



Modification 6 to 06_0303 Tooheys Brewery Upgrade

Works incorporating Depalletiser and Packaging Plant Upgrade, Grain Intake Structure and Fire Pump Facility

29 Nyrang Street, Lidcombe NSW

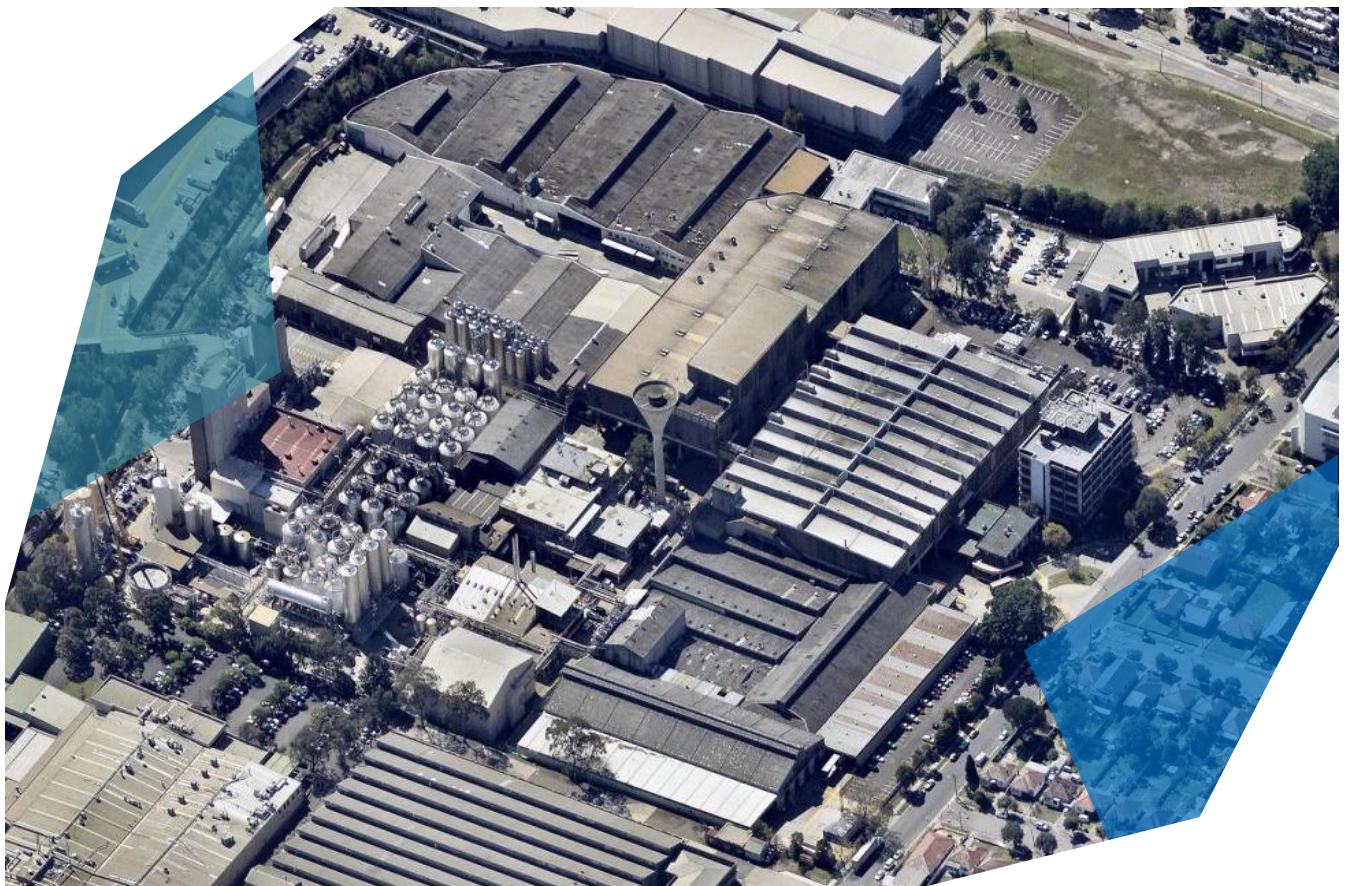
Environmental Assessment

Prepared for Lion Beer, Spirits & Wine Australia

By Beca Pty Ltd (Beca)

ABN: 45 003 431 089

22 January 2016



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Revision History

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Document Acceptance

Action	Name	Signed	Date
Prepared by	Corbin Stevic		22/01/2016
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1 Introduction

Lion Beer, Spirits & Wine Australia (Lion) is currently the owner and operator of the Tooheys Brewery located at 29 Nyrang St, Lidcombe (the site). The site title is described as Part Lot 10, DP 1008367.

New development at the site is proposed that aims to improve site efficiency and operational safety. This proposed development includes internal modifications and new packaging plant for Bottling Hall 1 and new depalletiser plant for Bottling Hall 2, a new grain intake structure and a new fire pump facility.

In July 2007, the Tooheys Brewery site received single site wide planning approval (06_0303) from the NSW Department of Planning under Part 3A of the Environmental Planning and Assessment Act, 1979. The approval was granted for the major upgrade of the brewery as well as site wide approval for on-going operations at the brewery. Lion are now seeking a modification to the existing approval.

In the past, a modification to the existing Project Approval was made under Section 75W of the Environmental Planning and Assessment Act. Although repealed in 2011, the Department continues to accept modifications to applications previously approved under Part 3A of the Act.

In support of this modification application, an Environmental Assessment (EA) has been prepared. The purpose of this EA is to describe the proposed development in detail, and outline the likely associated environmental impacts and the proposed measures that will mitigate these impacts. This EA will also include information about the proposed development that will support development plans.

This EA has been developed with consideration to the following policy and legislation:

- Environmental Planning and Assessment Act 1979
- Environmental Planning and Assessment Regulation 2000
- Auburn Local Environmental Plan 2010
- Auburn Development Control Plan 2010

1.1 The Applicant

Lion Beer, Spirits & Wine Australia are the largest brewer in the country, incorporating four large and four small breweries. Lion strives for continual improvement year-on-year to maintain their ability to deliver on the needs and expectations of customers. The growing country-wide operation generates significant employment opportunities and supports many other industries, including farming, tourism and hospitality. For example, Lion source over 100,000 tonnes of barley on an annual basis, engaging over 1000 farmers. Apart from producing a dynamic product line to satisfy the market, Lion aim to reinvigorate interest in and appreciation of beer. To do this strong investment in a strategy called Vibrant Beer Culture encourages people to drink for the right reasons, appreciate a good beer and contribute to a sociable community.

“The growing country-wide operation generates significant employment opportunities and supports many other industries”

1.2 Development Overview

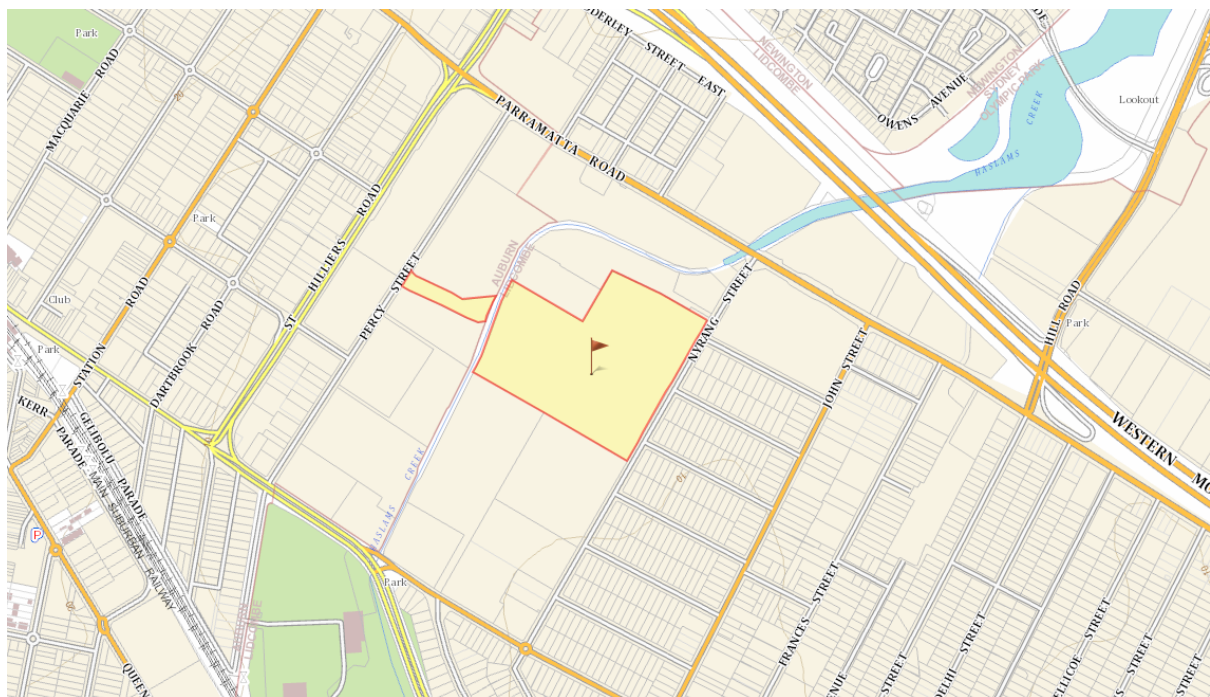
The proposed development will consist of both internal and external works, including:

- A Depalletiser Plant Upgrade to the ground floor of Bottling Hall 2
- A Packaging Plant Upgrade to the first floor of Bottling Hall 1
- A new Fire Pump facility
- A new Grain Intake structure, including new silos
- Reduction in car parking to accommodate new fire pump facility

1.3 Site Description

Lion's Tooheys Brewery site is located at 29 Nyrang St, Lidcombe, an industrial area of Lidcombe that forms part of the Auburn City Council LGA. The site is bounded by Haslams Creek to the northwest, Nyrang Street to the southeast and other industrial properties to the northeast and southwest. The site is currently operational and is established on an L-shaped land parcel approximately 8.6 hectares in area.

Figure 1.3.1: Site location and context



The site can be accessed at four locations – three from Nyrang Street, adjacent to the site's eastern boundary, and one via a private access way and bridge off Percy Street to the west. A manned gatehouse is located at both the main Nyrang Street and the Percy Street entrances. There are several car parking areas for employees, contractors and visitors. A total of 397 car parking spaces are currently provided on site. 149 car parking spaces are provided in a basement car park in the northeast area of the site, 139 in an adjacent outdoor car park, 72 adjacent to Nyrang Street and 37 visitor spaces opposite the Administration Building.

The majority of the site is occupied by either buildings or impervious areas, such as sealed car parking, internal roads and hard stand areas. Packaging and processing facilities and large car parking areas are located in the north eastern portion of the site. A large warehouse and loading areas are located in the south eastern corner of the site. The brewhouse, several storage tanks and silos, site utilities and other associated infrastructure, are located in the south western area of the site.

Isolated areas of vegetation are located across the site, predominantly along the north eastern and Haslams Creek perimeters of the site with other scattered landscaping within or adjacent to car parking areas and access ways.

A summary of site particulars is provided in Table 1.3.1.

Table 1.3.1: Site particulars

Applicant	Lion Beer, Spirits & Wine Australia
Property Address	29 Nyrang Street, Lidcombe NSW 2141
LGA	Auburn City Council
Lot and DP	Part Lot 10, DP 1008367
Site Area	8.6ha
Zoning	General Industrial - IN1 (Auburn Local Environment Plan 2010)

1.4 Surrounding Land Use

The site lies at the easterly end of the industrial area, with its largest frontage along Nyrang Street. The site is generally surrounded by industrial, residential, commercial and recreational land uses.

Immediately to the west of the site is Haslams Creek and the continuation of the industrial area. The majority of premises in this area reflect late 20th century large industrial buildings set back from the street edge.

Haslams Creek takes the form of a concrete-lined canal where it is adjacent to the brewery site. Northeast of the industrial area, the creek passes through a wetland area, before discharging to Homebush Bay.

Redevelopment in the immediate area has been concentrated to the north of the site along Parramatta Road. Retail, entertainment and recreation facilities have been added to the industrial and commercial streetscape.

The residential area to the east has a regular grid of streets of blocks containing detached residential dwellings on large allotments from the post-war period. Also to the east, directly opposite the site, is a large shopping complex with access off both Nyrang Street and Parramatta Road.

Additional industrial and residential land uses are observed south of the site, as well as a large recreational facility comprising a basketball centre, oval and velodrome.

Table 1.4.1 summarises the surrounding land uses.

Table 1.4.1: Land use summary

North	Industrial and commercial area with some retail, entertainment and recreation facilities
East	Residential area with regular blocks containing detached dwellings on large allotments
South	Industrial and residential uses (consistent with type and character of area) and recreational facility
West	Haslams Creek and industrial properties

1.5 Existing Use of the Site

The site has been in operation since 1955 and was initially used as a packaging facility. Brewing commenced at the site in 1978. The brewery has undergone several small scale upgrades during this time, and a major upgrade in 2007.

The site is currently heavily utilised for the existing brewery activities and exhibits a large building footprint comprising processing, packaging and administration facilities; access ways, walkways and car parking; and ancillary uses such as tanks and silos, a waste water treatment plant and electricity substation.

From 2007, a major upgrade of the site has been implemented. This has involved the extension of the yeast storage area and yeast propagation plant; construction of a new Beer Processing Building and relocation and upgrade of the associated beer processing equipment; installation of a new Bright Beer Tank (BBT) Cellar and tanks, decommissioning of an old bright beer cellar; and upgrade of utility services including the heating plant, refrigeration plant and compressed air plant.

In 2010, a 2MW co-generation facility was installed to reduce consumption of grid based electricity and associated operational costs. In 2015, in order to improve the liquid wastewater quality, Lion installed a wastewater treatment plant on site.

This ongoing enhancement of the site will be continued by the proposed development. Within the scope of the proposed works, which are focused on improving operational efficiencies and safety, the proposed upgrades remain highly consistent with the industrial zoning.

1.6 Site Constraints

The site is covered by an Auburn Council commissioned flood study *Haslams Creek Floodplain Risk Management Study and Plan* undertaken by Bewsher Consulting Pty Ltd in January 2003. The results of the flood study indicate that some flooding is expected on the site in the 100 year Average Recurrence Interval (ARI) flood event. As illustrated in Figure 1.6.1, for the 100 year ARI flood event the western area of the site is classified as a medium flood risk precinct while the remainder is classified as a low flood risk precinct (shown in a lighter blue). As such, planning controls relevant to individual flood risk classifications must be appropriately addressed for works occurring in these precincts.

There is one easement, for sewerage purposes, on the main area of the Tooheys site (see Figure 1.6.2 and Appendix A). Importantly, the proposed development will not build over any easements.

Figure 1.6.1: Flood risk precincts – the site is covered by both medium (darker blue) and low risk flood precincts

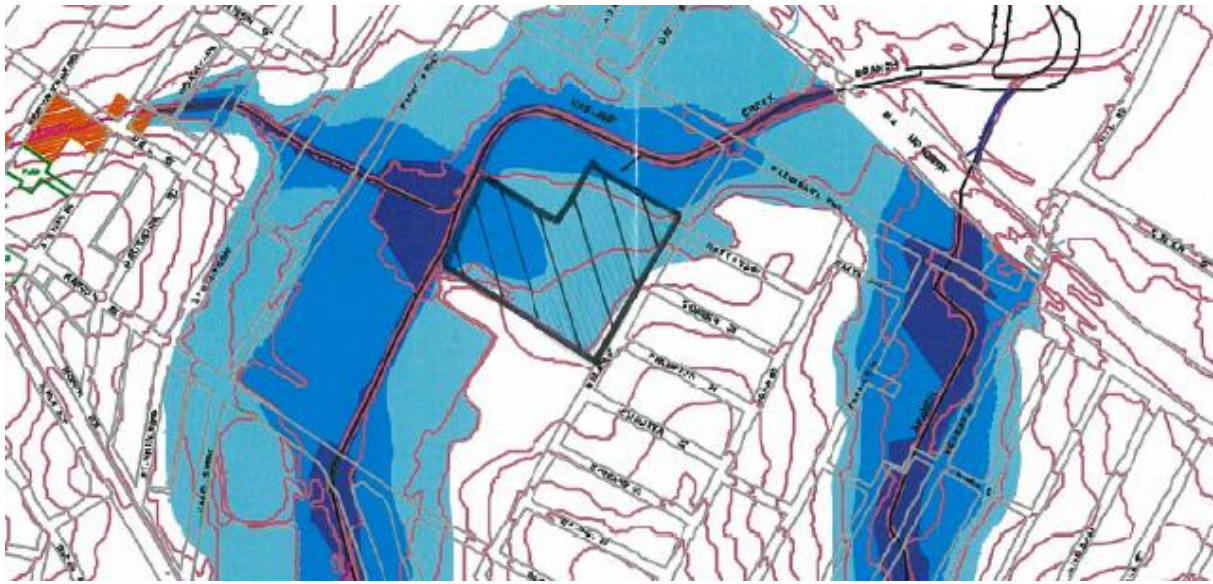
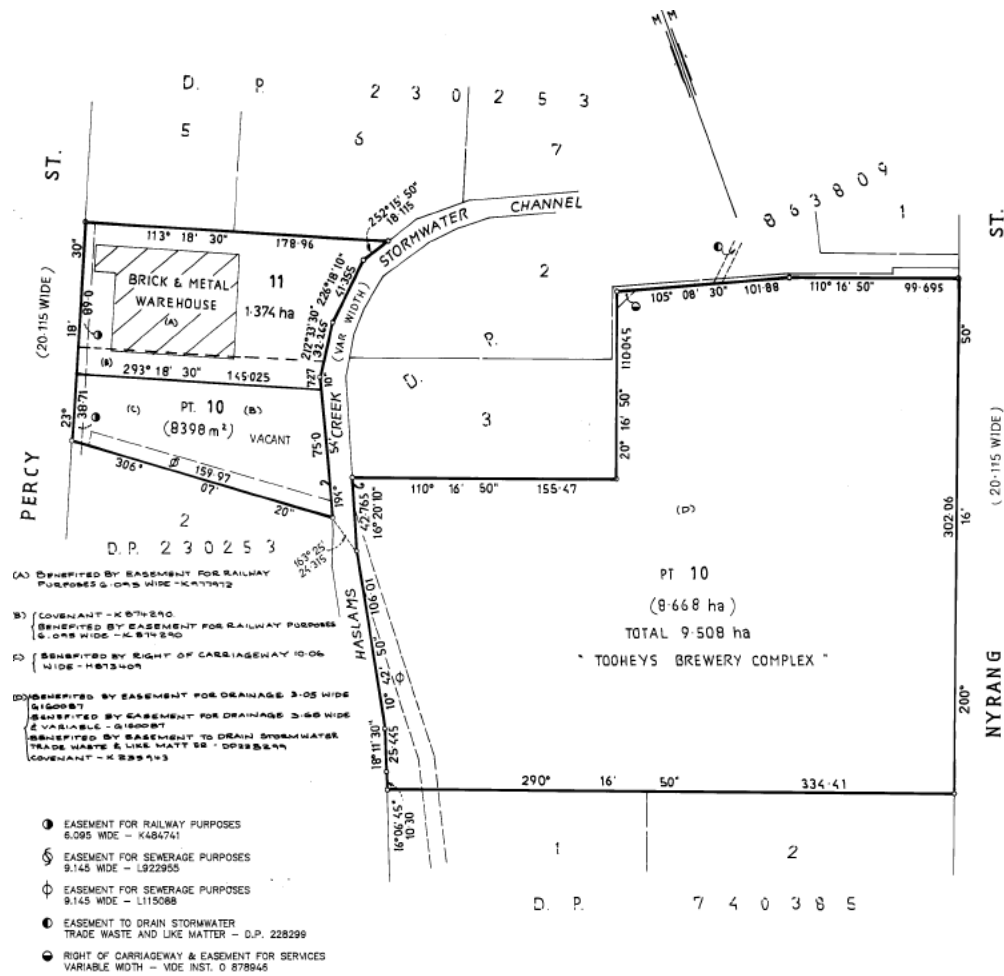


Figure 1.6.2: Site title – Par Lot 10, DP 1008367 (see Appendix A for full copy of Title Plan)



2 Legislative Framework

2.1 Environment and Planning Assessment Act

The *Environment Planning and Assessment Act 1979* (EP&A Act) is administered by the NSW Department of Planning and at the local government level. The objectives of the EP&A Act relevant to the proposed development are considered to be:

- The promotion and co-ordination of the orderly and economic use and development of land
- Ecologically sustainable development
- The protection of the environment

The proposed works are considered to satisfy the objectives of the Act in that continued operations at the Lion facility will result in the efficient long term use of an existing site. The proposed increase in operational efficiency on the site is not expected to result in any adverse environmental impacts upon the immediate surrounding environment.

