13466
10 November 2014

Sarah Winnacott
Executive Town Planner
Mosman Council
573 Military Road
MOSMAN NSW 2088

Dear Sarah

RESPONSE TO COUNCIL ISSUES: DA REFERENCE NUMBER (008.2014.00000162.001). 339 MILITARY ROAD

We write to you on behalf of Centuria (the Applicant) in response to your letter dated 31st October 2014 outlining a number of matters that Council would like addressed to assist with the assessment of the Development Application (DA) (reference No. 0082014.00000162.001).

As the issues raised by Council require a number of minor amendments to the Architectural Drawings and specialist reports this letter is accompanied by:

- Updated Architectural Plans prepared by Bates Smart (**Attachment A**);
- Updated Waste Management Plan prepared by Elephants Foot (**Attachment B**);
- Supplementary Traffic Statement prepared by CBHK (**Attachment C**);
- Updated Accessibility Report (**Attachment D**);
- Updated Landscape Plans (**Attachment E**); and
- Supplementary statement on Solar Access prepared by Mr Steven King (**Attachment F**).

Table 1 below lists the matters outlined in Council's letter and provides a preliminary response to each.

Table 1 – Response to Council issues

Issue No.	Issue Raised	Response
1	**Fourth level setback from Belmont Road**	The proposed building has been the subject of an extensive design and review process that has resulted in a number of substantial and material changes to the building. These include amendments to the buildings' materiality and façade composition, increased setbacks to the top level and a substantial reduction in the building form, mass and height along its interface with Alma House, and fronting Belmont Road. The cantilevered and set back top level roofline also contributes to the reduction in scale and visual appearance, particularly from ground level. Together all these changes have assisted in the delivery of a built form that appropriately reflects its contextual location on the corner Military and Belmont Road. A further increase in the setback to the buildings fourth floor would not deliver any significant design benefits nor would it substantially alter the proposed building's relationship with the street, Alma House or surrounding buildings. The fourth level of the Belmont Road facade does not create unacceptable overshadowing, overlooking or visual impacts and has been deliberately designed to sit within its urban context. Increasing the set back to Belmont Road would not have any material impact on the

		shadows that are cast by the proposed building, nor would it increase view lines to Alma House given the height of the building at this point and the fact that the building has been setback further from Alma House. We note that the building design has been reviewed by multiple architectural, urban design and heritage experts, all who agree and support that the design in its current form is of a high quality and appropriate to its context. In light of the above the change requested is therefore considered to be unnecessary as the building design as revised and resubmitted is considered to represent an appropriate and quality design solution.
2	**Size of Units**	All apartments within the proposed development have been designed to comply with the apartment sizes set out in the RFDC Rules of Thumb and in this regard are considered to be of an appropriate and adequate size that is capable of supporting a high level of residential amenity for future occupants. It is noted that the RFDC does provide some other indicative apartment layouts and areas that exceed the Rule of Thumb. These are intended to be used as a design guide and not meant to be used as a means of regulating apartment size. The size of the apartments is consistent with the size and mix requirements that are commonly designed and constructed across NSW (including surrounding areas) and they are therefore considered to be reasonable and appropriate for the site. Further, the apartments are well designed by established Architects with a reputation for quality and liveable design.
3	**Right of Carriageway**	As outlined in the response to submissions letter, the Applicant is prepared to have a traffic safety device such as a convex mirror included in the conditions of consent to enhance the operation of the driveway and pedestrian and vehicular safety. It was also suggested to the Applicant by the owner of Alma that a mirror be added, the Applicant agrees to this condition should it be deemed necessary by Council. With regard to the potential for vehicle and pedestrian conflict within the Right Of Way (ROW) a response to this issue has been prepared by CBHK. In their response CBHK state that the proposed design solution does not pose a safety risk for vehicles or pedestrians given the low volume of traffic, the low speed environment and good sight lines. With the application of signage (and a convex mirror) the development application as submitted is acceptable. We note that Ausgrid's requirement to access the substation will be managed in the future via the preparation of a traffic management plan. This will only however need to be used very infrequently as Ausgrid very rarely need to gain access (e.g access has only been required once in the past decade). Ausgrid's revised submission of 9 October 2014, as submitted to Council, supports the current application provided certain conditions are met. The Applicant has agreed with Council (and with Ausgrid) to satisfy these conditions. In addition to the above technical matters we note that the ROW was established well over a decade ago. Since this time the boundary between the two properties has been blocked by a chain and the current occupiers of 114 Belmont Road have never in their entire time of living at the property required use of the access way. Only since this DA was lodged with Council have the owners of Alma now raised the ROW as an issue and started using the ROW. The ROW is to the benefit of 114 Belmont Road (by allowing them access across the subject site to Belmont Road), thus providing them with a secondary point of access in addition to their current main access within their property. Given the ROW has always been chained off during the current resident's time, and the fact that this Proposal removes the chain to enhance the ROW to the benefit of the owners of 114 Belmont Road (with unfettered access across the application site), the proposed development is considered to provide an improvement on the existing situation.

4	**Additional RL**	Updated Architectural Plans have been amended to show RLs on plans DA08.02 and DA0804 as requested. The amended plans are attached to this letter.
5	**Building Entry**	All apartments and commercial/ retail suites, including the stables and townhouse units, will have letter boxes located outside of the main entry foyer (fronting Belmont Road) as shown on the amended Architectural Plans. These letter boxes can be accessed 24/7 by Australia Post and mail contractors.
6	**Solar Access**	A supplementary response on solar access has been prepared by Mr Steven King and accompanies this letter. For the full response refer to this letter. Key points of note are: - Units 4.02, 4.04, 4.06, 4.11 and 4.12 have optically clear skylights that will provide appropriate solar access to the interior space. - The above listed units will also have 'Vergola' style adjustable louvres applied to the balcony roof areas. This will allow the occupants to have a full choice to admit sun to the POS. - The private open space of unit 0.14 includes a deck on the northern side of the principal living area that receives sun at floor level from before 11am to after 1.30pm. - Solar access to units 0.11 and 0.12 both have oversize skylights above their open staircases which will bring direct and reflected sunlight into the apartment before 9am until approximately 1pm. Unit 0.12 also receives an additional 1.5 hours of direct sunlight to the glazing. - The application, as supported by the consultant team and specialist independent consultant (S.King), demonstrates that the solar access requirements are achieved.
7	**Schedule of Finishes**	A terracotta sample piece of the façade material has been ordered and will be provided to Council upon its arrival. It is a high quality, durable and compliant façade material that will provide superior performance in its environment. The panel will be 300mm high with recesses at every 100mm x 1200mm long. An image of the sample is provided below. 
8	**Adaptable Housing**	An updated Accessibility Report and revised Architectural Plans have been prepared and accompany this letter. As demonstrated in these documents compliance in regards to accessible units and accessible car parking spaces has been achieved. Seven of the 68 residential units (10%) will be designed as adaptable units and have been assessed against the requirements of AS 4299 (1995). As outlined below: - Units 0.08, 2.12, 4.03, 4.05 and 4.07 (1 bed units); - Units 3.02 and 4.10 (2 bed unit). Three (3) accessible car parking spaces are provided, in accordance with the Mosman Business centres DCP. An additional four (4) conjoined car parking spaces are provided which are capable of being converted into compliant accessible spaces. (Total of 7 spaces)
9	**Awning**	The depth of the awning has been increased to approximately 1.8m to be similar to the awning provided by the Audi showroom building at 309 - 325 Military Road. The newly extended awning together with the under croft of the building will now ensure that pedestrians are protected from all elements at all times as the walk along the Military Road frontage.
10	**Additional Section**	Additional Section Drawings have been prepared as requested and accompany this

	Drawings	letter.
11	**Visual Privacy**	The Architectural Drawings have been updated to include additional screening to the balcony of unit 0.12. The screening device will be constructed from fixed metal balusters installed on the balcony to minimise overlook opportunities and prevent privacy impacts.
12	**Sanitary Facilities**	An accessible toilet facility has been added to the Basement level 1 between the lifts and waste room. The toilet will be available for use by the retail staff and the building caretaker. The Retail tenancies may construct an additional toilet if the capacity for the tenancy is greater than 20 people. This would be the subject of a separate DA.
13	**Issue with stables plans RL**	The Architectural Drawings have been amended to correct the typographical error and show the stables entry at RL. 81.83.
14	**Landscaping**	Amended Landscape Plans and Architectural Plans accompany this letter which now show consistent landscape treatments. Additional height landscaping is now also provided between the Stables and Alma to maintain future privacy. The Alma House boundary includes a tall screen of *Elaeocarpus Eumundi*, a rainforest tree species that will grow to approximately 5m tall. This species is typically used as a tall hedge/screen plant. The boundary interface between Alma House and the Stables is to have an understorey of lush tropical style planting to infill beneath the Elaeocarpus. Refer to the Landscape Plan for further details. This amendment to the screening is consistent with the discussions held between the Applicant and the owners of 114 Belmont Road
15	**Horizontal lines on plans**	The lines referred to in the letter are identified by Bates Smart as terracotta baguettes and have been annotated as such on the updated architectural plans.
16	**Vertical Louvres**	It is noted that the vertical louvers on the southern elevation of the residential flat building are proposed to be a mixture of fixed and sliding. The Architectural Drawings have been amended to clearly demonstrate and delineate between fixed and sliding louvers on the building.
17	**Waste Management**	An amended Waste Management Plan has been prepared and accompanies this letter. It details waste storage and collection provisions in accordance with Council's requirements. Amended Architectural Plans also show an updated waste storage room and a clear waste collection area along Belmont Road. The amended waste storage and collection measures will align with Councils requirement for 240L bins with residential waste and recycling to be collected once per week as part of the Council's refuse collection service while the retail/commercial stores will have all waste collected by a private waste contractor. As stated in the WMP the building manager will be responsible for the management of waste storage and transporting the bins to the collection area and promptly moving them back into the waste storage room. A detailed Construction Management Plan will be submitted to Council prior to the issue of a Construction Certificate, this can be conditioned accordingly.

