intensification and efficient use of land by collocating employment and services in close proximity to Sydney's trade gateways. This will assist in achieving better utilisation of existing assets and infrastructure and minimise the need for additional infrastructure.

Objective 13 Environmental heritage is identified, conserved and enhanced in that the proposed development controls for the subject site have been developed to respond sympathetically to the form and scale of the adjacent heritage item as provided for in the Urban Design Review at Appendix A, draft DCP at Appendix B and Heritage Impacts Statement at Appendix E.

Objective 14 A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities in that it will intensify employment and business uses in a well-connected location in close proximity to existing residential areas, and soon to be enhanced arterial road network. This will assist in reducing the time people spend travelling, increasing people's access to jobs and business access to workers. As the subject site is in proximity to major trade gateways, it will also assist in supporting an internationally competitive freight and logistics sector.

Objective 15: The Eastern, GPOP and Western Economic Corridors in that it will strengthen economic activity in an economic corridor. Greater Sydney's Eastern Economic Corridor is a vital part of the economic ecosystem, with high concentrations of jobs and good road and transport links. The Greater Sydney Region Plan seeks to strengthen economic opportunities in existing and developing Economic Corridors, to optimise agglomeration

benefits and boost productivity with ongoing investment and new opportunities for businesses in the Eastern Harbour City. Major assets in the Eastern Economic Corridor include the emerging Green Square, Sydney Airport and Port Botany Trade Gateways. Trade Gateways are major ports and airports of national or State significance, which are supported by on-site industrial lands and in nearby areas. The subject site is situated close to Sydney Airport and Port Botany trade gateways. The PP will thereby make a significant contribution to accommodate businesses extending from the trade gateways within the freight and logistics network.

Objective 16 Freight and logistics network is competitive and efficient in that it will preserve and enhance employment land in the immediate environs of Port Botany and Sydney Airport creating opportunities to provide support services critical to operations. This objective seeks to retain industrial lands for port, intermodal and logistics uses. The growth of Port Botany and Sydney Airport requires the efficient use of nearby employment and light industrial lands to support freight and logistics from Sydney's trade gateways. The PP will increase the provision of available business and employment floor space in support of this objective.

Objective 22 Investment and business activity in centres in that it proposes a more efficient and intensive use of a presently underutilised site in proximity to the existing local Botany Town Centre and Sydney's trading centres and trade gateways, which are well connected with existing and improving arterial road infrastructure. The PP will assist in supporting local business by providing increased employment opportunities and therefore employment population in proximity to the revitalising Botany town centre.

Objective 23 Industrial and urban services land is planned, retained and managed in that B7 zoned land is managed in a manner which optimises for future development in close proximity to existing infrastructure and Sydney's trade gateways, which supports freight and logistical services. Industrial and urban services land refers to employment lands identified in the Employment Lands Development Monitor (DPE) and includes industrial zoned land and some business zoned land which permits a number of industrial uses. This land can include a range of activities from major freight and logistics and heavy manufacturing to light industry, urban services, integrated enterprises with a mix of administration, production, warehousing, research and development and new economy or creative uses. Employment lands in Botany are depicted in Figure 3.

Figure 3 Botany Employment Lands

Objective 32 The Green Grid links parks, open spaces, bushland and walking and cycling paths in that it will provide for increased employment opportunities on an identified Priority Green Grid Corridor where an existing track/ trail is available.

Objective 33 A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change in that the PP proposes improved building efficiency on a presently underutilised site in an existing urban area.

The Greater Sydney Region Plan states that management of industrial and urban services lands should evolve in response to changing business practices and needs and manage uses to allow sites to transition to higher-order employment activities to maximise business productivity, efficiency and competitiveness.

Factors considered in review of changing business practices and needs take into account the evolution in industries which impact the changing demand for land, the changing nature of industries, and current levels of industrial and urban services land supply. By enabling greater areas of floorspace to be achieved on an underutilised site, the PP will deliver on this Objective.

As demonstrated above, the PP will directly deliver on numerous Objectives outlined within the Greater Sydney Region Plan and is therefore consistent with its aims and directions.

Eastern City District Plan (March 2018)

As a part of Bayside Council, Botany is identified in the GSC's Eastern City District Plan which outlines a 20-year vision, priorities and actions for the Eastern District for LGAs, including Bayside.

The subject site is located in close proximity to Botany Town Centre, Port Botany and Sydney (Kingsford Smith) Airport and therefore has the ability to facilitate increased commercial density, given its location close to public transport infrastructure. In addition, broader scale objectives of this plan to maintain Sydney Airport and Port Botany as major trading gateways further emphasises the strategic impetus for increasing commercial density in this location.

Under the Eastern City District Plan, the subject site is identified as being in close proximity to the two major international trade gateways being Sydney Airport and Port Botany. Refer to Figure 4.

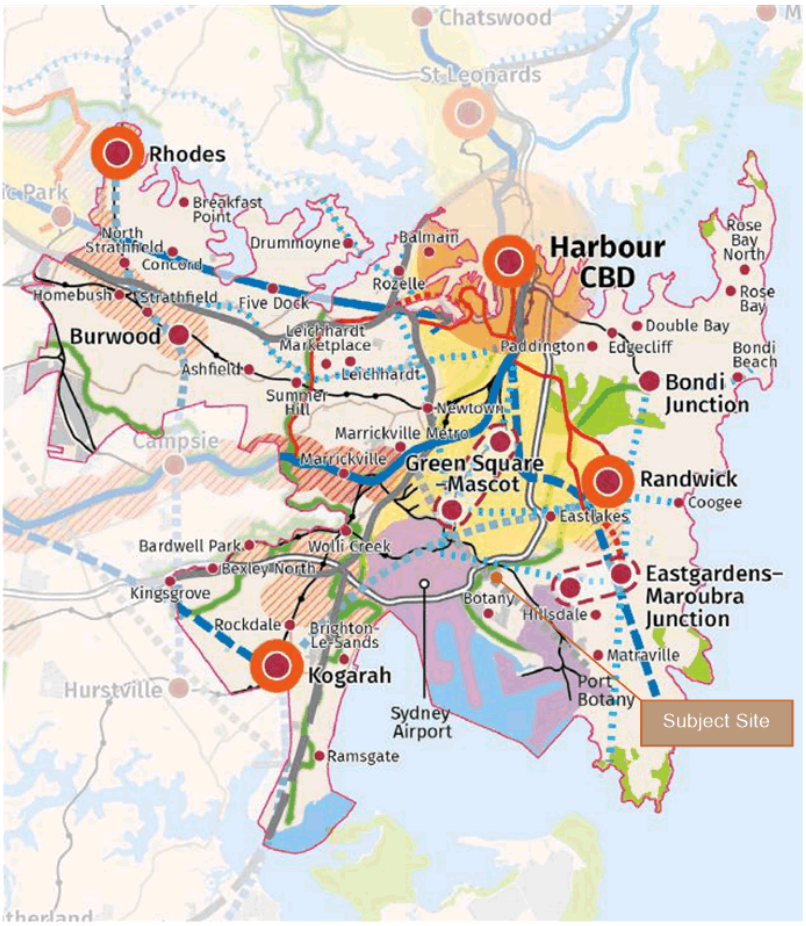

Figure 4 Eastern City District Plan (source GSC)

To respond to population growth and future planning challenges, the Eastern City District Plan focuses on a number of Planning Priorities. The PP is consistent with the Eastern City District Plan with respect to the following planning priority areas:

Planning Priority E5: Providing housing supply, choice and affordability, with access to jobs and services

This priority seeks to facilitate a higher quality of life, reduce commute time through collocation of housing, employment, services and public transport. Under this priority, the Plan recognises housing supply must be coordinated with local infrastructure to create liveable, walkable and cycle-friendly neighbourhoods with shops, services and public transport.

While this PP does not propose to create new housing opportunities near an employment zone, it seeks to intensify employment uses in close proximity to existing residential areas. The PP seeks to facilitate increased employment floorspace in close proximity to existing and emerging high density residential areas of Botany, Mascot, Green Square, Waterloo and

Zetland. The PP will protect and enhance opportunities for people to live in proximity to employment, community, civic, cultural residential and open space opportunities.

The PP is aligned with the Eastern City District Plan and will contribute to delivering its envisaged outcomes, by retaining the existing land use zoning and amending the BBLEP 2013 height and FSR controls to accommodate higher density employment land, which will assist Bayside Council in protecting and improving available employment lands. This will enhance the relationship between those land uses and nearby existing and future housing.

Planning Priority E6: Creating and renewing great places and local centres, and respecting the District's heritage

The Eastern City District Plan recognises heritage as an important component of local identity and great places. It also notes that local heritage items and heritage streetscapes form part of the character of a particular locality. The Plan states:

> *"Sympathetic built form controls and adaptive re-use of heritage are an important way to manage the conservation of heritage significance. Respectfully combining history and heritage with modern design achieves an urban environment that demonstrates shared values and contributes to a sense of place and identity. This is particularly important for transitional areas and places experiencing significant urban renewal, where it is necessary to take account of the cumulative impacts of development on heritage values. Improved public access and connection to heritage through innovative interpretation is also required."*

The PP is consistent with this planning priority in that it seeks to a sympathetic response to heritage by improving the relationship between development on the subject site and the adjacent heritage listed St Matthew's church. As provided for in the Heritage Impact Statement at Appendix E, the proposed built form concept underpinning this PP takes advantage of the existing opportunities on site without compromising any existing views and vistas to and from the existing church building. The Urban Design Review at Appendix A demonstrates that the PP would enable an improved backdrop to the church building and a higher level of interaction and activation between the subject site and the church grounds to be achieved.

The proposed setback between the site and the church will establish a new laneway, which will provide access and thoroughfare through the site and church grounds, which is intended to provide an active interface with the adjacent church grounds. In addition, the building height proposed by this PP has been carefully and methodically considered to ensure its compatibility with the height of the church building's spire.

This interface between the church and a future development on the subject site will be guided through the principles and design criteria set out in the draft DCP in Appendix B.

Planning Priority E9: Growing international trade gateways

This priority recognises the role of Sydney Airport and Port Botany as Sydney's main trading gateways to Australia as well as internationally. These international trade 'trade gateways' generate significant opportunities for employment and industry as places that distribute business resources and freight across Sydney, NSW and interstate. More significantly, there are plans for these trade gateways to undergo rapid expansion. The Eastern City Plan forecasts container traffic at Port Botany projected to grow from 2.4 million to 8.4 million containers by 2050 and passenger trips at Sydney Airport forecast to grow from 39 million to 74 million passengers by 2033.

The Eastern City District Plan acknowledges that a significant freight and logistics industry will remain in the Eastern City District due to the competitive advantages and efficiencies afforded by proximity to these gateways and the District's four intermodal terminals.

To ensure the ongoing growth of these international trade gateways, the Eastern City District Plan seeks to retain and strengthen the role of existing employment land in the district. This PP is consistent with this aim in that it seeks to retain and intensify the existing B7 Business Park zoning that allows for business and industrial uses.

Planning Priority E12 Retaining and managing industrial and urban services land

Industrial and urban services land in the Eastern City District provides cost competitive and well-located land for industries and services that support businesses in the Harbour CBD, other centres and Greater Sydney's two existing international trade gateways of Port Botany and Sydney Airport.

Urban services include activities such as motor vehicle services, printing, waste management, courier services and concrete batching plants. These activities serve local communities and businesses across the Eastern City District.

Figure 5 shows the subject site in relation to Eastern City District's employment lands.

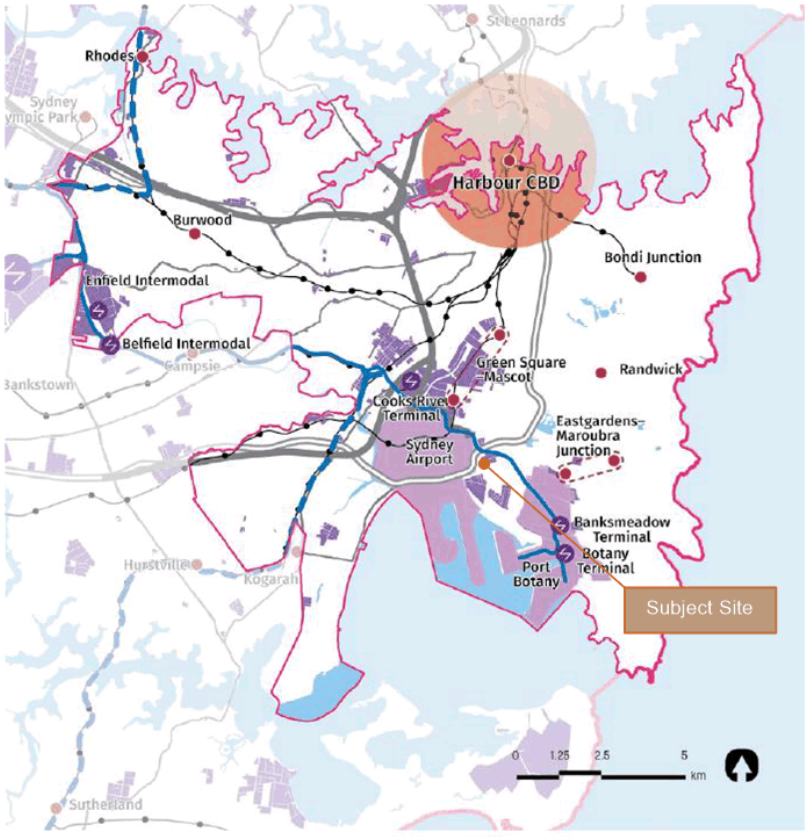

Figure 5 Eastern City District Employment Lands

Demand for urban services land will increase commensurate with population growth. Good local access to these services reduces the need to travel to other areas, minimising congestion on the transport system. Industrial and urban services land in the Eastern City District is highly constrained due to the development of residential dwellings and large-scale retail, which are higher-return land uses, and the lack of opportunities for new supply. There is strong competition for space from non-urban services industries that seek proximity to Sydney Airport, Port Botany, Sydney CBD and health and education precincts. While these businesses must be supported in a service-oriented modern economy, capacity for industrial and essential urban services must be retained.

Future employment growth across all industries and urban services will require additional floor space, additional land or both. Urban services are often less able to increase their floor space efficiency or locate in multi-storey buildings. Therefore, the retention, growth and enhancement of industrial and urban services lands in the Eastern City, as proposed by this PP, reflects both the city's needs and the subject site's local context.

The Eastern City District Plan states that Councils and relevant planning authorities have the responsibility to facilitate the contemporary adaptation of industrial and warehouse buildings through increased floor to ceiling heights.

The PP is consistent with this priority in that it will result in a more efficient, higher density use of existing industries and urban services land adjacent to the major international trade gateways of Port Botany and Sydney Airport.

3.2.2 Q4 - Is the planning proposal consistent with the local council's Community Strategic Plan or other local strategic plan?

Botany Bay Planning Strategy 2031

The Botany Bay Planning Strategy 2031 (Planning Strategy) for Botany Bay Council (now Bayside Council) was adopted in 2009 and identifies the long-term vision for the LGA to 2031. The Planning Strategy informed the preparation of the BBLEP 2013 and sets out the LGA's future through seven key strategic directions with their own goals as follows:

1. Enhancing Housing Choice and Liveability.
2. Revitalising Botany Road and Traditional Centres.
3. Managing Growth in the Eastern Centres.
4. Reviving the Local Economy.
5. Maintaining Sydney Airport as a Global Gateway.
6. Maintaining Port Botany as a Global Gateway.
7. Protecting the Natural Environment.

Specifically, the PP will make a direct contribution to the delivery of the following strategic directions and objectives:

2 - Revitalising Botany Road and Traditional Centres:

This strategic direction seeks to:

- Reinforce the role of Botany Road as a major high amenity and activity spine through the LGA.
- Support and reinforce the centres along the Botany Road spine.
- Advocate for a light rail connection along Botany Road.

Identified objectives and actions to deliver the above outcomes include:

Objective 2.2 Support and reinforce the centres along the Botany Road spine.

With regard to the above objective, the strategy notes that Botany is deemed unsuitable for residential intensification (ANEF constrained) and will be more suited to employment intensification with a greater commercial and regional retail role. It notes that the concept of

this centre needs to be extended to include the Lord Street business park commercial activities to the north, and part of the Hale Street industrial area to the west, which can become a larger format retail cluster.

The strategy encourages links between the Lord Street business park activities and Botany centre, so that the centre provides the ancillary retail and service activities for the tenants of the business park. Accordingly, the strategy discourages significant ancillary retail in the business park area in favour of an interrelationship between town centre and business park uses.

The PP will result in increased density on existing employment lands in close proximity to the Botany Town Centre. In doing so it will assist in increasing the local population during business hours to support local businesses along the Botany Road spine and within the town centre. As the subject site's existing B7 Business Park zoning will be retained, the PP will only result in an intensification of uses already permissible in that zone.

4 - Reviving the Local Economy

This strategic direction seeks to response to the decrease in local employment by:

- Focusing local light and service industry activities in existing industrial areas where these are currently the predominant uses (Botany South, Hale Street north, Baker Street and Hillsdale).
- Providing for additional retail and service activities in existing centres and a new retail area adjacent to Botany Centre.
- Promoting the Botany Road and Gardeners Road corridors as locations for new enterprise and commercial activities (in centres and in business areas south of Rosebery, north of Botany centre, in Botany South and west of Banksmeadow).

Identified objectives and actions to deliver the above outcomes include:

Objective 4.1 Focus local light and service industry activities in existing industrial areas where these are currently the predominant uses (Botany South, Hale Street (north), Baker Street and Hillsdale).

The strategy recognises the need for employment lands in the Botany Bay LGA to accommodate the wider East Sub region's future land demand for both Local Light Industry and Urban Support and Urban Services activities. The strategy notes the capacity for intensification and economies of scale in these land use activities.

The PP is for land in the Botany locality and will assist in achieving this strategic direction by allowing for increased height and FSR to facilitate higher density commercial and residential mixed-use development, to enable more effective and efficient use of limited available commercial/ industrial land.

5. Maintaining Sydney Airport as a Global Gateway

This strategic direction seeks to:

- Protect existing employment areas near the Airport for related activity.
- Support the development of new off-site employment locations near the Airport to accommodate the growth in demand for Airport related activity.
- Develop the Mascot Station precinct as a major retail and commercial centre.
- Develop O'Riordan Street precinct as a major City / Airport gateway.
- Ensure future expansion of Airport activities does not further compromise residential amenity.

Identified objectives and actions to deliver the above outcomes include:

Objective 5.1 Protect existing employment areas near the Airport for related activity.

Objective 5.2 Support the development of new offsite employment locations near the Airport to accommodate the growth in demand for Airport-related activity.

Sites within one kilometre of Sydney Airport are preferred for accommodating Airport-related land demand.

It is noted that the above objectives are also aligned with the key directions of the Eastern City District Plan, which advocates for protection and more effective use of employment lands adjacent to the Sydney Airport 'International Trade Gateway'.

The PP is for land within 1 kilometre of Sydney Airport. The PP will make a direct contribution to achieving the above objectives by retaining the site's existing B7 Business Park land use zoning and enabling the intensification of already permissible uses on the subject site. The PP will allow for increased height and FSR to facilitate higher density commercial and industrial development, in an appropriate location adjacent to the Sydney Airport Global Gateway identified under this strategy.

6. Maintaining Port Botany as a Global Gateway

This strategic direction seeks to:

- Ensure employment areas near the Port are protected and able to accommodate Port related activity and business.
- Ensure local and regional road networks are configured to support Port related activity.
- Ensure Port activities do not further compromise residential amenity.

Identified objectives and actions to deliver the above outcomes include:

Objective 6.1 Ensure employment areas near the Port are protected and able to accommodate Port-related activity and business.

It is noted that this strategic direction is also aligned with the key directions of the Eastern City District Plan, which advocates for protection and more effective use of employment lands adjacent to the Port Botany 'International Trade Gateway'.

The PP will assist in achieving this by retaining and intensifying the site's existing B7 Business Park land use. The PP will allow for increased height and FSR to facilitate higher density commercial and industrial mixed-use development, in an appropriate location adjacent to the Sydney Airport and Port Botany trade gateways.

3.2.3 Q5 - Is the planning proposal consistent with applicable State Environmental Planning Policies?

There are no existing State Environmental Planning Policies (SEPPs) or known draft policies that would prohibit or restrict the PP. A summary table of relevant State Environmental Planning Policies (SEPPs) is provided at Appendix B, while an assessment against the key relevant SEPPs is provided below:

State Environmental Planning Policy No 55 - Remediation of Land

Clause 6 of SEPP 55 states:

> *6 Contamination and remediation to be considered in zoning or rezoning proposal*
>
> *(1) In preparing an environmental planning instrument, a planning authority is not to include in a particular zone (within the meaning of the instrument) any land specified in subclause (4) if the inclusion of the land in that zone would permit a change of use of the land, unless:*
>
> *(a) the planning authority has considered whether the land is contaminated, and*
>
> *(b) if the land is contaminated, the planning authority is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for all the purposes for which land in the zone concerned is permitted to be used, and*

(c) if the land requires remediation to be made suitable for any purpose for which land in that zone is permitted to be used, the planning authority is satisfied that the land will be so remediated before the land is used for that purpose.

The existing development on the sites comprises of light industrial/ commercial development. The PP does not seek to change the zoning of the sites from the existing B7 Business Park zone and therefore will not permit any additional sensitive land uses. Therefore, a site contamination report is not necessary in this circumstance.

If required by a Gateway determination a site contamination report can be prepared for the site. Otherwise any land contamination matters can be appropriately addressed as a part of a future development application as necessary.

3.2.4 Q6 - Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?

The PP is consistent with all applicable Ministerial Directions. A summary table of the Ministerial Directions under Section 9.1 of the EP&A Act that are relevant for consideration as part of this PP is provided at Appendix C, while an assessment against the relevant Ministerial Directions is provided below:

S.9.1 Direction - 1.1 Business and Industrial Zones

The PP will affect land within an existing business zone being the B7 Business Park zone and therefore this Direction is applicable to the PP and must be considered as part of the strategic planning assessment.

Objectives

(1) The objectives of this direction are to:

(a) encourage employment growth in suitable locations,

(b) protect employment land in business and industrial zones, and

(c) support the viability of identified strategic centres.

Where this direction applies

(2) This direction applies to all relevant planning authorities.

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed business or industrial zone (including the alteration of any existing business or industrial zone boundary).

What a relevant planning authority must do if this direction applies

(4) A planning proposal must:

(a) give effect to the objectives of this direction,

(b) retain the areas and locations of existing business and industrial zones,

(c) not reduce the total potential floor space area for employment uses and related public services in business zones,

(d) not reduce the total potential floor space area for industrial uses in industrial zones, and

(e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning.

Consistency

(5) A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the planning proposal that are inconsistent are:

(a) justified by a strategy which:

(i) gives consideration to the objective of this direction, and

(ii) identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and

(iii) is approved by the Director-General of the Department of Planning, or

(b) justified by a study (prepared in support of the planning proposal) which gives consideration to the objective of this direction, or

(c) in accordance with the relevant Regional Strategy or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objective of this direction, or

(d) of minor significance.

Direction - 1.1 aims to ensure the economic and efficient development of existing business areas and centres and related public services and in doing so, it encourages employment growth in suitable locations.

The PP is consistent with the objectives of this Direction as follows:

(a) encourage employment growth in suitable locations,

The subject site currently contains a freestanding warehouse, accommodating approximately 29 jobs. The PP envisages development of the subject site to accommodate: 3,750sqm of commercial floorspace and 621sqm of commercial/industrial floorspace. This floorspace combined will accommodate 196 jobs on Site, representing a net increase of 167 direct jobs.

(b) protect employment land in business and industrial zones, and

The amendment sought to the BBLEP 2013 would lead to an increase in land zoned for employment generating land uses in the Bayside LGA. The total number of jobs generated on the subject site is estimated at 196 jobs (representing an increase of 167 direct jobs).

(c) support the viability of identified strategic centres.

The subject site is not identified as a strategic centre, hence this Objective is of no direct relevance to this PP.

As demonstrated above, the PP is consistent with the objectives of Direction 1.1 given that it seeks to retain and intensify the existing B7 Business Park zone. By retaining the B7 Business Park zoning, the provision of employment opportunities in this strategic location is retained and improved. Therefore, consistency with this Direction is upheld.

S.9.1 Direction – 2.3 Heritage Conservation

The PP proposes to increase permissible building height and floor space ratio adjacent to a St Matthew's Anglican Church, which is identified as a Local Heritage Item according to the BBLEP 2013. The following extract outlines criteria for assessing consistency with this Direction.

Objective

(1) The objective of this direction is to conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance.

Where this direction applies

(2) This direction applies to all relevant planning authorities.

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal.

What a relevant planning authority must do if this direction applies

(4) A planning proposal must contain provisions that facilitate the conservation of:

(a) items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area,

(b) Aboriginal objects or Aboriginal places that are protected under the National Parks and Wildlife Act 1974, and

(c) Aboriginal areas, Aboriginal objects, Aboriginal places or landscapes identified by an Aboriginal heritage survey prepared by or on behalf of an Aboriginal Land Council, Aboriginal body or public authority and provided to the relevant planning authority, which identifies the area, object, place or landscape as being of heritage significance to Aboriginal culture and people.

Consistency

(5) A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that:

(a) the environmental or indigenous heritage significance of the item, area, object or place is conserved by existing or draft environmental planning instruments, legislation, or regulations that apply to the land, or

(b) the provisions of the planning proposal that are inconsistent are of minor significance.

The subject site is not listed as a heritage item. The PP is does not propose to create remove any heritage listing of a heritage item. Therefore, the PP is not inconsistent with this

Direction. Heritage impacts of the PP on the adjacent heritage are addressed at a later stage of this report and in the Heritage Impacts Statement at Appendix E.

S.9.1 Direction – 3.4 Integrating Land Use and Transport

The PP seeks to amend the height and FSR for land zoned for commercial purposes, which will facilitate an increase available employment related floor space in an existing urban area. Therefore, consideration has been given to this Direction.

Objectives

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

(a) improving access to housing, jobs and services by walking, cycling and public transport, and

(b) increasing the choice of available transport and reducing dependence on cars, and

(c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and

(d) supporting the efficient and viable operation of public transport services, and

(e) providing for the efficient movement of freight.

Where this direction applies

(2) This direction applies to all relevant planning authorities.

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal that will create, alter or remove a zone or a provision relating to urban land, including land zoned for residential, business, industrial, village or tourist purposes.

What a relevant planning authority must do if this direction applies

(4) A planning proposal must locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of:

(a) Improving Transport Choice – Guidelines for planning and development (DUAP 2001), and

(b) The Right Place for Business and Services – Planning Policy (DUAP 2001).

Consistency

(5) A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the planning proposal that are inconsistent are:

(a) justified by a strategy which:

(i) gives consideration to the objective of this direction, and

(ii) identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and

(iii) is approved by the Director-General of the Department of Planning, or

(b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or

(c) in accordance with the relevant Regional Strategy, Regional Plan or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objective of this direction, or

(d) of minor significance.

Improving Transport Choice – Guidelines for planning and development was prepared by the (then) Department of Urban Affairs and Planning in 2001 to provide guidelines, principles, initiatives and best practice examples for locating land uses and designing development that encourages viable and more sustainable transport modes than the private car such as public transport, walking and cycling.

The PP proposes to increase the height and FSR for land in an existing B7 Business Park zone. This will result in the more efficient use of land in an area already zoned for business and employment related uses. It does not propose to amend the land use zone or permissibility of land uses to be carried out in the existing B7 Business Park zone. Therefore, the PP is not inconsistent with this Direction.

S9.1 Direction - 3.5 Development Near Licensed Aerodromes

The subject site is located within the prescribed airspace for Sydney (Kingsford Smith) Airport. As the PP proposes to amend building height and FSR controls in the vicinity of a licenced aerodrome, this Direction applies.

Based on the site survey provided as Appendix F

Flood Advice

Appendix , the existing ground level of the subject site is in the order of 5.0m to 5.5m AHD. Considering the proposed 16.5 metre maximum high limit, this would result in an overall AHD of approximately 22m.

The provisions of this Direction are set out as follows:

Objectives

(1) The objectives of this direction are:

(a) to ensure the effective and safe operation of aerodromes, and

(b) to ensure that their operation is not compromised by development that constitutes an obstruction, hazard or potential hazard to aircraft flying in the vicinity, and

(c) to ensure development for residential purposes or human occupation, if situated on land within the Australian Noise Exposure Forecast (ANEF) contours of between 20 and 25, incorporates appropriate mitigation measures so that the development is not adversely affected by aircraft noise.

Where this direction applies

(2) This direction applies to all relevant planning authorities.

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal that will create, alter or remove a zone or a provision relating to land in the vicinity of a licensed aerodrome.

What a relevant planning authority must do if this direction applies

(4) In the preparation of a planning proposal that sets controls for the development of land in the vicinity of a licensed aerodrome, the relevant planning authority must:

(a) consult with the Department of the Commonwealth responsible for aerodromes and the lessee of the aerodrome,

(b) take into consideration the Obstacle Limitation Surface (OLS) as defined by that Department of the Commonwealth,

(c) for land affected by the OLS:

(i) prepare appropriate development standards, such as height, and

(ii) allow as permissible with consent development types that are compatible with the operation of an aerodrome

(d) obtain permission from that Department of the Commonwealth, or their delegate, where a planning proposal proposes to allow, as permissible with consent, development that encroaches above the OLS. This permission must be obtained prior to undertaking community consultation in satisfaction of section 57 of the Act.

(5) A planning proposal must not rezone land:

(a) for residential purposes, nor increase residential densities in areas where the ANEF, as from time to time advised by that Department of the Commonwealth, exceeds 25, or

(b) for schools, hospitals, churches and theatres where the ANEF exceeds 20, or

(c) for hotels, motels, offices or public buildings where the ANEF exceeds 30.

(6) A planning proposal that rezones land:

(a) for residential purposes or to increase residential densities in areas where the ANEF is between 20 and 25, or

(b) for hotels, motels, offices or public buildings where the ANEF is between 25 and 30, or

(c) for commercial or industrial purposes where the ANEF is above 30, must include a provision to ensure that development meets AS 2021 regarding interior noise levels.

Consistency

(7) A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the planning proposal that are inconsistent are:

(a) justified by a strategy which:

(i) gives consideration to the objectives of this direction, and

(ii) identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and

(iii) is approved by the Director-General of the Department of Planning, or

(b) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or

(c) in accordance with the relevant Regional Strategy, Regional Plan or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objective of this direction, or

(d) of minor significance.

With consideration for the above Direction, the following matters are relevant to this PP:

Obstacle Limitation Surfaces

Figure 6 illustrates the location of the subject site in relation to Sydney Airport's Obstacle Limitation Surface (OLS). Sydney Airport Master Plan 2033 defines OLS as:

'a series of surfaces in the airspace surrounding an airport. The OLS defines the airspace to be protected for aircraft operating during the initial and final stages of flight, or manoeuvring in the vicinity of the airport.'

Figure 6 illustrates the subject site's location within the Inner Horizontal Surface on the OLS map, which is 51.0m AHD.

The PP proposes building heights that are within the prescribed Obstacle Limitation Surfaces (OLS) for Sydney Airport.

Figure 6 OLS Mapping for Sydney Airport

The overall AHD of 22m that would result from this PP is considerably lower than the 51m AHD OLS. Therefore, the PP will not result in any penetration of OLS surfaces and the objectives of this Direction in that regard are upheld.

Procedures for air navigation services – aircraft operations (PANS-OPS) surfaces

As illustrated in Figure 7, the subject site is identified in Procedures for Air Navigation Services Operations (PANS-OPS) surface mapping for Sydney Airport. The site is located adjacent to runway approaches where a horizontal plane of above 60-70 AHD applies. Permanent controlled activities are not permitted to penetrate the PAN-OPS component of the prescribed airspace. As provided for in the Botany Bay DCP 2013, 'a permanent controlled activity is considered to be any structure erected for a period of more than 3 months'. While this PP does not propose a specific development, it seeks to establish new height and FSR controls above those already permissible on the site.

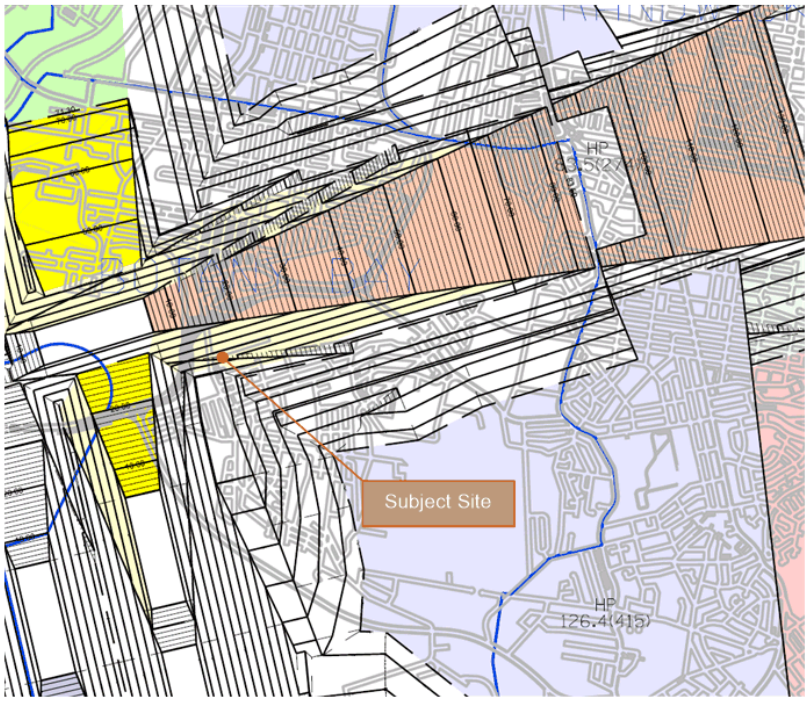

Figure 7 PANS-OPS for Sydney Airport

The overall AHD of 22m that would result from this PP is considerably lower than the 60-70 AHD PANS-OPS. Therefore, the PP will not result in any penetration of PANS-OPS surfaces and the objectives of this Direction in that regard are upheld.

Noise Impacts – ANEF

SAMP 2033 considers that the Airports Act 1996 requires Sydney Airport to manage aircraft noise intrusion and mitigate noise impacts associated with airport traffic. SAMP 2033 states:

> *'Sydney Airport helps to achieve this outcome by preparing the ANEF, a process that involves engagement with the NSW and local governments (see Section 14.4). The ANEF, which is designed to create a land use planning tool to manage noise sensitive land uses around the airport, provides guidance for the NSW Department of Planning and Infrastructure (NSWDPI) and councils to make informed planning and development decisions. The system underpins Australian Standard AS2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction. The standard defines areas where construction of certain building types is "acceptable", "conditionally acceptable" and "unacceptable".'*

The subject site is located in a zone between 25 and 30 ANEF, as illustrated in Figure 8.

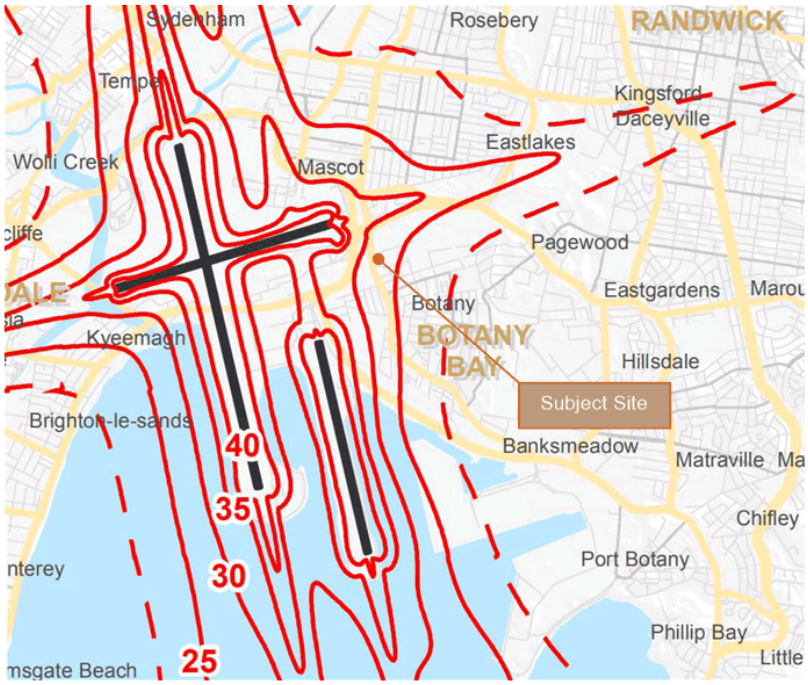

Figure 8 ANEF Contours for Sydney Airport (SAMP 2033)

According to SAMP 2033 and the requirements of this Direction, any zone above 25 ANEF is unsuitable for residential purposes but is suitable for commercial and industrial land uses below 30 ANEF.

The PP does not propose to amend the site's existing land use zoning and therefore does not propose to introduce any additional or sensitive land uses beyond those already permissible on the subject site. In that regard, the objectives of this Direction are upheld.

Given the PP does not propose any penetration of the OLS or PANS-OPS surfaces and will not introduce any sensitive land uses on the subject site, the PP is considered to be consistent with this Direction.

Should a future Gateway determination consider there to be sufficient merit for the PP to proceed to exhibition, the PP would be referred to relevant aviation authorities for comment, including:

- Sydney Airport Authority.
- Civil Aviation Safety Authority (CASA).
- Commonwealth Department of Infrastructure and Regional Development (DIRD).

Should any aspect of this PP be considered to present a risk to aviation practices and procedures other than those identified in this report, the above authorities would advise of any potential safety concerns or mitigation measures via the referral process, following which further detailed investigations may be undertaken.

It is noted that referral to aviation authorities would also be undertaken as a part of a DA process if necessary.

S.9.1 Direction - 4.1 Acid Sulfate Soils

The subject site is identified on the BBLEP 2013 Acid Sulfate Soils map as being located in an area with an Acid Sulfate Soils classification of Class 4. Refer to Figure 9.

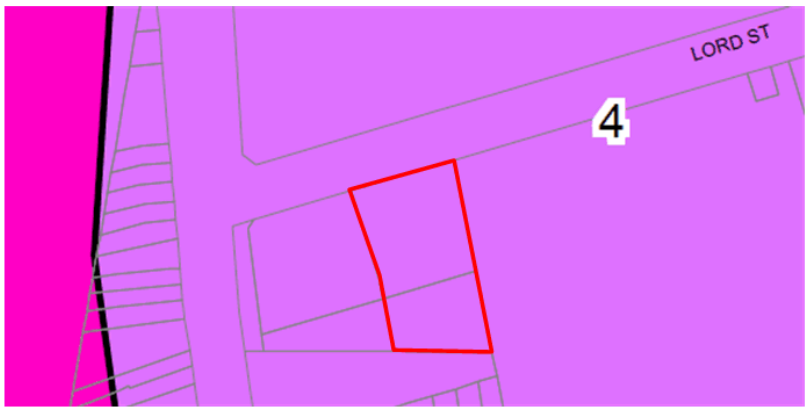

Figure 9 BBLEP 2013 Mapping - Acid Sulfate Soils

Under the BBLEP, Class 4 areas require development consent for works more than 2 metres below the ground level under BBLEP 2013 section 6.1 Acid Sulfate Soils.

The relevant objectives and requirements set out under this Direction are provided for as per the following extract:

Objective

(1) The objective of this direction is to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulfate soils.

Where this direction applies

(2) This direction applies to all relevant planning authorities that are responsible for land having a probability of containing acid sulfate soils, as shown on Acid Sulfate Soils Planning Maps held by the Department of Planning.

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal that will apply to land having a probability of containing acid sulfate soils as shown on the Acid Sulfate Soils Planning Maps.

What a relevant planning authority must do if this direction applies

(4) The relevant planning authority must consider the Acid Sulfate Soils Planning Guidelines adopted by the Director-General of the Department of Planning when preparing a planning proposal that applies to any land identified on the Acid Sulfate Soils Planning Maps as having a probability of acid sulfate soils being present.

(5) When a relevant planning authority is preparing a planning proposal to introduce provisions to regulate works in acid sulfate soils, those provisions must be consistent with:

(a) the Acid Sulfate Soils Model LEP in the Acid Sulfate Soils Planning Guidelines adopted by the Director-General, or

(b) such other provisions provided by the Director-General of the Department of Planning that are consistent with the Acid Sulfate Soils Planning Guidelines.

(6) A relevant planning authority must not prepare a planning proposal that proposes an intensification of land uses on land identified as having a probability of containing acid sulfate soils on the Acid Sulfate Soils Planning Maps unless the relevant planning authority has considered an acid sulfate soils study assessing the appropriateness of the change of land use given the presence of acid sulfate soils. The relevant planning authority must provide a copy of any such study to the Director-General prior to undertaking community consultation in satisfaction of section 57 of the Act.

(7) Where provisions referred to under paragraph (5) of this direction have not been introduced and the relevant planning authority is preparing a planning proposal that proposes an intensification of land uses on land identified as having a probability of acid sulfate soils on the Acid Sulfate Soils Planning Maps, the planning proposal must contain provisions consistent with paragraph (5).

Consistency

(8) A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the planning proposal that are inconsistent are:

(a) justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction, or

(b) of minor significance.

This Direction has been considered as the PP involves an increase in FSR and height for the purpose of enabling a development form that is intended to include basement car parking, which may involve excavation below 2 metres below ground level. Note that this PP does not propose an actual built form, rather the applicable controls that will enable a built form to occur.

While paragraph (6) of this Direction requires that an acid sulfate soils study be undertaken to demonstrate the appropriateness of the change of land use (in this case, not a change of use but an intensification of the existing land use), the PP is not of such a significant scale to warrant such investigations being undertaken at this strategic stage of the planning process. While the intent of this PP is to establish controls that allow for a single level of basement parking in a future built form on the site, this is an outcome that could potentially occur under the current controls provided that the impacts on acid sulfate soils are appropriately addressed as part of a future development application process.

As outlined in paragraph (8) of this Direction, a PP is permitted to be inconsistent with this direction where the provisions of the PP that are inconsistent are of minor significance.

Given that a single level of basement car parking is already a possible to achieve under the current controls, it is reasonable for investigations relating to acid sulfate soils to be undertaken as part of a future detailed design and development application process at which point the specific impacts can be better assessed at a stage of the process where the actual depth of excavation is known.

Given the above, the PP is justifiably inconsistent with this Direction as the PP is of minor significance in terms of impacts relating to acid sulfate soil impacts. Further investigation of

acid sulfate soils and mitigation measures are more appropriately addressed as part of a detailed design phase when such matters can be specifically and directly addressed to an appropriate level of resolution.

If required by a Gateway determination, an acid sulfate soils study can be prepared for the site. Otherwise any acid sulfate soil related matters can be appropriately addressed as a part of a future development application as necessary.

S.9.1 Direction - 4.3 Flood Prone Land

The subject site is not identified on BBLEP 2013 mapping or within Council's DCP as being located within a flood planning area. It is understood that Council is in the process of preparing a flood management study and that the findings of this study may result in amendment to the BBLEP 2013 to identify land that is flood affected. Council has provided preliminary advice in relation to the subject site, which indicates that the subject site is identified as flood affected, albeit to a minor extent.

The PP proposes to amend building height and FSR controls in a manner intended to facilitate the future redevelopment of flood affected land as defined by Direction 4.3. As such this Direction applies and has been given due consideration in the preparation of this PP.

Investigations into flooding affecting the site were undertaken by WMAwater and their advice is provided as Appendix F.

WMAwater confirms that a sag point exists on Lord Street in the vicinity of the site. This causes water to pond on the road and extend into properties north and south of the road in events as frequent as a 5 year Average Recurrence Interval (ARI). The subject site is affected by this ponded water to depths of 0.5 m in the 1% Annual Exceedance Probability (AEP) event and 0.8 m in the Probable Maximum Flood (PMF) event.

In the 1% AEP event, the front 8 m - 15 m along the subject site's boundary is flood affected to varying depths. The remainder of the lot is largely flood free, with the exception of some shallow ponding on the western boundary (less than 150 mm deep). It is noted that the shallow ponding on the western site boundary is not expected to form a major constraint, as it is classified as 'flood fringe' in the 1% AEP event, however this area would need to be taken into account during a detailed design phase, and would possibly require confirmation via a flood impact assessment depending on the proposed footprint.

Parts of the site, mainly at the front of the site, are classified as 'flood storage', indicating that if an obstruction is placed in this area it is likely to cause flood impacts elsewhere.

WMAwater advises that where a setback from the front boundary of between 8-15m cannot be achieved so as to locate a future built form outside of the 'flood storage' area, an engineering solution to prevent flood level impacts is possible. This may occur through the use of pier-footings for construction, or solutions relating to at-grade open carparking and landscaping.

WMAwater concludes that it would be possible to design a building footprint that does not impact on flood behaviour outside of site. In response to WMA's advice at Appendix F, a future detailed design and development application would be prepared in conjunction with the preparation of a flood impact assessment. This would ensure that any future built form and engineering solution would be tested in terms of proposed site configuration (i.e. building envelope, open space/landscaping and access), site levels and construction methods to determine whether the building envelope is likely to change flood behaviour. This would confirm whether any special design considerations are required and provide a design and engineering solution that contains the flood behaviour within the subject site.

As matters relating to detailed design would be addressed through a later development application process and WMAwater have confirmed that it is possible to achieve an appropriate engineering solution through proper site planning, the objectives and requirements of this Direction should not preclude this PP from proceeding to the Gateway for determination.

S.9.1 Direction - 6.3 Site Specific Provisions

The objective of this direction is to discourage unnecessarily restrictive site-specific planning controls. The PP is consistent with this direction as it does not seek to impose any development standards or requirements in addition to those already contained in the standard environmental planning instrument.

Objective

(1) The objective of this direction is to discourage unnecessarily restrictive site specific planning controls.

Where this direction applies

(2) This direction applies to all relevant planning authorities.

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal that will allow a particular development to be carried out.

What a relevant planning authority must do if this direction applies

(4) A planning proposal that will amend another environmental planning instrument in order to allow a particular development proposal to be carried out must either:

(a) allow that land use to be carried out in the zone the land is situated on, or

(b) rezone the site to an existing zone already applying in the environmental planning instrument that allows that land use without imposing any development standards or requirements in addition to those already contained in that zone, or

(c) allow that land use on the relevant land without imposing any development standards or requirements in addition to those already contained in the principal environmental planning instrument being amended.

(5) A planning proposal must not contain or refer to drawings that show details of the development proposal.

Consistency

(6) A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the planning proposal that are inconsistent are of minor significance.

The PP does not seek to unnecessarily restrict the subject site, instead it seeks to enhance the capacity and development opportunities. The PP is consistent with paragraph (4) of this s9.1 Direction in that it:

- seeks to retain existing land use zoning on the site; and
- proposes to amend only a height and FSR standard via the PP, which is a development standard commonly used throughout NSW.

The PP does not contain or refer to drawings that show details of the development proposal. Any detailed design guidance is intended to be provided via a site-specific development

control plan as provided for in Appendix B. This is an appropriate mechanism for providing detailed guidance for site planning and built form on a site-specific level and is a primary means of providing such guidance across NSW.

As outlined above, the PP is consistent with this Direction.

S.9.1 Direction - 7.1 Implementation of A Plan for Growing Sydney

The objective of this direction is to give legal effect to the planning principles; directions; and priorities for subregions, strategic centres and transport gateways contained in A Plan for Growing Sydney.

In March 2018, A Plan for Growing Sydney was superceded by the Greater Sydney Region Plan - A Metropolis of Three Cities, which is given affect via Part 3 of the Environmental Planning and Assessment Act 1979.

Discussions with the Department of Planning on 9 April 2018 confirmed the redundancy of s9.1 Direction - 7.1 Implementation of A Plan for Growing Sydney. At the time of writing this report, Direction 7.1 had yet to be revoked and as such has been addressed in this PP.

3.3 Section C – Environmental, Social and Economic Impact

3.3.1 Q7 - Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

No. Given the site's urban locality and both past and existing developments, there is no likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats will be adversely affected as a result of the PP and its proposed BBLEP 2013 amendments.

3.3.2 Q8 - Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

There are no direct environmental effects as a result of this PP, especially given it is for land that is situated in an existing urban context and the site is currently developed for warehousing purposes. This PP proposes to amend the BBLEP 2013 to increase maximum height and FSR to enable future development to occur in a manner that is consistent with the existing objectives of the B7 Business Park zone. The potential environmental impacts and mitigation measures have been demonstrated in the Urban Design Review at Appendix A and the Heritage Impact Study at Appendix E.

The key impacts that have been considered and addressed in this planning proposal are discussed as follows:

Visual impact and interface with adjacent heritage building

The Urban Design Review at Appendix A utilises a number of urban design measures to demonstrate that a built form can be accommodated on the site that achieves an appropriate level of integration with surrounding land uses, particularly with respect minimising visual, and physical impacts of building bulk on the adjacent heritage listed St Matthew's church. This is further supported by the site specific DCP at Appendix B and the Heritage Impact Statement at Appendix E.

Specifically, the Urban Design review includes a number of urban design initiatives that have been thoughtfully and methodically considered by BuiltConsult to respond appropriately to and mitigate impacts on the adjacent heritage listed St Matthew's Church. These are outlined as follows:

- Limiting the height of the building on the subject site to the height of the church spire of 16.5m. This is illustrated as Figure 10.

- Providing architectural articulation, especially to the western façade facing the church grounds, to establish a high quality visual backdrop for the heritage item. This is illustrated as Figure 11 and Figure 13 .
- Orienting the future built form on the site to face toward both Lord Street and the St Matthew's Church grounds and providing a pedestrian laneway along the western edge of the site to enable an interrelationship between the future development on the site and the church grounds to occur.
- Activating the new pedestrian laneway along western boundary with commercial uses (e.g café) and building entrances. This is illustrated as Figure 12 and Figure 10.

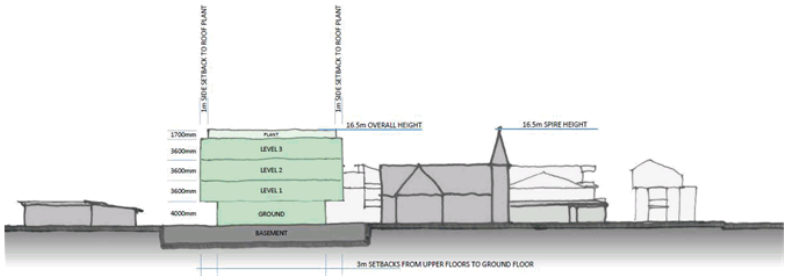

Figure 10 Proposed Building Height

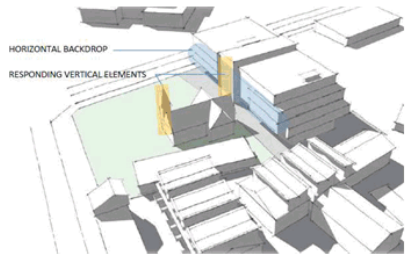

Figure 11 Establishing a visual backdrop (BuiltConsult)

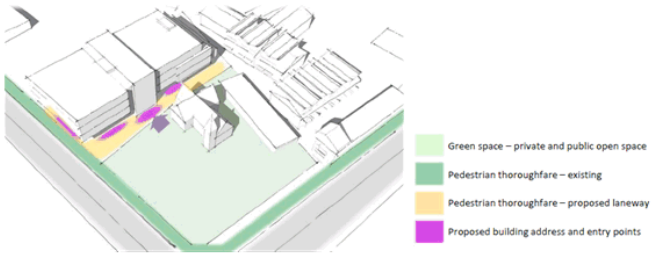

Figure 12 Building siting and orientation (BuiltConsult)

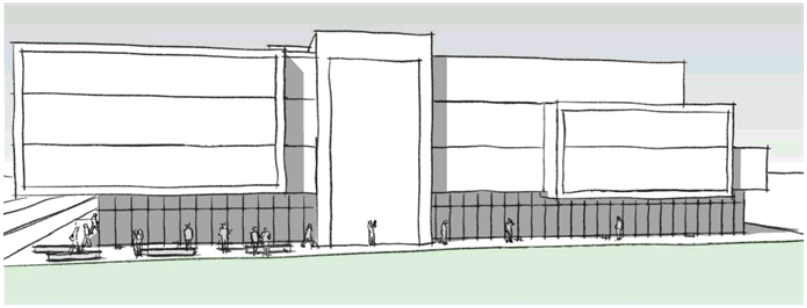

Figure 13 Activation of Lord Street and the pedestrian lane (BuiltConsult)

The Heritage Impacts Statement at Appendix E notes that the proposed setback between the existing church and the proposed building has created an opportunity for the activation of the existing street frontage to Lord Street as well as the new pedestrian laneway. The setback also preserves existing light and amenities to the church. Careful consideration for the placement of complementary land uses that will facilitate ground floor activation will further enhance this zone in addition to the thoroughfare created for public access. The proposed spaces on the ground floor will create a positive impact to the surrounding public amenities (church, multi-function centre and neighbourhood). Refer Figure 14 and Figure 15, which illustrate proposed setbacks to ground floor and upper levels. It is proposed that these setbacks be guided via a site specific DCP, a draft of which is provided as Appendix B.

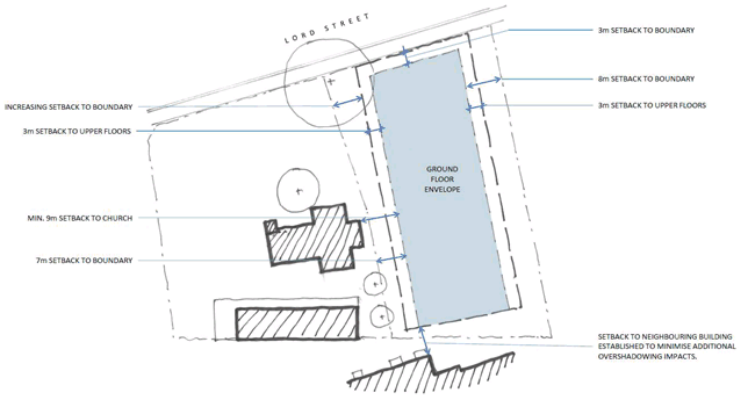

Figure 14 Ground Floor Setbacks (BuiltConsult)

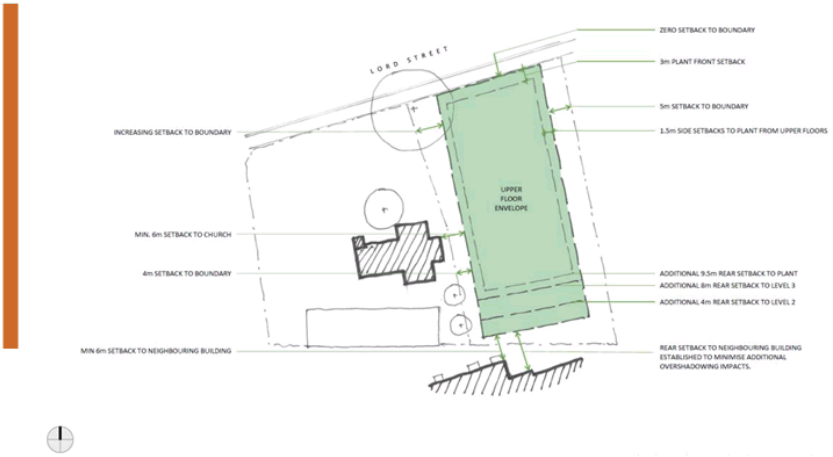

Figure 15 Upper Floors Setbacks (BuiltConsult)

As articulated in the Heritage Impacts Statement at Appendix E, the PP and proposed design concept appropriately considers the heritage significance of the church in relation to its form and massing. The careful articulation of the proposed form, spatial planning of the building envelope and intended rationale for its detailed design seeks to create a form that is sympathetic and respectful to the heritage significance of the church and its surroundings. The following summary provides an overview of conclusions reached within the Heritage Impacts Statement:

- The proposed development is reasonable and positive as its design is respectful to the adjacent church with only minor impacts to its heritage significance.
- The intended built form is consistent with the existing neighbourhood and contributes to the public interaction at ground level between the church, the multipurpose building and neighbourhood.
- The intended built form outcome is not conjectural and is identifiable as contemporary in accordance with the Burra Charter.
- The PP could generally be achieved in compliance with the Botany Bay DCP 2013 and the requirements of the Botany Bay LEP 2013 (pending the requested LEP amendments).
- The PP and supporting urban design review has provided a well-considered design rationale for the intended built form.

As qualified heritage specialists, in its Heritage Impacts Study at Appendix E, Tropman & Tropman Architects confirm that the approach adheres to the Burra Charter principals.

As such the PP will have minimal impact to the heritage significance of the church and will in fact improve the visual quality of the local environs in the immediate vicinity of the church. In their Heritage Impacts Statement, Tropman & Tropman supports the PP on heritage grounds and have identified no heritage matters that may otherwise preclude the PP from proceeding to Gateway for determination.

Building Height

The PP seeks an increase in permissible building height on the subject site. The proposed maximum building height has been nominated based on analysis of nearby building form and its compatibility with the neighbouring context.

The Heritage Impacts Statement at Appendix E notes the following key points with respect to the proposed building height:

- The PP is based on an indicative development concept that proposes a form that is 'non-dominating'.
- The proposed building height does not exceed existing church height of 16.5m.
- Size and mass of intended built form outcome reflected in the Urban Design Review at Appendix A does not compromise light, views and amenities to and from the church and its grounds.

Figure 16 demonstrates the subject site and proposed height of 16.5m in relation to the building height of the surrounding local area. As illustrated in Figure 16, the proposed heights are compatible with the nearby 16 metre commercial building and 10 metre residential built form.

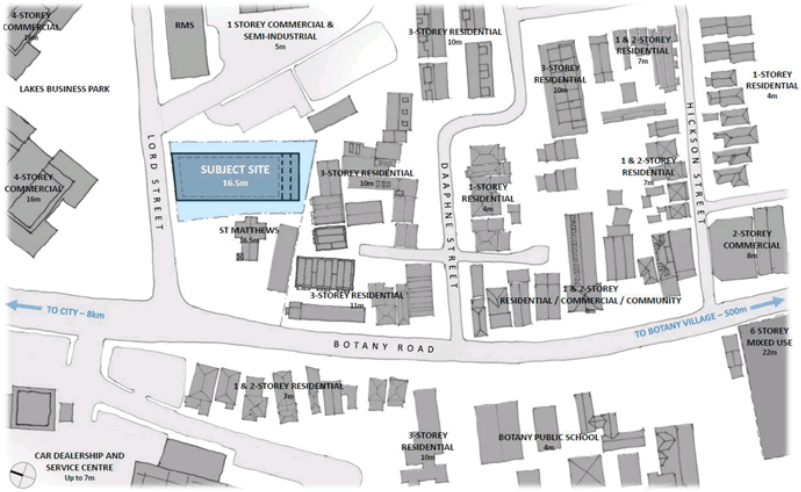

Figure 16 Building Height Context (source Built Consult)

The PP is supported by an urban design review that has carefully considered the context of the intended built form outcome. To assist with better understanding the potential impact of height, consideration has been given to the PP in relation to the objectives outlined under BBLEP 2013 Clause 4.3 Building Height. Refer Table 2.

Table 2 Assessment of the PP against cl 4.3 Building Height Objectives

Clause 4.3 Objective	PP Justification
(a) to ensure that the built form of Botany Bay develops in a coordinated and cohesive manner,	The PP proposes to amend building height controls to allow 16.5m, a height that is compatible in scale with the surrounding commercial and medium density residential precinct.
(b) to ensure that taller buildings are appropriately located,	The proposed amendments to building height controls have been considered in conjunction with the surrounding local context and will result in a compatible built form in relation to the local building height context, especially the adjacent heritage item.

Clause 4.3 Objective	PP Justification
(c) to ensure that building height is consistent with the desired future character of an area,	The proposed building height is consistent with nearby 16 metre high commercial buildings and reflects the height of the spire of the adjacent heritage item. Therefore, the proposed building height is consistent with the desired future character of the locality.
(d) to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development,	The proposed increase in height and intended massing elements as outlined in the Urban Design Review at Appendix A demonstrates that the proposed massing will not result in detrimental impacts to existing neighbouring residential development. Shadow diagrams demonstrate that within the proposed building height and FSR controls, a design solution can be achieved is capable of resulting in a similar level of solar overshadowing to adjacent residential development as currently results from the existing warehouse building on the site. Detailed design considerations at DA stage can further address this, which will be supported by the design principles and criteria set out in the draft DCP at Appendix B.
(e) to ensure that buildings do not adversely affect the streetscape, skyline or landscape when viewed from adjoining roads and other public places such as parks, and community facilities.	The proposed increase in height and intended massing elements as outlined in the Urban Design Review at Appendix A demonstrates that the PP will result in an outcome that improves the visual outlook particularly in relation to the adjacent heritage item. This heritage item is situated within an open space setting and is visually prominent particularly as viewed from the Botany Road frontage. The draft DCP at Appendix B will provide appropriate guidance for a future built form on the subject site to establish a well design backdrop to the church that maintains its visual prominence.

Building Bulk and Density

To assist with better understanding the potential impact of bulk and scale, consideration has been given to the objectives outlined under BBLEP 2013 Clause 4.4 Floor Space Ratio. Refer Table 3.