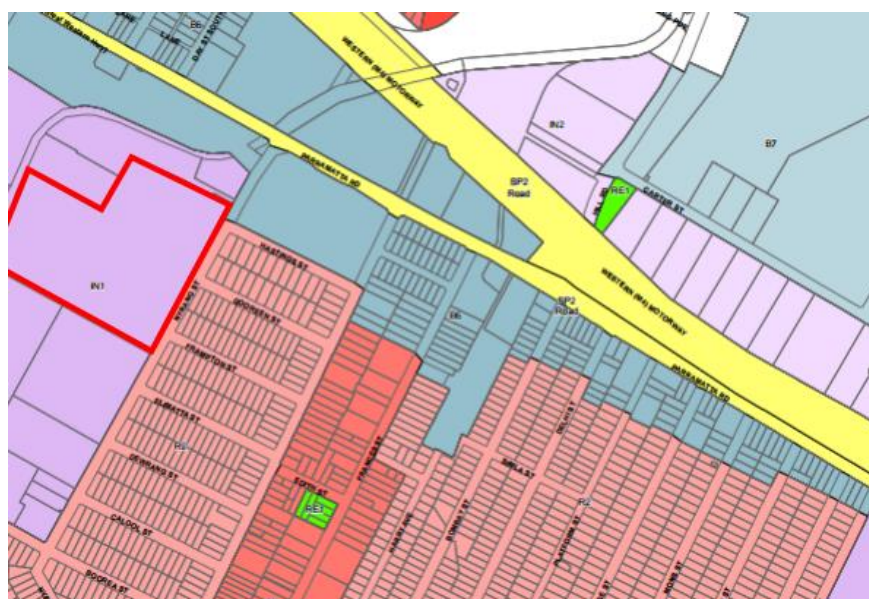
The proposed works are not considered to require any other approvals under Section 91 of the EP&A Act, 1979.

2.2 Auburn Local Environmental Plan and Zoning

Pursuant to the Auburn Local Environment Plan (LEP) 2010, the site is zoned as IN1 – General Industrial. The proposed development recognises the objectives of the IN1 zone:

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To encourage economic growth of the locality.
- To minimise adverse effects on the natural environment.

Figure 2.2.1: Site zoning



2.3 Auburn Development Control Plan

This EA will also address the Auburn Development Control Plan (DCP) 2010, particularly those chapters and sections relevant to the proposed upgrade works. A summary of the relevant planning controls and objectives of the Auburn DCP Industrial Areas section is provided in Table 3.2.1.

Table 2.3.1: Relevant planning controls and objectives of the Auburn DCP

Planning Control	Objectives
2.0 Built Form	<p>To ensure that the form, scale, design and nature of development maintains and enhances the streetscape and visual quality of industrial areas.</p> <p>To ensure that the scale of any new industrial development is compatible with surrounding industrial buildings.</p> <p>To ensure the intensity of development recognises the environmental constraints of the site and its locality.</p>
3.0 Streetscape and Urban Character	<p>To ensure that all new development is compatible with the existing and intended future character of the locality in which it is located.</p> <p>To promote industrial development which is both functional and attractive in the context of its local environment through appropriate design.</p> <p>To encourage innovative industrial design which adds to and enhances the quality of the existing industrial areas of the Auburn local government area whilst recognising the design attributes of traditional industrial development.</p>
4.0 Landscaping	<p>To improve the visual quality and amenity of industrial development through effective landscape treatment of individual sites and to achieve a pleasant working environment.</p> <p>To ensure a high standard of environmental quality of individual sites whilst enhancing the general streetscape and amenity of the area.</p> <p>To ensure that the location and design of driveways, parking and servicing areas are efficient, safe, convenient and suitably landscaped.</p>
5.0 Access and Car Parking	<p>To ensure that all car parking demands generated by any particular industrial development are accommodated on the development site.</p> <p>To ensure that the provision of off-street car parking facilities do not detract from the visual character, particularly the streetscape of an industrial area.</p> <p>To ensure that road access facilities are commensurate with the scale and extent of the proposed development and compatible with the surrounding traffic network.</p>
6.0 Stormwater Drainage	<p>To preserve and protect the amenity and property of existing residents, land owners and the community.</p> <p>To ensure the safety of residents and the community.</p> <p>To meet reasonable expectations and statutory requirements.</p> <p>To protect the physical environment and receiving waters of catchments.</p>
8.0 Operational Restrictions	<p>To ensure that industrial development operates in a manner compatible with adjoining land uses, particularly residential areas.</p> <p>To ensure noise, air and water discharges, waste storage and removal, working hours and storage of dangerous goods and hazardous chemicals will not have a detrimental effect on environmental amenity.</p>

3 Development Proposal

3.1 Development Objective

Modification 6 to the Tooheys Brewery Upgrade comprises development that aims to improve site efficiencies and operational safety. As part of this modification, new plant is intended for Bottling Hall 1 and 2, new facilities are planned for grain intake and fire pump operations and a reduction in car parking is proposed.

3.2 Development Description

Depalletiser and Packaging Plant Upgrade

The proposed upgrade of depalletiser and packaging plant will occur on the ground floor of Bottling Hall 2 and the first floor of Bottling Hall 1, respectively. The purpose of this upgrade is to install new plant and equipment to ensure compliance with industry safety standards and enhance operational efficiencies.

The Depalletiser plant in Bottling Hall 2 will be either refurbished, rebuilt or replaced to improve reliability, and most importantly ensure compliance with Lion and Australian standards for guarding and machine safety. The packaging upgrades in Bottling Hall 1 will replace aged assets with more reliable, efficient and flexible packaging equipment.

This upgrade will also involve internal, non-structural modifications and a fire safety upgrade to comply with BCA standards. There will be no new environmental impacts at the site resulting from this plant upgrade.

Fire Pump Facility

An upgrade of the existing fire pump infrastructure is required to comply with BCA fire safety standards. A new 102m² facility is proposed in the eastern area of the site, adjacent to the main entry and Nyrang Street. As part of this upgrade, a new valve room inside the Nyrang Street Warehouse will re-purpose the room currently housing existing fire pump equipment.

A reduction of car parking is required to accommodate the fire pump facility. Currently, there are 397 car parks available on site. The proposed reduction of 22 spaces will reduce the parking available across the site to 375 total spaces, including visitor parking.

Grain Intake Structure

The proposed Grain Intake structure comprises a swivel screw structure and new buffer silo. The new silo, reaching approximately 12 metres in height, will buffer grain above the ground and allow for the fast unloading of trucks. The buffer silo will replace the current in-ground buffer and enhance the quality of product being stored. The height of this structure will not exceed any other silos or structures already located in this area.

The construction of the grain intake structure will involve the demolition of the existing grain intake shed adjacent to the proposed new structure. Demolition of the shed will be completed in accordance with Condition 10 of the original project approval (see Section 4.2).

3.3 Timing

Pending all necessary approvals, development works are due to commence April 2016, with completion planned for October 2017.

3.4 Capital Expenditure

Capital expenditure for buildings and structures associated with this modification of the Tooheys Building Upgrade is estimated at \$300,000. This includes \$150,000 for the grain intake structure and \$150,000 for the fire pump facility. Plant and equipment is not included as part of this buildings and structures cost estimate.

4 Construction Management

4.1 Earthworks

Limited earthworks would be required for the construction of the proposed fire pump facility and grain intake structure. All surplus excavated materials from earthworks will be removed from the site. If necessary, an erosion and sedimentation control plan shall be implemented during construction to minimise impact on the existing stormwater system. If these mitigation measures are required they will be detailed in a Construction Management Plan.

4.2 Construction Waste Management

The construction contractor shall demonstrate a commitment to avoiding and minimising waste generation. Waste will be reduced through the adoption of the EPA's waste management hierarchy which involves (in order of preference) avoidance, re-use, re-cycle, recovery of energy, treatment, containment and disposal. Construction waste will not be allowed to accumulate and all areas will be kept clean and tidy.

Demolition work, both internal and external, will be completed pursuant to Condition 10 of the original project approval:

10. *The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.*

4.3 Dust

The management of dust is closely related to the management of earthworks, demolition and construction waste. Additional dust control measures will also attempt to reduce the amount of dust originating from construction activities. These include:

- On-site wind direction and speed will be observed prior to commencing work, particularly outdoors, so off-site impacts can be managed during unfavourable conditions
- Vehicles transporting loose materials to and from the site will be adequately covered

4.4 Noise

Noise reduction measures will be developed throughout project planning and applied where practicable. Examples of such measures are as follows:

- Lowest noise work practices and equipment will be applied where practical
- Trucks associated with the delivery of materials will not be left idling adjacent to residential areas
- Plant will be turned off when not in use
- Work on the site will be carried out with a typical construction timetable

4.5 Traffic

It is anticipated that construction traffic will not significantly impact on traffic flow on the surrounding road network. There are suitable lay-down areas available on site for loading and un-loading of materials and equipment. Council will be notified of any temporary disruption to traffic on Nyrang Street and other surrounding roads during construction and appropriate traffic management practices will be implemented.

5 Operation Details

5.1 Site Capacity

The site is approved to produce 330 ML of beer each year. **The proposed development will not contribute to any increase in annual operational throughput.**

5.2 Employees

There is no increase in employment anticipated as a direct result of the proposed development. Current employee numbers will remain the same, which comprises 50 administration staff, 100 shift workers and approximately 150 contractors (critical case - varies throughout the year) spread across operational shifts.

5.3 Operating Hours

The approved operating hours for the site is 24 hours a day, 7 days a week. In low periods, the Tooheys Brewery operates 5 days per week, while in peak periods this is extended to up to 7 days per week. There are 3 shifts across the 24 hours per day operation:

- Shift 1 - 6am to 2pm
- Shift 2 - 2pm to 10pm
- Shift 3 - 10pm to 6am

Office staff and visitors are expected on site between 8am and 6pm.

5.4 Traffic Flow

There are three all-movement priority controlled accesses to the site from Nyrang Street. The central access is the main site access. This access is used by freight vehicles only. The second, northern access is used by employees and contractors parking in the main basement car parking area. Visitors also access the site at this location. The third, southern access is another secondary access and is used to access the southern area of the site.

The site can also be accessed via a private access way and bridge off Percy Street. A manned gatehouse is located at this Percy Street entrance, used almost exclusively by large trucks that pick up and drop off goods at the site.

An internal road network facilitates appropriate flow of traffic throughout the site. Circulation of traffic within the site will not change post-development.

6 Environmental Assessment

6.1 Access and Traffic

Vehicles accessing the site include B-Doubles, semitrailers and rigid trucks, as well as staff, visitor and contractor light vehicles. Heavy vehicles currently access and exit the site via the main gate on Nyrang Street, or via the southern entrance on Nyrang Street or the secure entrance and private bridge off Percy Street. A secondary entrance for light vehicles is also available just north of the main entrance on Nyrang Street.

The Nyrang Street entrances interface with residential dwellings, whereas Percy Street is entirely within the industrial estate. The main Nyrang Street entrance is considered to have the greatest impact on the surrounding residential environment.

There is no increase in employee numbers anticipated as a direct result of the proposed development. Therefore, the number of staff, visitor and contractor vehicles accessing the site will not change. In addition, no change in throughput is planned or expected. As such, no increase in truck movements is expected to and from the site post development.

A 102m² fire pump facility is considered additional industrial floor area. Based on *Roads and Traffic Authority (RTA) Guide to Traffic Generating Developments (October 2002)*, in conjunction with the *Guide to Traffic Generating Developments Updated Traffic Surveys (August 2013)*, this development would produce an additional 5 vehicle (car and truck) movements per day and an additional 1 movement in the morning and evening peak periods. But since this facility will house fire safety equipment and infrastructure only, no regular vehicle movements are expected as a result of this development.

A Traffic Impact Assessment (dated 15 January 2016), prepared as part of this Environmental Assessment and included as Appendix C, concludes that vehicle movements to and from the site will remain similar to existing and the effective and efficient operation of the existing site access arrangement and the adjacent road network will be unaltered. As such, **there will be no long-term adverse effect on the existing road network in terms of additional traffic generation.**

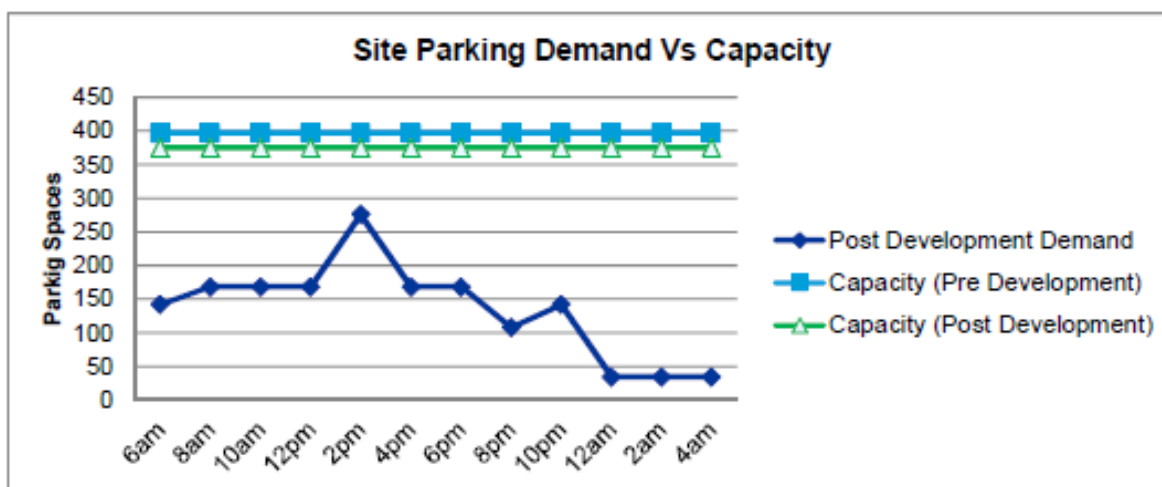
6.2 Car Parking

The proposed development requires a reduction in car parking across the site. Of the existing 397 car parking spaces provided on the site, a reduction of 22 spaces to accommodate the fire pump facility in the eastern car park area (adjacent to Nyrang Street) is proposed. Following the proposed development, 375 car spaces would be provided on site.

The proposed development is not considered to result in any additional car parking or loading demands that are not already experienced by the site. A Car Parking Demand Study completed as part of the site Traffic Impact Assessment demonstrates that car parking demand will be adequately accommodated post development (see Figure 6.2.1).

The Car Parking Demand Study predicts site car parking usage, at the peak time, to be 73.6 % of the total post development capacity. This prediction follows a conservative approach and does not consider any likely car-pooling, mode sharing (eg. public transport) and increased efficiencies in automation and processing that may reduce the amount of light vehicles required on-site. It also assumes full overlap of car park demand at shift change times. The study concludes that **the proposed reduction in car parking spaces will not affect the site's ability to meet future parking demand of its staff, contractors and visitors.**

Figure 6.2.1: Car parking capacity versus demand



6.3 Fire Safety

A significant fire safety upgrade would be completed as part of the proposed development. Alongside the planned fire pump facility that will service the entire site, new fire fighting equipment and infrastructure would also be installed in the first floor of Bottling Hall 1 and the ground floor of Bottling Hall 2. Details of the proposed fire safety upgrade are outlined below.

Fire Pump Facility

- A new fire pump facility adjacent to Nyrang Street
- The former fire pump room in the Nyrang Street Warehouse will be re-purposed to house a new valve set
- A new mains pipe will connect new fire pumps to the valve set

Bottling Hall 1

- A dry fire protection upgrade for the first floor
- A hydrant and hosereel system upgrade for the first floor

Bottling Hall 2

- A hydrant and hosereel system upgrade for the ground floor
- A dry fire protection upgrade for the ground floor
- A sprinkler system will be installed on the ground floor

6.4 Stormwater Management and Drainage

Stormwater run-off from the roof of the new fire pump facility will be connected to the site's existing stormwater management system. Existing stormwater infrastructure has capacity to accommodate this additional connection.

Site drainage will not be modified or impeded. Flood management considerations are further discussed in the following Section 6.5.

6.5 Flood Risk

The Tooheys Brewery site is situated within the Haslams Creek Catchment, which ultimately drains into Homebush Bay. Haslams Creek has been canalised where it is adjacent to the site. Given the proximity of the Tooheys Brewery site to the adjacent creek, it is likely that the site will be affected by flooding at some point in the future.

The site is bounded by Haslams Creek to the northwest of the site, which is in close proximity to the site on both the northwest and northeast sides of the site. The St Hilliers Road Branch channel connects into Haslams Creek near the west corner of the Tooheys Brewery site. This channel influences flooding on the site.

The site is covered by an Auburn Council commissioned flood study *Haslams Creek Floodplain Risk Management Study and Plan* undertaken by Bewsher Consulting Pty Ltd in January 2003. Pursuant to Schedule 2, Item 27 of the Tooheys Brewery Upgrade Project Approval Conditions, the proponent shall ensure that all buildings constructed are above the 1 in 100 year flood level of Haslams Creek. The construction of buildings must also consider Part 6 – Flood Risk Management of the Auburn DCP Stormwater Drainage chapter. In particular, design of new structures must address planning considerations detailed in Table 5 of this section of the DCP (see Table 6.5.1).

Table 6.5.1: Planning considerations of flood risk precincts in the Haslams Creek floodplain (Table 5)

Haslams Creek Floodplain																						
(Also applies to Duck River and Cooks River Floodplain in interim - subject to review)																						
Planning Consideration	Flood Risk Precincts (FRP's)																					
	Low Flood Risk						Medium Flood Risk						High Flood Risk									
	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	
	Floor Level		5								2,3,4	2,3	1	6							1	2,6
	Building Components		2								1	1	1	1							1	1
	Structural Soundness		3								2	2	2	2							1	1
	Flood Affection		2								1	2	2	2	2						1	1
	Evacuation		2,4	*	3,4	4					*	3,4	3,4	1	3						1	3
	Management & Design		1,2,3	1							1	2,3,5	2,3,5	2,3,5	2,3,5						2,3,5	2,3,5

As determined in the Tooheys Brewery Flood Risk Assessment (dated 7 May 2012), in the vicinity of the site the study predicts a 100 year ARI flood event peak level of 6.9 mAHd, and recommends a Flood Planning Level (FPL) of 7.4mAHd, which includes a 0.5 m allowance for freeboard.

The grain intake structure is the only element of the proposed development located within the medium flood risk precinct. Based on Table 6.5.1, the following design considerations are relevant to structures located in this precinct (note that the structure is not considered a habitable structure):

- All structures to have flood compatible building components below or at the 100 year ARI flood level

- Applicant to demonstrate that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 100 year flood
- The impact of the development on flooding elsewhere is to be considered
- Applicant to demonstrate that area is available to store goods above the 100 year flood plus 0.5m (freeboard)
- No external storage of materials below the design floor level which may cause pollution or be potentially hazardous during any flood

Although detailed design of the proposed grain intake structure and associated silo has not been finalised, the design team is aware of the risk of flood and the structure will be compliant with all relevant flood design considerations listed above.

6.6 Noise

The Tooheys Brewery currently operates under noise criteria set out under Condition 15 of the original Tooheys Brewery Upgrade project approval (06_0303). As part of Modification 4 to this approval, the Acoustic Criteria for the site was modified and Condition 15 has been updated (see Figure 6.6.1).

Figure 6.6.1: Updated noise criteria for the Lion Tooheys site (Condition 15 of project approval)

15. The Proponent shall ensure that noise from operation of the project does not exceed the noise limits presented in Table 1.

Table 1: Project Noise Limits dB(A)

Day	Evening	Night		Location
L _{Aeq} (15minute)			L _{A1} (1 minute) or L _{A max}	
62	62	62	65	At any residence or other noise sensitive receiver

Notes:

- To determine compliance with the L_{Aeq} (15minute) noise level limits in the above table, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling where the dwelling (rural situations) is more than 30 metres from the boundary. To determine compliance with the L_{A1} (1minute) noise level limits in the above table, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- The noise emission limits identified in the above table apply under all meteorological conditions.
- The noise limits do not apply if the Proponent has an agreement with the relevant owner of lands within these locations to generate higher noise levels and the Proponent has advised the Department in writing of the terms of this agreement.

Of the works comprising this proposed development, the planned fire pump facility, located adjacent to the main entrance and Nyrang Street, is the only aspect of the proposed development to have potential noise impacts. The fire pump facility will be constructed of rendered concrete blocks. If required, the facility will receive additional acoustic treatment to ensure that its operating noise will remain below those noise limits outlined in Condition 15.

To achieve an operating noise that is compliant with specifications of Condition 15, mitigation measures will be applied to the fire pump facility, which will be of industry standard and drawn from Chapter 7 of the NSW Industrial Noise Policy (EPA NSW, 2000).

6.7 Visual Amenity and Privacy

The proposed buildings and works comprise limited external development that will have potential for visual impact. There will be no impact on the privacy of neighbouring properties.

Depalletiser and packaging plant upgrade will require internal modifications only to Bottling Hall 1 and 2. The proposed fire pump facility is partially visible from off-site locations, while the grain intake structure is only visible from within the site.

Much of the site's eastern boundary is lined with well-established trees. This is the case in the area where the proposed fire pump facility would be located. These trees will provide significant natural screening of the proposed structure, which will be dwarfed by existing surrounding buildings and finished to blend with its surrounds.

The grain intake structure would be located in the western area of the site, close to Haslams Creek and the private access bridge. Similar infrastructure already exists in this area, which is contained well within the site. The proposed silo will be constructed of steel plate and finished with two pack polyurethane to match similar structures already existing in the immediate surrounding area. Other components of the structure will be constructed of galvanised steel. This will reduce the visual impact of the new structure, which is expected to be unnoticed by those located off the Tooheys site.