I trust the above letter and the accompanying information is what you require to finalise your assessment of the application. However should you require any further particulars or have any queries then please do not hesitate to contact me on 9956 6962 or bcraig@jbaurban.com.au.

Kind Regards

Ben Craig
Principle Planner

From:	Matthew Norman
To:	Council
Cc:	Ben Craig
Subject:	339 Military Road (DA Reference 008.2014.00000162.001)
Date:	Monday, 24 November 2014 1:39:08 PM
Attachments:	141120_Schedule of Changes_339 Military Road.pdf

Attention: Sarah Winnacott,

Hi Sarah,

As discussed with you this afternoon please find attached the schedule of architectural changes (to accompany the most recent plans submitted to Council) for the development application for 339 Military Road.

Kind regards,

Matthew

Matthew Norman / Urban Planner Intern / JBA

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JBA - urban development services / jbaurban.com.au / @JBAnsw

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Schedule of Changes

339 Military Rd, Cremorne **S11586**

20 November 2014

Development Application Queries

Basement 1:
4 additional visitor car spaces nominated
Caretakers accessible WC added
Core amended to allow for caretakers WC
Waste room reconfigured to separate commercial waste and allow for the 240 litre bin chute

Ground Floor:
Letter boxes located on main entry (external)

Level 1/Level 2:
Representation of terracotta baguettes in plan on the balconies of Unit 1.14 and 2.16

Stables and Townhouse Plans:
Screen and awning added between the Stables and Townhouses
Landscape background updated to match landscape architects drawings
Townhouse Level 1 internal fit-out shown (missing from previous drawing issue)

Roof:
Vergolas added to the L4 courtyard facing apartments

Facade:
Awning: Military Rd awning extended
Terracotta panel and terracotta baguette noted in elevation
Louvres: Sliding and fixed noted in elevation
Clarification of parapet height on Alma House boundary

Distribution:

Planner	(electronic)
Project Manager	(electronic)
Client	(electronic)
File	(electronic)

From:	Matthew Norman
To:	Council
Cc:	Ben Craig; Sarah Winnacott
Subject:	339 Military Road (DA Reference 008.2014.00000162.001)
Date:	Tuesday, 25 November 2014 1:48:02 PM
Attachments:	Schedule of External Finishes_399 Military Road.pdf

Attention: Sarah Winnacott

Hi Sarah,

As discussed with you yesterday, please find attached the schedule of External finishes detailing the material colours. This Schedule compliments the sample board that was submitted to Council with the DA and the most recent samples submitted.

Please don't hesitate to contact me should you wish to discuss any of this further,

Kind regards,

Matthew

Matthew Norman / Urban Planner Intern / JBA

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Schedule of External Finishes

339 Military Rd, Cremorne **S11586**

25 November 2014

Development Application Queries

Reference	Material	Colour
1	Aluminium Cladding	Anodised Stainless Grey
2	Terracotta Panel	Tempio Terracotta Tile Finish: Natural Colour: Rojo R05-05 Tile: FK-L 2/16 1200w x 300h 2x horizontal groves
2a	Terracotta Baguette	Tempio Terracotta Baguette Finish: Natural Colour: Rojo R05-05 B-5x5 50w x 50h <1800mm length
3	Windows	Anodised Satin Black
5	Balustrade	Anodised Charcoal Grey
6 + 6a	Louvres	Anodised Silver Grey
7	Render finish to Stables	Resene Quarter Pravda BR75-013-078
	Paint finish to spandrels (Courtyard)	Resene Stonehenge BR61-012-073

Distribution:

Planner	(electronic)
Project Manager	(electronic)
Client	(electronic)
File	(electronic)

From: Ben Craig [BCraig@jbaurban.com.au]
Sent: Friday, 21 November 2014 10:04:16 AM
To: Sarah Winnacott
CC: Council
Subject: Updated WMP

Hi Sarah,

Updated Waste Management Plan attached with updates reflecting John's discussion with Jim Simons. Could you please run this past John to see if he is satisfied with it? He should refer to the updates on page 14 to and Appendix 3 and 5. If he has any further comments on the WMP I could probably get the changes made today if he let us know by around lunchtime.

As mentioned on the phone the waste collection zone is shown on the ground floor plan in the Architectural Drawings also.

Cheers

Ben

JBA

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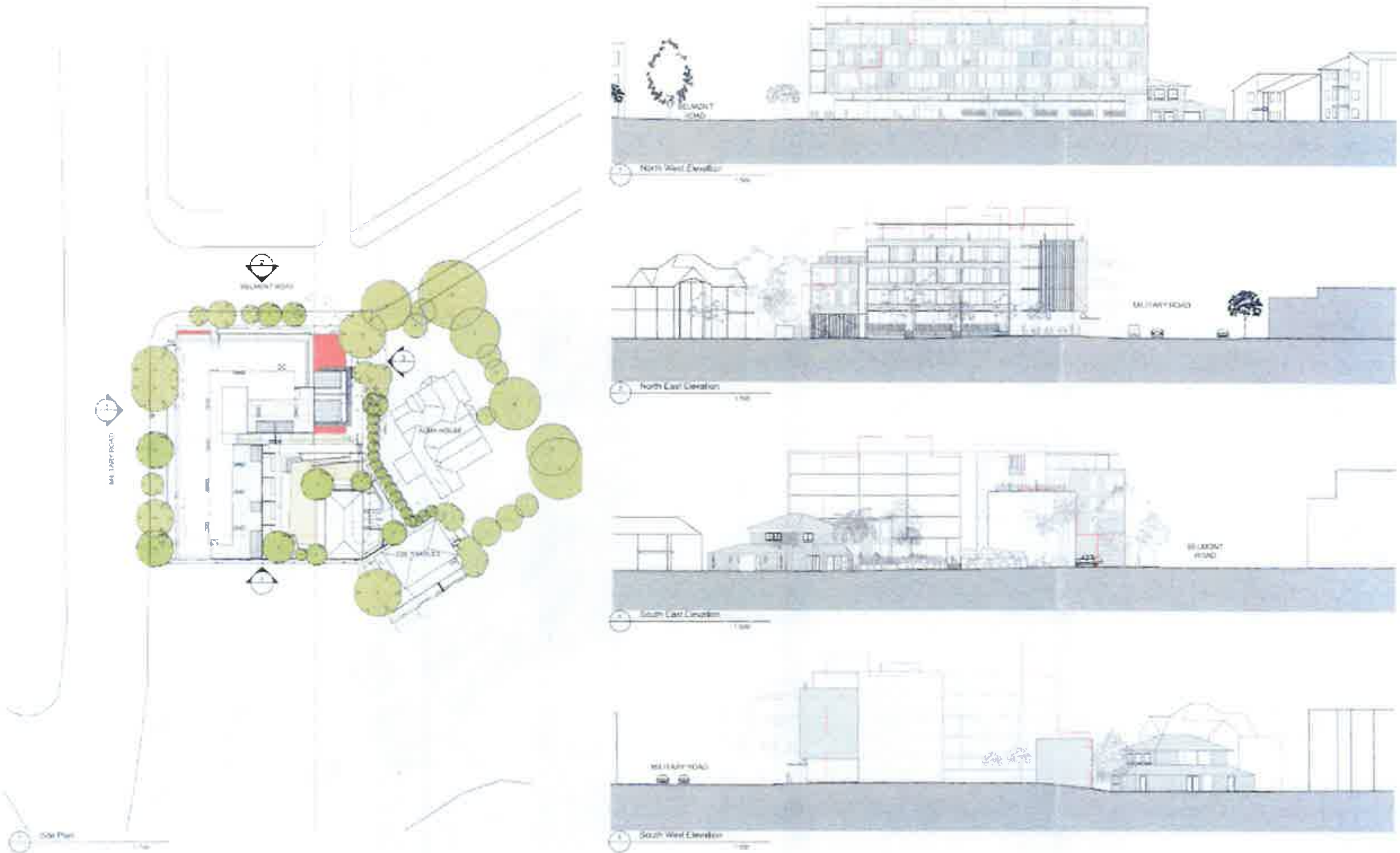
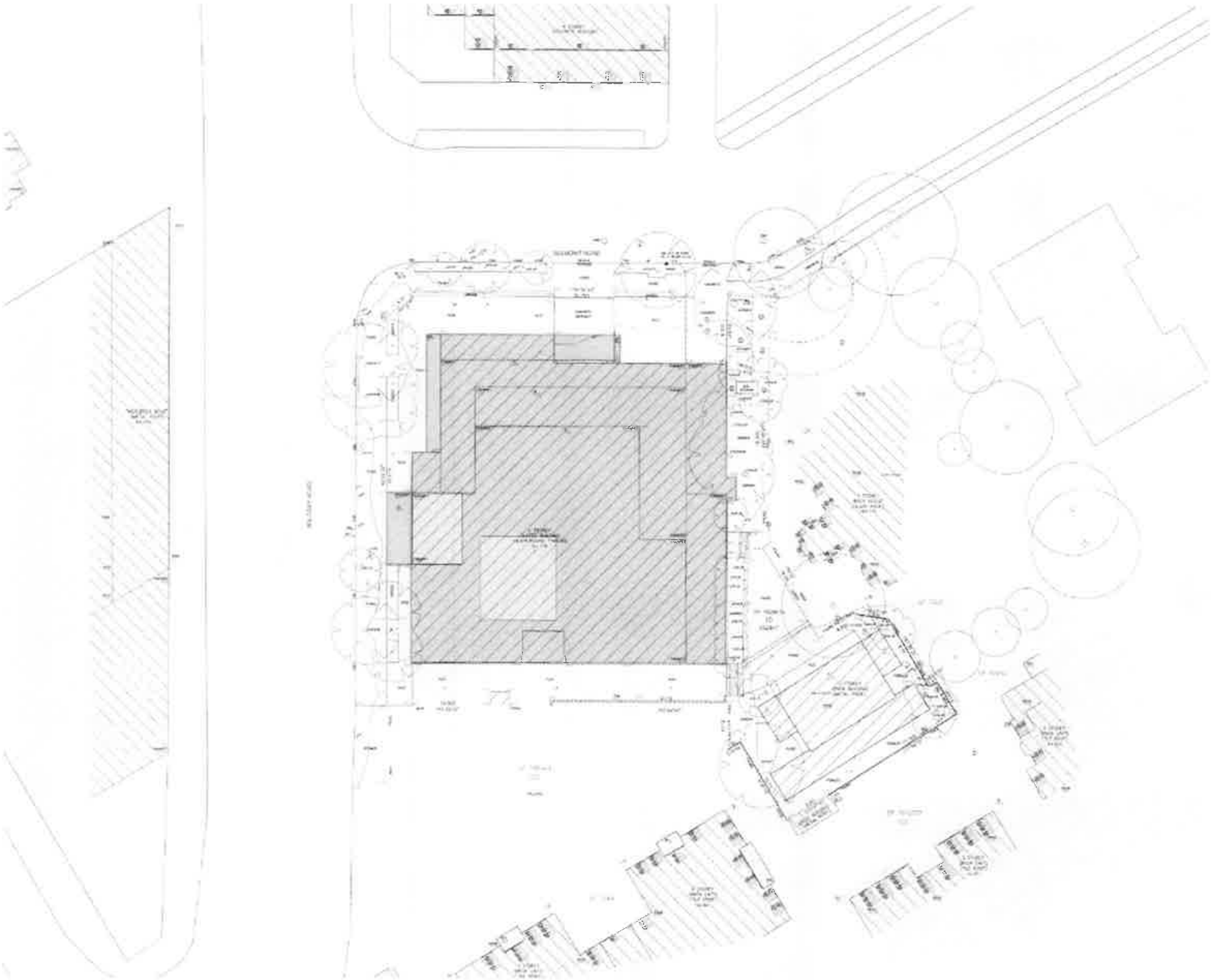