Table 3 Assessment against cl 4.4 Floor Space Ratio Objectives

Clause 4.4 Objective	PP Justification
(a) to establish standards for the maximum development density and intensity of land use,	The FSR increase has been based upon a carefully considered built form analysis to propose a suitable FSR for the subject site within its context. The PP proposes to increase the maximum FSR controls applicable to the site. It does not seek to remove any FSR standard and therefore is consistent with this objective.
(b) to ensure that buildings are compatible with the bulk and scale of the existing and desired future character of the locality,	The achievable bulk as illustrated in the Urban Design Review at Appendix A is consistent with many of the existing commercial buildings in the locality. Particular consideration has been given to the relationship with the adjoining heritage listed church.
(c) to maintain an appropriate visual relationship between new development and the existing character of areas or locations that	The intended built form outcome as illustrated in the Urban Design Review at Appendix A has been methodically considered in terms of its relationship with adjacent built form, particularly the adjacent heritage item which is likely

Clause 4.4 Objective	PP Justification
are not undergoing, and are not likely to undergo, a substantial transformation,	to remain a permanent feature of the locality. The draft DCP at Appendix B will provide appropriate guidance for a future built form on the subject site to ensure a compatible relationship between a future development on the subject site and adjacent church and residential buildings. This includes managing setbacks, overshadowing, articulation and materials to facilitate land use compatibility and an appropriate response to solar access and heritage values of the adjacent sites.
(d) to ensure that buildings do not adversely affect the streetscape, skyline or landscape when viewed from adjoining roads and other public places such as parks, and community facilities,	The proposed building height and mass has been considered to respond to the height of the church and considers the visual quality of the backdrop to this important heritage item as viewed from the church grounds. The design of facades of the intended built form have been considered in the Urban Design Review at Appendix A to establish an appropriate relationship to the open grounds of the adjacent heritage item. This is further reinforced via the draft DCP at Appendix B, which is intended to ensure that any development on the site provide an appropriate backdrop to the church as viewed from Botany Road.
(e) to minimise adverse environmental effects on the use or enjoyment of adjoining properties and the public domain,	The proposed built form massing will not impact on the usability of the adjacent public realm. The PP will enable the development of a built form that better defines and interfaces with the adjacent church grounds enhancing its visual quality and useability. In terms of the enjoyment of adjacent residential properties, the Urban Design Review at Appendix A and draft DCP at Appendix B provide guidance for southern setbacks to the adjacent residential buildings. The Urban Design Review demonstrates that within the proposed development controls, a design solution can be achieved that result s in an equivalent impact on adjacent properties and therefore is capable of achieving consistency with Objective 3B-2 of the Apartment Design Guide.
(f) to provide an appropriate correlation between the size of a site and the extent of any development on that site,	The PP proposes to increase industrial/ commercial FSR on the site, to an extent where impacts can be appropriately managed in relation to neighbouring properties. The site planning and urban design measures considered to mitigate impacts of the PP are outlined in the Urban Design Review at Appendix A and intended to be facilitated via the draft DCP. The proposed FSR is appropriate for the proposed use of the site for commercial/ industrial purposes. Design measures relating to the transition between business and residential uses are reflected in the draft DCP and seek to establish an active interface between the subject site and adjacent church.
(g) to facilitate development that contributes to the economic growth of Botany Bay.	The PP proposes to increase FSR on the site, which will allow for increased commercial/ industrial floorspace and a more efficient use of a presently underutilised site to accommodate greater employment opportunities adjacent to the Port Botany and Sydney Airport International Trade Gateways.

The Heritage Impacts Statement at Appendix E notes the following key points with respect to the proposed building massing:

- The proposed design considers the heritage significance of the church in relation to its form and massing.
- The careful articulation of the proposed form and spatial planning of the intended built form outcome and site seeks to respect and complement the siting and the expression of the design is sympathetic to the surroundings.

The Heritage Impacts Statement acknowledges that the massing of the intended built form outcome comprises three main elements that correspond with the context and proportion of the church. This approach works to visually reduce the mass of the intended built form outcome to complement the massing of the adjacent church. This is illustrated in Figure 17 and within the Urban Design Review at Appendix A.

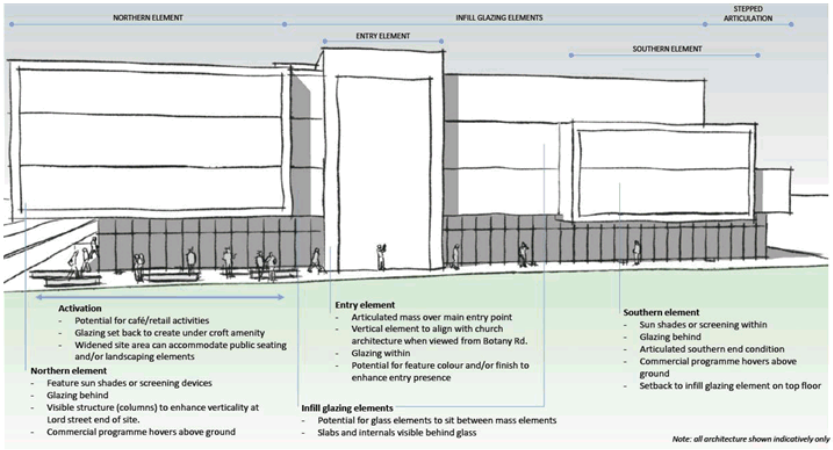

Figure 17 Indicative Building Articulation (BuiltConsult)

As such, the PP and intended built form outcome will have minimal impact to the heritage significance of the church and will result in improved visual environs that will more appropriately frame the church building and define its grounds. It will also provide an opportunity for the necessary changes to occur in the precinct to enable greater integration and interaction between the various existing and potential land uses envisaged for the site.

The draft DCP seeks to facilitate the desired level of articulation, which will be further considered and implemented via later detailed design and DA processes.

Traffic and parking

As the PP proposes to increase the maximum allowable building height and FSR, this will enable greater commercial floorspace to be accommodated on the site. As such the car parking and traffic implications of the increased floorspace have been considered in the Traffic and Parking Impacts Assessment undertaken by McLaren Traffic Engineering and provided as Appendix D. An addendum to the traffic study is provided as Appendix D-1.

In summary, the Traffic and Parking Impacts Assessment concludes that that the subject site is capable of accommodating the necessary car parking requirements for the intended development form, which would generate the need for 85 car parking spaces. As confirmed by the Urban Design Review at Appendix A, a total of 92 car parking spaces is achievable comprising up to 74 spaces in a single basement level plus 18 at-grade spaces. McLaren Traffic Engineering further concludes that the PP will not result in any unmanageable or detrimental traffic impacts.

The addendum to the traffic study at Appendix D-1 provides additional clarification relating to the underpinning the nominated car parking demand assumptions.

It is noted that assumed car parking demand differs to the required car parking rates that would be required under strict application of the DCP. McLaren advises the following:

> *"it is reasonable to assume that the on-site parking demand for the commercial areas of the site will be similar to or in the range of one space per 48m2 to one space per 84m2. The applied rate of 1 space per 55m2 for the upper floors of the development is therefore appropriate and commensurate with the context. The use of a higher rate of parking demand for the ground floor commercial floor area provides some flexibility for future development applications on the site and, if it were confined purely to office area, would have a similar 1 space per 55m2 parking demand."*

As per the above discussion, car parking and traffic issues for a development of the intended scale can be appropriately addressed as a part of a future detailed design and development application process and should not preclude the PP from proceeding.

3.3.3 Q9 - How has the planning proposal adequately addressed any social and economic effects?

Social and economic considerations relating to this PP have been integrated into previous sections of this PP. This proposal is to increase the maximum height and FSR controls and allow for increased business and employment related floor space. As the subject site is located adjacent to Port Botany and Sydney Airport interactions trade gateways, the PP will directly facilitate an increase in potential employment opportunities in a highly strategic location.

Assessment of Economic Impacts

The following sections examine the estimated economic activity supported through the operations of businesses locating to the Site if it was redeveloped under proposal compared to if it remained in its existing use.

Base Case: assumes the subject site continues its current operations accommodated in the existing improvements and assesses the economic impacts should the Site remain in its existing use.

Proposal Case: assumes the subject site is redeveloped under the Proposal's amended planning controls to facilitate higher intensification use on site, with increased height and commercial floorspace.

The economic impacts have been assessed at the Bayside Local Government Area (LGA) level.

Economic Impacts During Construction

The construction phase associated with the PP is expected to support the following economic activity for the Bayside LGA, including businesses and workers through direct and flow-on impacts (over the course of the construction phase):

- $10.4 million in output (including $4.8 million in direct activity).
- $3.9 million contribution to GRP (including $1.2 million in direct activity).
- $2.1 million in incomes and salaries paid to households.
- 28 FTE jobs (including seven directly employed in the construction activity).

Net Economic Activity During Operations

The economic impacts/contribution of the PP can be traced through the economic system via:

- Direct Impacts, which are the first round of effects from direct operational expenditure on goods and services.
- Indirect Impacts (Flow-on Impacts), which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales.

The PP is anticipated to result in a net increase in economic activity compared to what the existing improvements support in the Base Case through the direct and flow-on impacts associated (per annum):

- $117.9 million in output (including $47.5 million in direct activity).
- $52.6 million contribution to GRP (including $18.7 million in direct activity).
- $30.6 million in incomes and salaries paid to households.
- 439 FTE jobs (including 167 additional jobs directly related to activity on the subject site).

Table 4 summarises the outcomes in the Base Case and Proposal Case.

Table 4 Economic Activity, Base Case v Proposal Case

Impact	Output ($M)	Gross Regional Product ($M)	Incomes ($M)	Employment (FTEs)
Base Case				
Direct	$11.4	$5.1	$2.9	29
Type I Flow-On	$3.2	$1.5	$0.8	10
Type II Flow-On	$6.9	$3.7	$2.0	30
Total	**$21.5**	**$10.3**	**$5.7**	**69**
Proposal Case				
Direct	$58.9	$23.8	$14.8	196
Type I Flow-On	$36.6	$15.4	$8.9	120
Type II Flow-On	$43.9	$23.7	$12.6	192
Total	**$139.5**	**$62.9**	**$36.3**	**509**
Net Increase in Economic Activity				
Direct	$47.5	$18.7	$11.9	167
Type I Flow-On	$33.4	$13.9	$8.1	110
Type II Flow-On	$37.0	$20.0	$10.6	162
Total	**$117.9**	**$52.6**	**$30.6**	**439**

Source: AEC

Land that is close to existing employment centres and public transport networks is scarce and valuable. As cities grow there is commensurate pressure on scarce lands to be developed for a variety of uses. The benefits of enabling more intensive use of land which is a finite asset are therefore obvious.

In comparison to the other employment areas examined, the Botany Precinct and its surrounds experienced very modest employment growth over the 2006-2016 period, averaging a lacklustre 0.5% average annual growth compared to 1.5% to 3.4% in comparison areas. Employment growth in the Botany Precinct and its surrounds has been weak despite strong market demand and occupier interest.

Opportunities to accommodate greater intensity of employment are needed. Investigations suggest a lack of commercial floorspace opportunities in the Botany Precinct and broader South Sydney Region. Given the Botany Precinct's proximity to key centres and Trade

Gateways, it is necessary to ensure commercial opportunities are available to attract new business but also facilitate growth and expansion in a diverse range of business activities.

In the case of the subject site, state government policy has focused equally on intensifying employment opportunities and accommodating businesses' changing requirements for how they use land and floorspace. The PP seeks to meet these objectives by providing commercial opportunities for a range of business activity and importantly, maximising the economic intensity of the Subject Site. The PP demonstrates alignment with the objectives and aspirations of state planning policies and strategies.

The PP is intended to be a catalyst for positive change in the local business environment provides for new business opportunities that will support economic growth and sustainability within Sydney's existing urban footprint.

The PP will result in a net community benefit as it will allow future development to take full advantage of its location in close proximity to transport infrastructure and trade gateways, which has wider benefits than that of the immediate local community. The proposal to increase the density of existing business zoned land will facilitate a more efficient use of available commercial land for business and employment uses.

AEC advises that the economic considerations are favourable with the future development of the site providing improved and revitalised facilities for business. The amendments to the BBLEP 2013 Height of Buildings and FSR development standards on the site would deliver a number of positive of community benefits with a particular focus on increasing employment opportunities and efficient use of available business lands.

Net Community Benefit

As provided for in AEC's Economic Impacts Statement, Table 5 identifies the economic impacts and derives a total score for PP using the Base Case as the starting point of '0'. The higher the positive score the greater the net positive economic impact from a community perspective, the lower the score the greater the adverse economic impact.

Table 5 Economic Impact, Base Case v Proposal Case

Impact	Base Case	Rating	Proposal Case	Rating
Employment & Economic Impact				
Output ($M)	$21.5	+1	$139.5	+3
GRP ($M)	$10.3	+1	$62.9	+3
Incomes ($M)	$5.7	+1	$36.3	+3
Employment (FTE)	69	+1	509	+3
Construction				
Output ($M)	n.a.	0	$10.4	+3
GRP ($M)	n.a.	0	$3.9	+3
Incomes ($M)	n.a	0	$2.1	+3
Employment (FTE)	n.a	0	28	+3
Total		**4**		**24**

Source: AEC

As demonstrated above and in AEC's Economic Impacts Statement at Appendix C, in comparison to the Base Case, the Proposal Case (i.e. PP) clearly exhibits a positive economic impact. As the Lord Street business park precinct continues to evolve in response to industry trends, the economic impact identified in this Assessment would be even more pronounced.

The above is discussed in greater detail in the Economic Impacts Assessment at Appendix C and further supported by the addendum prepared by AEC at Appendix C-1, which considers the economic impact of the PP to be net positive and thereby presenting a compelling case for consideration.

3.4 Section D – State and Commonwealth Interests

3.4.1 Q10 - Is there adequate public infrastructure for the planning proposal?

The site is currently used for urban purposes and is connected to existing infrastructure services. More detailed engineering studies and plans for public utilities and infrastructure connections would be carried out as part of a future development application for detailed design and construction of development and any requirements for infrastructure contributions considered in accordance with s7.11 of the EP&A Act as necessary.

As demonstrated in the traffic impacts statement at Appendix D, the site has access to existing public transport services. The subject site will benefit from planned WestConnex upgrades being located in close proximity to the following major projects:

- New M5 from Beverley Hills to St Peters (planned to be open to traffic early 2020);
- M4-M5 Link from Haberfield to St Peters (planned to be open to traffic in 2023).

The above projects will significantly increase the capacity of the metropolitan road network, which will further support the operation of business uses, particularly for freight and logistics operations in the locality. This PP provides an opportunity for enhanced business operations in a well-connected urban locality.

3.4.2 Q11 - What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

No State or Commonwealth authorities have been consulted yet by the proponent of the PP. It is anticipated that the planning authorities in Bayside Council and Department of Planning and Environment will consult relevant public authorities in accordance with the provisions of the EP&A Act and Regulations and any specific requirements of the Gateway Determination.

4. [Part 4] Mapping

4.1 The Site

4.1.1 Site Location

The site is located at 1-3 Lord Street Botany. The site is situated in southern Sydney to the north of the Botany Town Centre and is approximately 50m to the east of Botany Road. A two-storey building containing warehouses, a loading dock, sales centre and offices for Marine Product Marketing is currently located on the subject site.

The site has an area of approximately 2,555.7m^2 in area and has a frontage to Lord Street to the north and the church building and grounds of the St Matthews Anglican Church to the west.

The subject site is accessible via major arterial roads including Botany Road and the M1 Motorway.

4.1.2 Legal Description

The site is legally described as Lot 2 in DP 593463 and Lot 4 in DP 593463. A site survey is provided at Appendix F. The cadastral setting of the site is further described in Figure 18.

Figure 18 Cadastral setting of the site (Source: Spatial Information Exchange (SIX) Maps)

4.2 Context

The subject site is on the western-most of fringe of the Lord Street B7 Business Park Zone and borders an R3 Medium Residential zone. It is situated between St. Matthew's Anglican church, and Service NSW on Lord Street.

4.2.1 Site Features and Existing Development

A two storey (3 storeys in bulk) warehouse is currently located on the subject site. The subject site has a frontage and has vehicular access to Lord Street to the north. The adjacent church also owns the two lots to the west of the site existing development and uses located on the sites differ in nature and are outlined below.

It is noted that the existing warehouse facility presently provides minimal setback to the church building, which significantly impacts on access to light to windows on the eastern façade of the church.

The key features are demonstrated in Figure 19 below.

Figure 19 Existing warehouse on the site and heritage church in the background.

4.2.2 Surrounding Land Use Context

The site is located approximately 100m north of the Botany Town Centre, which is a linear centre extending along both sides of Botany Road between Daphne Street to the north and Hastings Street to the south. The centre is generally focused around the intersection of Banksia Street and Botany Road, with two storey terraced shop top housing being the predominant built form in the town centre. Examples of contemporary apartment development in the centre provides evidence of the Botany Town Centre's ongoing revitalisation.

Botany Road is the predominant road linking the town centre with its surrounds, which are predominately low density residential to the south east of the site, whilst general and light industrial uses are located south and east beyond the town centre. The subject site is located in a wider area of B7 zoned land, with both sides of Lord Street carrying this zoning towards the east. The suburb of Botany is demarcated from Mascot with the M1 freeway and Kingsford Smith Airport to the north of the site.

The site is located in an existing urban area in proximity to a range of convenience, community and educational services such as those listed below:

- Botany Town Centre (various);

- Botany Public School;
- St Bernard's Catholic Primary School;
- Botanic Aquatic Centre;
- Botany Town Hall; and
- St Matthews Anglican Church.

A variety of open space opportunities are located within short walking distance of the sites, Booralee Park, located approximately 200m to the east of the subject site along Lord Street, is the main recreational area for Botany.

Figure 20 to Figure 25 below illustrate the land uses and development that surround the sites.

Figure 20 The St Matthews Church is heritage listed and provides a strong character reference in the locality. The existing warehouse on the subject site can be seen in the background.

Figure 21 Residential development on Botany Road adjacent to the St Matthews Church site. Source Google

Figure 22 Business park uses opposite the site on Lord Street. Source Google

Figure 23 Service NSW operations opposite the subject site. Source Google

Figure 24 Residential Development on Daphne Street. Source Google

Figure 25 Large Scale warehousing on Lords Street. Source Google

Lord Street accommodates a wide range of businesses and activity, predominantly contained within two business parks, the Lakes Business Park and Sir Joseph Banks Corporate Park. The presence of these prominent business park complexes on Lord Street contributes to elevating the area's profile as a key employment area in the South Sydney region. Figure 26

shows the Lakes Business Park and Sir Joseph Banks Corporate Park with respect to the subject site. Commentary relating to these precincts below is extracted from AEC's Economic Impacts Statement at Appendix C.

Figure 26 Lord Street Major Business Park Complexes (source AEC)

Lakes Business Park

Commercial and warehouse floorspace along Lord Street is dominated by the Lakes Business Park (2-13 Lord Street), an eight-hectare business park containing approximately 44,000m^2 in net lettable area (NLA) of commercial and warehouse floorspace across seven freestanding buildings. The business park is bisected by Lord Street, forming a north precinct (approximately 29,000m^2 NLA) and south precinct (14,000m^2 NLA) on either side of Lord Street, with the majority of businesses located in the north precinct.

Dexus secured planning approval for partial redevelopment of the north precinct which will increase commercial floorspace to 44,000m^2 across seven 6 storey buildings (Urbis, 2015). Subsequent to this, rezoning approval was obtained to facilitate redevelopment of the south precinct into a mixed use creative hub, Botany Quarter to incorporate creative office suites, high-tech industrial units, storage units, and retail facilities.

The business park accommodates a broad range of businesses: freight and logistics companies, warehousing, small-scale manufacturers, distributors, and providers of corporate services. Utilisation of floorspace is divided between warehousing and commercial uses. The warehousing component is utilised for distribution of goods, and general storage whilst commercial uses provide space for general offices and meeting and/or training rooms.

Sir Joseph Banks Corporate Park

Sir Joseph Banks Corporate Park is situated at the eastern end of Lord Street (28-30 Lord Street). The corporate park comprises in the order of 31,700m^2 of commercial and warehouse floorspace across three buildings. Major businesses include Schindler Lifts Australia (lifts manufacturers and maintenance), Konami Australia (computer and arcades manufacturer), and Sims Metal Management (metal collection and processing).

4.2.3 District Context

1-3 Lord Street Botany (the Site) is located approximately 12 kilometres south of the Sydney CBD. It is situated in close proximity to critical economic infrastructure (Port Botany and Sydney Airport) and the major employment region of South Sydney. The subject site's location in relation to its district context is illustrated in Figure 27.

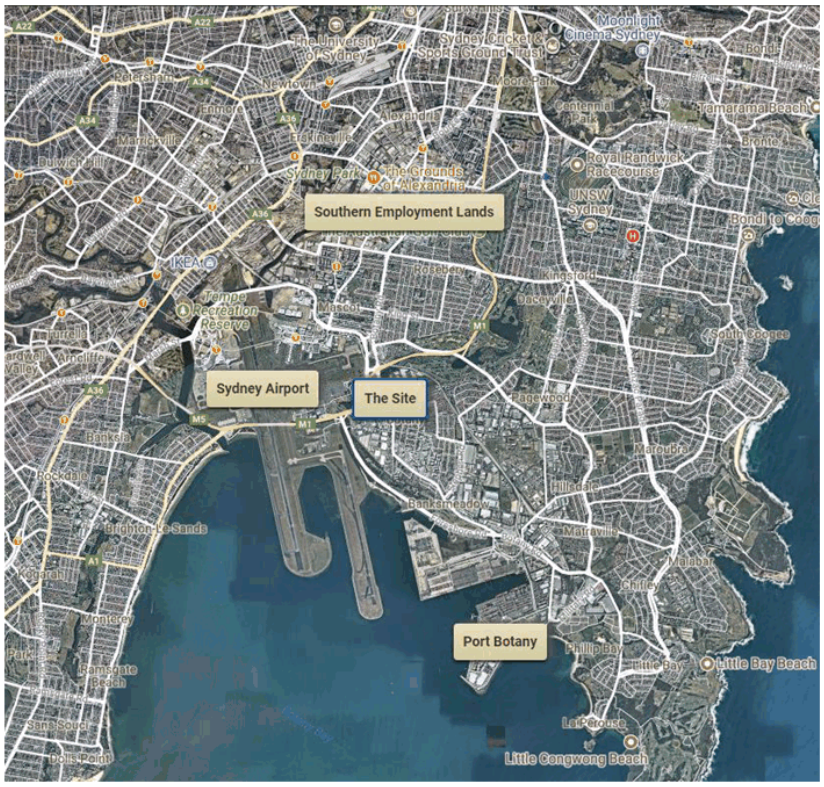

Figure 27 District context of the subject site (Source: Google/ AEC)

Port Botany and Sydney Airport

Port Botany is located approximately 6 kilometres south-east of the subject site and is accessible via Botany Road and Foreshore Road. Port Botany accommodates Sydney's largest port, and is a major employment area, forming a vital part of logistics and supply chain network in NSW. In addition to housing NSW's largest container facility it is also the NSW's primary bulk liquid and gas port, and Australia's largest dedicated common user facility of this type.

Facilities at Port Botany include: three independently operated container vessels, liquids and gas facilities, and eight kilometres of road network, warehousing, container packing and unpacking facilities, Customs facilities and container packing and unpacking facilities. Port Botany operates 24 hours a day, seven days a week (NSW Ports).

Sydney Airport is approximately two kilometres west of the subject site and is one of the longest continuously operated commercial airports internationally (Sydney Airport, 2018). Sydney Airport has a total of four terminals, three passenger terminals and one freight terminal, dedicated to international freight operations.

South Sydney Employment Region

The South Sydney employment region is the economic engine that provides critical support to Sydney Airport and Port Botany, servicing population and businesses across metropolitan Sydney. Significant intensification over the last decade is observed across the South Sydney region in line with business requirements and utilisation trends.

4.2.4 Accessibility and Transport

Road Network

The sites are well connected to the regional road network with Botany Road to the west of the site, which links Port Botany to the south with Kingsford Smith Airport to the north west and the CBD to the north. Botany Road also provides a good connection to the M1/Southern Cross Drive, which forms part of the Sydney Orbital freeway network. The M1 provides ready access to the M5 Motorway, General Holmes Drive and the A38/Princes Highway.

As previously mentioned the subject site will benefit from major upgrades to Sydney's motorway network providing better connectivity to the M4 and M5 motorways.

Public Transport

The site is well located to public transport as it is located within close proximity to Botany Road, a major regional road in Sydney's south with regular and frequent bus services. The nearest bus services run along Botany Road in both directions with the nearest stops located on either side of the road within 250m walking distance of the site. Bus routes M20, 309, 310, L09, X09 and X10 provide services from Matraville or East Gardens to Central Station. The bus routes connect well with the wider public transport network at East Gardens bus interchange, Green Square Railway Station and multiple CBD railway stations.

Metrobus are high frequency and high capacity bus routes that link key employment and growth centres throughout Sydney. In the case of the M20, this route links Botany with Mascot, Green Square, Sydney CBD and North Sydney. Metrobuses have a frequency of one bus every 10 minutes during peak periods, 15 minutes during off-peak weekday periods, and 20 minutes on weekends. Other bus routes link the subject site with other surrounding areas in the Eastern Suburbs such as Eastgardens, Matraville and Port Botany.

The location of the site relative to the surrounding public transport infrastructure is shown in Figure 28.

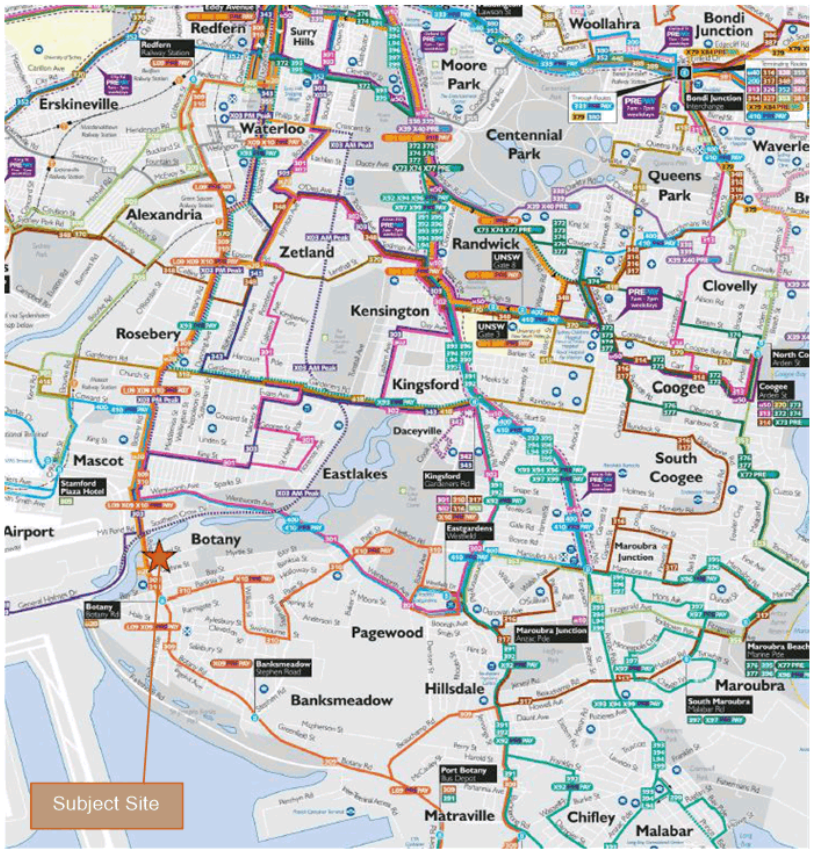

Figure 28 Public Transport Routes (TfNSW/ McLaren)

Active Transport

A search of Roads and Maritime Services (RMS) web-based 'cycleway finder' confirms that the subject site is located in close proximity to a variety of cycleways of varying degrees of ease and difficulty. These cycleways and routes provide active transport options for commuters to the subject site and local employment precincts. An extract of the 'cycleway finder' is provided as Figure 29.

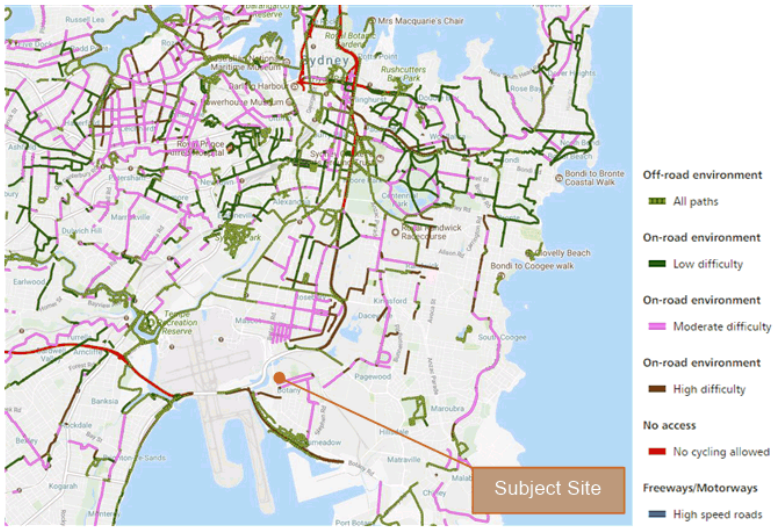

Figure 29 Local Cycling Routes (RMS)

Refer to Appendix D and Appendix D-1 for further information pertaining to traffic and transport.

4.3 Current Planning Provisions

The BBLEP 2013 is a statutory planning document that sets the standards for development in the Botany Bay LGA. The BBLEP 2013 applies to the subject site and its current provisions are set out below.

4.3.1 Land Use

In accordance with the BBLEP 2013 the site is zoned B7 Business Park. Figure 30 below illustrates the land use zones that apply to the sites under the BBLEP 2013. The following objectives and land use permissibility apply within the B7 Business Park zone:

Zone B7 Business Park

1 Objectives of zone

- *To provide a range of office and light industrial uses.*
- *To encourage employment opportunities.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.*
- *To encourage uses in the arts, technology, production and design sectors.*

2 Permitted without consent

Home occupations

3 Permitted with consent

Centre-based child care facilities; Dwelling houses; Food and drink premises; Garden centres; Hardware and building supplies; Home industries; Light industries; Neighbourhood shops; Office premises; Passenger transport facilities; Respite day care centres; Roads; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

Advertising structures; Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Biosolids treatment facilities; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Electricity generating works; Entertainment facilities; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Freight transport facilities; Heavy industrial storage establishments; Helipads; Highway service centres; Home-based child care; Home occupations (sex services); Industrial training facilities; Industries; Jetties; Marinas; Mooring pens; Moorings; Mortuaries; Open cut mining; Port facilities; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Resource recovery facilities; Restricted premises; Retail premises; Rural industries; Sewage treatment plants; Sex services premises; Tourist and visitor accommodation; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Waste disposal facilities; Water recreation structures; Water recycling facilities; Water supply systems; Wharf or boating facilities

Warehousing for commercial uses is permissible with consent on the site as land zoned B7 Business Park as it is not specified in items 2 or 4 of the above extracts. Figure 30 illustrates the sites and the respective Land Use Zone mapping. No change to the site's land use zoning is proposed by this PP.

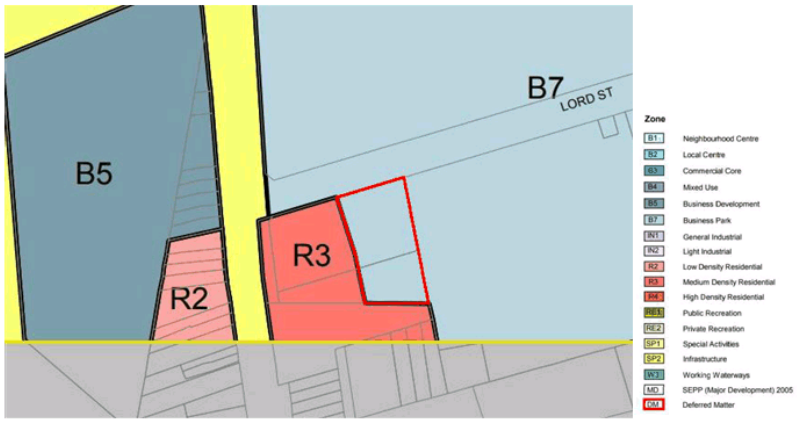

Figure 30 BBLEP 2013 Land Use Zoning Map extract (Source: NSW Legislation)

4.3.2 Building Height

The BBLEP 2013 designates a maximum building height of 10 metres for the subject site. Figure 31 is an extract of the Height of Buildings Map from BBLEP 2013.

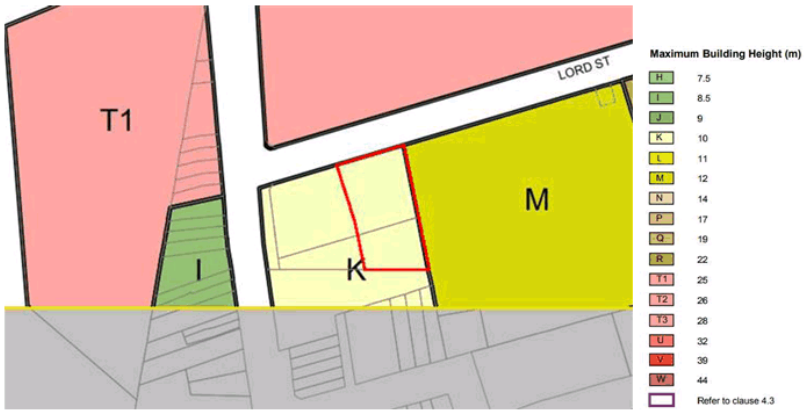

Figure 31 BBLEP 2013 Height of Buildings Map extract (Source: NSW Legislation)

4.3.3 Floor Space Ratio

The BBLEP 2013 designates a maximum FSR of 1:1 for the subject site under the BBLEP 2013. Figure 32 is an extract of the Floor Space Ratio Map from BBLEP 2013.

Figure 32 BBLEP 2013 FSR Map extract (Source: NSW Legislation)

4.4 Proposed Planning Provisions

This PP seeks to amend the planning controls in the BBLEP 2013 for the subject site. The PP seeks to revise the allowable maximum building height and FSR commensurate with the subject site's planning and urban design context to allow for the development of warehousing for commercial use. This PP specifically proposes to amend the BBLEP 2013 as follows:

4.4.1 Proposed Building Height

This PP seeks to amend the BBLEP 2013 maximum height map 001 to set a maximum height of 16.5m under a new height designation of 'O'. Refer Figure 33.

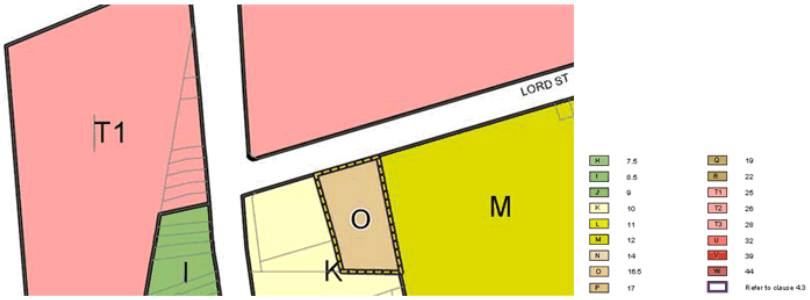

Figure 33 Proposed amendment to the BBLEP 2013 Height of Buildings Map (Source: NSW Legislation/City Plan)

4.4.2 Proposed Floor Space Ratio

This PP seeks to amend the BBLEP 2013 maximum FSR map 001 to set a maximum FSR of 1.75:1 under a new FSR designation of S1. Refer Figure 34.

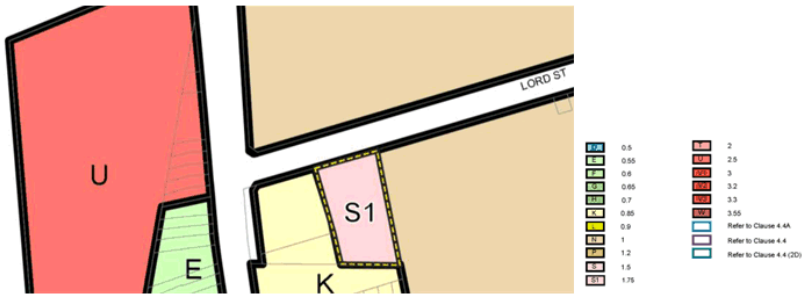

Figure 34 Proposed amendment to the BBLEP 2013 FSR Map (Source: NSW Legislation/ City Plan)

5. [Part 5] Community Consultation

It is anticipated that the planning authorities in Botany Bay Council and Greater Sydney Commission will conduct community consultation in accordance with the relevant provisions of the EP&A Act and Regulation which includes newspaper advertisement, public exhibition at Council offices and on Council's website and notification letters to adjacent property owners.

It is noted that confirmation of the public exhibition period and requirements for the PP will be given by the Minister as part of the LEP Gateway determination.

Any future DA for the sites would also be exhibited in accordance with Council requirements, at which point the public and any authorities would have the opportunity to make further comments on the proposal.

A meeting was undertaken on 1 March 2018 with Bayside Council's planning officers to discuss the proposal, its intended outcomes and impacts. The purpose of this meeting was to enable Council to provide feedback prior to the preparation and lodgement of a PP for the site.

Feedback from Council was generally positive. Feedback provided has been addressed in the preparation of this PP, as well as supporting concepts and technical studies.

Following its lodgement, the PP was considered by Council's independent planning assessor Mecone. A further meeting with Council and its appointed independent planning assessor Mecone was held on 4 September 2018 to discuss an clarify preliminary issues identified. Formal feedback was provided in correspondence dated 4 September 2018. Matters raised related to urban design, heritage, flooding, traffic and economics. These matters have now been addressed in this updated PP and supporting documentation. In response to additional information requested, updates were made to the Urban Design Review at Appendix A, the Draft DCP at Appendix B. Flood advice has now being provided as Appendix F as well as addenda to the Economics and traffic inputs, provided as Appendix C-1 and Appendix D-1 respectively.

6. [Part 6] Project Timeline

The following project timeline is provided in accordance with 'A guide to preparing planning proposals' prepared by the Department of Planning and Environment (2012).

			2	0	1	8					2	0	1	9			
Month	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**
Proposal Lodged with Council	■																
Council Assessment		■	■	■													
Council Endorsement				■													
DPE Assessment					■												
Gateway Determination						■											
Agency Consultation							■	■	■								
Community Consultation								■									
Consideration of Proposal Post Exhibition									■	■							
Council Assessment										■	■	■					
Submission to DP&E to finalise LEP													■				
DPE Assessment													■	■	■		
Plan Making																■	■

7. Conclusion

The Planning Proposal is considered to have strategic planning merit and is justified as it:

- is consistent with the Botany Bay Planning Strategy 2031 in that it will enable the more efficient and effective use of employment land in proximity to two major international trade gateways of Sydney Airport and Port Botany;
- is considered the best means of achieving the objectives and intended outcomes as it proposes planning controls that allow for increased business and employment capacity on the site within the site's current land use zoning;
- is consistent with the Greater Sydney Region Plan and the Eastern City District Plan priorities, including in particular protecting and making better use of business and employment land in strategic locations;
- meets the requirements of relevant s9.1 Ministerial Directions including those numbered 1.1 Business and Industrial Zones; 2.3 Heritage Conservation; 3.4 Integrating Land Use and Transport; 3.5 Development Near Licensed Aerodromes; 4.1 Acid Sulfate Soils; and 4.3 Flood Prone Land; 6.3 Site Specific Provisions; and 7.1 Implementation of A Plan for Growing Sydney;
- is consistent with the desired future scale and character and of built form in the locality as demonstrated within the Urban Design Review at Appendix A and is compatible with surrounding land uses;
- is respectful of the adjacent heritage listed St Matthew's Church with only minor impacts to its heritage significance;
- be a catalyst for positive change in the local business environment provides for new business opportunities that will support economic growth and sustainability within Sydney's existing urban footprint;
- will result in a net increase in economic activity in an existing employment precinct that is strategically located in close proximity to Sydney's two key international trade gateways through direct and flow-on impacts (over the course of the construction phase):
  - $10.4 million in output (including $4.8 million in direct activity).
  - $3.9 million contribution to GRP (including $1.2 million in direct activity).
  - $2.1 million in incomes and salaries paid to households.
  - 28 FTE jobs (including seven directly employed in the construction activity).
- provides a well-considered design rationale that appropriately responds to its heritage context and adheres to the Burra Charter principals as demonstrated in Appendix E;
- is in a location where transport and utility infrastructure are available, and there will be no public infrastructure cost on the community; and
- is in a location where environmental planning issues and potential impacts are not of such significance as to preclude the proposal, and can be managed in the planning and design of future Development Applications.

Given the above strategic planning merit and justification, it is requested that Council proceed in forwarding this planning proposal to the Minister or his delegate for a Gateway determination under section 3.34 of the EP&A Act to enable the proposal to be exhibited for public, community and stakeholder input.

Appendix A

Urban Design Review/ Assessment

Appendix B

Draft Site Specific DCP

Appendix C

Economic Impacts Statement

Appendix C-1

Addendum to Economic Impacts Statement

Appendix D

Traffic and Parking Impacts Assessment

Appendix D-1

Addendum to Traffic and Parking Impacts Assessment

Appendix E

Heritage Impacts Statement

Appendix F

Flood Advice

Appendix G

Site Survey

Appendix H

Table of SEPPs

Appendix I

Table of s9.1 Directions

City Plan Strategy & Development P/L
ABN 58 133 501 774

Botany Bay Development Control Plan 2013
[Draft] Site Specific DCP – 1-3 Lord St, Botany
26 June 2019

This site specific DCP must be read together with other sections of the Botany Bay DCP 2013. In the event of inconsistency between this section and the other sections of the Botany Bay DCP 2013, this section will prevail to the extent of the inconsistency.

1. LAND TO WHICH THIS DCP APPLIES

This site specific DCP applies to land at 1-3 Lord Street Botany being Lot 2 in DP 593463 and Lot 4 in DP 593463 (the site).

The areas to which this DCP applies is illustrated as the land contained within the red boundary of Figure 1.

Figure 1: Area of Application (Source: Spatial Information Exchange (SIX) Maps)

Suite 6.02, 120 Sussex St, Sydney NSW 2000
P +61 2 8270 3500
CITYPLAN.COM.AU
D:\Users\lordj\Desktop\Lord Street Draft DCP.docx

City Plan Strategy & Development P/L
ABN 58 133 501 774

2. SITE CONTEXT

The site is located within the B7 Business Park zone. It is adjacent to the locally listed heritage item St Matthew's Anglican Church (Item 171 under BBLEP 2013), which is located in a heritage conservation area. The St Matthew's Anglican Church is situated to the west of the site and reflects influences from Victorian Gothic styles.

In 2016, a contemporary steel framed multi-function centre was constructed to the south of the church building. This new building is visually subservient to the Church building.

St Matthew's Anglican Church is primarily viewed from Botany Road, from which any future development on the site will form a backdrop. The Church is visually prominent as viewed from its Botany Road and Lord Street frontages.

3-4 storeys residential development constructed of multi coloured brick and panelling are located to the south of the site and St Matthew's Anglican Church.

The site is uniquely positioned in a transitional location between residential, church and commercial land uses.

3. OBJECTIVES:

The following key objectives are applicable to all future development on the site:

- To provide built form controls that facilitate development consistent with the objectives of the site's B7 Business Park zoning within the Lord Street Business Park precinct.
- To create a bookend style development that visually integrates with and provides an activated edge to the adjoining church.
- To retain and enhance the visual prominence of the St Matthew's Anglican Church as viewed from Botany Road and Lord Street.
- To establish a high quality interface between any future built form on the site and the adjacent St Matthew's Anglican Church and adjoining lawn area.
- To facilitate the transition of use between the site at the edge of the employment precinct and the adjacent St Matthew's Anglican Church.
- To establish a functional building envelope that is capable of meeting employment-based industry operational requirements of the site.
- To maintain appropriate solar access and ensure privacy to residential buildings in the adjacent R3 Medium Density Residential zone.
- To facilitate ongoing safety and security.

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4. DEVELOPMENT CONTROLS

4.1. Building character

A key consideration informing any future built form on the site is establishing an appropriate visual relationship between that built form and the adjacent St Matthew's Anglican Church. The transition and interface between business uses and the St Matthew's Anglican Church as well as establishing a sympathetic design response to the Church are important factors to consider in this regard.

Design Criteria

- Any future built form on the site is to reflect the Business Park character of the precinct as well as providing a sympathetic design response to the adjacent Church through design articulation, modulation of form, variation in texture, finishes and materials.
- Development must be of a high visual quality and must include appropriate architectural articulation and modulation of form particularly to the northern frontage to Lord Street and western frontage to the Church.
- Setbacks to the western façade of the building (i.e. facing the St Matthew's Anglican Church) are to provide space to enable the activation of the ground-floor edge between the site and its boundary with the Church.
- Landscaping of the setback to the western boundary is to facilitate the future integration and transition between the site and the adjoining lawn area within the adjacent Church grounds. Should fencing be proposed between the two properties, ground level setbacks are to ensure the ground floor of the building remains accessible in perpetuity.
- The ground floor of the building is to be designed enable activation of the ground level and is to include outward facing floorspace that is oriented towards the northern and western boundaries of the site.
- Landscaping of the setback to the northern boundary is to be designed so as to contribute positively to the building frontage as viewed from Lord Street and to enhance the visual appearance of the site as a gateway corner to the Lord Street Business Park.

4.2. Building Envelope

The site's transitional location adjacent to the Church and medium density residential uses require careful consideration to establish a functional building envelope that is capable of meeting employment-based industry operational requirements of the site as well as appropriately managing impacts on the church and residential uses. Maintaining appropriate levels of solar access to existing residential dwellings and facilitating a scale of built form that is compatible with neighbouring uses are key considerations in this regard.

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Design Criteria

- Development on the site must not exceed a height of 16.5 metres and RL 21.82 metres (i.e. height of the church spire).
- Setbacks for any future development on the site are to be in accordance with those outlined in Table 1.
- Upper level setbacks are to minimise solar overshadowing impacts to adjacent residential properties.

Table 1 - Building Setbacks

	Front (Lord St North)	Side (East)	Side (West)	Rear (South)
Ground Level	Minimum 3m from site boundary.	Minimum 8m from site boundary	Minimum 7m from site boundary.	Minimum 6m from neighbouring building
Upper Levels 1-3	Minimum 3m from site boundary.	Minimum 3.5m from side boundary	Minimum 4m from site boundary.	Setback to increase by one metre for every additional metre in height for the proposed development, above 5 metres in building height.

4.3. Building Frontage and Façade Design

The site is unique in that each façade of a future building on the site will respond to different contextual conditions and relationships. The site's gateway location adjacent to the St Mathews Church heritage item has a transitional role from the open, garden character of the church grounds to the treed and garden commercial frontages of Lord Street, as well as between commercial uses north and east of the site with residential uses to the south.

This places a high degree of importance on ensuring each façade responds to the unique visual qualities and characteristics of its context. Articulation, materials and finishes of each façade play an important role in ensuring a sympathetic and contextually appropriate response to the surrounding context and maintaining the visual prominence of the church.

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4.3.1. West Façade

Objectives

The open church grounds will enable the western frontage of any future built form on the site to be highly visible from Botany Road and from the western part of Lord Street. Any future built form on the site will form a backdrop to the heritage listed St Mathew's church and will require a sensitive design response to the church.

The intent for the western façade is to provide an active relationship between the Site and the church. Landscaping elements along the north-west corner of the Site can be used to manage the visual relationship between the church and a future building on the Site as well as the visual impact of the north façade on the prominent views to the Church.

The design of this façade is to be consistent with the following objectives:

- To 'bookend' the Lakes Business Park precinct with subtle articulation of form and relatively simple composition of façade elements so as to establish a visually sympathetic relationship with the church.
- To use a material palette that provides a backdrop to the church and creates a sympathetic visual relationship between built form on the site and the adjacent church.
- To provide a contemporary design response that uses high quality materials that work to maintain and enhance the visual prominence of the Church as viewed from Botany Road, with the use of glazing, shading and screening devices, softer articulation and simple composition of façade elements.
- To establish a visual or physical connection between internal ground floor commercial floorspace and external landscaped areas through façade treatments at ground level such as fixed and/or operable glazing.
- To provide a landscape response that accentuates and provides opportunities for activation of the pedestrian laneway at ground level, including setbacks that provide sufficient width for public seating and the inclusion of soft landscaping elements, such as trees and planter beds.
- To provide protection to openings from the west sun.

4.3.2. North Façade

Objectives

The Lord Street frontage is the main address of the site and provides the opportunity for a unique 'gateway' architectural response to enhance the sense of arrival to the precinct. The design of this façade is to be consistent with the following objectives:

- To provide a level of articulation that provides a unique architectural response, accentuates street presence and provides a strong visual identity to the main frontage of the building.
- To create a sense of visual interest and design quality to the façade facing Lord Street by way of modulation of form and the visual articulation of colour, texture, and materials.
- To include materials and finishes that reflect the commercial and industrial context of Lord Street.
- To enhance the visual qualities of the gateway to the Lakes Business Park precinct.
- To include soft landscaping at ground level between the site boundary and the building, to reflect the garden character of Lord Street.

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4.3.3. East Façade

Objectives

The east façade of a future building in the site will face towards B7 Business Park zone and will respond primarily to a commercial and industrial context. The design of this façade is to be consistent with the following objectives:

- To provide a high degree of articulation and include a visually interesting composition of materials that reflect the adjacent industrial and commercial context.

4.3.4. South Façade

Objectives

The southern façade will directly face a medium density residential development. The design of this façade needs to respond to domestic styles of articulation and materials to soften the visual appearance and manage privacy issues between commercial and residential uses. The design of this façade is to be consistent with the following objectives:

- To provide articulation and modulation to maintain solar access. To provide appropriate screening devices to manage any potential overlooking from south facing openings or balconies.
- To provide landscaping within the rear setback to screen adjoining residential uses and ameliorate any impacts of development.

4.4. Safety and Security

The intent of this site specific DCP is to facilitate activation, provide an attractive interface with the public domain (i.e. Lord Street) and also to establish an interrelationship between the site and the adjacent church grounds. It is anticipated that this interrelationship will primarily occur on publicly accessible, private land. As such, consideration for safety and security of these spaces is essential in the design as well as ongoing occupation stages of development.

Design Criteria

- Development on the Site should be supported by a Crime Prevention Through Environmental Design (CPTED) study to demonstrate how the development incorporates 'Safer by Design' principles of:
  - **Surveillance:** maximise visibility and surveillance of the public domain and publicly accessible spaces.
  - **Access Movement and Sight lines:** establish direct connections and sight lines that minimise residual spaces and concealment opportunities.
  - **Activation:** maximise activity in the public domain by providing outward-facing land uses, especially at ground level. Where complementary land uses such as takeway/ food and beverage (e.g. café) are proposed, these should be located at ground level to front onto public streets and/or publicly accessible spaces.
  - **Ownership/ Management:** provide clear definition of public and private areas of the development to ensure that public spaces (e.g. Lord Street/ public street), publicly accessible private space (e.g. laneway link/ lobby spaces) and private space (e.g. commercial premises)

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facilitate a logical and intuitive understanding of purpose of spaces and the permissibility of access to the public and when.

- **Management:** establish clearly defined maintenance and management roles between adjoining land (i.e. the Site and adjacent Church) to ensure ongoing upkeep, visual quality and safety of the development on the Site and publicly accessible land.

5. DEVELOPMENT APPLICATION REQUIREMENTS

- Any Development Application for the site will need to be supported by a Heritage Impact Statement, which should consider external materials schedules and colours in order to maintain and enhance the visual prominence of the adjacent Church.

1-3 Lord Street
Botany NSW

Heritage Impact Statement (HIS)

Prepared for Built Consult
to satisfy the requirements of

City of Botany Bay

To accompany
Planning Proposal

05 July 2018
REF: 1826: HIS
Version 4

Tropman & Tropman Architects
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Report Register

The following table is a report register tracking the issues of the *Heritage Impact Statement for 1-3 Lord Street,* prepared by Tropman & Tropman Architects. Tropman & Tropman Architects operate under a quality management system, and this register is in compliance with this system.

TTA Project Ref No.	Issue No.	Description	Issue Date	Prepared By	Checked By	Issued To
1826:HIS	01	Heritage Impact Statement	05 July 2018	Krystal Pua	Tasman Storey	Built Consult
1826:HIS	02	Amended as per Instructions	17 July 2018	Krystal Pua	Tasman Storey	Built Consult
1826:HIS	03	Amended as per Instructions	18 July 2018		Tasman Storey	Built Consult
1826:HIS	04	Amended page 4 image Page 28 text	18 July 2018		Tasman Storey	Built Consult

Contents

1.0 INTRODUCTION

1.1 Background

This Heritage Impact Statement has been prepared to support the planning proposal for 1-3 Lord Street, Botany for the proposal uplift to the FSR and increased height limit on the site.

This report has been prepared on behalf of CD Construction Group for submission to Bayside Council for a development application. The purpose of this Heritage Impact Statement is to access the heritage impact of the proposal in relation to the adjacent St Matthew's Church that is listed as a local heritage item in a conservation zone.

In general, the proposal has considered the heritage significance of the church and the indicative design is aimed to reduce impact on the church and on the streetscape. The proposed amendment to the controls is deemed to be sympathetic to the adjacent building and its connection to the adjacent heritage conservation zone. An elaboration of the scope of works is listed in Section 4 of this report.

The proposal is designed under the guidance of Botany Bay DCP 2013 and LEP 2013.

1.2 Author Identification

This report has been prepared by:

Tasman Storey FRAIA ARBNSW 3144
Consulting Architect,
Heritage Conservation Consultant

Krystal Pua Architect

All drawings and architectural designs have been prepared by CD Construction Group.

Unless otherwise stated, all images and drawings are by CD Construction Group and were taken during the course of this study.

The method for the Statement of Heritage Impact follows that set out in the "NSW Heritage Manual" Update August 2000 produced by the NSW Heritage Office. The method required by Bay side Council.

1.3 Heritage Impact Statements Generally

Statement of Heritage Impact

A Heritage Impact Statement (HIS) is a report consisting of a statement, which demonstrates the heritage significance of a Heritage Item or Heritage Conservation Area, or of a building, work, archaeological site, tree or place within a Heritage Conservation Area. Heritage Impact Statements should succinctly identify and address the following matters:

A statement that analyses the proposed works in terms of a statement of heritage significance;

- *The nature of the Heritage Item's significance;*
- *An historical account of the Heritage Item;*
- *An assessment on the impact of the proposed development on the existing heritage significance of the item in question;*
- *A statement to explain why alternative solutions, which may be more sympathetic are not viable; and*

- *An assessment of the proposed development against the Heritage Office Criterion.*

- extract from Part 3B,Bayside Council DCP, pg7

A Statement of Heritage Impact conveys the impact or impacts of proposal development on a heritage item or heritage conservation area. It also contains recommendations to mitigate the impacts. It is highly recommended that an experienced heritage consultant prepares the Statement to include:

- *A description of the item, site and immediate streetscape and building group (where the item is part of a building group or conservation area).*
- *Annotated photographs of the item including existing buildings, mature vegetation and major landscape elements and the local streetscape.*
- *A summary of the historical development of the place.*
- *For heritage items, a detailed statement of significance, based on the physical description and historical summary.*
- *For places in a conservation area, an assessment of the item's contribution to the significance of the conservation area.*
- *A detailed description of the proposed development.*
- *For heritage items, an analysis of the positive and negative impacts of the works on the significance of the item.*
- *For places in a conservation area, an analysis of the positive and negative impacts of the proposed work on the setting and local streetscape and on the significance of the conservation area.*
- *A description of any alternative design or work options and the reasons that they were discounted.*
- *In the case of applications for demolition or substantial demolition, justification as to why adaptive re-use is not viable*

– extract from http://www.botanybay.nsw.gov.au/Planning-Business/Heritage/Statement-of-Heritage-Impact-Conservation-Management-Plans

1.4 When to Submit a Heritage Impact Statement.

Heritage items (other than where a Conservation Management Plan is required) including applications for fire upgrading; and (APPLICABLE – adjacent St Matthew's Church)

Properties within heritage conservation areas. (APPLICABLE)

1.5 Heritage Mapping & Study Area

The subject site sits within a commercial zone adjacent to a heritage conservation zone. St Matthew's Anglican Church located on the west of the subject site is a local heritage item within the conservation zone. The proposal is generally in accordance with the Bayside Council DCP Part 3B – Heritage. A detailed assessment can be found under Section 6 of this report.

The study area is limited to the adjacent and opposite buildings.

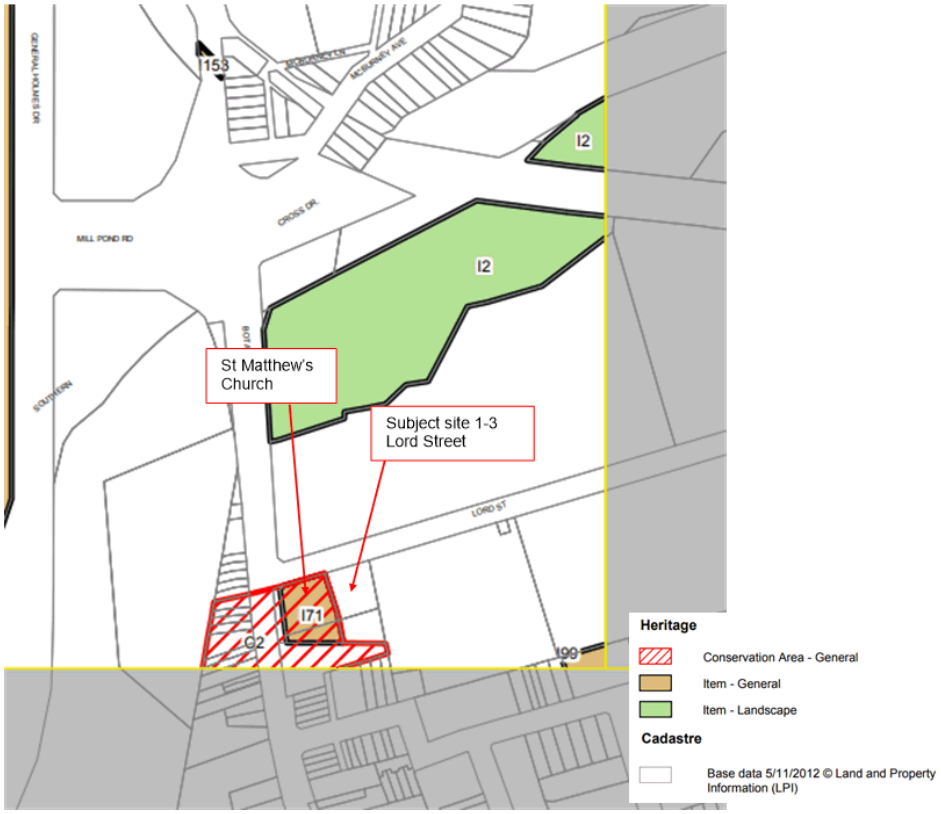


Figure 1: Location of subject site 1-3 Lord Street in relation to St Matthew's Church which is a local heritage item within a Conservation Zone.Bayside CouncilLEP Heritage Map – Sheet HER_001

1.6 Heritage Listing

St Matthew's Anglican Church is identified as a Local Heritage Item according to theBayside CouncilLEP. The church's property description is Lot 1, DP 593463; Lot 3, DP 593463 and is listed as Item 171 in the LEP.

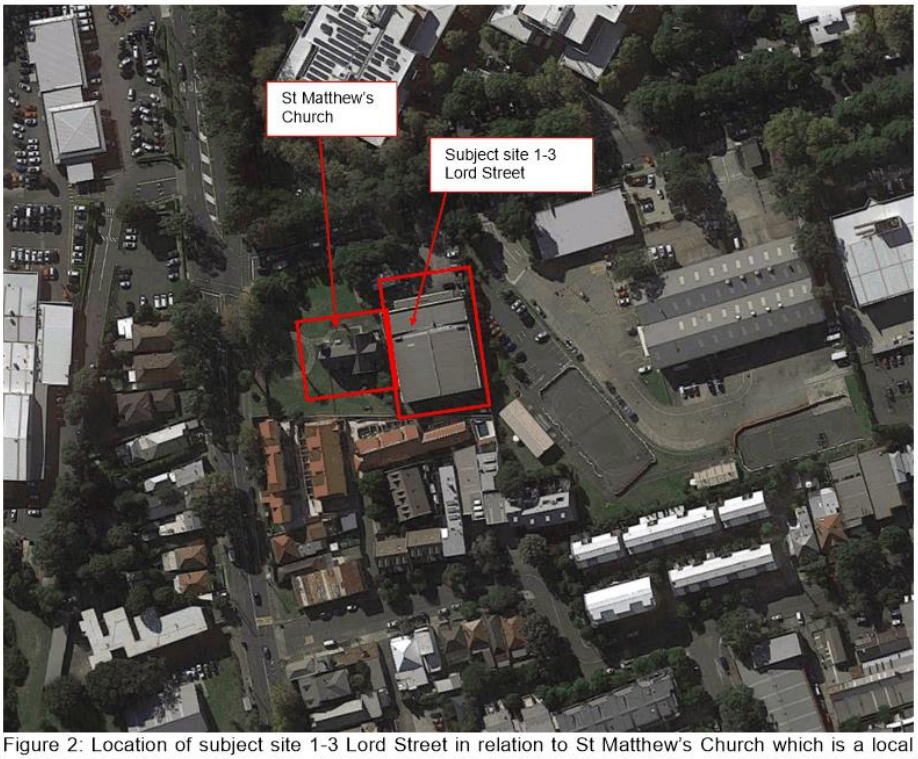


Figure 2: Location of subject site 1-3 Lord Street in relation to St Matthew's Church which is a local heritage item within a Conservation Zone. *Source: GoogleMaps*

2.0 BRIEF HISTORICAL SUMMARY

2.1 St Matthew's Anglican Church

The land of St Matthew's Church was gifted by George William Lord in 1859. George William Lord was a prominent pastorialist, businessman and politician, and the fourth son of Simeon Lord, pioneer of Botany. The church was licensed in November 1862 and operates until today.

