

Pontiac Land Group

The Sandstone Precinct

Stage 2 DA – Outline Loading Dock
Management Plan

Issue | 4 November 2016

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 248547

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1 Introduction

1.1 Background

This report has been prepared by Arup on behalf of Pontiac Land Group in support of a Stage 2 State Significant Development Application (SSDA) to be submitted to the Department of Planning and Environment (DP&E). The DA relates to the proposal to secure approval for development of the subject site at 23-33 Bridge Street (Lands Building) and 35-39 Bridge Street (Education Building), Sydney (herein referred to as the ‘Sandstone Precinct’).

This report covers the loading dock management required to support the proposed application in relation to traffic and transport.

1.2 Site Description

The development site comprises two buildings (Lands Building and Education Building) with frontages to Bridge Street in the northern CBD area, with a combined site area of approximately 6,000m². These buildings currently function as Government departmental offices.

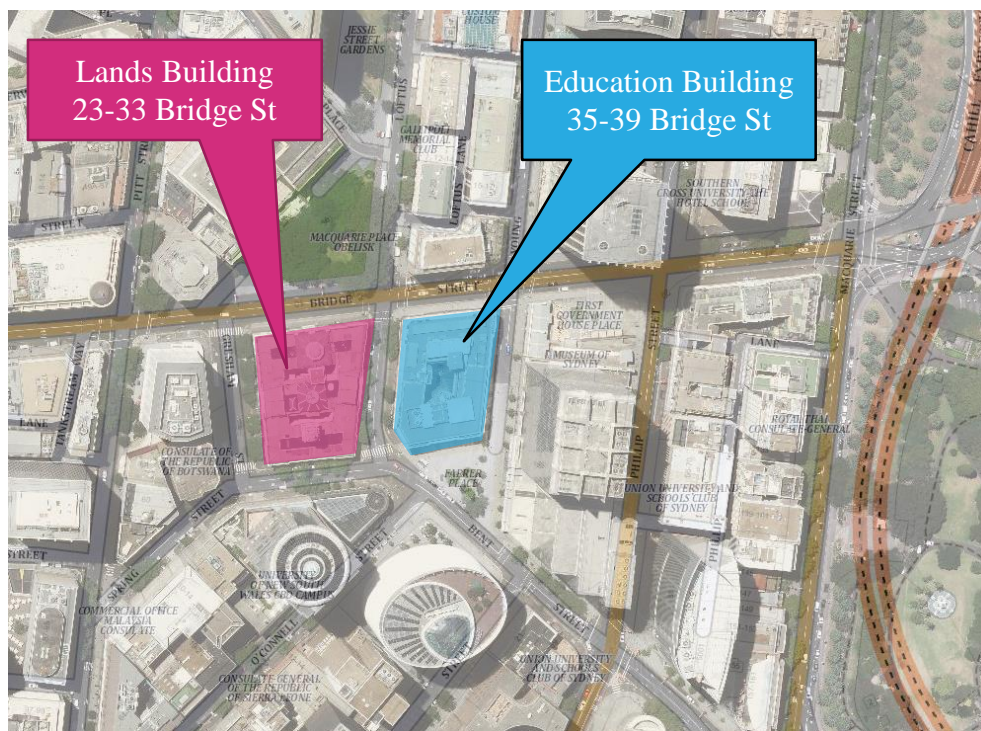


Figure 1 Site Overview

2 Existing Access Conditions

2.1 Vehicular Access

The Education Building has a vehicle entry off Loftus Street which acts as both a loading area and on-site parking for up to 12 cars. The Lands Building has access to a small loading dock on Gresham Street at the corner with Bent Street.

The current vehicular access points into the two buildings, as well as the indicative footprint of the parking and loading areas, are illustrated in Figure 2.

