

JONES BAY WHARF PTY LTD

TRAFFIC IMPACT STUDY FOR  
PROPOSED MARINA EXPANSION AT  
JONES BAY WHARF, PYRMONT

SEPTEMBER 2010

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TABLE OF CONTENTS

1. INTRODUCTION .....	1
2. EXISTING CONDITIONS .....	3
3. IMPLICATIONS OF PROPOSED MARINA EXPANSION .....	11

## I. INTRODUCTION

I.1 Colston Budd Hunt and Kafes Pty Ltd has been commissioned by Jones Bay Wharf Pty Ltd to undertake a traffic impact study for the proposed marina expansion at Jones Bay Wharf, Pyrmont. Jones Bay Wharf is located on the eastern side of Pirrama Road between Pyrmont Point Park and Darling Island, as shown on Figure I.

I.2 Jones Bay Wharf currently operates as a commercial marina with capacity for some 40 vessels. It is proposed to expand the capacity of the marina to accommodate up to some 73 vessels.

I.3 The Director-General's requirements for the project include:-

*"The consultant is required to prepare a report which adequately responds to the requirements of the Director General of Planning with respect to the Environmental Assessment of the Project. These requirements include but may not be limited to:*

- Demonstrating that sufficient on-site car parking has been provided for the Project having regard to local planning controls, RTA guidelines and the accessibility of the site to public transport;*
  - A Traffic Impact Study (TIS) in accordance with the RTA's Guide to Traffic Generating Developments, considering traffic generation, access, additional servicing requirements (inclusive of additional on-site facilities for service vehicles, and the type of deliveries), loading docks/bays, measures to promote public transport usage and pedestrian and bicycle linkages (in accordance with the NSW Department of Planning Guidelines for Walking & Cycling) and bicycle parking;*
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- *The above TIS is to include modelling of the round-a-bout at the intersection of Jones Bay Road and Pirrama Road.*

*In responding to the above requirements the Consultant should liaise with appropriate authorities including the RTA and Sydney City Council as to any relevant policies.”*

1.4 This report has been prepared with reference to the RTA’s “Guide to Traffic Generating Developments”, and assesses the transport and traffic implications of the proposed marina expansion through the following chapters:-

- Chapter 2 - describing the existing conditions; and
- Chapter 3 - assessing the transport implications of the proposed marina expansion.

## 2. EXISTING CONDITIONS

- 2.1 Jones Bay Wharf consists of wharves 19, 20 and 21, located on the eastern side of Pirrama Road, between Pyrmont Point Park and Darling Island, as shown on Figure 1. The wharf is owned by NSW Maritime and is leased to Jones Bay Wharf Pty Ltd.
- 2.2 Jones Bay Wharf currently operates as a commercial marina with capacity for some 40 vessels. Commercial marine operations include marine charter/cruise operators and marine brokerage operations. No private berths are provided at the marina and public access is not available to charter vessels berthed at the marina. Charter vessels leave the marina to pick-up passengers or crew at other locations around Sydney or elsewhere.
- 2.3 The existing combined operation of the various marine operations at Jones Bay Wharf has an employee workforce of some 30 full-time staff and up to some 50 casual employees/contractors.
- 2.4 Activities at the marina include berthing facilities for marine service contractors and charter/cruise operators, deliveries to and maintenance of the vessels, the display of vessels for the purpose of sale and maintenance on marine structures. No refuelling of vessels is available from the marina.
- 2.5 Access to Jones Bay Wharf is from Pirrama Road (to the lower central roadway), from Bayview Street (to the upper central roadway) and restricted service vehicle access to the wharf apron from Pirrama Road.
- 2.6 Surrounding land use is a mixture of commercial, retail, residential and recreational. Commercial uses are located within Jones Bay Wharf and to the
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south of the site. Residential areas are located within Darling Island to the south and within the surrounding area of Ultimo-Pyrmont to the west and south-west. Pyrmont Point Park is located at the northern end of the Pyrmont.

- 2.7 The road network in the vicinity of the site includes Pirrama Road, Jones Bay Road, Darling Island Road, Pyrmont Street and Harris Street. Pirrama Road is located along the eastern side and northern end of Pyrmont, providing access to various wharf facilities, including Jones Bay Wharf. It connects between Union Street in the south and Harris Street in the west. Pirrama Road provides an undivided carriageway with one traffic lane and one parking lane in each direction, clear of intersections. Pirrama Road intersects with Jones Bay Road and Darling Island Road to the south of the site at a roundabout controlled intersection.
- 2.8 Jones Bay Road is located to the south and provides an east-west road connecting between Pyrmont Street and Pirrama Road. It provides an undivided two-way road with one traffic lane in each direction and kerbside parking permitted clear of intersections.
- 2.9 Darling Island Road provides an extension of Jones Bay Road to the east of Pirrama Road. It provides access to residential and commercial developments within Darling Island and generally provides an undivided road with one traffic lane in each direction and kerbside parking bays.
- 2.10 Pyrmont Street and Harris Street provide north-south traffic routes through the area and combine with Pyrmont Bridge Road to provide the main traffic routes servicing the Ultimo-Pyrmont area. North of Pyrmont Bridge Road, Pyrmont Street provides an undivided two-way carriageway with one traffic lane in each direction and kerbside parking permitted clear of intersections.
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- 2.11 Harris Street is located to the west and parallel to Pymont Street. It intersects with Pirrama Road to the north of the site at a sign controlled intersection. Harris Street and Pymont Street intersect with Pymont Bridge Road at a traffic signal controlled intersections.
- 2.12 Car parking is provided on-site at the Jones Bay Wharf and within the Promontory off-street public car park located on the western side of Pirrama Road, opposite Jones Bay Wharf. Limited time restricted short stay parking is also available on-street in the vicinity of the site.