The church was built with influences from Victorian Gothic styles. It was constructed in brick and sandstone trims and a slate roof.

Throughout the years, the church has undergone several upgrading. In 1917, extensions to the east of the building was carried out in Gothic style to match the early section.

Low brick fence was built around the perimeter of the church in 1925.

Further in 1954, the early section of the church was rendered. In 1976, the above ground vault with the remains of members of the Lord family was demolished and the remains were cremated. In 1999, all existing windows were replaced and part of its timber floor raised.

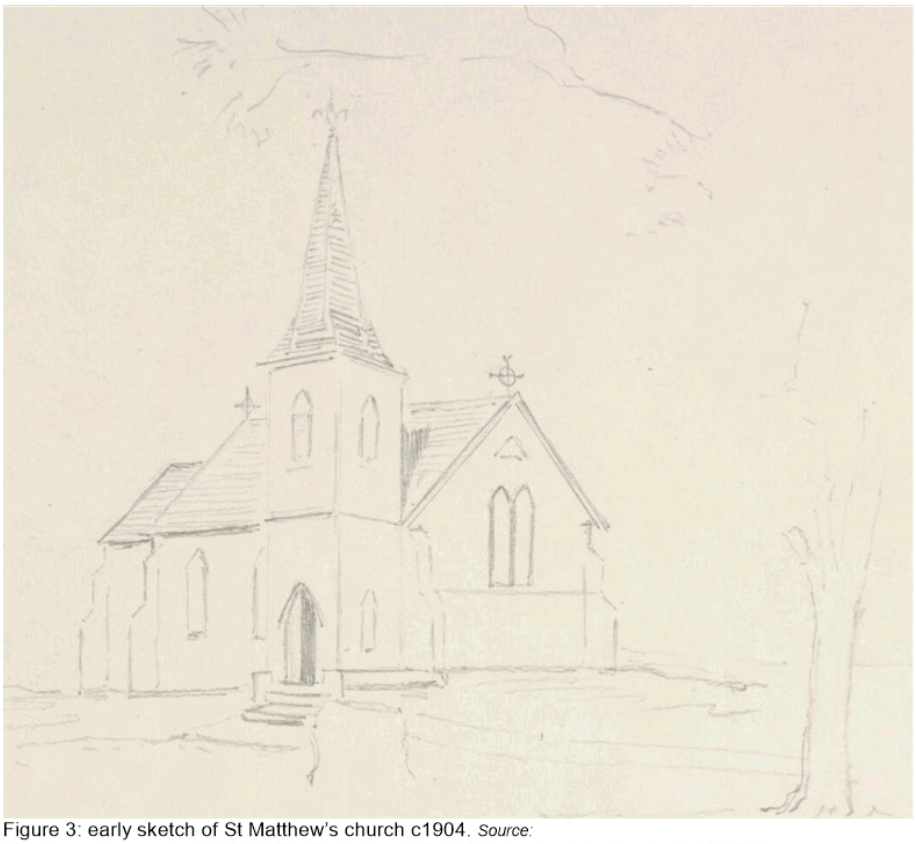


Figure 3: early sketch of St Matthew's church c1904. *Source: https://trove.nla.gov.au/work/12713695?q=St.+Matthew%27s%2C+Botany&c=picture&versionId=15027623*

Figure 4: Image of St Matthew's church c1963. Source: https://www.flickr.com/photos/scenesofbotany/6773698576

Figure 5: St Matthew's church, May 1996. *Source: http://www.environment.gov.au/cgi-bin/heritage/photodb/imagesearch.pl?proc=detail;barcode_no=rt50421.*

ST. MATTHEW'S, BOTANY.

PROPOSED ADDITIONS.

The Archbishop of Sydney (Dr. Wright) laid the foundation-stone of proposed additions to St. Matthew's Church of England, Botany, on Saturday.

The rector (Rev. W. T. Price) pointed out that the church was erected 55 years ago, and that the additions would cost £1300. It was proposed to procure a new pipe organ at a cost of £530.

The Archbishop congratulated the rector and church officers on the work that was being accomplished, and gave the assurance that their efforts had his hearty sympathy. Sometimes he withheld his consent to improvements which he considered could stand over until the war terminated, but in this case he would say, go straight ahead. They needed the enlarged church, because of the increase in population, and also that when the boys returned from the front we should have a second home to take them to, where the ideals of life, which they had learnt on the battlefield, would be strengthened and maintained.

The visitors were provided with refreshments.

Figure 6: Article in The Daily Telegraph, August 27 1917. *Source:* https://trove.nla.gov.au

CHURCH IMPROVEMENTS.

ST. MATTHEW'S, BOTANY.

Sixty years ago in the historic village of Botany (native name "Booralee") the residents, who were mostly well-to-do families, employed in market gardening, wool scouring, fellmongering, etc., were without an Anglican Church. They were in the Cook's River parish, and had to drive a few miles to reach St. Peter's Church, at Cook's River. But a year or two later the late Mr. George Lord, M.L.C., who had large landed interests in Botany, presented the local residents of Anglican faith with a liberal sized corner block of land, with a main road frontage, as a site for a church. In 1861 the church was built in the early English style, and called after Saint Matthew. It was just beyond the waterworks bridge, and alongside the stream which formed the water supply of Sydney. On the city side of this bridge the Roman Catholic Church was built about the same time, and the two churches stand out prominently among the buildings of the village. The first rector of St. Matthew's was the Rev. J. Bull.

With increased population it became necessary to enlarge the old church. This has been done, and last Saturday the Archbishop of Sydney, Dr. Wright, performed the dedication ceremony of the new chancel and transepts, which have been added. The extension has been carried out to match the original building. The walls are in O.K. brickwork, and the windows, buttress, and copings in clean chiselled stone from the Pyrmont block. The roof is covered with purple bangor slates. The internal fittings throughout, including the seating, Holy table, and reredos have been finished in Queensland maple. The architects were Messrs. Wilshire and Day, and the builders, Messrs. Kell and Rigby.

ST. CLARE CONVENT CHAPEL.

Last Sunday Archbishop Kelly dedicated the Convent Chapel erected at Waverley to the memory of Saint Clare. The convent is in Carrington-street, and the chapel, which is a detached building, is approached from the convent by a covered-in way of cathedral glass. The chapel building is 62 feet by 22 feet over all. There is at one end a sanctuary, 20 x 22, while the nave, 42 x 22, has been divided into two equal parts by means of an ornamental wooden grille, surmounted by a large crucifix. The nuns have seating accommodation behind this grille, and the public are in front of it. The choir gal-

Figure 7: Article in the Sydney Morning herald, November 21 1917. *Source: https://trove.nla.gov.au*

3.0 PHYSICAL EVIDENCE

3.1 Description

The church was built with influences from Victorian Gothic styles. It was originally constructed in brick and sandstone trims and a slate roof.

The early section of the church was rendered while the later extension remained in brick. Palm trees are also planted within the church compound.

In 2016, a new simple well designed modest multi-function centre was constructed to the south of the church site.

Figure 8: View of St Matthew's Church from Lord Street. Source: Googlemaps

Built in a contemporary style using steel framing. The new low key structure is subservient to the church.

The south side of the church is dominated by 'post modern' influenced modern apartment building in multi coloured brick and panelling.

The warehouses and industrial buildings to the east are large and dominant with extensive expenses of plain brick wall.

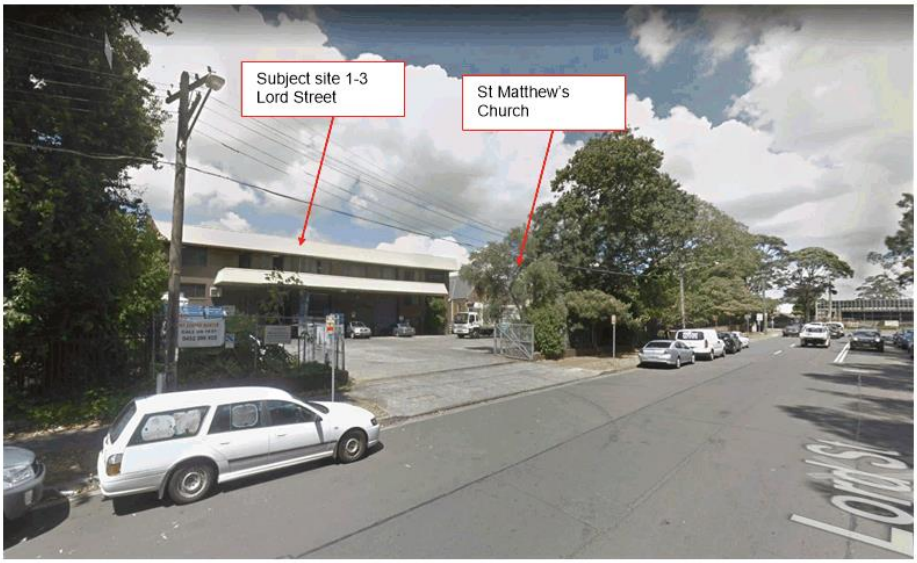


Figure 9: View of subject site 1-3 Lord Street. Source: Googlemaps

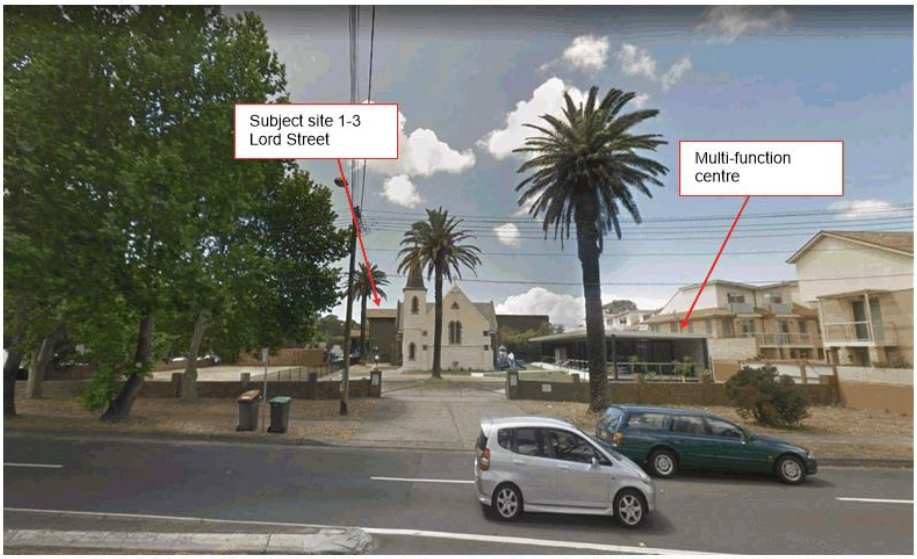


Figure 10: Front view of St Matthew's Church from Botany Road. Note existing building of the subject site behind the church. Source: Googlemaps

4.0 Proposal

4.1 Scope of works

The Urban Design Review has been prepared by Built Consult to support the planning proposal. It is based on an indicative built form that is intended to achieve the following outcomes:

1. Demolition of existing warehouse
2. Development of four storey commercial building with the following schedule of accommodation:

Floor	Height	Use	Area
Basement 1	(3m)	Car parking	N/A
Ground	4.0m	Commercial/Warehouse Lobby Retail/Cafe	522sqm 100sqm 99sqm
Level 1	3.6m	Commercial	1250sqm
Level 2	3.6m	Commercial	1250sqm
Level 3	3.6m	Commercial	1250sqm
Roof	1.7m	*Plant/Overrun*	
Total	16.5m		4471sqm

Figure 11: Proposed schedule of accommodation.

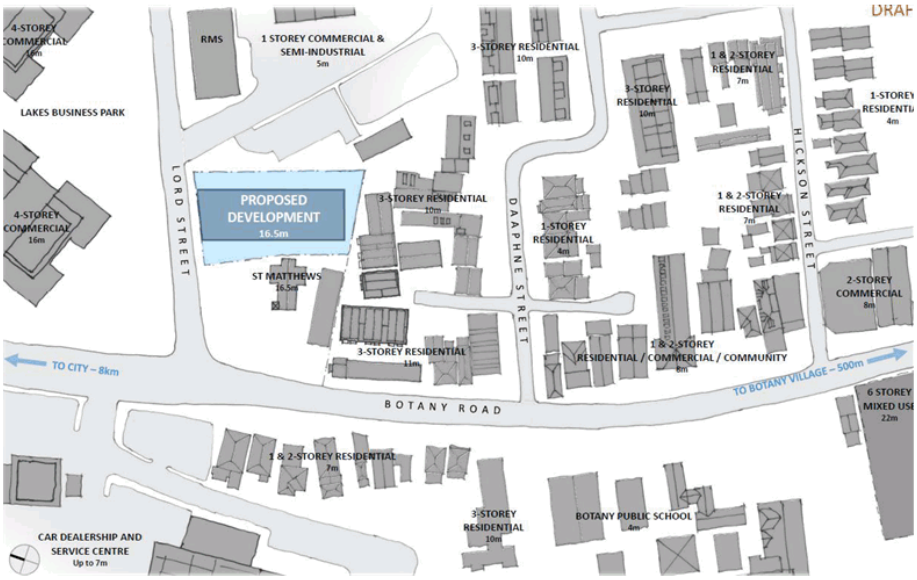


Figure 12: Proposed site plan.

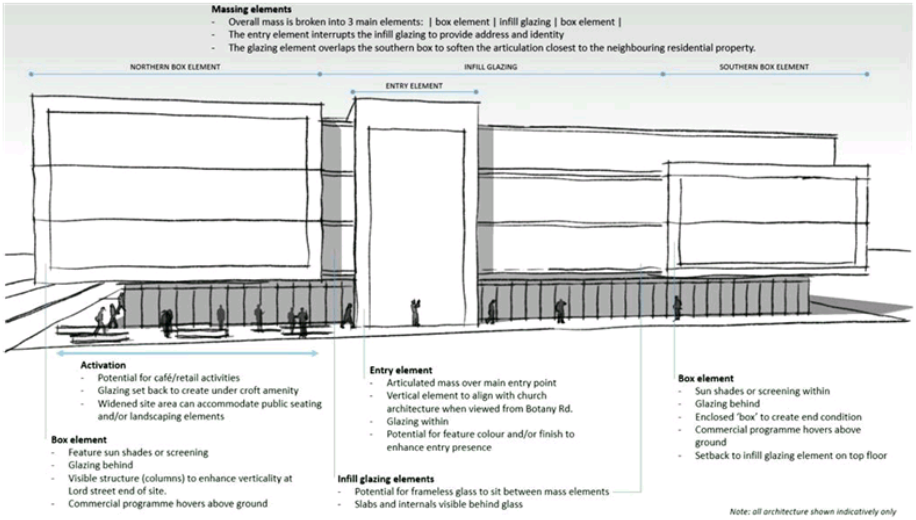


Figure 13: Indicative façade design & strategy

4.2 Development Strategy and Opportunities

The scale and proportions of the church were considered by the architects for the new building.

In order to be respectful to the existing St Matthew's Church, the proposal adopted the following design strategy:

4.2.1 Site

A setback is proposed between the existing church and the proposed building. This strategy has created an opportunity for the activation of the existing street frontage to Lord Street. The setback also preserves existing light and amenities to the church. Careful placement of commercial and retail spaces on the ground floor will further enhance this zone in addition to the thoroughfare created for public access. The proposed spaces on the ground floor will create a positive impact to the surrounding public amenities (church, multi-function centre and neighbourhood)

The development envelope can be considered respectful to the heritage significance of the church and its surroundings.

Figure 14: Proposed site and development envelope

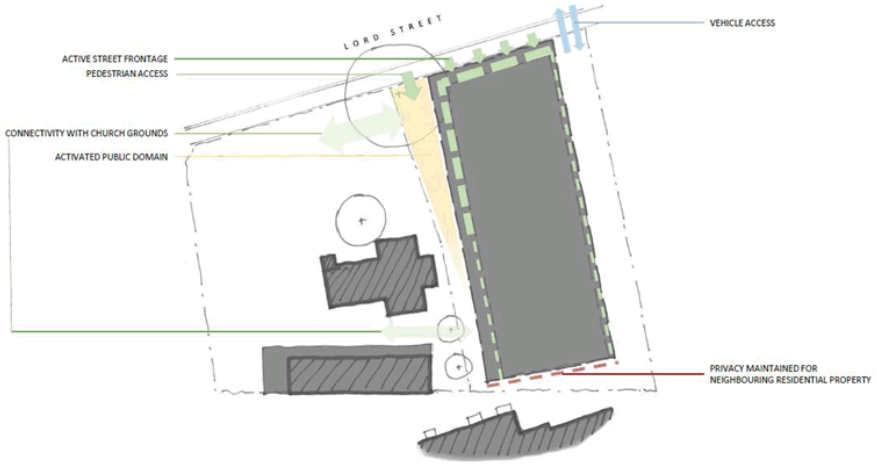


Figure 15: Access and Activation

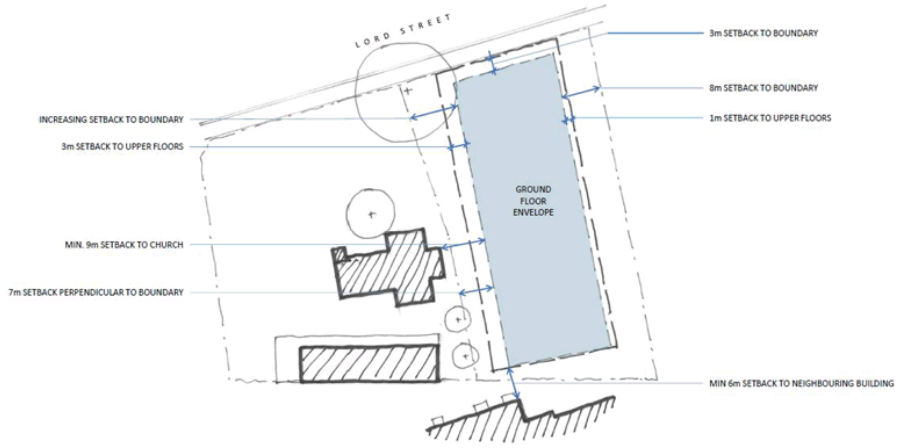


Figure 16: Enveope Setbacks – Ground Floor

Key summary points:

- Setback and ground floor activation
- Potential for Cafes and public commercial areas on ground floor
- Provision for thoroughfare and utilisation of ground floor as a public domain
- Communication between two sites and interaction between church, multi-function centre and proposed commercial zones on the ground floor, the proposed design enhances the current situation

4.2.2 Built form & Massing

The intent of the PP is to enable the development of a future four storey building (plus 1 basement carpark) The DCP height limit is 10 metres. This proposal seeks to amend that height.

The height also matches that of the existing height of the church (maximum spire height of 16.5m). The indicative proposal respects the existing form and massing of the church. This can be considered a positive strategy in keeping with the church's heritage significance.

The proposed indicative height and massing will also allow adequate light and ventilation into the spaces as well as preserve existing views and vistas to and from the church. The existing church will not be overshadowed by a proposal of this size and nature.

This strategy can be considered positive and respectful to the heritage significance of the church and its grounds.

The façade facing the church has been fractionated into panels and bays which reflect the scale and form of the church building in accordance with the Burra Charter.

Figure 17: Envelope Setbacks – Upper floors

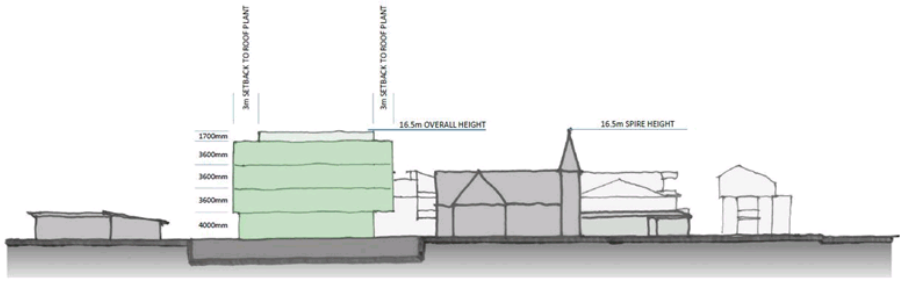


Figure 18: Proposed massing and building height

Key summary points:

- Non-dominating form –does not exceed maximum height of church.
- Height does not exceed existing church height of 16.5m.
- Size and mass of proposed building does not compromise light, views and amenities to and from the church and its grounds.

4.2.3 Ground floor activation

The indicative proposal takes advantage of the existing opportunities on the site without compromising any existing views and vistas to and from the existing church building.

The proposed setback between the site and the church will result in a laneway which will provide access and thoroughfare through the site and church grounds. This opportunity can be further enhanced by carefully placing effective public/commercial spaces within these edges.

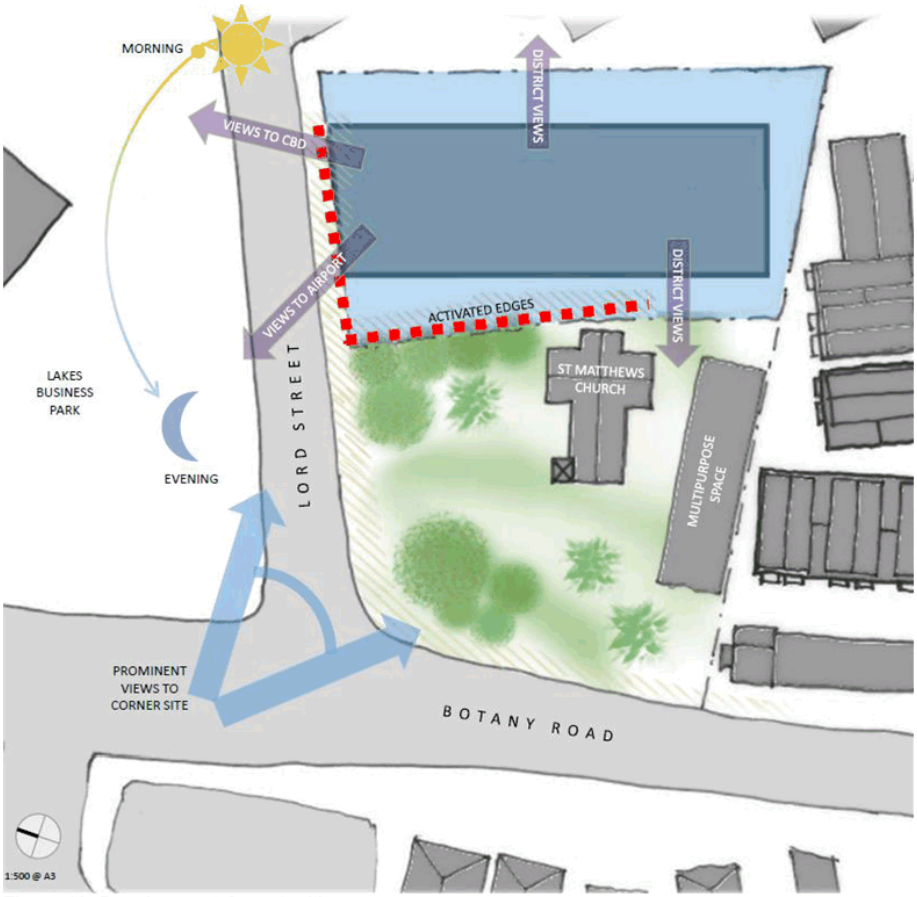


Figure 19: Development Opportunities

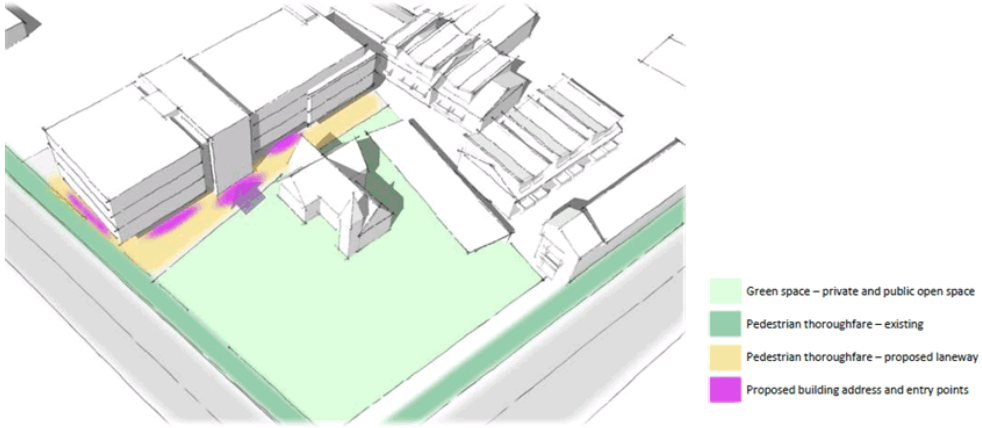


Figure 20: Design Principles

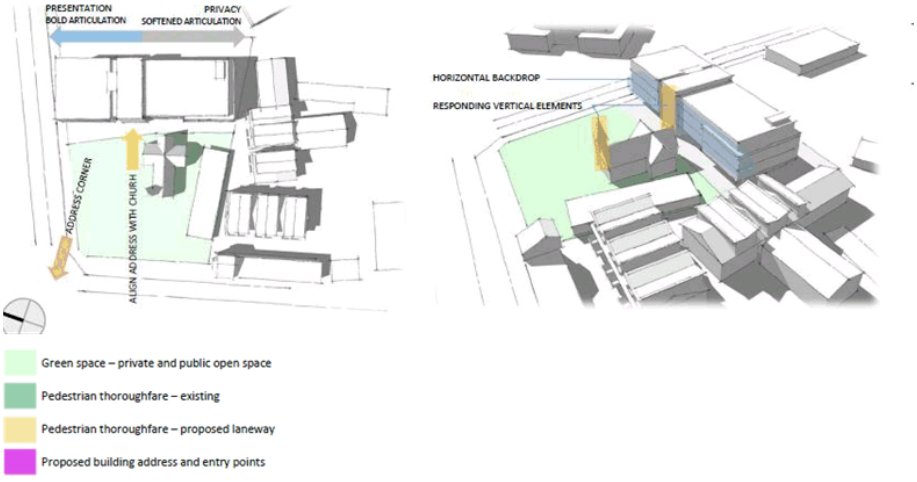


Figure 21: Design Principles

Key summary points:

- Existing views are maintained
- Edges activated by creating effective laneways and thoroughfare
- Proposed building entry points takes advantage of the existing green space of the church grounds, enhancing both church grounds and proposed edges.

4.2.4 Façade

The indicative façade is broken down into 3 sections that corresponds with the language of the existing church.The proposal takes advantage of the existing opportunities on site without compromising any existing views and vistas to and from the existing church building. The indicative design takes into consideration the built form of the existing church, utilising simplistic architectural expressions with vertical and horizontal elements to complement the significance of the church and its grounds.

Figure 22: Western Façade indicative composition strategy

Figure 23: Existing church and multi-function centre

Key summary points:

- Follow the proportion of the existing buildings
- Sympathetic expression and articulation of openings

5.0 BURRA CHARTER

The following are recommendations for new work according to the Burra Charter. The new proposed work is able to be defined as new in accordance with the ICOMOS Burra Charter and is low key and recessive in form. The design complies with the description and is considered to have no significant impact on the original façade and built form.

The indicative design is set back and lightweight while the original building is a strong brick expression and remains the dominant form.

"Article 22. New work

22.1 New work such as additions to the place may be acceptable where it does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation

New work may be sympathetic if its sitting, bulk, form, scale, character, colour, texture and material are similar to the existing fabric, but imitation should be avoided.

22.2 New work should be readily identifiable as such" ***Reference*** *Australian ICOMOS Burra Charter.*

6.0 IMPACT ON HERITAGE BUILDING

6.1 Assessment

The indicative proposal has considered the existing heritage significance and the potential impact of its intended outcomes. The design can be considered respectful to the church and its grounds.

The proposal will not adversely change the current situation and does not impact adversely on the church and its surrounding buildings.

6.2 Impact on Heritage Fabric

Element Activity		Impact	Comment
Facade	Will the proposal alter the streetscape	*Minimal Impact*	The proposal is takes into consideration the heritage significance of the church. The articulation of the western façade is broken down into 3 main elements that corresponds with the context and proportion of the church.
Form, massing and height	The proposal is set back and is broken down	*Minimal Impact*	The indicative massing is broken down into 3 main elements that correspond to the context and proportion of the church. This strategy will visually reduce the mass of the proposed building with its design that complements that of the existing church. The height of the indicative massing is within the height limit of the height of the church.
Roofs	A flat roof is proposed	*Minimal Impact*	
Materials	Lightweight materials will be used	*Minimal Impact*	
Windows and doors	Consistent with proportion	*Minimal Impact*	The proposed windows and doors reflect the scale and form of the church building. This strategy is considered consistent with the Burra Charter.

7.0 QUESTIONS TO BE ANSWERED IN A STATEMENT OF HERITAGE IMPACT

Proposed change to heritage item	Some Questions to be Answered in a Statement of Heritage Impact	Comments
Demolition of a building or structure	Have all options for retention and adaptive re-use been explored? Can all of the significant elements of the heritage item be kept and any new development be located elsewhere on the site? Is demolition essential at this time or can it be postponed in case future circumstances make its retention and conservation more feasible? Has the advice of a heritage consultant been sought? Have the consultant's recommendations been implemented? If not, why not?	The existing building is not a heritage listed item. The demolition of the existing building with have no significant effect to St Matthew's church.
Minor partial demolition *(including internal elements)*	Is the demolition essential for the heritage item to function? Are important features of the item affected by the demolition (e.g. fireplaces in buildings)? Is the resolution to partially demolish sympathetic to the heritage significance of the item? If the partial demolition is a result of the condition of the fabric, is it certain that the fabric cannot be repaired?	N/A
Major partial demolition *(including internal elements)*	Is the demolition essential for the heritage item to function? Are particular features of the item affected by the demolition (e.g. fireplaces in buildings)? Is the detailing of the partial demolition sympathetic to the heritage significance of the item (e.g. creating large square openings in internal walls rather than removing the wall altogether)? If the partial demolition is a result of the condition of the fabric, is it certain that the fabric cannot be repaired?	N/A
Change of use	Has the advice of a heritage consultant or structural engineer been sought? Has the consultant's advice been implemented? If not, why not? Does the existing use contribute to the significance of the heritage item? Why does the use need to be changed? What changes to the fabric are required as a result of the change of use? What changes to the site are required as a result of the change of use?	N/A

Minor additions *(see also minor partial demolition)*	How is the impact of the addition on the heritage significance of the item to be minimised? Can the additional area be located within an existing structure? If no, why not? Will the additions visually dominate the heritage item? Is the addition sited on any known, or potentially significant archaeological deposits? If so, have alternative positions for the additions been considered? Are the additions sympathetic to the heritage item? In what way (e.g. form, proportions, design)?	N/A
Major additions *(see also major partial demolition)*	How is the impact of the addition on the heritage significance of the item to be minimised? Can the additional area be located within an existing structure? If not, why not? Will the additions tend to visually dominate the heritage item? Are the additions sited on any known, or potentially significant archaeological deposits? If so, have alternative positions for the additions been considered? Are the additions sympathetic to the heritage item? In what way (e.g. form, proportions, design)?	N/A
New development adjacent to a heritage item *(including additional buildings and dual occupancies) Note: Most planning instruments (such as local and regional environmental plans) require the approval authority to take into account the impact of new development on adjacent heritage items or conservation areas.*	How is the impact of the new development on the heritage significance of the item or area to be minimised? Why is the new development required to be adjacent to a heritage item? How does the curtilage allowed around the heritage item contribute to the retention of its heritage significance? How does the new development affect views to, and from, the heritage item? What has been done to minimise negative effects? Is the development sited on any known, or potentially significant archaeological deposits? If so, have alternative sites been considered? Why were they rejected? Is the new development sympathetic to the heritage item? In what way (e.g. form, siting, proportions, design)? Will the additions visually dominate the heritage item? How has this been minimised? Will the public, and users of the item, still be able to view and appreciate its significance?	The inidcative design considers the heritage significance of the church in relation to its form and massing. The careful articulation of the proposed form and spatial planning of the building seeks to respect and complement the siting and the expression of the design is sympathetic to the surroundings. The indicative development will have minimal impact to the heritage significance of the church.
Subdivision *Note: Impacts on heritage values related to new subdivision can often be minimised through development control plans (DCPs). Refer to the Best Practice Guideline on*	How is the proposed curtilage allowed around the heritage item appropriate? Could future development that results from this subdivision compromise the significance of the heritage item? How has	N/A No subdivision is proposed.

preparing DCPs published by the Department of Planning.	this been minimised? Could future development that results from this subdivision affect views to, and from, the heritage item? How are negative impacts to be minimised?	
Repainting using new colour schemes	Have previous (including original) colour schemes been investigated? Are previous schemes being reinstated? Will the repainting effect the conservation of the fabric of the heritage item?	N/A No repainting is proposed.
Re-roofing/re-cladding	Have previous (including original) roofing/cladding materials been investigated (through archival and physical research)? Is a previous material being reinstated? Will the re-cladding effect the conservation of the fabric of the heritage item? Are all details in keeping with the heritage significance of the item (e.g. guttering, cladding profiles)? Has the advice of a heritage consultant or skilled tradesperson (e.g. slate roofer) been sought?	N/A No re-roofing is proposed.
New services *(e.g. air conditioning, plumbing)*	How has the impact of the new services on the heritage significance of the item been minimised? Are any of the existing services of heritage significance? In what way? Are they affected by the new work? Has the advice of a conservation consultant (e.g. architect) been sought? Has the consultant's advice been implemented? Are any known or potential archaeological deposits (underground and under floor) affected by the proposed new services?	The building is not a heritage item. New services will not have impact to the adjacent church.
Fire upgrading *Note: Where agreement cannot be reached between the local council and your consultants on suitable fire-upgrading you may seek the advice of the Fire, Access & Services Panel, a subcommittee of the Heritage Council of NSW. Contact the Heritage Office for further information on (02) 9391 2115.*	How has the impact of the upgrading on the heritage significance of the item been minimised? Are any of the existing services of heritage significance? In what way? Are they affected by the new work? Has the advice of a conservation consultant (e.g. architect) been sought? Has their advice been implemented? Are any known or potential archaeological deposits (underground or under floor) affected by the proposed new services? Has the advice of a fire consultant been sought to look for options that would have less impact on the heritage item? Will this advice be implemented? How?	N/A
New landscape works and features *(including carparks and fences)*	How has the impact of the new work on the heritage significance of the existing landscape been minimised? Has evidence (archival and physical) of previous landscape work been investigated? Are previous works being	Proposed landscape on the new development site will complement the existing landscape of the church. There will be no significant impact to the church and its

	reinstated? Has the advice of a consultant skilled in the conservation of heritage landscapes been sought? If so, have their recommendations been implemented? Are any known or potential archaeological deposits affected by the landscape works? If so, what alternatives have been considered? How does the work impact on views to, and from, adjacent heritage items?	existing landscape.
Tree removal or replacement *Note: Always check the tree preservation provisions of your local council when proposing removal of trees*	Does the tree contribute to the heritage significance of the item or landscape? Why is the tree being removed? Has the advice of a tree surgeon or horticultural specialist been obtained? Is the tree being replaced? Why? With the same or a different species?	N/A No tree removal is proposed.
New signage *Note: Check whether the local council has a signage policy or design guidelines*	How has the impact of the new signage on the heritage significance of the item been minimised? Have alternative signage forms been considered (e.g. free standing or shingle signs). Why were they rejected? Is the signage in accordance with section 6 , 'Areas of Heritage Significance', in Outdoor Advertising: An Urban Design-Based Approach?(1) How? Will the signage visually dominate the heritage item/ heritage conservation area or heritage streetscape? Can the sign be remotely illuminated rather than internally illuminated?	This will be part of the proposed development.

8.0 RECOMMENDATIONS

i. Any future new works should be the most sustainable solution for the present and foreseeable future demands for the building.

ii. All existing fabric for the adjacent church must be appropriately protected during any future construction resulting from the proposed development controls.

iii. The installation of new services should be designed in such a way as to provide minimal impact on the existing fabric, especially original and early fabric.

iv. Any future built form on the subject site should be distinguishable from the church and not imitate its original style.

9.0 CONCLUSION

i. The indicative design concept provided in the Urban Design Review prepared by Built Consult is reasonable and positive as its design rationale is considered to be respectful to the adjacent church with only minor impacts to its heritage significance.

ii. The indicative design concept demonstrates that an appropriate built form outcome can be achieved within the proposed development controls that is consistent with the existing neighbourhood and contributes to the public interaction happening at ground level between the church, the multipurpose building and neighbourhood.

iii. The indicative design concept reflects a potential built form outcome that is subservient to the majority of surrounding buildings.

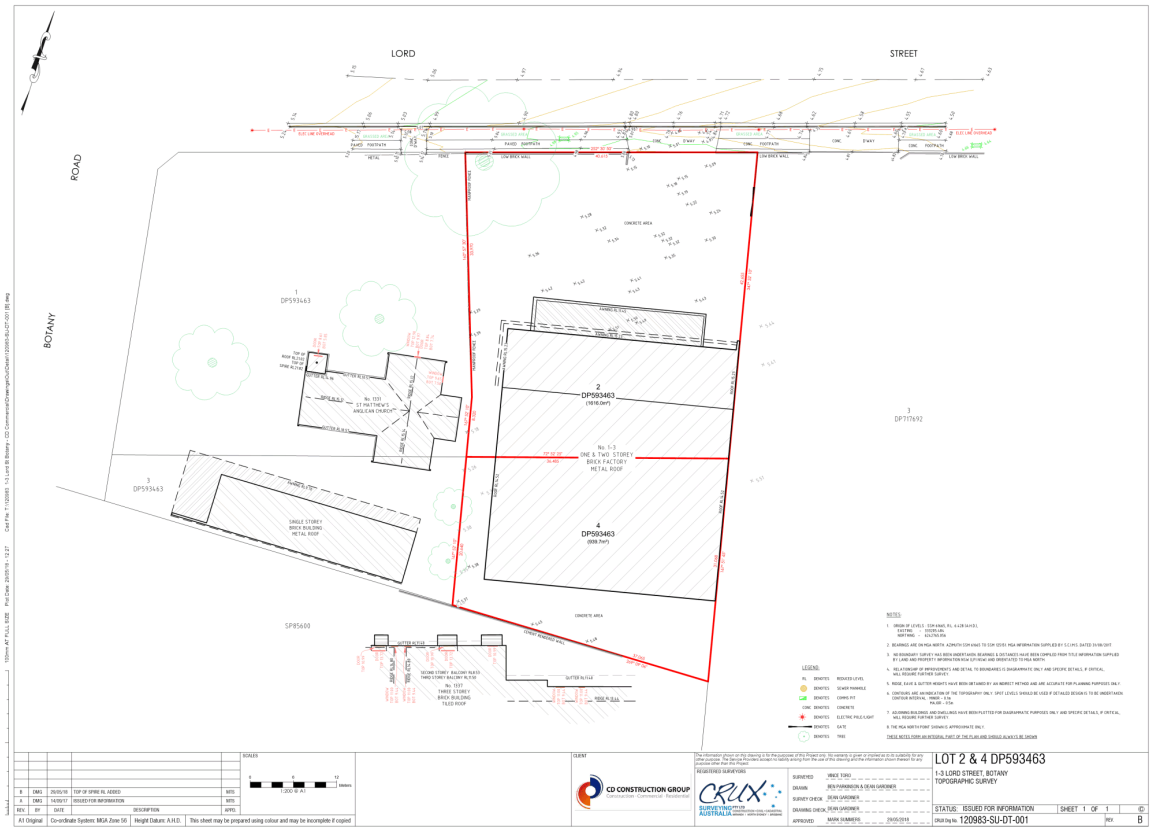
iv. The indicative design concept reflects a potential built form outcome that is not conjectural and are identifiable as contemporary in accordance with the Burra Charter.

v. The indicative design concept is generally achievable within theBayside CouncilDCP 2013 and the requirements of theBayside CouncilLEP 2013 (subject to the proposed BBLEP 2013 amendments).

The indicative design concept provided in the Urban Design Review prepared by Built Consult provides a well considered design rationale for the proposed development to 1-3 Lord Street. Tropman & Tropman Architects support this proposal and confirm that the approach is both logical and adheres to the Burra Charter principals.

As reflected within the Urban Design Review prepared by Built Consult, we confirm that the requested building height and floor space ratio controls within the Planning Proposal are capable of achieving a built form outcome that is appropriate to its heritage context, and recommend the proposal be approved.

We recommend that the works described in this planning proposal be approved.


LORD
STREET
BOTANY
ROAD
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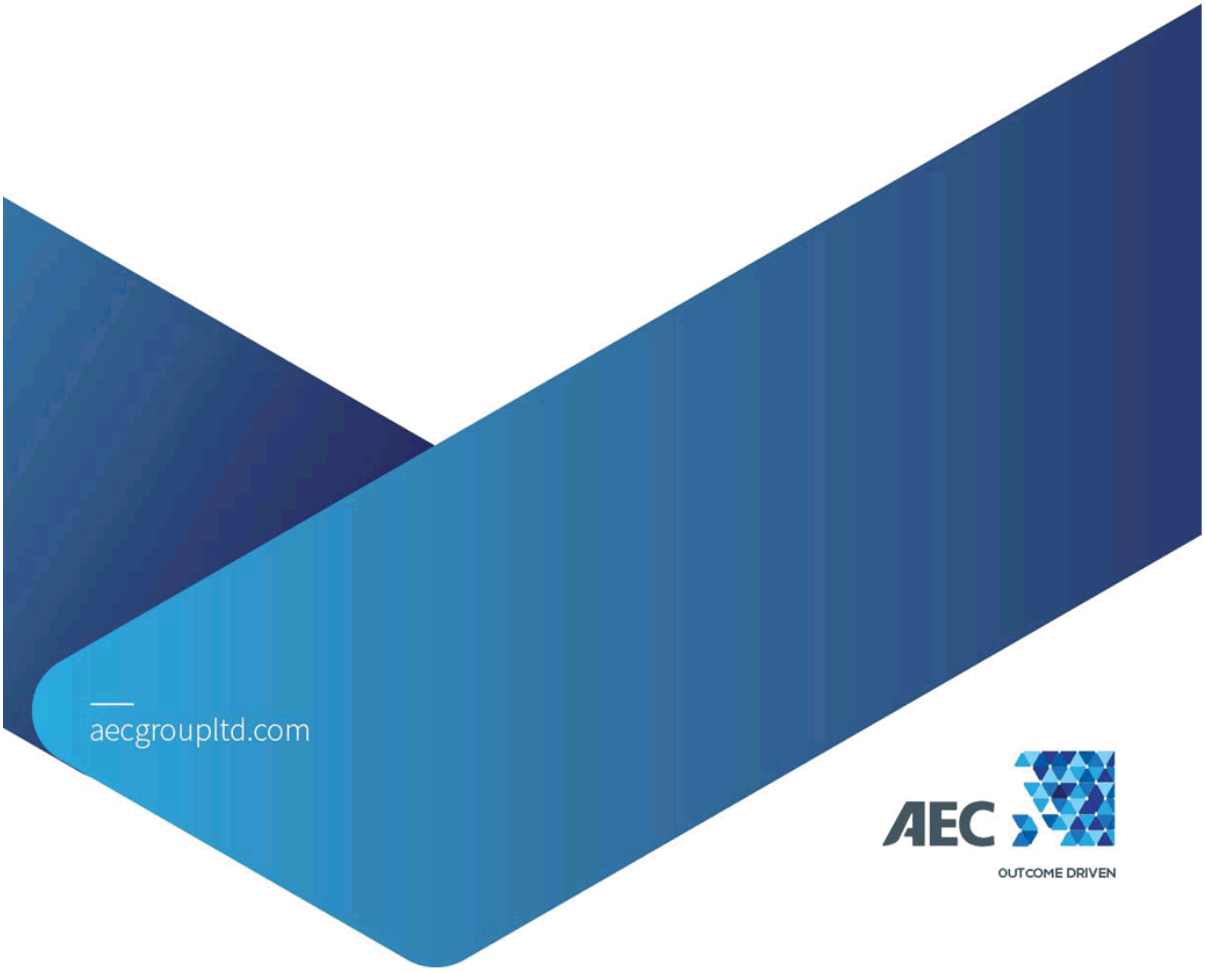
DP593463
(1616.0m²)
4
DP593463
(608.7m²)
1
DP593463
3
DP593463
3
DP717692
SP85600
No. 1-3
ONE & TWO STOREY
BRICK FACTORY
METAL ROOF
No. 1331
ST MATTHEW'S
ANGLICAN CHURCH
SINGLE STOREY
BRICK BUILDING
METAL ROOF
THREE STOREY
BRICK BUILDING
TILED ROOF
CONCRETE AREA
LOT 2 & 4 DP593463
1-3 LORD STREET, BOTANY
TOPOGRAPHIC SURVEY
CD CONSTRUCTION GROUP
STATUS: ISSUED FOR INFORMATION
SHEET 1 OF 1
CRUX Drg No. 120983-SU-DT-001
REV. B

1-3 LORD STREET, BOTANY

ECONOMIC IMPACT ASSESSMENT

FUZ BOTANY, HENDRIKX BOTANY & ORTH BOTANY TRUST

JUNE 2018



DOCUMENT CONTROL

Job ID:	J812
Job Name:	1-3 Lord Street, Botany EIA
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Document Name:	1-3 Lord St Botany EIA final
Last Saved:	13/7/2018 8:36 AM

Version	Date	Reviewed	Approved
Draft	25/06/2018	VT	EC
Final	13/07/2018	VT	EC

EXECUTIVE SUMMARY

BACKGROUND

The Orth Botany Trust, The Fuz Botany Trust and The Hendrikx Botany Trust are preparing a Planning Proposal (the Proposal) for 1-3 Lord Street Botany (the Site) to amend building height limits and floorspace ratio (FSR) controls. Specifically, the following amendments are proposed:

- Building height from 10 metres to 16.5 metres.
- FSR from 1:1 to 1.75:1.

The Site is strategically located in close proximity to the Sydney Airport and Port Botany Trade Gateways, the Southern Employment Lands and Sydney CBD. Situated within a B7 Business Park zone, the Proposal will work in tandem with neighbouring business parks to elevate the Lord Street business park precinct as a key employment area, enabling higher employment growth and density on Site.

The Proposal envisages the conversion of the existing warehouse and ancillary office spaces on the Site into a multi-storey building including ground floor warehouse/commercial floorspace (621sqm), commercial floorspace (3,750sqm) on the upper levels and basement parking for 92 cars.

The Proposal strives to respond to the changing nature of employment floorspace requirements by intensifying business functions on the Site, enabling the co-location of commercial and warehouse floorspace and provide greater opportunity for commercial uses. The redevelopment serves to encourage an intensification of commercial uses on Site for occupants with diverse floorspace requirements and/or those seeking to combine various functions on one site. The supply of employment lands, and, indeed, land itself is finite and therefore facilitating an intensification of uses on the Site would assist in addressing demand.

The majority of employees in the precinct generally rely on private vehicles to commute to work. An adequate number of car spaces is imperative to accommodate business and employee needs. The Proposal's provision of basement car spaces addresses this requirement.

AEC Group (AEC) is engaged by Orth Botany Trust, The Fuz Botany Trust and The Hendrikx Botany Trust to prepare an Economic Impact Assessment to analyse the economic impacts likely to result from implementation of the Proposal.

PLANNING AND MARKET CONTEXT

Planning Context

Planning policies at both state and local levels recognise the need to respond to economic trends and evolving business requirements. Specific to the Proposal:

- The Greater Sydney Region Plan seeks to increase competitiveness and connectivity along identified Economic Corridors
- The Eastern City District Plan seeks to ensure adequate planning retention, and management of industrial and urban services lands.
- The Botany Bay Planning Strategy 2013 envisages an expansion of commercial activity to Botany's north (Lord Street to Bay Street), by increasing FSR and expanding the business park precinct on Lord Street with the objective of creating a strong commercial cluster.

The Proposal responds directly to the Region Plan and District Plan's objectives and priorities to retain urban services lands, but importantly to facilitate a greater amount of floorspace to accommodate employment growth in an area constrained for future supply.

Market Context

The Botany Employment Precinct (the Botany Precinct) is an important employment area within the broader South Sydney region, and extends well beyond the Lord Street business park precinct and encompasses land that is zoned business park, light industrial, local and neighbourhood centres, mixed use. The Botany Precinct is traditionally an industrial/urban services area accommodating a variety of business activity, also serving as a thoroughfare to key freight nodes. Research into the market context and floorspace requirements affirm the importance of hybrid-type business functions in the Botany Precinct.

The demand profile of industrial and commercial occupants is varying and demonstrating healthy growth, with the main occupants of freestanding warehouses typically being small-scale manufacturers, repairs/servicing technicians and light industrial users. Commercial occupants with smaller floorspace requirements are attracted by the affordability of the area (with office rents achieving between $180/sqm to $350/sqm) and proximity to the Sydney CBD, while those requiring larger floorplates typically locate along Lord Street to cluster with larger, more renowned businesses.

Research investigations into sales activity indicate a tightly held market, with fewer than 10 sites transacted in the past year. Informal discussions with local agents have indicated that interest levels in site sales have been high, with prospective buyers already located in the area and seeking to upgrade to larger premises to allow a hybrid of functions to co-locate.

The redevelopment of Botany Quarter by Dexus Property Group is already met with enthusiasm from industrial and commercial occupants alike. The redevelopment will prove to be a game-changer in the South Sydney region, comprising creative office suites, high-tech industrial units, storage units, neighbourhood retail and onsite lifestyle/recreation facilities (childcare, gym facilities).

ASSESSMENT OF ECONOMIC IMPACTS

The following sections examine the estimated economic activity supported through the operations of businesses locating to the Site if it was redeveloped under proposal compared to if it remained in its existing use.

- **Base Case**: The Base Case assumes the Site continues its current operations accommodated in the existing improvements and assesses the economic impacts should the Site remain in its existing use.
- **Proposal Case**: The Site is redeveloped under the Proposal's amended planning controls to facilitate higher intensification use on site, with increased height and commercial floorspace.

The economic impacts have been assessed at the Bayside Local Government Area (LGA) level.

Economic Impacts During Construction

The construction phase associated with the Proposal is expected to support the following economic activity for the Bayside LGA, including businesses and workers through direct and flow-on impacts (over the course of the construction phase):

- $10.4 million in output (including $4.8 million in direct activity).
- $3.9 million contribution to GRP (including $1.2 million in direct activity).
- $2.1 million in incomes and salaries paid to households.
- 28 FTE jobs (including seven directly employed in the construction activity).

Net Economic Activity During Operations

The economic impacts/contribution of the Proposal can be traced through the economic system via:

- **Direct Impacts**, which are the first round of effects from direct operational expenditure on goods and services.
- **Indirect Impacts (Flow-on Impacts)**, which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales.

The Proposal is anticipated to result in a net increase in economic activity compared to what the existing improvements support in the Base Case. through the direct and flow-on impacts associated (per annum):

- $117.9 million in output (including $47.5 million in direct activity).
- $52.6 million contribution to GRP (including $18.7 million in direct activity).
- $30.6 million in incomes and salaries paid to households.
- 439 FTE jobs (including 167 additional jobs directly related to activity on the Site).

Table ES.1 summarises the outcomes in the Base Case and Proposal Case.

Table ES.1: Economic Activity, Base Case v Proposal Case

Impact	Output ($M)	Gross Regional Product ($M)	Incomes ($M)	Employment (FTEs)
Base Case				
Direct	$11.4	$5.1	$2.9	29
Type I Flow-On	$3.2	$1.5	$0.8	10
Type II Flow-On	$6.9	$3.7	$2.0	30
Total	**$21.5**	**$10.3**	**$5.7**	**69**
Proposal Case				
Direct	$58.9	$23.8	$14.8	196
Type I Flow-On	$36.6	$15.4	$8.9	120
Type II Flow-On	$43.9	$23.7	$12.6	192
Total	**$139.5**	**$62.9**	**$36.3**	**509**
Net Increase in Economic Activity				
Direct	$47.5	$18.7	$11.9	167
Type I Flow-On	$33.4	$13.9	$8.1	110
Type II Flow-On	$37.0	$20.0	$10.6	162
Total	**$117.9**	**$52.6**	**$30.6**	**439**

Source: AEC

CONCLUSION

Land that is close to existing employment centres and public transport networks is scarce and valuable. As cities grow there is commensurate pressure on scarce lands to be developed for a variety of uses. The benefits of enabling more intensive use of land which is a finite asset are therefore obvious.

In comparison to the other employment areas examined, the Botany Precinct and its surrounds experienced very modest employment growth over the 2006-2016 period, averaging a lacklustre 0.5% average annual growth compared to 1.5% to 3.4% in comparison areas. Employment growth in the Botany Precinct and its surrounds has been weak despite strong market demand and occupier interest.

Opportunities to accommodate greater intensity of employment are needed. Investigations suggest a lack of commercial floorspace opportunities in the Botany Precinct and broader South Sydney Region. Given the Botany Precinct's proximity to key centres and Trade Gateways, it is necessary to ensure commercial opportunities are available to attract new business but also facilitate growth and expansion in a diverse range of business activities.

In the case of the Site, state government policy has focused equally on intensifying employment opportunities and accommodating businesses' changing requirements for how they use land and floorspace. The Proposal seeks to meet these objectives by providing commercial opportunities for a range of business activity and importantly, maximising the economic intensity of the Site. The Proposal demonstrates alignment with the objectives and aspirations of state planning policy and strategy.

The Study considers the economic impact of the Proposal to be net positive and thereby presenting a compelling case for consideration.

TABLE OF CONTENTS

1. INTRODUCTION

1.1 BACKGROUND

1-3 Lord Street Botany (the Site) is located approximately 12 kilometres south of the Sydney CBD, and approximately five kilometres and seven kilometres from Sydney Airport and Port Botany respectively. The Site is currently occupied by Marine Product Marketing Proprietary Limited, a supplier of frozen food products to food service businesses and retailers.

The Site is zoned B7 Business Development, with a permissible floorspace ratio (FSR) of 1:1 and a building height limit of 10 metres, in accordance with the Botany Bay local environmental plan.

The Orth Botany Trust, The Fuz Botany Trust and The Hendrikx Botany Trust are preparing a Planning Proposal (the Proposal) to amend the Site's building height and floorspace controls. Specifically, the following amendments are proposed:

- Building height from 10 metres to 16.5 metres.
- FSR from 1:1 to 1.75:1.

AEC Group (AEC) is engaged by Orth Botany Trust, The Fuz Botany Trust and The Hendrikx Botany Trust to prepare an Economic Impact Assessment to analyse the economic impacts likely to result from implementation of the Proposal.

1.2 SCOPE AND APPROACH

AEC has been engaged by The Orth Botany Trust, The Fuz Botany Trust and The Hendrikx Botany Trust to the prepare an Economic Impact Assessment (EIA) to analyse the economic impacts likely to result from the proposed planning controls amendments and subsequent redevelopment of the Site.

To assess the economic impacts of the Proposal, a Base Case and Proposal Case were developed.

- **Base Case:** The Site is currently improved by a two storey building which accommodates warehousing/storage uses and ancillary commercial uses. The Base Case assumes the Site continues its current operations accommodated in the existing improvements.
- **Proposal Case:** The Site is redeveloped under the Proposal's amended planning controls to facilitate an intensification of use, with increased height and greater provision of commercial floorspace.

The purpose of the EIA is two-fold:

1 To carry out property market research to consider the need for the Proposal while examining the employment and market profile of the broader precinct as an employment area.

2 To carry out economic modelling to assess the economic impacts of the Proposal.

1.3 STRUCTURE OF THE STUDY

The purpose of the Economic Impact Assessment (EIA) is to consider if direct economic impacts of the Proposal Case are net positive compared to the Base Case. The EIA is structured as follows:

Chapter 2 reviews the Site and its surrounds, and strategic planning policies of relevance to the Site and Proposal.

Chapter 3 analyses the employment and economic activity occurring in and around the Site, to understand the profile of employment and industry activity. This chapter additionally investigates the market context and trends influencing land use in and around the Site.

Chapter 4 assesses the economic impacts of the Proposal against the Base Case.

Chapter 5 undertakes a Policy Assessment of the economic impacts arising from the Proposal.

2. SITE CONTEXT

2.1 LOCATION

1-3 Lord Street Botany (the Site) is located approximately 12 kilometres south of the Sydney CBD, and approximately five kilometres and seven kilometres from Sydney Airport and Port Botany respectively. Botany is located within the Bayside Local Government Area (LGA), which was formed from the amalgamation of Botany Bay and Rockdale LGAs in 2016. The Site is accessible via major arterial roads including Botany Road and the M1 Motorway and is located approximately 250 metres east of the Botany Road and Street intersection.

The Site is currently occupied by Marine Product Marketing Proprietary Limited, a supplier of frozen food products, occupying the freestanding warehouse and office space.

Figure 2.1: The Site

Source: Nearmap

In accordance with the Botany Bay Local Environment Plan (LEP) (2013) the Site is zoned B7 Business Park with a permissible floorspace ratio (FSR) of 1:1 and a building height limit of 10 metres. Existing improvements comprise a freestanding warehouse with a building area of approximately 1,438sqm situated on a site of approximately 2,556sqm in area (RP Data). The Site straddles two allotments.

The Site is on the western-most of fringe of the Lord Street B7 Business Park Zone and borders an R3 Medium Residential zone. It is situated between St. Matthew's Anglican church, and Service NSW on Lord Street.

Lord Street accommodates a wide range of businesses and activity, predominantly contained within two business parks, the Lakes Business Park and Sir Joseph Banks Corporate Park. The presence of these prominent business park complexes on Lord Street contributes to elevating the area's profile as a key employment area in the South Sydney region.

Lakes Business Park

Commercial and warehouse floorspace along Lord Street is dominated by the Lakes Business Park (2-13 Lord Street), an eight-hectare business park containing approximately 44,000sqm in net lettable area (NLA) of commercial and warehouse floorspace across seven freestanding buildings. The business park is bisected by Lord Street, forming a north precinct (approximately 29,000sqm NLA) and south precinct (14,000sqm NLA) on either side of Lord Street, with the majority of businesses located in the north precinct.

Dexus secured planning approval for partial redevelopment of the north precinct which will increase commercial floorspace to 44,000sqm across seven 6 storey buildings (Urbis, 2015). Subsequent to this, rezoning approval was obtained to facilitate redevelopment of the south precinct into a mixed use creative hub, Botany Quarter to incorporate creative office suites, high-tech industrial units, storage units, and retail facilities.

The business park accommodates a broad range of businesses: freight and logistics companies, warehousing, small-scale manufacturers, distributors, and providers of corporate services. Utilisation of floorspace is divided between warehousing and commercial uses. The warehousing component is utilised for distribution of goods, and general storage whilst commercial uses provide space for general offices and meeting and/or training rooms.

Sir Joseph Banks Corporate Park

Sir Joseph Banks Corporate Park is situated at the eastern end of Lord Street (28-30 Lord Street). The corporate park comprises in the order of 31,700sqm of commercial and warehouse floorspace across three buildings. Major businesses include Schindler Lifts Australia (lifts manufacturers and maintenance), Konami Australia (computer and arcades manufacturer), and Sims Metal Management (metal collection and processing).

Figure 2.2 shows the Lakes Business Park and Sir Joseph Banks Corporate Park with respect to the Site.

Figure 2.2: Lord Street Major Business Park Complexes

Source: Nearmap

Both the Lakes Business Park and Sir Joseph Banks Corporate Park are owned by Dexus Property Group. Whilst in a business park setting, however, amenity on Lord Street is modest, with only an on-site café in each and no directly accessible recreational facilities (such as a gym). Employees wishing to pursue leisure activities in their free time are limited to the Botanic Aquatic Centre on Lord Street's eastern fringe.

2.2 SURROUNDING USES

The Site is situated in close proximity to critical economic infrastructure (Port Botany and Sydney Airport) and the major employment region of South Sydney. Figure 2.3 illustrates.

Figure 2.3: The Site and Surrounding Uses

Source: Nearmap

Port Botany and Sydney Airport

Port Botany is located approximately six kilometres south-east of the Site and is accessible via Botany Road and Foreshore Road. Port Botany accommodates Sydney's largest port, and is a major employment area, forming a vital part of logistics and supply chain network in NSW. In addition to housing NSW's largest container facility it is also the NSW's primary bulk liquid and gas port, and Australia's largest dedicated common user facility of this type.

Facilities at Port Botany include: three independently operated container vessels, liquids and gas facilities, and eight kilometres of road network, warehousing, container packing and unpacking facilities, Customs facilities and container packing and unpacking facilities. Port Botany operates 24 hours a day, seven days a week (NSW Ports).

Sydney Airport is approximately two kilometres west of the Site and is one of the longest continuously operated commercial airports internationally (Sydney Airport, 2018). Sydney Airport has a total of four terminals, three passenger terminals and one freight terminal, dedicated to international freight operations.

South Sydney Employment Region

The South Sydney employment region is the economic engine that provides critical support to Sydney Airport and Port Botany, servicing population and businesses across metropolitan Sydney. Significant intensification over the last decade is observed across the South Sydney region in line with business requirements and utilisation trends.

2.3 EMPLOYMENT CHARACTERISTICS

The Botany Employment Precinct (the Botany Precinct) is an important employment area within the broader South Sydney region. In order to understand employment and business activity occurring in the Botany Precinct, ABS Census data was analysed for the period between 2006 and 2016 using statistical geographic boundaries of Destination Zone (DZ).