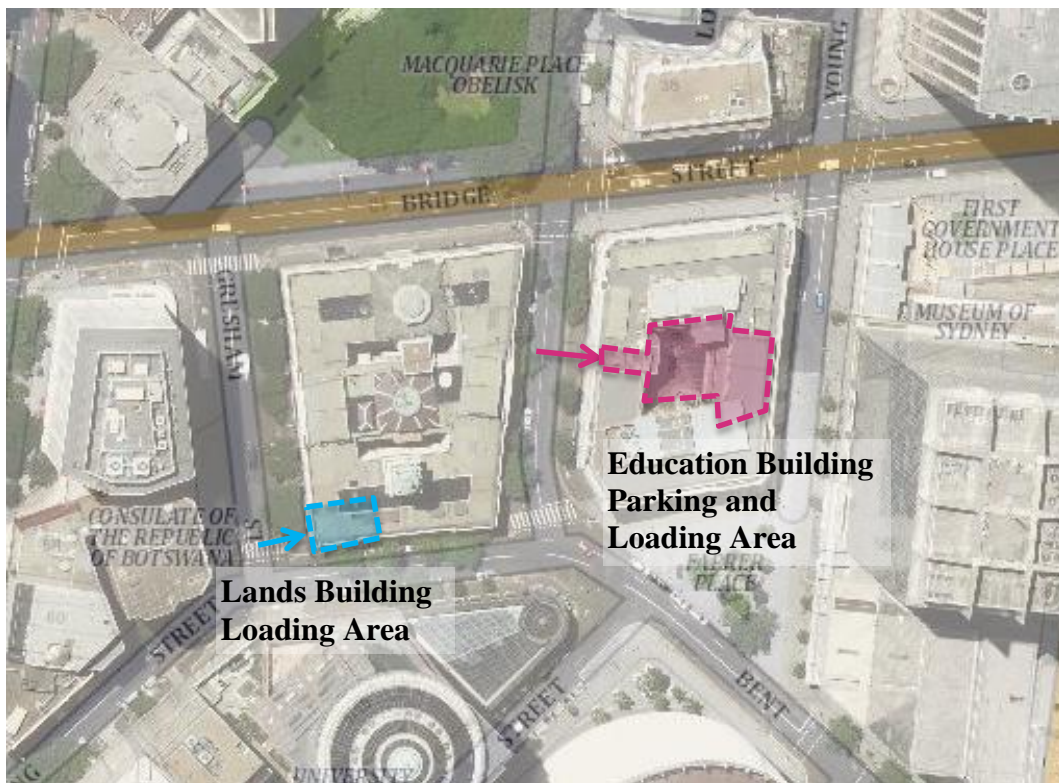


Figure 2 Existing Vehicle Access

2.2 Parking

12 on-site parking bays are currently provided in the Education Building. No on-site parking is provided in the Lands Building.

3 Development Proposal

3.1 Description

The Stage 2 SSD proposal, designed by Make Architects, BAR Studio and ASPECT Studios with our traffic input, is detailed in the submitted plans and Statement of Environmental Effects that accompany Application SSD 7484.

The Stage 1 Approval SSD 6751 was granted by the NSW State Government as follows:

Stage 1 Concept Proposal for tourism and visitor accommodation including associated ancillary uses for:

- Adaptive reuse of the Lands Building and Education Building for tourist accommodation, and ancillary uses;
- An extended building envelope with three to four additional storeys above the Education Building; and
- An indicative subterranean building envelope below the Lands Building and Education Building, under Loftus Street, Farrer Place and Gresham Street.

The aim of the proposal is to conserve and adaptively reuse the Lands and Education Buildings for tourist accommodation, and ancillary uses, in accordance with the intent of Stage 1 Approval SSD 6751 granted by the NSW State Government.

The proposal includes a subterranean link and a vertical extension to the Education Building in accordance with the Stage 1 Approval SSD 6751.

The application seeks approval for the following development:

- Demolition of existing improvements and alterations to the existing Lands and Education buildings to facilitate their adaptive reuse for the purposes of ‘hotel or motel accommodation’, with ancillary licensed food and drink premises and retail premises;
- Excavation and construction of three basement levels below the Education Building and a subterranean link beneath Loftus Street between the two buildings;
- Construction of three to four additional levels above the Education Building;
- Removal of existing pitched roof elements and construction of a replacement roof structure on the Lands Building;
- Public domain improvements to Farrer Place to include regrading works to Farrer Place, new landscaping, removal of the existing kiosk and the construction of a new drop-off area leading from Bent Street;
- Public domain improvements to the pavements on Young Street, Gresham Street and Loftus Street; and
- Provision of external building illumination system.

The land use components of the proposed development are as follows:

- 253 hotel rooms
- ground floor retail
- associated hotel function and restaurants

3.2 Vehicular Site Access

The vehicle entry off Loftus Street into the Education Building will be retained and provide access to a new loading dock. The existing on-site parking for up to 12 cars which utilise this entrance will be removed. The Lands Building vehicle access to a small loading dock on Gresham Street at the corner with Bent Street will be closed to vehicle use and become part of the pedestrian access network. The site proposes that no car parking be provided on-site.

3.3 On-street designation of kerbside uses

In addition to the proposed drop-off changes, the following Figure 3 describes the loading zones in Loftus Street adjacent to the loading dock driveway access.