Belmont Road
339 Military Road, Cremorne
Notification Plan

NTS
NLR

DA00.00[03]

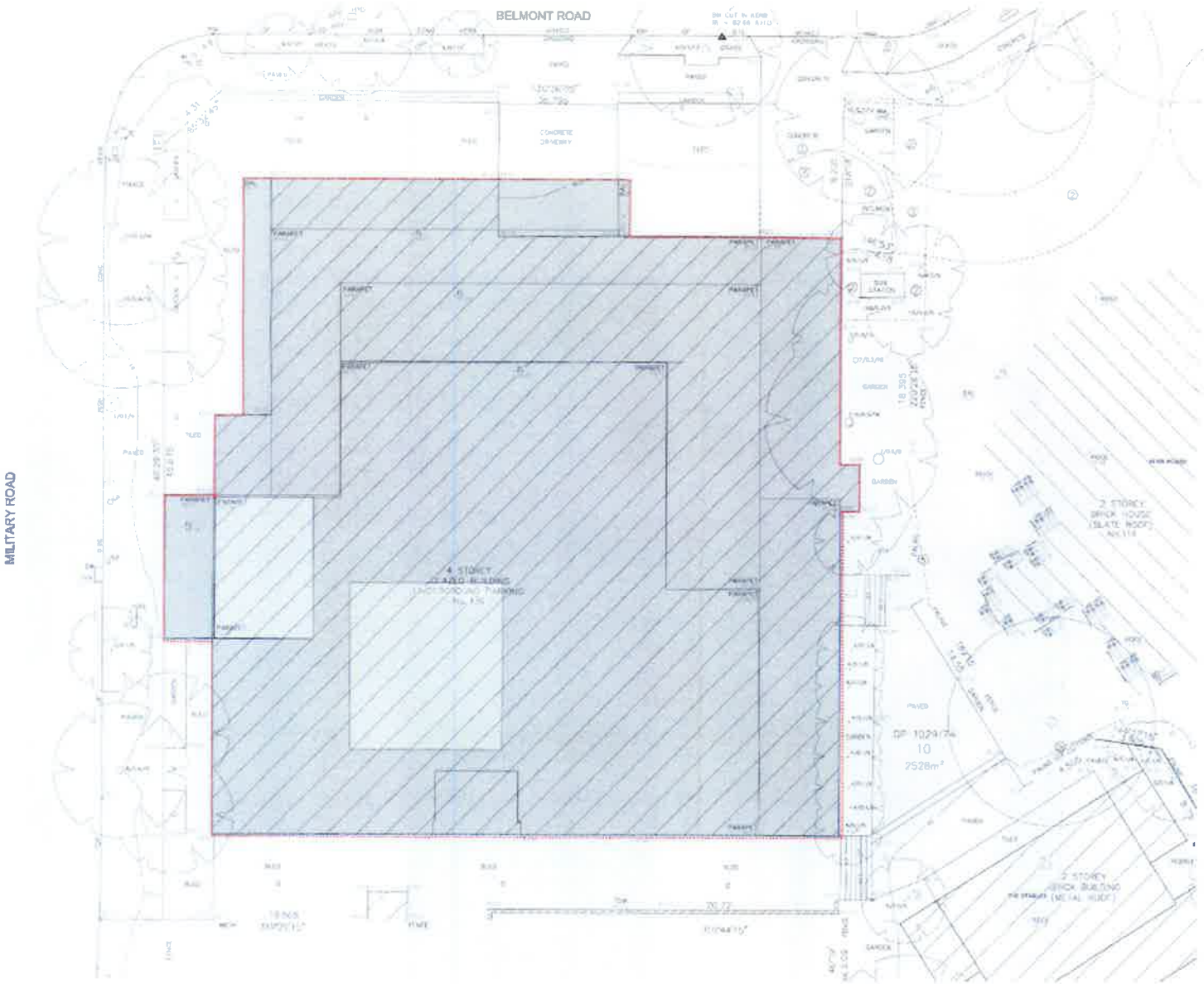


Belmont Road
339 Military Road, Cremorne
Existing Conditions

1:200 @ A1, 1:400 @A3
AL
NLR
S11586
DA
11/11/2014 9:41 AM

DA00.01[02]

BATESSMART



Belmont Road
339 Military Road, Cremorne

Existing Conditions

DA00.02[02]

BATESSMART

Belmont Road
339 Military Road, Cremorne

Site Plan

DA01.01[04]

BATES SMART

02 23.05.14 Revised DA KW NLB

Belmont Road
339 Military Road, Cremorne

Site Plan

KW NLB

DA

11/11/2014 9:42 AM

DA01.02[00]

BATES SMART

LEGEND

Existing

Proposed

02	14.02.14 DA Issue	Email	KW NLR
01	07.02.14 Client issue		NLR

Belmont Road
339 Military Road, Cremorne
Basement 02

Scale	1:100 @ A1 1:200 @A3
Drawn	KW
Checked	NLR
Project No.	S11568
Status	DA
Plot Date	11/11/2014 8:42 AM
Plot File	

DA03.B2[10]

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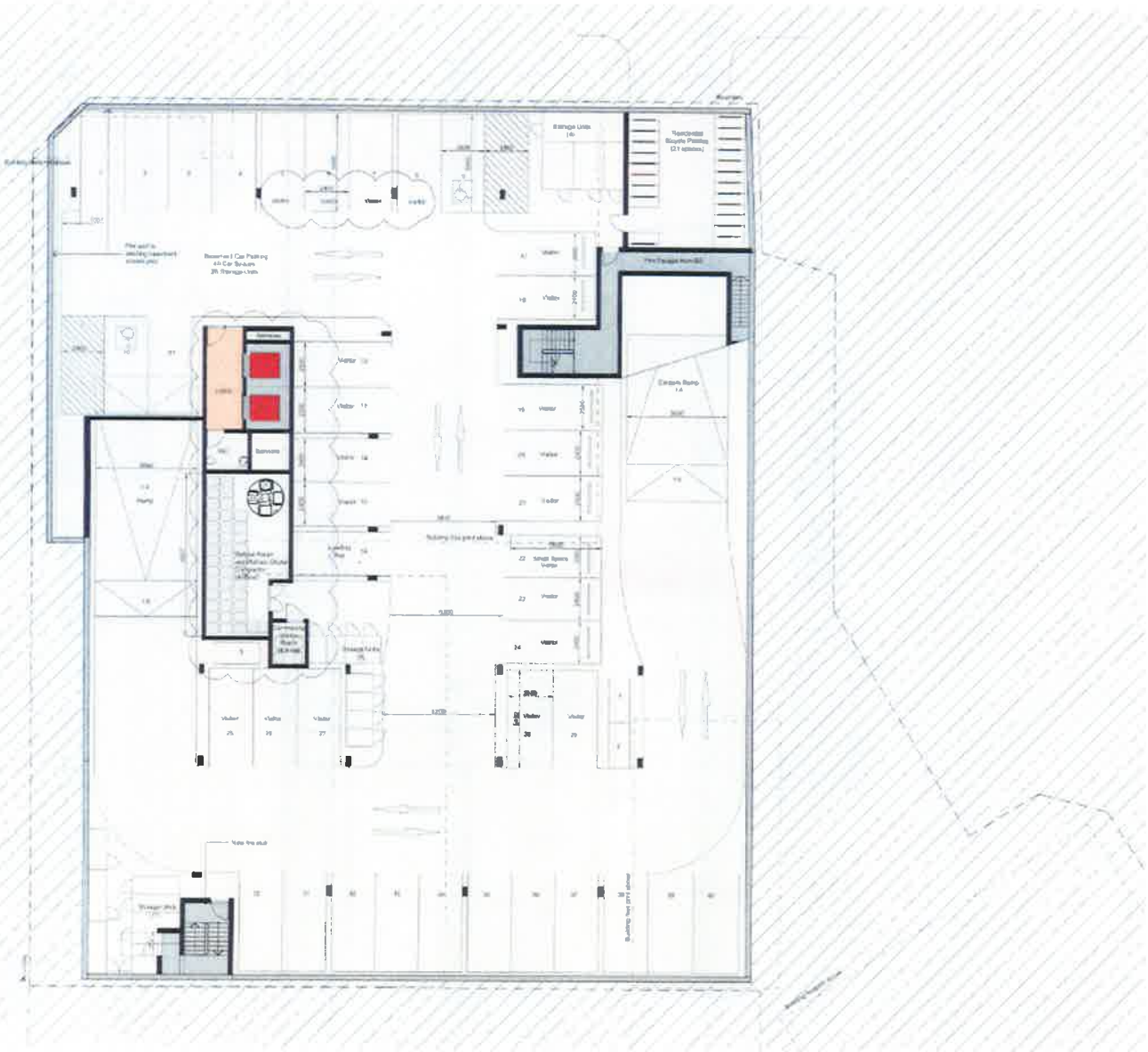