6.8 Bulk and Scale

As part of this modification, two new external structures are proposed. The design of both the grain intake structure and fire pump facility responds to relevant design objectives outlined in the Auburn DCP (2.0 Built Form) and listed below:

- To ensure that the form, scale, design and nature of development maintains and enhances the streetscape and visual quality of industrial areas.
- To ensure that the scale of any new industrial development is compatible with surrounding industrial buildings.
- To ensure the intensity of development recognises the environmental constraints of the site and its locality.

Grain Intake Structure

The grain intake structure comprises a swivel screw, silo and bucket elevator. The silo, which will be the tallest part of the total structure, will reach 12 metres high. Considering the large scale and nature of well-established structures and buildings already present on the site, the addition of the grain intake structure is expected to be compatible with surrounding industrial buildings.

Fire Pump Facility

The fire pump room will be a single, flat-roofed rectangular building measuring 15 by 7 metres. This is considered small in scale compared to other buildings located in this area of the site, and is comparable in size to the gatehouse located at the adjacent main entrance. To achieve fire safety compliance and reduce noise impacts, the walls of the facility will be constructed using large concrete blocks. These will be finished with render and coloured to blend with adjacent buildings, namely the façade of the packed stock warehouse.

Figure 6.8.1: Elevation of proposed grain intake structure (for full elevation see Appendix B)

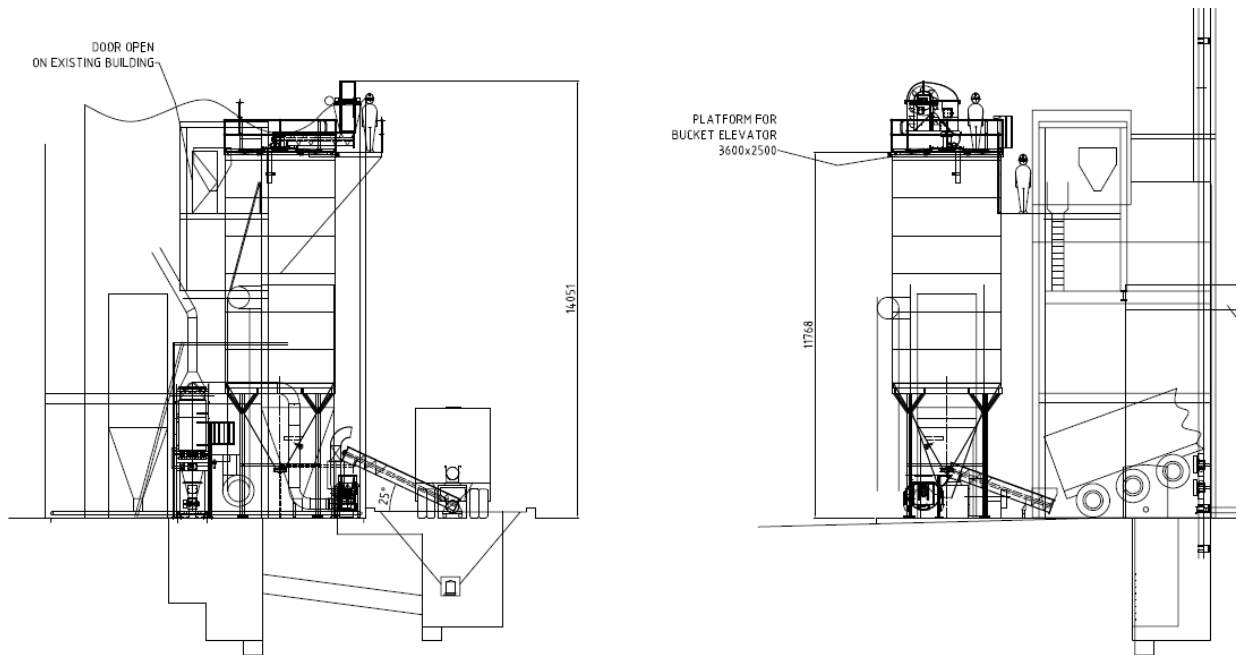
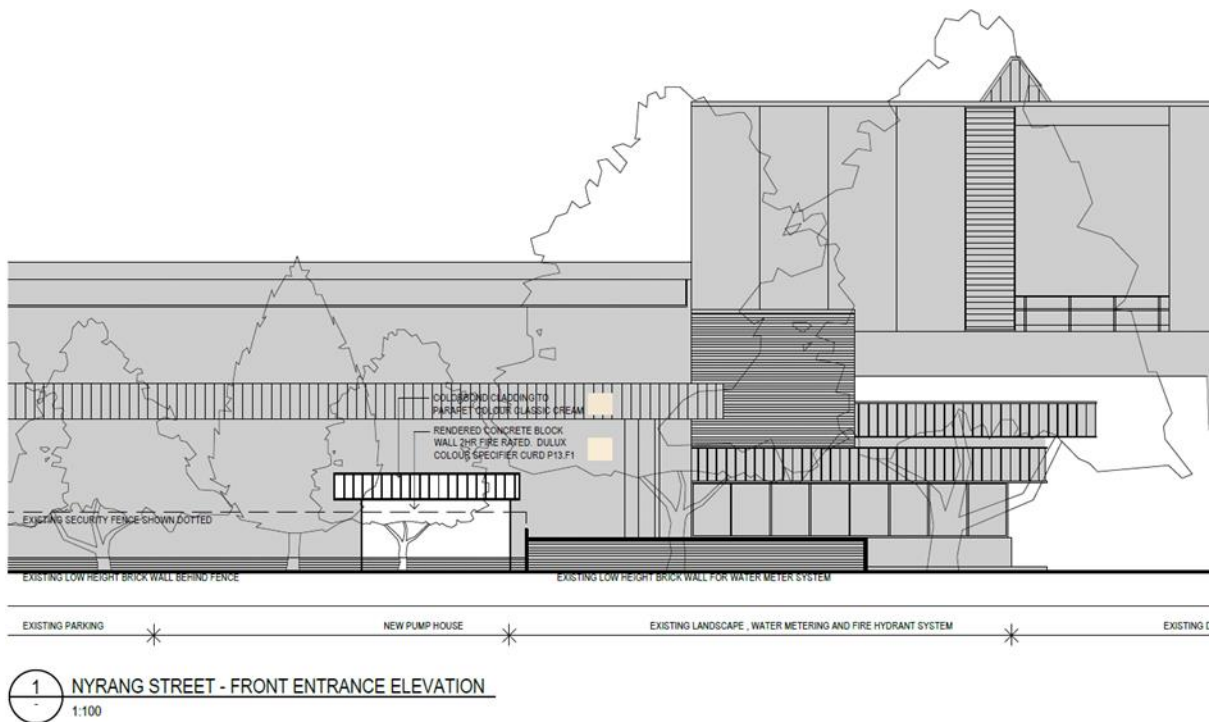


Figure 6.8.2: Elevation of proposed fire pump facility (for full elevation see Appendix B)



6.9 Soil and Water

Environmental impacts to soil and water are not expected as a result of proposed works at the Tooheys site. The site will continue to operate with respect to its EPA License and future manufacturing processes are not expected to introduce contamination issues at the site.

6.10 Heritage and Flora and Fauna

The site does not contain any specific flora and fauna requirements and no heritage items exist on the site. The site does comprise some established vegetation, particularly along sections of its boundaries and scattered throughout the site. No vegetation removal or modification of existing landscaped areas is required as part of the proposed works.

6.11 Waste Management

Waste will be managed during construction and operation in accordance with Condition 38 and 39 of the original Tooheys Brewery Upgrade project approval.

Demolition of an existing shed adjacent to the grain intake structure Demolition required for the proposed internal modifications of Bottling Hall 1 and 2 will generate additional waste during construction. The approach to managing this waste has been outlined in Section 4.2.

6.12 Social and Economic Effects

The proposed development works at the Lion Tooheys site reaffirms its presence in the national market. The upgrading of plant equipment and site infrastructure represents a significant investment in the area and will improve the safety and efficiency of existing manufacturing processes. This will support Lion in continuing to provide positive social and economic effects to the local and wider community.

7 Legislative Response

The proposed development will demonstrate an appropriate response to all relevant legislation outlined in the *Auburn Development Control Plan (DCP) 2010* introduced in Section 2.3.

Table 6.5.1: Planning responses of proposed development to relevant chapters and sections of the Auburn DCP

Planning Control	Response
2.0 Built Form	<p>Considering the large scale and nature of well-established structures and buildings already present on the site, the addition of new structures is expected to be compatible with surrounding industrial buildings.</p> <p>The proposed new development has recognised potential flooding constraints of the site and will address these through design of appropriate structures.</p>
3.0 Streetscape and Urban Character	<p>All proposed new development is appropriately designed to remain compatible with existing site buildings and the character of the industrial area within it sits.</p>
4.0 Landscaping	<p>All new buildings will be constructed on existing hard stand areas and, importantly, no vegetation removal or modification of existing landscaped areas is required as part of these proposed works. No new landscaping is planned as part of the proposed external development.</p>
5.0 Access and Car Parking	<p>The Car Parking Demand Study supports that the proposed reduction in car parking spaces will not affect the site's ability to meet parking demand of its staff, contractors and visitors.</p> <p>The TIA prepared predicts that there will be no adverse effect on the existing road network in terms of additional traffic generation.</p>
6.0 Stormwater Drainage (including Flood Risk Management)	<p>Stormwater run-off from the roof of the new fire pump facility will be connected to the site's existing stormwater management system. Existing stormwater infrastructure has capacity to accommodate this additional connection. Site drainage will not be modified or impeded.</p> <p>Flood risk will continue to be managed across the site. The proposed grain intake structure will be the only structure of the proposed development located within a medium flood risk precinct. Its design will comply with planning considerations detailed in <i>Part 6 – Flood Risk Management of the Auburn DCP Stormwater Drainage</i> chapter, Table 5.</p>
8.0 Operational Restrictions	<p>There will be no change to the way in which the site currently operates. All potential environmental impacts resulting from the operation of the proposed development, namely noise, visual impact and stormwater discharge, will be appropriately mitigated and managed.</p>

8 Summary

The proposed development incorporates internal depalletiser and packaging plant upgrades, a grain intake structure and fire pump facility. As part of these works a reduction in car parking will also occur. This Environmental Assessment has dutifully considered the potential impact of the proposed development on the surrounding environment and establishes that:

- There will be no long-term adverse effect on the existing road network in terms of additional traffic generation
- The proposed reduction in car parking spaces will not affect the site's ability to meet future parking demand of its staff, contractors and visitors
- The proposed fire pump facility and other associated upgrades will improve fire safety on the site
- Additional stormwater infrastructure associated with the proposed works, namely the new fire pump facility, will be connected to the existing on-site stormwater management system
- The proposed grain intake structure will be compliant with all relevant flood design considerations specific to medium flood risk precincts
- The fire pump facility will implement appropriate mitigation measures to achieve an operating noise that is compliant with specified noise requirements
- Existing vegetation and adjacent buildings will provide appropriate screening that will reduce the impact on visual amenity of the fire pump facility and grain intake structure
- Environmental impacts to soil and water are not expected as a result of the proposed works
- The site does not contain any specific flora and fauna requirements and no heritage items exist on the site
- Waste will be managed during construction and operation in accordance with Condition 38 and 39 of the original Tooheys Brewery Upgrade project approval
- The proposed development will suitably respond to relevant legislation outlined in the *Auburn Development Control Plan (DCP) 2010*

In summary, the proposed development will avoid significant environmental impacts and, where necessary, will provide suitable mitigation to appropriately attenuate any adverse effects. The proposed development will support Lion in continuing to provide positive social and economic effects to the local and wider community.

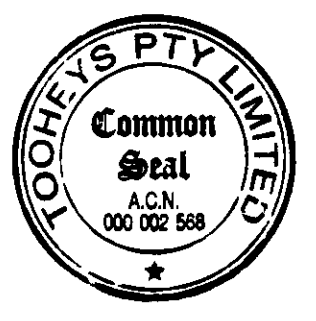
Based on the limited impact of the proposed development on the environment and community, and the appropriate respect to relevant legislation, we request that the Department of Planning and Environment look favourably upon this modification application.



Appendix A – Title Plan

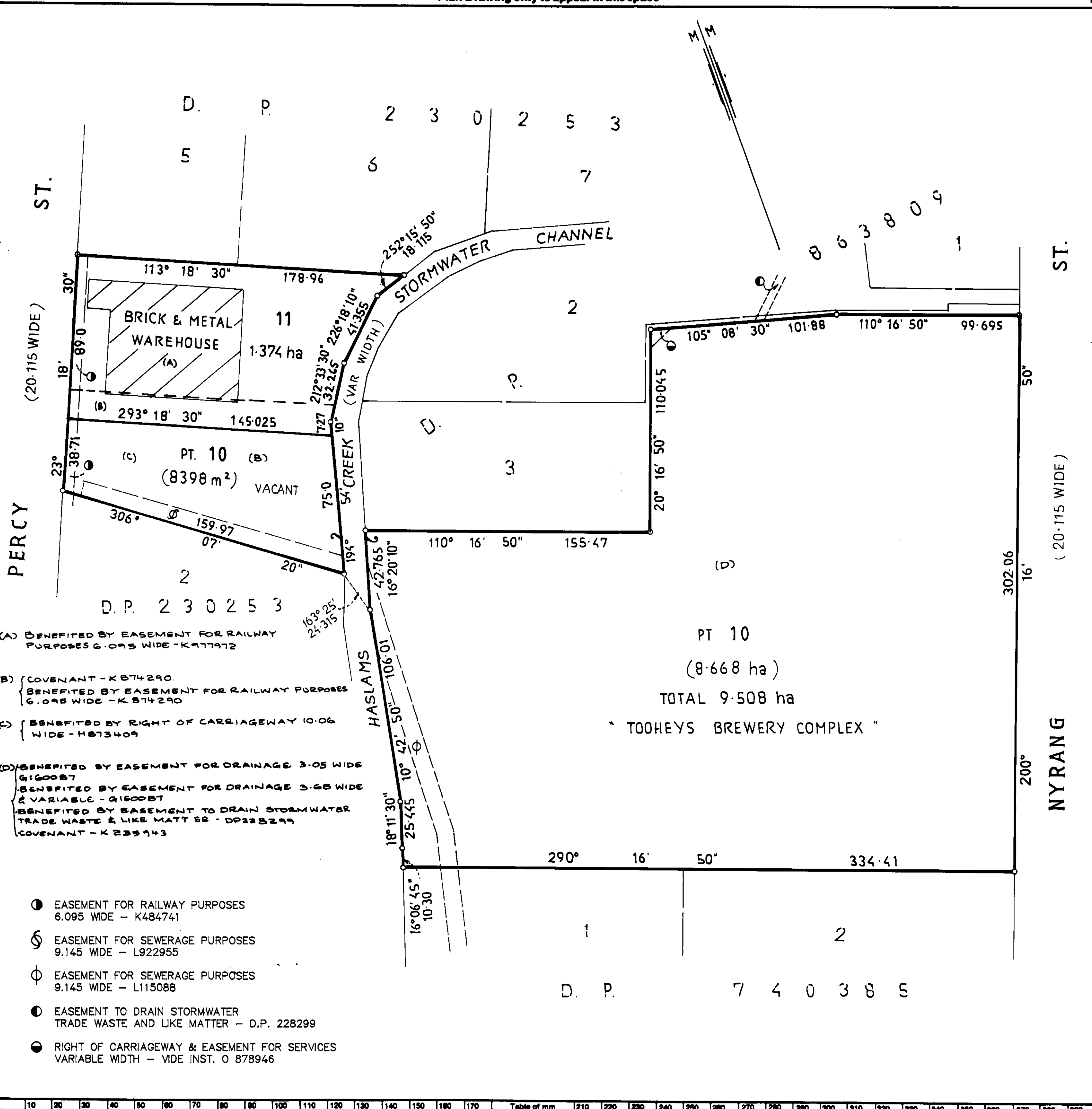
SIGNATURE AND SEALS ONLY.

N. D. Toohy
Engineering Manager, Toohys



W. Bugno
WALTER BUGNO, DIRECTOR

Therese McGrath
THERESE McGRATH, SECRETARY



Crown Lands Office Approval

PLAN APPROVED
Authorised Officer
Land District
Paper No.
Field Book pages

Council's Certificate

I hereby certify that -
(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and
(b) the requirements of Part 3 Division 2 of the Water Board Act 1987, and the provisions of the Hunter Water Board Corporation Act 1988
have been complied with by the applicant in relation to the proposed Subdivision
(Insert "new road", "subdivision" or "consolidated lot") set out herein
Subdivision No. **20199**
Date **11/6/99**
(Signature) *[Signature]*
General Manager/Authorised Person
Council File No. **D2550017**

* This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Water Board and the Hunter Water Corporation Ltd.
1 Delete if inapplicable

DP1008367

Registered: AE 16.12.1999
C.A: SEE CERTIFICATE
Title System: TORRENS
Purpose: SUBDIVISION
Ref. Map: U0052-83
Last Plan: DP228299
DP629889

PLAN
OF SUBDIVISION OF
LOT 2 IN D.P. 228299 &
LOT 34 IN D.P. 629889

Lengths are in metres. Reduction Ratio 1: 1500
LGA **AUBURN**
Municipality
Locality: **LIDCOMBE**
Parish: **LIBERTY PLAIN**
County: **CUMBERLAND**

This is sheet 1 of my plan in sheets
(Delete if inapplicable).

I, **CHRISTOPHER THOMAS NORTON**
of **HIGGINS & NORTON PTY. LTD.**
149 CASTLEREAGH ST, SYDNEY
a surveyor registered under the Surveyors Act 1929, hereby
certify that the survey represented in this plan is accurate, has
been made in accordance with the Survey Practice Regulation
1998 and was completed on **16.1.98**

(Signature) *[Signature]*
Surveyor registered under
the Surveyors Act 1929
ZONE: SUBURBAN

Plans used in preparation of survey/compilation:
D.P. 228299 D.P. 629889
D.P. 230253 D.P. 863809
D.P. 940385

PANEL FOR USE ONLY for statements of
intention to dedicate public roads or to create
public reserves, drainage reserves, easements,
restrictions on the use of land or positive
covenants.

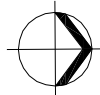


Appendix B – Plans and Elevations



Drawing No. 2574004-AA-K0500

1 GROUND FLOOR - FRONT ENTRANCE
- 1:250



SP 73204

HASLAM'S CREEK

BRIDGE

HASLAM'S CREEK

THE BACK ROAD

WASTE TREATMENT

THE BREWHOUSE ROAD

PROPOSED WORK AREA - D

GRAIN SILOS

THE MAIN ROAD

WORKSHOP AND
OFFICES
RECYCLING

3
DP 863809

2
DP 863809

10
DP 1141813

BREWHOUSE

BEER
PROCESSING
AREA BUILDING

TANK FARM 3

TANK FARM 1

TANK FARM 2

SUBSTATION 7

OLD
FILTRATION
BUILDING

ELEPHANT
HOUSE

GROUND FLR
GENERAL
STORES

GROUND FLOOR
AMENITIES

ENGINE RO

THE MAIN ROAD

BOTTLING HALL 2

LEGEND

- EXISTING METAL FENCE
- AREA WITH PROPOSED WORK ON SITE
- EXISTING TREE TO REMAIN

PROPOSED SCOPE OF WORKS

PROPOSED WORK AREA A - DEPALLETISER PLANT UPGRADE.
EQUIPMENT UPGRADE WITHIN EXISTING BOTTLING HALL 2, GROUND FLOOR LEVEL.
INTERNAL WORKS ONLY, NO BUILDING WORKS PROPOSED.

PROPOSED WORK AREA B - PACKAGING PLANT UPGRADE.
EQUIPMENT UPGRADE WITHIN EXISTING BOTTLING HALL 1, 1ST FLOOR LEVEL.
INTERNAL WORKS ONLY, NO BUILDING WORKS PROPOSED.

PROPOSED WORK AREA C - FIRE PUMP FACILITY.
NEW FIRE PUMP HOUSE APPROX. 85 m2 (5m X 17m) 2 HR FIRE RATED ENCLOSURE (WALLS AND ROOF).
REFER TO TRAFFIC REPORT FOR REMOVAL OF EXISTING ON SITE PARKING SPACES.
BUILDING MATERIALS: RENDERED CONCRETE BLOCK WITH PAINT FINISH. METAL SHEET ROOF AND PARAPET CLADDING, SIMILAR TO EXISTING BUILDING ON SITE.

PROPOSED WORK AREA D - GRAIN INTAKE STRUCTURE.
DEMOLISH EXISTING GRAIN INTAKE AWNING STRUCTURE (SHOWN DOTTED).
NEW GRAIN INTAKE SILO AND EQUIPMENT, DETAILS REFER TO ENVIRONMENTAL ASSESSMENT.