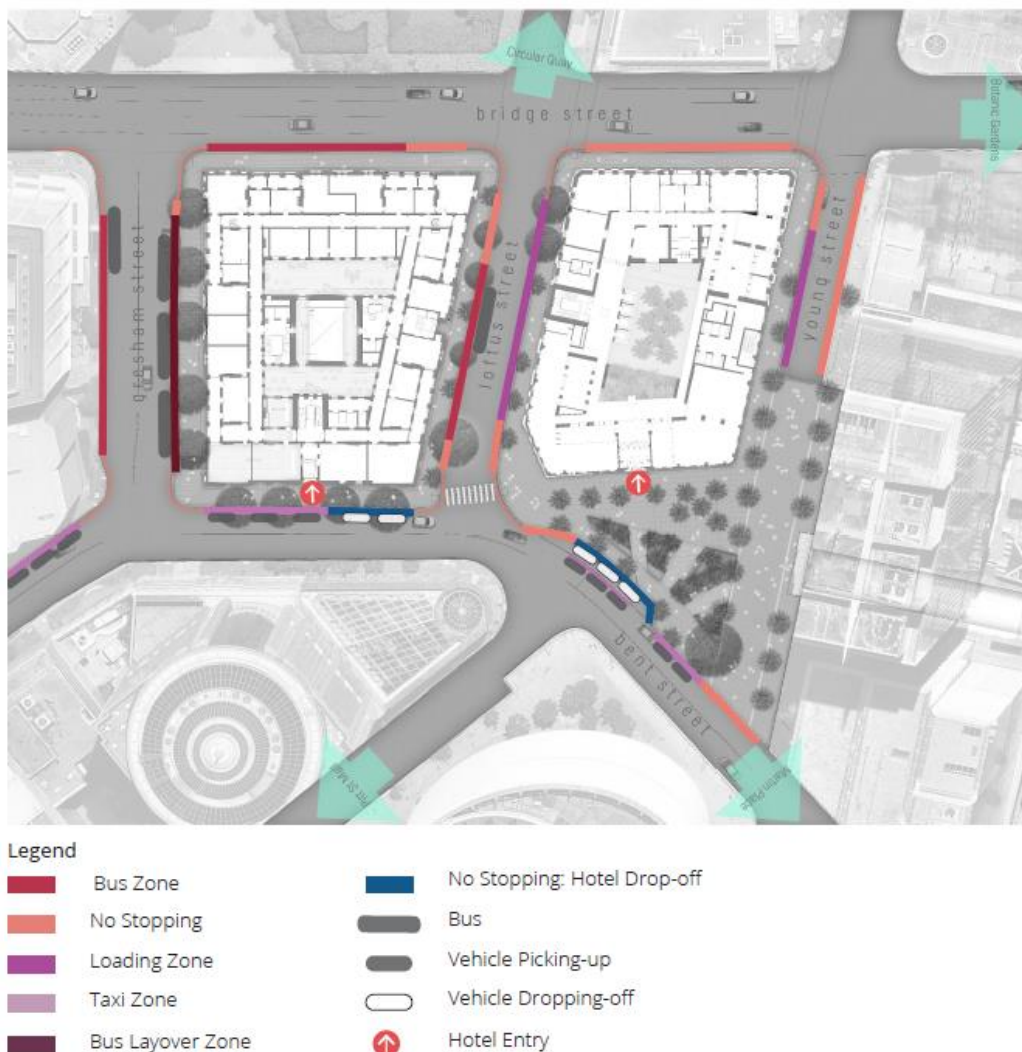


Figure 3 On-street designation of kerb side uses

(Source: Public Domain Report, Aspect Studios)

3.4 Loading Dock

The vehicle entry off Loftus Street into the Education Building will be retained and provide access to a new loading dock. The opening in the sandstone façade is very constrained as shown in Figure 4. There is an effective width of 3.0m and a height clearance of 3.0m. This limits the size of delivery vehicle to a small rigid vehicle (SRV) which is 6.4m long and 2.3m wide.

This loading dock management strategy will be implemented by the hotel to manage the arrival times of delivery trucks and garbage collection vehicles. (see Section 4)