### Traffic Flows

- 2.13 The marina will have its peak activity during the weekday morning and afternoon periods when the arrival and departure of employees coincides with the commercial operation of the balance of the wharf and commuter activity on the surrounding road network. In order to gauge traffic conditions, counts were undertaken during these periods at the following intersections:-
- ❑ Pirrama Road/Jones Bay Road/Darling Island Road;
  - ❑ Pirrama Road/Jones Bay Wharf;
  - ❑ Pirrama Road/Promontory Car Park.
- 2.14 The results of the surveys are shown on Figures 2 and 3, and summarised in Table 2.1.
- 2.15 Table 2.1 shows that Pirrama Road, south of Darling Island Road, carried some 550 to 650 vehicles per hour two-way during the morning and afternoon peak periods. North of Darling Island Road traffic flows were lower at some 300 to 400 vehicles per hour two-way at peak times.
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- 2.16 Traffic flows on Jones Bay Road were some 450 to 600 vehicles per hour two-way during peak periods. Darling Island Road was found to carry peak hour flows of some 300 to 360 vehicles per hour two-way.

<b>Table 2.1: Existing Two-Way (Sum of Both Directions) Peak Hour Traffic Flows</b>		
<b>Road/Location</b>	<b>Morning (Vehicles/Hour)</b>	<b>Afternoon (Vehicles/Hour)</b>
Pirrama Road		
- south of Darling Island Road	545	640
- north of Darling Island Road	370	375
- north of Jones Bay Wharf	355	340
- north of Promontory Car Park	350	300
Jones Bay Road		
- south of Darling Island Road	485	600
Darling Island Road		
- east of Pirrama Road	300	355
Jones Bay Wharf		
- east of Pirrama Road	65	65
Promontory Car Park		
- west of Pirrama Road	85	70

- 2.17 Jones Bay Wharf and the Promontory car park access driveways on Pirrama Road carried some 60 to 90 vehicles per hour two-way during the morning and afternoon peak periods.

#### Intersection Operations

- 2.18 The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The surveyed intersections shown in Figures 2 and 3 have been analysed using the SIDRA program.



2.19 The SIDRA program simulates the operations of intersections to provide a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

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

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

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

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

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- 2.20 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.
- 2.21 The SIDRA analysis found that the roundabout controlled intersection of Pirrama Road/Jones Bay Road/Darling Island Road is operating with average delays, for the movement with the highest average delay, of less than 20 seconds per vehicle during the morning and afternoon peak periods. This represents a level of service B, a good level of intersection operation.
- 2.22 Jones Bay Wharf and the Promontory car park access driveways on Pirrama Road are operating with average delays for the highest delayed movement of less than 15 seconds per vehicle during peak periods. This represents a level of service A/B, which is a good level of intersection operation.

#### Public Transport

- 2.23 Jones Bay Wharf is well served by public transport being close to the light rail, bus and ferry systems that serve Ultimo-Pyrmont and Darling Harbour. The site is within walking distance of the Darling Harbour precinct, Star City Casino and Central Sydney.
- 2.24 A light rail station is located beneath Star City Casino. Light rail services operate between Sydney's central railway station and Lilyfield. Passengers can transfer
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- from light rail to heavy rail at Central railway station and thereby access other parts of the Sydney metropolitan rail system.
- 2.25 Bus services in the area are provided by Sydney Buses. The 443 and 448 services operate along Pirrama Road between the City and Pyrmont, and provide links to Darling Harbour, Central Station and the Sydney CBD. These services combine to provide a bus service frequency of 5 to 10 minutes in each direction during peak periods and 15 minutes in each direction outside peaks.
- 2.26 There is a ferry wharf at Darling Harbour. It provides for services between Pyrmont Bay, Darling Harbour and Circular Quay. Some services from Parramatta and the City also stop at Darling Harbour.
- 2.27 Pirrama Road, Millers Street, Union Street, Anzac Bridge and Pyrmont Bridge provide significant pedestrian and cycle routes between Pyrmont and the City and areas to the west. The site is within some 15 to 20 minute walk from Town Hall railway station. Town Hall is a major CBD station and provides interchange facilities with Sydney's rail and bus services.
- 2.28 The site therefore has good access to regular public transport services.
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### 3. IMPLICATIONS OF PROPOSED MARINA EXPANSION

- 3.1 It is proposed to expand the existing commercial marina at Jones Bay Wharf from a capacity of some 40 commercial vessels to a total of 73 commercial vessels of various sizes. The proposed marina expansion will retain the current commercial operation with eight berths available for public use. Current access arrangements and parking provision for the wharf will be maintained.
- 3.2 The marina expansion will include increased servicing facilities for vessels including sewer waste pump out facilities. The proposal also includes a section of public boardwalk between Darling Island and Jones Bay Wharf. The completed boardwalk will provide a continuous foreshore public access between Anzac Bridge, Pyrmont Point and Darling Harbour.
- 3.3 This chapter examines the implications of the proposed marina expansion through the following sections:-
- public transport;
  - pedestrians and cyclists;
  - work place travel plan;
  - parking provision;
  - access and servicing arrangements;
  - traffic generation and effects;
  - Director General's requirements; and
  - summary.