Existing

Proposed

Belmont Road
339 Military Road, Cremorne

Basement 01

1:100 @ A1 1:200 @A3

NLR

S11584

DA

11/11/2014 9:47 AM

DA03.B1[12]

BATES SMART

Belmont Road
339 Military Road, Cremorne
Ground 00

Scale	1/100 @ A1, 1/200 @A3
Drawn	KW
Checked	AR H
Project No.	S11588
Phase	DA
Plot Date	17/11/2018 9:42 AM

DA03.00[09]

BATES SMART


BELMONT ROAD
MILITARY ROAD
Balcony
Porch
Lounge
Library
Study
Dining
Laundry
Family
Belmont Road
339 Military Road, Cremorne
Level 01
1:100 @ A1, 1:200 @ A3
KW
NLR
S115M
DA
DA03.01[08]
BATESSMART

LEGEND

Existing Building

Retained DA

Area of Building Removed from Retained DA

Existing

Proposed

06	05.11.14	Revised DA Issue	NLR
07	18.08.14	Revised DA Issue	NLR
08	01.08.14	Pre DA Meeting	NLR
09	29.07.14	Revised DA	NLR
10	16.07.14	For Coordination	NLR
11	29.04.14	Revised DA	NLR
12	16.02.14	DA Issue	NLR
01	07.02.14	Client Issue	NLR

Belmont Road
339 Military Road, Cremorne
Level 02

Scale	1:100 @ A1, 1:200 @A3
Drawn	KW
Checked	NLR
Project No	S11586
Issue	DA
Plot Date	11/11/2014 9:43 AM

DA03.02[08]

Bates Smart

Belmont Road
339 Military Road, Cremorne
Level 03

Scale	1:100 @ A1, 1:200 @ A3
Drawn	KW
Checked	NLR
Project No.	S11568
Issue	DA
Print Date	11/11/2014 10:06 AM
Drawing No.	DA03.03[06]

BATESSMART

Area of Building Removed from Proposed DA

Belmont Road
339 Military Road, Cremorne
Level 04

1/100 @ A1, 1/200 @A3
KW
NLR
S11586
DA
11/11/2014 9:43 AM

DA03.04[08]

BATES SMART

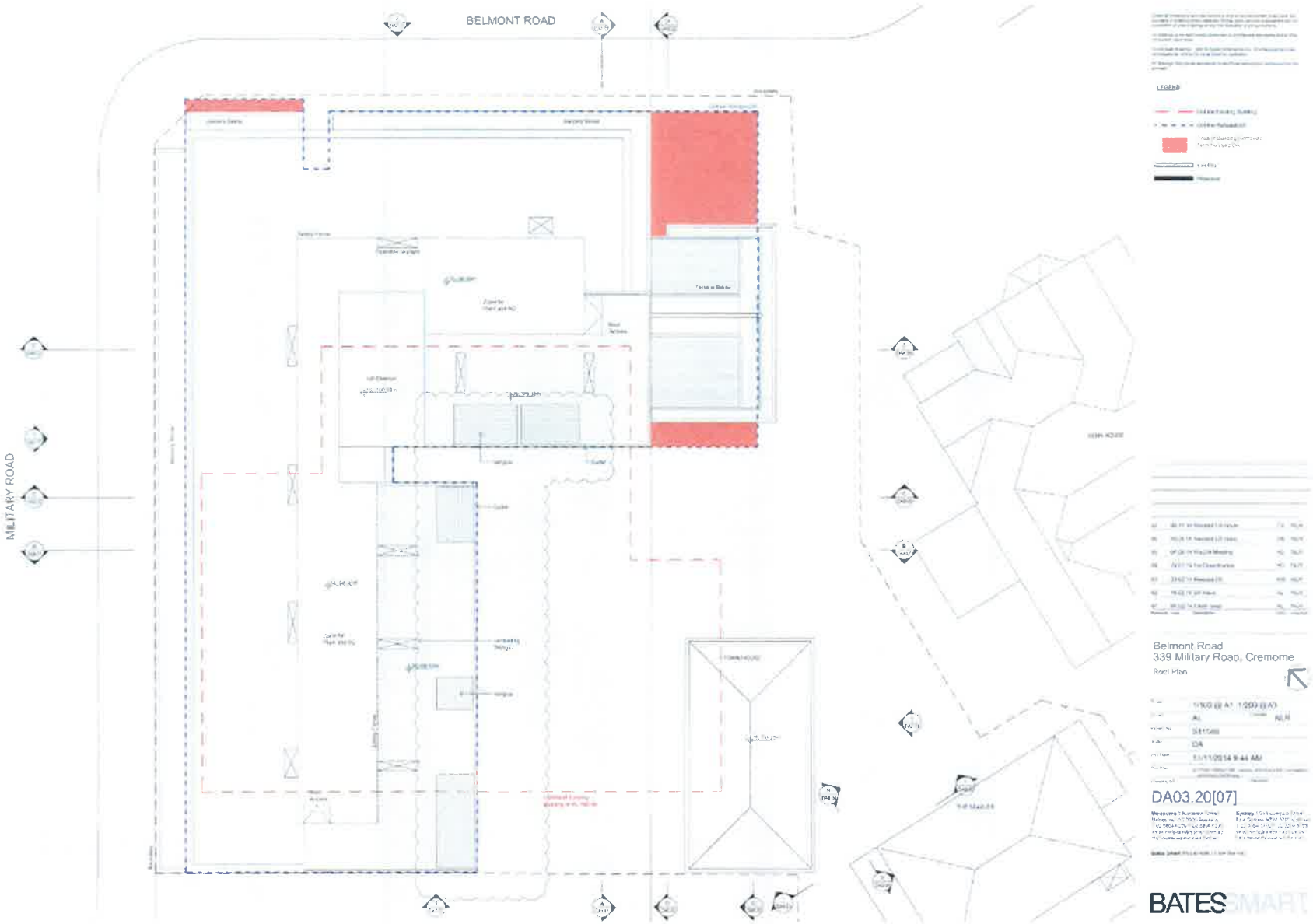
Ground Floor Plan

First Floor Plan

Belmont Road
339 Military Road, Cremorne
Stables Ground 00 & First 01

DA03.10[06]

