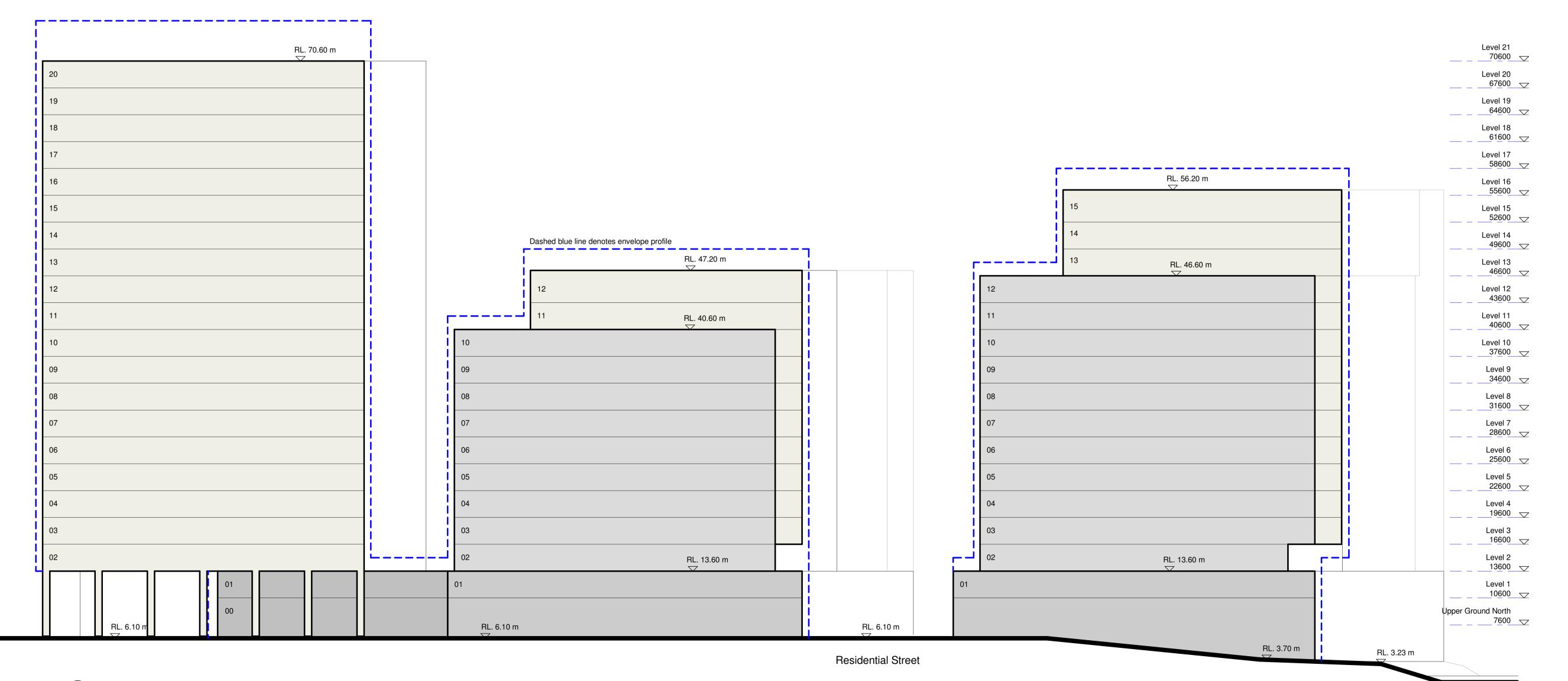


Dashed blue line denotes envelope profile RL. 44.20 m RL. 44.20 m Level 12 43600 😾 Level 11 40600 🗸 Level 10 RL. 37.60 m RL. 37.60 m 37600 😾 Level 9 34600 😾 Level 8 31600 🗸 Level 7 28600 🗸 Level 6 25600 🗸 Level 5 22600 😾 Level 4 19600 😾 Level 3 16600 🗸 Level 2 13600 😾 Level 1 10600 😾 **Upper Ground North** RL. 6.10 m RL. 6.10 m RL. 6.10 m — — Ground RL. 3.00 m 5200 🗸