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### Public Transport

- 3.4 As previously discussed, the site is well located to public transport services in the area. It is located within convenient walking distance of the light rail station at Star City Casino as well as 15 to 20 minutes walk from Town Hall railway station. Bus services also link the site to surrounding areas and to local and regional services operating from Central railway station.
- 3.5 The proposed development provides opportunities to strengthen the demand for existing public transport services in the area. Increasing employment densities close to residential areas and close to existing public transport services is consistent with government policy.
- 3.6 Government policy aims to ensure that urban structure, building forms, land use locations, development designs, subdivision locations and street layouts help achieve the following planning objectives:-
- (a) improving accessibility to housing, employment and services by walking, cycling, and public transport;
  - (b) improving the choice of transport and reducing dependence solely on cars for travel purposes;
  - (c) moderating growth in the demand for travel and the distances travelled, especially by car; and
  - (d) supporting the efficient and viable operation of public transport services.
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3.7 The proposed development satisfies these aims as follows:-

- ❑ the site is located in Ultimo-Pyrmont and is highly accessible to public transport services, which offer viable alternatives to travel by car. To support accessibility for cyclists, appropriate parking will be provided for bicycles. The site is also readily accessible for pedestrians, being close to residential areas, public transport nodes and existing pedestrian connections and footpaths around the site. These will be further improved with the development of a new public boardwalk connection between Darling Island Road and Jones Bay Wharf;
- ❑ the location of the site within Pyrmont will improve the choice of transport mode and reduce the use of cars for travel purposes;
- ❑ the opportunity to moderate demand for travel and distance travelled will be provided by the development being close to existing residential populations and other facilities; and
- ❑ greater employment densities within Pyrmont will provide more potential customers for the existing public transport services and hence support their efficient and viable operation.

Pedestrian and Cyclists

3.8 There are good pedestrian links to and from the site provided by footpaths along Pirrama Road and shared pedestrian/cycle connections linking the waterfront area to Pyrmont Park, Darling Island and Darling Harbour precincts.

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- 3.9 The proposed development will maintain the existing public access around the wharf. A 10 metre wide corridor is provided around the perimeter of the lower deck, reserved for public access. This area is available 24 hours a day. Access to the upper deck will be available by publicly accessible stairs.
- 3.10 In association with the proposed development a section of public boardwalk is proposed between Darling Island and Jones Bay Wharf. The completed boardwalk together with the future development of the REVY buildings, will provide a continuous foreshore public access between Anzac Bridge, Pyrmont Point and Darling Harbour.
- 3.11 The proposed boardwalk will provide a convenient shared cycle path along the foreshore. The pedestrian and cycle network will be integrated with connections to the main pedestrian/cycle paths through the area, and via connections to Darling Harbour and CBD railway stations. This will allow cyclists to switch modes from cycle to either bus or train, in order to complete their journeys.
- 3.12 Appropriate bicycle parking will be provided within the proposed marina expansion. The existing bicycle facilities will be modified and expanded to cater for the additional bicycle parking.

#### Work Place Travel Plan

- 3.13 To encourage travel modes other than private vehicle, it is proposed to adopt a travel demand management approach, through a work place travel plan to meet the needs of the site, future tenants and employees. The specific requirements and needs of the tenants and employees, hours of work, shift times, etc., will be incorporated in the work place travel plan to encourage the use of public transport.
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3.14 The principles of the work place travel plan, to be developed by the operators in consultation with Council, RTA and other stakeholders, will include the following:-

- encourage the use of public transport;
- encourage public transport by employees through the provision of information, maps and timetables;
- raise awareness of health benefits of walking (including maps showing safe walking routes);
- encourage cycling by providing safe and secure bicycle parking, including the provision of lockers and change facilities;
- provide parking consistent with Council's controls and the government's objective of reducing traffic generation and encouraging public transport.

3.15 The travel plan may take a variety of forms including a green transport plan or company travel plan. The work place travel plan will assist in delivering sustainable transport objectives by considering the means available for reducing dependence solely on cars for travel purposes, encouraging the use of public transport and supporting the efficient and viable operation of public transport services.

#### Parking Provision

3.16 The Central Sydney Local Environmental Plan 2005 does not have a specific parking rate requirement for commercial marinas. However, the objectives of the car park controls set out in the LEP are as follows:-

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- a) to acknowledge that public transport is the most important and efficient means of moving people to and within Central Sydney;
- b) to encourage commuting by public transport to Central Sydney in order to reduce the number of motor vehicles travelling through and to Central Sydney, and to improve overall environmental quality and pedestrian amenity;
- c) to improve the attractiveness and competitiveness of Central Sydney for retail and commercial activity by providing a reasonable level of tenant and short-stay public car parking whilst discouraging commuter car parking;
- d) to encourage residential development in Central Sydney;
- e) to minimise adverse urban design impacts, in particular by discouraging the provision of above ground parking;
- f) to minimise adverse traffic impacts, in particular conflicts between pedestrian and vehicular traffic;
- g) to discourage the provision of public parking;
- h) to ensure that tenant car parks are not occupied by persons other than the occupiers of the building or land on which the car park is situated.

3.17 As previously discussed, the combined operation of the various marine operators has an employee workforce of some 30 full-time staff and up to some 50 casual employees/contractors. Based on surveys, the existing marine facility generated a parking demand of some 25 to 30 vehicles during the weekday period. Some ten vehicles were found to park on-site within existing tenant parking on the wharf,

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and the balance (some 15 to 20 vehicles) were found to park within the adjacent Promontory off-street public car park.

- 3.18 In order to gauge parking conditions within the Promontory public car park, parking surveys were undertaken during a weekday period. The surveys recorded the number of vehicles parked within the 190 space car park between 8:00am and 6:00pm. The surveys found a peak parking demand of some 163 vehicles at 4:00pm. This represents an overall car park utilisation of some 85% indicating that off-street parking is available.
- 3.19 Based on an increase in employee workforce of some 70%, the expanded marine facility could be expected to have a parking demand of some 40 to 50 vehicles during the peak weekday period. This results in a net increase of some 15 to 20 vehicles. These vehicles could utilise available vacant parking within the adjacent Promontory car park.
- 3.20 It is therefore proposed to maintain the existing level of on site parking provision for the marina. This is consistent with the Central Sydney LEP and is considered appropriate. Restricting parking will encourage the use of public transport and reduce the use of private vehicles.