BATES SMART

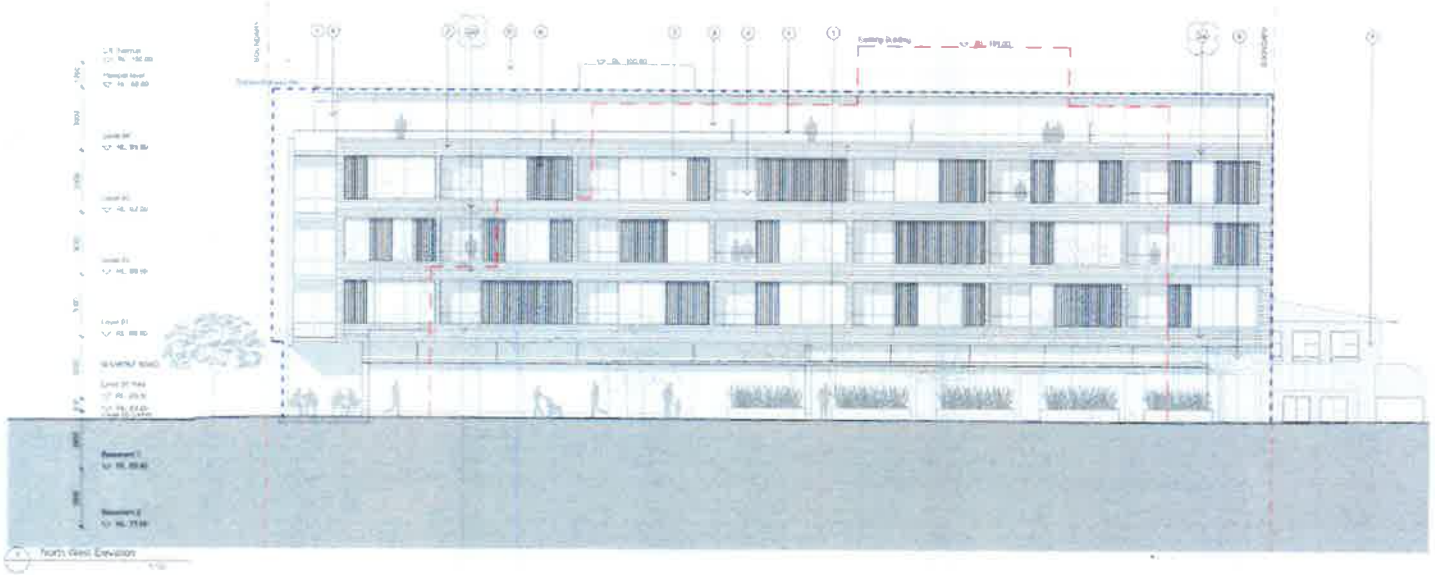


Belmont Road
339 Military Road, Cremorne

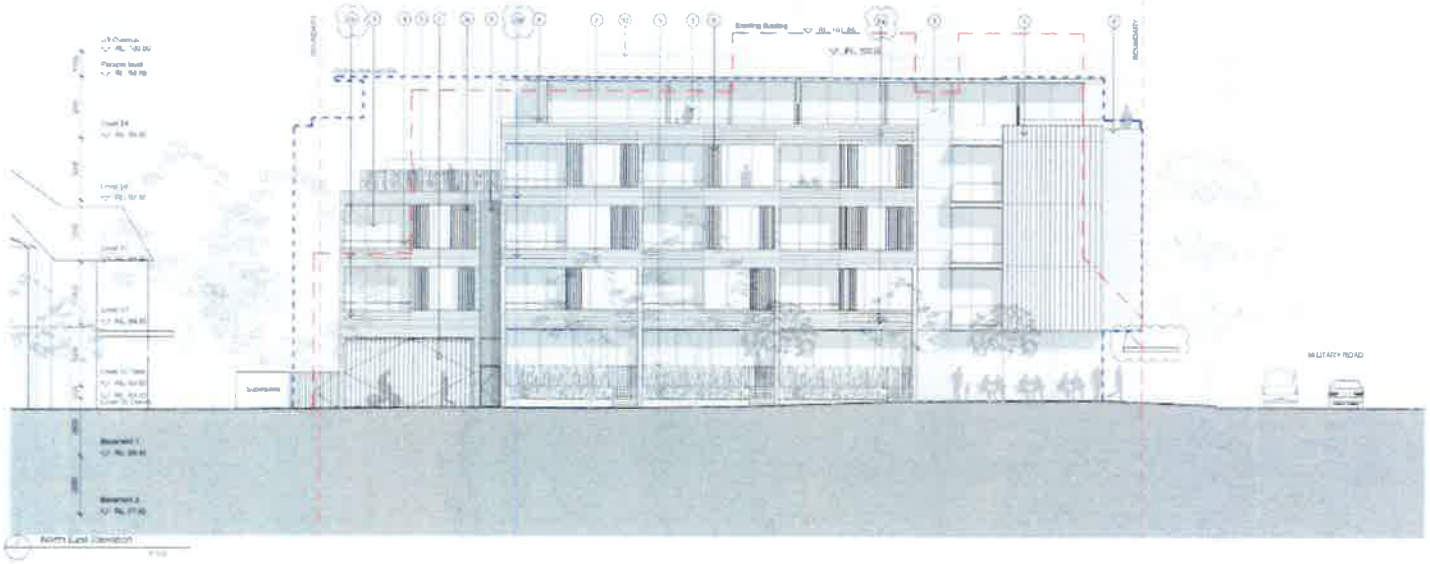
Roof Plan

DA03.20[07]

BATESSMART



North West Elevation



North East Elevation

MATERIAL'S LEGEND

LEGEND

Outline Existing Building

Building

Pergola

Belmont Road
339 Military Road, Cremorne
Elevations

1/100 @ A1, 1/200 @A3

KW NLR

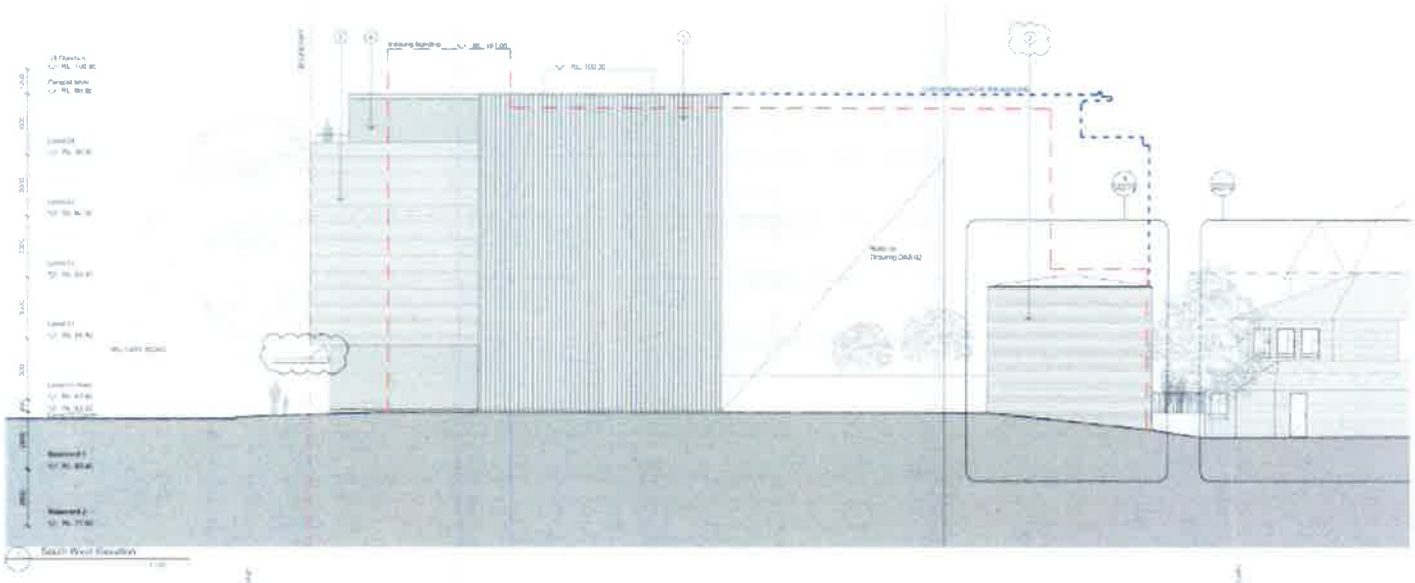
S11/365

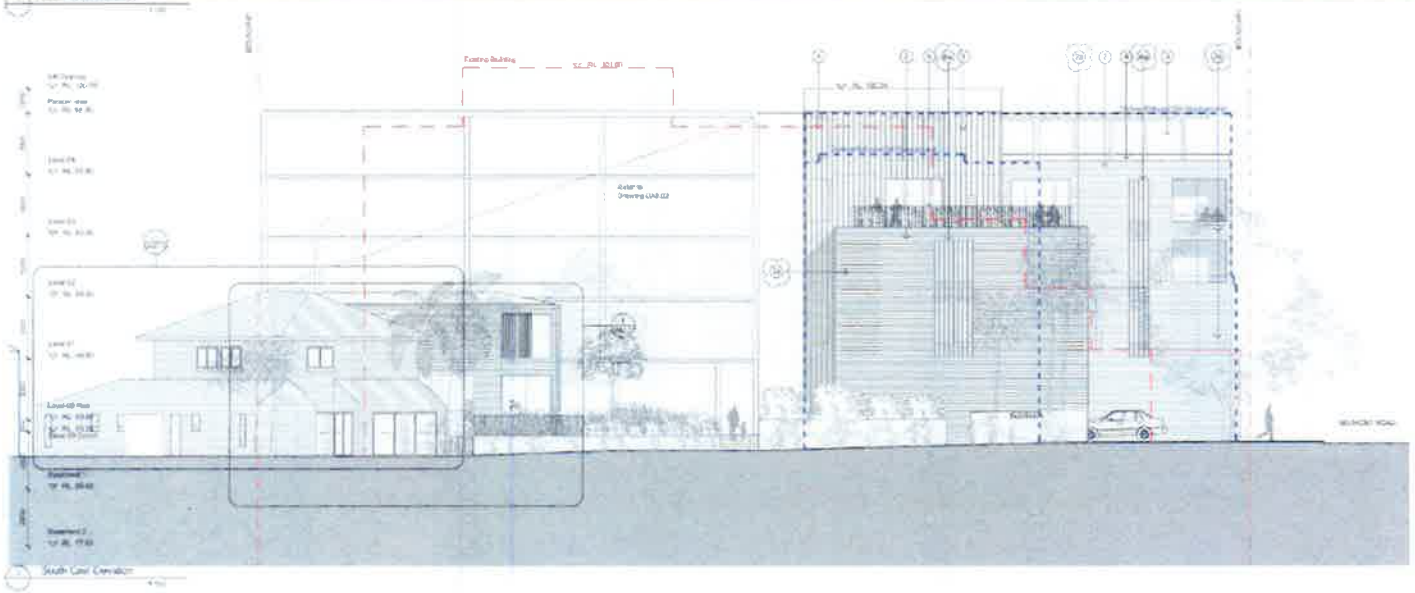
DA

11/11/2014 9:44 AM

DA07.01[07]

BATES SMART





Belmont Road
339 Military Road, Cremorne

Elevations

1:100 @ A1, 1/200 @A3

KW NLR

S11588

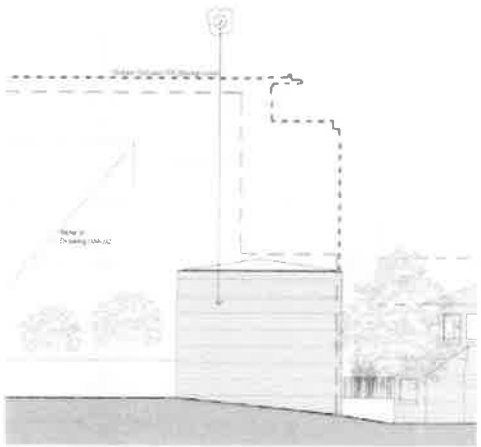
DA

11/11/2014 9:45 AM

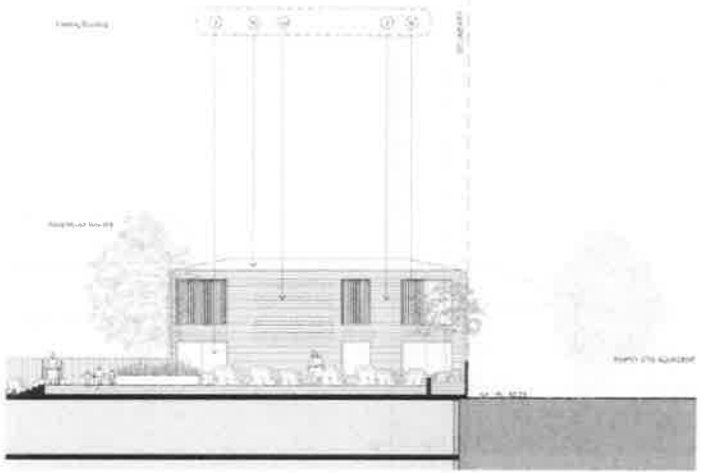
DA07.02[07]