Street Elevation - Brodie Spark Drive Buildings 6 and 7

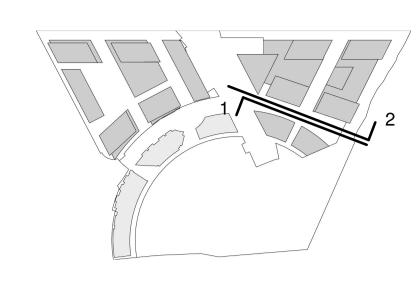


2 Street Elevation - Brodie Spark Drive North
DA5-105 1:250

and the preparation of shop drawings and or the fabrication of any components. Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment



1 01.04.10 Draft Issue
Revision Date

# Discovery Point Masterplan Wolli Creek

Indicative Street Elevations **Brodie Spark Drive** 

01.1				
Status	DRAFT			
Scale	1 : 250	@ A1		
Drawn	Author	Checked	Checker	
Project No.	S11191			
Plot Date	01/04/2010 20:19	:21		
Plot File	C:\TEMP\masterplan-discovery-100129_Central_Amy Watkins - 5114.rvt			
Drawing no	Povision			

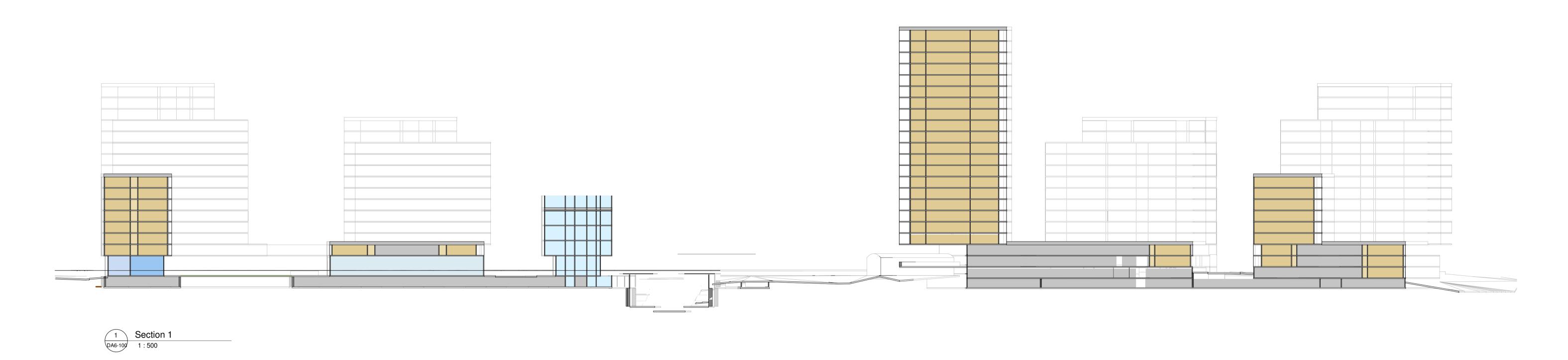
DA5-105

**Sydney** 1/243 Liverpool Street East Sydney NSW 2010 Australia T 02 8354 5100 F 02 8354 5199 email syd@batessmart.com.au http://www.batessmart.com.au