#### Access and Service Arrangements

- 3.21 Access arrangements to Jones Bay Wharf will be unchanged. Access to the wharf is from Pirrama Road (to the lower central roadway), from Bayfield Street (to the upper central roadway) and restricted service vehicle access to the wharf apron from Pirrama Road.
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- 3.22 A traffic and pedestrian management plan has previously been prepared for the overall operation of the wharf. The plan has been prepared in accordance with the current consent for the development and is appended to this report.
- 3.23 In accordance with the management plan, berthing facility lot owners and occupiers, vessel service contractors and other persons carrying out maintenance on marina structures are permitted access onto the apron of the wharf through retractable bollards located adjacent to Pirrama Road. General vehicles are not permitted onto the apron and are controlled by signs, security controlled retractable and fixed bollards at the connections to the apron. Security guards patrol the apron and surveillance cameras are used to ensure that these access points are appropriately controlled.
- 3.24 Appropriate accessing and parking are provided for disabled persons on the wharf apron. A point of access to boats for disabled people is provided on the western side of the wharf and the expansion of the marina provides opportunities to improve disabled access onto the eastern side of the wharf.
- 3.25 The main components of the traffic and pedestrian management plan are as follows:-
- i) vehicle access to the centre roadways is restricted by boom gates to owner/occupiers with allocated parking, service and maintenance vehicles and vehicles carrying disabled visitors;
  - ii) vehicles larger than 6.4 metres in length are only permitted to access the centre roadways between 7.00pm and 7.00am;
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- iii) no vehicle longer than 8.8 metres is permitted to access the centre roadways;
  - iv) berthing facility lot owners/occupiers, vessel service contractors and essential maintenance vehicles only are allowed access onto the wharf apron;
  - v) security guards patrol the apron and surveillance cameras are used to monitor activity on the wharf apron;
  - vi) a 10km/h speed limit applies on all areas used by vehicles;
  - vii) 24 hour pedestrian access is available to the aprons around the lower deck;
  - viii) pedestrian movement along the centre roadways is provided via elevated walkways;
  - ix) emergency access to the entire lower deck apron is provided directly from Pirrama Road, controlled by retractable bollards;
  - x) disabled access is available on the wharf apron;
  - xi) emergency vehicle access to the upper deck is available via boom gates; and
  - xii) specific arrangements with security are in place for garbage collection and maintenance of utilities and the wharf structure.
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- 3.26 Amendments and modifications to the pedestrian and traffic management plan, as a result of the proposed marina expansion (if required), will be undertaken with a comprehensive review of the plan in consultation with the various stakeholders.

#### Traffic Generation and Effects

- 3.27 The proposed marina expansion could result in an increase in traffic generation of some 10 to 15 vehicles per hour two-way during the morning and afternoon peak periods. This is a low increase in traffic generation, equivalent to on average one additional vehicle every four to six minutes during peak times. Such a low increase in traffic generation will not have a noticeable effect on the operation of the surrounding road network and its intersections.
- 3.28 The intersection of Pirrama Road/Jones Bay Road/Darling Island Road will continue to operate with average delays for the movement with the highest average delay of less than 20 seconds per vehicle during the morning and afternoon peak periods. This represents a level of service B, a good level of intersection operation.
- 3.29 Jones Bay Wharf and the Promontory car park access driveways onto Pirrama Road will continue to operate at a level of service A/B during period periods, with similar average delays to today.

#### Director General's Requirements

- 3.30 The traffic report has been prepared to respond to the requirements of the Director General of Planning with respect to the Environmental Assessment of the project. These requirements include:-
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- *Demonstrating that sufficient on-site car parking has been provided for the Project having regard to local planning controls, RTA guidelines and the accessibility of the site to public transport.*

3.31 Parking provision for the proposed development is discussed in paragraphs 3.16 to 3.20.

- *A Traffic Impact Study (TIS) in accordance with the RTA's Guide to Traffic Generating Developments, considering traffic generation, access, additional servicing requirements (inclusive of additional on-site facilities for service vehicles, and the type of deliveries), loading docks/bays, measures to promote public transport usage and pedestrian and bicycle linkages (in accordance with the NSW Department of Planning Guidelines for Walking & Cycling) and bicycle parking;*

3.32 This report has been prepared with reference to the RTA's "Guide to Traffic Generating Developments". Traffic generation and its effects are discussed in paragraphs 3.27 to 3.29. Access and servicing arrangements are discussed in paragraphs 3.21 to 3.26.

3.33 Matters relating to public transport are discussed in paragraphs 3.4 to 3.7 and matters relating to the use of non-car travel modes are discussed in paragraphs 3.13 to 3.15 in the work place travel plan.

3.34 Matters relating to pedestrians and cyclists are discussed in paragraphs 3.8 to 3.12.

- *The above TIS is to include modelling of the round-a-bout at the intersection of Jones Bay Road and Pirrama Road.*

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- 3.35 Matters relating to traffic generation and its effects on the operation of the roundabout controlled intersection of Pirrama Road/Jones Bay Road/Darling Island Road are discussed in paragraphs 3.26 to 3.28.
- 3.36 In association with the preparation of this traffic impact study, liaison has been undertaken with RTA and Sydney City Council regarding relevant policies.