Figure 2.4: The Botany Employment Precinct Statistical Area of Analysis

Source: ABS

The Botany Employment Precinct area of analysis extends well beyond the Lord Street business park precinct (comprised of the B7 Business Park zoned land to the Botany Precinct's north) and encompasses land that is zoned light industrial, local and neighbourhood centres, mixed use.

Table 2.1 provides an overview of the Botany Precinct's employment profile. The industries with the largest share of employment in 2016 were Construction, Manufacturing, and Transport, Postal and Warehousing. Notably, employment numbers are largely unchanged over the 2011-2016 period.

Table 2.1: Employment Profile, The Botany Precinct

Indicator	Outcome
Total Employment	
2016	7,586
2011	8,461
Key Industries (2016, % of Total Employment)	
Construction	20.8%
Transport, Postal and Warehousing	19.4%
Manufacturing	13.0%
Key Occupations (2016, % of Total Employment)	
Technicians and Trades Workers	21.1%

Indicator	Outcome
Clerical and Administrative Workers	18.0%
Managers	15.7%

Source: ABS (2012, 2017a)

2.3.1 Employment By Industry

Table 2.2 shows the Botany Precinct's employment by industry for the period between 2006 and 2016 at the ANZSIC 1-Digit Level. In that period, the overall workforce experienced growth of approximately 5.1%, or 367 employees.

The notable uptick in Construction (114%, 842 jobs) is in line with trends observed in the area, and the rest of Greater Metropolitan Sydney. By comparison, Bayside LGA experienced an increase of 120%, or 3,944 jobs. The growth in the Construction industry is a trend that has been observed across Greater Metropolitan Sydney for the past decade, driven by a construction boom and government infrastructure investment.

Between 2006 and 2016, the Botany Precinct experienced an increase of 163 jobs (82%) in Professional, Scientific & Technical Services and Health Care & Social Assistance (143 jobs, 70%).

A declining Manufacturing industry is a common trend observed across most parts of Greater Sydney, as the nation has transitioned away from traditional manufacturing towards niche and advanced manufacturing and knowledge-intensive jobs. The Botany Precinct lost 577 jobs (-37%) in Manufacturing between 2006 and 2016.

The Wholesale Trade industry has also experienced a decline of 588 jobs (-58%). Disaggregation of the Wholesale Trade industry to the 3-digit level reveals that no notable sub-sectoral decline and suggests this is an organic transition away from Wholesale Trade in the Botany Precinct.

Surprisingly, Transport, Postal & Warehousing trended downwards in the Botany Precinct. Analysis of the industry at the 3-digit level reveals the main contributor to decline was Road Freight Transport (loss of 304 jobs, -4.6%).

Table 2.2: Employment by Industry ANZSIC 1-Digit, The Botany Precinct

Industry	2006		2011		2016		Change (06-16)	
	No.	%	No.	%	No.	%	No.	%
Agriculture, Forestry and Fishing	2	0.0%	7	0.1%	31	0.4%	30	1799%
Mining	1	0.0%	0	0.0%	0	0.0%	0	-60%
Manufacturing	1,564	21.7%	1,569	18.5%	987	13.0%	-577	-37%
Electricity, Gas, Water and Waste Services	30	0.4%	96	1.1%	70	0.9%	39	129%
Construction	738	10.2%	1,116	13.2%	1,580	20.8%	842	114%
Wholesale Trade	1,016	14.1%	1,408	16.6%	428	5.6%	-588	-58%
Retail Trade	329	4.6%	346	4.1%	412	5.4%	83	25%
Accommodation and Food Services	131	1.8%	151	1.8%	191	2.5%	60	46%
Transport, Postal and Warehousing	1,717	23.8%	1,924	22.7%	1,469	19.4%	-248	-14%
Information Media and Telecommunications	211	2.9%	198	2.3%	267	3.5%	55	26%
Financial and Insurance Services	226	3.1%	155	1.8%	78	1.0%	-149	-66%
Rental, Hiring and Real Estate Services	56	0.8%	63	0.7%	143	1.9%	87	156%
Professional, Scientific and Technical Services	198	2.7%	290	3.4%	361	4.8%	163	82%
Administrative and Support Services	181	2.5%	233	2.7%	390	5.1%	209	115%
Public Administration and Safety	132	1.8%	152	1.8%	191	2.5%	59	45%
Education and Training	104	1.4%	111	1.3%	170	2.2%	66	63%
Health Care and Social Assistance	204	2.8%	278	3.3%	347	4.6%	143	70%
Arts and Recreation Services	53	0.7%	64	0.8%	152	2.0%	99	185%
Other Services	323	4.5%	298	3.5%	317	4.2%	-6	-2%
Total	**7,219**	**100%**	**8,461**	**100%**	**7,586**	**100%**	**367**	**5.1%**

Source: ABS (2012, 2017a)

The marked increase in Professional, Scientific & Technical Services and Health Care & Social Assistance employment has direct implications for the type of floorspace required to accommodate this business activity. The profile of industry growth suggests more commercial floorspace is required.

Comparison of the Botany Precinct's employment growth profile with comparison areas of Bayside LGA, Southern Employment Lands, Port Botany and Sydney Airport shows it (the Botany Precinct) experienced distinctly ***modest*** growth. The Botany Precinct's employment growth over the 2006-2016 period averaged an annual growth of 0.5% while the comparison areas achieved average annual growth of 1.5% at a minimum and up to 3.4%. Table 2.3 illustrates the employment profile of the Botany Precinct against its comparison areas.

Table 2.3: Employment by Industry ANZSIC 1-Digit, The Botany Precinct and Comparison Areas

Area	2006	2011	2016	Change (2006-16)	Avg. Annual Growth
The Botany Precinct	7,219	8,461	7,586	5.1%	0.5%
Bayside LGA	67,352	75,918	77,797	15.5%	1.5%
Southern Employment Lands	38,954	43,121	45,130	15.9%	1.5%
Port Botany	3,136	3,828	4,370	39.3%	3.4%
Sydney Airport	12,554	13,906	16,335	30.1%	2.7%

Source: ABS (2012, 2017a)

Growth in Construction jobs across all areas was observed over the 2006-16 period in line with a construction boom and government infrastructure investment. The Southern Employment Lands' employment profile is considered to bear similarities with that of the Botany Precinct's, comprised of a mix of industrial and business zoned lands.

The Southern Employment Lands (SEL) experienced significant increases in the following industries:

- Construction (1,957 additional jobs, 129%).
- Professional, Scientific and Technical Services (1,820 additional jobs, 120%).
- Retail Trade (2,147 additional jobs, 82%).
- Health Care and Social Assistance (817 additional jobs, 63%).

Industries which have notably declined include:

- Manufacturing (1,623 jobs lost, -37%).
- Wholesale Trade (1,394 jobs lost, -25%).
- Information Media and Telecommunications (215 jobs lost, -20%).

Traditional industrial activity (i.e. heavy and 'dirty' industrial uses) is increasingly no longer undertaken in the area (and indeed Sydney's inner ring suburbs) due to access constraints and the high cost of land, many heavier industrial uses thereby relocating to Sydney's south and western suburbs. There has been a corresponding increase in demand from light industrial, local/urban services and mixed business activity in support of a growing population.

The Botany Precinct's change in employment characteristics indicates a precinct in transition, moving away from industrial activities to a mixed enterprise and services base.

As the South Sydney region continues its transition to light industrial and mixed business activity, there is a noticeable shift in business floorspace requirements with many lighter industrial and business uses (e.g. arts and recreation uses, professional services, food and beverage manufacturing uses) requiring smaller floorplates and a mix of floorspace types.

2.3.2 Employment by Occupation

Between 2006 and 2016, the occupational mix in the Botany Precinct has remained steady, with Technicians & Trades Workers forming the dominant occupational group (23.7%), followed by Clerical & Administrative Workers (16.1%) and Managers (16.1%).

Table 2.4: Employment by Occupation, The Botany Precinct

Occupation	2006		2011		2016	
	No.	%	No.	%	No.	%
Managers	928	18.3%	1,127	18.7%	857	16.1%
Professionals	832	16.4%	1,058	17.5%	846	15.8%
Technicians and Trades Workers	1,021	20.1%	1,179	19.5%	1,265	23.7%
Community and Personal Service Workers	249	4.9%	332	5.5%	362	6.8%
Clerical and Administrative Workers	1,070	21.1%	1,206	20.0%	861	16.1%
Sales Workers	227	4.5%	270	4.5%	303	5.7%
Machinery Operators and Drivers	464	9.2%	534	8.8%	395	7.4%
Labourers	283	5.6%	333	5.5%	449	8.4%
Total	**5,075**	**100%**	**6,039**	**100%**	**5,338**	**100%**

Source: ABS (2012, 2017a),

Notably, the proportion of professionals and managers of total workers declined over the 2011-16 period, conceivably a result of relocation of a significant tenant. Community and personal service workers increased from 4.9% (2006) to 6.8% (2016), reflective of the Botany Precinct's transition to accommodate mixed business and services.

2.3.3 Journey to Work

Table 2.5 shows the top ten LGAs from which employees working in the Botany Precinct travel.

Despite the majority of employees residing within or in neighbour LGAs of Sydney and Randwick (over 75% collectively), the majority of employees travelling to the Botany Precinct for work travel by car (60%).

Table 2.5: Journey to Work by Origin, The Botany Precinct

LGA	Employees (No.)	Employees (%)
Bayside	1,030	31.1%
Sydney	940	28.3%
Randwick	535	16.1%
Inner West	98	3.0%
Waverley	75	2.3%
North Sydney	60	1.8%
Woollahra	57	1.7%
Georges River	50	1.5%
Willoughby	47	1.4%

Source: BTS (2012)

2.4 PLANNING CONTEXT

2.4.1 Greater Sydney Region Plan

The Greater Sydney Region Plan (the Region Plan, GSC, 2018a) sets out a vision, objectives, strategies and actions for a metropolis of three cities across Greater Sydney.

A framework for the liveability, productivity and sustainability of the metropolis of three cities is detailed in the Region Plan. 10 directions, each comprised of a series of objectives to deliver and monitor the Region Plan.

The objectives of direct relevance to the Proposal are:

Objective 15: The Eastern, GPOP and Western Economic Corridors

Greater Sydney's Eastern Economic Corridor is a vital part of the economic ecosystem, with high concentrations of jobs and good road and transport links. The Region Plan seeks to strengthen economic opportunities in existing and developing Economic Corridors, to optimise agglomeration benefits and boost productivity with ongoing investment and new opportunities for businesses in the Eastern Harbour City.

Major assets in the Eastern Economic Corridor include the emerging Green Square, Sydney Airport and Port Botany Trade Gateways. Trade Gateways are major ports and airports of national or State significance, which are supported by on-site industrial lands and in nearby areas.

The Site is situated proximate to Sydney Airport and Port Botany Trade Gateways, thereby contributing to accommodate businesses extending from the Trade Gateways within the freight and logistics network.

Objective 23: Industrial and Urban Services Land

Industrial and urban services land refers to employment lands identified in the Employment Lands Development Monitor (DPE) and includes industrial zoned land and some business zoned land which permits a number of industrial uses. This land can include a range of activities from major freight and logistics and heavy manufacturing to light industry, urban services, integrated enterprises with a mix of administration, production, warehousing, research and development and new economy or creative uses.

Employment lands in Botany are depicted in Figure 2.5.

Figure 2.5: Botany Employment Lands

Source: DPE

The Region Plan states that management of industrial and urban services lands should evolve in response to changing business practices and needs and manage uses to allow sites to transition to higher-order employment activities to maximise business productivity, efficiency and competitiveness.

Factors considered in review of changing business practices and needs take into account the evolution in industries which impact the changing demand for land, the changing nature of industries, and current levels of industrial and urban services land supply.

2.4.2 Eastern City District Plan

The Eastern City District Plan (the District Plan) is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney.

The District Plan assists councils to plan for and deliver growth and change and align their local planning strategies to place-based outcomes, through a set of planning priorities and actions. The planning priorities and actions align with the 10 Directions of the Region Plan and their corresponding objectives.

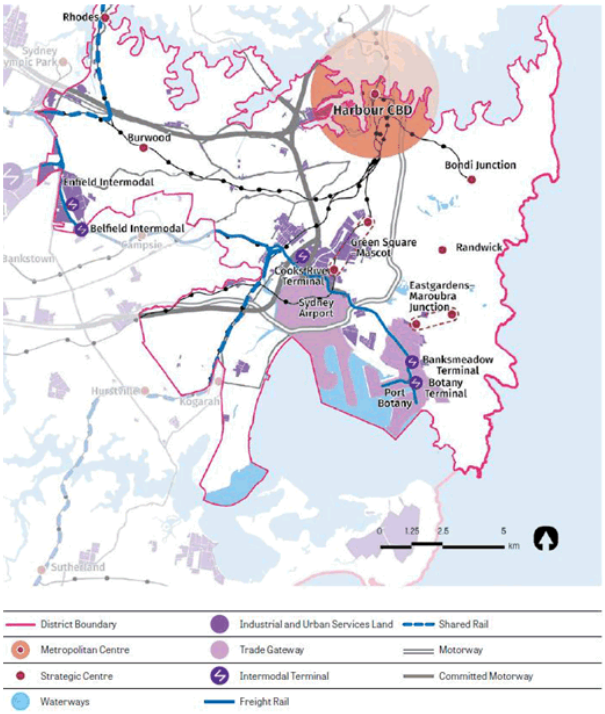
Planning Priority E12: Retaining and managing industrial and urban services land

Industrial and urban services land in the Eastern City District provides cost competitive and well-located land for industries and services that support businesses in the Harbour CBD, other centres and Greater Sydney's two existing international trade gateways of Port Botany and Sydney Airport.

Urban services include activities such as motor vehicle services, printing, waste management, courier services and concrete batching plants. These activities serve local communities and businesses across the District.

Figure 2.6 shows the Eastern City District's employment lands.

Figure 2.6: Eastern City District Employment Lands



Source: GSC, 2018b

Demand for urban services land will increase commensurate with population growth. Good local access to these services reduces the need to travel to other areas, minimising congestion on the transport system. Industrial and urban services land in the Eastern City District is highly constrained due to the development of residential dwellings and large-scale retail, which are higher-return land uses, and the lack of opportunities for new supply. There is strong competition for space from non-urban services industries that seek proximity to Sydney Airport, Port Botany, Sydney CBD and health and education precincts. While these businesses must be supported in a service-oriented modern economy, capacity for industrial and essential urban services must be retained.

Future employment growth across all industries and urban services will require additional floor space, additional land or both. Urban services are often less able to increase their floor space efficiency or locate in multi-storey buildings. Therefore, the retention, growth and enhancement of industrial and urban services lands in the Eastern City should reflect the city's needs and its local context.

The District Plan states that Councils and relevant planning authorities have the responsibility to facilitate the contemporary adaptation of industrial and warehouse buildings through increased floor to ceiling heights.

2.4.3 Local Planning Policy

Botany Bay LEP (2013)

The Site is zoned B7 Business Park in accordance with the Botany Bay Local Environment Plan (LEP) (2013).

The objectives of the B7 zone are to:

- Provide a range of office and light industrial uses.
- Encourage employment opportunities.
- Enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.
- Encourage uses in the arts, technology, production and design sectors.

Permitted uses include: Home occupations, centre-based child care facilities; dwelling houses; food and drink premises; garden centres; hardware and building supplies; home industries; light industries; neighbourhood shops; office premises; passenger transport facilities; respite day care centres; roads; vehicle sales or hire premises; warehouse or distribution centres.

Prohibited uses include: advertising structures; agriculture; air transport facilities; airstrips; amusement centres; animal boarding or training establishments; biosolids treatment facilities; boat launching ramps; boat sheds; camping grounds; caravan parks; cemeteries; charter and tourism boating facilities; correctional centres; crematoria; depots; eco-tourist facilities; electricity generating works; entertainment facilities; environmental facilities; environmental protection works; exhibition homes; exhibition villages; extractive industries; farm buildings; forestry; freight transport facilities; heavy industrial storage establishments; helipads; highway service centres; home-based child care; home occupations (sex services); industrial training facilities; industries; jetties; marinas; mooring pens; moorings; mortuaries; open cut mining; port facilities; recreation facilities (major); recreation facilities (outdoor); registered clubs; research stations; residential accommodation; resource recovery facilities; restricted premises; retail premises; rural industries; sewage treatment plants; sex services premises; tourist and visitor accommodation; transport depots; truck depots; vehicle body repair workshops; vehicle repair stations; waste disposal facilities; water recreation structures; water recycling facilities; water supply systems; wharf or boating facilities.

Botany Bay Planning Strategy 2013 (2009)

The former Botany Bay City Council developed the Botany Bay Planning Strategy 2013 (the Planning Strategy) in 2009 to inform development of the Botany Bay LEP (2013). The Planning Strategy provided an overview of economic activity in the then Botany Bay LGA, addressing housing and employment directions, urban renewal, and reviving and protecting trade gateways.

A number of areas within the LGA were identified in the Planning Strategy and specifically designated with associated directions and strategies to address demand for employment floorspace. These employment areas included Hillsdale, Banksmeadow, Pagewood, Botany, Lord Street, Hale Street, Eastgardens, Rosebery, Mascot, Eastlakes, and the airports and surrounding environs.

The Planning Strategy stated that Botany was deemed unsuitable for residential intensification, more suited to employment intensification with a greater commercial and regional retail role. The concept of the needs of the Botany Road 'spine' should be extended to include the Lord Street business park commercial activities.

Specifically relevant to the Proposal is Action 2.2.5 in the Planning Strategy: Facilitate expansion of commercial activity potential north of Botany centre (Lord Street to Bay Street). This Action considered establishing FSRs

between 1.2:1 and 1.5:1 to expand the business park precinct on Lord Street, and applying a B7 Business Park zone along Lord Street to expand the business park uses with the objective of creating a strong commercial cluster in this location.

Whilst the Planning Strategy was published almost one decade ago, it reflects Council's intention to designate the area as a notable commercial precinct, as even then it was anticipated that an expansion of the B7 Business Park zone to permit higher levels of commercial activity was needed

2.5 THE PROPOSAL

The Orth Botany Trust, The Fuz Botany Trust and The Hendrikx Botany Trust are preparing a Planning Proposal (the Proposal) to amend existing planning controls to increase the FSR and building height limits to facilitate a redevelopment of the Site to include:

- Basement and ground level carparking for 92 vehicles
- Warehouse and commercial floorspaces and a lobby on the ground floor (621sqm).
- Three levels of commercial floorspaces on upper floors (3,750sqm).

Table 2.6: Summary of Existing and Proposed Planning Controls

Planning Control	Existing	Proposed
FSR	1:1	1.75:1
Height Limit (m)	10	16.5 plus plant

Source: BuiltConsult

The Proposal's inclusion of commercial floorspace will facilitate accommodation of a range of businesses and office users who have diverse floorspace requirements not necessarily requiring location within a CBD environment.

The Proposal responds directly to the Region Plan and District Plan's objectives and priorities to retain urban services lands, but importantly to facilitate a greater amount of floorspace to accommodate employment growth.

The District Plan highlights the challenges that face industrial and urban services land in the Eastern City District, as strong competition and tension between land uses constrains the capacity for additional floorspace in the future.

The Site is strategically located in close proximity to the Sydney Airport and Port Botany Trade Gateways. It has the potential to play an important role in accommodating employment growth, particularly businesses who require floorspace in the increasingly competitive South Sydney region.

The next section explores the economic and market context as is relevant to the Proposal.

3. BASELINE RESEARCH

This chapter carries out baseline research to identify economic and market trends that influence land use in the Lord Street business park precinct (referred to hereinafter as 'the Lord Street Precinct') which is within the Botany Employment Precinct (the Botany Precinct) examined in Section 2.3.

3.1 BUSINESS AND INDUSTRY ACTIVITY

A range of factors influence business activity and land uses in the Lord Street Precinct and other areas in Sydney's inner ring. Some of these are centric to the local area while many are not. Significant influences on business activity are driven at the global and national level. Understanding the broader context in which the Lord Street Precinct's business activity operates is essential to understanding future demand and the nature of that demand for employment on the Site.

Traditional manufacturing in Australia is rapidly changing in a bid to survive on the global market. Manufacturers are redefining their operations and the scope of their activities through the use of technology and knowledge. A structural shift in Australian business is affirmed by historical declines in employment in traditional industry sectors and the rise of employment in the service sectors.

Diversification of Function and Uses

In order to remain competitive, businesses recognise the need to leverage technology and knowledge and embrace new ways of doing business.

Many high-tech and creative industrial businesses are located in South Sydney (specifically Alexandria, Zetland, Rosebery, Waterloo) where they are able to co-locate various functions under one roof. This has led to a proliferation of new development types wherein factory and industrial space is combined with commercial suites, high-tech industrial units and warehouse space.

The co-location of warehouse and office functions is an increasing trend observed across employment areas, particularly those close to Sydney's urban centres. This is in line with the clustering of multiple business functions within the same premises. Warehouses with floorspaces circa 300-700sqm have a notable presence in the Botany Precinct, which is unsurprising given that contemporary requirements for occupants do not necessarily require large floorplates, but rather, smaller spaces to accommodate commercial showrooms and wholesalers, niche manufacturing and small-scale production, as well as retailers and sales support services.

This trend is emerging in the Botany Precinct and presents an opportunity for the Site to facilitate more business activity and employment, also allowing tenants to combine a variety of functions under one roof.

Service Industry/Urban Services

As Sydney continues to grow, population growth will be a major driver of household and business consumption. In response to consumption growth it is likely that trend for growth of imports will continue, increasing local demand for warehousing, transport and logistics industries to service imports growth. Continued growth in e-commerce has implications for demand to accommodate time-critical supply chain logistics across metropolitan Sydney.

Many urban support services have time critical requirements for delivery to inner/middle ring locations. Owing to service delivery standards (particularly where there are cold storage requirements), this industry requires accommodation in easily accessible locations proximate to key markets.

There are numerous service industry businesses within the Botany Precinct that service a local market. Many of these businesses are locally owned and operated as small businesses. There will always be a role for local service industry to play in the Botany area, given the proximity to Sydney CBD, Sydney Airport, Port Botany and its central locality to the rest of metropolitan Sydney.

Intensification of Commercial Floorspace

Over the years, the economic theory of agglomeration has been increasingly examined to understand the benefits which firms enjoy when co-locating in areas with a higher density of economic and employment activity. Taking up

premise in an area of dense economic activity encourages the flow of knowledge and spill-on effects, is more efficient in resource-matching and enables businesses to take advantage of economies of scale.

The Lord Street Precinct's proximity to key economic assets (Sydney CBD, Sydney Airport, Port Botany and populous catchments) and affordability make it a popular choice for businesses who need commercial floorspace but not a CBD location. The Proposal's large commercial floorplates provide opportunities for a wide range of businesses to take up accommodation on the Site. As businesses are increasingly preferring to locate their business functions in one location rather than dispersed in multiple smaller locations, more commercial floorspace opportunities are needed.

Permitting a greater amount of commercial floorspace on the Site will enable accommodation of mixed business activity and some industrial-type activity and will respond to occupier need.

3.2 MARKET CONTEXT

This section provides an overview of the industrial and commercial property market in the Lord Street and Botany Precincts and surrounding area to understand the nature and drivers of market activity and land use.

Market Demand and Occupier Profile

The Lord Street Precinct's proximity to key freight nodes and the Sydney CBD make it a popular choice for businesses seeking to locate within an accessible and relatively affordable location. Despite this, a key driver enticing commercial and/or industrial occupants is its affordability of employment floorspace.

Residential encroachment and the conversion of employment lands in the South Sydney region in recent years has seen an exodus of businesses priced out of industrial/commercial floorspaces in a shrinking and increasingly competitive market. The Botany and Lord Street Precincts have been relatively exempt from residential conversions, due its proximity to Sydney Airport and Port Botany. The preservation of these trade gateways and employment and urban services lands in its immediate surrounds is critical in supporting the functions of Sydney Airport and Port Botany and maximising efficiency in the freight and logistics network.

With the exception of Botany Town Centre to the north of Botany Road with accommodates strip retail and upper level offices, the majority of employment floorspace in the Lord Street and Botany Precincts is a hybrid of warehouse and office space. Freestanding warehouses with an office component have a significant presence in the north and south of Botany, and large industrial estates are situated to the west, along Foreshore Drive.

The demand profile of industrial and commercial floorspace occupiers is diverse and is understood to be growing healthily. Occupants in freestanding warehouses are typically small-scale manufacturing, repairs/servicing technicians, and light industrial users. Commercial occupants with smaller footprint requirements are typically small businesses/sole traders who are attracted to the relative affordability of the area, proximity to the Sydney CBD and arterial roads, and not necessarily requiring a prestigious address. Larger businesses, such as Mazda, Service NSW and University of Technology Sydney's Botany Tech Lab, which require larger floorplates are located along Lord Street, which is perceived as a more premium 'business park' precinct.

Sales Activity

A limited number of sales have occurred in Botany over the past 12 months. These are outlined in Table 2.1 below.

Table 3.1: Sales Evidence, 12 Months to June 2018

Address	Floor Area (sqm)	Zone	Sale Price (Sale Date)	Analysis ($/sqm)	Commentary
3/8 Sir Joseph Banks St	356	IN1	$1,350,000 (January 2018)	$4,141	Factory located in a complex of six with first floor office space, roller doors, raised storage areas and internal clearance of 5.1-5.8m. Includes four car spaces.
2-12 Underwood Ave	1,043	B7	$2,750,000 (October 2017)	$2,637	Empty land with a small asbestos unit which was purchased to redevelop into a warehousing/distribution centre for an owner-occupier already located in the area.

Address	Floor Area (sqm)	Zone	Sale Price (Sale Date)	Analysis ($/sqm)	Commentary
11 Erith St	989	IN1	$2,550,000 (October 2017)	$2,578	Free standing warehouse with roller doors and high clearance.
11 Aylesbury St	378	B4	$1,650,000 (August 2017)	$4,435	Boutique freehold warehouse with roller shutter access, air-conditioned office space and outdoor deck.
5-7 Tenterden Rd	720	B7	$2,650,000 (June 2017)	$3,681	Two industrial units sold under one title, comprising onsite parking, loading dock and amenities
9 Tenterden Rd	370	B7	$1,900,000 (June 2017)	$4,146	Industrial unit comprising onsite parking, loading dock and amenities

Source: CoreLogic

Despite a tightly held market, interest levels are observed to have been high. Interested parties tend to already be located in the area and seeking to upgrade to larger premises allowing for co-location of functions. An escalation in sale prices in recent years is testament to the demand levels and competitive nature of the market.

The next section investigates current leasing activity within and in close proximity of Botany.

Leasing Activity

Informal discussions with local agents active in the area have indicated that Botany is well received due to its proximity to the Sydney CBD and key freight nodes, and its relative affordability. Market activity has been relatively stable in the past 12-18 months with healthy levels of enquiries.

The rental market has performed moderately well, owing to the location and relative affordability. Letting agents have indicated that demand for freestanding warehouses is witnessed from a broad range of businesses including, but not limited to: small-scale manufacturers, food storage, equipment repairs/servicing, and tradespeople, who typically require some yard access and attached office spaces with their warehouses. Freestanding warehouses with roller door access, high clearances, and an office component are observed to achieve rents between $220/sqm to $250/sqm.

As the demand for industrial lands is evolving, premises which were once designed and utilised for traditional heavy manufacturing is increasingly seen as accommodation for other light industrial/business occupants (e.g. creative users, sales/marketing, small-scale manufacturers/distributors) who find the features of warehouses on the markets suitable for their hybrid of functions. The main detriment to light industrial occupants is Council's restrictions on container transportation in and around the area, limiting the range of business activities to those who do not require large truck and container access.

Leasing agents have revealed that those requiring commercial floorspaces are attracted by the area's relative affordability and proximity to the Sydney CBD. Office rents in the area typically achieve between $180/sqm to $350/sqm (with floor areas ranging from 100sqm-200sqm). By comparison, offices between 100sqm to 200sqm in the Southern Employment Lands (Alexandria, Zetland, Rosebery, etc.) achieve rents between $320/sqm to $500/sqm, indicative of the premium paid by tenants to locate closer to a heavy rail station and the Sydney CBD.

Major commercial developments nearby include the Bayview Tower and the Discovery Cove Industrial Estate in Banksmeadow. Bayview Tower offers modern office spaces approximately 100sqm to 640sqm and is situated adjacent to the Port Botany container terminal. Discovery Cove Industrial Estate enables a hybrid of functions to be accommodated on their site, offering modern warehouse units and office spaces between 477sqm to 3,726sqm. Like Bayview Tower, Discovery Cove Industrial Estate is proximate to Port Botany, and offers an on-site café and parking. Bayview Tower and Discovery Cove Industrial Estate are ideal for businesses in the distribution and logistics sector who would benefit from proximity to major Trade Gateways and the M5 Motorway.

Development Activity

The most notable development project in Botany is 11-13 Lord Street (Lakes Business Park South) by Dexus. Dexus acquired the Lakes Business Park in 2015 with plans to redevelop it into the Botany Quarter mixed-use precinct. Redevelopment of the Lakes Business Park South will facilitate creative office suites, high-tech industrial units, storage units, neighbourhood retail and onsite lifestyle/recreation facilities (childcare, gym facilities), offering Botany a much needed 'face-lift' and rejuvenation.

Botany Quarter will be redeveloped into three buildings.

- Building A (7,657sqm): Building A is to comprise warehousing and commercial floorspaces across two storeys, including six high-clearance warehouses with mezzanine and displays, indoor recreation space, and creative office suites with flexible configurations
- Building B (6,187sqm): Building B overlooks Booralee Park and will comprise of commercial and retail floorspaces across two storeys, and will include 10 high-tech commercial units with mezzanine, 12 food and beverage and retail suites, 14 creative office suites, and a proposed childcare centre.
- Building C: Building C will include high-tech industrial, commercial and storage space across three storeys, comprising 45 high-tech industrial units, 15 high-tech commercial suites and 100 storage units.

The development will accommodate contemporary employment floorspace opportunities, detailed in Table 3.2.

Table 3.2: Employment Floorspace Pricing, Botany Quarter

Building	Type	Floorspace (sqm)	Asking Price ($/sqm)
A	Ground floor industrial unit, mezzanine office, retail display	537sqm - 759sqm	$6,000
A	Industrial unit and recreational space	487sqm - 606sqm	$6,100 - $8,000
A	Commercial units	85sqm - 272sqm	$7,500 - $8,100
B	High-tech industrial units with mezzanine offices	266sqm - 814sqm	$6,200 - $7,000
B	Retail and commercial	84sqm - 98sqm	$8,100 - $8,500
B	Commercial units	49sqm - 167sqm	$7,700 - $8,750
C	High tech industrial units with mezzanine offices	122sqm - 452sqm	$6,200 - $7,500
C	High tech industrial units	116sqm - 165sqm	$6,800 - $7,000

Source: Colliers

Informal discussions with the marketing agents indicate market enquiries have been strong since marketing commenced in June 2018. A lack of commercial office opportunities in the South Sydney region has resulted in a pent-up demand for commercial suites of all sizes. Notable interest is commented to be received from owner occupiers. The mix of business functions which can be accommodated in Botany Quarter meet the demands and trends of the current market, as evident from interest levels. Together with the incorporation of much-needed retail and recreational facilities in a business park setting, the redevelopment is likely to be a game changer for Botany.

3.3 IMPLICATIONS FOR THE SITE

In line with national trends, the Lord Street and Botany Precincts have recorded notable declines in the historically dominant Manufacturing and Wholesale Trade industries, attributable to global and regional economic pressures. Total employment in the Botany Precinct contracted between 2011 and 2016, despite an uptick in Construction and Professional, Scientific and Technical Services industries, suggesting there is a need for existing built form to align with industry trends by providing commercial floorspace opportunities.

Across the Botany Precinct, distinctly modest growth was experienced in the 10 years to 2016 (0.5% average annual growth), relative to comparison areas (SEL, Port Botany, Sydney Airport) which achieved average annual growth ranging 1.5% to 3.4%.

Market research suggests that multi-function business premises are highly sought after in the South Sydney region by prospective tenants and owner-occupiers, as they combine knowledge, technology, logistics and storage in dynamic workspaces that are flexible.

The Proposal's provision of commercial floorspace over three floors aligns with the analysis of the Lord Street Precinct's transition into a mixed enterprise and services base, and aligns well as market demand and activity observed.

4. ECONOMIC IMPACT ASSESSMENT

This chapter examines the economic impacts arising from the Proposal Case as compared to the Base Case.

4.1 DRIVERS OF ECONOMIC IMPACT

The following sections examine the estimated economic activity supported through the operations of businesses locating to the Site if it was redeveloped under proposal compared to if it remained in its existing use.

- **Base Case**: The Base Case assumes the Site continues its current operations accommodated in the existing improvements and assesses the economic impacts should the Site remain in its existing use.
- **Proposal Case**: The Site is redeveloped under the Proposal's amended planning controls to facilitate higher intensification use on site, with increased height and commercial floorspace.

The economic impacts have been assessed at the Bayside Local Government Area (LGA) level. An Input-Output model, including the development of specific regional Input-Output transaction tables, was developed to reflect the economic structure of the Bayside LGA (refer to Appendix A). Input-Output modelling describes economic activity through the examination of four types of impacts which are defined and described in the table below.

Table 4.1: Economic Indicators

Indicator	Description
Output	Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. **Output typically overstates the economic impacts as it counts all goods and services used in one stage of production as an input to later stages of production, hence counting their contribution more than once.**
Gross Product	Refers to the value of output after deducting the cost of goods and services inputs in the production process. **Gross product (e.g., Gross Regional Product) defines a true net economic contribution and is subsequently the preferred measure for assessing economic impacts.**
Income	Measures the level of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the Project.
Employment	Refers to the part-time and full-time employment positions generated by the economic shock, both directly and indirectly through flow on activity, and is expressed in terms of Full-Time Equivalent (FTE) positions. One FTE job is defined as one person working full time for a period of one year.

Source: AEC

Input-Output multipliers can be derived from open (Type I) Input-Output models or closed (Type II) models. Open models show the direct effects of spending in a particular industry as well as the indirect or flow on (industrial support) effects of additional activities undertaken by industries increasing their activity in response to the direct spending. Closed models re-circulate the labour income earned as a result of the initial spending through other industry and commodity groups to estimate consumption induced effects (or impacts from increased household consumption).

The following estimates consider both Type I and Type II flow on impacts though it should be noted that Type II impacts are commonly considered to overstate economic activity.

Drivers of Economic Activity

In order to understand the economic impacts likely to result from the Proposal, it is necessary to distinguish economic impacts during the construction phase and those economic impacts that will be more permanent in nature following construction completion and operations commencement.

- **Construction Phase**: Construction activity will draw resources from and thereby generate economic activity in Bayside LGA as well as from outside the LGA. Assumptions are made on the proportion sourced from within and from outside the LGA.
- **Operations Phase**: On completion of development, the Site is expected to generate ongoing economic/ operational activity through the direct turnover generated by the warehousing and commercial operational activities.

4.1.1 Construction Phase

For modelling purposes, construction costs (including contingency) were broken down into their respective ANZSIC industries. This breakdown was developed based on assumptions by AEC regarding the most appropriate ANZSIC industries for each activity.

Table 4.2: Construction Costs Allocations (Inc. Contingency), Proposal Case

Component	Proposal ($M)	ANZSIC
Demolition	$0.3	Construction Services (100%)
Ground Floor Warehouse	$0.97	Non-Residential Building Construction (100%)
Commercial	$7.83	Non-Residential Building Construction (100%)
Site Works/Infrastructure	$0.18	Construction Services (100%)
Professional Fees	$0.91	Professional, Scientific and Technical Services (100%)
Total	**$10.2**	

Source: AEC, BuiltConsults

Only the construction activity expected to be undertaken within the Bayside LGA has been included in the economic impact assessment. For the purposes of this assessment it was assumed:

- Approximately 50% of the direct expenditure on construction-related (i.e. Non-Residential Building Construction and Construction Services) activity would be sourced from local businesses and labour. Of this:
  - Approximately 25% of purchases on goods and services (supply chain related activity) made by construction-related businesses sourced from outside the Bayside LGA would be spent within the local economy (i.e., 25% of the Type I flow on activity associated with non-local construction companies is assumed to represent additional local activity in Bayside LGA).
  - Approximately 5% of wages and salaries paid to construction-related workers sourced from outside the region would be spent on local goods and services, such as food and beverages (i.e., 5% of the Type II flow on activity associated with non-local workers is assumed to represent additional local activity in Bayside LGA).
- Approximately 15% of the direct expenditure on professional, scientific and technical services activity would be sourced from local businesses and labour.
  - Only flow-on activity of locally sourced professional, scientific and technical services activity is included, as it is not anticipated professional, scientific and technical services businesses located outside of Bayside LGA would purchase goods/ services from within Bayside LGA.

4.1.2 Operational Phase

Base Case

For modelling purposes, operational employment levels were broken down into their respective ANZSIC industries. This breakdown was developed based on assumptions by AEC regarding the most appropriate ANZSIC industries for each activity.

The Base Case assumes the existing warehouse space will continue its existing operations, thereby with the capacity to accommodate 29 FTEs.

Table 4.3: Operational FTE Allocation, Base Case

Activity	ANZSIC Allocation	GFA (sqm)	GFA (sqm)/FTE	FTE
Industrial	Transport, Postal and Warehousing (100%)	1,017	70	15
Commercial	Wholesale Trade (83%)	289	20	12
	Administrative and Support Services (17%)			2
Total		**1,306**		**29**

Note: Totals may not sum due to rounding.
Source: AEC

Employment by industry estimates were converted to an output value using a multiplier based on the national transaction table (ABS, 2017b; ABS, 2017c). The resultant estimates of output were modelled as the direct activity associated with the Base Case.

Table 4.4: Operational Output Drivers, Base Case

ANZSIC Sector	Output ($M)
Transport, Postal and Warehousing	$6.6
Wholesale Trade	$4.2
Administrative and Support Services	$0.6
Total	**$11.4**

Source: ABS (2017b, 2017c), AEC

Proposal Case

For modelling purposes, estimated operational employment levels for the Proposal Case (according to uses based off increased FSR and height limits) were broken down into their respective ANZSIC industries. This breakdown was developed based on assumptions by AEC regarding the most appropriate ANZSIC industries for each activity.

The Proposal Case assumes the increase in the commercial floorspace provision will be occupied by an aggregate of industries that have shown growth in the Botany Precinct over the 2006-2016 period.

Table 4.5: Operational FTE Allocation, Proposal Case

Activity	ANZSIC Allocation	GFA (sqm)	GFA (sqm)/FTE	FTE
Industrial	Transport, Postal and Warehousing	621	20	9
Commercial	Agriculture, Forestry and Fishing	3,750	70	188
	Electricity, Gas, Water and Waste Services			
	Construction			
	Retail Trade			
	Accommodation and Food Services			
	Information Media and Telecommunications			
	Rental, Hiring and Real Estate Services			
	Professional, Scientific and Technical Services			
	Administrative and Support Services			
	Public Administration and Safety			
	Education and Training			
	Health Care and Social Assistance			
	Arts and Recreation Services			
Total		**4,371**		**196**

Source: AEC, BuiltConsult

Employment by industry estimates were converted to an output value using a multiplier based on the national transaction table (ABS, 2017b; ABS, 2017c). The resultant estimates of output were modelled as the direct activity associated with the Proposal Case.

Table 4.6: Operational Output Drivers, Proposal Case

ANZSIC Sector	Output ($M)
Agriculture, Forestry and Fishing	$0.9
Electricity, Gas, Water and Waste Services	$1.3
Construction	$34.4
Retail Trade	$0.2
Accommodation and Food Services	$0.8
Information Media and Telecommunications	$1.9
Rental, Hiring and Real Estate Services	$1.8
Professional, Scientific and Technical Services	$5.5
Administrative and Support Services	$5.2
Public Administration and Safety	$1.1
Education and Training	$1.0
Health Care and Social Assistance	$2.4
Arts and Recreation Services	$2.3
Total	**$58.9**

Source: ABS (2017b, 2017c) AEC

4.2 ECONOMIC ACTIVITY AND IMPACTS

The economic impacts/ contribution can be traced through the economic system via:

- **Direct impacts**, which are the first round of effects from direct operational expenditure on goods and services.
- **Indirect Impacts (Flow-on impacts)**, which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales. Flow-on impacts can be disaggregated to:
  - **Indirect Impact (Type I)** represents production induced support activity a result of additional expenditure by the industry experiencing the stimulus on goods and services in the intermediate usage quadrant, and subsequent round effects of increased purchases by suppliers in response to increased sales.
  - **Indirect Impact (Type II)** represents the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries paid within the economic system.

The premise behind Type I and Type II indirect impacts applies across both the construction and operations phase, except the impacts on industry will be different. For example, Type I impacts during the construction phase may include professional services (e.g. architects, engineers) and manufacturing (steel, construction materials) while examples of Type I impacts during the operations phase may include manufacturing (food and beverage and related) and administrative and support services (e.g. building cleaning, employment services, travel agencies).

4.2.1 Construction Phase

The construction phase associated with the Proposal is expected to support the following economic activity for Bayside LGA businesses and workers through direct and flow-on impacts (over the course of the construction phase):

- $10.4 million in output (including $4.8 million in direct activity).
- $3.9 million contribution to GRP (including $1.2 million in direct activity).
- $2.1 million in incomes and salaries paid to households.
- 28 FTE jobs (including seven directly employed in the construction activity).

Table 4.7: Construction Impacts, Bayside LGA, Proposal Case

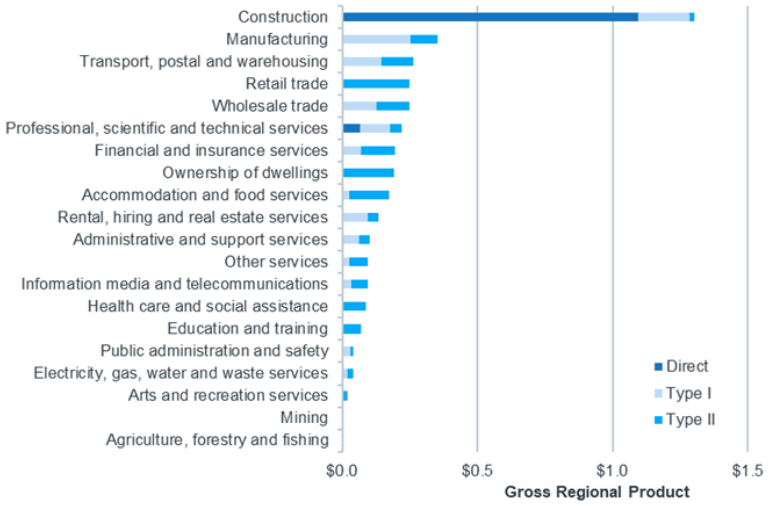
Impact	Output ($M)	Gross Regional Product ($M)	Incomes ($M)	Employment (FTEs)
Direct	$4.8	$1.2	$0.6	7
Type I Flow-On	$2.8	$1.2	$0.7	9
Type II Flow-On	$2.8	$1.5	$0.8	12
Total	**$10.4**	**$3.9**	**$2.1**	**28**

Source: ABS (2017b, 2017c) AEC

Major industry beneficiaries of the construction phase of the development include:

- Construction (GRP of $1.3 million).
- Manufacturing ($0.4 million).
- Transport, postal and warehousing ($0.3 million).

Figure 4.1: Gross Regional Product (GRP) Impacts by Industry, Bayside LGA, Proposal Case



Source: ABS (2017b, 2017c) AEC

4.2.2 Operational Phase

Base Case

The activity associated with the Site based off current operations is estimated to support the following economic activity through direct and flow-on impacts (per annum):

- $21.5 million in output (including $11.4 million in direct activity).
- $10.3 million contribution to Gross Regional Product (GRP, including $5.1 million in direct activity).
- $5.7 million in incomes and salaries paid to households.
- 69 full-time equivalent (FTE) jobs (including 29 direct employees of the Site).

Table 4.8: Operational Impacts, Bayside LGA, Base Case

Impact	Output ($M)	Gross Regional Product ($M)	Incomes ($M)	Employment (FTEs)
Direct	$11.4	$5.1	$2.9	29
Type I Flow-On	$3.2	$1.5	$0.8	10
Type II Flow-On	$6.9	$3.7	$2.0	30
Total	**$21.5**	**$10.3**	**$5.7**	**69**

Source: ABS (2017b, 2017c) AEC

Major industry beneficiaries from existing activities on the Site in terms of contribution to GRP include:

- Transport, postal and warehousing ($3.5 million).
- Wholesale trade (GRP of $2.5 million).
- Administrative and support services ($0.6 million).
- Retail trade ($0.6 million).

Figure 4.2: Gross Regional Impacts (GRP) by Industry, Bayside LGA, Base Case

Source: ABS (2017b, 2017c) AEC

Proposal Case

The Proposal is estimated to support the following annual economic activity through the direct and flow-on impacts associated (per annum):

- $139.5 million in output (including $58.9 million in direct activity).
- $62.9 million contribution to GRP (including $23.8 million in direct activity).
- $36.3 million in incomes and salaries paid to households.
- 509 FTE jobs (including 196 directly related to activity from the Site).

Table 4.9: Operational Impacts, Bayside LGA, Proposal Case

Impact	Output ($M)	Gross Regional Product ($M)	Incomes ($M)	Employment (FTEs)
Direct	$58.9	$23.8	$14.8	196
Type I Flow-On	$36.6	$15.4	$8.9	120
Type II Flow-On	$43.9	$23.7	$12.6	192
Total	**$139.5**	**$62.9**	**$36.3**	**509**

Source: ABS (2017b, 2017c) AEC

Significant industry beneficiaries of the Proposal include:

- Construction (GRP $15.4 million per annum)
- Professional, scientific and technical services ($5.2 million)
- Administrative and support services ($4.4 million).

4.2.3 Net Impact on Economic Activity

The Proposal is anticipated to result in a net increase in economic activity through the direct and flow-on impacts associated (per annum):

- $117.9 million in output (including $47.5 million in direct activity).
- $52.6 million contribution to GRP (including $18.7 million in direct activity).
- $30.6 million in incomes and salaries paid to households.
- 439 FTE jobs (including 167 additional jobs directly related to activity on the Site).

The potential increase in ongoing economic activity supported by the Proposal (compared to the Base Case) is presented in Table 4.10.

Table 4.10: Estimated Net Operational Impacts in Bayside LGA

Impact	Output ($M)	Gross Regional Product ($M)	Incomes ($M)	Employment (FTEs)
Direct	$47.5	$18.7	$11.9	167
Type I Flow-On	$33.4	$13.9	$8.1	110
Type II Flow-On	$37.0	$20.0	$10.6	162
Total	**$117.9**	**$52.6**	**$30.6**	**439**

Source: ABS (2017b, 2017c) AEC

5. POLICY ASSESSMENT

5.1 NET COMMUNITY BENEFIT TEST

To compare the outcome of the Base Case versus the Proposal, each of the identified impacts compared to the Base Case are summarised and ranked based on the rating system outlined in Table 5.1.

- **Base Case:** The Site is currently improved by a two storey building which accommodates warehousing/storage and ancillary commercial uses. The Base Case assumes the Site continues its current operations in its existing improvements.
- **Proposal Case:** The Site is redeveloped under the Proposal's amended planning controls to facilitate an intensification of use on site, with increased height and greater provision of commercial floorspace.

Table 5.1: Economic Impact Rating Matrix

Severity of Impact	Score	Explanation
Strong Positive Impact	+3	The scenario would make a strong positive contribution towards this impact compared to the Base Case
Slight Positive Impact	+1	The scenario would make a slight positive contribution towards this impact compared to the Base Case
Neutral Impact	0	The scenario would make neither positive or a negative contribution towards this impact compared to the Base Case
Slight Negative Impact	-1	The scenario would make a slight negative contribution towards this impact compared to the Base Case
Strong Negative Impact	-3	The scenario would make a strong negative contribution towards this impact compared to the Base Case

Source: AEC

Table 5.2 identifies the economic impacts and derives a total score for Proposal using the Base Case as the starting point of '0'. The higher the positive score the greater the net positive economic impact from a community perspective, the lower the score the greater the adverse economic impact.

Table 5.2: Economic Impact, Base Case v Proposal Case

Impact	Base Case	Rating	Proposal Case	Rating
Employment & Economic Impact				
Output ($M)	$21.5	+1	$139.5	+3
GRP ($M)	$10.3	+1	$62.9	+3
Incomes ($M)	$5.7	+1	$36.3	+3
Employment (FTE)	69	+1	509	+3
Construction				
Output ($M)	n.a.	0	$10.4	+3
GRP ($M)	n.a.	0	$3.9	+3
Incomes ($M)	n.a	0	$2.1	+3
Employment (FTE)	n.a	0	28	+3
Total		**4**		**24**

Source: AEC

In comparison to the Base Case, the Proposal Case clearly exhibits a positive economic impact. As the Lord Street business park precinct continues to evolve in response to industry trends, the economic impact identified in this Assessment would be even more pronounced.

5.2 SECTION 117 DIRECTION

The Section 117(2) direction considered relevant in this Assessment is Section 1.1 Business and Industrial Zones. The objectives are identified below together with their consideration in the context of the Proposal.

Table 5.3: Consistency with Section 117(2) Objectives

No.	Objective	Proposal Case
1	Encourage employment growth in suitable locations	The Site currently contains a freestanding warehouse, accommodating approximately 29 jobs. The Proposal envisages development of the Site to accommodate: 3,750sqm of commercial floorspace and 621sqm of commercial/industrial floorspace. This floorspace combined will accommodate 196 jobs on Site, representing a net increase of 167 direct jobs. The Proposal Case complies with this objective.
2	Protect employment land in business and industrial zones	The planning amendment sought would lead to an increase in the quantum of land zoned for employment generating land uses in the Bayside LGA. The total number of jobs generated on the Site is estimated at 196 jobs (representing an increase of 167 direct jobs). The Proposal complies with this Objective.
3	Support the viability of identified strategic centres	The Site is not identified as a strategic centre, hence this Objective is of no direct relevance to the Proposal.

Source: AEC

Section 117 Directions set out five requirements for planning authorities to consider when preparing a planning proposal that will affect land within an existing or proposed business or industrial zone. This are considered below in relation to the Proposal.

Table 5.4: Planning Authority Considerations

Consideration	Achieved?	Explanation
Give effect to the objectives of this direction	Yes	Table 5.3 has established that the objectives of the direction would be achieved via the Proposal.
Retain the areas and locations of existing business and industrial zones	Yes	The land use zone of B7 Business Park would remain unchanged. Overall the planning amendment sought would lead to an increase in the quantum of land zoned for employment generating land uses in the Bayside LGA. The existing improvements on Site provide 289sqm of commercial floorspace and 1,017sqm of industrial floorspace. The Proposal would provide 3,750sqm of commercial floorspace and 621sqm of commercial/industrial floorspace, resulting in a net increase in employment floorspace, in response to the changing industry trends observed.
Not reduce the total potential floor space area for employment uses and related public services in business zones	Yes	See above.
Not reduce the total potential floor space area for industrial uses in industrial zones	No	The Site is not located in an industrial zone.
Ensure that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning		As established in this EIA, the Proposal Case is consistent with State and local government objectives to support jobs, economic development, efficient and effective use of land and accelerate housing supply in suitable locations. It complies with this condition.

Source: AEC

5.3 CONCLUSION

The Proposal demonstrates alignment with the objectives and aspirations of state planning policy and strategy:

- Greater Sydney Region Plan.
- Eastern City District Plan.

Land that is close to existing employment centres and public transport networks is scarce and valuable. As cities grow there is commensurate pressure on scarce lands to be developed for a variety of uses. The benefits of enabling more intensive use of land which is a finite asset are therefore obvious.

In comparison to the other employment areas examined, the Botany Precinct and its surrounds experienced very modest employment growth over the 2006-2016 period, averaging a lacklustre 0.5% average annual growth compared to 1.5% to 3.4% in comparison areas. Employment growth in the Botany Precinct and its surrounds has been weak despite strong market demand and occupier interest.

Opportunities to accommodate greater intensity of employment are needed. Investigations suggest a lack of commercial floorspace opportunities in the Botany Precinct and broader South Sydney Region. Given the Botany Precinct's proximity to key centres and Trade Gateways, it is necessary to ensure commercial opportunities are available to attract new business but also facilitate growth and expansion in a diverse range of business activities.

In the case of the Site, state government policy has focused equally on intensifying employment opportunities and accommodating businesses' changing requirements for how they use land and floorspace. The Proposal seeks to meet these objectives by providing commercial opportunities for a range of business activity and importantly, maximising the economic intensity of the Site. The Proposal demonstrates alignment with the objectives and aspirations of state planning policy and strategy.

The Study considers the economic impact of the Proposal to be net positive and thereby presenting a compelling case for consideration.

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APPENDIX A: INPUT-OUTPUT METHODOLOGY

Input-Output Model Overview

Input-Output analysis demonstrates inter-industry relationships in an economy, depicting how the output of one industry is purchased by other industries, households, the government and external parties (i.e. exports), as well as expenditure on other factors of production such as labour, capital and imports. Input-Output analysis shows the direct and indirect (flow-on) effects of one sector on other sectors and the general economy. As such, Input-Output modelling can be used to demonstrate the economic contribution of a sector on the overall economy and how much the economy relies on this sector or to examine a change in final demand of any one sector and the resultant change in activity of its supporting sectors.

The economic contribution can be traced through the economic system via:

- **Direct impacts**, which are the first round of effects from direct operational expenditure on goods and services.
- **Flow-on impacts**, which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales. Flow-on impacts can be disaggregated to:
- **Industry Support Effects (Type I)**, which represent the production induced support activity as a result of additional expenditure by the industry experiencing the stimulus on goods and services in the intermediate usage quadrant, and subsequent round effects of increased purchases by suppliers in response to increased sales.
- **Household Consumption Effects (Type II)**, which represent the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries being paid within the economic system.

These effects can be identified through the examination of four types of impacts:

- **Output:** Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. Output typically overstates the economic impacts as it counts all goods and services used in one stage of production as an input to later stages of production, hence counting their contribution more than once.
- **Gross Product:** Refers to the value of refers to the value of output after deducting the cost of goods and services inputs in the production process. Gross product (e.g. Gross Regional Product) defines a true net economic contribution and is subsequently the preferred measure for assessing economic impacts.
- **Income:** Measures the level of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the project.
- **Employment:** Refers to the part-time and full-time employment positions generated by the economic shock, both directly and indirectly through flow-on activity, and is expressed in terms of full-time equivalent (FTE) positions.

  Input-Output multipliers can be derived from open (Type I) Input-Output models or closed (Type II) models. Open models show the direct effects of spending in a particular industry as well as the indirect or flow-on (industrial support) effects of additional activities undertaken by industries increasing their activity in response to the direct spending.

  Closed models re-circulate the labour income earned as a result of the initial spending through other industry and commodity groups to estimate consumption induced effects (or impacts from increased household consumption).

Model Development

Multipliers used in this assessment are derived from sub-regional transaction tables developed specifically for this project. The process of developing a sub-regional transaction table involves developing regional estimates of gross production and purchasing patterns based on a parent table, in this case, the 2014-15 Australian transaction table (ABS, 2017b).

Estimates of gross production (by industry) in the study area were developed based on the percent contribution to employment (by place of work) of the study area to the Australian economy (ABS, 2012), and applied to Australian gross output identified in the 2014-15 Australian table.

Industry purchasing patterns within the study area were estimated using a process of cross-industry location quotients and demand-supply pool production functions as described in West (1993).

Where appropriate, values were rebased from 2014-15 (as used in the Australian national IO transaction tables) to current values using the Consumer Price Index (ABS, 2017c).

Modelling Assumptions

The key assumptions and limitations of Input-Output analysis include:

- **Lack of supply-side constraints:** The most significant limitation of economic impact analysis using Input-Output multipliers is the implicit assumption that the economy has no supply-side constraints, so the supply of each good is perfectly elastic. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or near capacity.
- **Fixed prices:** Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using Input-Output multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. The system is in equilibrium at given prices, and prices are assumed to be unaffected by policy and any crowding out effects are not captured. This is not the case in an economic system subject to external influences.
- **Fixed ratios for intermediate inputs and production (linear production function):** Economic impact analysis using Input-Output multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. That is, the input function is generally assumed linear and homogenous of degree one (which implies constant returns to scale and no substitution between inputs). As such, impact analysis using Input-Output multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount. Further, it is assumed each commodity (or group of commodities) is supplied by a single industry or sector of production. This implies there is only one method used to produce each commodity and that each sector has only one primary output.
- **No allowance for economies of scope:** The total effect of carrying on several types of production is the sum of the separate effects. This rules out external economies and diseconomies and is known simply as the "additivity assumption". This generally does not reflect real world operations.
- **No allowance for purchasers' marginal responses to change:** Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.
- **Absence of budget constraints:** Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.

Despite these limitations, Input-Output techniques provide a solid approach for taking account of the inter-relationships between the various sectors of the economy in the short-term and provide useful insight into the quantum of final demand for goods and services, both directly and indirectly, likely to be generated by a project.

In addition to the general limitations of Input-Output Analysis, there are two other factors that need to be considered when assessing the outputs of sub-regional transaction table developed using this approach, namely:

- It is assumed the sub-region has similar technology and demand/ consumption patterns as the parent (Australia) table (e.g. the ratio of employee compensation to employees for each industry is held constant).
- Intra-regional cross-industry purchasing patterns for a given sector vary from the national tables depending on the prominence of the sector in the regional economy compared to its input sectors. Typically, sectors that are more prominent in the region (compared to the national economy) will be assessed as purchasing a higher proportion of imports from input sectors than at the national level, and vice versa.

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OUTCOME DRIVEN

18 September 2018

Nathan Fuz
Fuz Botany, Hendrikx Botany & Orth Botany Trust

Sent via email: nathan@cdconstruction.com.au

Dear Nathan,

RE: SUPPLEMENTAL ISSUE TO ECONOMIC IMPACT ASSESSMENT OF 1-3 LORD STREET, BOTANY

We refer to the Economic Impact Assessment (EIA) prepared to accompany a planning proposal to amend the planning controls that relate to 1-3 Lord Street, Botany (the Site). Specifically, the Proposal proposed:

- Increase in building height from 10m to 16.5m.
- Increase in FSR from 1:1 to 1.75:1.

Further to submission of the planning proposal, SGS were engaged by Bayside Council (Council) to carry out a peer review of the EIA prepared by AEC.

This supplemental letter responds the issues raised. We outline the key issues raised and respond in turn.

Employment Data Analysis

SGS questions the boundaries selected for analysis of employment profile and characteristics.

The EIA explains on page 5 that the "Botany Employment Precinct" area of analysis is selected to include not just the Lord Street business park (B7) but also to include industrial zones, local and neighbourhood centres and mixed use zones. The intention is to profile employment in not just the business park but its surrounds. The area of analysis excludes the airport and the port; employment therein expected to be subject to different drivers. The area of analysis selected is not the Botany suburb.

SGS question the accuracy of job numbers in the area of analysis, identifying that jobs reported in the EIA in 2011 and 2016 differ from ABS Table Builder. SGS have provided the job numbers from ABS for the suburb of Botany.

The job numbers in ABS Table Builder do not account for the fact there are jobs in 'not fully defined' (nfd) geography components, resulting in an undercount of total jobs across the sum of areas. The DZs selected sum to SA2 Botany.

In the case of the SA2 Botany, the 'nfd' components was very high in 2011. The 'nfd' in 2011 was 1,307 workers, calculated by comparing:

- 6,095 workers for the sum of the DZs that add up to the SA2 Botany, and
- 7,394 workers for the SA2 Botany.

So despite there being 6,095 workers stated for the sum of the DZs in ABS Table Builder, there are actually a large number of workers who are not accounted for (as indicated by the SA2 Botany total workers), meaning the 6,095 workers is an undercount.

AEC's approach accounts for this by re-distributing these 'nfd' geographies back to the individual areas. This includes nfds at the SA2 level, as well as other geography levels. As a result the AEC reported job numbers will differ from those presented in ABS Table Builder.

ABS data at the small area level (such as DZ level) should be reconciled against larger geographies to ensure consistency and to prevent an undercount where there are 'nfd' or industries are 'not stated', etc.

SGS correctly highlight an error in the job numbers in Table 2.4. These should be identical to the job numbers in Table 2.2.

Historic Growth in Mature Economies

SGS note that areas that have been developed for some time and have mature local economies are less likely to have available developable land or high vacancy rates. As a result, growth will inevitably be lower than other areas because there is less ability to grow. SGS conclude that historic growth as a measure of future demand in an area of fixed supply is of limited value.

It is worth noting that employment growth can occur through *densification* or *intensification* of built form.

- **Densification** refers to an increase in density, typically associated with greater floorspace or building heights. Measures of density can be represented by FSR, building heights and setbacks, site coverage ratios, etc. Building densities vary by region, higher density buildings are generally located on higher value lands.
- **Intensification** of use is not necessary accompanied by an increased density of floorspace. Increased intensification can occur without increased density and measured in any of the following metrics:
  - Increase economic and employment activity (e.g. more employees per sqm, more output per sqm, etc.).
  - More efficient use of land and resources.
  - Extending the lifespan of available industrial lands.

  Intensification can occur in different ways for different sectors, from greater use of technology and automation with higher building ceilings to more intense employee/floorspace ratios (which is generally associated with more office-type floorspace).

As land prices and rents in established areas rise, users who find themselves 'priced out' will relocate to lower cost locations while other users who play a local role and depend on labour/supply inputs from the region will remain.

For those users who remain, there will be a need to either increase productivity and output or reduce cost in order to remain competitive. As such many users will look to achieve increased densities and/or an intensification of use.