BATES SMART

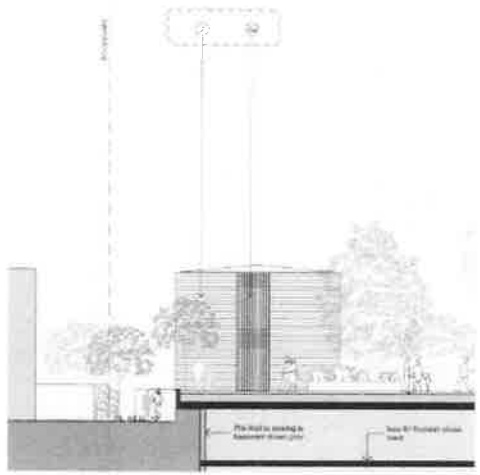
South East Elevation



South West Elevation



North West Elevation



North East Elevation

WATERPROOFING LEGEND

LEGEND

Belmont Road
339 Military Road, Cremorne

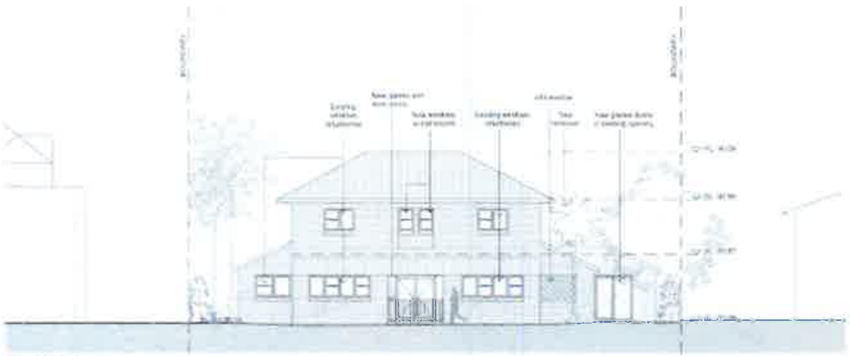
Elevations

1/100 @ A1, 1/200 @A3

KW NLR

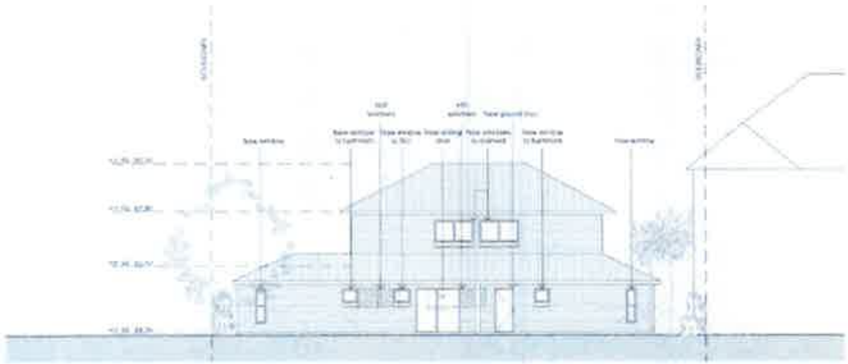
DA07.03[02]

BATES SMART



1 North Elevation

2 East Elevation



3 South Elevation

4 West Elevation

Belmont Road
339 Military Road, Cremorne

The Stables - Elevations

1:100 @ A1, 1:200 @A3

AL N.N

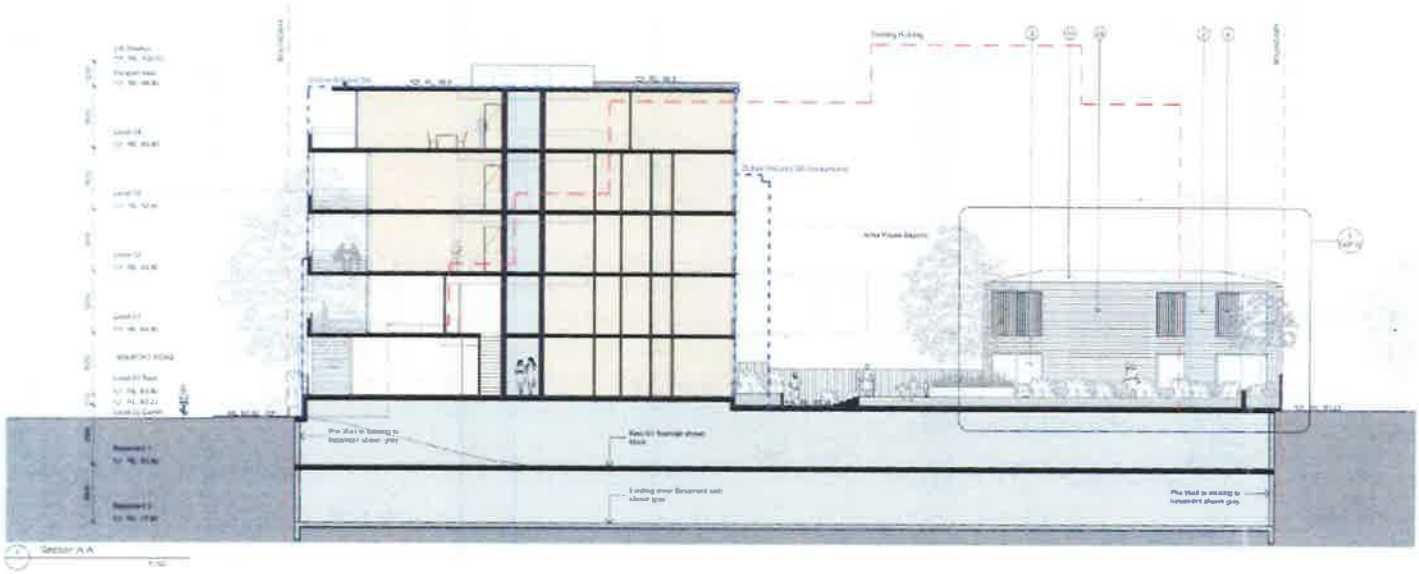
S11586

DA

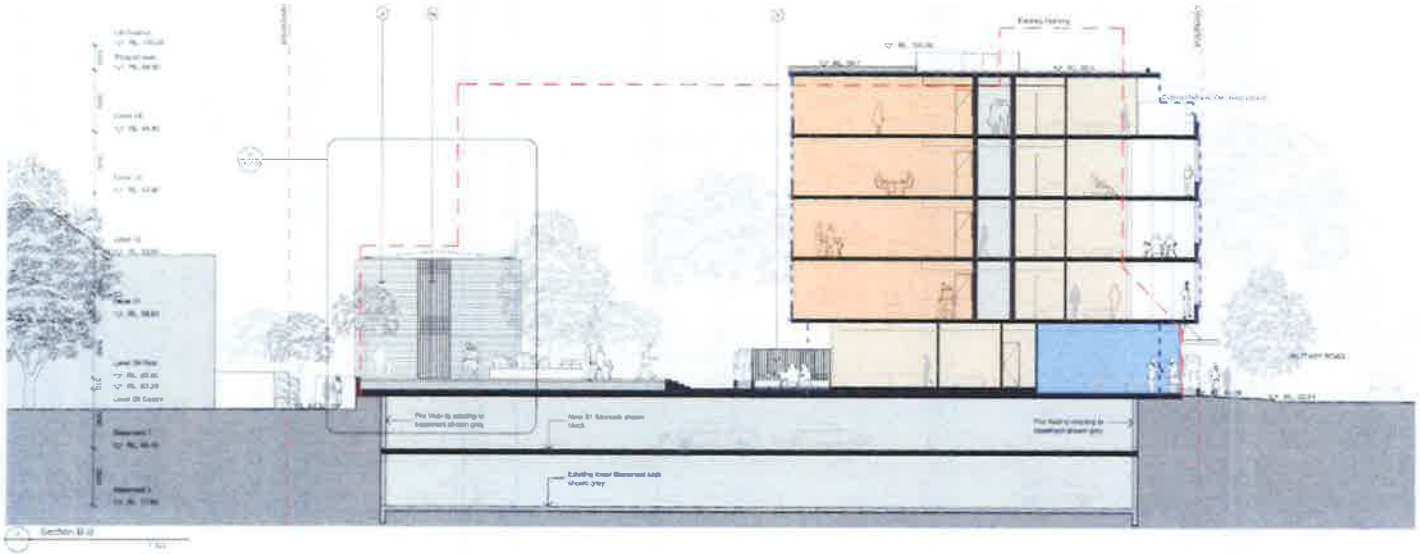
13/11/2014 9:46 AM

DA07.10[01]