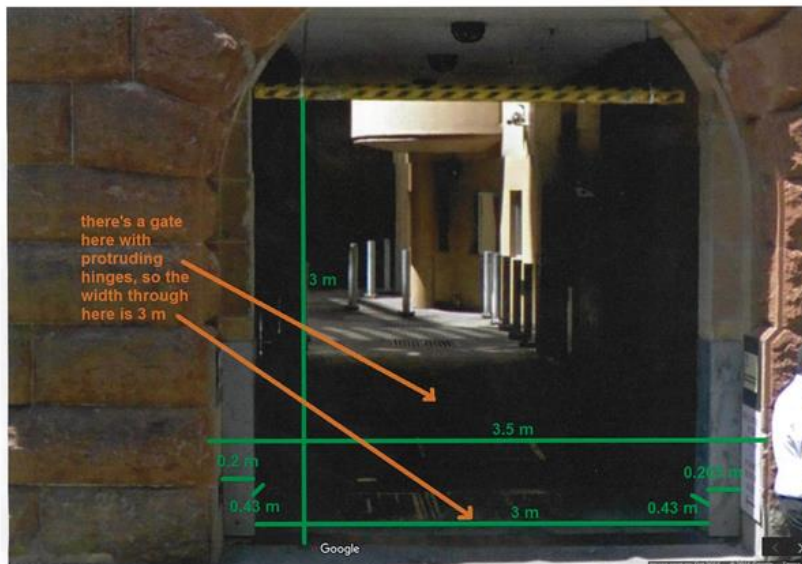


Figure 4 Loftus Street access driveway

The maximum height of a vehicle accessing the loading dock is proposed to be 3.0m dictated by the heritage opening. The proposed loading layouts were reviewed for compliance with AS2890.2 Parking facilities. The largest vehicle expected to enter the site will be a 6.4m Small Rigid Vehicle (SRV).

The loading dock will accommodate one SRV and two Vans for loading as shown in Figure 5. Deliveries are transferred to the Education Building core for distribution in the building, or transferred via the Basement 03 Level tunnel connection to the Lands Building core as shown in Figure 6 and Figure 7.