#### Summary

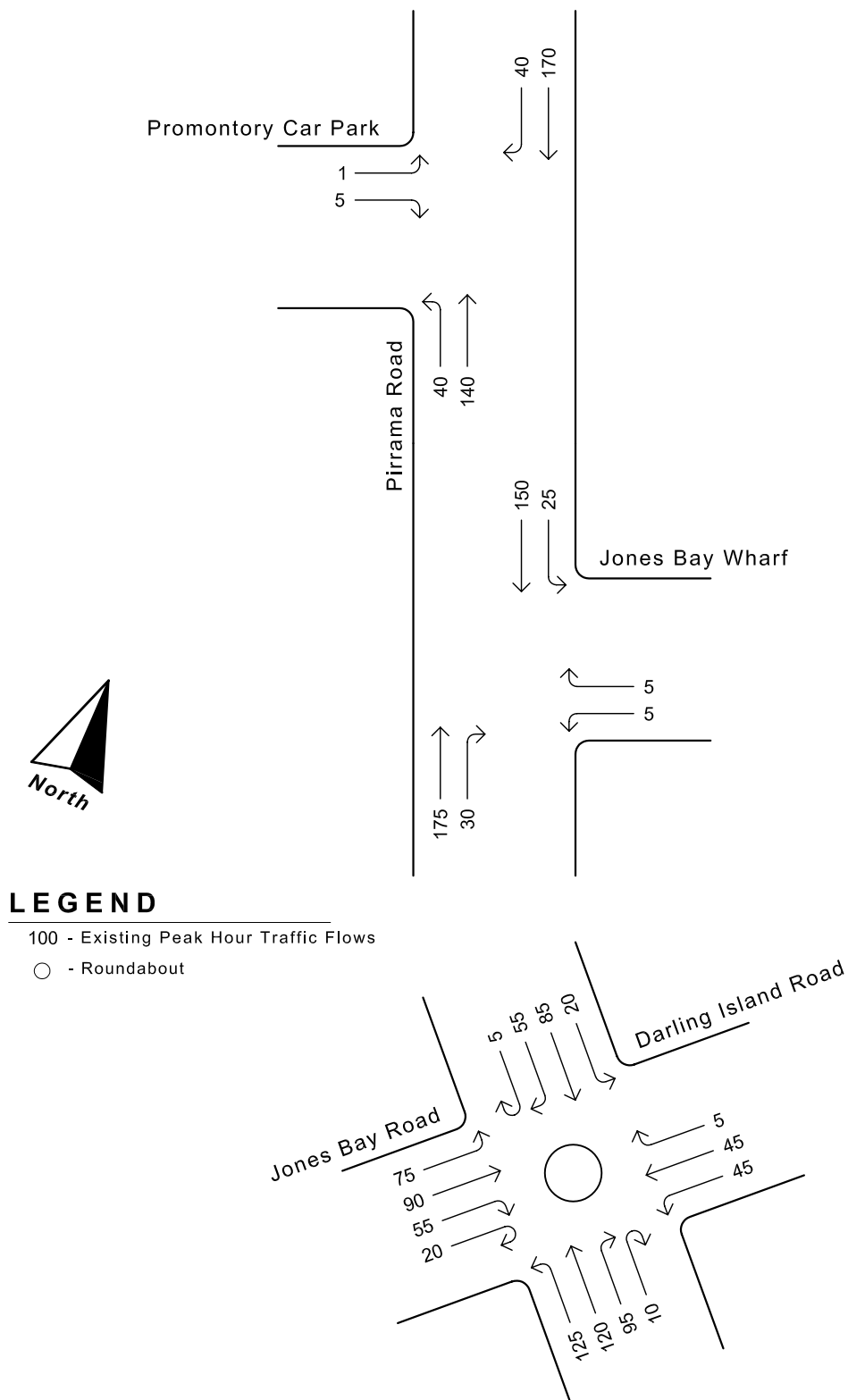
- 3.37 In summary, the main points relating to the traffic impact study for the proposed marina expansion at Jones Bay Wharf are as follows:-
- i) the proposed development will increase employment densities close to residential areas and close to existing public transport services and is consistent with government policy objectives to reduce private car travel and encourage public transport use;
  - ii) a work place travel plan will be implemented for the development;
  - iii) parking provision is considered appropriate;
  - iv) access and servicing arrangements are considered appropriate and will be provided in accordance with the traffic and pedestrian management plan prepared for the site;
  - v) the road network will be able to cater for the additional traffic generated by the proposed marina expansion;
  - vi) the Director General's requirements are discussed in paragraphs 3.29 to 3.35.
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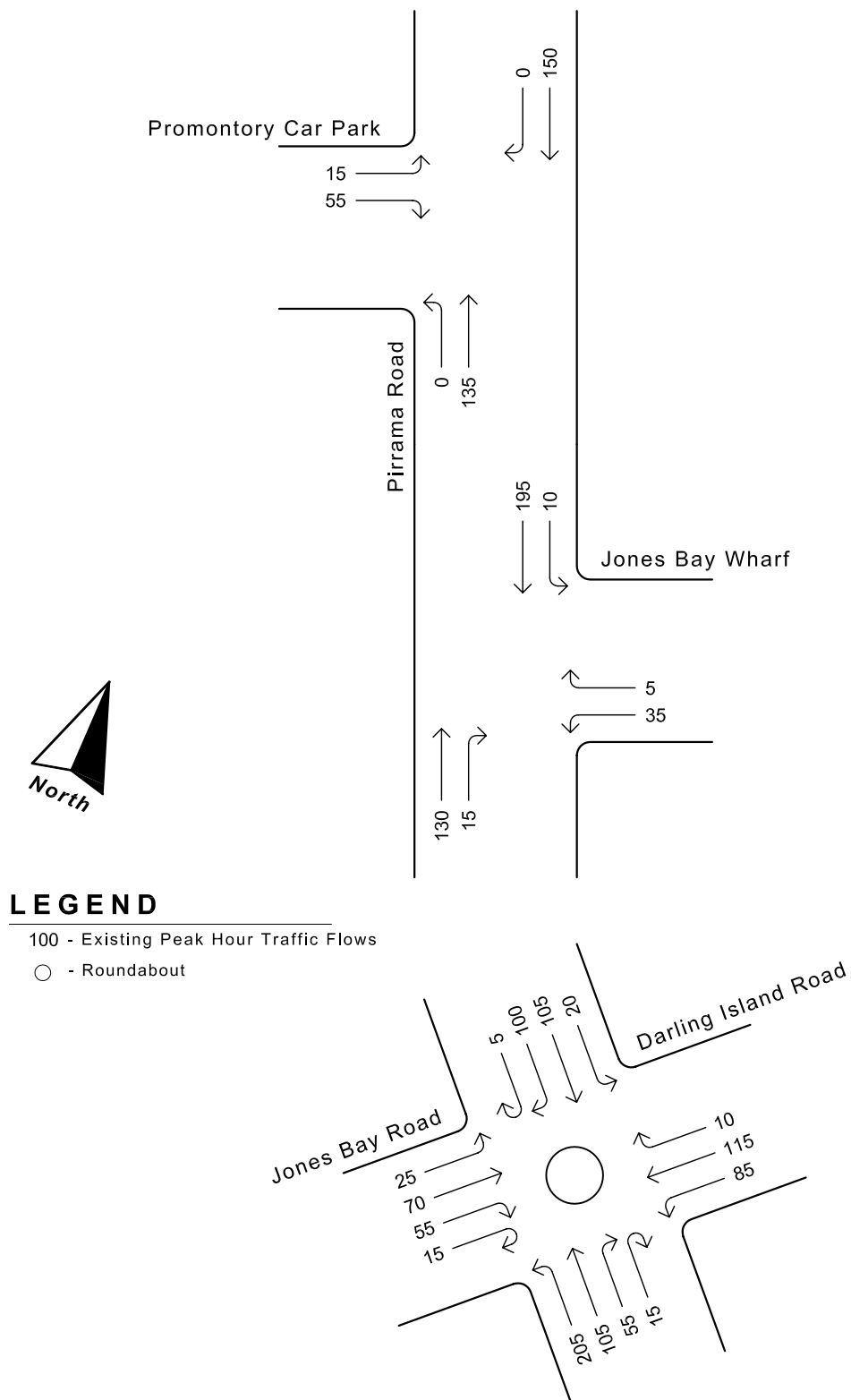