In 'successful' employment precincts, employment growth is often witnessed even without an increase in capacity (or supply is "fixed" as SGS put it). This is where intensification of use occurs (i.e. more employees occupy the fixed amount of space, or surplus capacity in height spans are used to accommodate more workers and activity).

Marrickville/Sydenham is an example of a sought after employment precinct. Land use zones comprise a mix of IN1, IN2, B7. Over the 2011-2016 period, despite no increase in supply, the number of workers increased from 8,035 workers to 9,622 workers (representing an almost 20% growth in workers).

Given there was no increase to supply, it is reasonable to conclude there was *intensification of use* that occurred in Marrickville/Sydenham. Rents and prices in Marrickville/Sydenham have experienced robust growth, and accordingly incremental addition of floorspace could present an economic proposition.

Table 1: Employment by Industry, Marrickville/Sydenham (2011-2016)

Industry	2011		2016		Change (2011-2016)	
	No.	%	No.	%	No.	%
Agriculture, Forestry and Fishing	0	0.0%	35	0.4%	34	3,500.0%
Mining	5	0.1%	1	0.0%	-4	-80.0%
Manufacturing	2,739	34.1%	2,519	26.2%	-220	-8.0%
Electricity, Gas, Water and Waste Services	31	0.4%	32	0.3%	1	3.2%
Construction	802	10.0%	1,288	13.4%	486	60.6%
Wholesale Trade	1,270	15.8%	1,068	11.1%	-202	-15.9%
Retail Trade	571	7.1%	621	6.5%	50	8.8%
Accommodation and Food Services	269	3.3%	599	6.2%	330	122.7%
Transport, Postal and Warehousing	466	5.8%	592	6.1%	126	27.0%

Industry	2011		2016		Change (2011-2016)	
	No.	%	No.	%	No.	%
Information Media and Telecommunications	75	0.9%	139	1.4%	64	85.3%
Financial and Insurance Services	119	1.5%	248	2.6%	129	108.4%
Rental, Hiring and Real Estate Services	48	0.6%	112	1.2%	64	133.3%
Professional, Scientific and Technical Services	291	3.6%	415	4.3%	124	42.6%
Administrative and Support Services	194	2.4%	397	4.1%	203	104.6%
Public Administration and Safety	190	2.4%	265	2.8%	75	39.5%
Education and Training	89	1.1%	160	1.7%	71	79.8%
Health Care and Social Assistance	172	2.1%	263	2.7%	91	52.9%
Arts and Recreation Services	165	2.0%	280	2.9%	115	69.7%
Other Services	541	6.7%	589	6.1%	48	8.9%
Total	**8,035**	**100.0%**	**9,622**	**100.0%**	**1,585**	**19.7%**

Source: ABS (2017, 2012), AEC

Employment growth of other employment precincts in the region were examined in Table 2.3 of the EIA where the Botany Employment Precinct demonstrated the most modest growth.

Market signals are a useful indicator of how functional the planning controls are. Where planning controls are able to accommodate floorspace requirements and industry growth needs, increase in output and/or employment activity will be the result (such as in Marrickville/Sydenham).

Property market research indicates there is robust market demand for industrial/employment floorspace in the South Sydney region (including at Botany). Rising capital values and leasing rates are testament to this.

Where despite strong demand for floorspace in comparable markets, if vacancy rates are high or employment/ economic activity is in decline, a review into the competitiveness of an employment precinct may be necessary to understand if there are any impediments to accommodating industry activity and growth.

In the case of the EIA, the decline in employment over the 2011-2016 period could be an indicator that greater (deliverable) supply capacity is required to cater to market demand. The issue of "deliverability" is considered next.

Development to Existing Planning Controls

SGS query why the Base Case in the EIA does not assume development to the permitted FSR of 1:1.

The Site is currently improved with a 2 storey building (approximately 1,500sqm building area, to an FSR 0.6:1), with a cold room on the ground level and offices on the first level. Owing to the existing building layout and configuration, any addition to floorspace capacity would require comprehensive redevelopment to ensure the total floorspace can be accommodated within the maximum building heights and to provide for the additional parking required in a basement level.

It is for this reason, development to the FSR of 1:1 is not considered a likely scenario. The Proposal provides the opportunity for additional floorspace capacity while ensuring the delivery of net additional floorspace is able to offset the cost of basement parking required.

While the permitted FSR of 1:1 provides some additional capacity for floorspace increase, this additional capacity (1,000sqm) is considered to be theoretical and is not likely to be delivered given the need for demolition and construction of basement parking. It is for this reason the EIA considers the Site's existing operations to be a more realistic representation of the base case.

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Market Context

Property market investigations in section 3.2 detail sales and leasing activity. SGS note that the information presented is based on anecdotal information and is not independently verified. Table 3.1 presents sales activity of industrial and commercial buildings in Botany, the relatively high prices reflective of its sought-after nature.

Leasing data is typically sourced from commercial databases and verified with respective leasing agents as unlike sales information that is gathered from LPI (Land and Property Information) transactional data, leases in locations such as Botany are not compiled in the same manner. Leases in major CBDs can be sourced from commercial databases such as Cityscope, but in suburban locations, short of searching the leases registered on title, verification through informal discussions with leasing agents is usual and accepted practice.

Limitations of Input-output Modelling

SGS highlight the limitations of the economic modelling, in that it assumes that the economy can respond, i.e. there are no supply-side constraints. The limitation of the modelling is clearly highlighted in Appendix A. The limitations of Type II impacts are also highlighted as often overstating economic activity.

Overall we are comfortable with the approach taken in the EIA and the results and conclusions thereafter drawn.

We trust this assists with your discussion with Council.

Yours sincerely

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TRAFFIC AND PARKING IMPACT ASSESSMENT

PLANNING PROPOSAL (COMMERCIAL)

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Division of RAMTRANS Australia ABN: 45067491678

Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

18184.01FC - 13 July 2018

Development Type:	**Planning Proposal (Commercial)**
Site Address:	**1-3 Lord Street, Botany NSW**
Prepared for:	**CD Construction**
Document reference:	**18184.01FC**

Status	Issue	Prepared By	Checked By	Date
Draft	A	CW/PK	TH	5th June 2018
Final	A	TH		2nd July 2018
Final	B	CW	TH	13th July 2018
Final	C	TH		13th July 2018

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1 INTRODUCTION

M^CLaren Traffic Engineering (MTE) was commissioned by *CD Construction* to prepare a Traffic and Parking Impact Assessment of the Planning Proposal (Commercial) at 1-3 Lord Street, Botany NSW. The relevant plans are reproduced in **Annexure A** for reference.

1.1 Description and Scale of Development

The planning proposal includes amendments to the LEP regarding height and FSR, up to 16.5m and 1.75:1 FSR. This would permit a 4-storey building comprising permitted uses within the existing B7 zoning. No changes to land uses are proposed. An orderly development for assessment purposes, in relation to traffic and parking and assuming approval of the proposal, would comprise the following:

- Food Premises (Café or the like) – 99sqm GFA;
- Ground Floor Commercial – 522sqm GFA;
- Ground Floor Commercial Lobby – 100sqm GFA
- Upper-Level Office/Commercial – 3750sqm GFA.

1.2 State Environmental Planning Policy (Infrastructure) 2007

If the planning proposal were approved, the subsequent development application would qualify as a traffic generating development with relevant size and/or capacity under Clause 104 of the SEPP (Infrastructure) 2007 due to the proximity to Botany Road. Formal referral to the Roads and Maritime Services (RMS) may be required and this traffic report is considered in that circumstance to be suitable for support to be provided by RMS.

1.3 Site Description

1.3.1 Existing Conditions

The subject site is situated at 1-3 Lord Street, Botany NSW and has a total area of approximately 2555.7m^2. The site is surrounded by general business developments, a varied combination of light industrial and offices, with residential development located outside of the Lord Street Business Park Precinct to the south and Sydney Airport to the west. The site fronts Lord Street on its northern boundary and currently has vehicular access to Lord Street via a two-way driveway.

1.3.2 Zoning

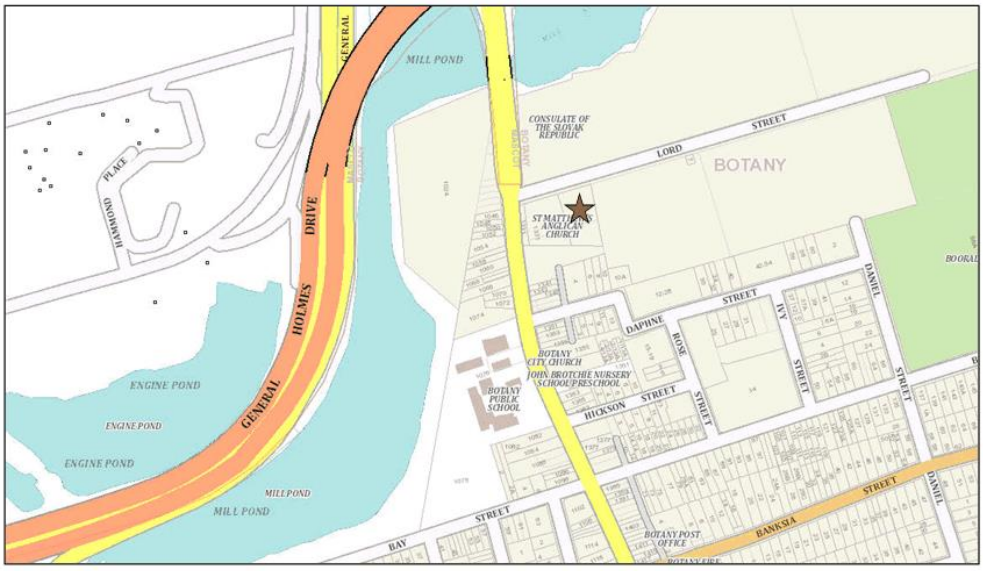
The subject site is currently zoned B7 – Business Park under the *Botany Bay Local Environmental Plan (BBLEP)*. There is no change of zone proposed as part of the proposed development with uses permitted within the B7 zone.

1.4 Site Context

The location of the site is shown on aerial imagery and on a map in **Figure 1** and **Figure 2** respectively.

Site Location

FIGURE 1: SITE CONTEXT – AERIAL PHOTO



Site Location

FIGURE 2: SITE CONTEXT – STREET MAP

2 EXISTING TRAFFIC AND PARKING CONDITIONS

2.1 Road Network

The road network surrounding the site has the following characteristics:

2.1.1 Lord Street

- Unclassified LOCAL street;
- Approximately 12m wide carriageway facilitating two-way passing and kerbside parking;
- Signposted 50km/h speed limit applies;
- Unrestricted parking on both sideways of the street.

2.1.2 Botany Road

- Classified STATE road (No. 170);
- Approximately 17m wide carriageway facilitating four traffic flow lanes (two in each direction) and a 1m wide median;
- Signposted 60km/h speed limit applies;
- "*No Stopping*" signage along the west side of the road, "*No Parking*" signage along the east side of the road.

2.1.3 Intersection Characteristics

- SIGNAL controlled intersection at Botany Road / Lord Street with two phases at peak times and pedestrian crossing movements on the southern and eastern legs

2.2 Existing Traffic and Parking Context

Traffic counts were completed at the intersection of Lord Street and Botany Road on Thursday the 3rd of May 2018 by an independent traffic surveyor during the weekday AM and PM commuter periods. The raw data is attached in **Annexure B** for reference.

Existing intersection performances have been assessed using SIDRA INTERSECTION 8.0, the results of this analysis are summarised in **Table 1.** Detailed movement summaries are provided in **Annexure C.**

TABLE 1: INTERSECTION PERFORMANCE (SIDRA INTERSECTION 8.0)

Intersection	Peak Hour	Degree of Saturation[1]	Average Delay[2] (sec/veh)	Level of Service[3]	Control Type	Worst Movement
EXISTING PERFORMANCE						
Lord Street / Botany Road	AM	0.65	12.4 (Worst: 56.4)	**A** (Worst: D)	Signals (2 Phase)	RT from Lord ST
	PM	0.74	23.5 (Worst: 56.8)	**B** (Worst: E)		LT from Lord ST

NOTES:
(1) Degree of Saturation is the ratio of demand to capacity for the most disadvantaged movement.
(2) The average delay is the delay experienced on average by all vehicles. The value in brackets represents the delay to the most disadvantaged movement.
(3) The level of Service is a qualitative measure of performance describing operational conditions. There are six levels of service, designated from A to F, with A representing the best operational condition and level of service F the worst. The LoS of the intersection is shown in bold, and the LoS of the most disadvantaged movement is shown in brackets.

As shown, the nearby intersection is currently performing at a high level of efficiency, both with a level of service "A" or "B" conditions in both the AM & PM peak hours. The level of service "A" and "B" performance is characterised by low approach delays and spare capacity.

2.3 Public Transport

The nearest bus services run along Botany Road in both directions with the nearest stops located on either side of the road within 250m walking distance of the site. Bus routes M20, 309, 310, L09, X09 and X10 provide services from Matraville or East Gardens to Central Station. The bus routes connect well with the wider public transport network at East Gardens bus interchange, Green Square Railway Station and multiple CBD railway stations. The location of the site relative to the surrounding public transport infrastructure is shown in **Figure 3**.

FIGURE 3: CONTEXT MAP – PUBLIC TRANSPORT

3 PARKING ASSESSMENT

The proposal will generate demand for parking by visitors and staff. Estimation of the likely demand for parking at the site should be considered in conjunction with local planning policies, contextual effects such as regional location and individual land uses. For the purpose of the assessment comparison is made between the Botany Bay Development Control Plan 2013 (DCP) and the RMS Guide to Traffic Generating Developments (RMS Guide), as amended. The RMS Guide has been undergoing significant change in the past 5 years as new parking surveys are being completed, subsequently increasing the availability of recent and localised data within the greater Sydney metropolitan area.

3.1 Parking Quantum

3.1.1 Council Parking Requirement

Section 3A and Section 6 of the DCP outline a range of controls that need to be considered in terms of design and implementation of off-street parking facilities to support developments within Bayside Council area. The general objectives of the DCP with regards to parking are reproduced in **Figure 4** and the parking requirements for each relevant land use quoted below.

3A 1.2 General Objectives

Objectives

- **O1** To minimise car parking in areas which have good access to public transport to promote sustainable transport;
- **O2** To ensure adequate car and bicycle parking is provided;
- **O3** To minimise the visual impacts of car parks when viewed from the public domain and adjoining sites;
- **O4** To maximise opportunities for consolidated areas of deep soil planting and landscaping;
- **O5** To minimise traffic congestion and ensure adequate traffic safety and management;
- **O6** To ensure parking facilities are safe, functional and accessible to all through compliance with design standards; and
- **O7** To ensure parking provisions and design are compatible with the particular development proposed.

FIGURE 4: BOTANY BAY COUNCIL DCP CAR PARKING OBJECTIVES

Business Premises – 1 space / 40m^2 GFA

Food and Drink Premises – a) Restaurants and café:

For developments with a gross floor area greater than 100m^2 the parking provision is to be provided as follows:

1 space / 2 employees; plus

1 space / 3 seats (internal and external); or

1 space / 10m^2 GFA, whichever is greater

For developments with a gross floor area less than 100m2, the parking provision recommended above is desirable, however applicants can take into account car parking available in adjacent parking areas, including on-street and its time of usage. Alternatively a parking assessment based on survey of similar sized developments can be utilised.

Office Premises – 1 space / 40m^2 GFA

It is clear then that the applicable parking rates for the development would be:

Office – 1 space per 40sqm

Commercial – 1 space per 40sqm

Café – 1 space 10sqm

For the assumed land uses this would equate to some 130 spaces including 24 for the food premises and 106 for the business uses.

3.1.2 RMS Parking Surveys

The following parking survey information is provided with the RMS Guide for the purpose of traffic and parking demand generation. For the subject site, the following subsections analyse the different land uses and their impact.

3.1.2.1 Food Premises

While restaurants were surveyed by RMS in 1980, and drive through coffee shops more recently, the most applicable land use for food premises at the subject site would be that of an ancillary café or the like. Within large shopping centres, the food premises are surveyed to operate as a secondary attractor, such that they only generate additional staff parking demand since customers are visiting elsewhere in the centre and stop in on the way through. The rate given for such a development is:

Speciality Shops and Secondary Retail – 45 spaces per 1000sqm or 1 per 22.2sqm

An alternate method is examining the stand-alone restaurant rate which states there is one staff per 10 seats and one seat per 2.1sqm GFA. Comparing this to the Journey to Work data for Botany which shows 25% of worked do not drive a car to work, this produces the following RMS equivalent rate for ancillary food premises:

Ancillary Restaurant in Botany – 1 space per 28sqm for staff

This would generate demand for 8.6 spaces.

3.1.2.2 Business Uses

The RMS Guide surveyed business parks and office buildings in the 1980s and again in 2013. The guide provides three sets of rates applicable to the subject site with the 2018 rates forming part of a DRAFT guide which is still subject to public comment:

Current Guide (2002)

Office and Commercial – 1 per 40sqm for unconstrained situation

Business Park Average – 1 per 66.7sqm

Business Park Office – 1 per 55.5sqm

Draft Guide (2018)

Commercial – 1 per 40sqm

Office and Business Park Average – 1 per 66.7sqm

Business Park Office – 1 per 55.5sqm

Comparison between the rates shows that the office component of a business park is likely to be 1 space per 55.5-66.7sqm, with ground floor offices having a slightly higher demand at 1 space per 40sqm. This recognises the potential for ground floors to have some higher generating retail uses combined with lower generating offices.

This would generate demand for 68 to 79 spaces.

3.1.2.3 Combined Parking Demand

Considering the food premises would be drawing patronage generally from the Lord Street Business Park Precinct, it would be generating traffic and parking demand at the same time as the surrounding uses and thus no discount can be given to different overlapping peaks. In that case, the parking demand is the sum of the individual uses or peak demand of 77 to 88 spaces.

3.1.3 Recommended Parking Provision

The site is well located regarding the local and regional traffic networks and has an adjacent high-frequency bus route (5-minute frequency at commuter times) for connectivity to the wider public transport networks. Current journey to work data shows 75% of staff in the Botany area who commute to work do so as a private vehicle driver with the remainder arriving as a passenger or by public transport.

For this planning proposal it is recommended to follow the objectives of the DCP regarding traffic and parking, whereby the development should seek the balance of trying "*To minimise car parking in area which have good access to public transport to promote sustainable transport*" while also trying "*To ensure adequate car and bicycle parking is provided*". The recommend parking rates for future development applications should be:

Food Premises - 1 space per 28sqm

Office/Commercial/Business – 1 space per 40sqm ground floor plus 1 space per 55.5sqm on first floor or higher

Based on the proposed 1.75:1 FSR, 84.1 spaces will be required, this is conservatively rounded up to 85 spaces, as summarised in **Table 2**. Based on the dimensions of the site and proposed structure, approximately 92 spaces can be accommodated and the site will not be limited by its ability to provide for parking.

TABLE 2: SUMMARY OF PARKING DEMAND

Land Use	Scale	Rate	Parking Demand
Commercial (ground floor)	522m^2 GFA	1 space per 40m^2 GFA	13.05
Commercial (first floor or higher)	3750m^2 GFA	1 space per 55.5m^2 GFA	67.57
Commercial Lobby	100m^2 GFA	Ancillary	0
Food Premises	99m^2 GFA	1 space per 28m^2 GFA	3.54
Total	**4471m^2 GFA**		**84.16 (85)**

3.2 Disabled Parking

Council's DCP Part 3C requires disabled parking according to the BCA where applicable. For retail/office/business developments the rate is 2% of parking. The subject planning proposal is likely to provide approximately 50-100 parking spaces and thus 2 spaces must be provided in a convenient location. Design according to AS2890.6 shall be completed at the DA stage.

3.3 Servicing & Loading

Council's DCP Part 3A requires provision for an MRV (8.8m length) for waste collection to service the site including access via forward only movements at the property boundary crossover. It is not anticipated that any vehicle larger than this will be required for the likely uses. Provision for an MRV shall be provided at the DA stage.

3.4 Bicycle Parking

Council's DCP Part 3A designates the following Bicycle Parking Rates:

In every new building, where the floor space exceeds 600m² GFA (except for houses and multi-unit housing) bicycle parking equivalent to 10% of the required car spaces or part therefore as required in Table 1 shall be provided.

The resulting bicycle storage requirements are provided in **Table 3**.

TABLE 3: DCP BICYCLE PARKING REQUIREMENTS

Land Use	Scale	Rate	Bicycle Spaces Required
Food Premises	24	10%	2.4 (3)
Commercial/Office/Business	106		10.6 (11)
Total	**130**	**-**	**14**

As shown above, the site requires the provision of 14 bicycle spaces which shall be provided to promote sustainable transport methods.

3.5 Car Park Design & Compliance

The car parking layout and access thereto, shall be assessed for compliance against the relevant sections of AS2890.1:2004, AS2890.2:2002 and AS2890.6:2009. A preliminary compliance check has been completed and shows ample opportunity to achieve the minimum requirements for design in accordance with the answer.

4 TRAFFIC ASSESSMENT

The impact of the expected traffic generation levels associated with the subject proposal is discussed in the following sub-sections.

4.1 Traffic Generation

4.1.1 Existing Site Traffic

The existing commercial/industrial/business uses on the site would be expected to generate traffic according to the RMS surveys in 2012 of *Business Parks and Industrial Estates* which provides the following average generation

0.52 trips per 100sqm of GFA in the AM peak hour

0.56 trips per 100sqm of GFA in the PM peak hour

With existing GFA of approximately 2300sqm, this equates to 12/13 trips in AM/PM peak hours. This should be discounted from the proposed traffic generation to estimate the additional trips for the proposal.

4.1.2 Additional Site Traffic

The estimated traffic generation level for the business park use, based upon the RMS' Guide to Traffic Generating Developments 2002 (as amended), is shown below:

Food Premises – Assume acts as restaurant with 50% reduction due to ancillary nature to business park. 5 trips per 100sqm x 50% = 2.5 trips per 100sqm.

Office/Commercial/Business – Assume acts as office block. 1.6 / 1.2 trips per 100sqm for AM / PM.

Ground Floor Commercial – Assume acts as office block with increase according to recommended increase in parking rate, i.e. 1 per 40sqm compared to 1 per 55.5sqm. 2.2 / 1.7 trips per 100sqm for AM / PM.

A summary of the traffic generation is shown in **Table 4** below.

TABLE 4: ESTIMATED TRAFFIC GENERATION

Use	Scale	AM Peak Hour Rate	PM Peak Hour Rate	AM Peak Hour Generation	PM Peak Hour Generation	Peak Hour Split[1]	
						AM	PM
Food Premises[1]	99sqm GFA	2.5 per 100sqm GFA	2.5 per 100sqm GFA	2	2	1 In 1 Out	1 In 1 Out
Office / Commercial / Business[2]	3750sqm GFA	1.6 per 100sqm GFA	1.2 per 100sqm GFA	60	45	54 In 6 Out	5 In 40 Out
Ground Floor Commercial	522sqm[3]	2.2 per 100sqm GFA	1.7 per 100sqm GFA	11	9	9 In 1 Out	1 In 8 Out
Total	**4,371sqm**	**-**	**-**	**73**	**56**	**64 In 7 Out**	**7 In 49 Out**

Notes:
(1) Food Premises assumes 50% inbound and outbound at all times.
(2) Assumes 90% inbound & 10% outbound during AM peak for commercial: Vice versa for PM.

Subtracting the existing estimated site traffic produces the following estimation of new trips, above those surveyed:

- 53/6 trips IN/OUT in the AM peak hour
- 6/37 trips IN/OUT in the PM peak hour

4.2 Traffic Impact

4.2.1 Traffic Distribution

The existing surveys at the Lord Street and Botany Road indicate that traffic accessing the Lord Street Business Park Precinct has the following distribution:

- AM – 15% inbound/outbound south and 85% inbound/outbound north
- PM – 30%/10% inbound/outbound south and 70%/90% inbound/outbound north

It is assumed for the purpose of assessment that new trips will follow the existing distribution.

4.2.2 Intersection Capacity Analysis (Using Sidra Intersection 8.0)

The traffic generation outlined above has been added to the existing traffic volumes recorded. *SIDRA INTERSECTION 8.0* was used to assess the intersection's performance. The purpose of this assessment is to compare the existing intersection operations to the future scenario under the increased traffic load. The results of this assessment are shown in **Table 5**.

As shown in **Table 5**, the nearby intersection remains generally unaltered under the future scenario. The existing LoS has been retained with minimal delays and additional capacity maintained. It is worth noting that average delays of 70 seconds are expected when signal cycle times extend to 120 seconds. Existing surveys show cycle times of 80 to 138 seconds during commuter peak hours and minor road delays to Lord Street should be expected to be near to 70 seconds at peak times as a result.

The routes to and from the site do not utilise any low volume residential precincts and are along local arterial or State roads. Therefore, residential amenity will not be impacted by the traffic generated by the proposed development.

TABLE 5: INTERSECTION PERFORMANCE (SIDRA INTERSECTION 7.0)

Intersection	Peak Hour	Degree of Saturation[1]	Average Delay[2] (sec/veh)	Level of Service[3]	Control Type	Worst Movement
EXISTING PERFORMANCE						
Lord Street / Botany Road	AM	0.65	12.4 (Worst: 56.4)	**A** (Worst: D)	Signals (2 Phase)	RT from Lord ST
	PM	0.74	23.5 (Worst: 56.8)	**B** (Worst: E)		LT from Lord ST
FUTURE PERFORMANCE						
Lord Street / Botany Road	AM	0.67	12.8 (Worst: 56.9)	**A** (Worst: E)	Signals (2 Phase)	RT from Lord ST
	PM	0.76	24.5 (Worst: 56.9)	**B** (Worst: E)		LT from Lord ST

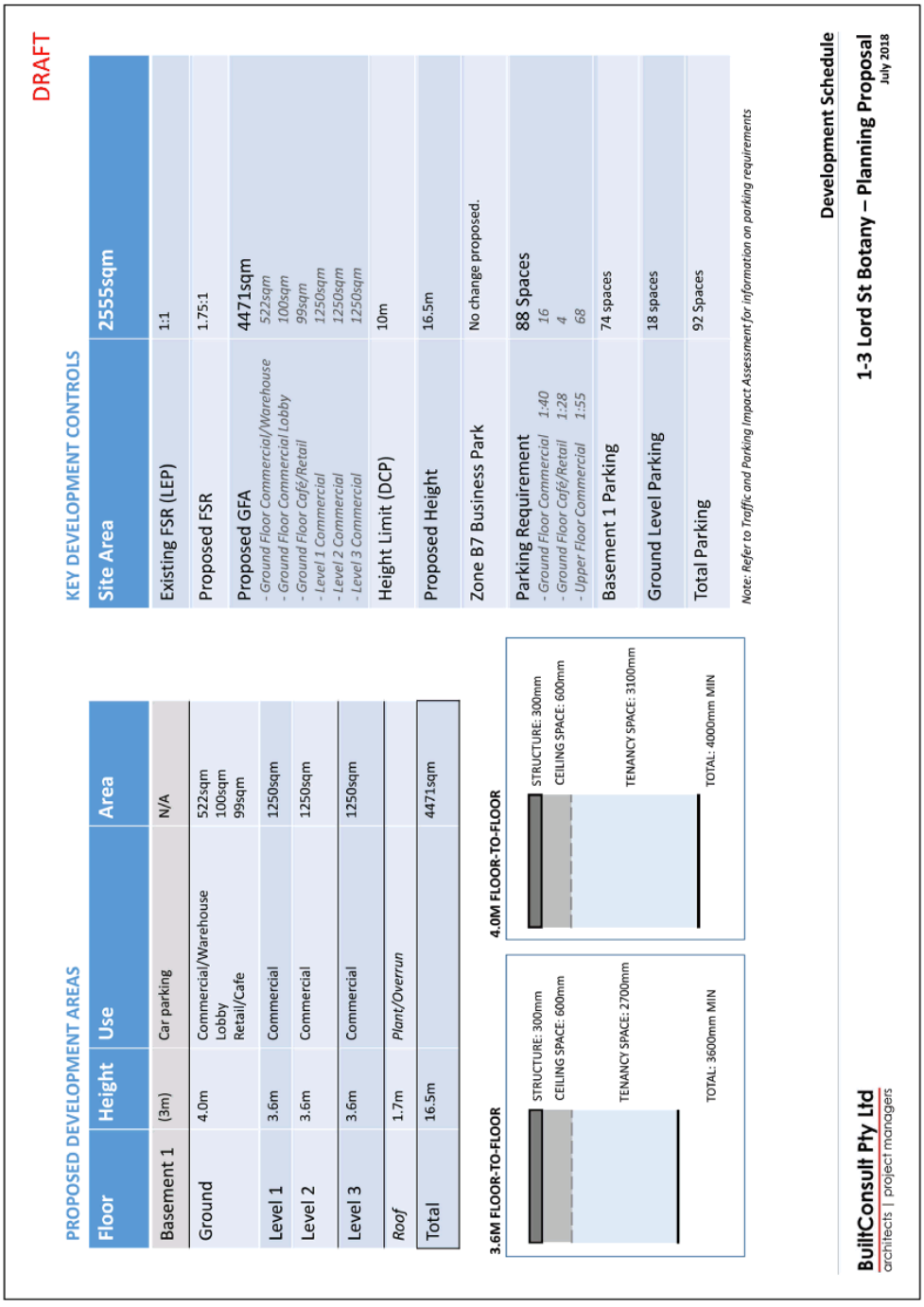
NOTES:
(1) Degree of Saturation is the ratio of demand to capacity for the most disadvantaged movement.
(2) The average delay is the delay experienced on average by all vehicles. The value in brackets represents the delay to the most disadvantaged movement.
(3) The Level of Service is a qualitative measure of performance describing operational conditions. There are six levels of service, designated from A to F, with A representing the best operational condition and level of service F the worst. The LoS of the intersection is shown in bold, and the LoS of the most disadvantaged movement is shown in brackets.

5 CONCLUSION

In view of the foregoing, the development concept that underpins the planning proposal (as outlined in **Annexure A**) is fully supportable in terms of its traffic and parking impacts. The following outcomes of this traffic impact assessment are relevant to note:

- The proposal is for rezoning of the land regarding existing height and FSR controls. No buildings are proposed in this application.
- A subsequent compliant development application would generate parking demand of approximately 85 car spaces. This should guide future massing and capacity constraints for development applications.
- A subsequent compliant development application would generate a maximum of 64 movements in the AM peak hour and 45 trips in the PM peak hour. Intersection capacity analysis shows there is spare capacity at the intersection of Lord Street and Botany Road to accommodate the change with minimal increase to delays and capacity.

ANNEXURE A

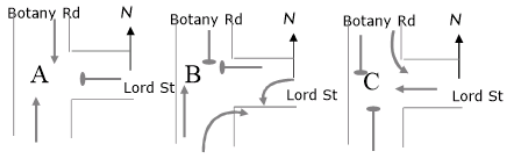

DRAFT
PROPOSED DEVELOPMENT AREAS
Floor | Height | Use | Area
Basement 1 | (3m) | Car parking | N/A
Ground | 4.0m | Commercial/Warehouse | 522sqm
Lobby | 100sqm
Retail/Cafe | 99sqm
Level 1 | 3.6m | Commercial | 1250sqm
Level 2 | 3.6m | Commercial | 1250sqm
Level 3 | 3.6m | Commercial | 1250sqm
Roof | 1.7m | Plant/Overrun
Total | 16.5m | 4471sqm
3.6M FLOOR-TO-FLOOR
STRUCTURE: 300mm
CEILING SPACE: 600mm
TENANCY SPACE: 2700mm
TOTAL: 3600mm MIN
4.0M FLOOR-TO-FLOOR
STRUCTURE: 300mm
CEILING SPACE: 600mm
TENANCY SPACE: 3100mm
TOTAL: 4000mm MIN
KEY DEVELOPMENT CONTROLS
Site Area | 2555sqm
Existing FSR (LEP) | 1:1
Proposed FSR | 1.75:1
Proposed GFA | 4471sqm
- Ground Floor Commercial/Warehouse | 522sqm
- Ground Floor Commercial Lobby | 100sqm
- Ground Floor Café/Retail | 99sqm
- Level 1 Commercial | 1250sqm
- Level 2 Commercial | 1250sqm
- Level 3 Commercial | 1250sqm
Height Limit (DCP) | 10m
Proposed Height | 16.5m
Zone B7 Business Park | No change proposed.
Parking Requirement | 88 Spaces
- Ground Floor Commercial 1:40 | 16
- Ground Floor Café/Retail 1:28 | 4
- Upper Floor Commercial 1:55 | 68
Basement 1 Parking | 74 spaces
Ground Level Parking | 18 spaces
Total Parking | 92 Spaces
Note: Refer to Traffic and Parking Impact Assessment for information on parking requirements
Development Schedule
1-3 Lord St Botany – Planning Proposal
July 2018
BuiltConsult Pty Ltd
architects | project managers

ANNEXURE B: TRAFFIC COUNTS

(4 SHEETS)

Curtis Traffic Surveys **Signal phases**

Job: 180503mcl (18_184)
Day, date: 16/05/18
Location: Botany Rd & Lord St
Weather: Fine
Client: McLaren Traffic Engineering

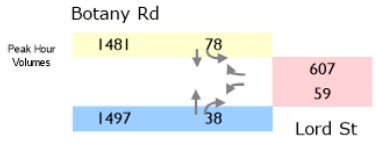


Time lights change to green | Duration of phase | Cycle time

Time Period			A	B	C	A	A	B	C	
14:00	to	14:15	14:13:18	x	14:14:11	14:14:33	00:00:53	x	00:00:22	00:01:15
14:15	to	14:30	14:27:10	x	14:28:50	14:29:03	00:01:40	x	00:00:13	00:01:53
14:30	to	14:45	14:40:09	x	14:41:09	14:41:23	00:01:00	x	00:00:14	00:01:14
14:45	to	15:00	14:51:34	x	14:52:32	14:52:50	00:00:58	x	00:00:18	00:01:16
15:00	to	15:15	15:07:09	x	15:08:19	15:08:39	00:01:10	x	00:00:20	00:01:30
15:15	to	15:30	15:27:00	x	15:28:20	15:28:47	00:01:20	x	00:00:27	00:01:47
15:30	to	15:45	15:37:55	x	15:38:53	15:39:17	00:00:58	x	00:00:24	00:01:22
15:45	to	16:00	15:55:28	x	15:56:29	15:56:50	00:01:01	x	00:00:21	00:01:22
16:00	to	16:15	16:08:05	x	16:09:16	16:09:45	00:01:11	x	00:00:29	00:01:40
16:15	to	16:30	16:21:17	x	16:22:53	16:23:16	00:01:36	x	00:00:23	00:01:59
16:30	to	16:45	16:41:07	x	16:42:23	16:42:39	00:01:16	x	00:00:16	00:01:32
16:45	to	17:00	16:53:29	x	16:55:20	16:55:47	00:01:51	x	00:00:27	00:02:18
17:00	to	17:15	17:06:13	x	17:07:15	17:07:41	00:01:02	x	00:00:26	00:01:28
17:15	to	17:30	17:22:07	x	17:23:40	17:24:22	00:01:33	x	00:00:42	00:02:15
17:30	to	17:45	17:37:07	x	17:38:40	17:39:08	00:01:33	x	00:00:28	00:02:01
17:45	to	18:00	17:47:56	x	17:49:34	17:49:58	00:01:38	x	00:00:24	00:02:02
18:00	to	18:15	18:07:05	x	18:08:12	18:08:22	00:01:07	x	00:00:10	00:01:17
18:15	to	18:30	18:16:45	x	18:17:50	18:18:04	00:01:05	x	00:00:14	00:01:19
18:30	to	18:45	18:35:50	x	18:36:50	18:37:05	00:01:00	x	00:00:15	00:01:15
18:45	to	19:00	18:49:33	x	18:51:22	18:51:30	00:01:49	x	00:00:08	00:01:57

Curtis Traffic Surveys **g movement count**

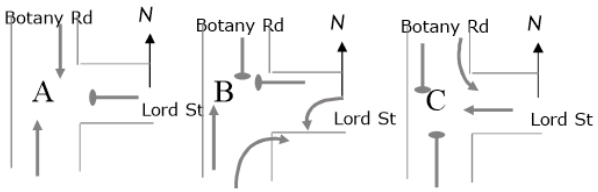
Job: 180503mcl (18_184)
Day, date: 16/05/18
Location: Botany Rd & Lord St
Weather: Fine
Client: McLaren Traffic Engineering



Time Period			From Botany Rd south through	From Botany Rd south right	From Lord St left	From Lord St right	From Botany Rd north left	From Botany Rd north through	Total vehicles	Peak
14:00	to	14:15	169	7	9	50	17	282	534	
14:15	to	14:30	166	12	11	64	38	263	554	
14:30	to	14:45	102	10	13	30	27	208	390	
14:45	to	15:00	317	15	13	20	25	306	696	
15:00	to	15:15	309	13	13	94	45	333	807	
15:15	to	15:30	326	10	12	92	26	396	862	
15:30	to	15:45	353	7	14	98	36	303	811	
15:45	to	16:00	286	9	11	99	27	257	689	
16:00	to	16:15	307	8	16	120	25	306	782	
16:15	to	16:30	344	7	15	165	22	335	888	
16:30	to	16:45	341	8	12	120	20	391	892	
16:45	to	17:00	349	9	11	112	21	394	896	
17:00	to	17:15	463	14	21	210	15	361	1084	peak
17:15	to	17:30	285	3	8	107	7	402	812	
17:30	to	17:45	284	3	18	135	12	414	866	
17:45	to	18:00	250	5	13	122	10	407	807	
18:00	to	18:15	255	3	4	94	10	412	778	
18:15	to	18:30	190	4	8	77	3	433	715	
18:30	to	18:45	282	1	2	53	2	382	722	
18:45	to	19:00	119	3	0	11	4	249	386	
Total			5497	151	224	1873	392	6834		
urly summary										
14:00	to	15:00	754	44	46	164	107	1059	2174	
14:15	to	15:15	894	50	50	208	135	1110	2447	
14:30	to	15:30	1054	48	51	236	123	1243	2755	
14:45	to	15:45	1305	45	52	304	132	1338	3176	
15:00	to	16:00	1274	39	50	383	134	1289	3169	
15:15	to	16:15	1272	34	53	409	114	1262	3144	
15:30	to	16:30	1290	31	56	482	110	1201	3170	
15:45	to	16:45	1278	32	54	504	94	1289	3251	
16:00	to	17:00	1341	32	54	517	88	1426	3458	
16:15	to	17:15	1497	38	59	607	78	1481	3760	peak hour
16:30	to	17:30	1438	34	52	549	63	1548	3684	
16:45	to	17:45	1381	29	58	564	55	1571	3658	
17:00	to	18:00	1282	25	60	574	44	1584	3569	
17:15	to	18:15	1074	14	43	458	39	1635	3263	
17:30	to	18:30	979	15	43	428	35	1666	3166	
17:45	to	18:45	977	13	27	346	25	1634	3022	
18:00	to	19:00	846	11	14	235	19	1476	2601	

Curtis Traffic Surveys **Signal phases**

Job: 180503mcl (18_184)
Day, date 16/05/18
Location: Botany Rd & Lord St
Weather: Fine
Client: McLaren Traffic Engineering

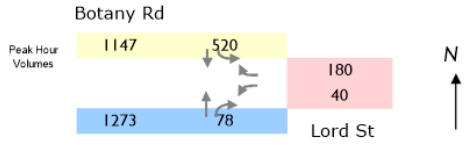


Time lights change to green | Duration of phase | Cycle time

Time Period			A	B	C	A	A	B	C	
07:00	to	07:15	07:11:35	x	07:12:43	07:12:58	00:01:08	x	00:00:15	00:01:23
07:15	to	07:30	07:23:24	x	07:24:41	07:24:59	00:01:17	x	00:00:18	00:01:35
07:30	to	07:45	07:36:25	x	07:37:30	07:37:48	00:01:05	x	00:00:18	00:01:23
07:45	to	08:00	07:51:32	x	07:52:38	07:53:03	00:01:06	x	00:00:25	00:01:31
08:00	to	08:15	08:03:05	x	08:04:23	08:04:46	00:01:18	x	00:00:23	00:01:41
08:15	to	08:30	08:23:10	x	08:25:10	08:25:27	00:02:00	x	00:00:17	00:02:17
08:30	to	08:45	08:33:51	x	08:35:28	08:35:46	00:01:37	x	00:00:18	00:01:55
08:45	to	09:00	08:46:48	x	08:48:57	08:49:09	00:02:09	x	00:00:12	00:02:21

Curtis Traffic Surveys **ıg movement count**

Job: 180503mcl (18_184)
Day, date 16/05/18
Location: Botany Rd & Lord St
Weather: Fine
Client: McLaren Traffic Engineering



Time Period			From Botany Rd south through	From Botany Rd south right	From Lord St left	From Lord St right	From Botany Rd north left	From Botany Rd north through	Total vehicles	Peak
07:00	to	07:15	224	3	5	21	32	156	441	
07:15	to	07:30	251	5	3	30	41	143	473	
07:30	to	07:45	285	10	3	32	65	162	557	
07:45	to	08:00	326	11	6	29	75	230	677	
08:00	to	08:15	347	7	8	49	96	247	754	
08:15	to	08:30	325	25	14	48	166	330	908	peak
08:30	to	08:45	326	20	11	39	119	253	768	
08:45	to	09:00	275	26	7	44	139	317	808	
Total			2359	107	57	292	733	1838		
ıurly summary										
07:00	to	08:00	1086	29	17	112	213	691	2148	
07:15	to	08:15	1209	33	20	140	277	782	2461	
07:30	to	08:30	1283	53	31	158	402	969	2896	
07:45	to	08:45	1324	63	39	165	456	1060	3107	
08:00	to	09:00	1273	78	40	180	520	1147	3238	peak hour

ANNEXURE C: SIDRA INTERSECTION ANALYSES

(4 SHEETS)

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing AM]

Lord St/Botany Road Existing
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1273	3.8	0.571	4.8	LOS A	18.8	135.9	0.38	0.35	0.38	53.5
3	R2	78	1.2	0.386	18.1	LOS B	2.2	15.3	0.69	0.75	0.69	43.0
Approach		1351	3.6	0.571	5.6	LOS A	18.8	135.9	0.40	0.37	0.40	52.6
East: Lord Street												
4	L2	40	0.0	0.505	51.3	LOS D	5.6	39.9	0.98	0.83	1.18	27.0
6	R2	180	4.7	0.505	56.4	LOS D	6.0	43.4	0.98	0.81	1.07	25.6
Approach		220	3.8	0.505	55.5	LOS D	6.0	43.4	0.98	0.81	1.09	25.8
North: Botany Road North												
7	L2	520	0.6	0.648	15.0	LOS B	25.7	183.7	0.58	0.69	0.58	46.4
8	T1	1147	5.4	0.648	10.9	LOS A	26.8	196.3	0.61	0.60	0.61	46.3
Approach		1667	3.9	0.648	12.2	LOS A	26.8	196.3	0.60	0.63	0.60	46.3
All Vehicles		3238	3.8	0.648	12.4	LOS A	26.8	196.3	0.54	0.54	0.55	45.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	54.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	50	9.6	LOS A	0.1	0.1	0.40	0.40
All Pedestrians		100	31.9	LOS D			0.68	0.68

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

Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Tuesday, 5 June 2018 12:41:11 PM
Project: Z:\Jobs\2018\18184\MTE Sidra\18 04 24 Lord St and Botany Road.sip8

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing AM + Subject Site]

Lord St/Botany Road Existing AM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1273	3.8	0.590	5.0	LOS A	20.0	144.6	0.39	0.36	0.39	53.4
3	R2	86	1.2	0.440	19.4	LOS B	2.6	18.6	0.74	0.77	0.74	42.2
Approach		1359	3.6	0.590	5.9	LOS A	20.0	144.6	0.42	0.39	0.42	52.3
East: Lord Street												
4	L2	41	0.0	0.524	52.3	LOS D	5.8	41.8	0.98	0.84	1.20	26.7
6	R2	187	4.7	0.524	56.9	LOS E	6.2	45.2	0.98	0.81	1.08	25.5
Approach		228	3.9	0.524	56.1	LOS D	6.2	45.2	0.98	0.81	1.10	25.7
North: Botany Road North												
7	L2	566	0.6	0.665	15.3	LOS B	27.2	194.1	0.59	0.70	0.59	46.1
8	T1	1151	5.4	0.665	11.1	LOS A	28.2	206.2	0.62	0.62	0.62	46.0
Approach		1717	3.8	0.665	12.5	LOS A	28.2	206.2	0.61	0.64	0.61	46.1
All Vehicles		3304	3.7	0.665	12.8	LOS A	28.2	206.2	0.56	0.55	0.56	45.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	54.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	50	9.6	LOS A	0.1	0.1	0.40	0.40
All Pedestrians		100	31.9	LOS D			0.68	0.68

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

Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Tuesday, 5 June 2018 12:41:11 PM
Project: Z:\Jobs\2018\18184\MTE Sidra\18 04 24 Lord St and Botany Road.sip8

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing PM]

Lord St/Botany Road Existing PM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1497	2.7	0.669	12.4	LOS A	29.1	208.8	0.62	0.57	0.62	45.7
3	R2	38	0.0	0.199	23.8	LOS B	1.0	6.7	0.78	0.73	0.78	39.9
Approach		1535	2.6	0.669	12.7	LOS A	29.1	208.8	0.63	0.57	0.63	45.5
East: Lord Street												
4	L2	59	0.0	0.741	56.8	LOS E	18.4	128.8	0.98	0.92	1.38	25.7
6	R2	607	0.0	0.741	53.9	LOS D	18.4	128.8	0.98	0.89	1.19	26.1
Approach		666	0.0	0.741	54.2	LOS D	18.4	128.8	0.98	0.89	1.20	26.1
North: Botany Road North												
7	L2	78	0.0	0.737	26.1	LOS B	33.6	239.7	0.81	0.75	0.81	41.2
8	T1	1481	2.5	0.737	20.8	LOS B	33.7	241.0	0.81	0.75	0.81	39.3
Approach		1559	2.4	0.737	21.1	LOS B	33.7	241.0	0.81	0.75	0.81	39.4
All Vehicles		3760	2.1	0.741	23.5	LOS B	33.7	241.0	0.77	0.70	0.80	37.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	45.2	LOS E	0.1	0.1	0.87	0.87
P2	East Full Crossing	50	16.6	LOS B	0.1	0.1	0.53	0.53
All Pedestrians		100	30.9	LOS D			0.70	0.70

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

Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Tuesday, 5 June 2018 12:41:12 PM
Project: Z:\Jobs\2018\18184\MTE Sidra\18 04 24 Lord St and Botany Road.sip8

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing PM + Subject Site]

Lord St/Botany Road Existing PM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1497	2.7	0.678	13.1	LOS A	29.9	214.2	0.64	0.58	0.64	45.2
3	R2	40	0.0	0.212	24.7	LOS B	1.0	7.3	0.80	0.73	0.80	39.4
Approach		1537	2.6	0.678	13.4	LOS A	29.9	214.2	0.64	0.59	0.64	45.0
East: Lord Street												
4	L2	63	0.0	0.758	56.9	LOS E	19.7	137.8	0.99	0.93	1.39	25.7
6	R2	642	0.0	0.758	54.0	LOS D	19.7	137.8	0.99	0.90	1.20	26.1
Approach		705	0.0	0.758	54.3	LOS D	19.7	137.8	0.99	0.90	1.22	26.1
North: Botany Road North												
7	L2	82	0.0	0.750	26.9	LOS B	34.4	245.5	0.82	0.77	0.82	40.8
8	T1	1481	2.5	0.750	21.7	LOS B	34.5	246.7	0.83	0.76	0.83	38.7
Approach		1563	2.4	0.750	22.0	LOS B	34.5	246.7	0.83	0.76	0.83	38.8
All Vehicles		3805	2.0	0.758	24.5	LOS B	34.5	246.7	0.78	0.72	0.82	36.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	44.3	LOS E	0.1	0.1	0.86	0.86
P2	East Full Crossing	50	17.1	LOS B	0.1	0.1	0.53	0.53
All Pedestrians		100	30.7	LOS D			0.70	0.70

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

Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Tuesday, 5 June 2018 12:41:12 PM
Project: Z:\Jobs\2018\18184\MTE Sidra\18 04 24 Lord St and Botany Road.sip8

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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

s10 October 2018 Reference: 18591.01FA

CD Construction
Unit 2, Level 2
8 Lord Street
Botany NSW 2019
Attention: Nathan Fuz

**RESPONSE TO PEER REVIEW OF
INDUSTRIAL AND WAREHOUSE DEVELOPMENT
AT 1-3 LORD STREET, BOTANY**

Dear Nathan,

Reference is made to your request to provide a Response to Peer Review by Cardno for the proposed Industrial and Warehouse Development at 1-3 Lord Street, Botany. The relevant plans are provided in **Annexure A** for reference. Each of the comments made is reproduced in italics in the sections below and responded to thereafter.

1 Existing Traffic & Parking Context

1.1 Heavy Vehicle Percentage

The proportion of heavy vehicles has been adapted from the Traffic Impact Assessment completed by Traffix of a proposed Mixed-Use Development at 11-13 Lord Street, Botany. The relevant pages from this report are provided in **Annexure B**.

1.2 Intersection Operation – Phasing

Revised SIDRA modelling using a two-phase arrangement (and all other amendments requested) has been completed, with the detailed results provided in **Annexure C**. There remains negligible change in the operation of the intersection in the existing and future scenarios.

It should be noted that phases B and D are likely to be called if they would result in a higher level of efficiency of operation of the intersection and that their inclusion in the SIDRA Model is generally best practice.

1.3 Length of Northbound Lane

Revised SIDRA modelling including the short northbound kerbside lane (and all other amendments requested) has been completed, with the detailed results provided in **Annexure C**. There remains negligible change in the operation of the intersection in the existing and future scenarios.

It should be noted that it is unlikely that vehicles will commonly park along Botany Road, a major thoroughfare, and that the use of a 60m short lane is, therefore, a worst case.

1.4 Pedestrian Priorities

Revised SIDRA modelling including the update to the priorities (and all other amendments requested) has been completed, with the detailed results provided in **Annexure C**. There remains negligible change in the operation of the intersection in the existing and future scenarios.

It should be noted that the SIDRA default setting of 50 pedestrians per hour likely overestimates the volume of pedestrians that will use the intersection at peak hours and that consequently the performance of the turns that conflict with these movements will be slightly better than that reflected by the SIDRA model.

2 Parking Quantum

2.1 Calculation of Parking Provision

The calculation of 130 referred to a previous scheme which has been superseded, the latest calculation is summarised in **Table 1**, indicating that 119.2 spaces are required for the latest scheme under a strict application of the Council DCP.

TABLE 1: DCP PARKING REQUIREMENT

Land Use	Scale	Rate	Parking Requirement
Food/Drink Premises	99sqm GFA	1/10sqm GFA	9.9 spaces
Commercial/Office	4372sqm GFA	1/40 sqm GFA	109.3 spaces
Total			**119.2 spaces**

2.2 The Validity of Use of Draft Government Agency Documents

The title of the document in question was mistaken in the McLaren Traffic and Parking Impact Assessment. The correct document is titled by Transport for NSW. The document has been provided to the authors of the Cardno report for consideration.

In terms of the validity of the use of the draft document, the use of the latest survey data is a best practice approach to traffic engineering. The transport characteristics of workers throughout metropolitan Sydney has changed noticeably in the 33 years between the 1980 and 2013 surveys and the use of the most recent data is an appropriate approach to the assessment of development.

2.3 Justification of Parking Demand

Two of the office sites surveyed to inform the RMS Technical Direction 2013/04a that have similar public transport access to the subject site and are likely to be similar in terms of on-site parking demand. The accessibility scores and recorded on-site peak parking demands of the two sites are compared to the subject sites' in **Table 2**.

TABLE 2: ACCESSIBILITY SCORE AND ON-SITE PARKING DEMAND

Site Location	Accessibility Score	Peak On-Site Parking Demand per 100m² GFA	Equivalent Floor Area Per Space
Olympic Park, Homebush	140	1.19	84m²
Norwest/Bella Vista	164	2.08	48m²
Lord Street, Botany	146	-	-

Further, the journey to work data for each of these locations is provided in **Table 3**. As shown, workers in Botany:

- Have a similar rate of private car use as Homebush and a lower rate than Bella Vista;
- Are more likely to use bus services than workers in either Homebush or Bella Vista;
- Are more likely to walk to work than workers in either Homebush or Bella Vista;
- Are more likely to ride a bike or motorbike to work than workers in either Homebush or Bella Vista.

It is, therefore, reasonable to assume that the on-site parking demand for the commercial areas of the site will be similar to or in the range of one space per 48m² to one space per 84m². The applied rate of 1 space per 55m² for the upper floors of the development is therefore appropriate and commensurate with the context. The use of a higher rate of parking demand for the ground floor commercial floor area provides some flexibility for future development applications on the site and, if it were confined purely to office area, would have a similar 1 space per 55m² parking demand.

TABLE 3: JOURNEY TO WORK TRAVEL MODE SUMMARY

Travel Mode	Baulkham Hills (West) Bella Vista	Botany	Homebush
Bicycle	0.27%	0.87%	0.34%
Bus	2.06%	3.52%	0.76%
Car as driver	79.31%	71.48%	71.10%
Car as passenger	4.35%	3.89%	4.24%
Did not go to work	6.78%	5.48%	6.99%
Ferry	0.00%	0.09%	0.00%
Mode not stated	1.23%	1.36%	1.89%
Motorbike	0.38%	0.88%	0.37%
Other mode	0.16%	0.57%	0.34%
Taxi	0.16%	0.33%	0.22%
Train	1.53%	5.58%	8.85%
Tram	0.02%	0.04%	0.00%
Truck	0.31%	1.96%	1.65%
Walked only	0.82%	2.25%	1.77%
Worked at home	2.62%	1.71%	1.48%

3 Bicycle Parking

The bicycle storage requirement has been recalculated as summarised in **Table 4**.

TABLE 4: DCP BICYCLE PARKING REQUIREMENT

Land Use	Car Parking Requirement	Rate	Bicycle Parking Requirement
Food/Drink Premises	9.9 spaces	10%	1 space
Commercial/Office	109.3 spaces		11 spaces
Total			**12 spaces**

4 Traffic Generation

4.1 Generation of Existing Site

The scale of the existing development is not sufficient to justify surveys and it is expected there would be negligible difference between the results of traffic modelling based on a generically calculated discount and a discount determined by surveys.

4.2 Appropriate Traffic Generation Rate

The subject site has been compared to two sites surveyed as part of the report to inform the RMS Technical Direction in **Section 2.3**. Similarly, the sites exhibit traffic generation rates of between 1.48 – 2.75 peak hour trips in the AM and 1.41 – 1.17 peak hour trips in the PM. On this basis, the utilised rates of 1.6 trips in the AM peak and 1.2 trips in the PM peak are appropriate considering the context of the site.

5 Traffic Impact

5.1 Cumulative Impacts

It is not the responsibility of the developer to assess cumulative and traffic impacts of developments that are yet to be either approved or completed.

5.2 Future Year Assessment

The subject proposal has a net traffic generation of approximately 59 trips in the AM peak hour and 43 trips in the PM peak hour. Based on existing traffic conditions, the additional traffic would constitute an additional 1.8% in the AM peak hour and 1.1% in the PM peak hour at the intersection of Lord Street and Botany Road. Considering the extremely low impact of the proposal, it is unclear on what basis future year assessment is necessary.

6 Model Parameters

6.1 Minor Grade Change

This parameter has been changed to inform the traffic modelling, with the results provided in **Annexure C**.

6.2 Calibration of Queue Lengths

It is unclear how the calibration of queue lengths is of any benefit for the modelling of a signalised intersection when the intersection phasing and general proportion of heavy vehicle traffic is known. As a result, no calibration has been undertaken.

Calibration of queue lengths is typically undertaken for unsignalised intersections to observe the average delay (specifically for right turns out onto high volume two-way roads) and to ensure the SIDRA results accurately reflect the on-site observations, particularly with relation to average delays for turning movements.

6.3 Phasing

See **Section 1.2**.

Please contact the undersigned should you require further information or assistance.