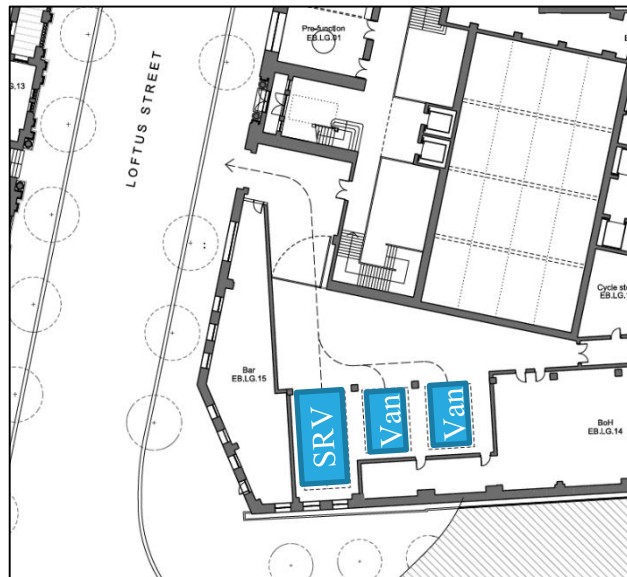


Figure 5 Loading Dock

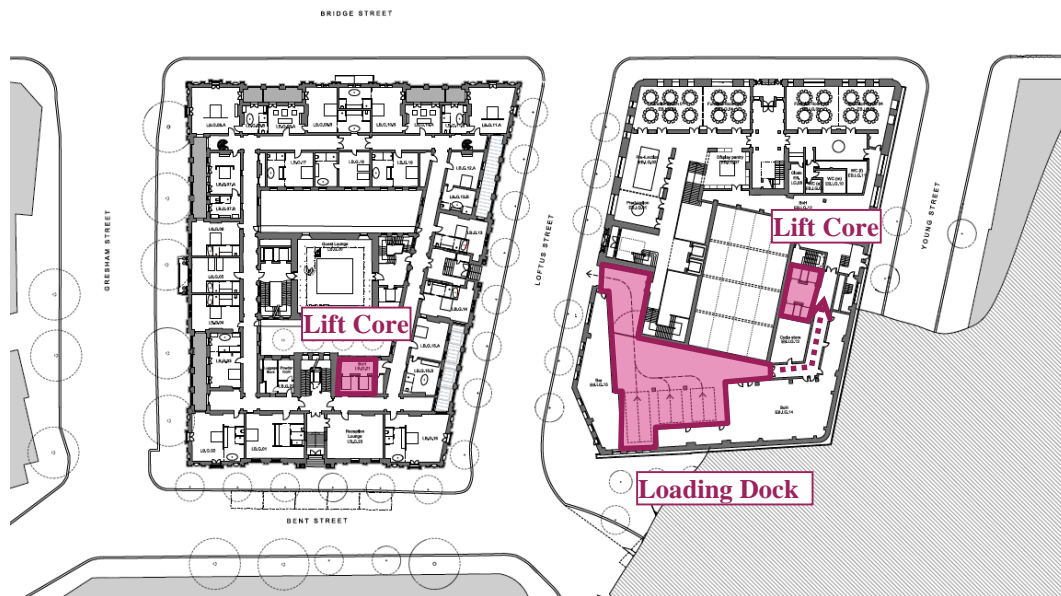


Figure 6 Lower Ground Level

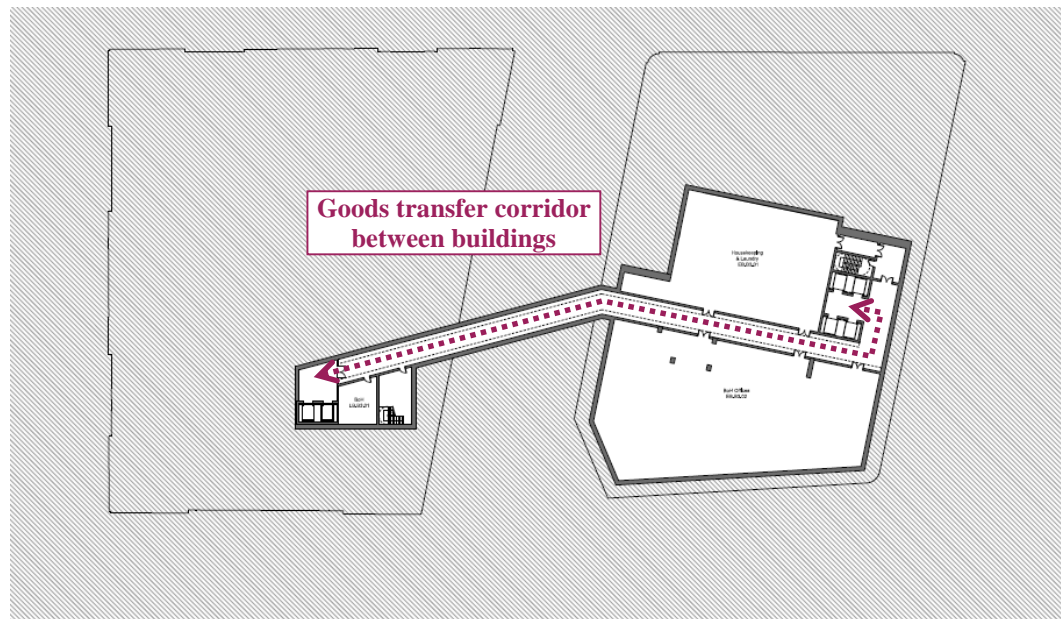


Figure 7 Basement 03 Level

The vehicle manoeuvring paths for the SRV and van are shown in Figure 8 to Figure 11. This shows that all vehicles will be able to enter and exit the building in a forwards direction.