## Location Plan





**Existing morning peak  
hour traffic flows**



**Existing afternoon peak  
hour traffic flows**

## APPENDIX A

### AMENDED TRAFFIC AND PEDESTRIAN MANAGEMENT PLAN JONES BAY WHARF

JONES BAY WHARF PTY LTD

AMENDED TRAFFIC AND PEDESTRIAN  
MANAGEMENT PLAN -  
JONES BAY WHARF

NOVEMBER 2008

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REF: 7040/2

TABLE OF CONTENTS

1. INTRODUCTION .....	1
2. TRAFFIC AND PEDESTRIAN MANAGEMENT PLAN .....	3

## I. INTRODUCTION

- I.1. Colston Budd Hunt & Kafes Pty Ltd has been retained by Jones Bay Wharf Pty Limited to prepare a traffic and pedestrian management plan for their approved development on Pier 19, 20 and 21, Jones Bay. The location of the development is shown on Figure 1.
- I.2. The management plan has been prepared in response to Conditions 4 to 7 and 45 of Consent 37/98 and Condition 16 of a subsequent S.96 consent. It also results from the applicant's desire to ensure safe and controlled access to the development. Conditions 4 to 7 and 45 of the original consent state as follows:-

### **“ACCESS TO PUBLIC DOMAIN**

4. 24 hour public access easements shall be created in favour of the State on the Waterfront Public Domain Areas and public lift and stairs as shown on Plan of Subdivision listed in Condition 1 for public pedestrian and cycle access.
5. There shall be no vehicular access to the Waterfront Public Domain Areas other than for emergencies and wharf maintenance vehicles and for loading, unloading and servicing of commercial vessels.
6. There shall be no vehicle parking allowed on or obstructing the Waterfront Public Domain Areas except for purposes in Condition 5 and then only whilst those activities are being carried out.
7. These public access provisions are to be incorporated into all leases, licences, Owners Corporation by laws and the Strata Management Statement if applicable to the satisfaction of Sydney Harbour Foreshore Authority.”

### **“SIGNAGE**

45. Signage is to be installed at the Pirrama Road access/egress to warn exiting drivers to give way to pedestrians and entering right turn traffic”.

I.3. Condition 16 of the S.96 consent states as follows:-

"16. The Traffic and Pedestrian Management Plan and Traffic Flow Diagram (Drawing A-52) are to be revised to demonstrate the means by which vehicles using the waterfront public domain are to be managed including any proposed restrictions, appropriate hours for vehicular access to the waterfront public domain, locations of temporary parking of any vehicles using this area in accordance with Condition 5 and 6, and the means by which vehicles entering the waterfront public domain from Pirrama Road are controlled. The details of these revisions are to be submitted for the approval of the Director General prior to the issue of an Occupation Certificate."

I.4. The management plan as amended, is set out in the following chapter.

I.5. This report was originally prepared in April 2001. It was amended in December 2003 to comply with Condition 16 above. This version, dated September 2008 is revised and updated, in particular paragraphs 2.1, 2.2, 2.8, 2.11 and 2.17.

## 2. TRAFFIC AND PEDESTRIAN MANAGEMENT PLAN

- 2.1. A number of specific users will seek access to the wharf. These will include the following regular user group as shown in Table 2.1.