A	ISSUE FOR DA, MOD 6	TWW	MW	JG	20160115
No.	Revision	By	Chk	Appd	Date

Original Scale (A1)	Design	TW.WANG	21.12.15	Approved For Construction
1:250	Drawn	TW.WANG	21.12.15	
Reduced Scale (A3)	Dwg Verifier	M.WARNE	15.01.16	
1:500	Dwg Check	S.CLOES	15.01.16	Date

* Refer to Revision 1 for Original Signature



Client: 
Project: **TOOHEY'S BREWERY UPGRADE**
LIDCOMBE NSW

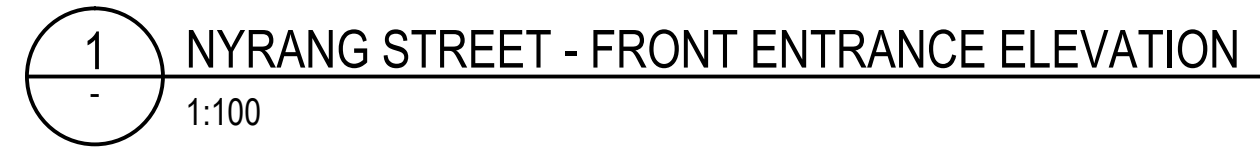
Title:	SITE PLAN GROUND FLOOR 2 OFF 2
Discipline:	ARCHITECTURAL
Drawing No.	2574004-AA-K0501
Rev.	A

FOR INFORMATION
NOT FOR CONSTRUCTION

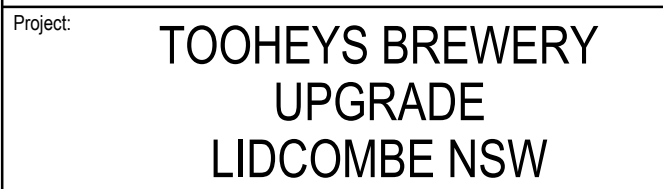
PRELIMINARY
NOT FOR CONSTRUCTION

1 GROUND FLOOR - FRONT ENTRANCE
1:250

www.beca.com



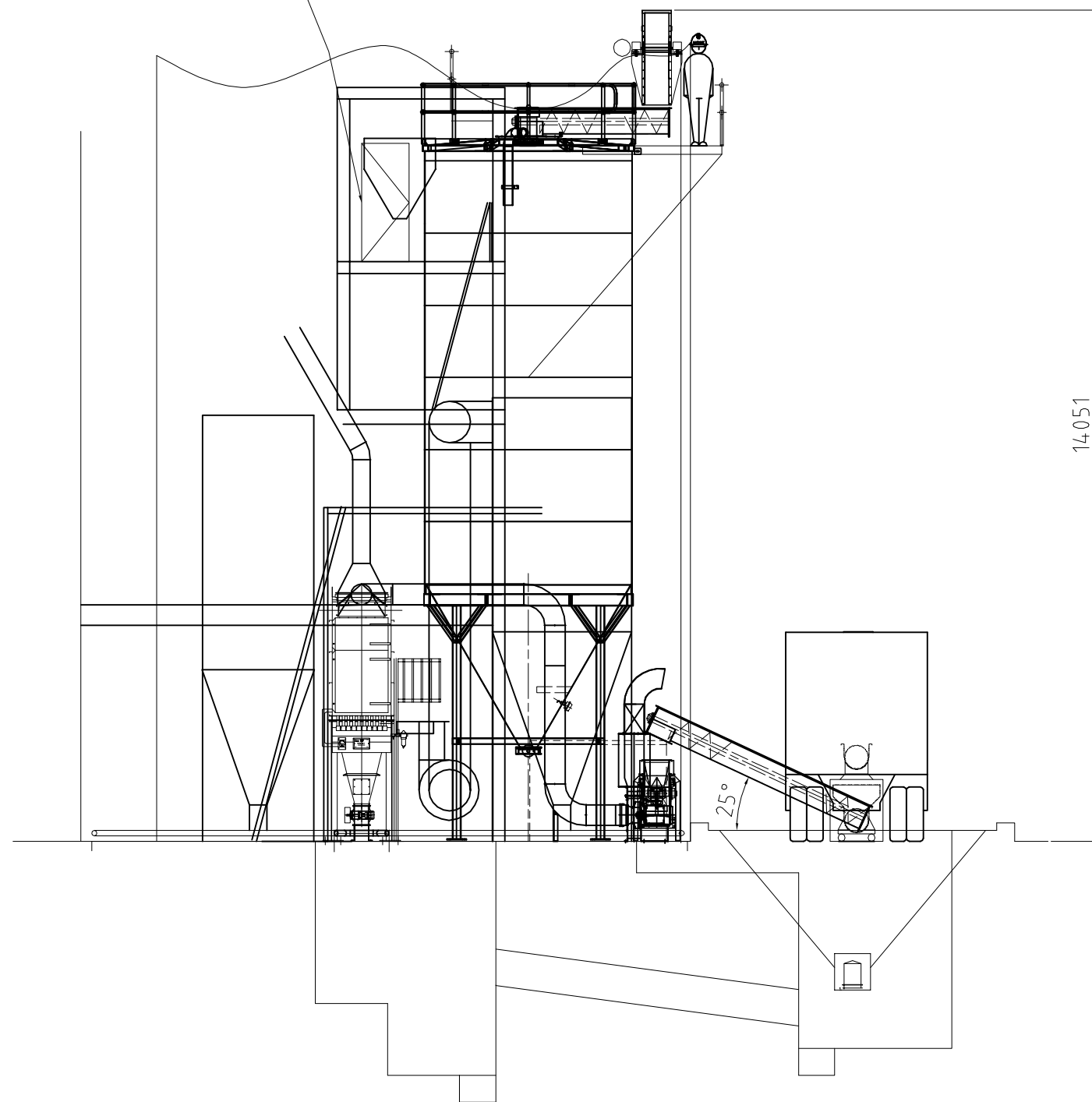
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	Drawn	TW.WANG	21.12.15	
Reduced Scale (A3) 1:200	Dwg Verifier	MW	15.01.16	Date
	Dwg Check	SCC	15.01.16	
* Refer to Revision 1 for Original Signature				



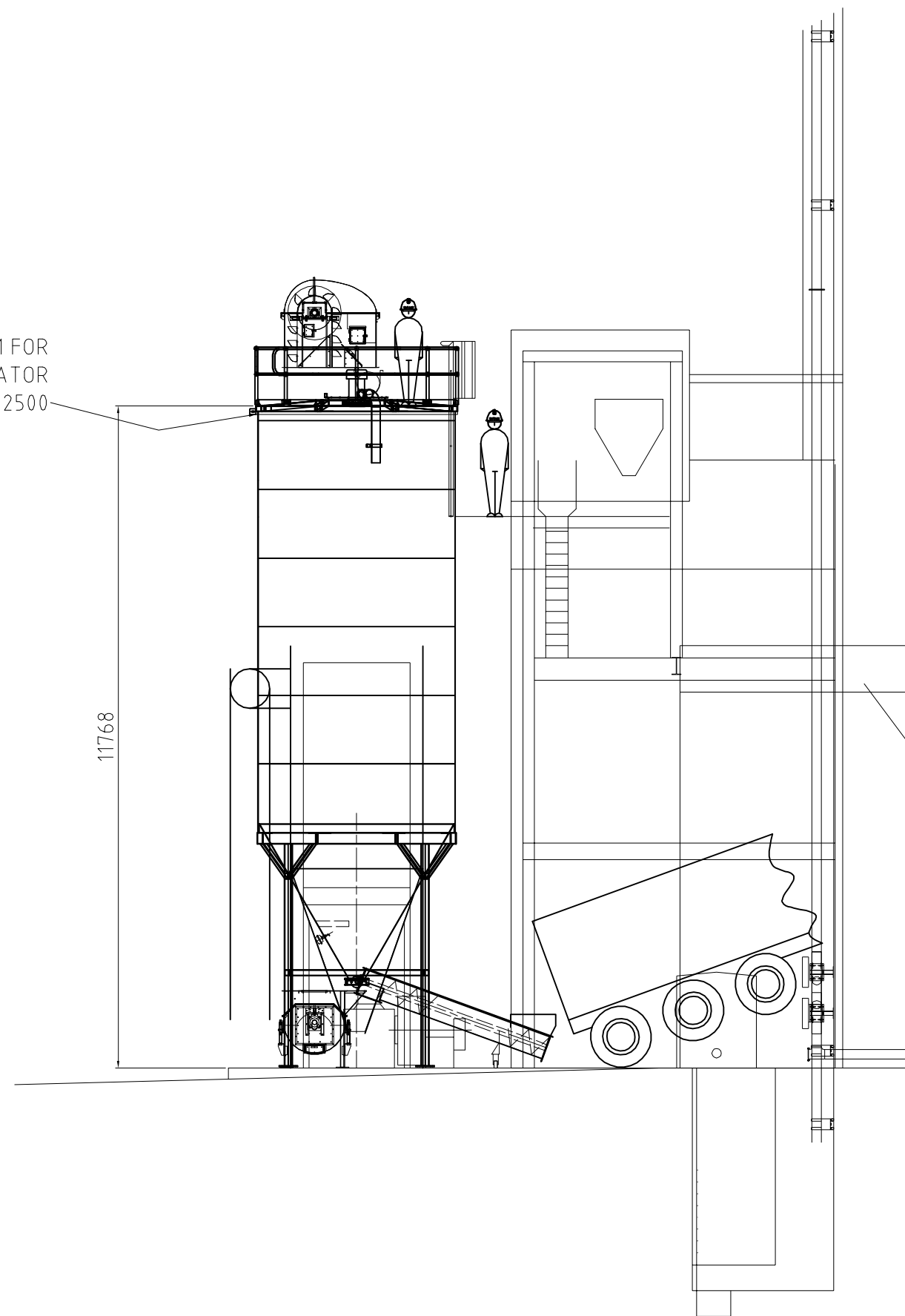
Drawing No. <div style="font-size: 24pt; font-weight: bold; text-align: center;">2574004-AA-K5100</div>	Rev. <div style="font-size: 24pt; font-weight: bold; text-align: center;">A</div>
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PRELIMINARY
NOT FOR CONSTRUCTION

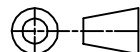
DOOR OPEN
ON EXISTING BUILDING



PLATFORM FOR
BUCKET ELEVATOR
3600x2500



OPTION #6-B





Appendix C – Traffic Impact Assessment

Traffic Impact Assessment Report

Tooheys Brewery Upgrade

Depalletiser and Packaging Plant, Grain Intake and Fire Pump Upgrade

Prepared for Lion

By Beca Pty Ltd (Beca)



22 January 2016



Revision History

Revision Nº	Prepared By	Description	Date
1	Aidan Cleary	Final Report	15/01/2016
2	Aidan Cleary	Final Report (Revised Site Arrangement)	22/01/2016

Document Acceptance

Action	Name	Signed	Date
Prepared by	Aidan Cleary		22/01/2016
Reviewed by	Craig Richards		22/01/2016
Approved by	Jason Goodman		22/01/2016
on behalf of	Beca Ltd		

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This report has been prepared by Beca on the specific instructions of our Client. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. Any use or reliance by any person contrary to the above, to which Beca has not given its prior written consent, is at that person's own risk.

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Appendices

Appendix A

Site Plans

Appendix B

Public Transport Plans

1 Introduction

1.1 Background

Beca Pty Ltd (Beca) has been commissioned by Lion to prepare a Traffic Impact Assessment (TIA) report for a proposed development at 29 Nyrang Street, Lidcombe. The proposed developments are within the existing manufacturing facility at this location and are part of Lion's wider and on-going development and investment initiative for the site.

New development at the site is proposed to improve site efficiencies and operational safety. This proposed development includes internal modifications and new plant for Bottling Hall 1 and 2, new facilities for grain intake and fire pump operations and a reduction in car parking.

The site is currently operational and is situated within the Lidcombe suburb in Western Sydney. It is accessed by Nyrang Street and Percy Street. Nyrang Street runs in a generally north-south direction through the area and provides access to the east of the site. Percy Street also runs in a generally north-south direction through the area and provides access to the west of the site.

The location of the site is shown indicatively in **Figure 1-1**. An overview of the proposed development works is provided in **Appendix A**.

Figure 1-1: Site Location



1.2 Report Structure

This TIA has been prepared to satisfy the requirements of the Development Application (Jan 2016) currently under preparation by Beca on behalf of Lion. A TIA is required to address the external vehicle movements and parking at the site, which can satisfy the requirements of the project stakeholders. The TIA is structured as follows:

- n **Section 2: Transport Environment**
 - Reviews and describes the surrounding land use and road network including current access arrangements, and
 - Summarises existing traffic volumes and crash records for the study area.
- n **Section 3: Development Proposals**
 - Provides an overview of the proposed development including new access arrangements, parking and loading configurations, plus predicted traffic generation, distribution and assignment.
- n **Section 4: Assessment of Effects and Mitigation**
 - Assesses traffic and parking effects, and
 - Reviews the predicted effects of traffic movements on the existing road network and provides recommendations for mitigating any predicted adverse effects. This includes assessment of the parking requirements against the Auburn Council Auburn Development Control Plans 2010, Car Parking and Loading.
- n **Section 5: Summary and Conclusion**
 - Summarises the key findings of the report, including mitigation measures, and identifies conclusions.

2 Transport Environment

2.1 Surrounding Land Use

The existing site is located in Lidcombe, NSW. It is bordered to the east by Nyrang Street and the west by Percy Street. Both Percy Street and Nyrang Street are undivided two lane urban carriageways which run in a general north-south direction. The main access to the site is from Nyrang Street. The surrounding area is a mixture of industrial, residential and commercial land use as follows:

- n Industrial –
 - The AirRoad Industrial unit is located immediately north of the site on Nyrang Road. See **Figure 2-1**, and
 - The Acacia Transport unit is located immediately south of the site on Nyrang Road.
- n Commercial
 - The Lidcombe Shopping Centre is located immediately opposite the north east corner of the existing site and has a main access onto Nyrang Street. See **Figure 2-2**.
- n Residential
 - Existing residential areas are located to the east of Nyrang Road for the majority of the Tooheys' site.

Figure 2-1 Existing AirRoad industrial Access – Tooheys' site is located to the left of the photo.



Figure 2-2 Existing Lidcombe Shopping Centre Access

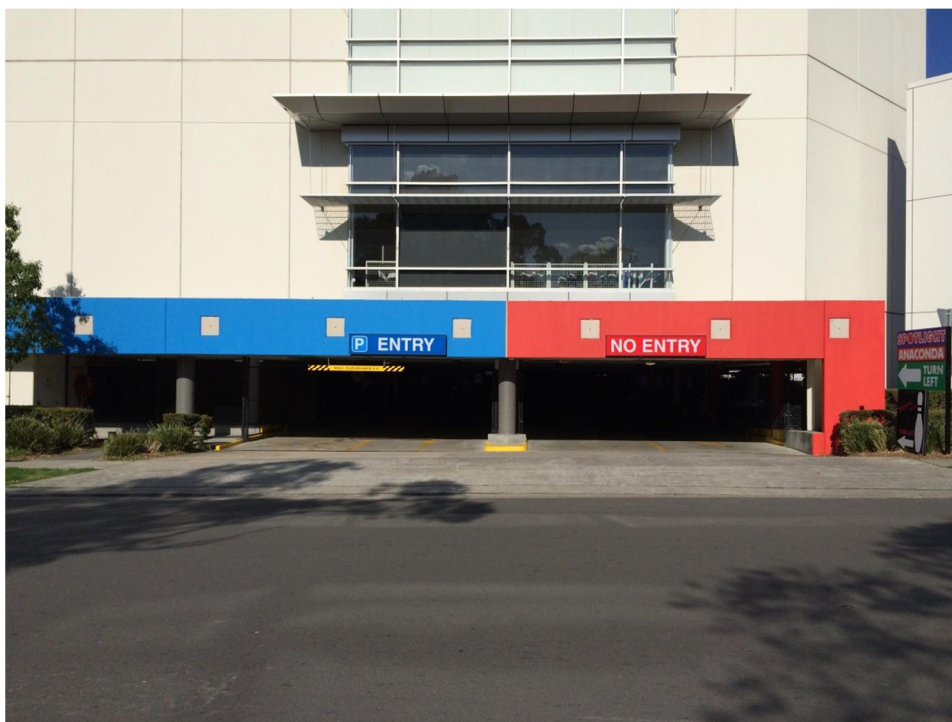


Figure 2-3 Residential Areas to the right of the photo – Tooheys' site is located to the left of the photo.



2.2 Road Network and Site Access

Figure 2-4 is an overview of Nyrang Street, Percy Street, Parramatta Road and the existing site location.

Figure 2-4: Surrounding Road Network and Site Access Points



Nyrang Street is an urban roadway with speed restrictions from adjacent residential streets (e.g. Gooreen Street, Frampton Street and Hasting St) in the form of narrowed and intersections and restricted movements. See following **Figure 2-5**.

Percy Street is an urban roadway without any speed or access restrictions in the vicinity of the site.

Figure 2-5: Local Residential Street Access to / from Nyrang Street



There are three all-movement priority controlled accesses to the site from Nyrang Street. One of the accesses (denoted Access A in Figure 2.4) is the main site access. This access is used by freight vehicles only. The second access (denoted Access B in Figure 2.4) is a secondary access and provides access to freight and private vehicles. Visitors access the site at this location. The third access (denoted Access C in Figure 2.4) is a secondary access and is used solely by freight traffic to access the south of the site.

There is one all-movement priority controlled accesses to the site from Percy Street (denoted Access D in Figure 2.4). This is a secondary access and is used by freight vehicles only.

All accesses are security controlled by manned booths, remote operated gates or manually operated gates.

2.3 Parking and Loading

2.3.1 Parking

Following the proposed development, **375** (reduced from 397) car spaces would be provided within the current landholding, as shown on mark-up of Drawing A0101-001-SHT1 Rev 3 within **Appendix A**.

A breakdown of the spaces and their use and allocations is as follows:

- n **50** (reduced from 72) surface level spaces are available to the south east of the site and provide parking for office and plant employees. Access is from Nyrang Street
- n **149** basement level spaces are available to the north of the site within Bottling Hall 1 and provide parking for plant employees. Access is provided from Nyrang Street.
- n **139** surface level spaces are available to the north of Bottling Hall 1 and provide parking for plant employees. Access is provided from Nyrang Street.
- n **17** surface level spaces are available in the north east corner of the site and provide parking for visitors. Access is provided from Nyrang Street.

- n The remaining **20** spaces are located to the west of the existing Administration Building and provide parking for plant staff or visitors. Access is provided from Nyrang Street.

The existing parking provisions on Nyrang Street include parallel kerbside parking on both sides of the street with standard restrictions near accesses / driveways and local road intersections. A two hour restriction exists during Public Events associated with Sydney Olympic Park. It is noted within the Tooheys Brewery Wastewater Treatment Plant Environmental Assessment, 2011 that parking occupancy rates for these spaces was less than 50%. A site visit undertaken by Beca in Sept 2015 would suggest that this remains the case in the present time.

2.3.2 Loading

Loading and unloading of materials and finished goods is via the truck only accesses on Nyrang Street and Percy Street. All loading and unloading is undertaken within the site boundaries.

Figure 2-6 Main Site Access (from Nyrang Street)



2.4 Traffic Volumes

As noted within Sections 3 and 4 of this report, there is a very minor increase in expected traffic volumes to and from the site as part of the proposed development (i.e. the addition of a pump house). As such Traffic Data has not been sought as part of this Traffic Impact Assessment report.

2.5 Public Transport

The site is not directly serviced by Public Transport but bus and train services are located within the vicinity of the site. The available public transport provisions are as follows:

- n Train Services
 - Lidcombe Train Station (1.8km to the south; 22 minute walk)

n Bus Services:

- 401 service from Lidcombe Train Station travelling northwards to Homebush Bay (closest stop 1.3km, 15 minute walk on corner of Nicholas Street and Bombay Street), and
- M92 service from Lidcombe Train Station travelling northwards to Parramatta Road and beyond (closest stop 400m, 5 minute walk near 174 John Street).