BATESSMART



Section A-A



Section B-B

Belmont Road
339 Military Road, Cremorne

Sections

1:100 @ A1, 1:200 @A3

KW NLR

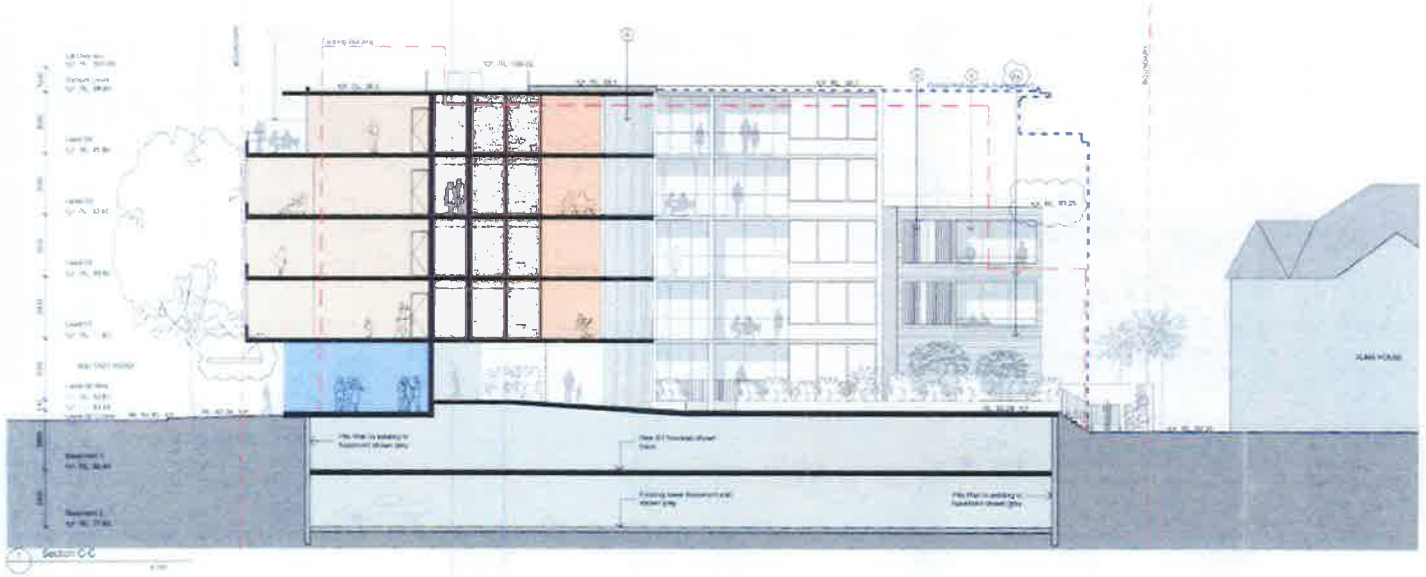
31/566

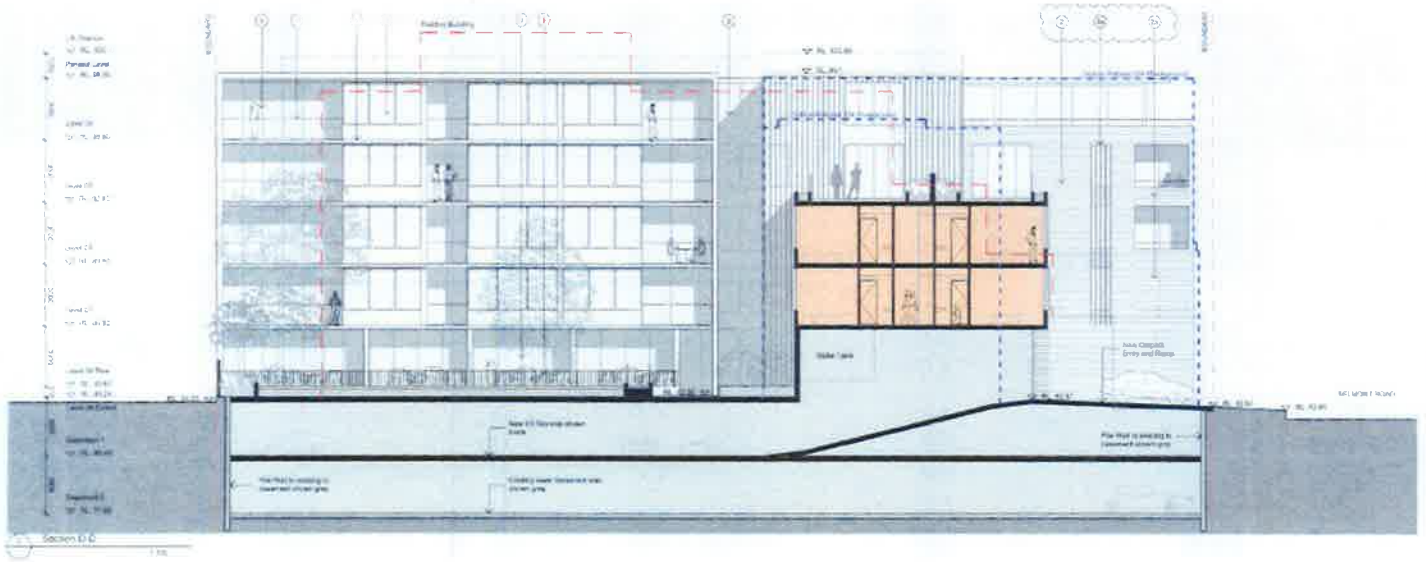
DA

31/10/2014 9:48 AM

DA08.01[06]

BATESSMART





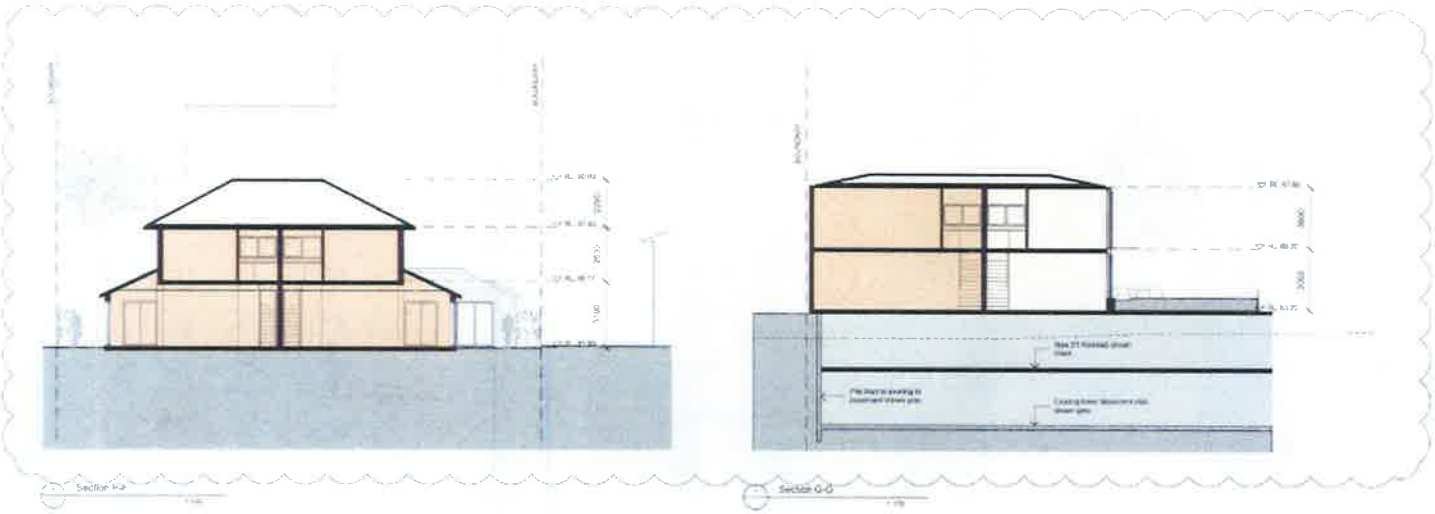
Belmont Road
339 Military Road, Cremorne

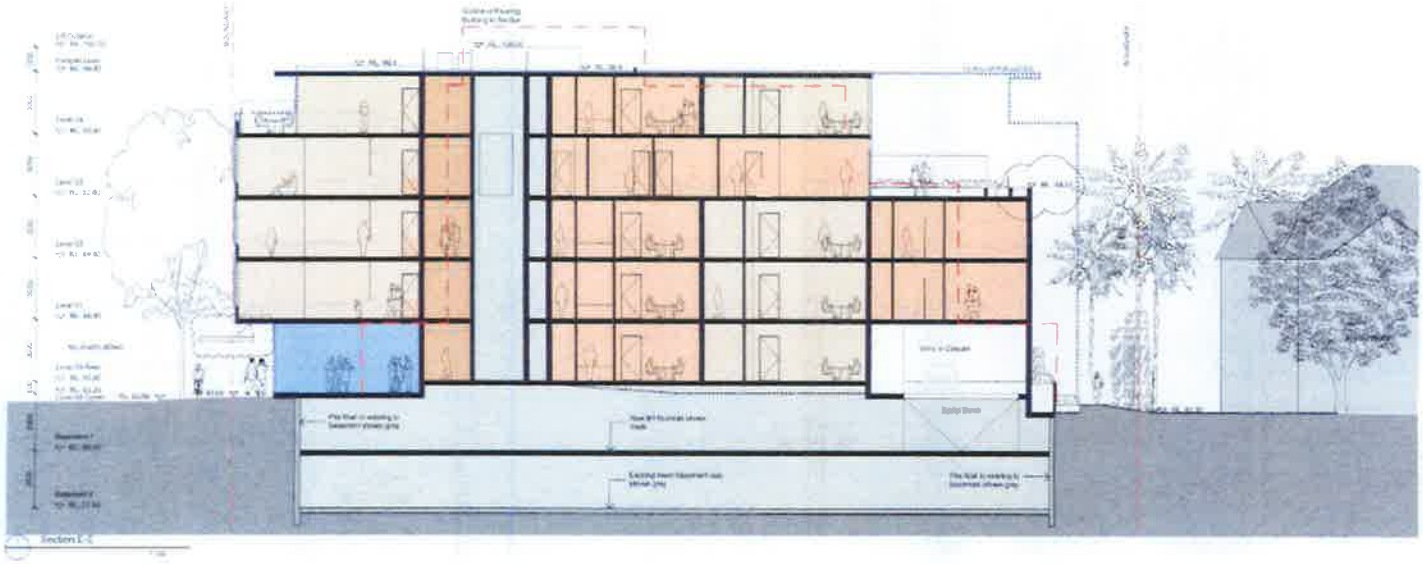
Sections

1/100 @ A1, 1/200 @A3

DA08.02[07]