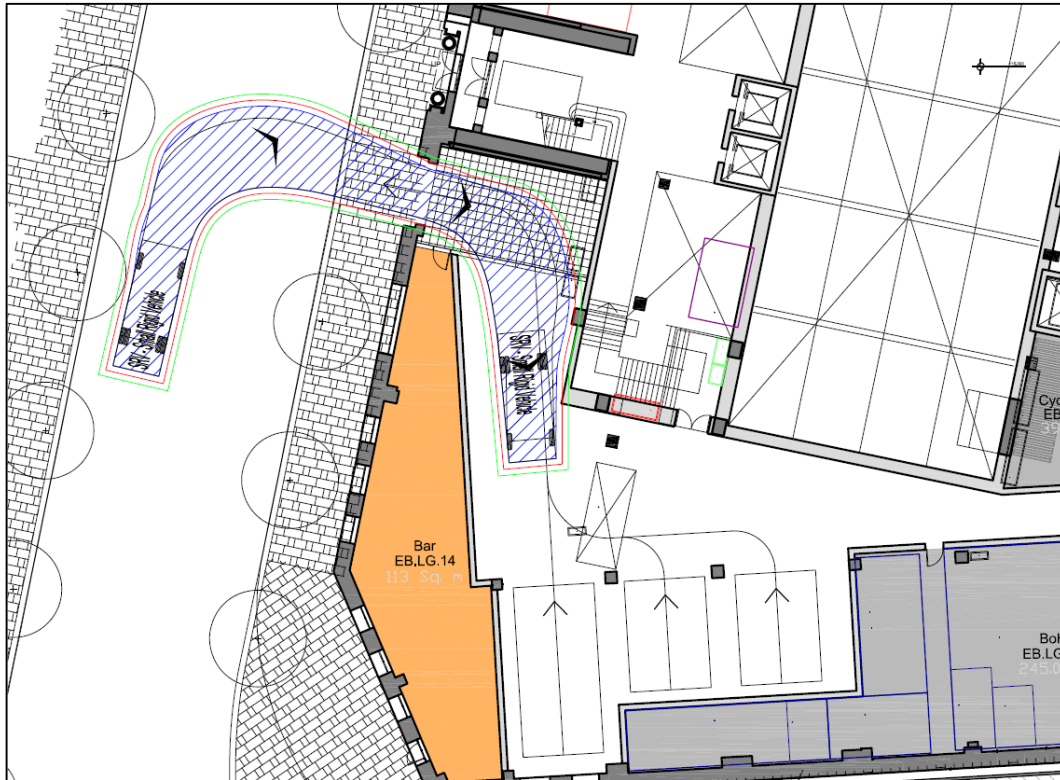


Figure 8 SRV Entry from Loftus Street

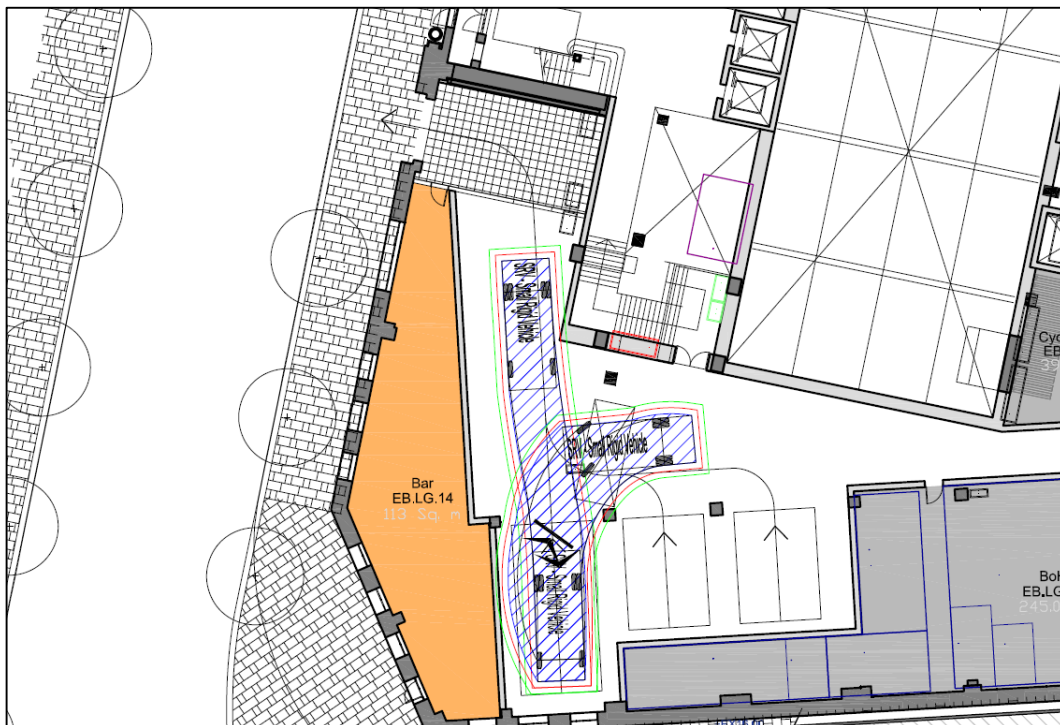


Figure 9 SRV manoeuvring in loading dock

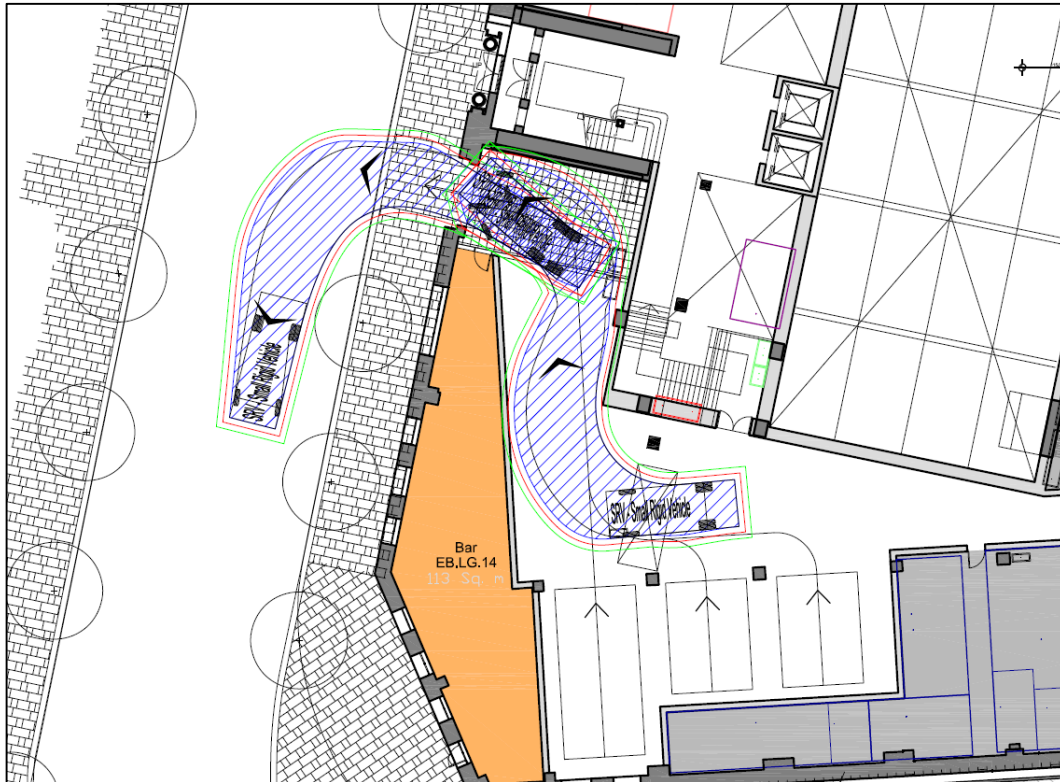


Figure 10 SRV Exit to Loftus Street

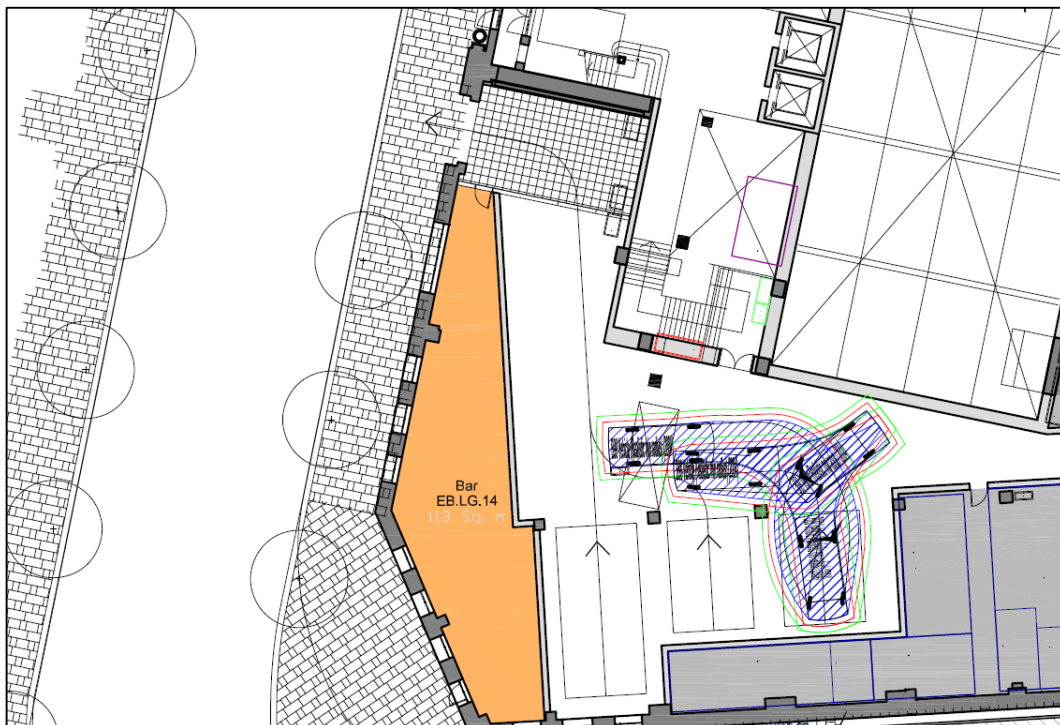


Figure 11 Van manoeuvring in loading dock

4 Loading dock management

4.1 Overview

The proposed development is configured for a variety of retail and associated hotel function uses in addition to the hotel room requirements. Given that there will be a limited number of tenants, delivery of stock can be easily managed to suit the availability of loading zones and size of vehicle to be used. At any one time it is anticipated that one SRV truck and two vans could be using the loading dock.

The waste and collection requirements will be determined by the waste management plan. The approximate number of trucks expected include two daily collections for hotel and retail waste. Arrangements and final estimated truck movements will be considered after consultation with Council and waste contractors, and appropriately managed so not all collections occur concurrently.

4.2 Management

The Owners Corporation will be required to engage and maintain a Loading Dock Manager to organise and supervise delivery and removal activities. Personnel will be on site between the times of 6am and 6pm Monday to Friday. The Loading Dock Manager will need to be present on the site during all normal servicing hours and contactable by mobile phone at other times to oversee the operation of the loading dock areas.