Table 2-1 Public Transport Routes and Operations

Bus Route Number	Route	Frequency (AM/PM Peak)
401	Sydney Olympic Park to Lidcombe Station	20 minutes
M92	Sutherland to Paramatta	Approx. 3 hours

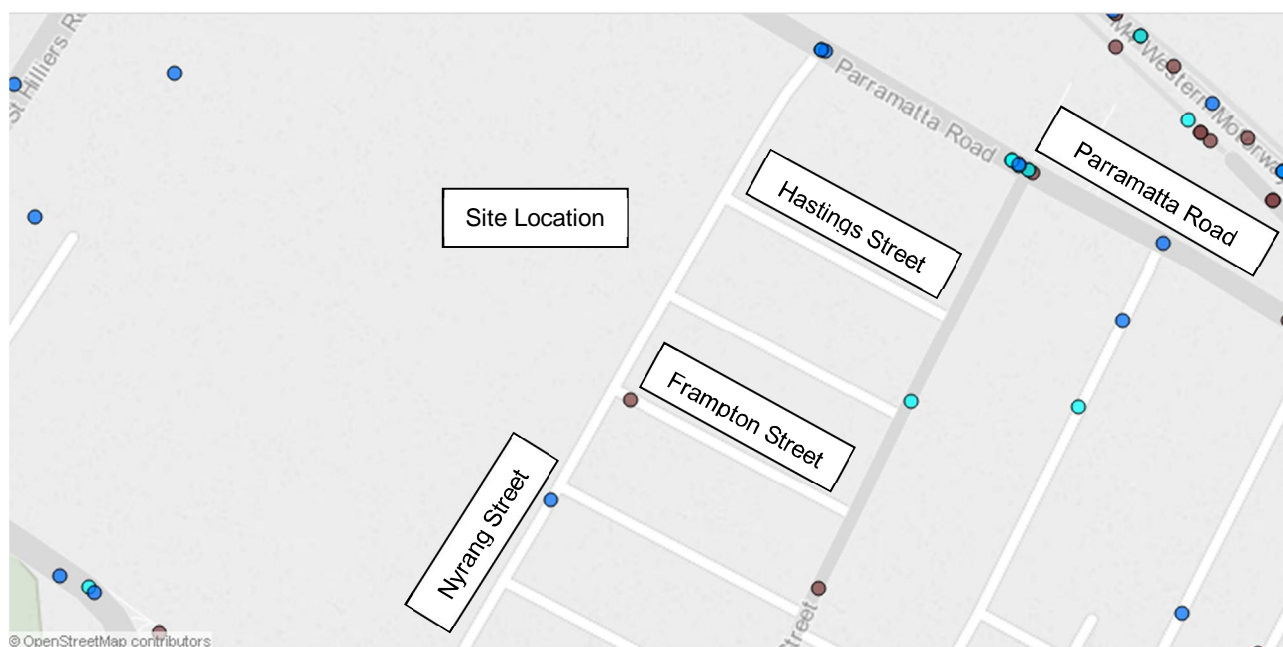
The existing accesses to the site do not impact the operation of the buses in their current locations.

No information on the quantum of staff usage of the current public transport is available. It is expected to be low, given that shift change times are more often early in the morning (6am) and late in the evening (10pm), when service frequencies reduce or there are no services.

2.6 Road Safety Record

Crash records for roads adjacent to the existing site have been obtained from the Transport for NSW Interactive Crash Statistics Website. Available data is limited to the period between 2009 and 2013. Details of the crash record are provided in **Figure 2-6**, which shows the location and number of crashes for the study period.

Figure 2-6: Crash Locations (from Transport for NSW Crash Statistics Website)



A total of six crashes were reported for the period 2009 to 2013 within 200m of the existing site (refer **Table 2-2**). Four injury accidents were located at the intersection of Nyrang Street and Parramatta Road. The remainder were located on Nyrang Street to the south east of the site.

Table 2-2 Individual Crash Information (from Transport for NSW Crash Statistics Website)

Crash Location	Year	Number of Crashes	Number of Injuries	Severity
Nyrang St, adjacent Elimatta St	2012	1	1	Serious injury matched to a police report
Nyrang/Frampton St Intersection	2012	1	1	Minor/Other Injury
Nyrang St/Parramatta Rd Intersection	2012	1	1	Serious injury matched to a police report
Nyrang St/Parramatta Rd Intersection	2012	1	2	Serious injuries matched to a police report
Nyrang St/Parramatta Rd Intersection	2011	1	1	Moderate injury matched to a police report
Nyrang St/Parramatta Rd Intersection	2009	1	1	Moderate injury matched to a police report

No details as to the cause of the crashes are available as part of the available statistical data. Also, information on the road users involved in the incident (e.g. drivers, pedestrians, cyclists, etc.) is not available.

However, it is known that no fatal crashes were recorded within the study area. It is not known whether any accidents involved road users associated with the existing development although site and anecdotal staff records suggest that there has been none.

3 Development Proposals

3.1 Overview

The proposed development consists of amendments and additions to the existing facilities on the site, of which the following directly relates to traffic operation:

- n A 102m² Fire Pump building to be located within a portion of the existing 72 space parking provision adjacent to Nyrang Street. The building will contain apparatus and equipment for use by Fire Services during an emergency or fire event. Regular access will not be required and any access will be limited to maintenance or fire fighting services only;
- n The removal of 22 existing car spaces to accommodate the fire pump building.

3.2 Access Arrangements

The proposed development does not change the existing site access arrangements from Nyrang Street and Percy Street. Access and circulation within the site is unchanged.

3.3 Traffic Generation

3.3.1 Introduction

In assessing the traffic generation and distribution of the proposed development, this report has reviewed the requirements against:

- n The requirements of the relevant Planning and Traffic Guidelines, and
- n The requirements developed from Lion's Project Development and Investment Planning.

These are assessed within **Sections 3.3.2 and 3.3.3**.

3.3.2 Predicted Traffic Generation – Planning and Traffic Guidelines

Changes to the traffic generation for the proposed development has been determined using the Roads and Traffic Authority (RTA) Guide to Traffic Generating Developments (October 2002), in conjunction with the Guide to Traffic Generating Developments Updated Traffic Surveys (August 2013), prepared by RMS.

In determining the theoretical changes to the daily and peak hour traffic volumes generated by the proposed development, the following assumptions have been made:

- n The Gross Floor Area (GFA) of the proposed additional fire pump room is 102m²
- n The development is classified as a Warehouse* as per RTA Guide (October 2002).

** The classification of the proposed building as a 'Warehouse' is the closest applicable classification within the Industrial Section of the RTA Guide. This classification assumes a regular access to and from the building during normal operation however, it is considered that any values in the RTA guide will be well in excess of that expected to be generated for the building.*

Table 3-1 summarises the theoretical increase in traffic generated by the development under the RTA Guide and the associated RMS update.

Table 3-1: Traffic Generation Summary

Development Type	GFA (m ²)	Trip Rate (Trips Per Day)	Trip Rate (Peak Hour Trips)
Industrial - Warehouse	102m ²	5 (5 per 100m ² GFA)	1 (1 per 100m ² GFA)

As such, the development is predicted to theoretically produce an additional 5 vehicles (car and truck movements) per day and an additional 1 movement in the morning and evening peak periods.

3.3.3 Traffic Generation – Lion Project Development and Investment Planning

3.3.3.1 Freight (Truck) Volumes

Changes to the truck volumes for the site have also been assessed as part of the Development and Investment Planning undertaken by Lion. No increase in truck movements, as a result of the proposed additional development described in this document, and particularly by the addition of a pump room, is planned or expected.

As such, and as no increase in freight numbers are expected to / from the site, there will be no adverse effect on the existing road network in terms of truck movements.

3.3.3.2 Private Vehicle Volumes

Changes to the private vehicle volumes for the site have also been assessed as part of the Development and Investment Planning undertaken by Lion. No increase in private vehicle movements, as a result of the proposed additional development described in this document is planned or expected.

As such, and as no increase in such vehicle numbers are expected to / from the site, there will be no adverse effect on the existing road network in terms of these movements.

3.4 Parking Requirements

3.4.1 Introduction

In assessing the parking requirements of the proposed development works, this report has reviewed the requirements against:

- n The requirements of the Auburn Council Auburn Development Control Plan 2010, Parking & Loading, and
- n The requirements developed from Lion's Project Development and Investment Planning.

These are assessed within the following **Sections 3.4.2** and **3.4.3**.

3.4.2 Parking Requirements – Auburn Council Development Control Plan

Changes to the parking requirements for the proposed development have been determined using the Auburn Development Control Plan 2010, Parking & Loading guidelines. In determining the changes to the parking requirements for the proposed development, the following assumptions have been made:

- n The GFA of the proposed additional pump room is 102m², and
- n The development is classified as Warehouse as per Table 7 (Section 6.1.3) of Auburn Council Development Control Plan 2010, Parking & Loading guidelines.

** The classification of the proposed building as a 'Warehouse' is the closest applicable classification within the Development Control Plan. This classification assumes a regular parking need for the building during normal operation however, it is considered that any values in the Development Control Plan will be well in excess of that expected to be generated for the building.*

Table 3-2 summarises the theoretical increase in on-site car parking requirements for the proposed development under the Guideline.

Table 3-2: Increase in Parking Requirements

Development Type	GFA (m ²)	Additional Parking Requirements (1 per 300m ²)
Warehouse	102m ²	1 (rounded up)

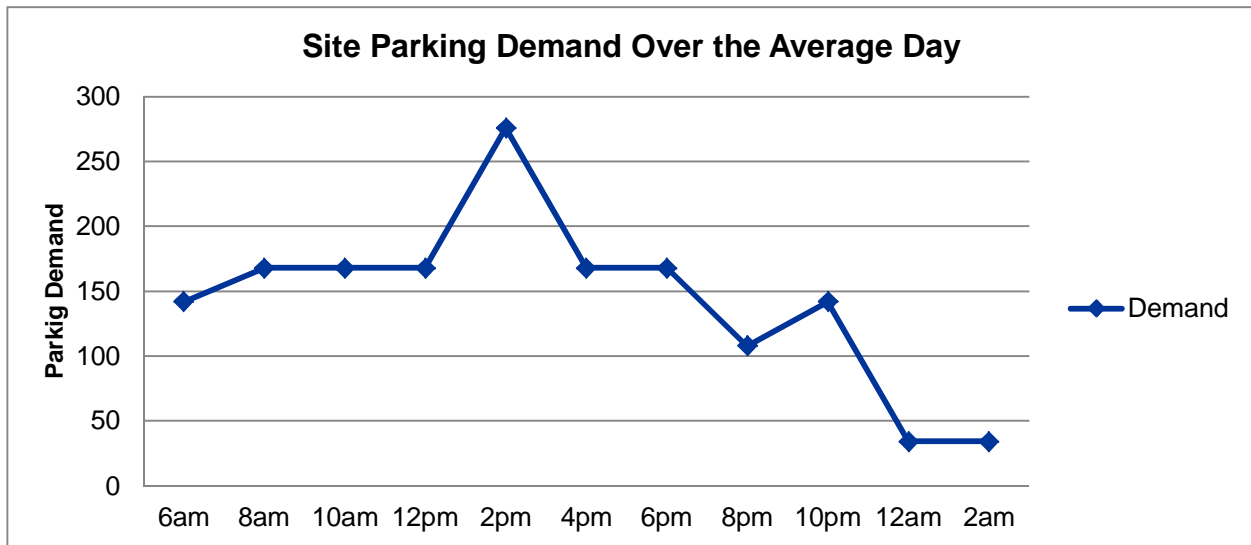
3.4.3 Parking Requirements – Lion's Project Development and Investment Planning

Changes to the parking requirements have also been assessed as part of the Project Development and Investment Planning undertaken by Lion. No increase in staff or visitor number to the site, as a result of the proposed additional development described in this document is planned or expected.

However, in order to assess the impact of the proposed reduction in parking capacity, the maximum demand for parking at the site must first be determined. This determination has been made as follows:

- n The current (and proposed) personnel expected on site is as follows:
 - Admin Staff 50 per day;
 - Shift Workers 100 per day;
 - Contractors approx. 150 per day (peak demand / critical case), and
 - Visitors assume 10 per day.
- n Of the personnel on site, the majority are shift workers and contractors and are subject to shift changes at 3 specific time periods. The time for each sub-group and their attendance on site is as follows:
 - Shift 1 6am to 2pm;
 - Shift 2 2pm to 10pm;
 - Shift 3 10pm to 6am;
 - Office Staff 8am to 6pm, and
 - Visitors 8am to 6pm (assumed to coincide with office operating hours).
- n The peak hourly private vehicle volumes can be determined from the values above and are shown in **Figure 3-1**. In developing these values, the following assumptions have been made:
 - An average vehicle occupancy rate of 1 (i.e. no car-pooling),
 - No mode sharing (i.e. no use of existing public transport, cycling facilities, etc.)
 - There is a 100% overlap in vehicles present on site at times of shift changes (i.e. 6am, 2pm and 10pm).

Figure 3-1: Site Parking Demand (based upon Lion's Project Development and Investment Planning)



Accordingly, the peak car parking demands for the site occur at a time when staff and visitors are on site. At this time, it is likely that a total of **276** personnel, and accordingly, **276** vehicles are on the site and utilising the existing access provisions. This is a conservative view given the assumptions noted in this section. It is likely that there is some portion of car-pooling and mode sharing in place that would reduce the likely car parking demand below the values provided above.

4 Assessment of Effects and Mitigation

4.1 Traffic Effects

As discussed in **Section 3**, the proposed development is theoretically predicted to result in an increase in traffic from and to the site by an additional 1 vehicle movements in the weekday peak hour periods. However, based on the Project Development and Investment Planning undertaken by Lion, the proposed development is actually not expected to change car and truck usage at the site.

In either case, it is considered that vehicle movements to and from the site will remain similar to existing or previously accepted volumes and the effective and efficient operation of the existing site access arrangement and on the adjacent road network is considered to be unaltered.

4.2 Road Safety Effects

Existing crash records from the available years indicate that there are no existing crash issues at the current access and egress points of the site.

A site safety review undertaken at the time of a site visit in September 2015 did not identify any specific safety concerns with vehicles accessing the site. Exiting visibility for vehicles wishing to enter Nyrang Street and Percy Street appeared to be adequate due to the presence of wide verges and gentle horizontal road alignments. On-going maintenance regimes should continue to ensure that adequate visibility is maintained to and from the site accesses.

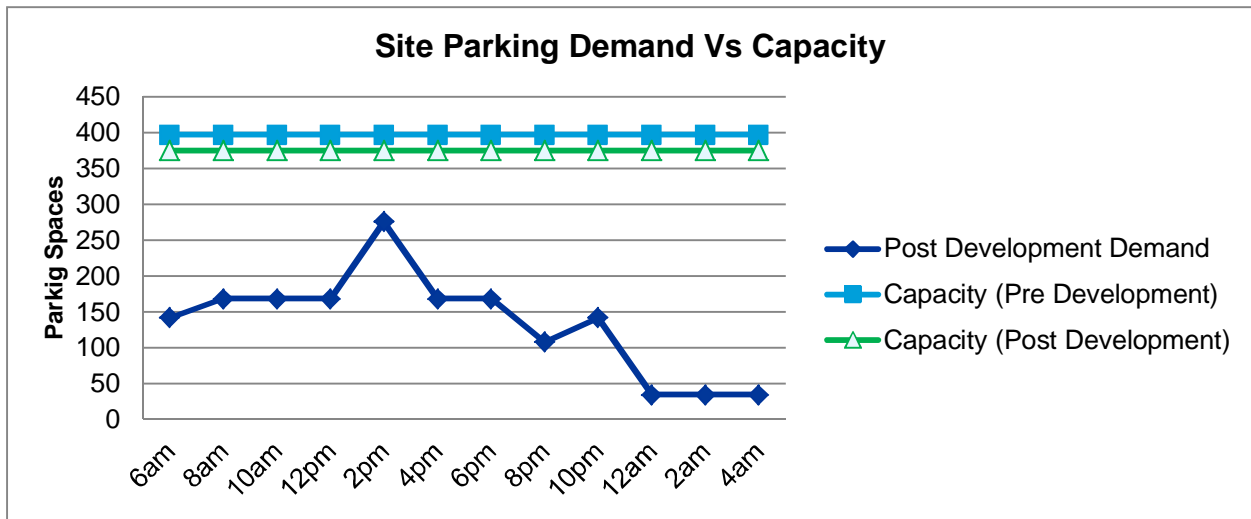
Anecdotal evidence from Lion confirms that a road safety incident has not been recorded as a direct result of vehicles entering or exiting the site.

Further to the assessment and commentary provided in **Section 4.1** above, there is no likely increase in traffic and pedestrian movements at or immediately adjoining the site as a result of this development. As such, it is not considered there will be any adverse effects on the safe operation of the adjacent road network.

4.3 Parking Effects

In assessing the site car parking demands against the available parking capacity, the following graph in **Figure 4-1** reflects the predicted parking demand for the site against the available car parking capacity. This is based on the Project Investment and Development Planning undertaken by Lion, which is considered to provide an appropriate demand-based assessment of the site needs.

Figure 4-1 Graph of Parking versus Demand



As can be seen from the above, at the peak time, the site car parking usage is expected to be 73.6% of the total post development capacity. This is a conservative view given the assumptions noted in **Section 3.4.3**. It is likely that there is some portion of car-pooling and mode sharing in place that would reduce the likely car parking demand below the values provided above. Additionally, it is expected that future investment and production improvements will result in increased efficiencies in automation and processing. As such, future staff demand and usage at the site is expected to follow a reducing trend.

On the basis of the above, it is considered that the post development allowance of 375 car parking spaces is sufficient to meet the future demands of the site.

4.4 Loading Effects

Section 7-D3 of the Auburn Council Development Control Plans – Parking and Loading provides commentary on the requirements for loading as part of site developments. It considers that *“Loading/unloading facilities shall be positioned so as to not interfere with visitor/employee or resident designated parking spaces.”* It is considered that this arrangement current exists on site.

No change to the current loading arrangement is expected as part of this development. As such, it is considered that the proposed loading arrangements are appropriate and do not require additional mitigation measures.

4.5 Recommended Mitigation

When compared to the current site operation, it is not expected that the proposed development will result in any additional traffic, car parking or loading demands than are currently generated by the site or that are currently adequately accommodated by the existing access and car parking arrangements.

The reduction in car parking capacity is considered acceptable against the likely maximum site demand as determined above.

On this basis, no mitigation to address any adverse traffic or car parking effects on the safe, effective and efficient operation of the adjacent road network are considered to be required.

5 Summary and Conclusions

Beca has been commissioned by Lion to prepare a TIA for the proposed development works at Tooheys, Nyrang Street, NSW.

The proposed development essentially comprises a new 102m² fire pump building to the east of the existing site for fire fighting and emergency purposes. In addition, there are some internal building upgrades associated with Bottling Hall 1 and 2, the existing Valve Room and the Grain Intake. The proposal replaces 22 existing on site car parking spaces.

The proposed development is not considered to result in any additional traffic (staff or truck) movements, car parking or loading demands than are currently generated by the site. As such, the current site access, and loading arrangements are considered to remain appropriate and the proposed car parking supply is considered efficient to accommodate the expected parking demands.

On this basis, it is considered that the proposed development can proceed without any adverse effects on the safe, effective and efficient operation of the adjacent road network.

Appendix A

Site Plans

PROPOSED SCOPE OF WORKS

PROPOSED WORK AREA A - DEPALLMENT PLANT UPGRADE.
PROPOSED EQUIPMENT: EXISTING BOTTLING HALL 2, GROUND FLOOR.
INTERNAL WORKS ONLY. NO BUILDING WORKS PROPOSED.

PROPOSED WORK AREA B - PACKAGING PLANT UPGRADE.
PROPOSED EQUIPMENT: EXISTING BOTTLING HALL 1, 1ST FLOOR.
INTERNAL WORKS ONLY. NO BUILDING WORKS PROPOSED.

PROPOSED WORK AREA C - FIRE PUMP FACILITY.
PROPOSED EQUIPMENT: EXISTING 2.0 L/s (gpm) 2.4 H.P. FIRE RATED ENCLOSURE WALLS AND ROOF.
REFER TO TRAFFIC REPORT FOR REMOVAL OF EXISTING ON SITE PARKING SPACES. PROPOSED CONCRETE & ASPHALT PAVING FINISH. EXISTING METAL SHEET ROOF PARAPET. CLADDING SIMILAR TO EXISTING BUILDING ON SITE.

PROPOSED WORK AREA D - GRAIN INTAKE STRUCTURE.
PROPOSED EQUIPMENT: EXISTING GRAIN INTAKE (SEE SHOWN DOTTED).
ENVIRONMENTAL ASSESSMENT.