<b>Table 2.1: Jones Bay Wharf</b>			
<b>Type of user/ Available access</b>	<b>Lower central roadway</b>	<b>Upper central roadway</b>	<b>Wharf apron</b>
Owners/occupiers of land lots	Yes	Yes	No
Owners/occupiers of berthage lots	No, unless also land lot owner/occupier	No, unless also land lot owner/occupier	No, unless for loading, unloading or servicing of vessels
Visitors	No, unless pre-arranged by owner/occupier	No, unless pre-arranged by owner/occupier	No
Service vehicles/couriers/deliveries	Yes, to allocated service spaces, some restrictions on extent of access, based on loading/size	Yes, to allocated service spaces, some restrictions on extent of access, based on loading/size	No, unless for loading, unloading or servicing of vessels
Garbage collection	Yes	Yes	No
Emergency vehicles	Yes	Yes	Yes
Maintenance vehicles for the wharf structure	Yes	Yes	Yes

- 2.2. The purpose of the plan is to ensure that all these groups obtain safe and convenient access to those areas of the wharf to which they are to be permitted access.
- 2.3. The revised traffic flow diagram (Drawing A-52), is appended. A 24 hour manned security room is located on the lower ground floor at the front of the complex on the centre road. Cameras are used to monitor the development. Access is granted to the development for cars via boom gates. Owner/occupiers gain access through the use of proximity readers. Owner/occupiers have designated parking located adjacent to their suite on the central access roadway.



- 2.4. Visitors are not generally permitted to bring vehicles into the central access roadway except under prior arrangement with owners/occupiers and/or for restaurant valet parking.
- 2.5. Directory signage is located on the support columns of the overhead bridge at the lower level of Pirrama Road. Public information signs using international standards or pictograms direct casual parking to the Promontory car park.
- 2.6. No parking (other than service vehicles) is permitted to the wharf aprons as noted in Condition 16.
- 2.7. Vehicles carrying disabled visitors are allowed to gain access to use the designated disabled spaces, if available, or to facilitate easy drop-off/pick-up. Four disabled spaces are provided.
- 2.8. Drivers of service vehicles for land lots either speak to security or the Building Manager (appointed by the Building Management Committee) to gain access past the boom gates. A total of 3 service vehicle spaces are provided on the upper deck and 4 spaces on the lower deck.
- 2.9. Large service vehicles and garbage collection vehicles (more than 6.4 metres and less than 8.8 metres in length) are restricted to the lower level roadway only and to times when parking is lightly used, as the 3 metre wide aisles are below the requirements for service vehicles. Whilst the vehicles are able to traverse the aisles, there is an increased risk of damage to parked vehicles due to the narrow aisles. These vehicles are therefore limited to accessing the roadway to the hours between 7.00pm and 7.00am. They use the cross aisle to turn around.

- 2.10. Small service vehicles, less than 6.4 metres long, can access either level of the wharf at any time and use the designated service bays. They turn around using the cross aisle or turning circle on the lower deck or the turning circle on the upper deck. Garbage vehicles accessing the upper deck use the first turning circle to turn around.
- 2.11. Berthing facility lot owners and occupiers, vessel service contractors and other persons carrying out maintenance on marine structures are allowed access onto the apron of the wharf through the retractable bollards. General vehicles are not permitted onto the apron and signs and security controlled retractable and fixed bollards are erected on the connections to the apron to this effect. Security guards patrol the apron and surveillance cameras are used to ensure that these access privileges are not abused.
- 2.12. A 10km/hr speed limit applies to all areas of the wharf traversed by vehicles.
- 2.13. Pedestrians are encouraged to use the 10 metre wide corridor, reserved for public access, around the entire perimeter of the lower deck. In accordance with Condition 4, this area is available 24 hours a day. Access to the upper deck pedestrian stair is available on a 24 hour basis (as required under Condition 4). Adequate lighting is provided to all areas to ensure the safety of all pedestrians.
- 2.14. Safe pedestrian access is provided along the centre roadways by means of elevated walkways on either side of the road. These walkways extend over the length of the upper and lower decks and are accessed via both stairs and ramps. The ramps are designed to be suitable for disabled access (in accordance with Condition 29 Disabled Access).
- 2.15. Emergency access is available around the entire perimeter of the lower deck. Retractable bollards, with access provided to all emergency services, are located
-

at the end of the eastern and western aprons to allow direct access to and from Pirrama Road. Access to the upper roadway for emergency vehicles, is available through the boomgate.

- 2.16. Specific arrangements with security are in place for vehicles to access both levels for garbage and waste removal. Vehicles requiring access for utility or wharf maintenance will gain access by talking to security (Building and Berthage Managers).
- 2.17. In summary, the main components of the management plan are as follows:-
- i) vehicle access to the centre roadways is restricted by boom gates to owner/occupiers with allocated parking, service and maintenance vehicles and vehicles carrying disabled visitors;
  - ii) vehicles larger than 6.4 metres in length are only permitted to access the centre roadways between 7.00pm and 7.00am;
  - iii) no vehicle longer than 8.8 metres is permitted to access the centre roadways;
  - iv) berthing facility lot owners/occupiers, vessel service contractors and essential maintenance vehicles only are allowed access onto the wharf apron;
  - v) security guards patrol the apron and surveillance cameras are used to monitor activity on the wharf apron;
  - vi) a 10km/h speed limit applies on all areas used by vehicles;