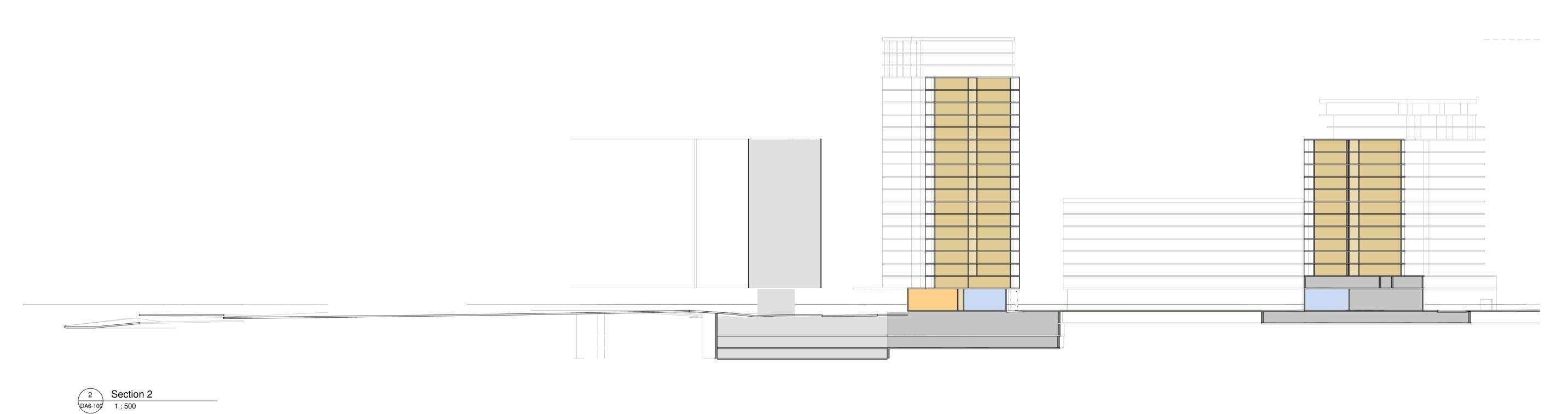
Melbourne VIC 3000 Australia T 03 8664 6200 F 03 8664 6300 email mel@batessmart.com.au

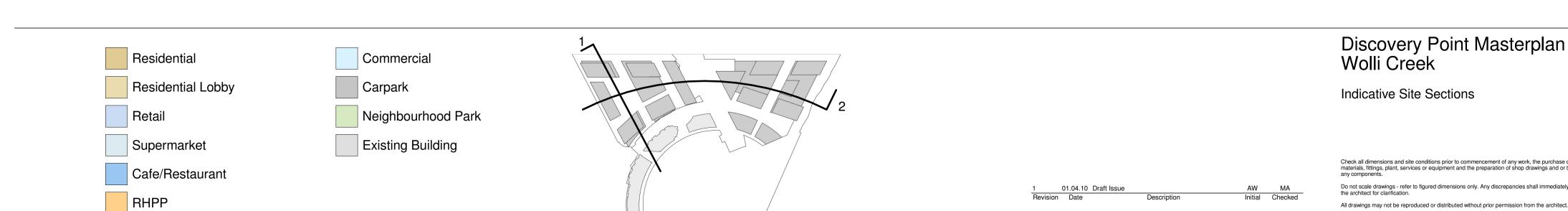
Bates Smart Pty Ltd ABN 70 004 999 400

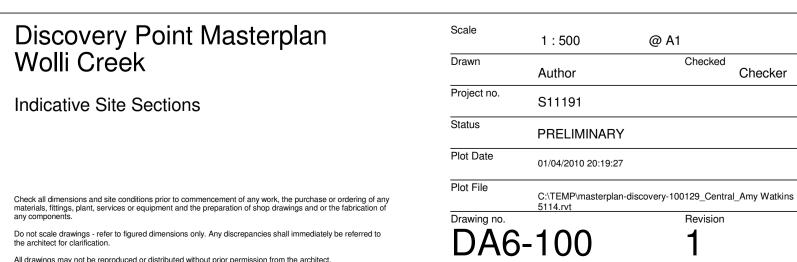




# PRELIMINARY ISSUE FOR ILLUSTRATION ONLY







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Sydney 1/243 Liverpool Street