Yours faithfully
McLaren Traffic Engineering

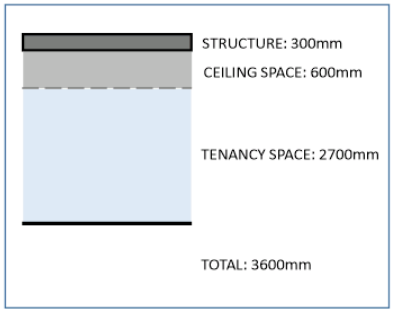
Tom Steal
Senior Traffic Engineer
BE Civil AMAITPM GradIEAust
RMS Accredited Level 1 Road Safety Auditor
RMS Accredited Work Zone Traffic Management Plan Designer and Inspector

ANNEXURE A: SCHEDULE OF AREAS

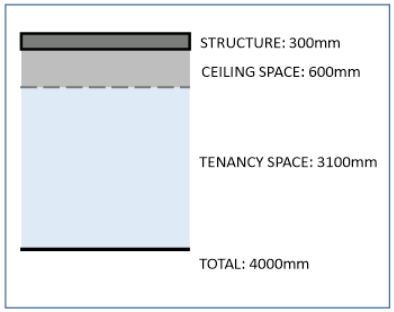
PROPOSED DEVELOPMENT AREAS

Floor	Height	Use	Area
Basement 1	(3m)	Car parking	N/A
Ground	4.0m	Commercial/Warehouse Lobby Retail/Cafe	522sqm 100sqm 99sqm
Level 1	3.6m	Commercial	1350sqm
Level 2	3.6m	Commercial	1250sqm
Level 3	3.6m	Commercial	1150sqm
Roof	1.7m	*Plant/Overrun*	
Total	16.5m		4471sqm

3.6M FLOOR-TO-FLOOR



4.0M FLOOR-TO-FLOOR



KEY DEVELOPMENT CONTROLS

Site Area	**2555sqm**
Existing FSR (LEP)	1:1
Proposed FSR	1.75:1
Proposed GFA	4471sqm
- Ground Floor Commercial/Warehouse	*522sqm*
- Ground Floor Commercial Lobby	*100sqm*
- Ground Floor Café/Retail/Ancillary	*99sqm*
- Level 1 Commercial	*1350sqm*
- Level 2 Commercial	*1250sqm*
- Level 3 Commercial	*1150sqm*
Existing Height Limit (DCP)	10m
Proposed Height Limit	16.5m
Zone B7 Business Park	No change proposed.
Parking Requirement	85 Spaces
- Ground Floor Commercial 1:40	*13*
- Ground Floor Café/Retail 1:28	*4*
- Upper Floor Commercial 1:55	*68*
Proposed Basement 1 Parking	74 spaces
Proposed Ground Level Parking	18 spaces
Proposed Total Parking	92 Spaces

Note: Refer to Traffic and Parking Impact Assessment for information on parking requirements

ANNEXURE B: EXCERPT FROM TRAFFIX REPORT

MOVEMENT SUMMARY

Site: 1 [Botany Rd x Lord St EX - AM Peak]

Scenario: Existing
Period: AM Peak
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Botany Rd											
2	T1	1028	3.8	0.381	4.7	LOS A	10.5	75.6	0.35	0.31	43.2
3	R2	87	1.2	0.286	12.6	LOS A	1.5	10.3	0.54	0.68	38.9
Approach		1116	3.6	0.381	5.3	LOS A	10.5	75.6	0.36	0.34	42.6
East: Lord St											
4	L2	37	0.0	0.243	32.1	LOS C	2.5	17.6	0.89	0.75	29.3
6	R2	89	4.7	0.243	47.6	LOS D	3.1	22.8	0.92	0.75	26.9
Approach		126	3.3	0.243	43.1	LOS D	3.1	22.8	0.91	0.75	27.5
North: Botany Rd											
7	L2	494	0.6	0.503	12.5	LOS A	16.9	120.2	0.48	0.64	41.2
8	T1	803	5.4	0.503	10.0	LOS A	18.2	133.2	0.53	0.53	36.8
Approach		1297	3.6	0.503	11.0	LOS A	18.2	133.2	0.51	0.57	39.0
All Vehicles		2539	3.6	0.503	10.1	LOS A	18.2	133.2	0.47	0.48	39.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	10.4	LOS B	0.1	0.1	0.42	0.42
All Pedestrians		105	32.4	LOS D			0.68	0.68

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

Organisation: TRAFFIX PTY LTD | Processed: Thursday, 22 March 2018 8:24:25 PM
Project: T:\Synergy\Projects\18\18.002\Modelling\18.002m01v1 TRAFFIX Botany Street and Lord Street, Mascot.sip7

MOVEMENT SUMMARY

Site: 1 [Botany Rd x Lord St EX - PM Peak]

Scenario: Existing
Period: PM Peak
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Botany Rd											
2	T1	1006	2.7	0.463	13.8	LOS A	17.0	121.5	0.59	0.52	34.3
3	R2	31	0.0	0.112	24.9	LOS B	1.0	7.3	0.60	0.68	32.2
Approach		1037	2.6	0.463	14.1	LOS A	17.0	121.5	0.59	0.53	34.2
East: Lord St											
4	L2	43	0.0	0.455	41.4	LOS C	11.8	82.3	0.86	0.83	26.2
6	R2	466	0.0	0.455	41.3	LOS C	12.0	84.1	0.86	0.81	28.7
Approach		509	0.0	0.455	41.3	LOS C	12.0	84.1	0.86	0.81	28.5
North: Botany Rd											
7	L2	64	0.0	0.444	18.0	LOS B	15.7	111.8	0.58	0.56	39.6
8	T1	957	2.5	0.444	13.7	LOS A	16.0	114.4	0.59	0.54	34.1
Approach		1021	2.4	0.444	13.9	LOS A	16.0	114.4	0.59	0.54	34.7
All Vehicles		2567	2.0	0.463	19.4	LOS B	17.0	121.5	0.64	0.59	32.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	40.1	LOS E	0.1	0.1	0.82	0.82
P2	East Full Crossing	53	14.0	LOS B	0.1	0.1	0.48	0.48
All Pedestrians		105	27.1	LOS C			0.65	0.65

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

Organisation: TRAFFIX PTY LTD | Processed: Thursday, 22 March 2018 8:24:27 PM
Project: T:\Synergy\Projects\18\18.002\Modelling\18.002m01v1 TRAFFIX Botany Street and Lord Street, Mascot.sip7

MOVEMENT SUMMARY

Site: 1 [Botany Rd x Lord St EX - Weekend]

Scenario: Existing
Period: PM Peak
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Botany Rd											
2	T1	698	4.2	0.240	4.2	LOS A	5.7	41.3	0.31	0.27	43.9
3	R2	28	0.0	0.056	9.6	LOS A	0.4	2.9	0.39	0.61	40.9
Approach		726	4.1	0.240	4.4	LOS A	5.7	41.3	0.31	0.28	43.7
East: Lord St											
4	L2	28	0.0	0.282	40.1	LOS C	3.2	23.1	0.92	0.76	26.6
6	R2	114	3.7	0.282	49.7	LOS D	3.7	26.5	0.93	0.76	26.4
Approach		142	3.0	0.282	47.8	LOS D	3.7	26.5	0.93	0.76	26.4
North: Botany Rd											
7	L2	114	5.6	0.317	13.1	LOS A	9.4	68.7	0.44	0.48	42.1
8	T1	679	5.7	0.317	8.7	LOS A	9.6	70.7	0.45	0.43	38.2
Approach		793	5.7	0.317	9.4	LOS A	9.6	70.7	0.45	0.44	39.1
All Vehicles		1661	4.8	0.317	10.5	LOS A	9.6	70.7	0.43	0.40	38.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	10.4	LOS B	0.1	0.1	0.42	0.42
All Pedestrians		105	32.4	LOS D			0.68	0.68

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

Organisation: TRAFFIX PTY LTD | Processed: Thursday, 22 March 2018 8:24:28 PM
Project: T:\Synergy\Projects\18\18.002\Modelling\18.002m01v1 TRAFFIX Botany Street and Lord Street, Mascot.sip7

MOVEMENT SUMMARY

Site: 1 [Botany Rd x Lord St FU - AM Peak]

Scenario: Existing
Period: AM Peak
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Botany Rd											
2	T1	1028	3.8	0.383	4.7	LOS A	10.6	76.4	0.35	0.31	43.2
3	R2	96	1.1	0.323	12.9	LOS A	1.7	11.8	0.56	0.69	39.1
Approach		1124	3.6	0.383	5.4	LOS A	10.6	76.4	0.36	0.34	42.6
East: Lord St											
4	L2	44	0.0	0.316	35.0	LOS C	3.2	23.0	0.94	0.77	28.8
6	R2	117	3.6	0.316	49.2	LOS D	4.1	29.9	0.94	0.77	27.1
Approach		161	2.6	0.316	45.3	LOS D	4.1	29.9	0.94	0.77	27.5
North: Botany Rd											
7	L2	526	0.6	0.514	12.2	LOS A	17.2	122.1	0.47	0.65	41.6
8	T1	803	5.4	0.514	10.1	LOS A	18.8	137.5	0.53	0.53	36.8
Approach		1329	3.5	0.514	11.0	LOS A	18.8	137.5	0.51	0.58	39.3
All Vehicles		2615	3.5	0.514	10.7	LOS A	18.8	137.5	0.47	0.49	38.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	10.4	LOS B	0.1	0.1	0.42	0.42
All Pedestrians		105	32.4	LOS D			0.68	0.68

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

Organisation: TRAFFIX PTY LTD | Processed: Thursday, 22 March 2018 8:24:26 PM
Project: T:\Synergy\Projects\18\18.002\Modelling\18.002m01v1 TRAFFIX Botany Street and Lord Street, Mascot.sip7

MOVEMENT SUMMARY

Site: 1 [Botany Rd x Lord St FU - PM Peak]

Scenario: Existing
Period: PM Peak
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Botany Rd											
2	T1	1006	2.7	0.450	13.2	LOS A	16.2	116.3	0.57	0.51	34.7
3	R2	45	0.0	0.158	20.1	LOS B	1.1	8.0	0.69	0.69	35.9
Approach		1052	2.6	0.450	13.5	LOS A	16.2	116.3	0.58	0.52	34.8
East: Lord St											
4	L2	59	0.0	0.543	45.3	LOS D	14.3	100.2	0.89	0.85	25.5
6	R2	532	0.0	0.543	44.2	LOS D	14.5	101.5	0.90	0.83	28.2
Approach		591	0.0	0.543	44.3	LOS D	14.5	101.5	0.89	0.83	28.0
North: Botany Rd											
7	L2	124	0.0	0.554	25.5	LOS B	21.2	150.6	0.73	0.69	37.1
8	T1	957	2.5	0.554	21.2	LOS B	21.3	152.7	0.73	0.67	29.1
Approach		1081	2.2	0.554	21.7	LOS B	21.3	152.7	0.73	0.68	30.4
All Vehicles		2723	1.9	0.554	23.4	LOS B	21.3	152.7	0.71	0.65	30.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	40.9	LOS E	0.1	0.1	0.83	0.83
P2	East Full Crossing	53	19.9	LOS B	0.1	0.1	0.58	0.58
All Pedestrians		105	30.4	LOS D			0.70	0.70

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

Organisation: TRAFFIX PTY LTD | Processed: Thursday, 22 March 2018 8:24:27 PM
Project: T:\Synergy\Projects\18\18.002\Modelling\18.002m01v1 TRAFFIX Botany Street and Lord Street, Mascot.sip7

MOVEMENT SUMMARY

Site: 1 [Botany Rd x Lord St FU - Weekend]

Scenario: Existing
Period: PM Peak
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Botany Rd											
2	T1	698	4.2	0.274	6.2	LOS A	7.5	54.5	0.37	0.33	41.4
3	R2	52	0.0	0.119	12.7	LOS A	0.9	6.6	0.49	0.66	41.1
Approach		749	3.9	0.274	6.7	LOS A	7.5	54.5	0.38	0.35	41.4
East: Lord St											
4	L2	52	0.0	0.380	47.4	LOS D	6.3	44.8	0.92	0.80	25.5
6	R2	207	2.0	0.380	50.2	LOS D	6.6	47.3	0.92	0.79	27.4
Approach		259	1.6	0.380	49.7	LOS D	6.6	47.3	0.92	0.79	27.0
North: Botany Rd											
7	L2	207	3.0	0.386	16.6	LOS B	12.6	91.8	0.53	0.61	41.5
8	T1	679	5.7	0.386	12.5	LOS A	13.0	95.4	0.54	0.53	34.9
Approach		886	5.1	0.386	13.4	LOS A	13.0	95.4	0.54	0.55	37.1
All Vehicles		1895	4.2	0.386	15.7	LOS B	13.0	95.4	0.53	0.50	35.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	52.4	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	13.6	LOS B	0.1	0.1	0.48	0.48
All Pedestrians		105	33.0	LOS D			0.71	0.71

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

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Project: T:\Synergy\Projects\18\18.002\Modelling\18.002m01v1 TRAFFIX Botany Street and Lord Street, Mascot.sip7

ANNEXURE C: SIDRA INTERSECTION RESULTS

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing AM]

Lord St/Botany Road Existing
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 123 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1273	3.8	0.536	3.6	LOS A	14.7	106.1	0.32	0.29	0.32	55.1
3	R2	78	1.2	0.571	19.5	LOS B	2.8	19.9	0.57	0.76	0.60	42.2
Approach		1351	3.6	0.571	4.5	LOS A	14.7	106.1	0.33	0.32	0.34	53.9
East: Lord Street												
4	L2	40	0.0	0.583	49.9	LOS D	5.6	39.9	1.00	0.81	1.08	27.3
6	R2	180	4.7	0.583	58.1	LOS E	6.5	47.4	1.00	0.80	1.03	25.2
Approach		220	3.8	0.583	56.6	LOS E	6.5	47.4	1.00	0.80	1.04	25.6
North: Botany Road North												
7	L2	520	0.6	0.552	8.5	LOS A	13.2	94.4	0.35	0.57	0.38	51.6
8	T1	1147	5.4	0.552	3.8	LOS A	16.5	121.1	0.36	0.40	0.37	53.6
Approach		1667	3.9	0.552	5.2	LOS A	16.5	121.1	0.36	0.46	0.37	52.9
All Vehicles		3238	3.8	0.583	8.4	LOS A	16.5	121.1	0.39	0.42	0.40	49.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	56.7	LOS E	0.2	0.2	0.96	0.96
P2	East Full Crossing	50	5.3	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		100	31.0	LOS D			0.63	0.63

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

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Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

LANE SUMMARY

Site: 1 [Lord St/Botany Road Existing AM]

Lord St/Botany Road Existing
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 123 seconds (Site User-Given Phase Times)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Botany Road South													
Lane 1	781	3.8	1457[1]	0.536	100	3.9	LOS A	14.7	106.1	Short	60	0.0	NA
Lane 2	492	3.8	918[1]	0.536	100	3.1	LOS A	7.3	52.8	Full	330	0.0	0.0
Lane 3	78	1.2	137	0.571	100	19.5	LOS B	2.8	19.9	Short	25	0.0	NA
Approach	1351	3.6		0.571		4.5	LOS A	14.7	106.1				
East: Lord Street													
Lane 1	111	3.0	190	0.583	100	50.0	LOS D	5.6	39.9	Short (P)	40	0.0	NA
Lane 2	109	4.7	188	0.583	100	63.3	LOS E	6.5	47.4	Full	500	0.0	0.0
Approach	220	3.8		0.583		56.6	LOS E	6.5	47.4				
North: Botany Road North													
Lane 1	835	2.4	1514	0.552	100	6.4	LOS A	13.2	94.4	Full	320	0.0	0.0
Lane 2	832	5.4	1508	0.552	100	4.1	LOS A	16.5	121.1	Full	320	0.0	0.0
Approach	1667	3.9		0.552		5.2	LOS A	16.5	121.1				
Intersection	3238	3.8		0.583		8.4	LOS A	16.5	121.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

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Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

PHASING SUMMARY

Site: 1 [Lord St/Botany Road Existing AM]

Lord St/Botany Road Existing
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 123 seconds (Site User-Given Phase Times)

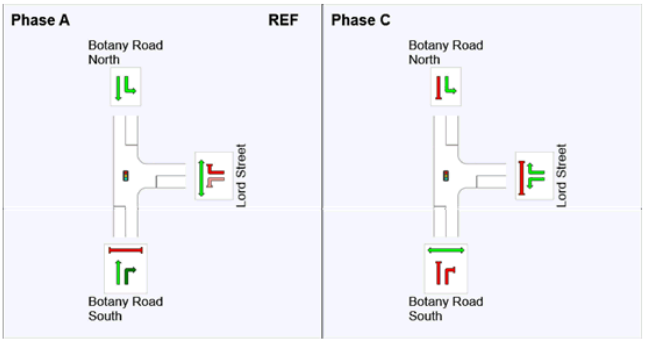
Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: Reduced Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C
Output Phase Sequence: A, C

Phase Timing Summary

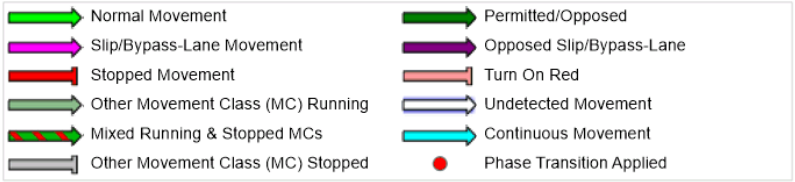
Phase	A	C
Phase Change Time (sec)	0	104
Green Time (sec)	100	13
Phase Time (sec)	106	17
Phase Split	86%	14%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Thursday, 27 September 2018 3:37:48 PM
Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing AM + Subject Site]

Lord St/Botany Road Existing AM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 123 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1273	3.8	0.568	3.6	LOS A	15.8	113.9	0.33	0.30	0.33	55.0
3	R2	86	1.2	0.673	29.2	LOS C	4.1	28.8	0.66	0.85	0.83	37.2
Approach		1359	3.6	0.673	5.3	LOS A	15.8	113.9	0.35	0.33	0.36	53.0
East: Lord Street												
4	L2	41	0.0	0.607	51.4	LOS D	5.9	42.1	1.00	0.82	1.11	26.9
6	R2	187	4.7	0.607	58.9	LOS E	6.8	49.5	1.00	0.81	1.06	25.1
Approach		228	3.9	0.607	57.5	LOS E	6.8	49.5	1.00	0.81	1.07	25.4
North: Botany Road North												
7	L2	566	0.6	0.567	8.3	LOS A	13.5	96.0	0.36	0.58	0.38	51.6
8	T1	1151	5.4	0.567	3.8	LOS A	17.4	127.6	0.37	0.41	0.38	53.6
Approach		1717	3.8	0.567	5.3	LOS A	17.4	127.6	0.37	0.47	0.38	52.8
All Vehicles		3304	3.7	0.673	8.9	LOS A	17.4	127.6	0.40	0.44	0.42	48.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	55.8	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	50	5.3	LOS A	0.1	0.1	0.29	0.29
All Pedestrians		100	30.5	LOS D			0.62	0.62

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

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Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

LANE SUMMARY

Site: 1 [Lord St/Botany Road Existing AM + Subject Site]

Lord St/Botany Road Existing AM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 123 seconds (Site User-Given Phase Times)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Botany Road South													
Lane 1	813	3.8	1432[1]	0.568	100	4.0	LOS A	15.8	113.9	Short	60	0.0	NA
Lane 2	460	3.8	809[1]	0.568	100	3.0	LOS A	6.7	48.2	Full	330	0.0	0.0
Lane 3	86	1.2	128	0.673	100	29.2	LOS C	4.1	28.8	Short	25	0.0	NA
Approach	1359	3.6		0.673		5.3	LOS A	15.8	113.9				
East: Lord Street													
Lane 1	115	3.0	189	0.607	100	51.4	LOS D	5.9	42.1	Short (P)	40	0.0	NA
Lane 2	113	4.7	187	0.607	100	63.7	LOS E	6.8	49.5	Full	500	0.0	0.0
Approach	228	3.9		0.607		57.5	LOS E	6.8	49.5				
North: Botany Road North													
Lane 1	861	2.2	1518	0.567	100	6.4	LOS A	13.5	96.0	Full	320	0.0	0.0
Lane 2	856	5.4	1508	0.567	100	4.2	LOS A	17.4	127.6	Full	320	0.0	0.0
Approach	1717	3.8		0.567		5.3	LOS A	17.4	127.6				
Intersection	3304	3.7		0.673		8.9	LOS A	17.4	127.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

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Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

PHASING SUMMARY

Site: 1 [Lord St/Botany Road Existing AM + Subject Site]

Lord St/Botany Road Existing AM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 123 seconds (Site User-Given Phase Times)

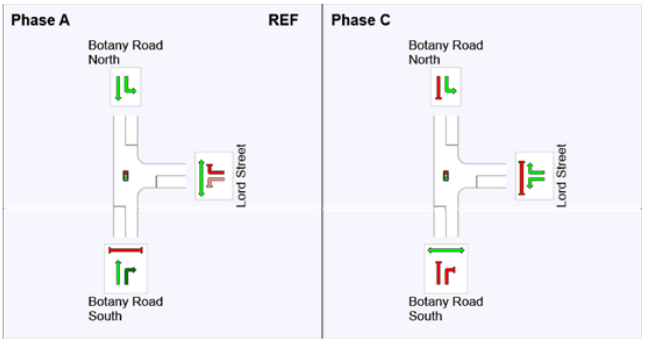
Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: Reduced Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C
Output Phase Sequence: A, C

Phase Timing Summary

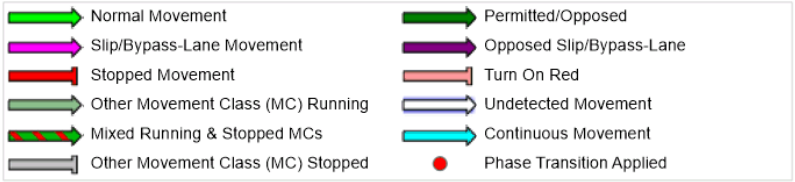
Phase	A	C
Phase Change Time (sec)	0	104
Green Time (sec)	100	13
Phase Time (sec)	106	17
Phase Split	86%	14%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Thursday, 27 September 2018 3:37:48 PM
Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing PM]

Lord St/Botany Road Existing PM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1497	2.7	0.880	24.2	LOS B	27.3	195.9	0.62	0.72	0.82	37.3
3	R2	38	0.0	0.259	25.2	LOS B	1.2	8.2	0.68	0.74	0.68	39.1
Approach		1535	2.6	0.880	24.3	LOS B	27.3	195.9	0.62	0.72	0.81	37.4
East: Lord Street												
4	L2	59	0.0	0.857	53.7	LOS D	16.4	114.9	1.00	1.03	1.61	26.4
6	R2	607	0.0	0.857	51.8	LOS D	16.4	114.9	1.00	1.00	1.44	26.6
Approach		666	0.0	0.857	52.0	LOS D	16.4	114.9	1.00	1.01	1.45	26.6
North: Botany Road North												
7	L2	78	0.0	0.629	15.2	LOS B	19.6	139.9	0.63	0.61	0.70	48.5
8	T1	1481	2.5	0.629	9.7	LOS A	19.8	141.9	0.63	0.59	0.67	48.1
Approach		1559	2.4	0.629	9.9	LOS A	19.8	141.9	0.63	0.59	0.67	48.1
All Vehicles		3760	2.1	0.880	23.2	LOS B	27.3	195.9	0.69	0.72	0.87	37.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	39.3	LOS D	0.1	0.1	0.94	0.94
P2	East Full Crossing	50	10.8	LOS B	0.1	0.1	0.49	0.49
All Pedestrians		100	25.0	LOS C			0.71	0.71

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

Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Thursday, 27 September 2018 3:44:40 PM
Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

LANE SUMMARY

Site: 1 [Lord St/Botany Road Existing PM]

Lord St/Botany Road Existing PM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Botany Road South													
Lane 1	749	2.7	852[1]	0.880	100	24.2	LOS B	27.3	195.9	Short	60	0.0	NA
Lane 2	748	2.7	850[1]	0.880	100	24.3	LOS B	27.3	195.8	Full	330	0.0	0.0
Lane 3	38	0.0	147	0.259	100	25.2	LOS B	1.2	8.2	Short	25	0.0	NA
Approach	1535	2.6		0.880		24.3	LOS B	27.3	195.9				
East: Lord Street													
Lane 1	335	0.0	391	0.857	100	53.7	LOS D	16.4	114.9	Short (P)	75	0.0	NA
Lane 2	331	0.0	386	0.857	100	50.3	LOS D	16.3	114.2	Full	500	0.0	0.0
Approach	666	0.0		0.857		52.0	LOS D	16.4	114.9				
North: Botany Road North													
Lane 1	780	2.3	1241	0.629	100	10.2	LOS A	19.6	139.9	Full	320	0.0	0.0
Lane 2	779	2.5	1238	0.629	100	9.7	LOS A	19.8	141.9	Full	320	0.0	0.0
Approach	1559	2.4		0.629		9.9	LOS A	19.8	141.9				
Intersection	3760	2.1		0.880		23.2	LOS B	27.3	195.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Thursday, 27 September 2018 3:44:40 PM
Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

PHASING SUMMARY

Site: 1 [Lord St/Botany Road Existing PM]

Lord St/Botany Road Existing PM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

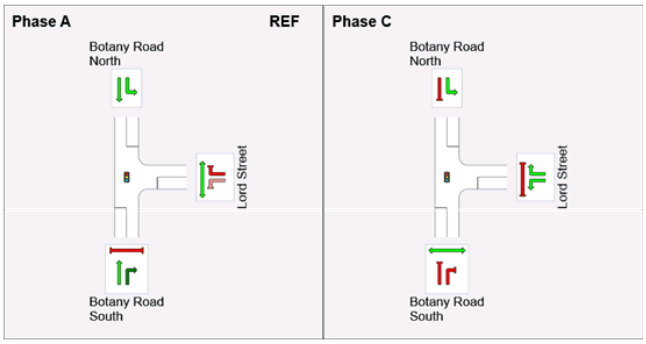
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Green Split Priority has been specified
Phase Sequence: Reduced Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C
Output Phase Sequence: A, C

Phase Timing Summary

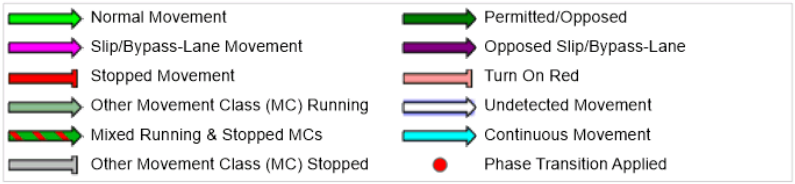
Phase	A	C
Phase Change Time (sec)	0	65
Green Time (sec)	59	19
Phase Time (sec)	65	25
Phase Split	72%	28%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Thursday, 27 September 2018 3:44:40 PM
Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

MOVEMENT SUMMARY

Site: 1 [Lord St/Botany Road Existing PM + Subject Site]

Lord St/Botany Road Existing PM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Botany Road South												
2	T1	1497	2.7	0.889	26.6	LOS B	28.6	205.0	0.62	0.74	0.85	36.0
3	R2	40	0.0	0.274	25.4	LOS B	1.2	8.7	0.69	0.74	0.69	39.0
Approach		1537	2.6	0.889	26.6	LOS B	28.6	205.0	0.62	0.74	0.84	36.1
East: Lord Street												
4	L2	63	0.0	0.902	61.0	LOS E	19.1	133.6	1.00	1.10	1.76	24.8
6	R2	642	0.0	0.902	58.7	LOS E	19.1	133.6	1.00	1.08	1.59	25.1
Approach		705	0.0	0.902	58.9	LOS E	19.1	133.6	1.00	1.08	1.60	25.1
North: Botany Road North												
7	L2	82	0.0	0.630	15.2	LOS B	19.7	140.4	0.63	0.61	0.70	48.5
8	T1	1481	2.5	0.630	9.7	LOS A	19.9	142.5	0.63	0.59	0.67	48.0
Approach		1563	2.4	0.630	10.0	LOS A	19.9	142.5	0.63	0.59	0.67	48.1
All Vehicles		3805	2.0	0.902	25.8	LOS B	28.6	205.0	0.70	0.74	0.91	36.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	39.3	LOS D	0.1	0.1	0.94	0.94
P2	East Full Crossing	50	10.8	LOS B	0.1	0.1	0.49	0.49
All Pedestrians		100	25.0	LOS C			0.71	0.71

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

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Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

LANE SUMMARY

Site: 1 [Lord St/Botany Road Existing PM + Subject Site]

Lord St/Botany Road Existing PM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Botany Road South													
Lane 1	749	2.7	843[1]	0.889	100	26.6	LOS B	28.6	205.0	Short	60	0.0	NA
Lane 2	748	2.7	841[1]	0.889	100	26.7	LOS B	28.6	204.9	Full	330	0.0	0.0
Lane 3	40	0.0	146	0.274	100	25.4	LOS B	1.2	8.7	Short	25	0.0	NA
Approach	1537	2.6		0.889		26.6	LOS B	28.6	205.0				
East: Lord Street													
Lane 1	355	0.0	393	0.902	100	61.0	LOS E	19.1	133.6	Short (P)	75	0.0	NA
Lane 2	350	0.0	388	0.902	100	56.8	LOS E	18.8	131.4	Full	500	0.0	0.0
Approach	705	0.0		0.902		58.9	LOS E	19.1	133.6				
North: Botany Road North													
Lane 1	782	2.2	1241	0.630	100	10.2	LOS A	19.7	140.4	Full	320	0.0	0.0
Lane 2	781	2.5	1238	0.630	100	9.7	LOS A	19.9	142.5	Full	320	0.0	0.0
Approach	1563	2.4		0.630		10.0	LOS A	19.9	142.5				
Intersection	3805	2.0		0.902		25.8	LOS B	28.6	205.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Thursday, 27 September 2018 3:44:55 PM
Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

PHASING SUMMARY

Site: 1 [Lord St/Botany Road Existing PM + Subject Site]

Lord St/Botany Road Existing PM + Subject Site
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

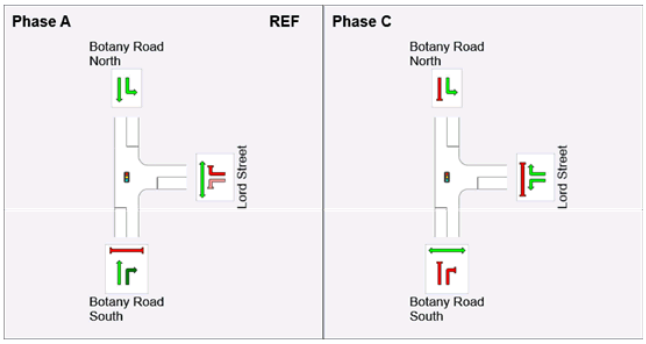
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Green Split Priority has been specified
Phase Sequence: Reduced Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C
Output Phase Sequence: A, C

Phase Timing Summary

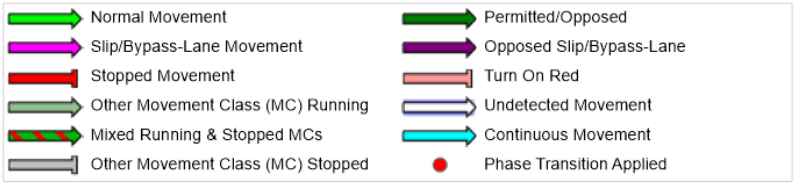
Phase	A	C
Phase Change Time (sec)	0	65
Green Time (sec)	59	19
Phase Time (sec)	65	25
Phase Split	72%	28%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



Organisation: MCLAREN TRAFFIC ENGINEERING | Processed: Thursday, 27 September 2018 3:44:55 PM
Project: \\mteserver\mte storage\Jobs\2018\18591\MTE Sidra\18 09 27 Lord St and Botany Road.sip8

Mr N Fuz
c/o City Plan Services
Suite 3A, 2 New McLean Road
Edgecliff NSW 2027

L181005_1_3_LordStreet_FloodInformation

9 October 2018

Attention: Mr N Fuz

Dear Nathan,

Re: 1-3 Lord Street, Botany -
Preliminary Flood Constraints Assessment

1. INTRODUCTION

City Plan Services proposes the redevelopment of 1-3 Lord Street, Botany. The client is lodging a planning proposal which involves retaining the existing zoning (B7 -Business Park), increasing the maximum height and increasing the Floor Space Ratio. The proposed building footprint has not been finalised, however is intended to cover a greater proportion of the lot than the existing development on the site. The subject site includes Lots 2 and 4 DP 593463, shown in red on Diagram 1. The site location is also presented on Figure 1.

Diagram 1 Site Location

WMAwater Pty Ltd

DIRECTORS
M K Babister, RPEQ
R W Dewar
E J Askew
F L N Ling, RPEQ

SENIOR ASSOCIATES
R Hardwick Jones
M E Retallick

ABN 14 600 315 053

Level 2, 160 Clarence St, SYDNEY NSW 2000
Phone: 02 9299 2855 Fax: 02 9262 6208
Email: enquiry@wmawater.com.au
Website: wmawater.com.au

The site is located within the Botany Bay Foreshore Beach Catchment, and the local Lord Street area is subject to flood affectation in events as frequent as the 5 year ARI (Annual Recurrence Interval) event. As such, WMAwater has been engaged to provide preliminary advice in regards to the flood behaviour at the site, and identify any constraints that may be pertinent to the development, to support the planning proposal. Please note that given the preliminary stage of the project, advice is general in nature and would need refining when design plans have progressed and further data, for example detailed site survey, is available. At this stage no review of the Botany Bay Comprehensive Development Control Plan 2013 nor identification of applicable development controls has been undertaken.

2. AVAILABLE FLOOD INFORMATION

2.1. Source of Flood Information

The Botany Bay Foreshore Beach Catchment Flood Study (the Flood Study) (Reference 1) was undertaken by BMT WBM in December 2015, and is not yet adopted by Council. The primary objective of the Flood Study was to define the flood behaviour under historical, existing and future conditions (incorporating potential impacts of climate change) in the Botany Bay Foreshore Beach Catchment for a full range of design flood events.

For the purpose of this preliminary constraints assessment, Council supplied the Flood Study Report to WMAwater (on the 4th October 2018), and provided peak flood depth and level result grids (in ASCII format), for the 1% AEP and PMF event (received by WMAwater on the 11th and 19th September, 2018). The flood behaviour 1% AEP event is typically used for planning purposes and impact assessments, while the Probable Maximum Flood (PMF) shows the full extent of potential flood risk at the site.

In conjunction with the report and modelled flood results, LiDAR data (1 m resolution, NSW LPI) was reviewed to gain an understanding of the local topography and broader catchment characteristics. Comments regarding elevations at the site are indicative only, and should be confirmed with detailed survey at a later stage.

2.2. Description of Existing Flood Behaviour

Lord Street is in the north of the Botany Bay Foreshore Beach Catchment. This catchment covers approximately 3.5 km^2 and generally slopes in a south-westerly direction toward the Botany Bay Foreshore (Reference 1). The Flood Study also notes that the topography of the catchment is quite flat (with the exception of a low lying ridge line located on the eastern boundary of the catchment), which leads to generally poor surface drainage conditions.

In the vicinity of the site, a sag point on Lord Street causes water to pond on the road and extend into properties north and south of the road in events as frequent as a 5 year ARI (refer to Figure C1 in Reference 1). The lowest point occurs outside No. 7 Lord Street, where water ponds to depths of up to approximately 1.0 m in the 1% AEP event, and 1.3 m in the PMF event. The subject site at 1 - 3 Lord Street is affected by this ponded water to depths of 0.5 m in the 1% AEP event and 0.8 m in the PMF event.

In the 1% AEP event, the front 8 m – 15 m along the site boundary is flood affected to varying depths, whilst the remainder of the lot is largely flood free, with the exception of some shallow ponding on the western boundary (less than 150 mm deep). The peak flood depth and levels for the 1% AEP and PMF events, based on results supplied by Council, are presented in Figure 2 and 3 respectively. Parts of the site, mainly at the front of the site, are classified as flood storage, indicating that if an obstruction is placed in this area it is likely to cause flood impacts elsewhere. Figure C-27 in Reference 1 shows the hydraulic categorisation for the 1% AEP, and shows that the remainder of the lot is either flood free or classified as flood fringe. Refer to Section 6.7 of Reference 1 for a detailed description of each hydraulic category.

2.3. Available Flood Level Information

A summary of 1% AEP and PMF flood levels from the provided result grids are provided in Table 1. Note that due to the approximately level surface of the ponded water, the peak flood level in each event is consistent on Lord Street and the site itself, hence only one level has been provided below. The 1% AEP and PMF event peak flood levels are the ones primarily used to determine minimum floor level requirements under Bayside Council's development control policies.

Table 1 Peak Flood Levels (from Reference 1)

Location	1% AEP Peak Level (mAHD)	PMF Peak Level (mAHD)
Lord Street	5.3	5.6

3. PRELIMINARY ASSESSMENT OF FLOOD CONSTRAINTS

3.1. Building Footprint and Flood Impacts

As shown in Figure 2, much of the site is flood free in the 1% AEP event, and with an appropriate setback from the front boundary (between 8-15 m), the building would be outside of the 'flood storage' area, and therefore unlikely to cause flood impacts. It is envisaged that if such a setback is not possible, that the street frontage could be engineered to prevent flood level impacts, perhaps through the use of pier-footings for construction, or on-grade open carparking or landscaping. Appropriate building siting would also help prevent water entering the building and damaging property.

It is also noted that the shallow ponding on the western site boundary is not expected to form a major constraint, as it is classified as "flood fringe" in the 1% AEP event (Refer to Figure C-27 in the Flood Study), however this area would need to be taken into account during the design phase, and would possibly require confirmation via a flood impact assessment depending on the proposed footprint.

3.2. Access and Evacuation

The significant depths of ponded water in Lord Street would restrict safe vehicular and pedestrian access in both directions in a range of flood events. It would be advisable to locate the driveway entry point as close to the western boundary as possible, as ground levels here are approximately 0.3 m higher than at the eastern boundary (based on LPI LiDAR data, to be confirmed at a later

stage with detailed survey). Further to this, the proponent would likely need to prepare an evacuation plan or emergency management plan to address these access issues and how to best keep occupants safe during flood events.

4. CONCLUSION

WMAwater has undertaken a high level assessment of the site at 1-3 Lord Street with the information available at this stage, and acknowledges that further assessment may be needed as detailed information comes to hand. The large proportion of flood free land on the site in the 1% AEP event suggests that it would be possible to design a building footprint that does not impact on flood behaviour outside of site. However, given the significant extent of ponding on Lord Street, safe site access and evacuation requirements should be considered of foremost importance when designing site layout and driveway placement.

If you have any queries please do not hesitate to contact the undersigned for clarification.

Yours Sincerely,

WMAwater

Erin Askew

Director

References

1. BMT WBM
Botany Bay Foreshore Beach Catchment Flood Study
Botany Bay Council, 2015

Figures

Figure 1 Site Location
Figure 2 Peak Flood Levels and Depths – 1% AEP Event
Figure 3 Peak Flood Levels and Depths – PMF Event


FIGURE 1
1 - 3 LORD ST, BOTANY
STUDY AREA
General Holmes Drive
Southern Cross Drive
Botany Rd
Lord St
Daphne Lane
Daphne St
Ivy St
Rose St
N
1-3 Lord St, Botany
Cadastre
0 25 50 100 150 200
m
J:\Jobs\118076\ArcGIS\ArcMap\PreliminaryFigure01_Site_Area.mxd

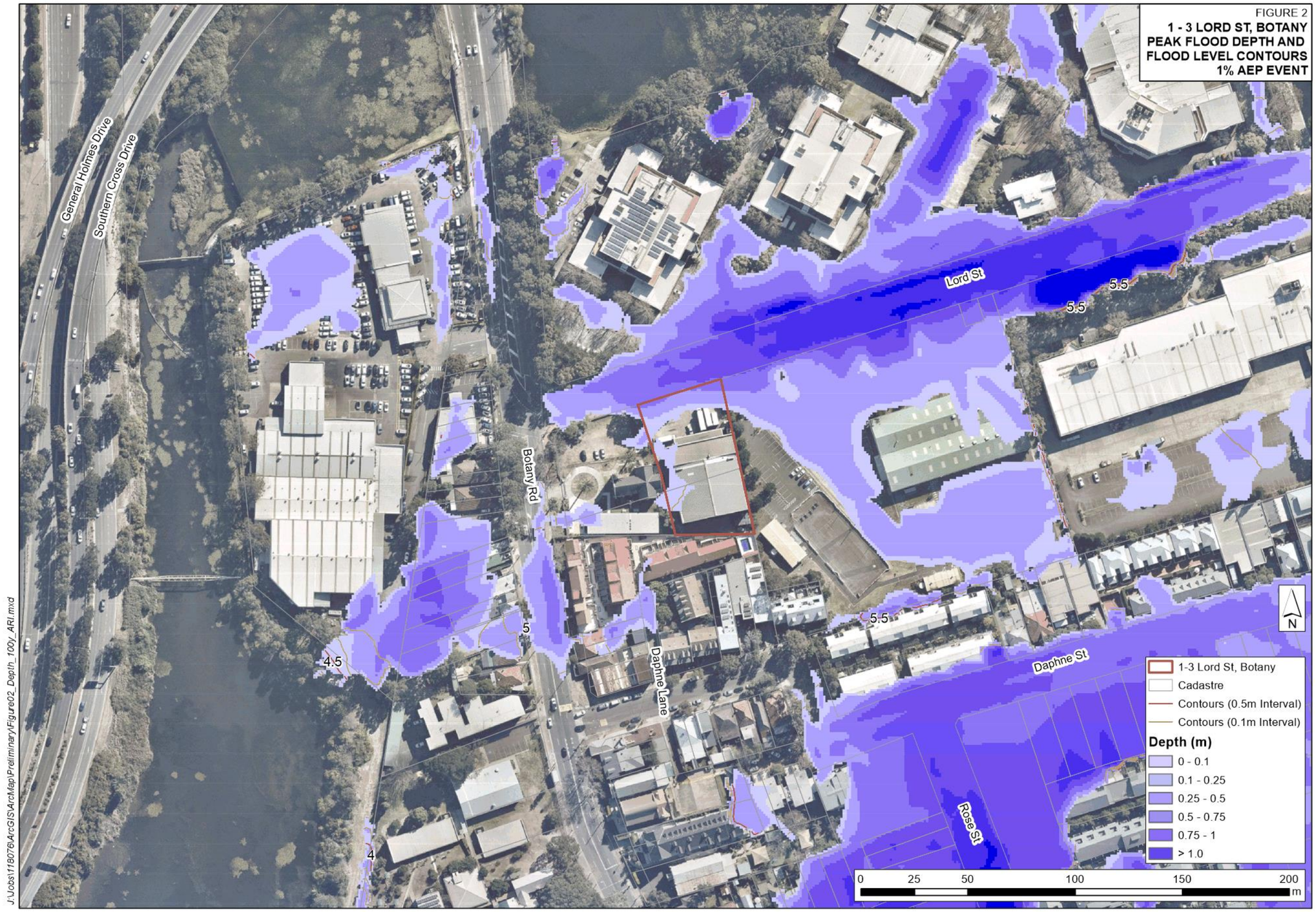


FIGURE 2
1 - 3 LORD ST, BOTANY
PEAK FLOOD DEPTH AND
FLOOD LEVEL CONTOURS
1% AEP EVENT
General Holmes Drive
Southern Cross Drive
Botany Rd
Lord St
Daphne Lane
Daphne St
Rose St
5.5
5.5
5.5
5
4.5
4
N
1-3 Lord St, Botany
Cadastre
Contours (0.5m Interval)
Contours (0.1m Interval)
Depth (m)
0 - 0.1
0.1 - 0.25
0.25 - 0.5
0.5 - 0.75
0.75 - 1
> 1.0
0 25 50 100 150 200
m
J:\Jobs\118076\ArcGIS\ArcMap\PreliminaryFigure02_Depth_100y_ARI.mxd

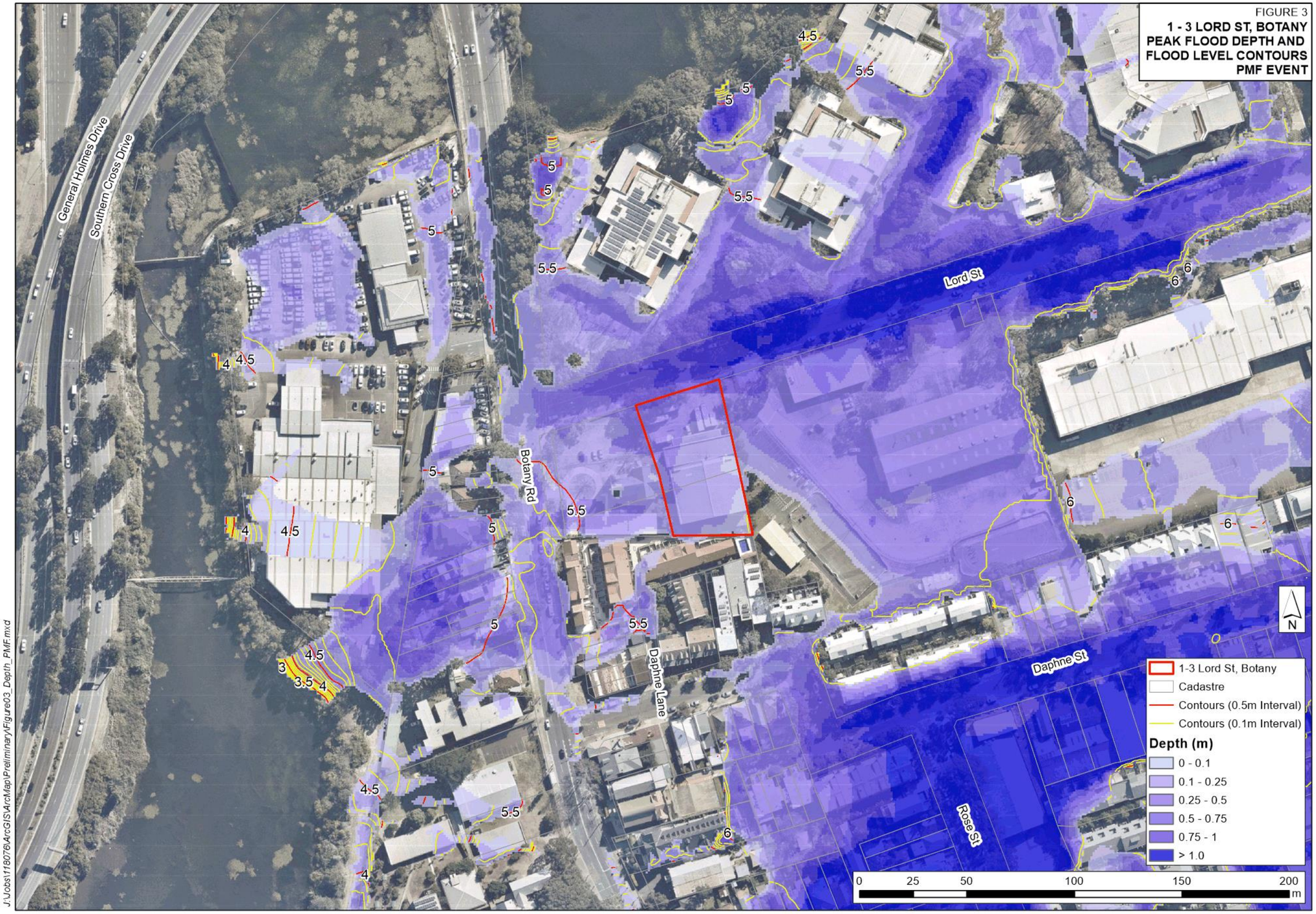
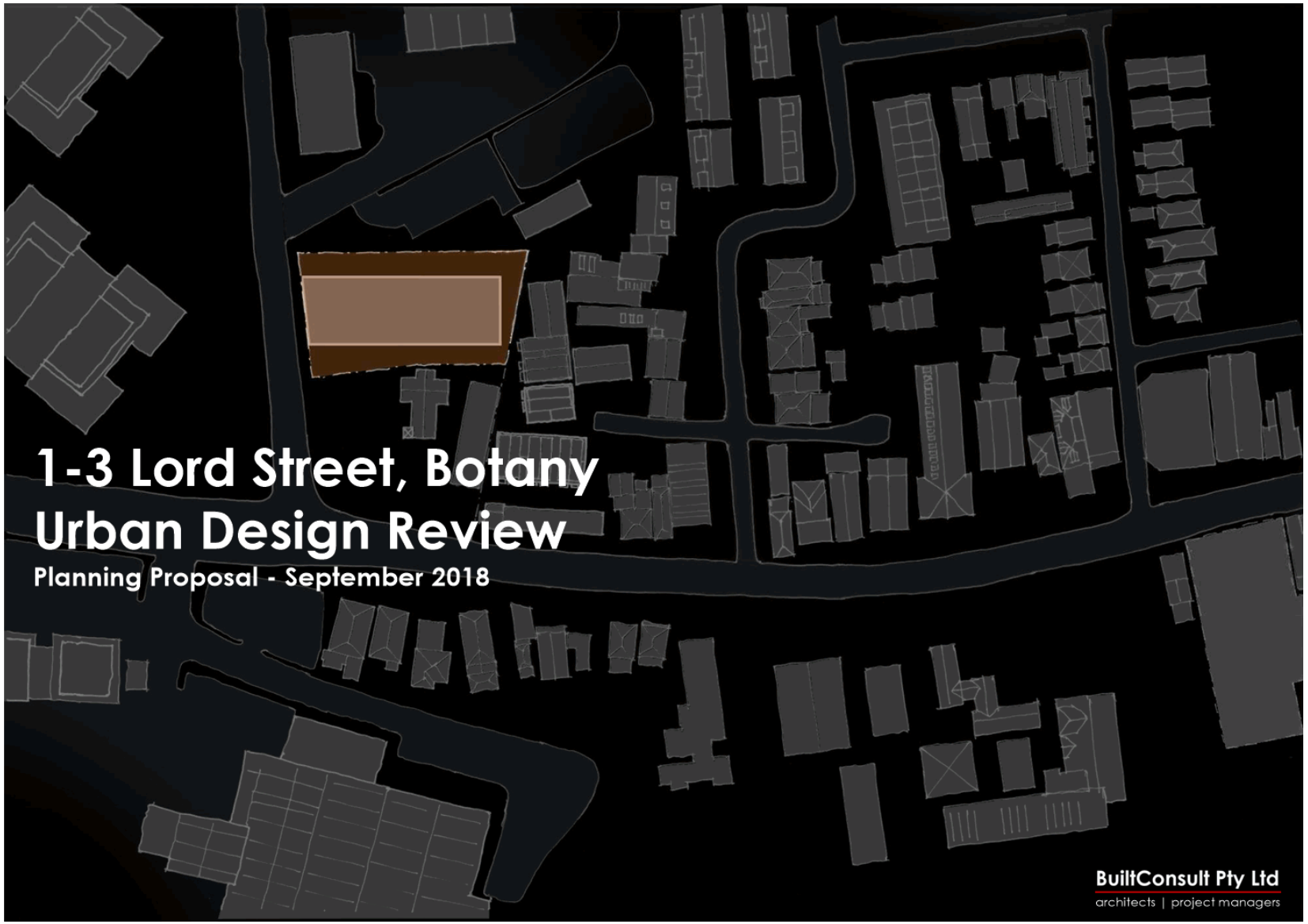


FIGURE 3
1 - 3 LORD ST, BOTANY
PEAK FLOOD DEPTH AND
FLOOD LEVEL CONTOURS
PMF EVENT
General Holmes Drive
Southern Cross Drive
Botany Rd
Lord St
Daphne Lane
Daphne St
Rose St
N
1-3 Lord St, Botany
Cadastre
Contours (0.5m Interval)
Contours (0.1m Interval)
Depth (m)
0 - 0.1
0.1 - 0.25
0.25 - 0.5
0.5 - 0.75
0.75 - 1
> 1.0
0 25 50 100 150 200
m
J:\Jobs\118076\ArcGIS\ArcMap\PreliminaryFigure03_Depth_PMF.mxd


1-3 Lord Street, Botany
Urban Design Review
Planning Proposal - September 2018
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SITE SHOWN IN RED

Aerial Photo

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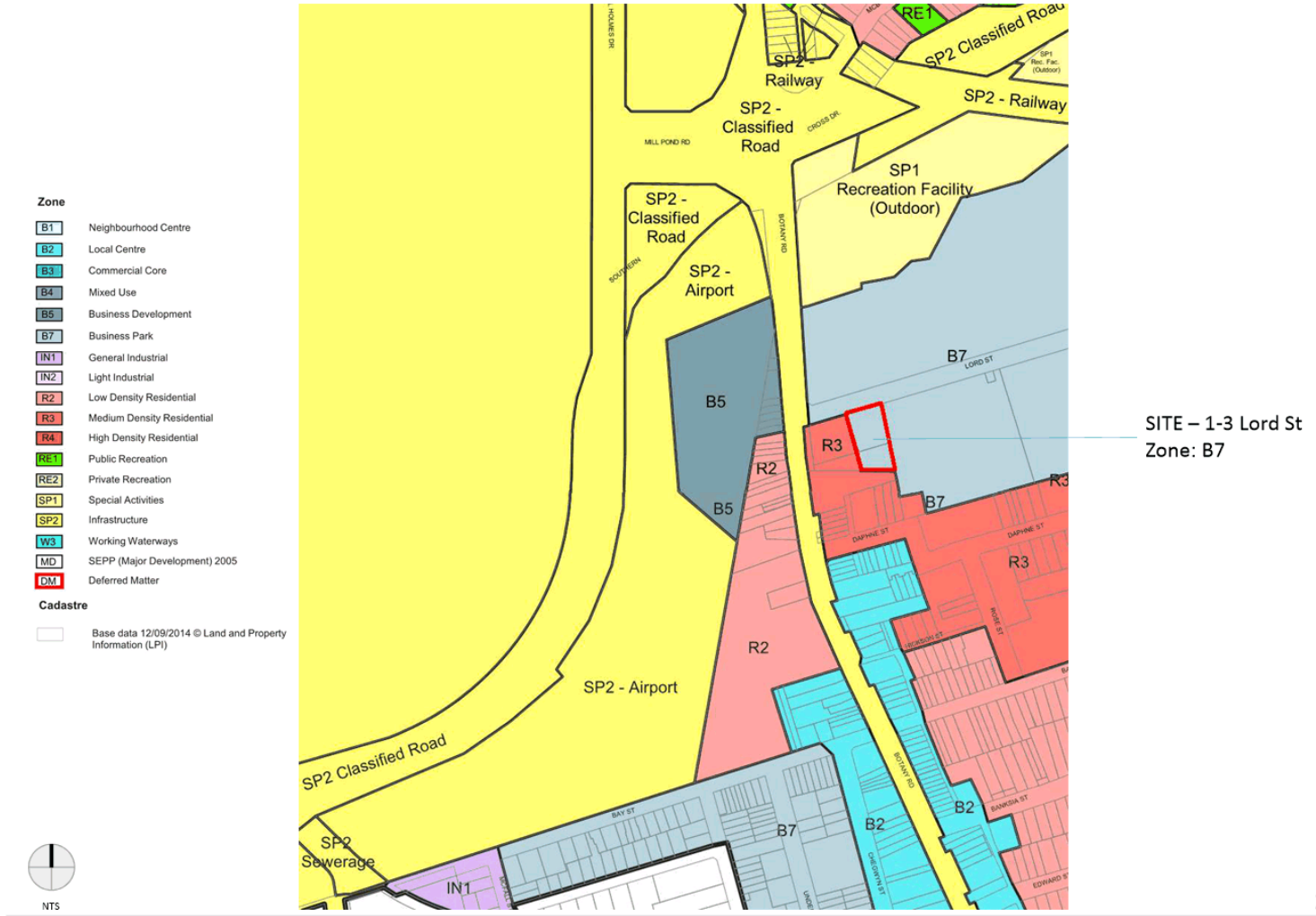
September 2018



Zoning Map

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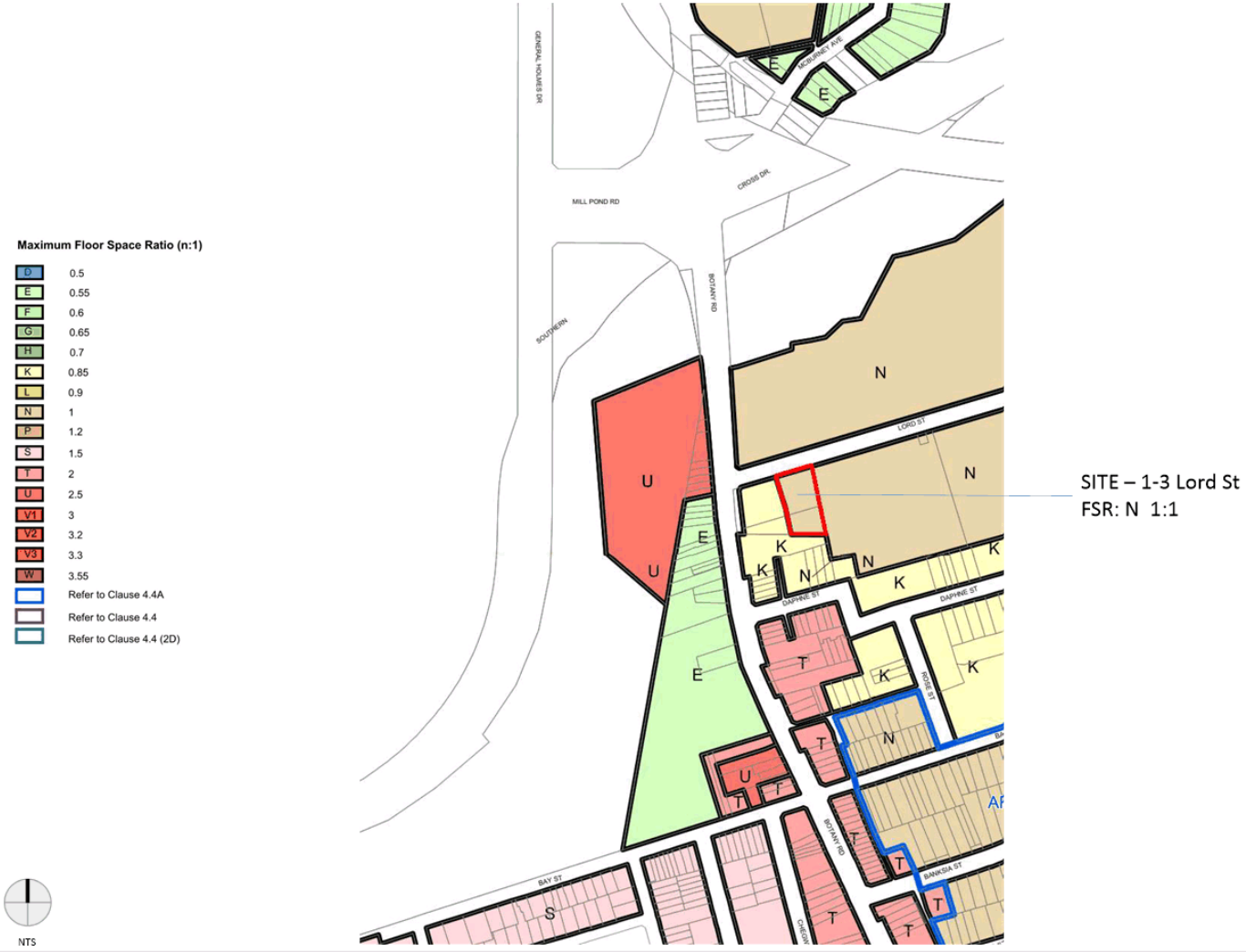
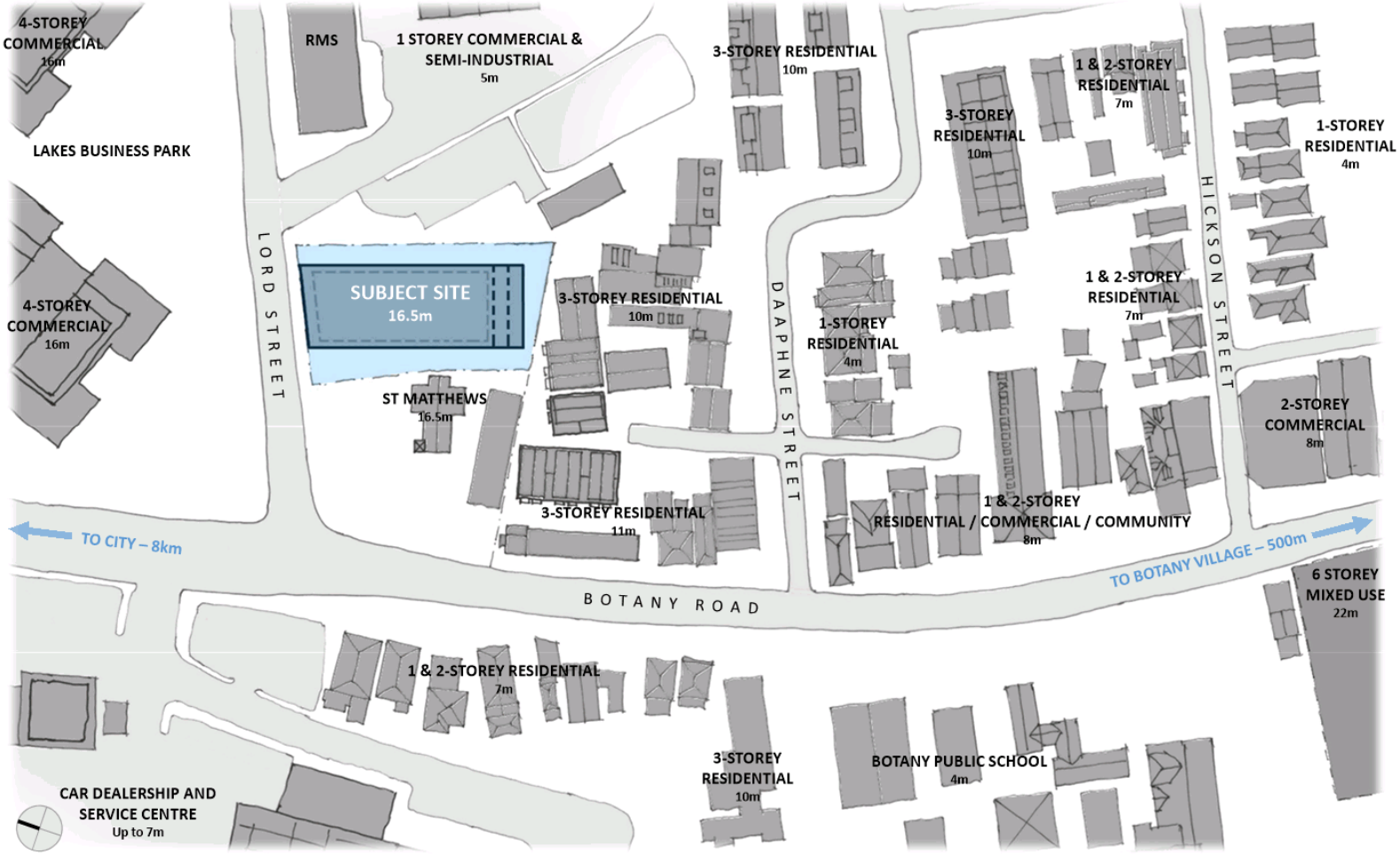

Maximum Floor Space Ratio (n:1)
D 0.5
E 0.55
F 0.6
G 0.65
H 0.7
K 0.85
L 0.9
N 1
P 1.2
S 1.5
T 2
U 2.5
V1 3
V2 3.2
V3 3.3
W 3.55
Refer to Clause 4.4A
Refer to Clause 4.4
Refer to Clause 4.4 (2D)
NTS
SITE – 1-3 Lord St
FSR: N 1:1
MILL POND RD
BOTANY RD
LORD ST
DAPHNE ST
BAY ST
BANKSIA ST
ROSE ST

FSR Map



Context Plan

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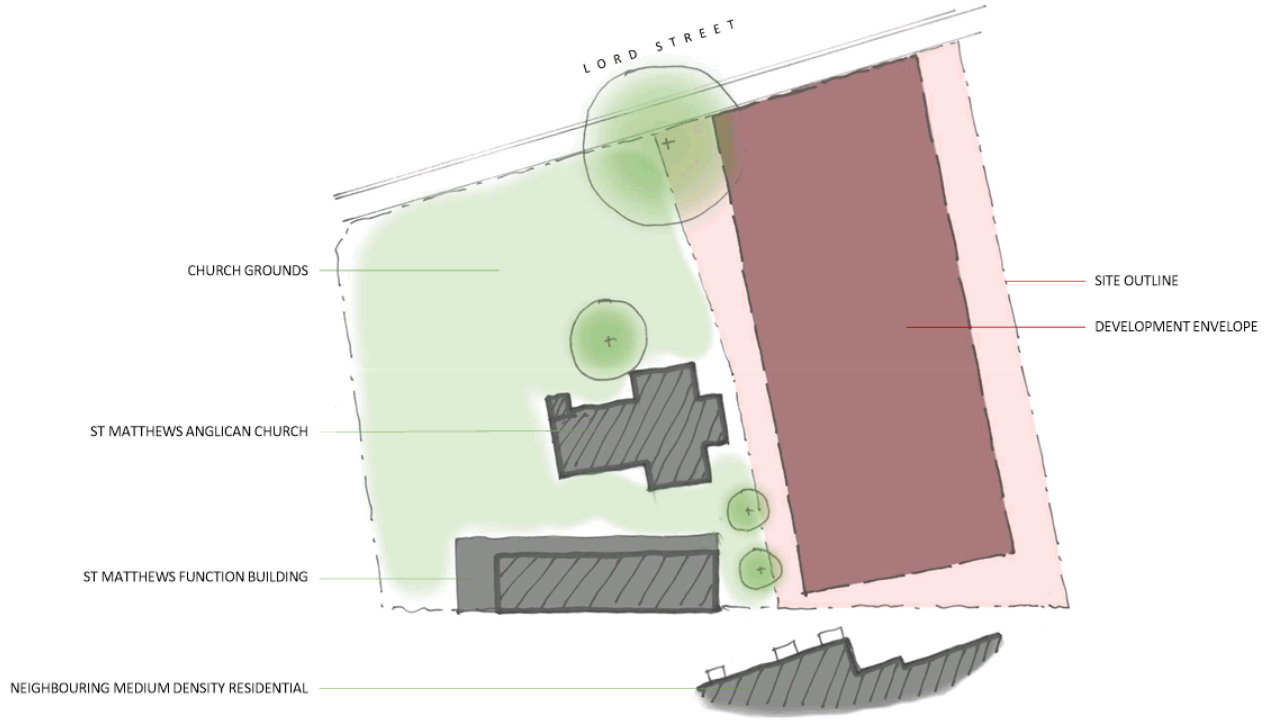