ENGINE ROOM ROAD

NYRANG ST
WAREHOUSE

110
DP 1141813

EGG BOARD ROAD LOADING

THE FRONT ROAD

THE FRONT ROAD LOADING

EXISTING CAR PARK

NYRANG STREET

FRAMPTON
STREET

GOREEN STREET

HASTINGS
STREET

FOR INFORMATION
NOT FOR CONSTRUCTION

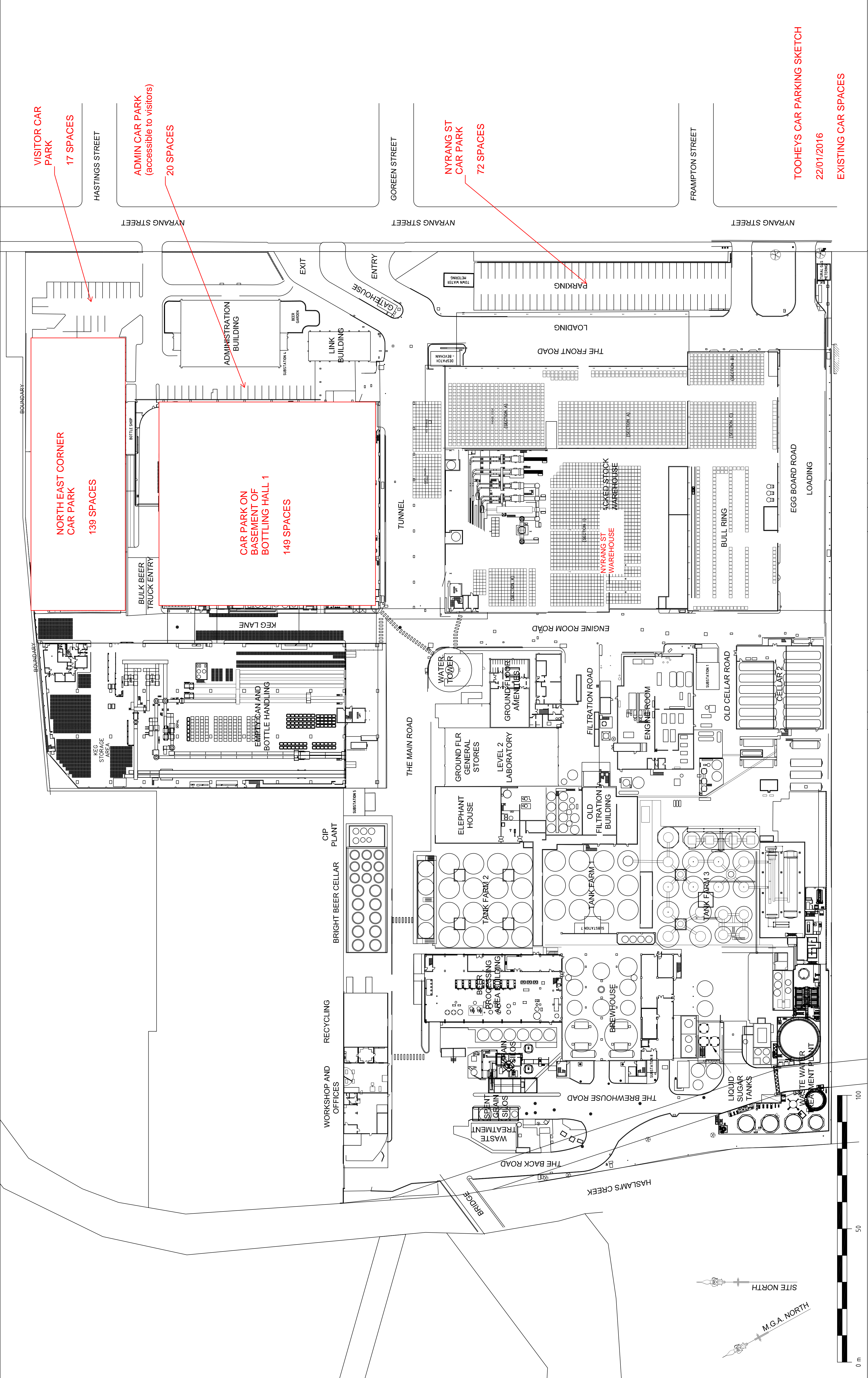
PRELIMINARY
NOT FOR CONSTRUCTION

1) GROUND FLOOR - FRONT ENTRANCE

1:250

DO NOT SCALE

IF IN DOUBT ASK



REFERENCE DRAWINGS		GENERAL NOTES										MASTER SITE PLAN SHEET 1			
DRAWING No.	TITLE	<div>1. THIS SITE PLAN WAS RE-DRAFTED BASED ON BRUNSKILL MCLENNAN & ASSOCIATES PTY LTD SITE SURVEY CONDUCTED 11/03/2011 (BMA REF. 00081-50).</div> <div>2. CRITICAL FEATURES ON THIS PLAN MUST BE VERIFIED BY THE USER AS TO THE ACCURACY REQUIRED FOR THE INTENDED PURPOSE.</div>													

Appendix B

Public Transport Plans

Description of route in this timetable

Route M92

Sutherland to Parramatta (metrobus)

via Bangor, Menai, Padstow, Bankstown, Lidcombe, Auburn and Rosehill.

Service operates daily.

Visit transportnsw.info
Call 131 500 TTY 1800 637 500

M92

Sutherland to Parramatta

Bus Timetable

via Bangor, Menai, Padstow,
Bankstown, Lidcombe,
Auburn & Rosehill



Includes accessible services

Effective from 20 October 2013



What’s inside

Your Bus timetable	1
Your ticketing options	1
Accessible services	1
How to use this timetable	1
Other general information.....	1
Bus contacts	1

Timetables

From Sutherland towards Parramatta

Monday to Friday	2
Saturday	5
Sunday & Public Holidays	7

From Parramatta towards Sutherland

Monday to Friday	9
Saturday	13
Sunday & Public Holidays	15
Explanation of definitions and symbols	17
Bus route map	18

Your Bus timetable

Our bus services take you around the Sydney metropolitan area and further afield, including Newcastle, the Lower Hunter, the Central Coast, the Blue Mountains, Lithgow and the Illawarra. If you have any questions about getting around on buses, just ask. Staff are here for you.

Your ticketing options

Opal

Opal is the easy, convenient and fast way to pay for travel on public transport. With an Opal card you simply load value onto your card via a range of convenient options then you’re ready to travel.

At the start of your journey, tap your Opal card on an Opal card reader at train stations, on buses, ferry wharves and light rail stops. Tap off at the end of your journey and the correct fare is calculated automatically and deducted from the value on your card.

Opal comes with lots of travel benefits, including:

- Weekly Travel Rewards
- 30% off-peak discount on trains
- Daily, Weekly and Sunday Travel Caps

Travel Caps exclude the airport station access fee.

Visit **opal.com.au** or call **13 67 25 (13 OPAL)** for more information, to find your nearest Opal retailer, or to order your Opal card.

MyTrain, MyBus, MyFerry and MyMulti tickets and Pensioner Excursion Tickets (PETs)

Travel on one mode only, or multiple modes including light rail.


Tickets can be purchased from Transport Shops, ticket resellers, ticket offices and vending machines at train stations and selected ferry wharves. Single tickets are available from staff on board buses and light rail vehicles.

Some Sydney CBD bus services and transport interchanges are PrePay-only between 07:00 and 19:00. For these services, you need to purchase your tickets in advance.

Tickets purchased from train stations and ferry wharves activate immediately. Tickets purchased from all other outlets activate from date of first use.

Visit **transportnsw.info** or call Transport Info on **131 500** for further details.

Accessible services

All new buses have stepless, low-level floors, with space for wheelchairs, prams or strollers. Wheelchair-accessible buses also run on selected bus services. Look for the symbol  in this timetable. Some older buses may not have all the features you need. There will be more accessible services as older buses are replaced.

We try to make sure accessible buses run as intended. If an accessible bus is not available for a scheduled route, we apologise in advance for the inconvenience.

How to use this timetable

- Go to the route map at the back of this timetable and find the two timing points your bus stop is located between.
- Then find these two timing points on the timetable.
- Your bus is scheduled to arrive between the times shown for these points.

For example

If your bus stop is located between timing points A and B on the route map, then your bus is scheduled to arrive between the times shown for A and B in the timetable. Please arrive at your bus stop around 5 minutes before your bus is scheduled.

This timetable is expressed in 24-hour time.

12 midnight to 12 midday	12 midday to 12 midnight
00:00 to 11:59	12:00 to 23:59
12.00 am = 00:00	12.00 pm = 12:00
1.00 am = 01:00	1.00 pm = 13:00
2.00 am = 02:00	2.00 pm = 14:00
3.00 am = 03:00	3.00 pm = 15:00
4.00 am = 04:00	4.00 pm = 16:00
5.00 am = 05:00	5.00 pm = 17:00
6.00 am = 06:00	6.00 pm = 18:00
7.00 am = 07:00	7.00 pm = 19:00
8.00 am = 08:00	8.00 pm = 20:00
9.00 am = 09:00	9.00 pm = 21:00
10.00 am = 10:00	10.00 pm = 22:00
11.00 am = 11:00	11.00 pm = 23:00

Download real-time apps transportnsw.info/apps

- Real-time apps let you track trains, buses, ferries and light rail in real time on the go. So don't miss your next Transport connection. Download one of the handy apps to track your service on your mobile device.
- Where your train, bus, ferry or light rail service is right now
 - Estimated arrival times
 - Service updates
 - Closest stations, stops, wharves and routes
 - Accessibility details.

Who is providing my bus services?

The bus services shown in this timetable are run by Transdev NSW.

Is this timetable current?

We try to make sure services depart at the specified times. However, timetables may change and services may be delayed, cancelled or diverted due to circumstances beyond our control.

If you have not travelled with us for a while, you can confirm this timetable is still current by visiting **transportnsw.info** or calling **131 500**.

Over Christmas and the New Year, a reduced timetable may operate. If you're travelling during this time, plan your trip at **transportnsw.info** or call **131 500**.

Bus etiquette

Eating, drinking, smoking or playing loud music on the bus is not allowed. By law, smoking is not allowed at any bus stop, or at train stations, ferry wharves or light rail stops.

Helpful contacts

- To plan your trip, get service information and make general enquiries:
- Visit **transportnsw.info**
 - Call **131 500** TTY **1800 637 500**
 - Lost property offices**
 - Visit **transportnsw.info** or call **131 500** TTY **1800 637 500** to contact the operator of your service. If you still have your bus ticket, it will help identify the bus you travelled on.

Emergencies
Call Triple Zero (000)

Crime Stoppers
To give information that may help stop, solve or prevent criminal activity
Call **1800 333 000**

Police Assistance Line
To report thefts or other non-life threatening matters
Call **131 444**

Disclaimer: Information in this timetable is based on the latest details at the time of printing, and is subject to change without notice.

Monday to Friday												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	...	...	...	...	...	...	...	06:01	...	06:21	...
N	Bangor Shops Menai Road	...	...	...	...	...	...	...	06:08	...	06:28	...
M	Bradman Road & Old Illawarra Road	...	...	...	...	05:43	...	06:03	06:13	06:23	06:33	06:43
L	Old Illawarra Road Roundabout	...	...	...	...	05:47	...	06:07	06:17	06:27	06:37	06:47
K	Alma Road & Davies Road	...	...	...	...	05:52	...	06:12	06:22	06:32	06:42	06:52
J	Padstow Station Howard Road	...	...	...	...	05:57	...	06:17	06:27	06:37	06:47	06:57
I	Eldridge Road & Chapel Road	...	...	...	...	06:04	...	06:24	06:34	06:44	06:54	07:04
H	Bankstown Interchange	...	...	...	06:02	06:12	06:22	06:32	06:42	06:52	07:02	07:12
G	Bankstown Central	...	...	...	06:05	06:15	06:25	06:35	06:45	06:55	07:05	07:15
F	Rookwood Road & Brunker Road	...	...	...	06:12	06:22	06:32	06:42	06:52	07:02	07:12	07:22
E	University of Sydney Cumberland East Street	...	...	...	06:19	06:29	06:39	06:49	06:59	07:09	07:19	07:29
D	Lidcombe Station Church Street	05:40	06:00	06:15	06:25	06:35	06:45	06:55	07:05	07:15	07:25	07:35
C	John Street & Parramatta Road	05:44	06:04	06:19	06:29	06:39	06:49	06:59	07:09	07:19	07:29	07:39
B	Rosehill Racecourse James Ruse Drive	05:57	06:17	06:32	06:42	06:52	07:02	07:12	07:22	07:32	07:42	07:52
A	Parramatta Interchange	06:05	06:25	06:40	06:50	07:00	07:10	07:20	07:30	07:40	07:50	08:03

Monday to Friday (continued...)										
map ref	Route Number	M92	Services operate approximately every 10 minutes until...	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	06:40		08:12	08:27	08:37	08:48	09:03	09:18	09:33
N	Bangor Shops Menai Road	06:47		08:19	08:34	08:44	08:55	09:10	09:25	09:40
M	Bradman Road & Old Illawarra Road	06:52		08:24	08:39	08:49	09:00	09:15	09:30	09:45
L	Old Illawarra Road Roundabout	06:56		08:28	08:43	08:53	09:04	09:19	09:34	09:49
K	Alma Road & Davies Road	07:01		08:33	08:48	08:58	09:09	09:24	09:39	09:54
J	Padstow Station Howard Road	07:07		08:41	08:56	09:04	09:14	09:29	09:44	09:59
I	Eldridge Road & Chapel Road	07:14		08:48	09:03	09:11	09:21	09:36	09:51	10:06
H	Bankstown Interchange	07:22		08:57	09:12	09:20	09:29	09:44	09:59	10:14
G	Bankstown Central	07:25		09:00	09:15	09:23	09:32	09:47	10:02	10:17
F	Rookwood Road & Brunker Road	07:32		09:07	09:22	...	09:39	09:54	10:09	10:24
E	University of Sydney Cumberland East Street	07:39		09:14	09:29	...	09:46	10:01	10:16	10:31
D	Lidcombe Station Church Street	07:45		09:20	09:35	...	09:52	10:07	10:22	10:37
C	John Street & Parramatta Road	07:49		09:24	09:39	...	09:56	10:11	10:26	10:41
B	Rosehill Racecourse James Ruse Drive	08:02		09:37	09:52	...	10:09	10:24	10:39	10:54
A	Parramatta Interchange	08:15		09:45	10:00	...	10:17	10:32	10:47	11:02

Monday to Friday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	09:48	10:03	10:18	10:33	10:48	11:03	11:18	11:33	11:48	12:03	12:18
N	Bangor Shops Menai Road	09:55	10:10	10:25	10:40	10:55	11:10	11:25	11:40	11:55	12:10	12:25
M	Bradman Road & Old Illawarra Road	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30
L	Old Illawarra Road Roundabout	10:04	10:19	10:34	10:49	11:04	11:19	11:34	11:49	12:04	12:19	12:34
K	Alma Road & Davies Road	10:09	10:24	10:39	10:54	11:09	11:24	11:39	11:54	12:09	12:24	12:39
J	Padstow Station Howard Road	10:14	10:29	10:44	10:59	11:14	11:29	11:44	11:59	12:14	12:29	12:44
I	Eldridge Road & Chapel Road	10:21	10:36	10:51	11:06	11:21	11:36	11:51	12:06	12:21	12:36	12:51
H	Bankstown Interchange	10:29	10:44	10:59	11:14	11:29	11:44	11:59	12:14	12:29	12:44	12:59
G	Bankstown Central	10:32	10:47	11:02	11:17	11:32	11:47	12:02	12:17	12:32	12:47	13:02
F	Rookwood Road & Brunker Road	10:39	10:54	11:09	11:24	11:39	11:54	12:09	12:24	12:39	12:54	13:09
E	University of Sydney Cumberland East Street	10:46	11:01	11:16	11:31	11:46	12:01	12:16	12:31	12:46	13:01	13:16
D	Lidcombe Station Church Street	10:52	11:07	11:22	11:37	11:52	12:07	12:22	12:37	12:52	13:07	13:22
C	John Street & Parramatta Road	10:56	11:11	11:26	11:41	11:56	12:11	12:26	12:41	12:56	13:11	13:26
B	Rosehill Racecourse James Ruse Drive	11:09	11:24	11:39	11:54	12:09	12:24	12:39	12:54	13:09	13:24	13:39
A	Parramatta Interchange	11:17	11:32	11:47	12:02	12:17	12:32	12:47	13:02	13:17	13:32	13:47

Monday to Friday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	12:33	12:48	13:03	13:18	13:33	13:48	14:03	14:18	14:33	...	14:48
N	Bangor Shops Menai Road	12:40	12:55	13:10	13:25	13:40	13:55	14:10	14:25	14:40	...	14:55
M	Bradman Road & Old Illawarra Road	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	...	15:00
L	Old Illawarra Road Roundabout	12:49	13:04	13:19	13:34	13:49	14:04	14:19	14:34	14:49	...	15:04
K	Alma Road & Davies Road	12:54	13:09	13:24	13:39	13:54	14:09	14:24	14:39	14:54	...	15:09
J	Padstow Station Howard Road	12:59	13:14	13:29	13:44	13:59	14:14	14:29	14:44	14:59	...	15:15
I	Eldridge Road & Chapel Road	13:06	13:21	13:36	13:51	14:06	14:21	14:36	14:51	15:06	...	15:22
H	Bankstown Interchange	13:14	13:29	13:44	13:59	14:14	14:29	14:44	14:59	15:14	15:22	15:30
G	Bankstown Central	13:17	13:32	13:47	14:02	14:17	14:32	14:47	15:02	15:17	15:25	15:33
F	Rookwood Road & Brunker Road	13:24	13:39	13:54	14:09	14:24	14:39	14:54	15:09	15:24	15:32	15:40
E	University of Sydney Cumberland East Street	13:31	13:46	14:01	14:16	14:31	14:46	15:01	15:16	15:31	15:39	15:47
D	Lidcombe Station Church Street	13:37	13:52	14:07	14:22	14:37	14:52	15:07	15:22	15:37	15:47	15:55
C	John Street & Parramatta Road	13:41	13:56	14:11	14:26	14:41	14:56	15:11	15:26	15:41	15:51	15:59
B	Rosehill Racecourse James Ruse Drive	13:54	14:09	14:24	14:39	14:54	15:09	15:24	15:39	15:54	16:04	16:12
A	Parramatta Interchange	14:02	14:17	14:32	14:47	15:02	15:17	15:37	15:52	16:07	16:17	16:25

Monday to Friday (continued...)												
map ref	Route Number	M92	M92	Services operate approximately every 10 minutes until...	M92	M92	M92	M92	M92	M92	M92	
O	Sutherland Interchange	...	15:05		16:55	17:05	17:15	17:25	17:35	17:45	17:55	
N	Bangor Shops Menai Road	...	15:12		17:02	17:12	17:22	17:32	17:42	17:52	18:02	
M	Bradman Road & Old Illawarra Road	...	15:17		17:07	17:17	17:27	17:37	17:47	17:57	18:07	
L	Old Illawarra Road Roundabout	...	15:21		17:11	17:21	17:31	17:41	17:51	18:01	18:11	
K	Alma Road & Davies Road	15:19	15:26		17:16	17:26	17:36	17:46	17:56	18:06	18:16	
J	Padstow Station Howard Road	15:25	15:33		17:23	17:33	17:43	17:53	18:01	18:11	18:21	
I	Eldridge Road & Chapel Road	15:32	15:40		17:30	17:40	17:50	18:00	18:08	18:18	18:28	
H	Bankstown Interchange	15:40	15:50		17:40	17:50	18:00	18:10	18:16	18:26	18:36	
G	Bankstown Central	15:43	15:53		17:43	17:53	18:03	18:13	18:19	18:29	18:39	
F	Rookwood Road & Brunker Road	15:50	16:00		17:50	18:00	18:10	18:19	18:25	18:35	18:45	
E	University of Sydney Cumberland East Street	15:57	16:07		17:57	18:07	18:17	18:26	18:32	18:42	18:52	
D	Lidcombe Station Church Street	16:05	16:15		18:05	18:15	18:23	18:31	18:37	18:47	18:57	
C	John Street & Parramatta Road	16:09	16:19		18:09	...	18:27	...	18:41	18:51	...	
B	Rosehill Racecourse James Ruse Drive	16:22	16:32		18:22	...	18:40	...	18:53	19:03	...	
A	Parramatta Interchange	16:37	16:50		18:37	...	18:48	...	19:00	19:10	...	

Monday to Friday (continued...)													
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	18:05	18:15	18:27	18:45	19:00	19:15	19:30	19:40	20:10	20:30	21:00	21:30
N	Bangor Shops Menai Road	18:12	18:22	18:34	18:52	19:07	19:22	19:37	19:47	20:17	20:37	21:07	21:37
M	Bradman Road & Old Illawarra Road	18:17	18:27	18:39	18:57	19:12	19:27	19:42	19:52	20:22	M20:41	M21:11	M21:40
L	Old Illawarra Road Roundabout	18:21	18:31	18:43	19:00	19:15	19:30	19:45	19:55	20:25	...	...	...
K	Alma Road & Davies Road	18:26	18:36	18:48	19:05	19:20	19:35	19:50	20:00	20:30	...	...	...
J	Padstow Station Howard Road	18:31	18:41	18:53	19:09	19:24	19:39	19:54	20:04	20:34	...	...	...
I	Eldridge Road & Chapel Road	18:37	18:47	18:59	19:15	19:30	19:45	20:00	20:10	20:40	...	...	...
H	Bankstown Interchange	18:45	18:55	19:07	19:23	19:38	19:53	20:08	20:18	20:50	...	...	...
G	Bankstown Central	18:48	18:58	19:10	19:26	19:41	19:56	...	20:21	20:53	...	...	...
F	Rookwood Road & Brunker Road	18:54	19:04	19:16	19:32	19:47	20:02	...	20:27	20:59	...	...	...
E	University of Sydney Cumberland East Street	19:01	19:11	19:23	19:39	19:54	20:09	...	20:34	21:06	...	...	...
D	Lidcombe Station Church Street	19:06	19:16	19:28	19:44	19:59	20:14	...	20:39	21:11	...	...	...
C	John Street & Parramatta Road	19:09	...	19:31	19:47	...	20:17	...	20:42	...	...	...	...
B	Rosehill Racecourse James Ruse Drive	19:20	...	19:42	19:58	...	20:28	...	20:53	...	...	...	...
A	Parramatta Interchange	19:27	...	19:49	20:05	...	20:35	...	21:00	...	...	...	...