East Sydney NSW 2010 Australia

T 02 8354 5100 F 02 8354 5199

email syd@batessmart.com.au

http://www.batessmart.com.au

**Bates Smart** Pty Ltd ABN 70 004 999 400

Checked

Checker

**Melbourne** 1 Nicholson Street Melbourne VIC 3000 Australia

T 03 8664 6200 F 03 8664 6300

email mel@batessmart.com.au http://www.batessmart.com.au

# **Discovery Point Masterplan**

Brodie Spark Drive Wolli Creek NSW Australia



### Internal Memorandum

PDR-INTM-000002

To: Mr Christopher Pope - Australand

E Cc (2): Mr Matthew Allen - Bates Smart Pty Ltd (1 more...)

From: Mr Con Vink - Paul Davis Rajalingam

**Sent:** Thursday, 25 March 2010 2:44:35 PM EST (GMT +11:00)

Status: N/A

Subject: Stormwater Drainage, Flooding and Groundwater Levels

Gentlemen,

This summarises information provided recently and adds additional information requested at the Design Meeting on 8 March.

### Flood Levels

These levels have been provided by Rockdale City Council for the Discovery Point Site:

100 year flood level RL 2.55m 200 year flood level RL 2.75m 500 year flood level RL 2.95m

10,000 year flood level RL 4.30m (from Wolli Creek Railway Station)

PMF flood level RL 5.40m

All levels are to Australian Height Datum (AHD).

### Floor Levels and Thresholds

Previous DAs which still hold for the balance of the site require the following flood protection levels:

Minimum habitable floor level 3.25m Minimum garage level (free draining) 2.75m Railway protection level 4.30m

Although Council had advised that car parks which are below surface must have threshold protection to the same level as habitable floors (ie RL 3.25), DA 600/01 for subpodium works, which covers the whole site requires protection of "underground carparking areas" to RL 4.3m AHD.

There are two doorways and three lifts in Site 1 (Greenbank) lobby which are below RL 4.30, and would therefore allow some floodwater to enter the basement. Calculations showed that even if both stairs are left wide open (which should never be the case for security reasons) the volume of flood waters would not get above basement 1 level. Accordingly all essential services (switch room etc) were located above that level.

All of the remainder of the site is above RL 4.3 with the exception of a section of frontage to Site 3 at the intersection of Brodie Spark Drive and Magdalene Terrace. This extent has been highlighted in yellow on the attached plan.

## Stormwater Drainage Catchments and Trunk Drainage

The attached architectural drawing DA2-100 has been marked up to show the following:

- 1. Trunk drainage pipeline that serves stages 1 to 4, highlighted in orange, discharging to Cooks River. This pipeline was designed for 100-year Return Period.
- 2. Assumed catchment boundary is highlighted in blue. Land to the south of that line has been assumed to drain into the trunk drainage pipeline. The boundary may change with the new master plan, but the total area should not increase.

# **Groundwater Level**

From examination of all available geotechnical reports, the water table level north of the railway station did not exceed RL 1.15m AHD. In the area of Site 3, the highest recorded groundwater level was RL 1.5m AHD. Near Cooks River, groundwater levels can be affected by river levels. I would expect groundwater levels on the site would tend to reduce as the site becomes fully developed, as there is less water entering the water table from surface runoff. However, NSW Government guidelines now recommend allowing for sea level rise of 0.4m by the year 2050 and 0.9m by 2100 in preparing flood risk assessments. I believe it would be prudent to allow for sea level rise in groundwater levels. Accordingly I would recommend design groundwater levels should not be below RL 1.55m AHD and if you want to be very careful RL 2.05m AHD. Current basement level is RL 2.0 but the architects would like to lower it to RL 1.8m. I would think this would be acceptable, subject to providing subfloor drainage and basement floor sumps to relieve hydrostatic pressures, but the risk would be small.

Regards,

Con Vink.

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**File Attachments** 



Sto

Stormwater Constraints 2010-03-25.pdf

Refer To Mail No. From From Company Subject