Site Plan

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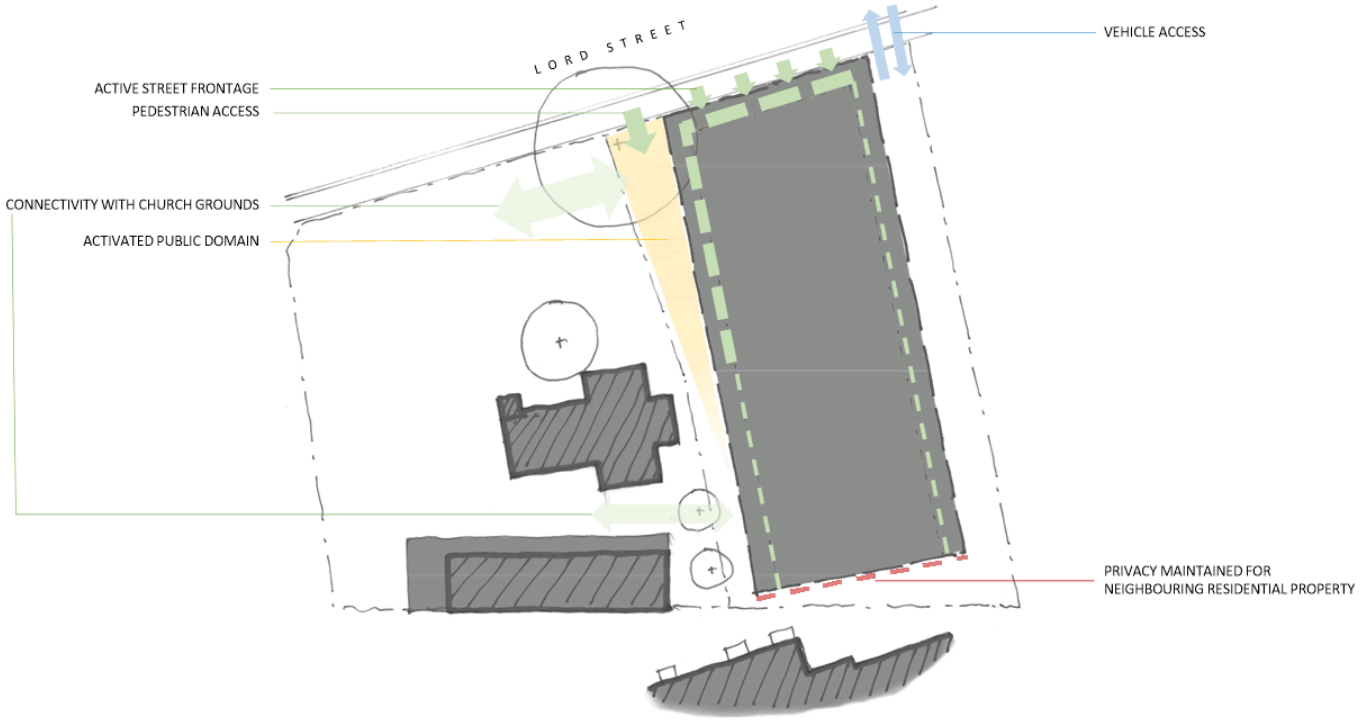

Access and Activation

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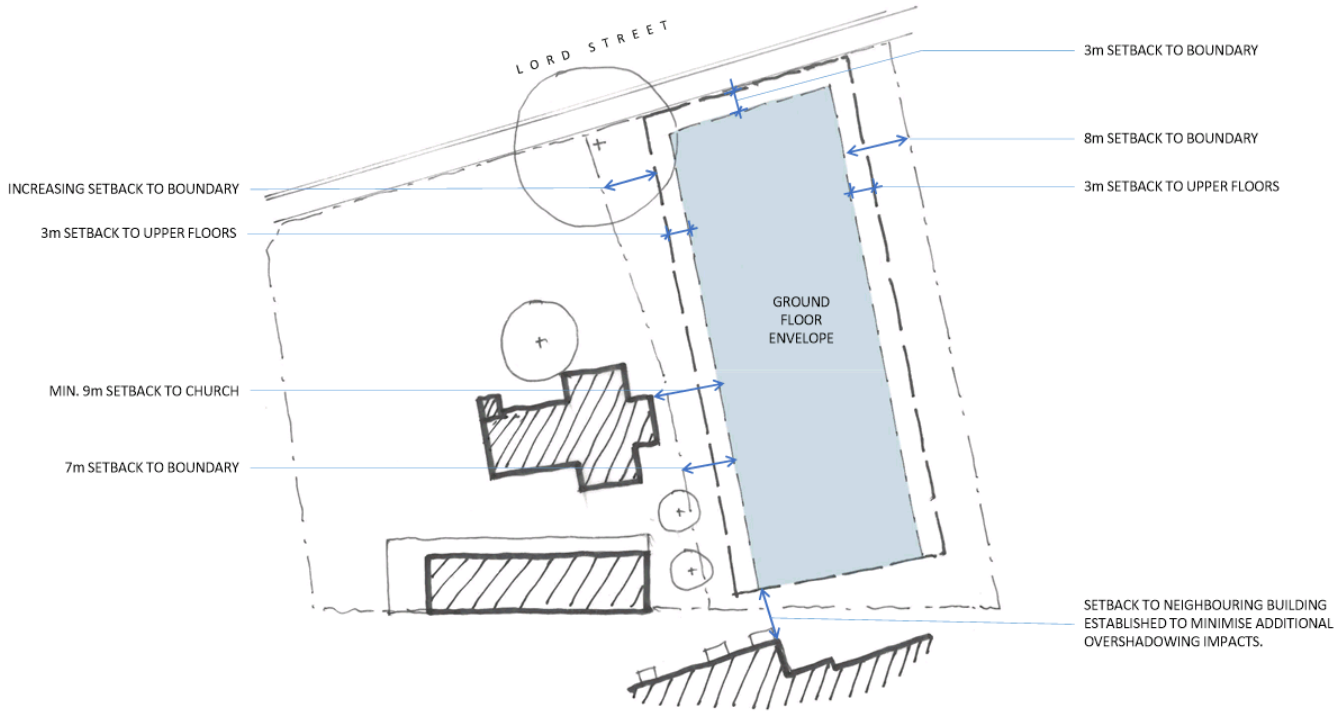

NTS

Revised Envelope Setbacks – Ground Floor

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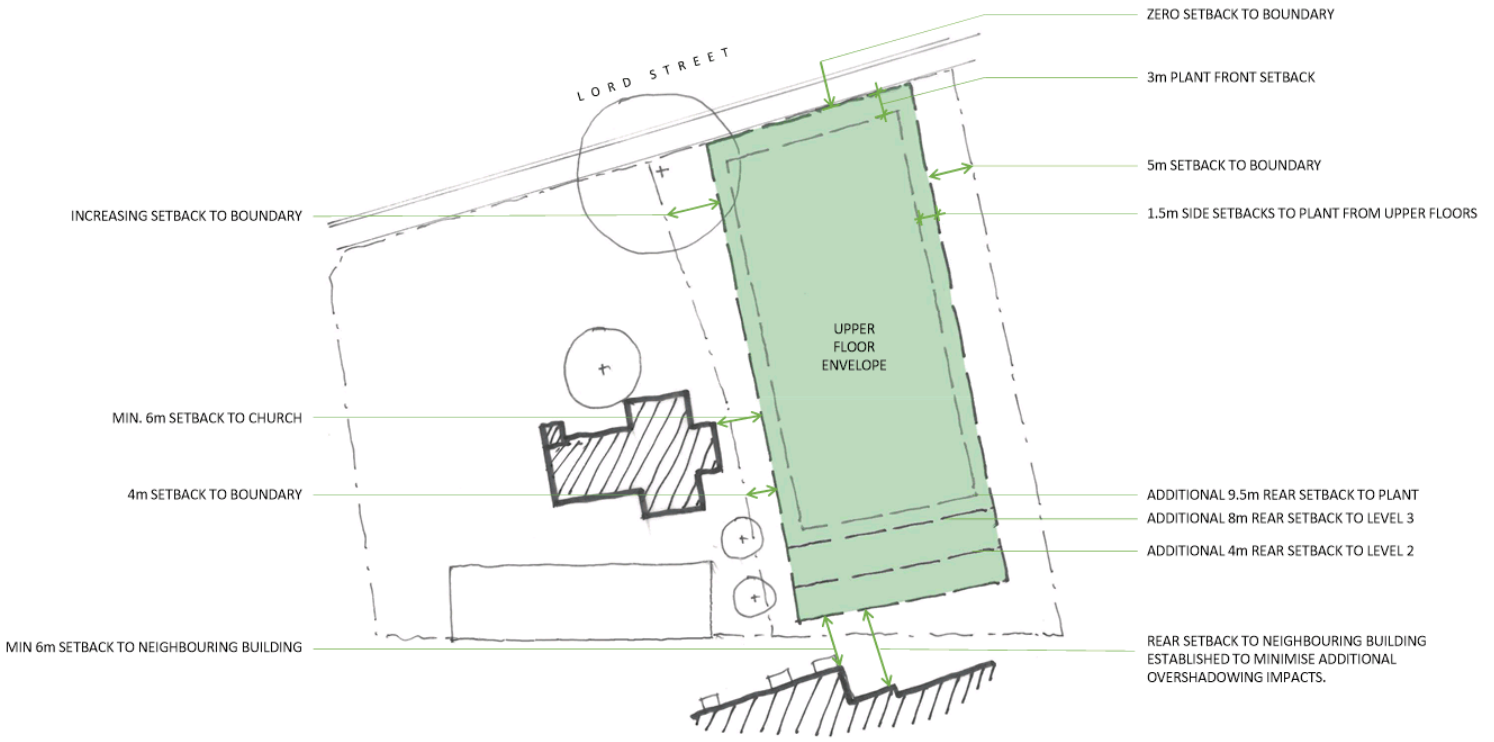
September 2018



Revised Envelope Setbacks – Upper Floors

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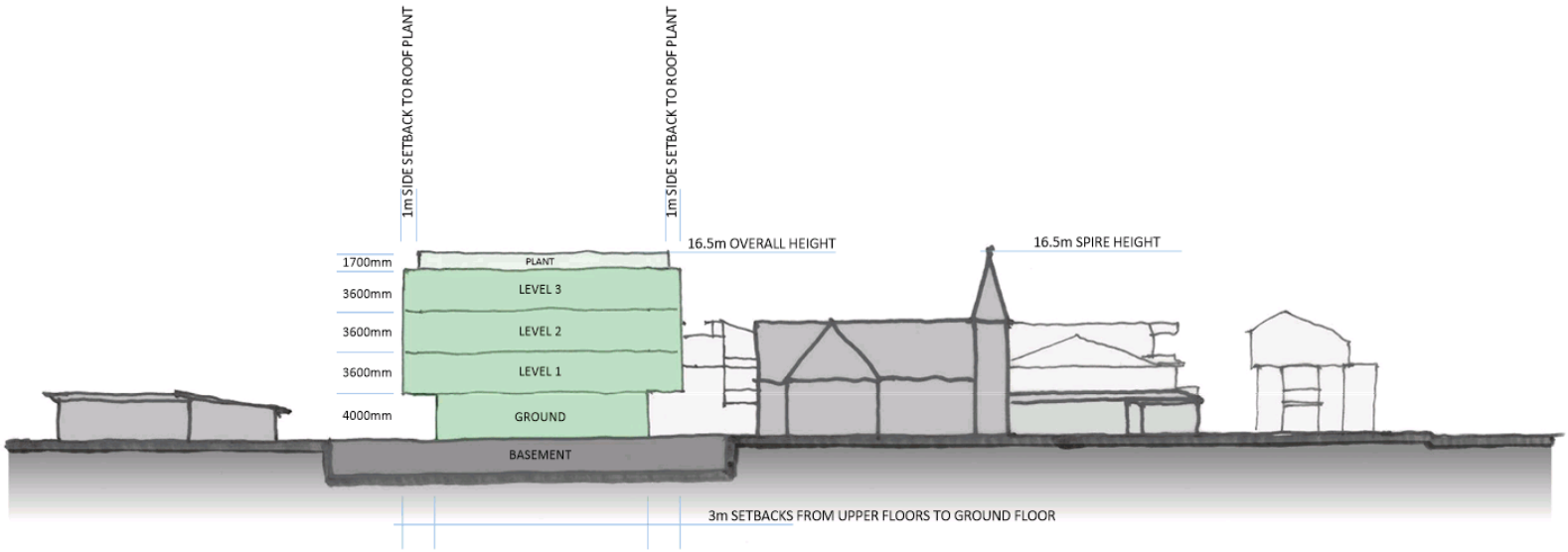
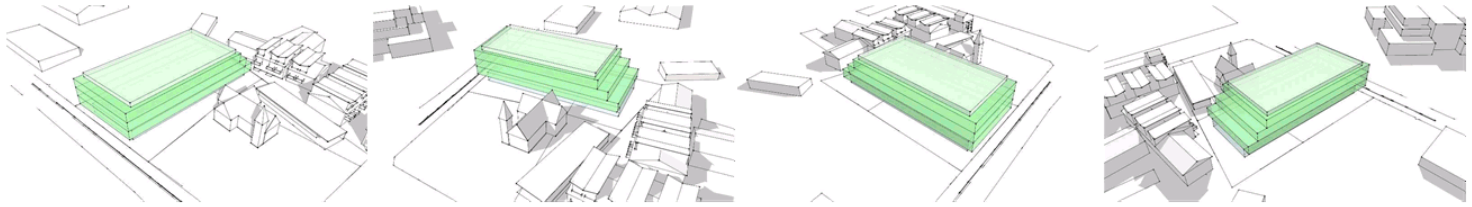
September 2018





Proposed Envelopes

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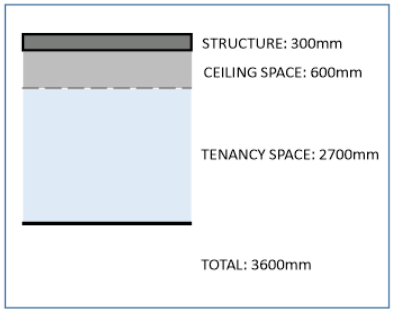
September 2018

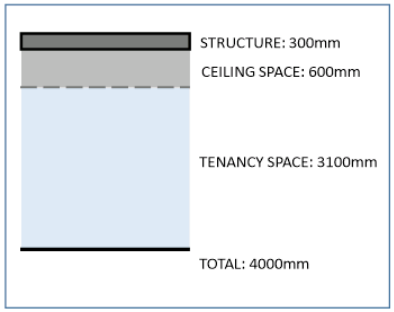
PROPOSED DEVELOPMENT AREAS

Floor	Height	Use	Area
Basement 1	(3m)	Car parking	N/A
Ground	4.0m	Commercial/Warehouse Lobby Retail/Cafe	522sqm 100sqm 99sqm
Level 1	3.6m	Commercial	1350sqm
Level 2	3.6m	Commercial	1250sqm
Level 3	3.6m	Commercial	1150sqm
Roof	1.7m	*Plant/Overrun*	
Total	16.5m		4471sqm

3.6M FLOOR-TO-FLOOR



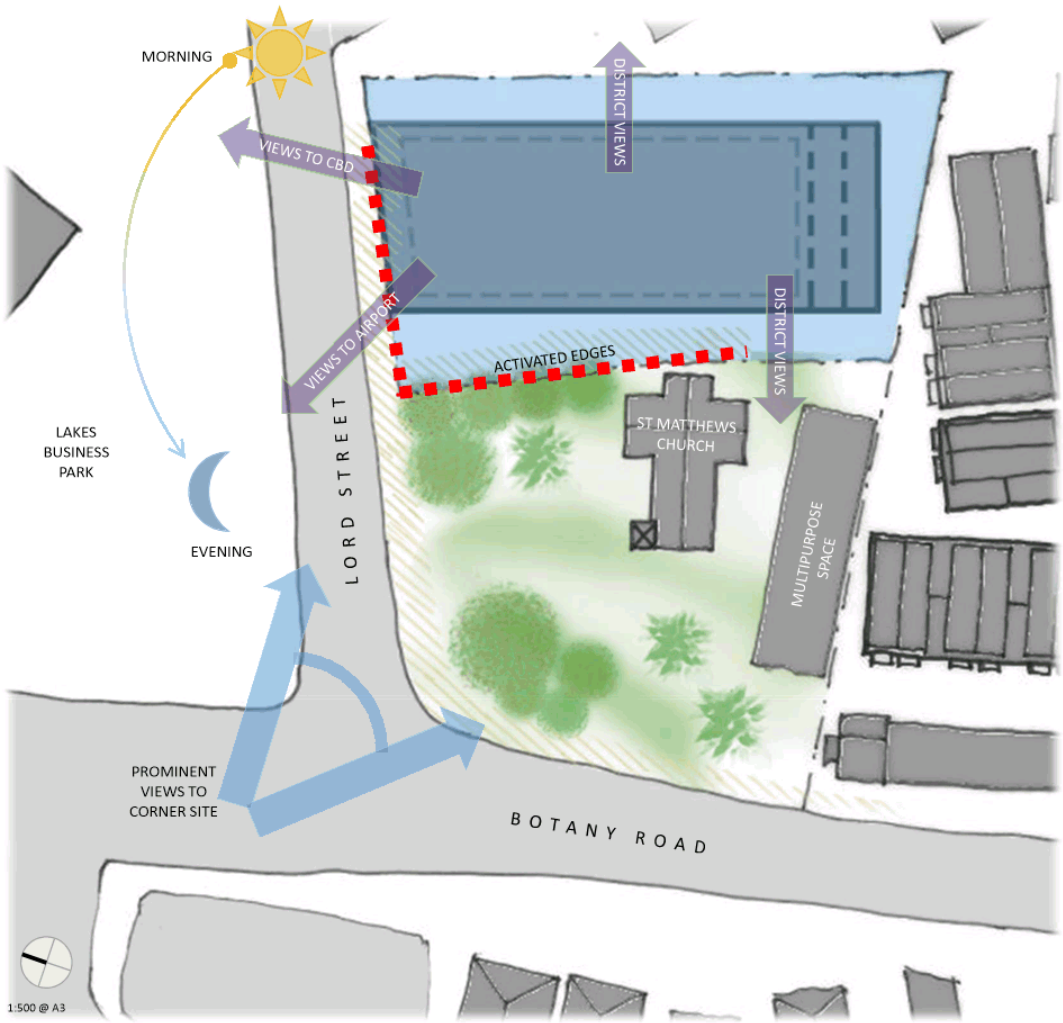
4.0M FLOOR-TO-FLOOR



KEY DEVELOPMENT CONTROLS

Site Area	**2555sqm**
Existing FSR (LEP)	1:1
Proposed FSR	1.75:1
Proposed GFA	4471sqm
- Ground Floor Commercial/Warehouse	*522sqm*
- Ground Floor Commercial Lobby	*100sqm*
- Ground Floor Café/Retail/Ancillary	*99sqm*
- Level 1 Commercial	*1350sqm*
- Level 2 Commercial	*1250sqm*
- Level 3 Commercial	*1150sqm*
Existing Height Limit (DCP)	10m
Proposed Height Limit	16.5m
Zone B7 Business Park	No change proposed.
Parking Requirement	85 Spaces
- Ground Floor Commercial 1:40	*13*
- Ground Floor Café/Retail 1:28	*4*
- Upper Floor Commercial 1:55	*68*
Proposed Basement 1 Parking	74 spaces
Proposed Ground Level Parking	18 spaces
Proposed Total Parking	92 Spaces

Note: Refer to Traffic and Parking Impact Assessment for information on parking requirements



Siting:
This site offers a unique opportunity to address the corner of Lord St and Botany Rd, and as a backdrop to St Matthews Church and the Church Grounds, this site also serves as a visual cue as an entry or gateway to the Botany village area.

Urban Context:
The corner is initially met with a view of St Matthew's Church, which was constructed in 1862 and is adorned with manicured lawn space and large palm trees. The church is now also flanked by a newly built multipurpose centre and provides a historic and important landmark for Botany, but renders the site somewhat closed off and is relatively inactive for a prominent corner site.

Activation:
The proposed development seeks to activate along its western edge, providing an outdoor space that will bring with it lighting, access, pedestrian amenity, and enhanced visibility and security. This also creates the opportunity to connect with the church grounds whilst maintaining security to the site.

Urban Design:
A building on this site will firstly provide a contemporary urban backdrop to the historical church site, and become a defacto street corner, with the church and church grounds in the foreground.
The building's mass will be somewhat linear, providing comfortable setbacks along the long edges of the site and will seek to minimise the overshadowing profile for the neighbouring residential property.

Views and Amenity:
Key views from the site sweep from west to north-east, capturing aspects across the district and the airport, and further across to the CBD.
Whilst privacy will be maintained on the southern side, district views will be prominent to the east and west sides.

Development Opportunities

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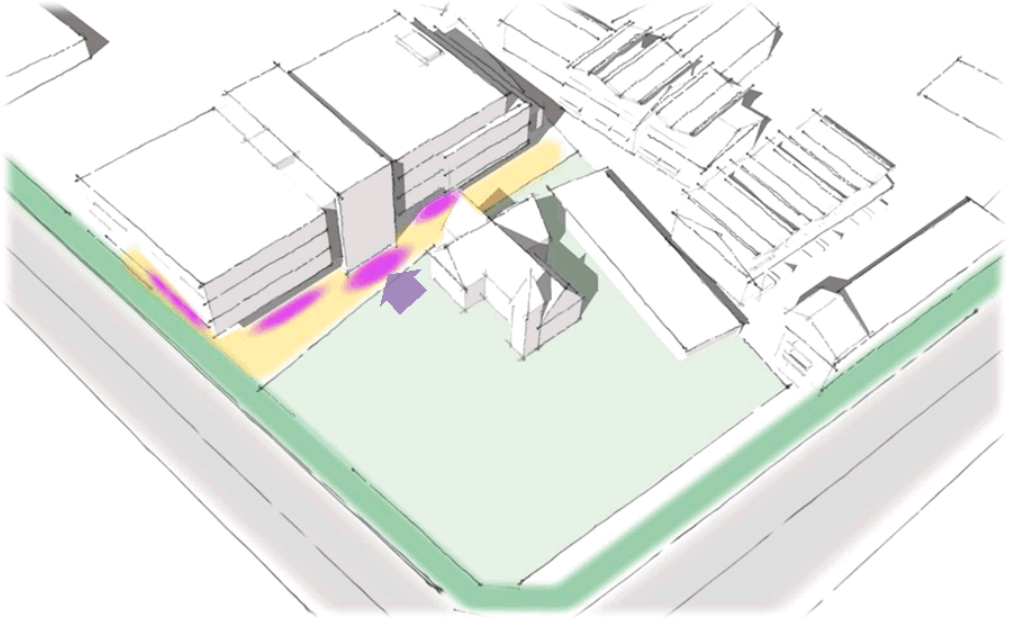
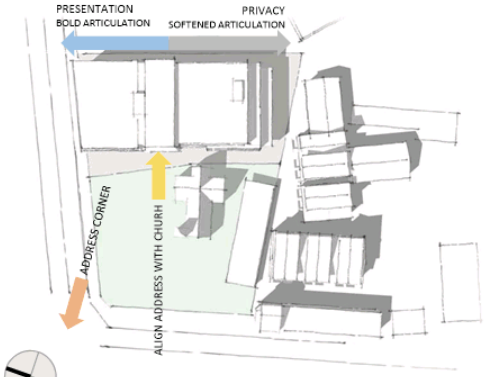
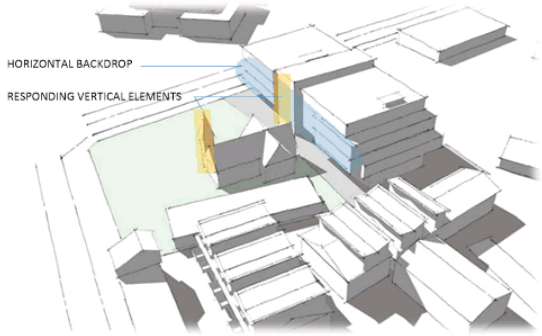
September 2018







Concentrate mass to Lord Street:
- Maintain a street address and presence along Lord Street
- Articulate built form to address adjoining functions, including the active street edge.
- Minimise visual, overshadowing, and privacy impacts on the residential development at rear.
- Introduce a commercial aesthetic to the edge of the B7 zone, addressing a convergence of uses.

Reinstate the corner of Botany Road and Lord Street:
- The enormous setbacks of the church do not adequately define the street corner.
- The corner of Lord St and Botany Road are prominent in that they identify the entry to the Botany Village area.
- Create a backdrop to the church, and a bookend to Lord Street and the Business Park precinct.

Address historical church site:
- Create new pedestrian access zone along the western boundary of the site, adjoining the church.
- Activate new pedestrian access zone to reinvigorate the corner and the Church grounds
- Provide community amenity (such as commuter bicycle parking) with direct access from the newly created pedestrian access zone.
- Provide commercial entry and address off new pedestrian access zone.

Green space – private and public open space
Pedestrian thoroughfare – existing
Pedestrian thoroughfare – proposed laneway
Proposed building address and entry points

Design Principles

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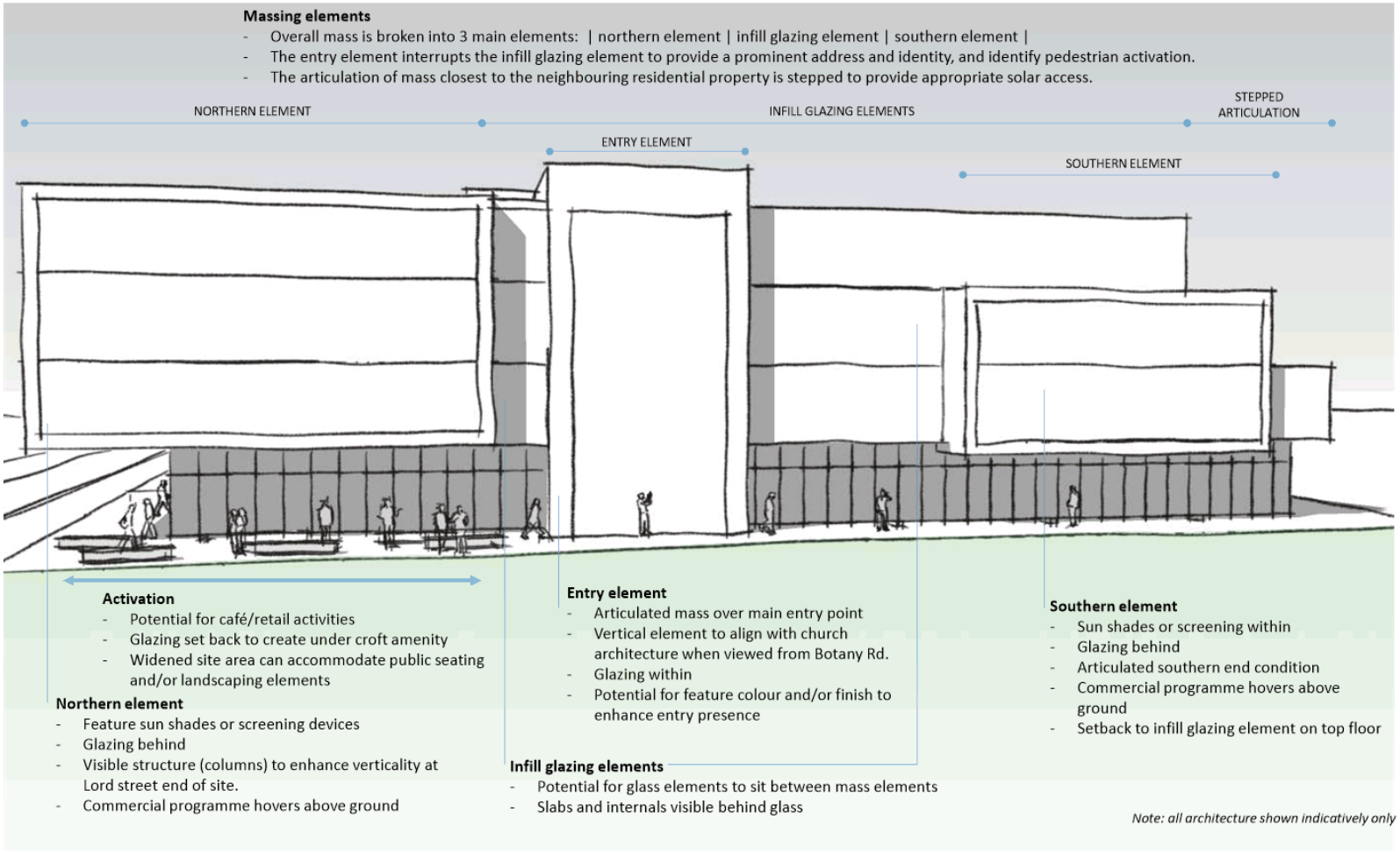

Indicative Western Façade Composition

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Indicative View from Botany Road

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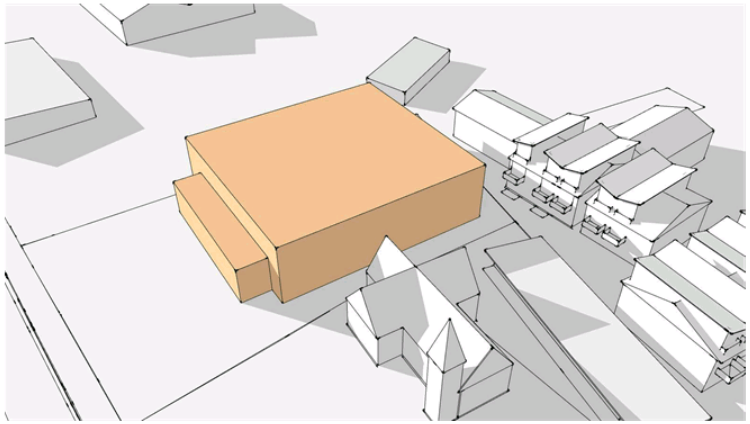
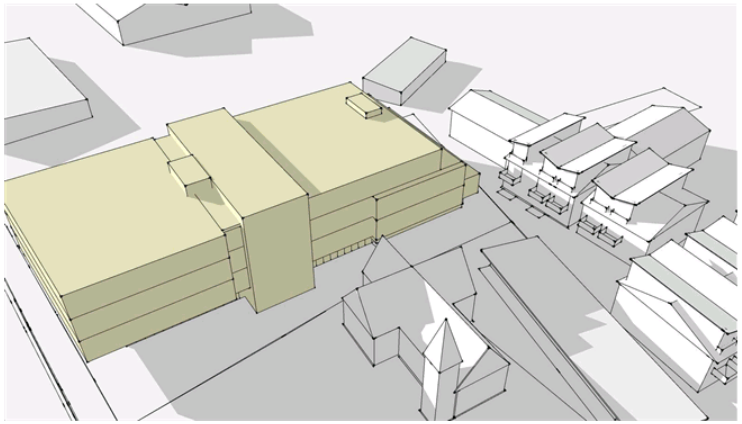
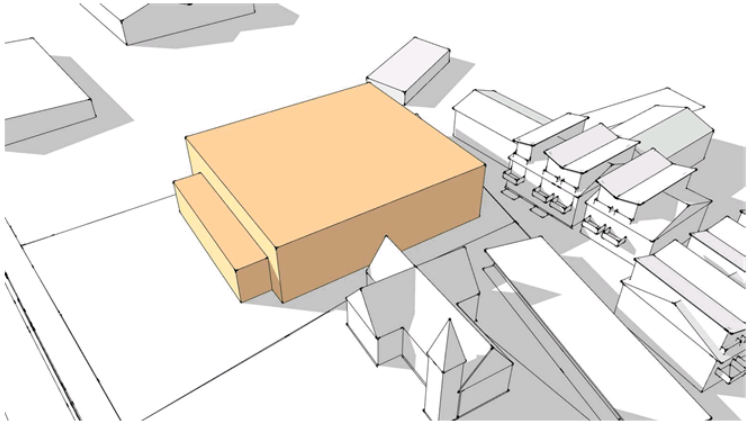
September 2018



EXISTING 0900



PROPOSED 0900



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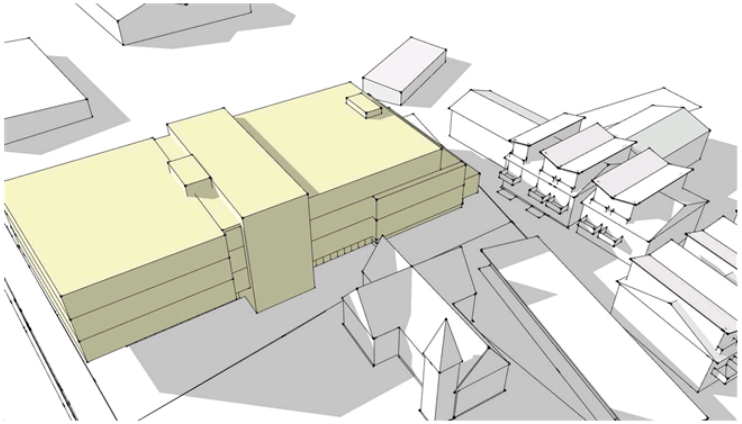

PROPOSED 1000

Note: Building design, architecture, and articulation shown indicatively only.

Shadow Analysis – June 21, 0900-1000

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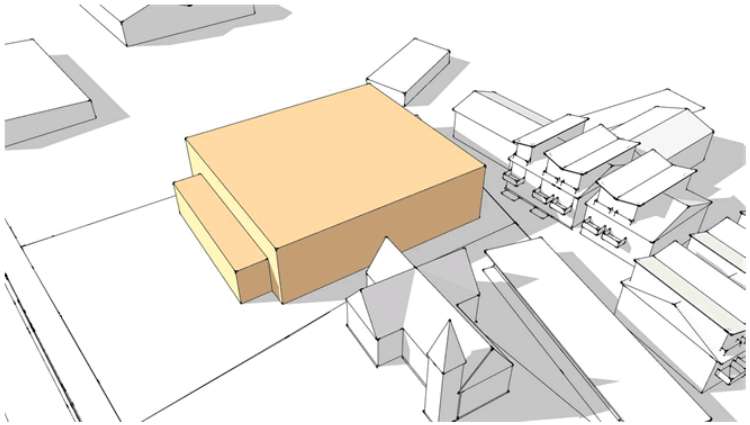
1-3 Lord St Botany – Urban Design Review
September 2018



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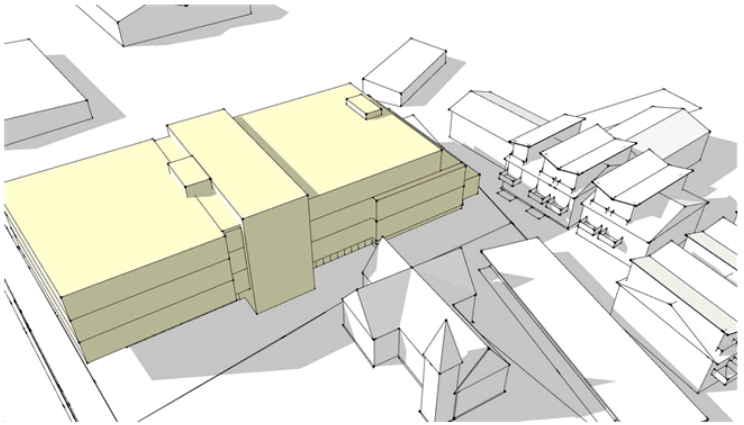

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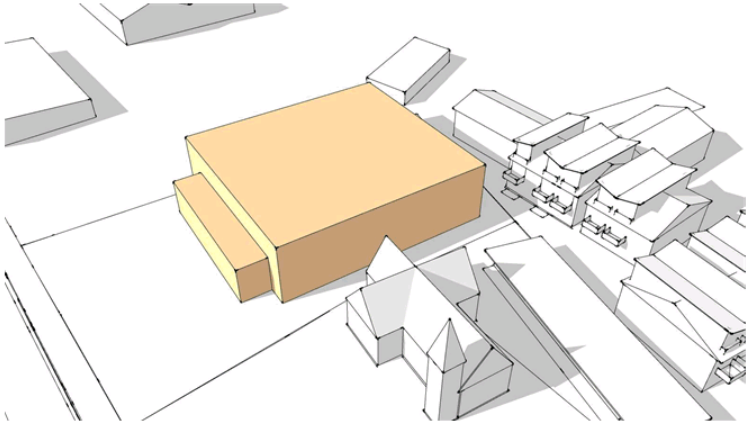

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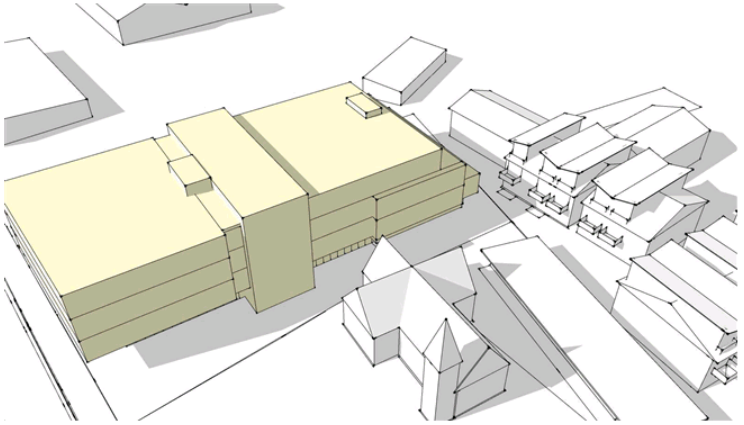

PROPOSED 1200

Note: Proposed building design, architecture, and articulation shown indicatively only.

Shadow Analysis – June 21, 1100-1200

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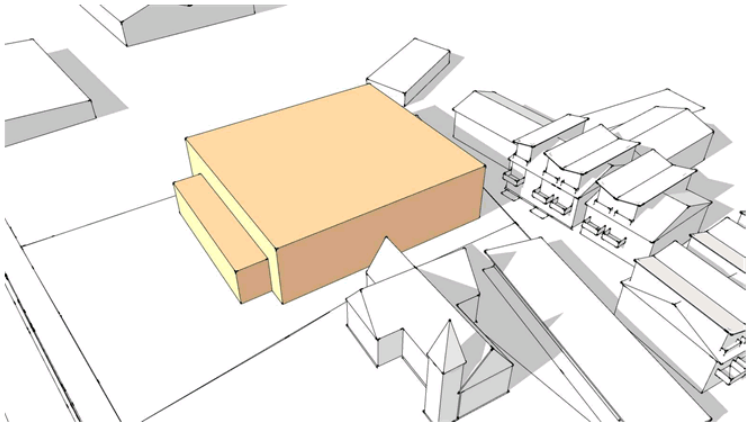
September 2018



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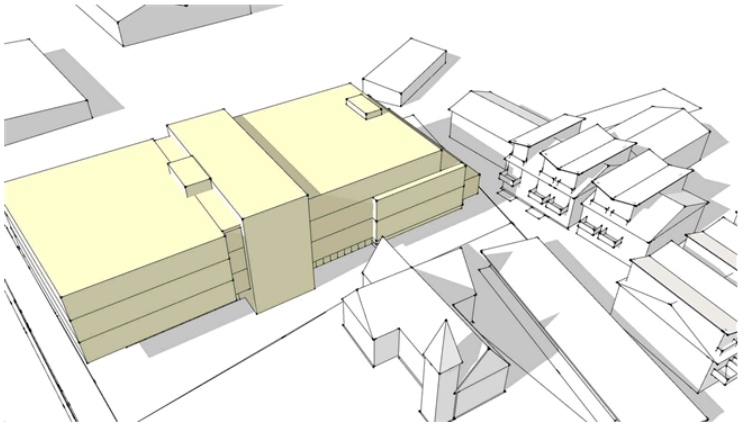
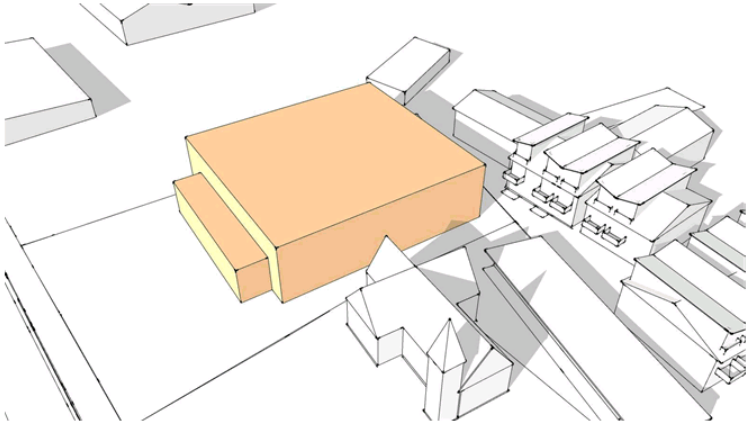


PROPOSED 1300



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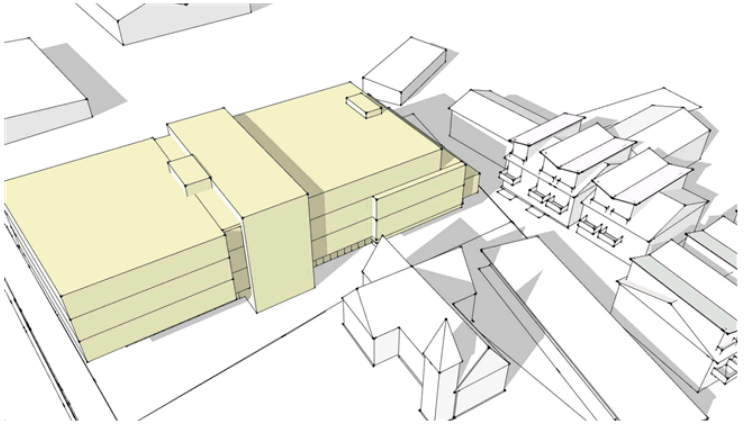

PROPOSED 1400

Note: Proposed building design, architecture, and articulation shown indicatively only.

Shadow Analysis – June 21, 1300-1400

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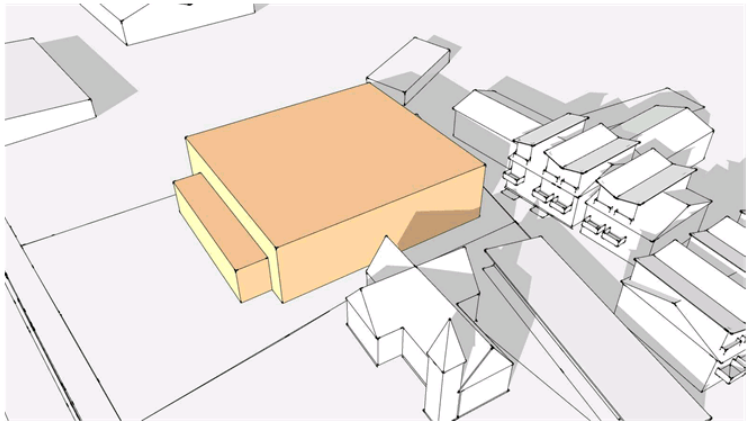
September 2018



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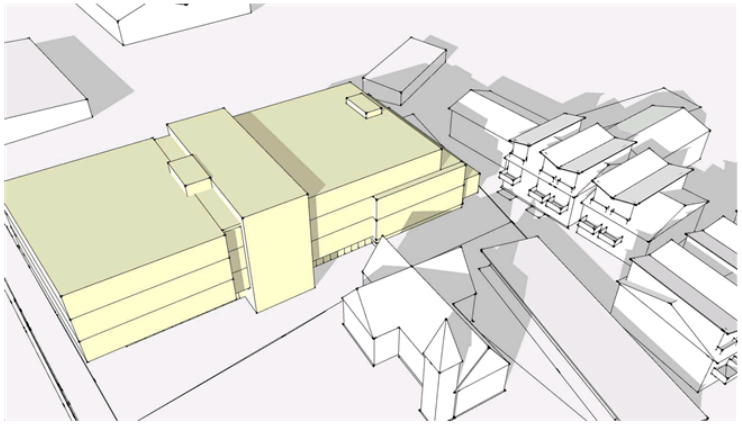

PROPOSED 1500

Note: Proposed building design, architecture, and articulation shown indicatively only.

Shadow Analysis – June 21, 1500

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1-3 Lord St Botany – Urban Design Review
September 2018

1 – 3 Lord Street, Botany
Envelope and Shadow Commentary

August 2018

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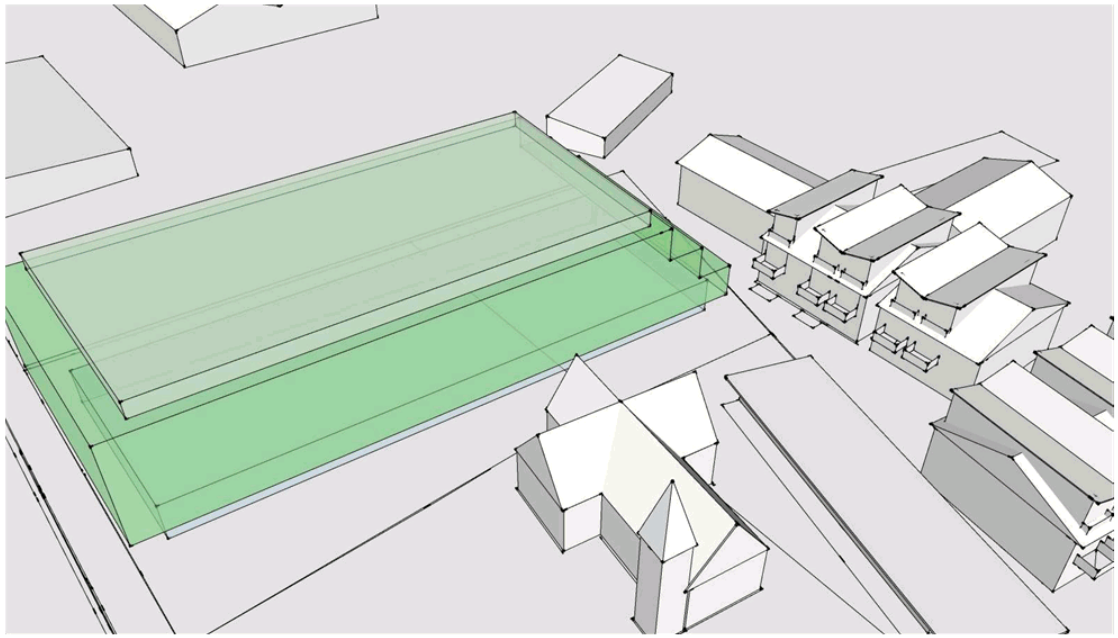

Comments:

- Revised envelope to address overshadowing of neighbouring residential properties.
- Stepped envelope adopted.
- Envelope depicts the area in which a 1.75:1 FSR will be achieved.
- DCP required and architectural fa ade and building articulations are not demonstrable.
- Fenestrations and external features may protrude in some areas.

Revised Envelope

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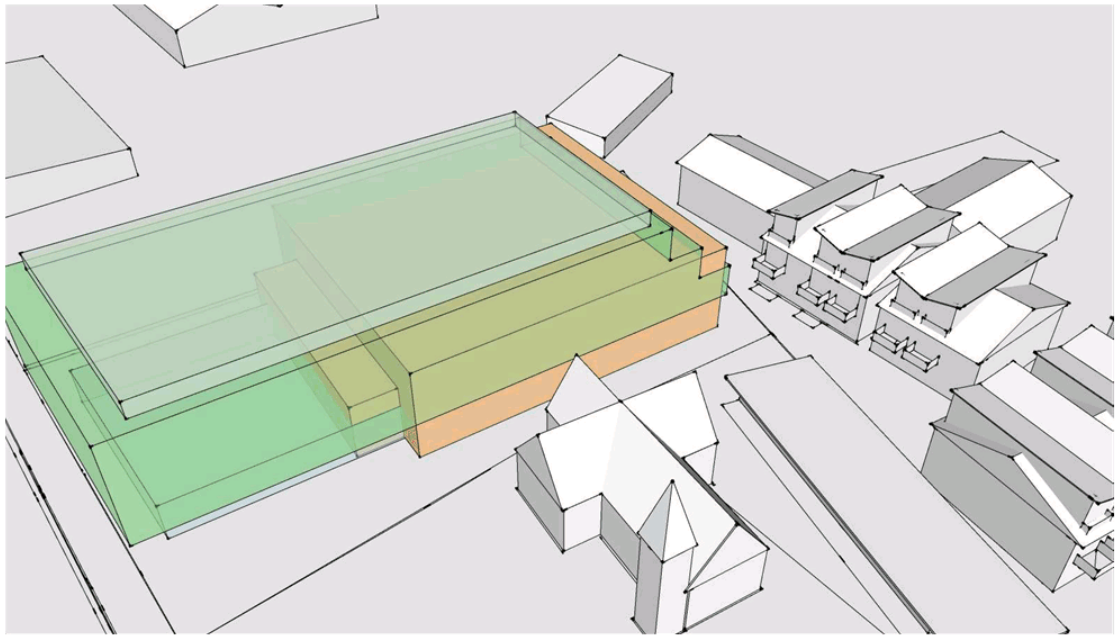
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Comments:

- Existing building
- Proposed Envelope (upper floors)
- Proposed Envelope (ground floor)
- Proposed Envelope (plant/rooftop)

Revised Envelope and Existing Building Envelope

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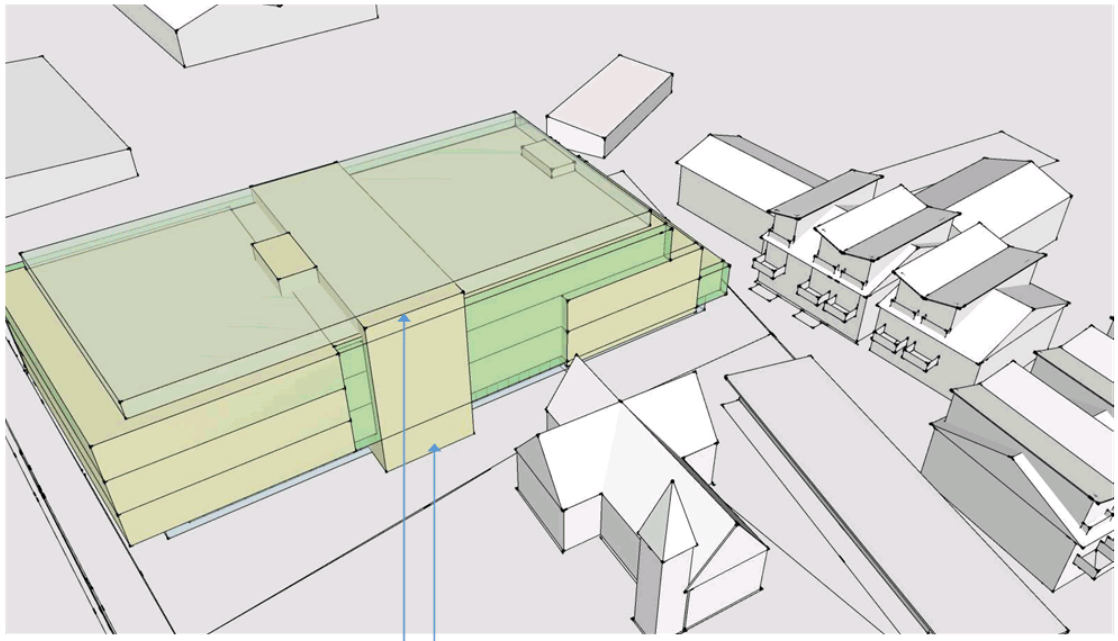
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Note: Building design, architecture, and articulation shown indicatively only.

Note: Some elements such as entries or colonnade spaces (non-GFA spaces) may protrude through the envelope to provide amenity through building articulation. Whilst shown here as solid masses, these elements may be transparent, permeable, and/or trafficable.

Comments:

- Indicative building
- Proposed Envelope (upper floors)
- Proposed Envelope (ground floor)
- Proposed Envelope (plant/rooftop)
- The indicative building mass shown is capable of achieving an FSR of 1.75:1.

Revised Envelope and Revised Indicative Building Envelope

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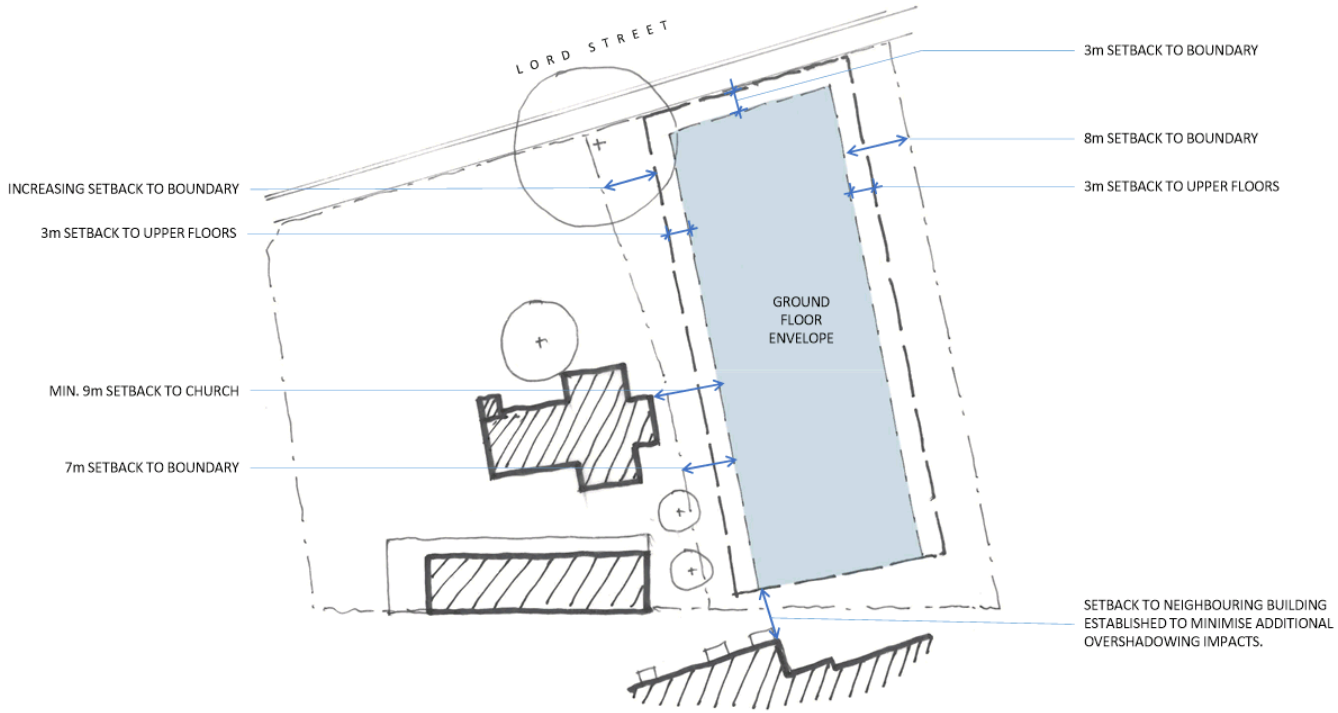
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



NTS

Revised Envelope Setbacks – Ground Floor

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1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018

Revised Envelope Setbacks – Upper Floors

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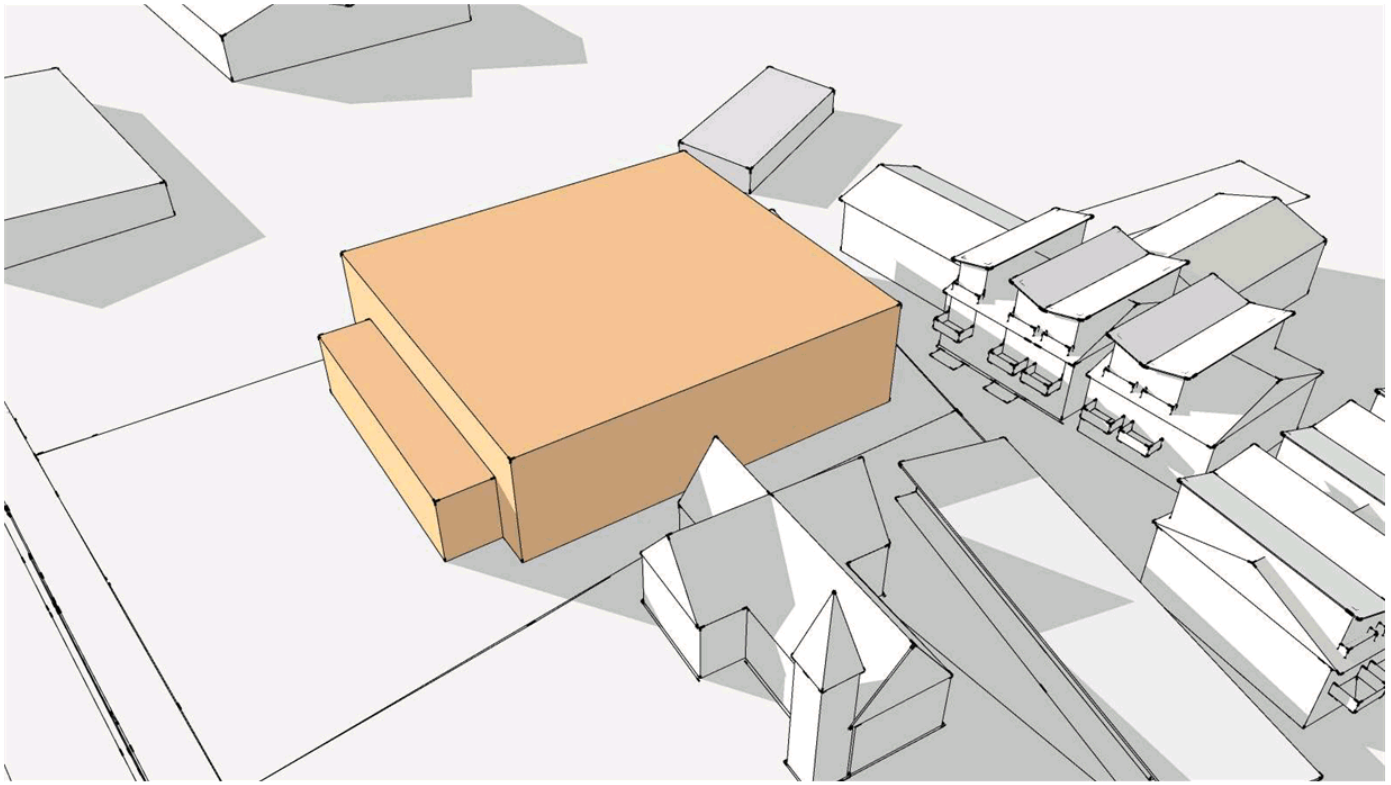
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Existing Building Envelope – June 21, 0900

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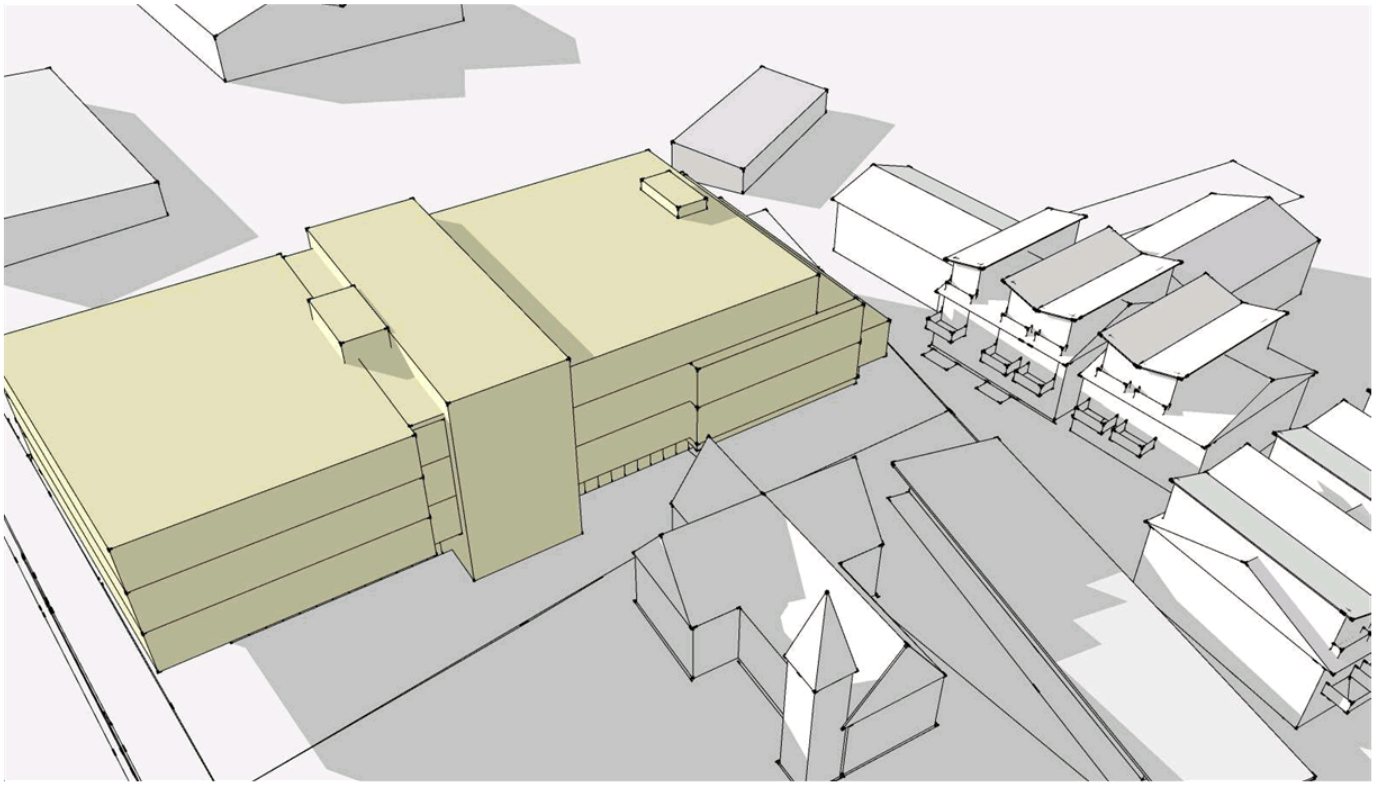
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Note: Building design, architecture, and articulation shown indicatively only.