Saturday												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	...	...	...	...	...	07:50	...	08:30	08:50	09:10	09:30
N	Bangor Shops Menai Road	...	...	...	...	...	07:57	...	08:37	08:57	09:17	09:37
M	Bradman Road & Old Illawarra Road	...	06:42	...	...	07:42	08:02	08:22	08:42	09:02	09:22	09:42
L	Old Illawarra Road Roundabout	...	06:46	...	...	07:46	08:06	08:26	08:46	09:06	09:26	09:46
K	Alma Road & Davies Road	...	06:51	...	...	07:51	08:11	08:31	08:51	09:11	09:31	09:51
J	Padstow Station Howard Road	...	06:56	...	07:36	07:56	08:16	08:36	08:56	09:16	09:36	09:56
I	Eldridge Road & Chapel Road	...	07:03	...	07:43	08:03	08:23	08:43	09:03	09:23	09:43	10:03
H	Bankstown Interchange	06:50	07:10	07:30	07:50	08:10	08:30	08:50	09:10	09:30	09:50	10:10
G	Bankstown Central	06:53	07:13	07:33	07:53	08:13	08:33	08:53	09:13	09:33	09:53	10:13
F	Rookwood Road & Brunker Road	06:59	07:19	07:39	07:59	08:19	08:39	08:59	09:19	09:39	09:59	10:19
E	University of Sydney Cumberland East Street	07:05	07:25	07:45	08:05	08:25	08:45	09:05	09:25	09:45	10:05	10:25
D	Lidcombe Station Church Street	07:11	07:31	07:51	08:11	08:31	08:51	09:11	09:31	09:51	10:11	10:31
C	John Street & Parramatta Road	07:15	07:35	07:55	08:15	08:35	08:55	09:15	09:35	09:55	10:15	10:35
B	Rosehill Racecourse James Ruse Drive	07:27	07:47	08:07	08:27	08:47	09:07	09:27	09:47	10:07	10:27	10:47
A	Parramatta Interchange	07:34	07:54	08:14	08:34	08:54	09:14	09:34	09:54	10:14	10:34	10:54

Saturday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	09:50	10:10	10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10
N	Bangor Shops Menai Road	09:57	10:17	10:37	10:57	11:17	11:37	11:57	12:17	12:37	12:57	13:17
M	Bradman Road & Old Illawarra Road	10:02	10:22	10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22
L	Old Illawarra Road Roundabout	10:06	10:26	10:46	11:06	11:26	11:46	12:06	12:26	12:46	13:06	13:26
K	Alma Road & Davies Road	10:11	10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31
J	Padstow Station Howard Road	10:16	10:36	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36
I	Eldridge Road & Chapel Road	10:23	10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43
H	Bankstown Interchange	10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50
G	Bankstown Central	10:33	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53
F	Rookwood Road & Brunker Road	10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59
E	University of Sydney Cumberland East Street	10:45	11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25	13:45	14:05
D	Lidcombe Station Church Street	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11
C	John Street & Parramatta Road	10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15
B	Rosehill Racecourse James Ruse Drive	11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27
A	Parramatta Interchange	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34

Saturday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30	16:50
N	Bangor Shops Menai Road	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57	16:17	16:37	16:57
M	Bradman Road & Old Illawarra Road	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22	16:42	17:02
L	Old Illawarra Road Roundabout	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:26	16:46	17:06
K	Alma Road & Davies Road	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11
J	Padstow Station Howard Road	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16
I	Eldridge Road & Chapel Road	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:23	16:43	17:03	17:23
H	Bankstown Interchange	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30
G	Bankstown Central	14:13	14:33	14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33
F	Rookwood Road & Brunker Road	14:19	14:39	14:59	15:19	15:39	15:59	16:19	16:39	16:59	17:19	17:39
E	University of Sydney Cumberland East Street	14:25	14:45	15:05	15:25	15:45	16:05	16:25	16:45	17:05	17:25	17:45
D	Lidcombe Station Church Street	14:31	14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11	17:31	17:51
C	John Street & Parramatta Road	14:35	14:55	15:15	15:35	15:55	16:15	16:35	16:55	17:15	17:35	17:55
B	Rosehill Racecourse James Ruse Drive	14:47	15:07	15:27	15:47	16:07	16:27	16:47	17:07	17:27	17:47	18:07
A	Parramatta Interchange	14:54	15:14	15:34	15:54	16:14	16:34	16:54	17:14	17:34	17:54	18:14

Saturday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	17:10	17:30	17:50	18:10	18:30	18:50	19:10	19:30	20:00	20:35	21:00
N	Bangor Shops Menai Road	17:17	17:37	17:57	18:17	18:37	18:57	19:17	19:37	20:07	20:42	21:07
M	Bradman Road & Old Illawarra Road	17:22	17:42	18:02	18:22	18:42	19:02	19:22	19:42	M20:11	20:47	M21:11
L	Old Illawarra Road Roundabout	17:26	17:46	18:06	18:26	18:46	19:06	19:26	19:46	...	20:51	...
K	Alma Road & Davies Road	17:31	17:51	18:11	18:31	18:51	19:11	19:31	19:51	...	20:56	...
J	Padstow Station Howard Road	17:36	17:56	18:16	18:36	18:56	19:16	19:36	19:56	...	21:01	...
I	Eldridge Road & Chapel Road	17:43	18:03	18:23	18:43	19:03	...	19:43	20:03	...	21:08	...
H	Bankstown Interchange	17:50	18:10	18:30	18:50	19:10	...	19:50	20:10	...	21:15	...
G	Bankstown Central	17:53	18:13	18:33	18:53	19:13	...	19:53	20:13	...	...	...
F	Rookwood Road & Brunker Road	17:59	18:19	18:39	18:59	19:19	...	19:59	20:19	...	...	...
E	University of Sydney Cumberland East Street	18:05	18:25	18:45	19:05	19:25	...	20:05	20:25	...	...	...
D	Lidcombe Station Church Street	18:11	18:31	18:51	19:11	19:31	...	20:11	20:31	...	...	...
C	John Street & Parramatta Road	18:15	18:35	18:55	19:15	19:35	...	20:15	20:35	...	...	...
B	Rosehill Racecourse James Ruse Drive	18:27	18:47	19:07	19:27	19:47	...	20:27	20:47	...	...	...
A	Parramatta Interchange	18:34	18:54	19:14	19:34	19:53	...	20:33	20:53	...	...	...

Sunday & Public Holidays												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	...	...	...	07:50	08:10	08:30	08:50	09:10	09:30	09:50	10:10
N	Bangor Shops Menai Road	...	...	...	07:57	08:17	08:37	08:57	09:17	09:37	09:57	10:17
M	Bradman Road & Old Illawarra Road	...	07:21	07:41	08:01	08:21	08:41	09:01	09:21	09:41	10:01	10:21
L	Old Illawarra Road Roundabout	...	07:24	07:44	08:04	08:24	08:44	09:04	09:24	09:44	10:04	10:24
K	Alma Road & Davies Road	...	07:28	07:48	08:08	08:28	08:48	09:08	09:28	09:48	10:08	10:28
J	Padstow Station Howard Road	...	07:33	07:53	08:13	08:33	08:53	09:13	09:33	09:53	10:13	10:33
I	Eldridge Road & Chapel Road	...	07:40	08:00	08:20	08:40	09:00	09:20	09:40	10:00	10:20	10:40
H	Bankstown Interchange	07:27	07:47	08:07	08:27	08:47	09:07	09:27	09:47	10:07	10:27	10:47
G	Bankstown Central	07:30	07:50	08:10	08:30	08:50	09:10	09:30	09:50	10:10	10:30	10:50
F	Rookwood Road & Brunker Road	07:36	07:56	08:16	08:36	08:56	09:16	09:36	09:56	10:16	10:36	10:56
E	University of Sydney Cumberland East Street	07:42	08:02	08:22	08:42	09:02	09:22	09:42	10:02	10:22	10:42	11:02
D	Lidcombe Station Church Street	07:47	08:07	08:27	08:47	09:07	09:27	09:47	10:07	10:27	10:47	11:07
C	John Street & Parramatta Road	07:50	08:10	08:30	08:50	09:10	09:30	09:50	10:10	10:30	10:50	11:10
B	Rosehill Racecourse James Ruse Drive	08:02	08:22	08:42	09:02	09:22	09:42	10:02	10:22	10:42	11:02	11:22
A	Parramatta Interchange	08:09	08:29	08:49	09:09	09:29	09:49	10:09	10:29	10:49	11:09	11:29


Sunday & Public Holidays (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50
N	Bangor Shops Menai Road	10:37	10:57	11:17	11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57
M	Bradman Road & Old Illawarra Road	10:41	11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01
L	Old Illawarra Road Roundabout	10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04
K	Alma Road & Davies Road	10:48	11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08
J	Padstow Station Howard Road	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13
I	Eldridge Road & Chapel Road	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20
H	Bankstown Interchange	11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27
G	Bankstown Central	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30
F	Rookwood Road & Brunker Road	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16	14:36
E	University of Sydney Cumberland East Street	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42
D	Lidcombe Station Church Street	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27	14:47
C	John Street & Parramatta Road	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50
B	Rosehill Racecourse James Ruse Drive	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02
A	Parramatta Interchange	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09

Sunday & Public Holidays (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30
N	Bangor Shops Menai Road	14:17	14:37	14:57	15:17	15:37	15:57	16:17	16:37	16:57	17:17	17:37
M	Bradman Road & Old Illawarra Road	14:21	14:41	15:01	15:21	15:41	16:01	16:21	16:41	17:01	17:21	17:41
L	Old Illawarra Road Roundabout	14:24	14:44	15:04	15:24	15:44	16:04	16:24	16:44	17:04	17:24	17:44
K	Alma Road & Davies Road	14:28	14:48	15:08	15:28	15:48	16:08	16:28	16:48	17:08	17:28	17:48
J	Padstow Station Howard Road	14:33	14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:53
I	Eldridge Road & Chapel Road	14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40	18:00
H	Bankstown Interchange	14:47	15:07	15:27	15:47	16:07	16:27	16:47	17:07	17:27	17:47	18:07
G	Bankstown Central	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10
F	Rookwood Road & Brunker Road	14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:56	18:16
E	University of Sydney Cumberland East Street	15:02	15:22	15:42	16:02	16:22	16:42	17:02	17:22	17:42	18:02	18:22
D	Lidcombe Station Church Street	15:07	15:27	15:47	16:07	16:27	16:47	17:07	17:27	17:47	18:07	18:27
C	John Street & Parramatta Road	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30
B	Rosehill Racecourse James Ruse Drive	15:22	15:42	16:02	16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:42
A	Parramatta Interchange	15:29	15:49	16:09	16:29	16:49	17:09	17:29	17:49	18:09	18:29	18:49

Sunday & Public Holidays (continued...)									
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92
O	Sutherland Interchange	17:50	18:10	18:30	18:50	19:10	19:30	20:30	21:00
N	Bangor Shops Menai Road	17:57	18:17	18:37	18:57	19:17	19:37	20:37	21:07
M	Bradman Road & Old Illawarra Road	18:01	18:21	18:41	19:01	19:21	19:41	M20:41	M21:11
L	Old Illawarra Road Roundabout	18:04	18:24	18:44	19:04	19:24	19:44	...	...
K	Alma Road & Davies Road	18:08	18:28	18:48	19:08	19:28	19:48	...	...
J	Padstow Station Howard Road	18:13	18:33	18:53	19:13	19:33	19:53	...	...
I	Eldridge Road & Chapel Road	18:20	18:40	19:00	19:20	19:40	20:00	...	...
H	Bankstown Interchange	18:27	18:47	19:07	19:27	19:47	20:07	...	...
G	Bankstown Central	18:30	18:50	19:10	19:30	19:50	20:10	...	...
F	Rookwood Road & Brunker Road	18:36	18:56	19:16	19:36	19:56	20:16	...	...
E	University of Sydney Cumberland East Street	18:42	19:02	19:22	19:42	20:02	20:22	...	...
D	Lidcombe Station Church Street	18:47	19:07	19:27	19:47	20:07	20:27	...	...
C	John Street & Parramatta Road	18:50	19:10	19:30	19:50	20:10	20:30	...	...
B	Rosehill Racecourse James Ruse Drive	19:02	19:22	19:42	20:02	20:22	20:42	...	...
A	Parramatta Interchange	19:09	19:29	19:49	20:09	20:29	20:49	...	...

Monday to Friday												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	...	...	...	...	...	...	...	06:12	...	06:32	...
B	Rosehill Racecourse James Ruse Drive	...	...	...	...	...	...	...	06:18	...	06:38	...
C	John Street & Parramatta Road	...	...	...	...	...	...	...	06:29	...	06:49	...
D	Lidcombe Station Church Street	...	...	...	...	...	06:16	...	06:36	06:46	06:56	07:03
E	University of Sydney Cumberland East Street	...	...	...	...	...	06:21	...	06:41	06:51	07:01	07:09
F	Rookwood Road & Brunker Road	...	...	A06:00	...	...	06:27	...	06:47	06:57	07:07	07:15
G	Bankstown Central	...	...	06:06	...	...	06:34	...	06:54	07:04	07:14	07:22
H	Bankstown Interchange	...	...	06:09	06:22	06:27	06:37	06:47	06:57	07:07	07:17	07:27
I	Eldridge Road & Chapel Road	...	...	06:14	06:27	06:33	06:43	06:53	07:03	07:13	07:23	07:33
J	Padstow Station Howard Road	...	...	06:21	06:34	06:41	06:51	07:01	07:11	07:21	07:31	07:41
K	Alma Road & Davies Road	...	...	06:24	06:37	06:44	06:54	07:04	07:14	07:24	07:34	07:44
L	Old Illawarra Road Roundabout	05:42	05:59	06:29	06:42	06:49	06:59	07:09	07:19	07:29	07:39	07:49
M	Bradman Road & Old Illawarra Road	05:45	06:02	06:32	06:45	06:52	07:02	07:12	07:22	07:32	07:42	07:52
N	Bangor Shops Menai Road	05:51	06:08	06:38	06:51	06:58	07:08	07:18	07:28	07:38	07:48	07:58
O	Sutherland Interchange	05:58	06:15	06:45	06:58	07:07	07:17	07:27	07:37	07:51	08:01	08:11






Monday to Friday (continued...)											
map ref	Route Number	M92	Services operate approximately every 10 minutes until...		M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	06:48			08:08	08:18	08:28	08:38	08:45	09:00	09:15
B	Rosehill Racecourse James Ruse Drive	06:54			08:14	08:24	08:34	08:44	08:51	09:06	09:21
C	John Street & Parramatta Road	07:05			08:25	08:35	08:45	08:55	09:02	09:17	09:32
D	Lidcombe Station Church Street	07:13			08:33	08:43	08:53	09:03	09:09	09:24	09:39
E	University of Sydney Cumberland East Street	07:19			08:39	08:49	08:59	09:09	09:15	09:30	09:45
F	Rookwood Road & Brunker Road	07:25			08:45	08:55	09:05	09:15	09:21	09:36	09:51
G	Bankstown Central	07:32			08:52	09:02	09:12	09:22	09:28	09:43	09:58
H	Bankstown Interchange	07:37			08:57	09:07	09:17	09:27	09:32	09:47	10:02
I	Eldridge Road & Chapel Road	07:43			09:03	...	09:23	...	09:38	09:53	10:08
J	Padstow Station Howard Road	07:51			09:11	...	09:31	...	09:46	10:01	10:16
K	Alma Road & Davies Road	07:54			09:14	...	09:34	...	09:49	10:04	10:19
L	Old Illawarra Road Roundabout	07:59			09:19	...	09:39	...	09:54	10:09	10:24
M	Bradman Road & Old Illawarra Road	08:02			09:22	...	09:42	...	09:57	10:12	10:27
N	Bangor Shops Menai Road	08:08			09:28	...	09:48	...	10:03	10:18	10:33
O	Sutherland Interchange	08:21			09:37	...	09:57	...	10:12	10:27	10:42

Monday to Friday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	09:30	09:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00
B	Rosehill Racecourse James Ruse Drive	09:36	09:51	10:06	10:21	10:36	10:51	11:06	11:21	11:36	11:51	12:06
C	John Street & Parramatta Road	09:47	10:02	10:17	10:32	10:47	11:02	11:17	11:32	11:47	12:02	12:17
D	Lidcombe Station Church Street	09:54	10:09	10:24	10:39	10:54	11:09	11:24	11:39	11:54	12:09	12:24
E	University of Sydney Cumberland East Street	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30
F	Rookwood Road & Brunker Road	10:06	10:21	10:36	10:51	11:06	11:21	11:36	11:51	12:06	12:21	12:36
G	Bankstown Central	10:13	10:28	10:43	10:58	11:13	11:28	11:43	11:58	12:13	12:28	12:43
H	Bankstown Interchange	10:17	10:32	10:47	11:02	11:17	11:32	11:47	12:02	12:17	12:32	12:47
I	Eldridge Road & Chapel Road	10:23	10:38	10:53	11:08	11:23	11:38	11:53	12:08	12:23	12:38	12:53
J	Padstow Station Howard Road	10:31	10:46	11:01	11:16	11:31	11:46	12:01	12:16	12:31	12:46	13:01
K	Alma Road & Davies Road	10:34	10:49	11:04	11:19	11:34	11:49	12:04	12:19	12:34	12:49	13:04
L	Old Illawarra Road Roundabout	10:39	10:54	11:09	11:24	11:39	11:54	12:09	12:24	12:39	12:54	13:09
M	Bradman Road & Old Illawarra Road	10:42	10:57	11:12	11:27	11:42	11:57	12:12	12:27	12:42	12:57	13:12
N	Bangor Shops Menai Road	10:48	11:03	11:18	11:33	11:48	12:03	12:18	12:33	12:48	13:03	13:18
O	Sutherland Interchange	10:57	11:12	11:27	11:42	11:57	12:12	12:27	12:42	12:57	13:12	13:27

Monday to Friday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	...	14:30
B	Rosehill Racecourse James Ruse Drive	12:21	12:36	12:51	13:06	13:21	13:36	13:51	14:06	14:21	...	14:36
C	John Street & Parramatta Road	12:32	12:47	13:02	13:17	13:32	13:47	14:02	14:17	14:32	...	14:47
D	Lidcombe Station Church Street	12:39	12:54	13:09	13:24	13:39	13:54	14:09	14:24	14:39	...	14:56
E	University of Sydney Cumberland East Street	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	...	15:02
F	Rookwood Road & Brunker Road	12:51	13:06	13:21	13:36	13:51	14:06	14:21	14:36	14:51	...	15:08
G	Bankstown Central	12:58	13:13	13:28	13:43	13:58	14:13	14:28	14:43	14:58	...	15:15
H	Bankstown Interchange	13:02	13:17	13:32	13:47	14:02	14:17	14:32	14:47	15:02	15:11	15:21
I	Eldridge Road & Chapel Road	13:08	13:23	13:38	13:53	14:08	14:23	14:38	14:53	15:08	15:17	15:27
J	Padstow Station Howard Road	13:16	13:31	13:46	14:01	14:16	14:31	14:46	15:01	15:16	15:26	15:36
K	Alma Road & Davies Road	13:19	13:34	13:49	14:04	14:19	14:34	14:49	15:04	15:19	15:29	15:39
L	Old Illawarra Road Roundabout	13:24	13:39	13:54	14:09	14:24	14:39	14:54	15:09	15:24	15:34	15:44
M	Bradman Road & Old Illawarra Road	13:27	13:42	13:57	14:12	14:27	14:42	14:57	15:12	15:27	15:37	15:47
N	Bangor Shops Menai Road	13:33	13:48	14:03	14:18	14:33	14:48	15:03	15:18	15:33	15:43	15:53
O	Sutherland Interchange	13:42	13:57	14:12	14:27	14:42	14:57	15:12	15:27	15:42	15:55	16:05

Monday to Friday (continued...)											
map ref	Route Number	M92	M92	M92	M92	Services operate approximately every 10 minutes until...		M92	M92	M92	M92
A	Parramatta Interchange	...	14:50	...	15:10			16:30	16:40	16:50	17:00
B	Rosehill Racecourse James Ruse Drive	...	14:56	...	15:16			16:36	16:46	16:56	17:06
C	John Street & Parramatta Road	...	15:07	...	15:27			16:47	16:57	17:07	17:17
D	Lidcombe Station Church Street	...	15:16	...	15:36			16:56	17:06	17:16	17:26
E	University of Sydney Cumberland East Street	...	15:22	...	15:42			17:02	17:12	17:22	17:32
F	Rookwood Road & Brunker Road	...	15:28	A15:38	15:48			17:08	17:18	17:28	17:38
G	Bankstown Central	...	15:35	15:45	15:55			17:15	17:25	17:35	17:45
H	Bankstown Interchange	...	15:41	15:51	16:01			17:21	17:31	17:41	17:51
I	Eldridge Road & Chapel Road	...	15:47	15:57	16:07			17:27	17:37	17:47	17:57
J	Padstow Station Howard Road	15:46	15:56	16:06	16:16			17:36	17:46	17:56	18:06
K	Alma Road & Davies Road	15:49	15:59	16:09	16:19			17:39	17:49	17:59	18:09
L	Old Illawarra Road Roundabout	15:54	16:04	16:14	16:24			17:44	17:54	18:04	18:14
M	Bradman Road & Old Illawarra Road	15:57	16:07	16:17	16:27			17:49	17:59	18:09	18:19
N	Bangor Shops Menai Road	16:03	16:13	16:23	16:33			17:55	...	18:15	...
O	Sutherland Interchange	16:15	16:25	16:35	16:45			18:07	...	18:27	...