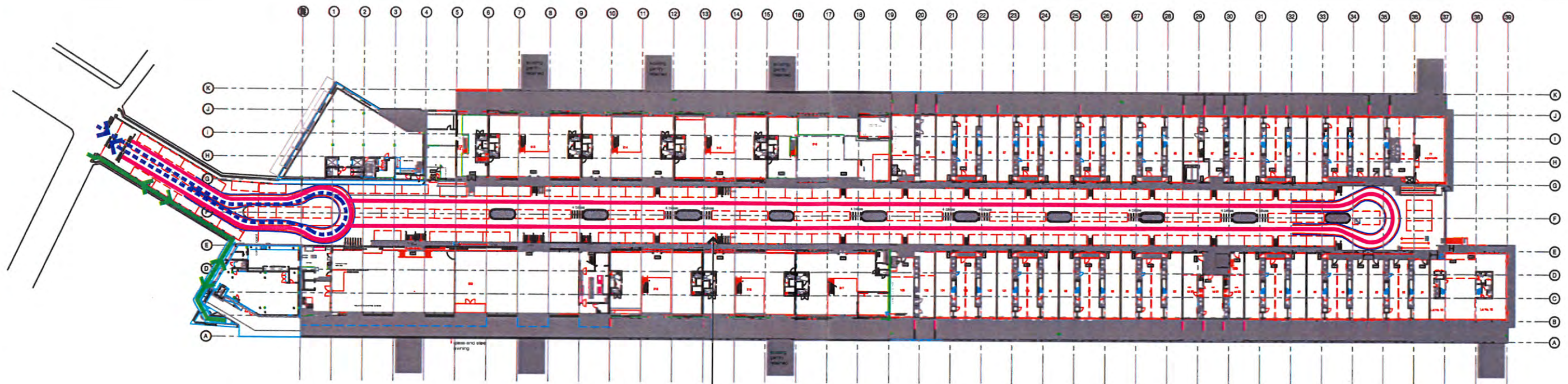
- vii) 24 hour pedestrian access is available to the aprons around the lower deck;
- viii) pedestrian movement along the centre roadways is provided via elevated walkways;
- ix) emergency access to the entire lower deck apron is provided directly from Pirrama Road, controlled by retractable bollards;
- x) emergency vehicle access to the upper deck is available via boom gates; and
- xi) specific arrangements with security are in place for garbage collection and maintenance of utilities and the wharf structure.

APPENDIX

REVISED TRAFFIC FLOW DIAGRAM  
DRAWING A-52

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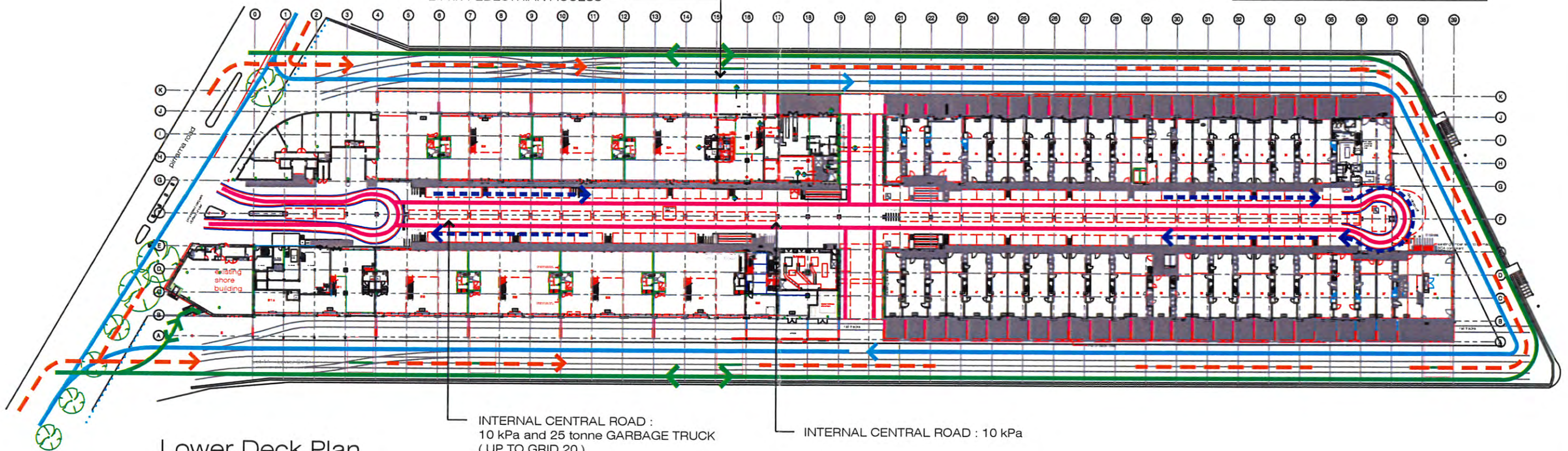




Upper Deck Plan

UPPER CENTRAL ROAD : 5kPa

APRON :  
10 kPa LIVE LOAD FOR TEMPORARY -  
MAINTAINANCE LOADS or 15t FIRE TRUCK  
24 hr. PEDESTRIAN ACCESS



Lower Deck Plan

INTERNAL CENTRAL ROAD :  
10 kPa and 25 tonne GARBAGE TRUCK  
( UP TO GRID 20 )

INTERNAL CENTRAL ROAD : 10 kPa

**19<sup>20</sup>21 Jones Bay Wharf**  
Jones Bay Wharf Pty. Limited



Urban design  
S A Smits & Associates  
Landscape architect  
Otto Gierhalm & Partners  
Structural engineer  
Robert Bird & Partners  
Mechanical  
Addicott Hogarth Wilson  
Landscape  
Colston Bird Hunt & Kafes

Architect  
Simpson Rotzman Pty Ltd  
Interior design  
Harris Page & Associates  
Acoustic  
Stephen Grubbs & Associates  
Acoustic  
Acoustic Logic Consultancy  
Landscape  
Independent Living Centre of NSW

DATE	REVISION	NO.	INT.	ISSUED TO
01.11.00	SECTION 01.00	A	NO	NO
01.11.00	SECTION 01.00	B	NO	NO
01.11.00	SECTION 01.00	C	NO	NO
01.11.00	SECTION 01.00	D	NO	NO

#### traffic flow diagram

SCALE	1:400
DATE	01.11.00
PROJECT NO.	S9627
FIGURE NO.	A-52
FIGURE	A-52

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