Revised Indicative Building Envelope – June 21, 0900

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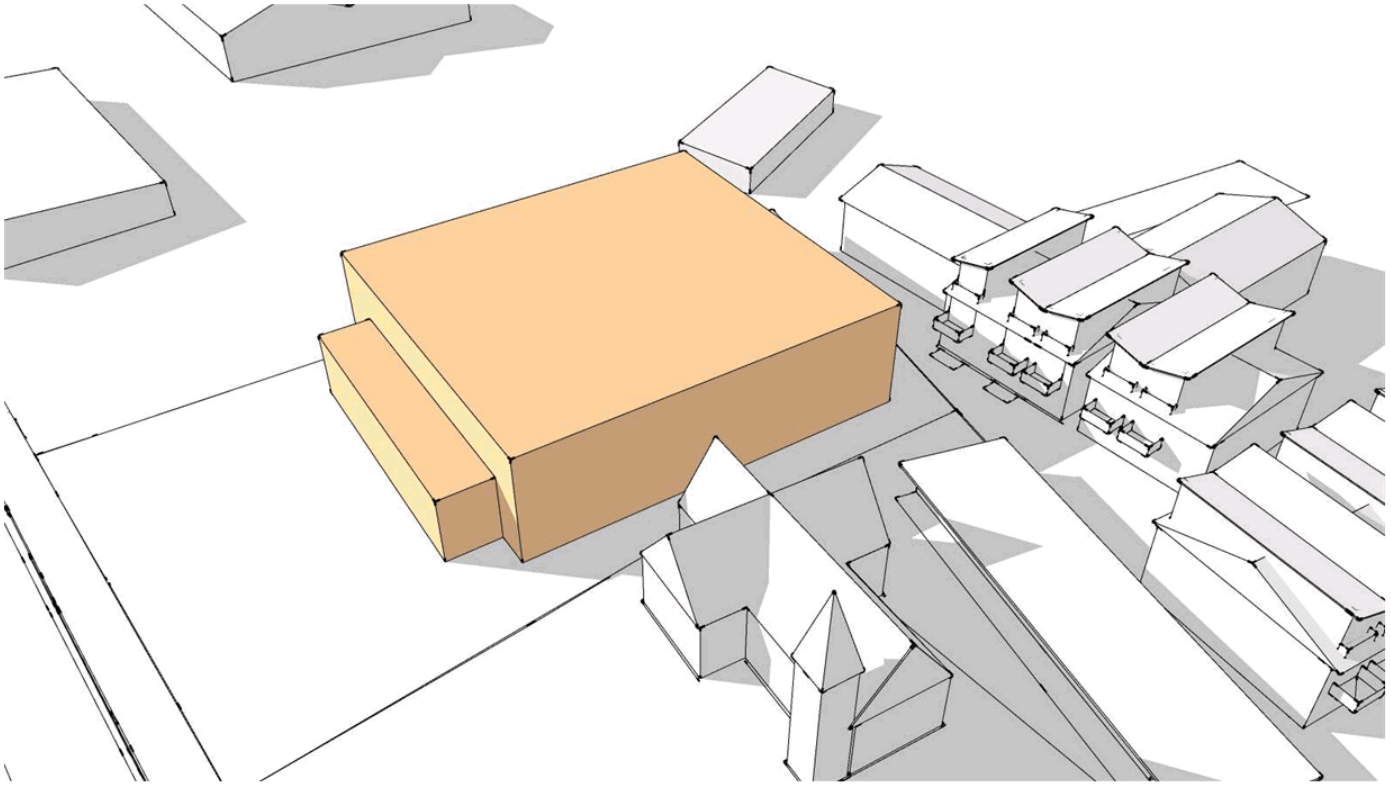
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Existing Building Envelope – June 21, 1000

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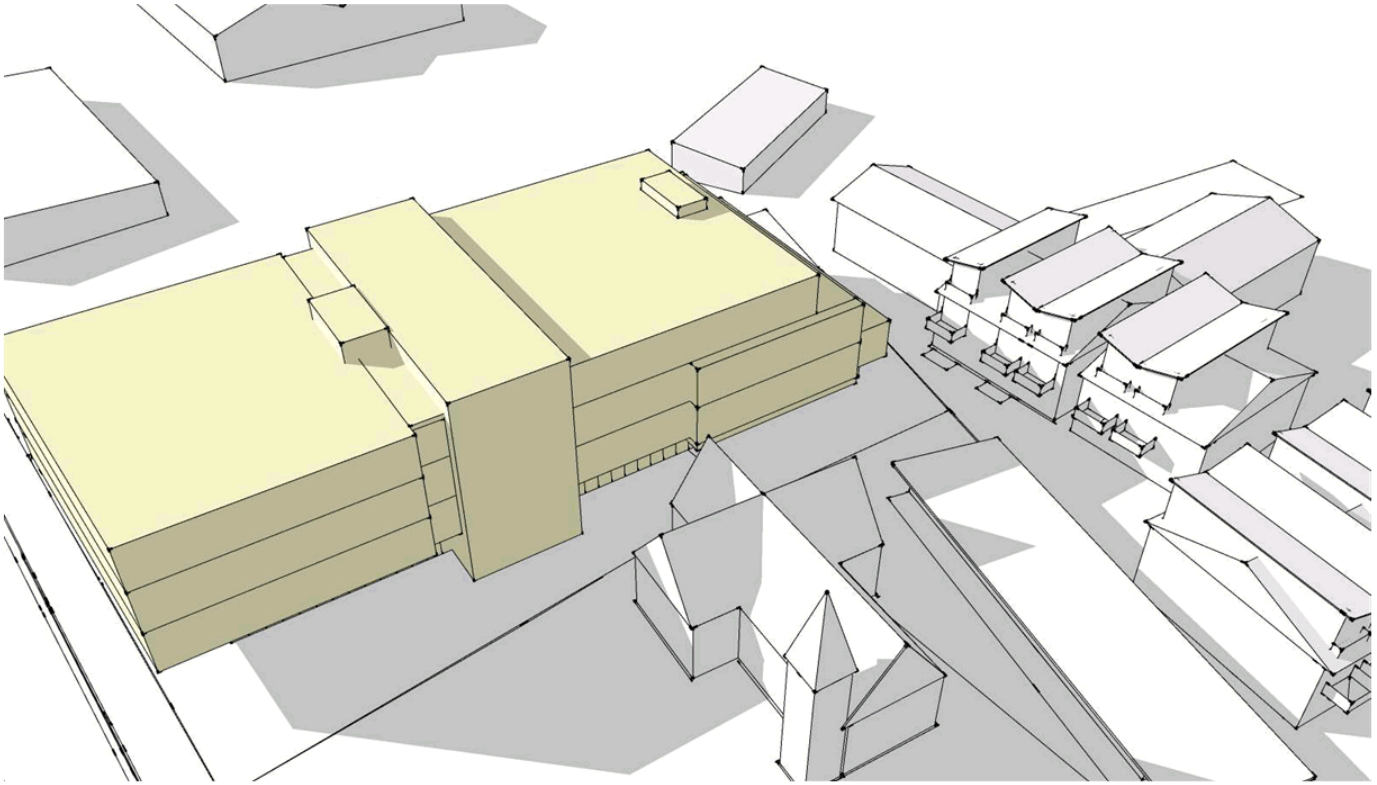
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Note: Building design, architecture, and articulation shown indicatively only.

Revised Indicative Building Envelope – June 21, 1000

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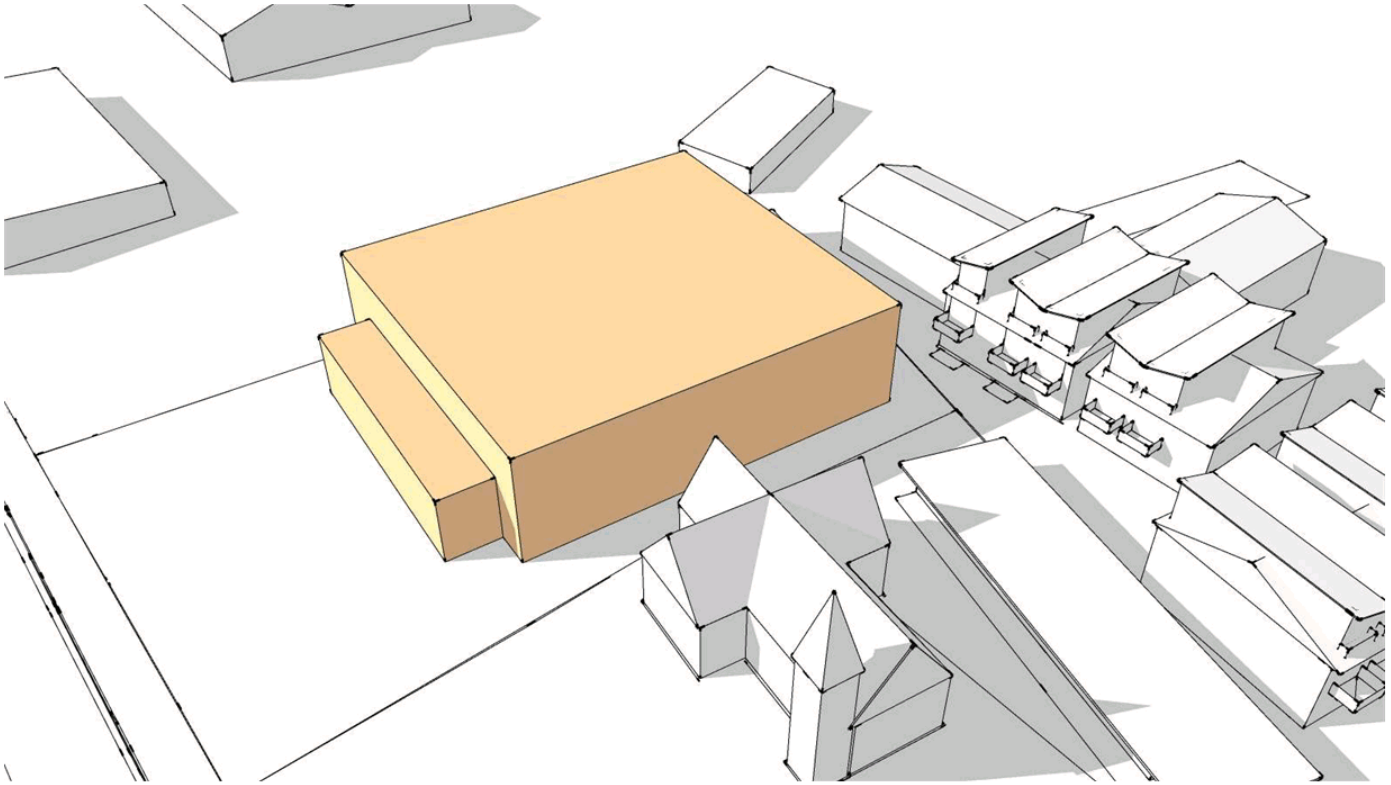
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Existing Building Envelope – June 21, 1100

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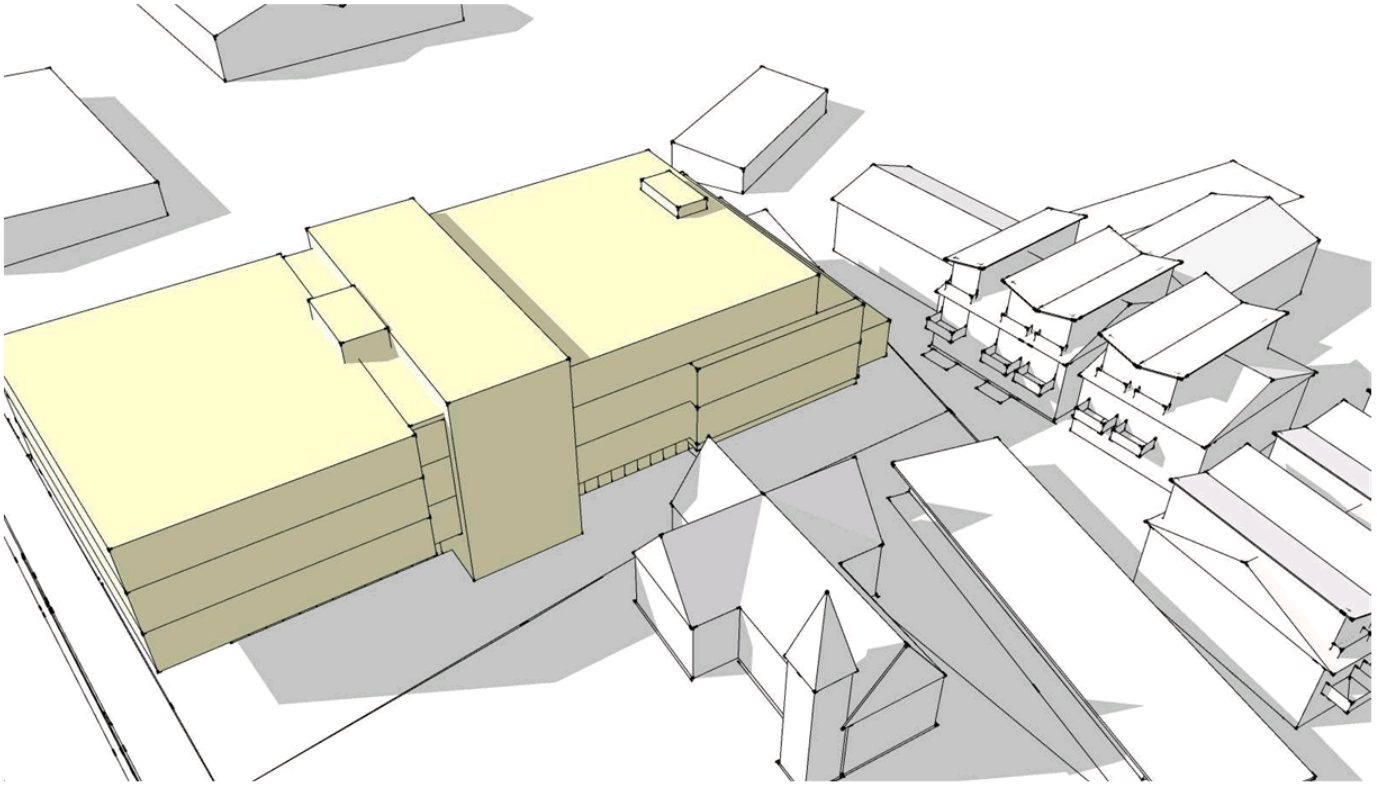
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Note: Building design, architecture, and articulation shown indicatively only.

Revised Indicative Building Envelope – June 21, 1100

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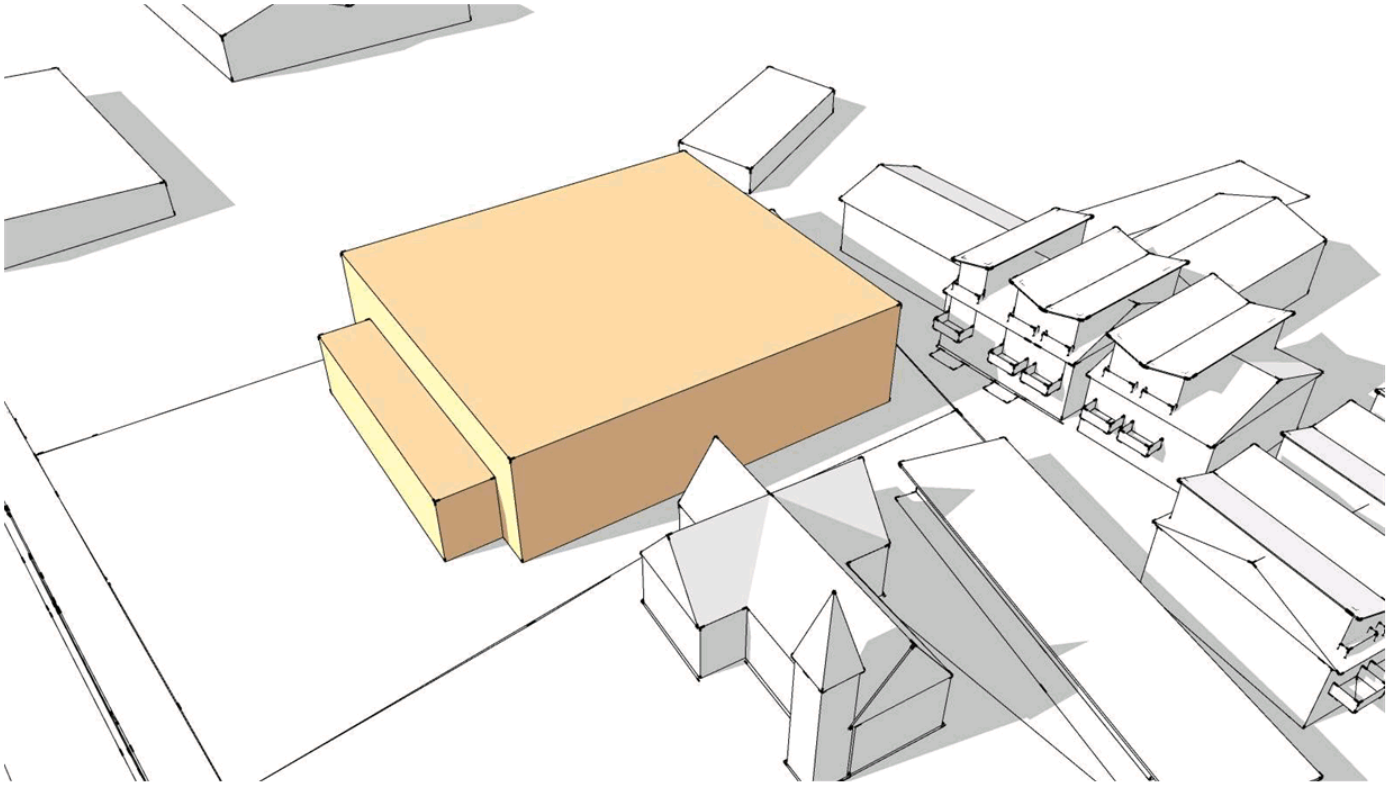

Existing Building Envelope – June 21, 1200

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1-3 Lord St Botany – Envelope and Shadow Commentary
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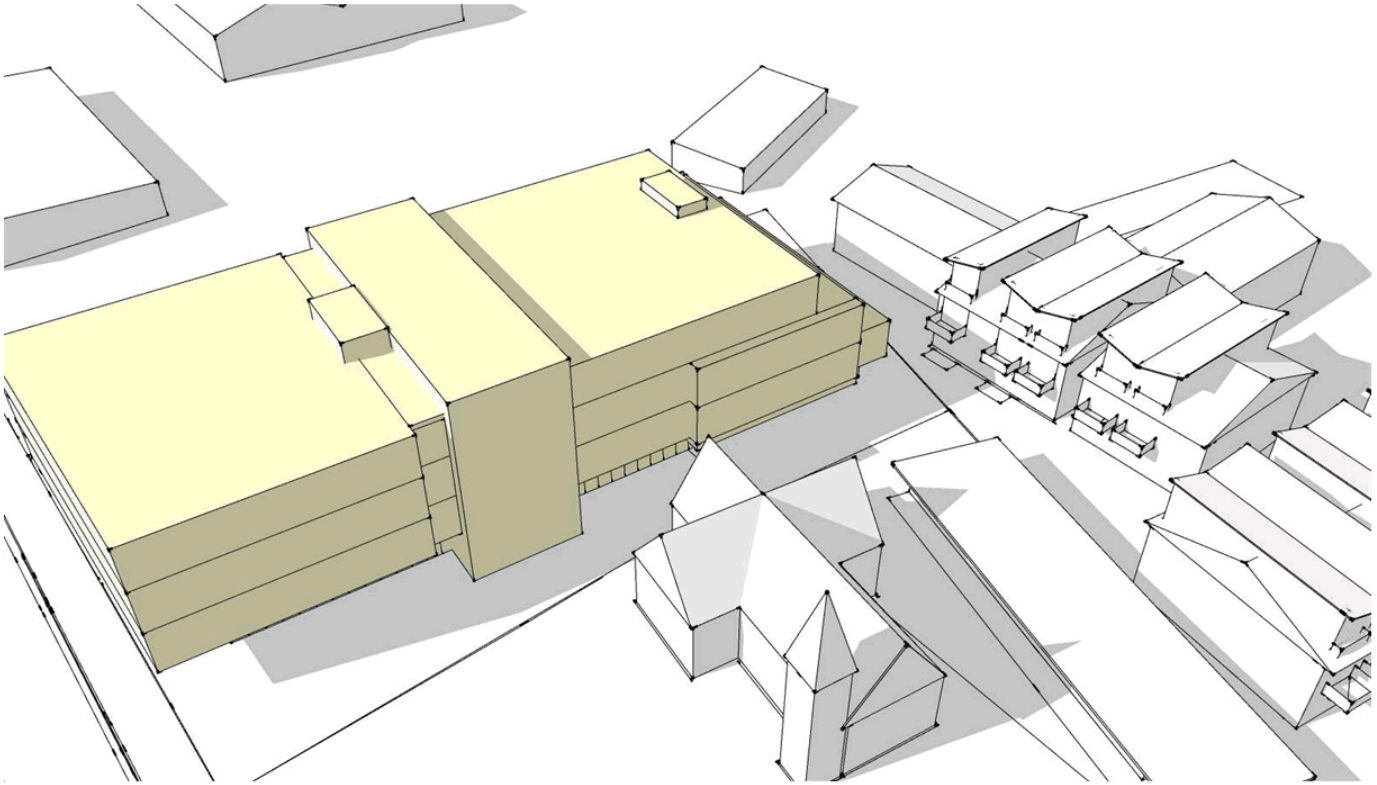

Note: Building design, architecture, and articulation shown indicatively only.

Revised Indicative Building Envelope – June 21, 1200

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1-3 Lord St Botany – Envelope and Shadow Commentary
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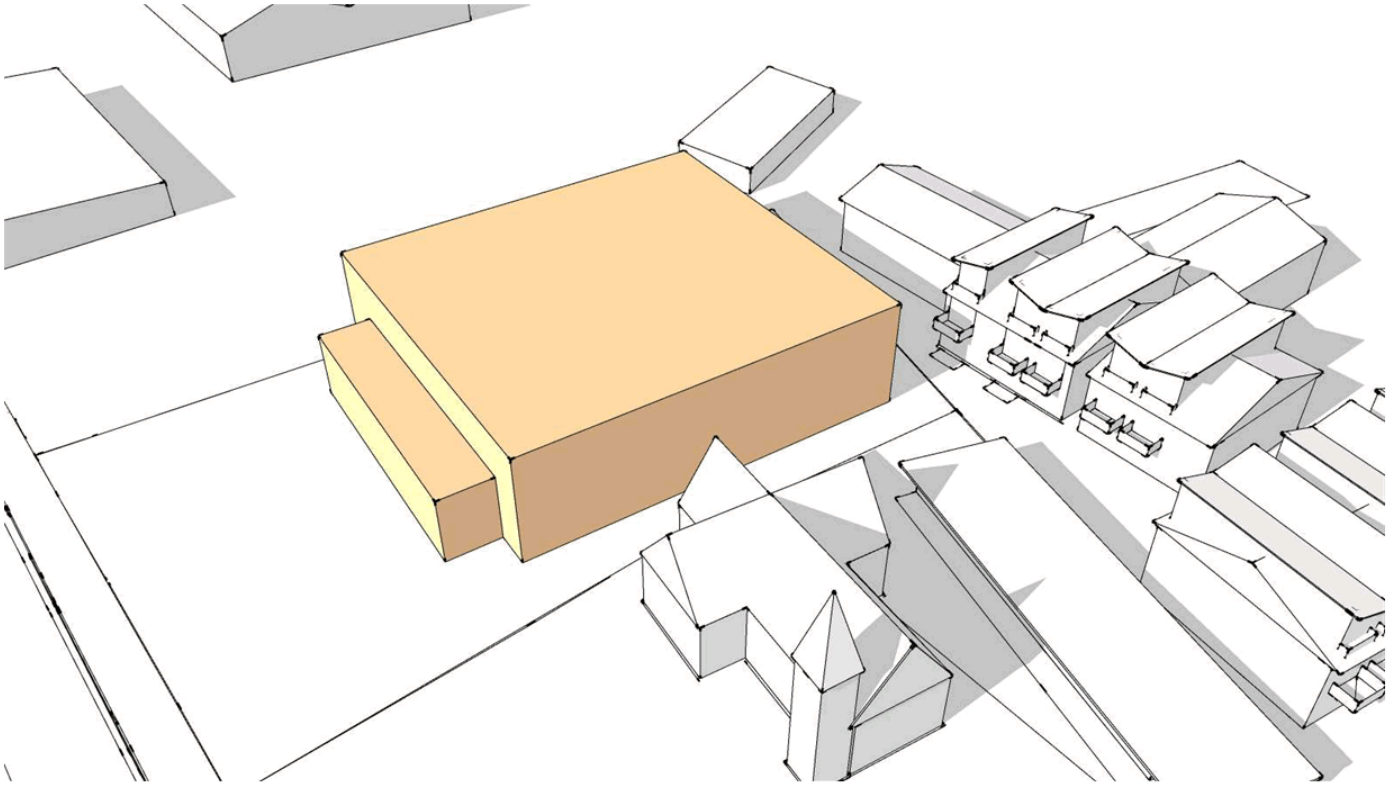

Existing Building Envelope – June 21, 1300

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1-3 Lord St Botany – Envelope and Shadow Commentary
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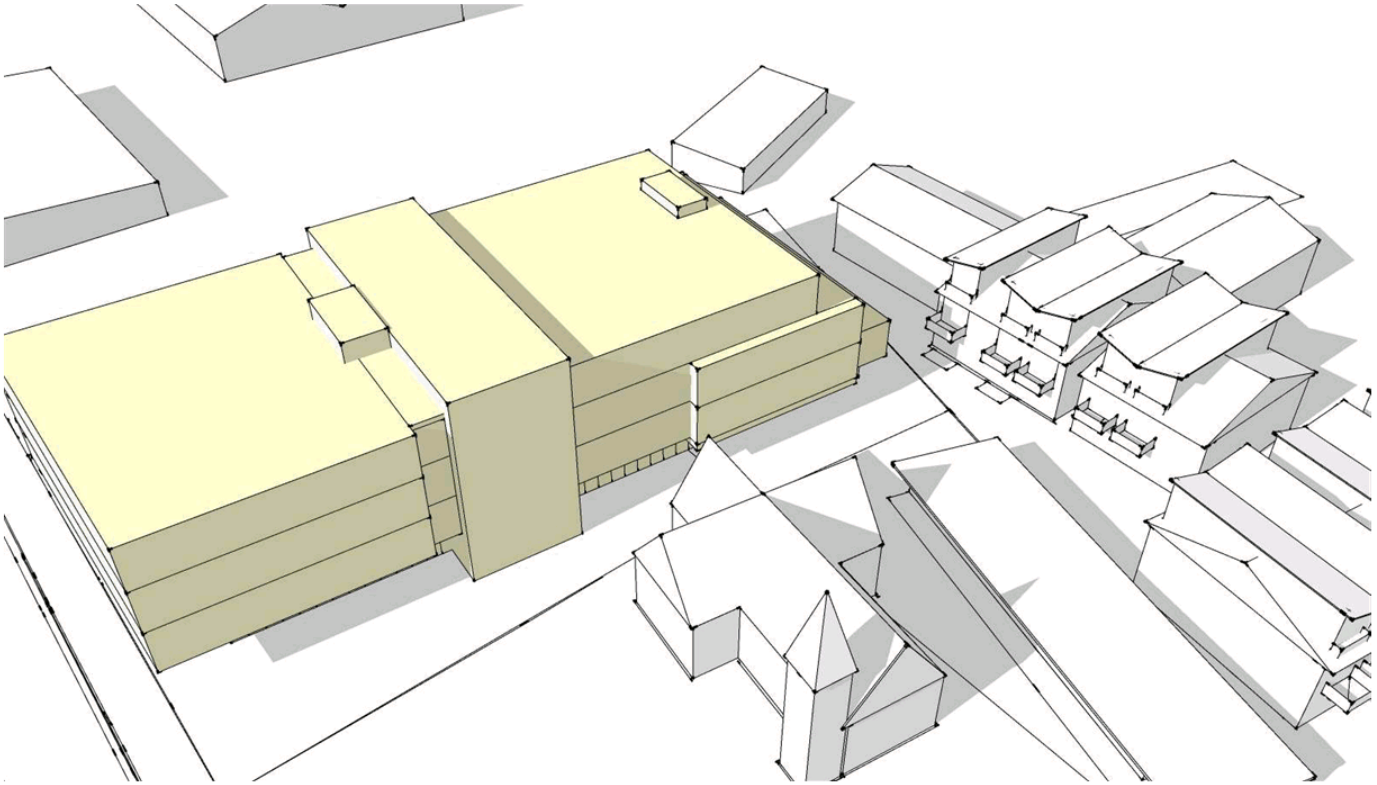

Note: Building design, architecture, and articulation shown indicatively only.

Revised Indicative Building Envelope – June 21, 1300

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1-3 Lord St Botany – Envelope and Shadow Commentary
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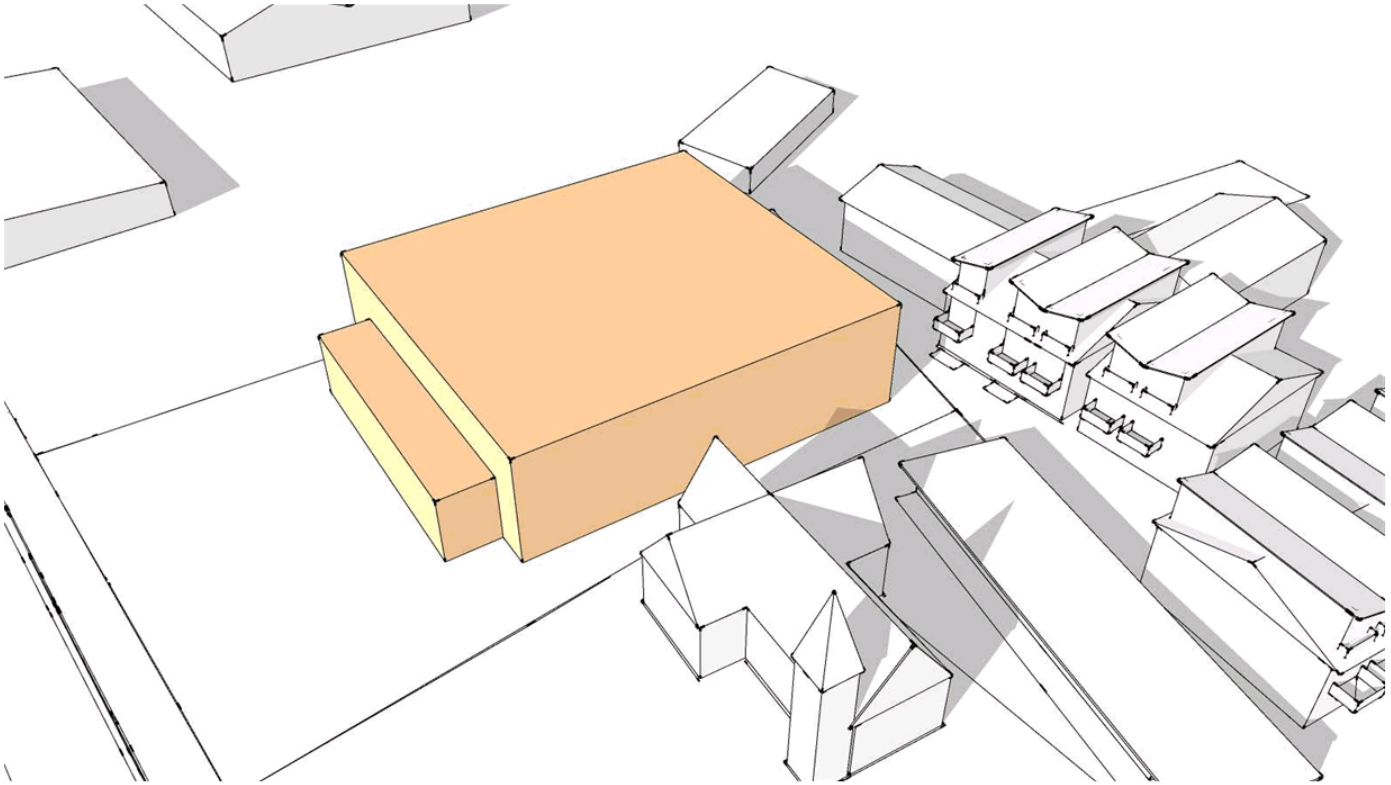

Existing Building Envelope – June 21, 1400

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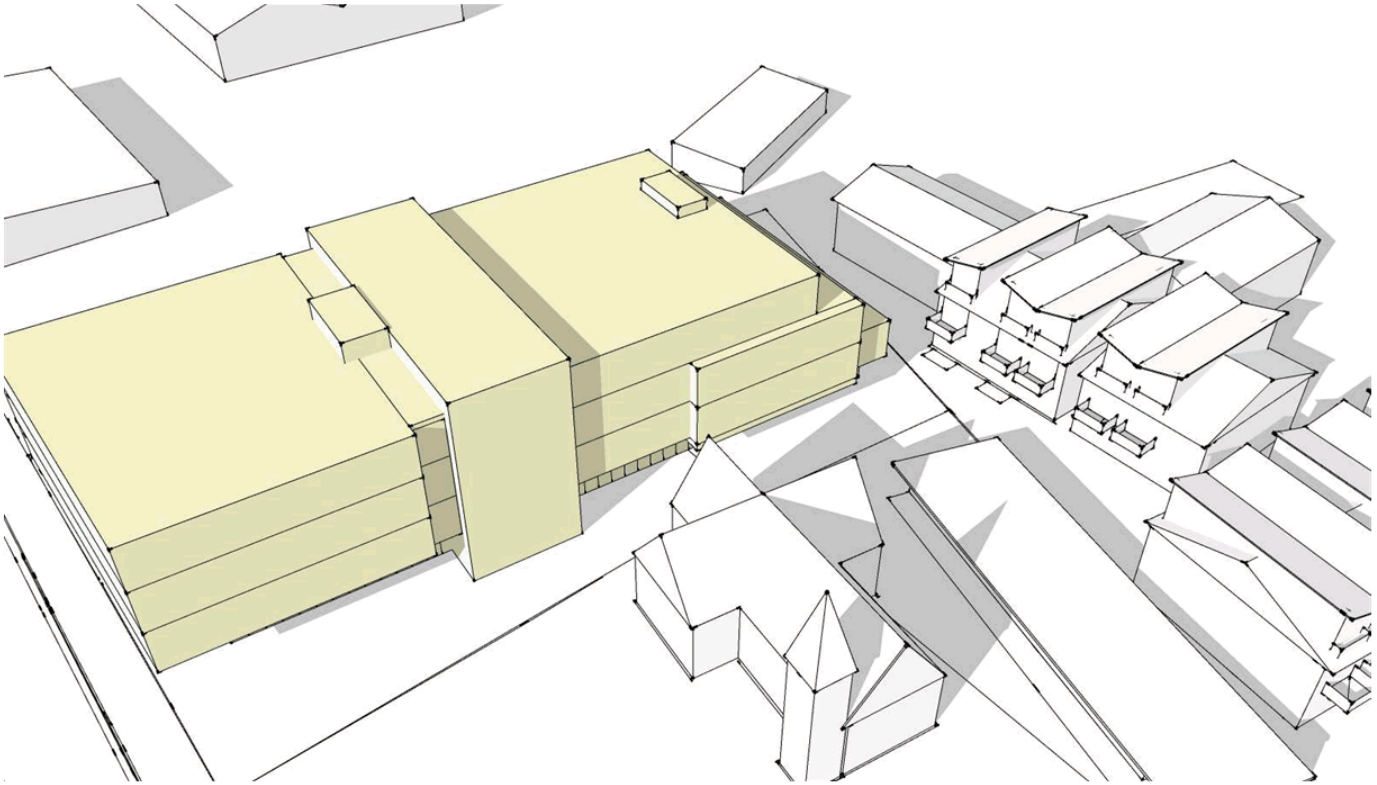
1-3 Lord St Botany – Envelope and Shadow Commentary
16 August 2018



Note: Building design, architecture, and articulation shown indicatively only.

Revised Indicative Building Envelope – June 21, 1400

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1-3 Lord St Botany – Envelope and Shadow Commentary
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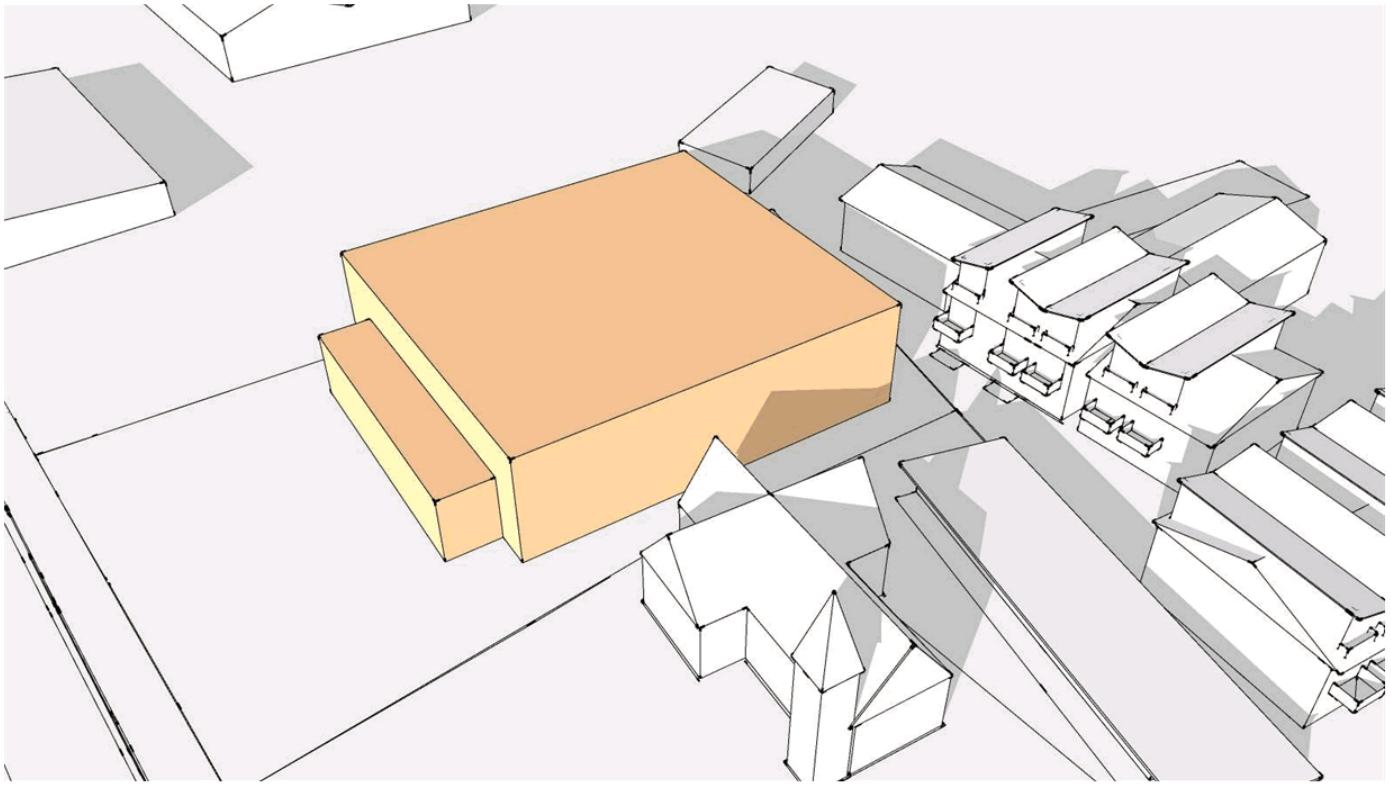

Existing Building Envelope – June 21, 1500

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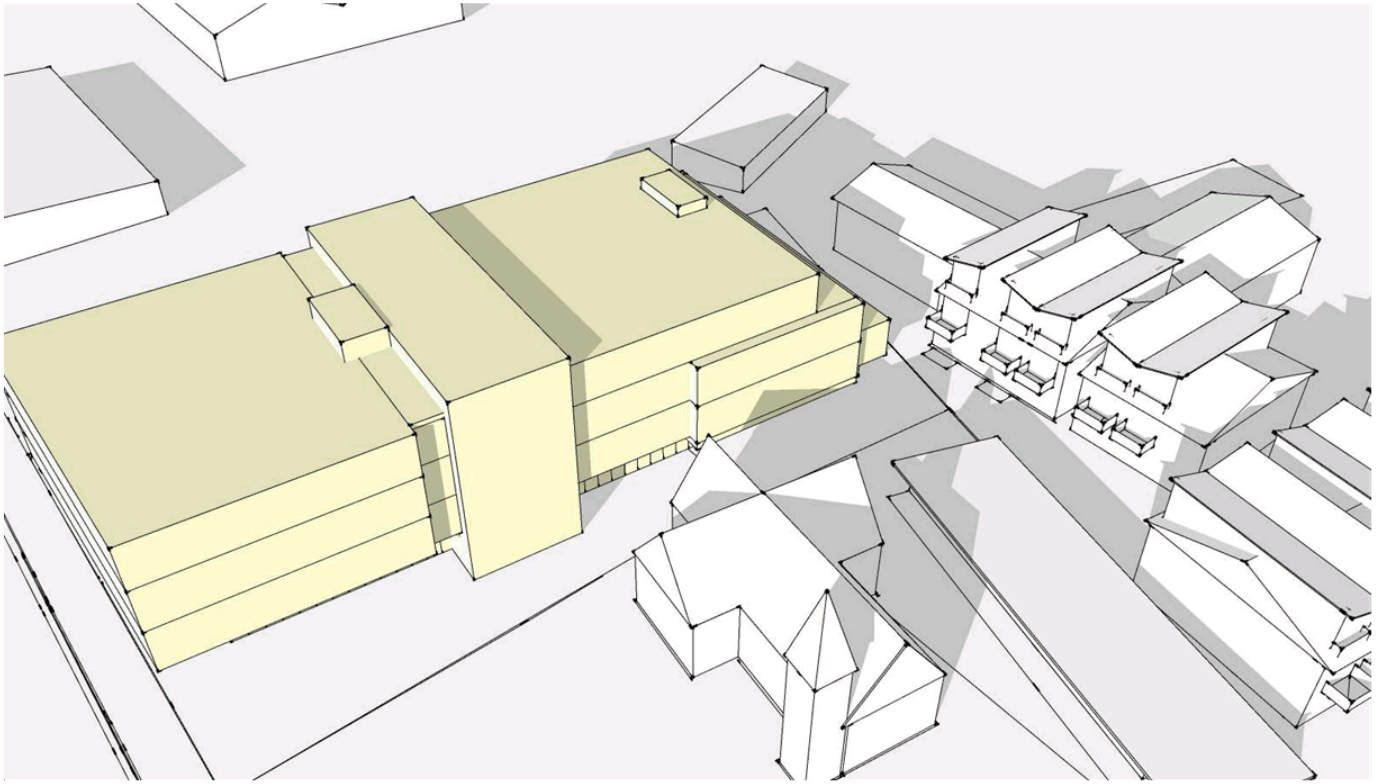

Note: Building design, architecture, and articulation shown indicatively only.

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16 August 2018

City Plan Strategy & Development P/L
ABN 58 133 501 774

8 November 2018

Our Ref: P18-161

Jeremy Dwyer
Mecone
Level 12, 179 Elizabeth St
Sydney NSW 2000
jdwyer@mecone.com.au

Dear Jeremy,

RE: REPONSE TO IDENTIFIED URBAN DESIGN AND HERITAGE ISSUES RELATING TO PLANNING PROPOSAL FOR 1-3 LORD STREET BOTANY

This correspondence is in response to recent comments and recommendations received from Bayside Council (Council) on 31 October 2018 and 1 November 2018 in relation to identified urban design and heritage issues associated with the Planning Proposal (PP) for 1-3 Lord Street, Botany.

Further to Council's review and assessment of the PP, Council has requested the following refinements and additional information relating to the PP:

1. Additional eye levels perspectives

Council has requested additional perspectives to illustrate the intended future development of the site in a manner, which demonstrate an appropriate level of impact with relation to the neighboring the St Mathew's Anglican Church (heritage Item I71) as viewed from Botany Road. These have been prepared and are provided as Attachment A.

2. Amendments to the draft site-specific Development Control Plan

Various minor amendments to the draft site-specific Development Control Plan, which seek to strengthen various aspects of the future development of the of the site including matters relating to activation, articulation and finish. These amendments have been undertaken and are provided as Attachment B.

3. Increase the setback to the western boundary of the subject site adjacent to the church by 3m.

Recommendations by Council's urban designer and heritage consultant seek to increase the proposed setback to the western boundary of the subject site by an additional 3 metres to provide a minimum separation of 9 metres between the church and a future built form on the subject site. It is understood that this is recommendation seeks to minimise perceived impacts in relation to the curtilage of the adjacent heritage item. Previous heritage advice provided to City Plan by Council's heritage consultant in August 2018 also advises that a non-traditional building envelope represented by the indicative overhang may lead to an unsympathetic building form.

At this strategic stage of the planning process the PP and supporting urban design concept is not intended to represent an actual detailed built form outcome. It is intended to provide a framework via which a range of built form outcomes could potentially be achieved. The built form concepts supporting the PP seek to

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demonstrate the impact of proposed building massing in a configuration that would be achievable through application of the proposed height and FSR controls. Taking into account the floor space needs of commercial/industrial land uses that are proposed to be occupied within the building, the PP will not preclude the development of a building where the upper level overhang is supported by columns to create a colonnade rather than a cantilever. This would provide a more traditional 'cloistered' relationship between a future built form on the site and to the adjacent church grounds.

Removing the colonnade and increasing the upper levels setbacks will result in a loss of amenity as it will remove any relief from weather and sun. Further, there would be negligible gains in terms of overshadowing or privacy. More importantly, the views through the laneway are not perceivably enhanced by the additional setback.

The PP, supported by a site specific DCP, seeks to facilitate a new development that will be oriented and designed to provide an appropriate visual relationship with and high-quality backdrop to the church. The building setbacks have been carefully arranged to facilitate a more congruent visual connection between the two buildings. The proposed setback to the western boundary of the subject site is consistent with the existing building on the site. However, a built form developed in accordance with the PP and proposed site specific DCP will result in a substantial improvement to the current situation in terms of built form quality and interrelationship between development on the subject site and the adjacent church and church grounds.

The PP seeks to achieve the following specific outcomes in relation to the church and is curtilage. These outcomes are consistent with the objectives and controls as set out in section 3B.3.2 Curtilage under the Botany Bay Development Control Plan 2013.

- To protect and enhance the key viewpoint to the church from Botany Road.
- To facilitate the visual prominence of the church from the Botany Road frontage through form and materials.
- To improve the visual quality of the backdrop the church and the relationship between the built form on the site and the lawn area surrounding the church building.

The proposed site specific DCP will facilitate high quality development on the site that maintains the prominence of the church. The DCP will ensure that a future built form appropriately responds to its contextual setting to ensure that, at detailed design at the DA stage, matters including the articulation of building frontage in relation to the church grounds.

Eye level perspective images provided in Attachment A provide a comparison between the proposed setback and the recommended 9m building to building separation. As can be seen from these images:

- increasing the setback to the church boundary by 3 metres will not be visually discernable from the key vantage point at the corner of Botany Road and Lord Street;
- increasing the setback by an additional 3m would not result in any discernable improvement in the visual relationship between the two buildings;
- the view to the church is largely disrupted by trees and a large sign, however it is recognised that these trees are deciduous and the view towards the church is less obstructed in winter months;
- notwithstanding the impact of vegetation on the view towards the church, the church spire would be read above the building on the subject site in either circumstance; and
- with appropriate consideration for building materiality as provided for within the draft site-specific DCP, the diagrams at Attachment A demonstrate that the visual prominence of the church will be maintained, and indeed improved.

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We highlight the following technical matters associated with accommodating a future built form of the intended nature and orientation on the subject site:

- The western façade is intended to be the primary point of entry and address for pedestrian movements and an additional setback to the upper floors will leave the ground level with minimal cover from an overhang or colonnade. The result is a net loss of amenity for pedestrians traversing the activated western edge.
- As demonstrated on the 'Revised Envelope Setbacks – Upper Floors' page of the Urban Design Review: the current 6m minimum building to building separation relates to the nave of the church, which extends closest to the subject site, but only has a width of approximately 6m, constituting approximately one third of the Church building's eastern facade. The rear of the nave is not visible from Botany Road and is not significantly visible from Lord Street.
- The church transept constitutes a greater proportion of the Church building's eastern façade (approximately two thirds), and has an aggregate width of approximately 9m. The north-western side of the transept is visible from Botany Rd and is already set back a further 2.9m (approximately) from the boundary to the subject site, which equates to approximately 9 metres of separation distance between a future built form on the site and the majority of the church building.

Figure 1 is a photographic image extracted from Google maps and demonstrates that the nave is not visible from the majority of the Lord Street frontage. This is further supported by Figure 2.

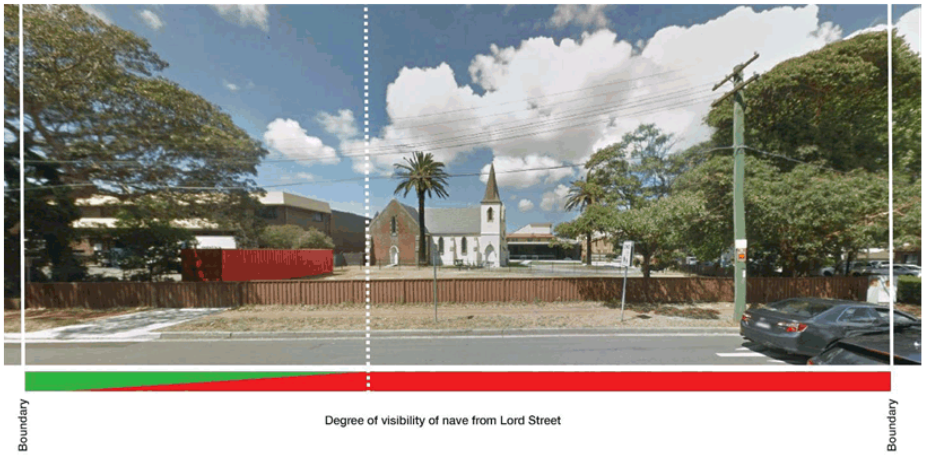

Figure 1 Visibility of nave from Lord Street

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Figure 2 illustrates that the church nave is only visible from approximately a third of the church's frontage with Lord Street. As such the proximity of the nave is not considered to be a significant visual factor in relation to establishing an appropriate relationship between the two adjacent buildings between these sites.

Figure 2 Angle of visibility towards the church nave (note that the aerial photo predates the development of additional building adjacent to the southern boundary of the church site)

A setback greater than that proposed will result in a significant reduction in Floor Space Ratio of approximately 0.2:1. Considering that the PP seeks to facilitate a development form that includes basement car parking, this will significantly erode the feasibility of a future development form on the site, and will undermine the entire intent of the PP. The discernable urban design and heritage benefits of the recommended 9 metres separation distance are negligible in comparison to the significant impacts that increased setbacks would have on feasibility and clear floor space to accommodate commercial/industrial uses.

We note that the church is set back significantly from the street within its lot boundary. This should not disadvantage the development potential of adjacent land parcels. This is especially the case in a B7 Business Park zone, which is generally characterised by larger format buildings. The setback proposed to the western boundary of the subject site exceed the side setback requirements set out in Table 1 of Section 6.3.5 Setbacks under the of the BBDCP 2013. In circumstances where Council believes there are possible

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streetscape issues where, a minimum side set back of 3m is required and this PP makes allowance for a minimum 4m setback to the boundary. In addition, other recent additions to the curtilage of the church (i.e. the community building) demonstrate the suitability of buildings being within the immediate setting of the church.

Due to the reasons outlined above, the Applicant requests that Council proceed with the PP based on the setback currently proposed.

Yours Sincerely,

H. Deegan.

Helen Deegan
Director | PLANNING

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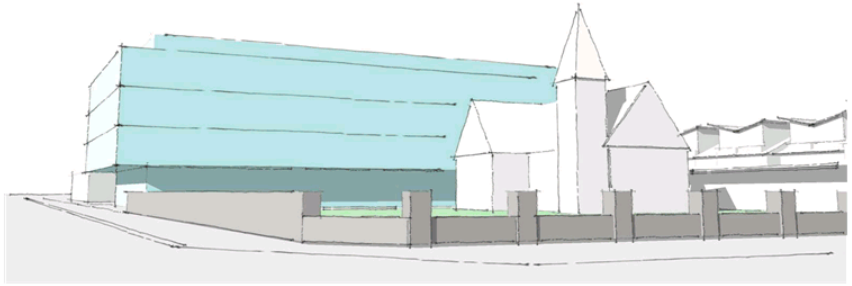
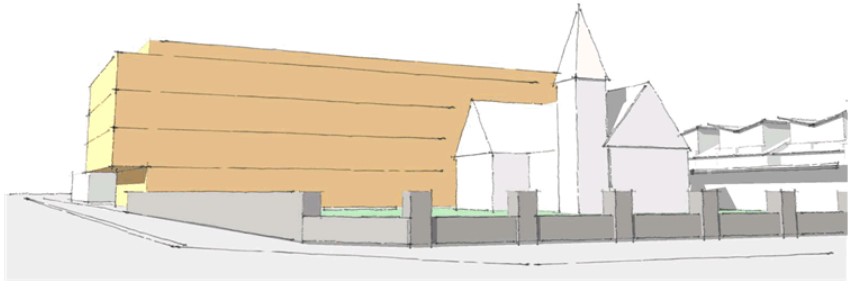
ABN 58 133 501 774

Attachment B: Additional Eye Level Perspectives and Setback Comparisons

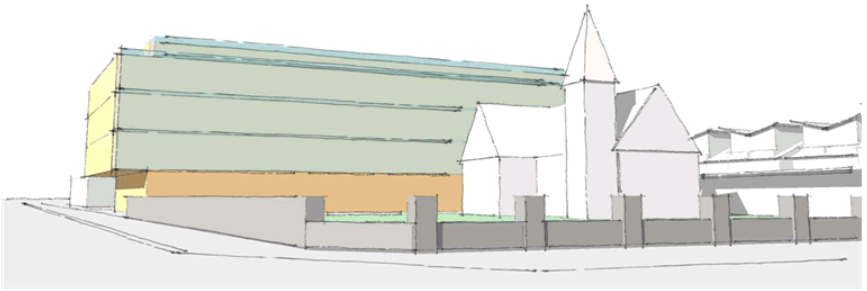
PROPOSED ENVELOPE



9m SETBACK FROM CHURCH



COMPARATIVE IMAGE



PROPOSED ENVELOPE

9m SETBACK ENVELOPE

ADDITIONAL INFORMATION

View from Corner of Botany Rd and Lord St

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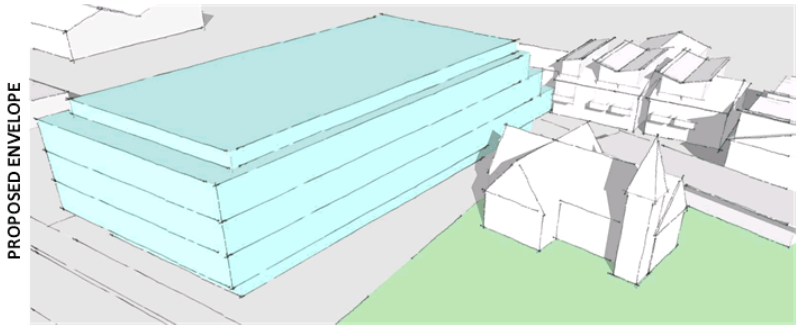

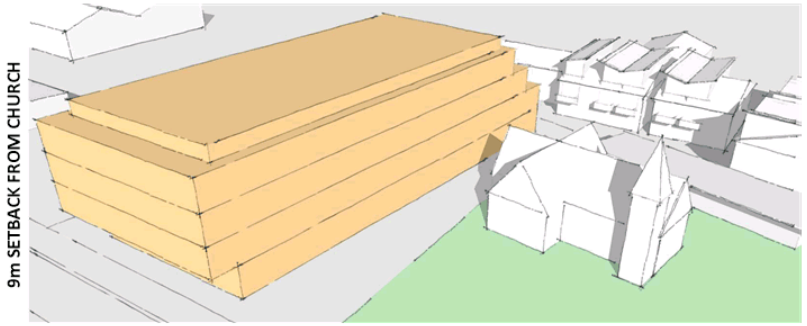

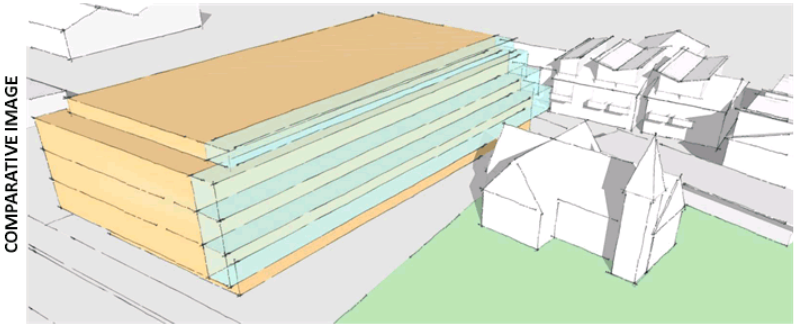

PROPOSED ENVELOPE

9m SETBACK ENVELOPE

ADDITIONAL INFORMATION

View of proposed new pedestrian access laneway - Aerial

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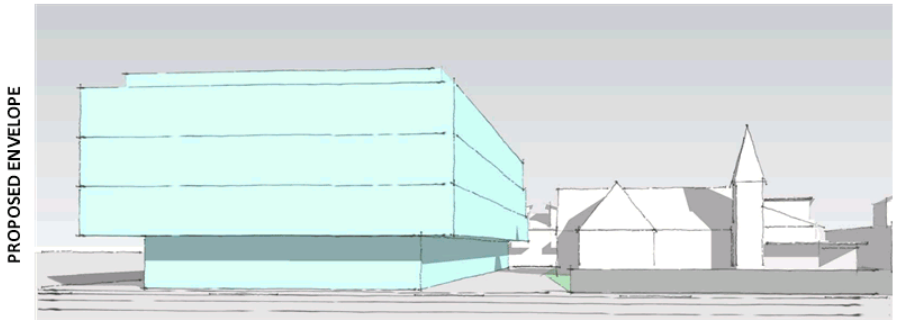

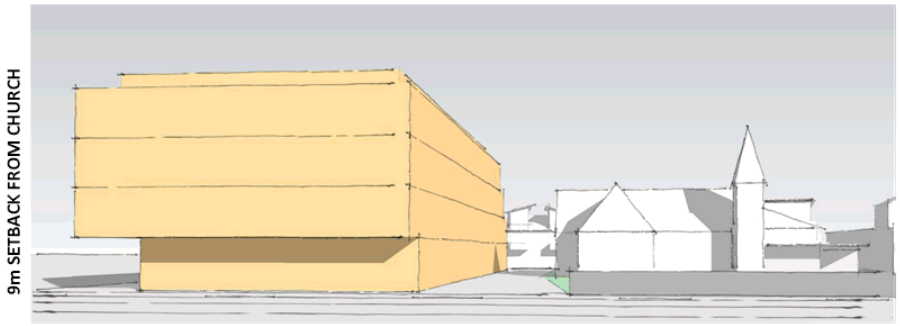

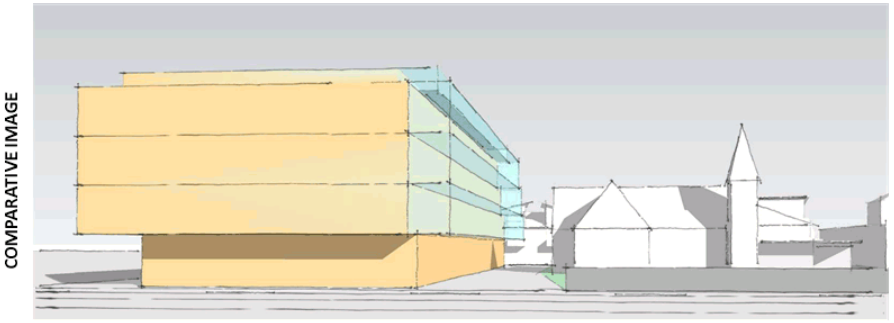

PROPOSED ENVELOPE

9m SETBACK ENVELOPE

ADDITIONAL INFORMATION

View of proposed new pedestrian access laneway – Street level

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STREET VIEW FROM CORNER OF LORD ST AND BOTANY RD

ADDITIONAL INFORMATION

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COMPARATIVE IMAGE

PROPOSED ENVELOPE

9m SETBACK ENVELOPE

ADDITIONAL INFORMATION

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