Access for vans and trucks has been confined to a single opening between the street driveway to the loading area. A vehicle will have to wait in the street loading bay if a vehicle is exiting the driveway.

A traffic light control system will be implemented to control the operations of the vehicle opening, given a number of blind turns are required to access the loading area. Priority will be given to vehicles exiting the site so that there are no safety head-on issues within the site.

Vehicles exiting the loading dock will be held on a red light until the opening is clear for exit. Loading vehicles arriving from the street will trigger a sensor at the property boundary which will hold vehicles in the loading area. Induction loop sensors will be located in each loading bay. These sensors will allow for detection of loading bays and indicate when all bays are full to the street.

Due to scheduling and the proposed redundant loading space, vehicles will not get stuck in the loading area. If required, a loading vehicle may wait to exit by reversing into the northwest corner of the loading area.

The hotel operator will be required to engage and maintain a Loading Dock Supervisor to organise and supervise delivery and removal activities. Personnel will be on site at all times. The Loading Dock Supervisor will need to be present on the site during all normal servicing hours and contactable by mobile phone at other times to oversee the operation of the loading dock areas.

4.3 Booking system

All deliveries and waste collection will be conducted by a booking system for building occupants, which will be coordinated by the Loading Dock Supervisor. It is expected that the designated loading bay will be locally managed to achieve an average of 15-20 minutes per delivery. This could achieve a total throughput of around 50 vehicles during normal business hours. Extended delivery windows can be set-up to permit variation in the arrival times of vehicles.

As a maximum of three delivery vehicles per hour are expected during the day, a booking system has been devised. One truck within the loading dock at any one time is desirable, to allow the second dock to be redundant in case of delays. Therefore, 20 minute delivery windows have been allocated based on each use. Given the redundant dock, this allows a turnaround time up to 40 minutes for each truck. Vans and cars deliveries would follow a similar system.

Each commercial/retail tenant would be allocated one of the delivery windows for their deliveries to occur. Residents would need to book-in times with building management if they require the loading dock for activities (such as moving/receiving furniture).

An indicative delivery truck arrival schedule based on the 20 minute delivery windows is shown in Table 1.

This shows commercial deliveries/collections occurring every hour between 9am-5pm, and hotel deliveries/collections for the final 40 minutes in the hour. For hotel operations, two or more delivery windows may need to be allocated each hour to enable enough time for truck loading/unloading.

Table 1: Delivery windows

Time	Commercial	Hotel
9:00	1	
9:20		1
9:40		1
10:00	1	
10:20		1
10:40		1
11:00	1	
11:20		1
11:40		1
12:00	1	
12:20		1
12:40		1
13:00	1	
13:20		1
13:40		1
14:00	1	
14:20		1
14:40		1
15:00	1	
15:20		1
15:40		1
16:00	1	
16:20		1
16:40		1
17:00	1	

4.4 Delays

If delays occur for any given reason, then a delivery window may be shifted. The tenant's window may be negotiated with any other tenant via building management. However, it should be noted that the delivery window system allows a flexible approach and large time periods of 40 minutes to account for delays in loading and arrival.

4.5 Total expected traffic flows

The combined traffic flows from the loading dock may generate a maximum of 24 vehicle movements. This maximum expected traffic flow is easily accommodated by the single opening in the busiest period.

4.6 Pedestrian safety

Pedestrians will not be permitted to enter the loading dock vehicle access at any time. The vehicle opening will only permit vehicle access by a controlled system.

As the single opening has no sightlines at the access due to heritage constraints, other safety measures are to be implemented to provide a safe environment for pedestrian and vehicle movements at the driveway, including the following provisions:

- pedestrians on the footpath will be alerted by yellow flashing warning lights at the site boundary as vehicles depart the site (by triggering the sensor).
- warning signage on each side of the crossover for pedestrians and signage for drivers leaving the driveway will also be provided to assist in alerting road users of the conflicts.

5 Conclusions

Arup has prepared this outline Loading Dock Management Plan on behalf of Pontiac Land Group in support of a Stage 2 Stage Significant Development Application (SSDA) to secure approval for a development of the subject site at 23-33 Bridge Street and 35-39 Bridge Street, Sydney ('Sandstone Precinct').

The LDMP proposes a management strategy for the delivery vehicle movement access and egress for the building, given the limited space in the loading dock, a single opening for access and limited on-street kerbside space for vehicles to wait. This LDMP specifically includes:

- access arrangements, including vehicle holding;
- driveway operations and safety;
- loading arrangements;
- delivery schedules and booking system;
- a traffic management strategy; and
- expected delivery vehicle activity.