

18 December 2014

Our Ref: 14SYT0067

Your Ref:

Attention: Adrian Petracca

Lend Lease Building Pty Ltd.
 Level 4, 30 The Bond
 30 Hickson Road
 MILLERS POINT NSW 2000

Dear Adrian,

RE: 4 Murray Rose Avenue Sydney Olympic Park

This report is prepared for Lend Lease Building Pty Ltd in support of a S96 Application for the 4 Murray Rose Avenue site.

I refer to your request to undertake a compliance check for the design of the multi-storey internal car park at 4 Murray Rose Avenue, Sydney Olympic Park. The subject of this check is the full extent of the car park on the Basement 01, Basement 02 and Basement 03 Levels, and the access arrangements and loading dock on the Ground Level as identified on Turner's drawings 12022-EA103.a-S, 12022-EA102-S, 12022-EA101-S and 12022-EA104-X.

Table 1 identifies the characteristics of the proposed parking area and loading dock with respect to the Australian Standard requirements. The last column identifies the compliance of each design aspect. Where compliance with Standard is not achieved, further information is provided below.

Table 1: Parking Design Requirement

Design Aspect	AS2890 Requirement	Proposed Provision	Compliance
Parking space length:			
Standard and PWD bay	5.4m (min)	5.4m	Compliant
Small car	5.0m	5.0m	Compliant
Loading dock for MRV	8.8m (min)	9.485m	Compliant

Design Aspect	AS2890 Requirement	Proposed Provision	Compliance
Parking space width:			
Staff	2.4m (min)	2.5m	Compliant
PWD bay	2.4m (min) + 2.4m shared area	2.4m + 2.4m shared area	Compliant
Small car	2.3m	2.3m	Compliant
Loading dock for MRV	3.5m (min)	4.65m	Compliant
Aisle Width:			
Parking aisle	5.8m (min) for 2.5m wide bays	6.0m	Compliant
Circulation aisle/ramp (two-way)	5.5m (min)	6.8m	Compliant
Parking envelope clearance - Column intrusion	0.25m into bay within 0.3m & 0.2m into bay within 1.2m of front of bay	n/a	Compliant
Parking envelope clearance - Column adjacent to bay	Located between 0.75m and 1.75m of aisle	Located between 0.75m and 1.75m of aisle	Compliant
Parking envelope clearance – space adjacent to wall	Space 0.3m clear of wall	0.3m	Compliant
Maximum Gradient:			
PWD parking	1:40 (2.5%)	0%	Compliant
Parking bay	1:20 (5.0%)	0%	Compliant
Parking aisle	1:16 (6.25%)	0%	Compliant
Ramp	1:5 (20%)	1:8 (12.5%) internal 1:5 (20%) entry	Compliant Compliant
Maximum Ramp Transitions	12.5% summit 15.0% sag	12.5% 12.5%	Compliant Compliant
Height Clearance			
General Min.	2.2m	2.5m	Compliant
Loading dock	4.5m, but brief stipulates 3.8m	3.985m	Compliant with brief
Parking Aisle Extension	1m beyond last bay	1m beyond last bay	Compliant

Bays for employees are categorised as class 1A parking bays (generally, all-day parking). Due to the nature of their use the width of these bays would need to be a minimum of 2.4m. The proposed width for these bays has been set at 2.5m; this allows for full opening of all doors.

The full extent of the car park and loading dock, as identified on Turner's drawings 12022-EA103.a-S, 12022-EA102-S, 12022-EA101-S and 12022-EA104-X, have been assessed against the requirements of off-street car parking specified in Australian Standards AS2890.1:2004 and AS2890.6:2009. The layout of the proposed car park and loading dock are designed in accordance with AS2890. While the height clearance of the loading dock is less than the AS2890.2 requirement of 4.5m, it exceeds the 3.8m stipulated in the brief.

Low Clearance signage to AS1742 is required to warn drivers of height clearance lower than 4.6m. Consideration should be given to provision of a low clearance warning gauge or flexible barrier in advance of the loading dock as a further warning of the height clearance.

Yours faithfully,



Tom Wheatley
Principal Consultant

TTM Consulting Pty Ltd