Monday to Friday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	17:10	17:20	17:30	17:40	17:50	18:00	18:10	18:20	18:30	18:42	18:55
B	Rosehill Racecourse James Ruse Drive	17:16	17:26	17:36	17:46	17:56	18:06	18:15	18:25	18:35	18:47	19:00
C	John Street & Parramatta Road	17:27	17:37	17:47	17:57	18:07	18:17	18:26	18:36	18:46	18:58	19:11
D	Lidcombe Station Church Street	17:36	17:46	17:56	18:06	18:14	18:24	18:32	18:42	18:52	19:04	19:17
E	University of Sydney Cumberland East Street	17:42	17:52	18:02	18:12	18:20	18:30	18:37	18:47	18:57	19:09	19:22
F	Rookwood Road & Brunker Road	17:48	17:58	18:08	18:18	18:26	18:36	18:43	18:53	19:03	19:15	19:28
G	Bankstown Central	17:55	18:05	18:15	18:25	18:33	18:43	18:50	19:00	19:10	19:22	19:35
H	Bankstown Interchange	18:01	18:11	18:21	18:31	18:37	18:47	18:54	19:04	19:14	19:26	19:39
I	Eldridge Road & Chapel Road	18:07	18:17	18:27	18:37	18:43	18:53	18:59	19:09	19:19	...	19:44
J	Padstow Station Howard Road	18:16	18:26	18:36	18:46	18:51	19:01	19:07	19:17	19:27	...	19:52
K	Alma Road & Davies Road	18:19	18:29	18:39	18:49	18:54	19:04	19:10	19:20	19:30	...	19:55
L	Old Illawarra Road Roundabout	18:24	18:34	18:44	18:54	18:59	19:09	19:15	19:25	19:35	...	20:00
M	Bradman Road & Old Illawarra Road	18:29	18:39	18:49	18:57	19:02	19:12	19:18	19:28	19:38	...	20:03
N	Bangor Shops Menai Road	18:35	18:45	...	19:03	...	19:17	...	...	19:43	...	20:08
O	Sutherland Interchange	18:47	18:57	...	19:12	...	19:25	...	...	19:51	...	20:16

Monday to Friday (continued...)						
map ref	Route Number	M92	M92	M92	M92	M92
A	Parramatta Interchange‡	19:10	19:25	19:40	20:05	20:40
B	Rosehill Racecourse James Ruse Drive	19:15	19:30	19:45	20:10	20:45
C	John Street & Parramatta Road	19:26	19:41	19:56	20:21	20:56
D	Lidcombe Station Church Street	19:32	19:47	20:02	20:27	21:02
E	University of Sydney Cumberland East Street	19:37	19:52	20:07	20:32	21:07
F	Rookwood Road & Bruncker Road	19:43	19:58	20:13	20:38	21:13
G	Bankstown Central	19:50	20:05	20:20	20:45	21:20
H	Bankstown Interchange	19:54	20:09	20:24	20:49	21:24
I	Eldridge Road & Chapel Road	...	20:14	...	20:54	...
J	Padstow Station Howard Road	...	20:22	...	21:02	...
K	Alma Road & Davies Road	...	20:25	...	21:05	...
L	Old Illawarra Road Roundabout	...	20:30	...	21:10	...
M	Bradman Road & Old Illawarra Road	...	20:33	...	21:13	...
N	Bangor Shops Menai Road	...	20:38	...	21:18	...
O	Sutherland Interchange	...	20:46	...	21:26	...

Saturday												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	...	...	...	...	07:45	08:05	08:25	08:45	09:05	09:25	09:45
B	Rosehill Racecourse James Ruse Drive	...	...	...	...	07:51	08:11	08:31	08:51	09:11	09:31	09:51
C	John Street & Parramatta Road	...	...	...	...	08:02	08:22	08:42	09:02	09:22	09:42	10:02
D	Lidcombe Station Church Street	...	07:08	07:28	...	08:08	08:28	08:48	09:08	09:28	09:48	10:08
E	University of Sydney Cumberland East Street	...	07:14	07:34	...	08:14	08:34	08:54	09:14	09:34	09:54	10:14
F	Rookwood Road & Brunker Road	...	07:20	07:40	...	08:20	08:40	09:00	09:20	09:40	10:00	10:20
G	Bankstown Central	...	07:26	07:46	...	08:26	08:46	09:06	09:26	09:46	10:06	10:26
H	Bankstown Interchange	07:00	07:30	07:50	...	08:30	08:50	09:10	09:30	09:50	10:10	10:30
I	Eldridge Road & Chapel Road	07:06	07:36	07:56	...	08:36	08:56	09:16	09:36	09:56	10:16	10:36
J	Padstow Station Howard Road	07:14	07:44	08:04	08:24	08:44	09:04	09:24	09:44	10:04	10:24	10:44
K	Alma Road & Davies Road	07:17	07:47	08:07	08:27	08:47	09:07	09:27	09:47	10:07	10:27	10:47
L	Old Illawarra Road Roundabout	07:22	07:52	08:12	08:32	08:52	09:12	09:32	09:52	10:12	10:32	10:52
M	Bradman Road & Old Illawarra Road	07:25	07:55	08:15	08:35	08:55	09:15	09:35	09:55	10:15	10:35	10:55
N	Bangor Shops Menai Road	07:31	08:01	08:21	08:41	09:01	09:21	09:41	10:01	10:21	10:41	11:01
O	Sutherland Interchange	07:40	08:10	08:30	08:50	09:10	09:30	09:50	10:10	10:30	10:50	11:10

Saturday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	10:05	10:25	10:45	11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25
B	Rosehill Racecourse James Ruse Drive	10:11	10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31
C	John Street & Parramatta Road	10:22	10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42
D	Lidcombe Station Church Street	10:28	10:48	11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48
E	University of Sydney Cumberland East Street	10:34	10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54
F	Rookwood Road & Brunker Road	10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00
G	Bankstown Central	10:46	11:06	11:26	11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06
H	Bankstown Interchange	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10
I	Eldridge Road & Chapel Road	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16
J	Padstow Station Howard Road	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24
K	Alma Road & Davies Road	11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27
L	Old Illawarra Road Roundabout	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32
M	Bradman Road & Old Illawarra Road	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35
N	Bangor Shops Menai Road	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41
O	Sutherland Interchange	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50

Saturday (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:25	16:45	17:05
B	Rosehill Racecourse James Ruse Drive	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11
C	John Street & Parramatta Road	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22	16:42	17:02	17:22
D	Lidcombe Station Church Street	14:08	14:28	14:48	15:08	15:28	15:48	16:08	16:28	16:48	17:08	17:28
E	University of Sydney Cumberland East Street	14:14	14:34	14:54	15:14	15:34	15:54	16:14	16:34	16:54	17:14	17:34
F	Rookwood Road & Brunker Road	14:20	14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40
G	Bankstown Central	14:26	14:46	15:06	15:26	15:46	16:06	16:26	16:46	17:06	17:26	17:46
H	Bankstown Interchange	14:30	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50
I	Eldridge Road & Chapel Road	14:36	14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:56
J	Padstow Station Howard Road	14:44	15:04	15:24	15:44	16:04	16:24	16:44	17:04	17:24	17:44	18:04
K	Alma Road & Davies Road	14:47	15:07	15:27	15:47	16:07	16:27	16:47	17:07	17:27	17:47	18:07
L	Old Illawarra Road Roundabout	14:52	15:12	15:32	15:52	16:12	16:32	16:52	17:12	17:32	17:52	18:12
M	Bradman Road & Old Illawarra Road	14:55	15:15	15:35	15:55	16:15	16:35	16:55	17:15	17:35	17:55	18:15
N	Bangor Shops Menai Road	15:01	15:21	15:41	16:01	16:21	16:41	17:01	17:21	17:41	18:01	18:21
O	Sutherland Interchange	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30

Saturday (continued...)									
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange†	17:25	17:45	18:05	18:25	18:45	19:05	19:25	19:45
B	Rosehill Racecourse James Ruse Drive	17:31	17:51	18:11	18:31	18:51	19:11	19:31	19:51
C	John Street & Parramatta Road	17:42	18:02	18:22	18:42	19:02	19:22	19:42	20:02
D	Lidcombe Station Church Street	17:48	18:08	18:28	18:48	19:08	19:28	19:48	20:08
E	University of Sydney Cumberland East Street	17:54	18:14	18:34	18:54	19:14	19:34	19:54	20:14
F	Rookwood Road & Brunker Road	18:00	18:20	18:40	19:00	19:20	19:40	20:00	20:20
G	Bankstown Central	18:06	18:26	18:46	19:06	19:26	19:46	20:06	20:26
H	Bankstown Interchange	18:10	18:30	18:50	19:10	19:30	19:50	20:10	20:30
I	Eldridge Road & Chapel Road	18:16	18:36	18:56	19:16	...	19:56	20:16	...
J	Padstow Station Howard Road	18:24	18:44	19:04	19:24	...	20:04	20:24	...
K	Alma Road & Davies Road	18:27	18:47	19:07	19:27	...	20:07	20:27	...
L	Old Illawarra Road Roundabout	18:32	18:52	19:12	19:32	...	20:12	20:32	...
M	Bradman Road & Old Illawarra Road	18:35	18:55	19:15	19:35	...	20:15	20:35	...
N	Bangor Shops Menai Road	18:41	19:01	...	19:41	...	20:21	20:41	...
O	Sutherland Interchange	18:50	19:10	...	19:50	...	20:30	20:50	...

Sunday & Public Holidays												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	...	...	...	...	07:40	08:00	08:20	08:40	09:00	09:20	09:40
B	Rosehill Racecourse James Ruse Drive	...	...	...	...	07:45	08:05	08:25	08:45	09:05	09:25	09:45
C	John Street & Parramatta Road	...	...	...	...	07:54	08:14	08:34	08:54	09:14	09:34	09:54
D	Lidcombe Station Church Street	...	07:00	07:20	...	08:00	08:20	08:40	09:00	09:20	09:40	10:00
E	University of Sydney Cumberland East Street	...	07:05	07:25	...	08:05	08:25	08:45	09:05	09:25	09:45	10:05
F	Rookwood Road & Brunker Road	...	07:10	07:30	...	08:10	08:30	08:50	09:10	09:30	09:50	10:10
G	Bankstown Central	...	07:16	07:36	...	08:16	08:36	08:56	09:16	09:36	09:56	10:16
H	Bankstown Interchange	...	07:19	07:39	...	08:19	08:39	08:59	09:19	09:39	09:59	10:19
I	Eldridge Road & Chapel Road	...	07:25	07:45	...	08:25	08:45	09:05	09:25	09:45	10:05	10:25
J	Padstow Station Howard Road	...	07:33	07:53	08:13	08:33	08:53	09:13	09:33	09:53	10:13	10:33
K	Alma Road & Davies Road	...	07:36	07:56	08:16	08:36	08:56	09:16	09:36	09:56	10:16	10:36
L	Old Illawarra Road Roundabout	07:20	07:40	08:00	08:20	08:40	09:00	09:20	09:40	10:00	10:20	10:40
M	Bradman Road & Old Illawarra Road	07:23	07:43	08:03	08:23	08:43	09:03	09:23	09:43	10:03	10:23	10:43
N	Bangor Shops Menai Road	07:29	07:49	08:09	08:29	08:49	09:09	09:29	09:49	10:09	10:29	10:49
O	Sutherland Interchange	07:37	07:57	08:17	08:37	08:57	09:17	09:37	09:57	10:17	10:37	10:57

Sunday & Public Holidays (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	10:00	10:20	10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20
B	Rosehill Racecourse James Ruse Drive	10:05	10:25	10:45	11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25
C	John Street & Parramatta Road	10:14	10:34	10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34
D	Lidcombe Station Church Street	10:20	10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40
E	University of Sydney Cumberland East Street	10:25	10:45	11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25	13:45
F	Rookwood Road & Brunker Road	10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50
G	Bankstown Central	10:36	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56
H	Bankstown Interchange	10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59
I	Eldridge Road & Chapel Road	10:45	11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25	13:45	14:05
J	Padstow Station Howard Road	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13
K	Alma Road & Davies Road	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16
L	Old Illawarra Road Roundabout	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20
M	Bradman Road & Old Illawarra Road	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23
N	Bangor Shops Menai Road	11:09	11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29
O	Sutherland Interchange	11:17	11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17	14:37

Sunday & Public Holidays (continued...)												
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00
B	Rosehill Racecourse James Ruse Drive	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:25	16:45	17:05
C	John Street & Parramatta Road	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14	16:34	16:54	17:14
D	Lidcombe Station Church Street	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20
E	University of Sydney Cumberland East Street	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:25	16:45	17:05	17:25
F	Rookwood Road & Brunker Road	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30
G	Bankstown Central	14:16	14:36	14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36
H	Bankstown Interchange	14:19	14:39	14:59	15:19	15:39	15:59	16:19	16:39	16:59	17:19	17:39
I	Eldridge Road & Chapel Road	14:25	14:45	15:05	15:25	15:45	16:05	16:25	16:45	17:05	17:25	17:45
J	Padstow Station Howard Road	14:33	14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:53
K	Alma Road & Davies Road	14:36	14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:56
L	Old Illawarra Road Roundabout	14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40	18:00
M	Bradman Road & Old Illawarra Road	14:43	15:03	15:23	15:43	16:03	16:23	16:43	17:03	17:23	17:43	18:03
N	Bangor Shops Menai Road	14:49	15:09	15:29	15:49	16:09	16:29	16:49	17:09	17:29	17:49	18:09
O	Sutherland Interchange	14:57	15:17	15:37	15:57	16:17	16:37	16:57	17:17	17:37	17:57	18:17

Sunday & Public Holidays (continued...)									
map ref	Route Number	M92	M92	M92	M92	M92	M92	M92	M92
A	Parramatta Interchange†	17:20	17:40	18:00	18:20	18:40	19:00	19:20	19:40
B	Rosehill Racecourse James Ruse Drive	17:25	17:45	18:05	18:25	18:45	19:05	19:25	19:45
C	John Street & Parramatta Road	17:34	17:54	18:14	18:34	18:54	19:14	19:34	19:54
D	Lidcombe Station Church Street	17:40	18:00	18:20	18:40	19:00	19:20	19:40	20:00
E	University of Sydney Cumberland East Street	17:45	18:05	18:25	18:45	19:05	19:25	19:45	20:05
F	Rookwood Road & Brunker Road	17:50	18:10	18:30	18:50	19:10	19:30	19:50	20:10
G	Bankstown Central	17:56	18:16	18:36	18:56	19:16	19:36	19:56	20:16
H	Bankstown Interchange	17:59	18:19	18:39	18:59	19:19	19:39	19:59	20:19
I	Eldridge Road & Chapel Road	18:05	18:25	18:45	19:05	19:25	19:45	...	20:25
J	Padstow Station Howard Road	18:13	18:33	18:53	19:13	19:33	19:53	...	20:33
K	Alma Road & Davies Road	18:16	18:36	18:56	19:16	19:36	19:56	...	20:36
L	Old Illawarra Road Roundabout	18:20	18:40	19:00	19:20	19:40	20:00	...	20:40
M	Bradman Road & Old Illawarra Road	18:23	18:43	19:03	19:23	19:43	20:03	...	20:43
N	Bangor Shops Menai Road	18:29	18:49	19:09	...	19:49	20:09	...	20:49
O	Sutherland Interchange	18:37	18:57	19:17	...	19:57	20:17	...	20:57

Explanation of definitions and symbols

- A** Bus commences from Cutcliffe Avenue 4 minutes earlier.
- M** Bus terminates at Menai Depot at this time.
- ‡ Up until 19:00 buses depart Parramatta Interchange from Stand A3. After 19:00 buses depart Parramatta Interchange from the 'Nightsafe' zone at Stand A2.

Timing Points

- A** Parramatta Interchange
- B** Rosehill Racecourse James Ruse Drive
- C** John Street & Parramatta Road
- D** Lidcombe Station Church Street
- E** University of Sydney Cumberland East Street
- F** Rookwood Road & Brunker Road
- G** Bankstown Central
- H** Bankstown Interchange
- I** Eldridge Road & Chapel Road
- J** Padstow Station Howard Road
- K** Alma Road & Davies Road
- L** Old Illawarra Road Roundabout
- M** Bradman Road & Old Illawarra Road
- N** Bangor Shops Menai Road
- O** Sutherland Interchange

Fare Sections

Bus routes are broken into sections, so you only pay for the distance you travel. MyBus tickets are based on these sections.

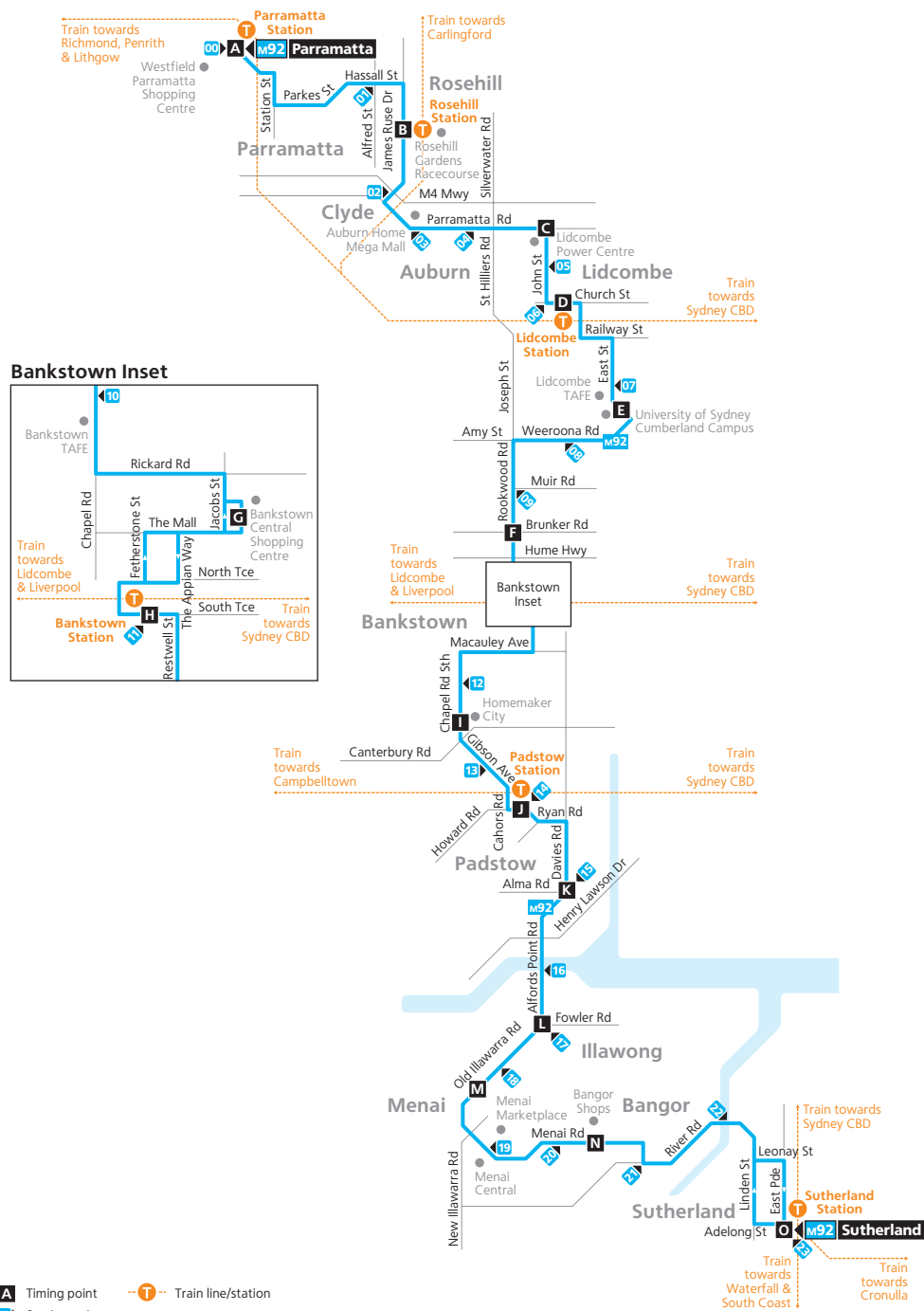
For information on tickets and fares, visit **transportnsw.info** or call **131 500**.

Section Points for services shown in this timetable are located at:

Route M92

- Section Point Number

Location:
- 00 Parramatta Interchange**
 - 01** Hassall Street & Alfred Street
 - 02** James Ruse Drive & George Street
 - 03** Parramatta Road & Rawson Street
 - 04** Parramatta Road & Station Street
 - 05** John Street & Frampton Street
 - 06 Lidcombe Station**
 - 07** East Street & Georges Avenue
 - 08** Weeroona Road & Main Avenue
 - 09** Rookwood Road & Muir Road
 - 10 La Salle College**
 - 11 Bankstown Interchange**
 - 12** Chapel Road & Shenton Avenue
 - 13** Gibson Avenue & Bryant Street
 - 14 Padstow Station**
 - 15** Alma Road & Davies Road
 - 16 Alfords Point Bridge**
 - 17 Old Illawarra Road Roundabout**
 - 18** Old Illawarra Road & Monash Road
 - 19** Carter Road & Menai Road
 - 20** Menai Road & ANZAC Road
 - 21 Akuna Avenue Footbridge**
 - 22 Woronora Bridge**
 - 23 Sutherland Interchange**



 Diagrammatic Map
Not to Scale