BATES SMART





Belmont Road
339 Military Road, Cremorne

Sections

1/100 @ A1 1/200 @A3

KW NLH

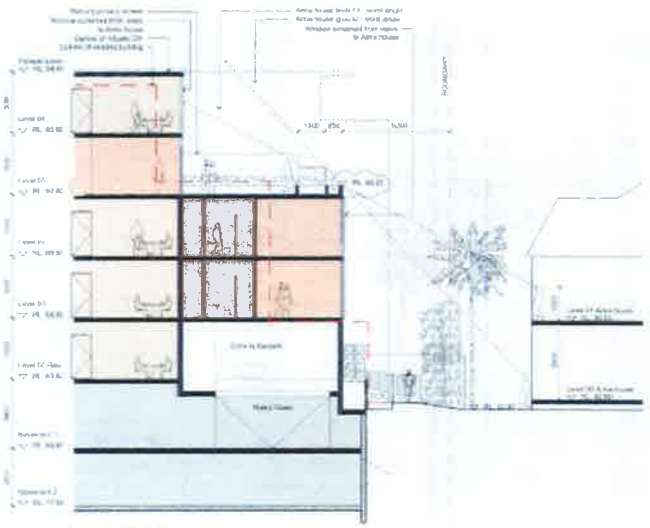
811586

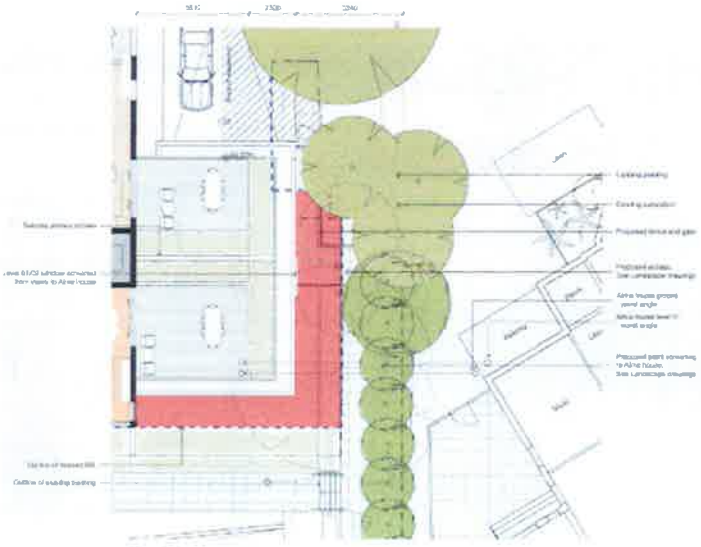
DA

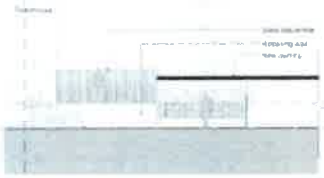
11/11/2014 9:46 AM

DA08.03[04]

BATESSMART







Belmont Road
339 Military Road, Cremorne
Sections

1/100 @ A1, 1/200 @A3
KW NLR
S11586
DA
11/12/2014 9:48 AM

DA08.04[03]

BATESSMART

Studio / Type * / 51sqm

1Bed / Type 1 / 50sqm

1Bed / Type 2 / 50sqm

1Bed / Type 2A / 50sqm

1 Bed / Type 6 / 52sqm

1 Bed / Type 6 / 50sqm

1Bed / Type 10 / 47sqm

1Bed / Type 16 / 51sqm

1Bed / Type 17a / 61sqm

2 Bed / Type 2 / 70sqm

2 Bed / Type 7 / 84sqm

2Bed / Type 9 / 80sqm

Belmont Road
339 Military Road, Cremorne

Bedrooms Unit Types

DA10.00[03]

BATESSMART

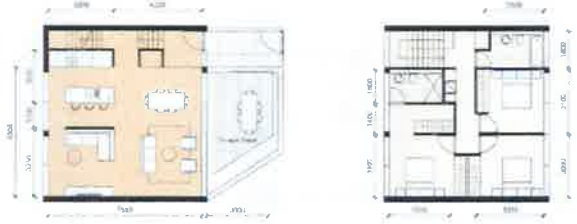
2 Bed Terrace / Type 4 / 94sqm

2 Bed Terrace / Type 6 / 82sqm

3 Bed Terrace / Type 1 / 105sqm

3 Bed Terrace / Type 5 / 105sqm

3 Bed Terrace / Type 8 / 120sqm



3 Bed Terrace / Type 7 / 118sqm

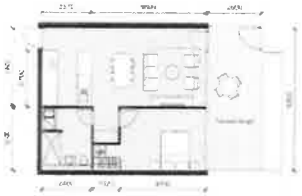
Belmont Road
339 Military Road, Cremorne
Bedroom Unit Types

S11506

DA

DA10.01[01]

BATESSMART

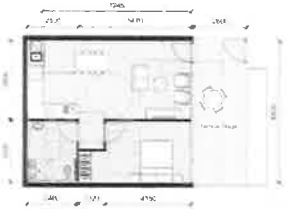


1 Bed Pre Adaption / Type 1 / 50sqm

1 Bed Pre Adaption / Type 2 / 55sqm

1 Bed Pre Adaption / Type 3 / 50sqm

2 Bed Pre Adaption / Type 1 / 83sqm



1 Bed Post Adaption / Type 1 / 50sqm

1 Bed Post Adaption / Type 2 / 55sqm

1 Bed Post Adaption / Type 3 / 50sqm

2 Bed Post Adaption / Type 1 / 83sqm

Belmont Road
339 Military Road, Cremorne

Adaptable Units

	1:50 @A1 1:100@A3
	KW
	S11586
	DA
	11/11/2014 9:48 AM

DA11.00[04]

BATES SMART

GFA Included
GFA Excluded
Communal Outdoor Space
Additional Communal/Public Circulation Space
Private Outdoor Space

Belmont Road
339 Military Road, Cremorne
FSR Plan Diagrams

1/250 @ A1, 1/500 @A3
NLR
S11588
DA

DA03.30[07]

BATESSMART

WASTE MANAGEMENT PLAN

PREPARED FOR
BATES SMART

CENTURIA – BELMONT ROAD
RESIDENTIAL DEVELOPMENT
339 MILITARY ROAD
CREMORNE NSW 2090

NOVEMBER 2014

EDDY SAIDI
ELEPHANTS FOOT
1800 025 073

ELEPHANTS FOOT WASTE COMPACTORS PTY LTD ABN 70 001 378 294
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ABOUT ELEPHANTS FOOT

Elephants Foot Recycling Solutions is a family owned Australian company whose philosophy is providing quality recycling and waste solutions through product innovation. We are Australia's leading supplier of garbage, recycling and laundry chute systems.

Our team of experts has been proudly assisting architects, builders and developers with advice on how best to solve waste management and odour issues in dwellings since 1976. We have a long history of completed projects within the Australian building environment.

If you require any further information please do not hesitate to call me on 02 9780 3500.

Regards

Eddy Saidi
Director
Elephants Foot Recycling Solutions

REVISIONS

Revision	Date	Prepared by	Reviewed by	Approved by	Remarks
A	Feb-14	N Beattie	E Saidi	E Saidi	Preliminary
B	Feb-14	D Trinder	N Beattie	E Saidi	Preliminary
C	Feb-14	N Beattie	E Saidi	E Saidi	Planning
D	Feb-14	N Beattie	E Saidi	E Saidi	Planning
E	Nov-14	D Trinder	N Beattie	E Saidi	Amendment
F	Nov-14	N Beattie	E Saidi	E Saidi	Amendment

Authorised By: 
Date: 6 November 2014
DISTRIBUTION LIST

Recipient Name	Company	Revision	Copy No.
Eddy Saidi	Elephants Foot Recycling Solutions	F	1
Jim Simons	Eastview	F	2
Ben Craig	JBA	F	3

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CONTENTS

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EXECUTIVE SUMMARY

This waste management plan covers the ongoing management of waste generated by the residential development located at Belmont Road and 339 Military Road, Cremorne NSW 2090.

The development comprises a block bounded Belmont Road and Military Road. When complete, the development will consist of one multi-level building, which will provide 130m2 of commercial tenancy, 5 levels (including ground) of apartments, with basement car parking levels. A second building accommodating townhouses is also included in the development.

Waste audit and management strategies are recommended for new developments to provide support for the building design and promote strong sustainability outcomes for the building. All recommended waste management plans will comply with council codes and any statutory requirements. The waste management plan has three key objectives:

i. ***Ensure waste is managed to reduce the amount of waste and recyclables to land fill*** by assisting residents to segregate appropriate materials that can be recycled; displaying signage to remind and encouraging recycling practices; and through placement of recycling and waste bins in the retail precinct to reinforce these messages.

ii. ***Recover, reuse and recycle*** generated waste wherever possible.

iii. ***Compliance*** with all relevant codes and policies.

The waste and recycling will be guided by the acceptance criteria of the Mosman Council, *Mosman Waste Minimisation Policy 2012.*

To assist in the provision of well-segregated material, it is essential that this waste management plan is integral to the overall management of the development and clearly communicated to all residents, occupants and tenants of the buildings.

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MOSMAN COUNCIL

Resource consumption is a major environmental issue and waste disposal is a priority for all levels of government within Australia as the environmental and economic costs of waste disposal rise and landfill sites become scarce. Government and society alike are exposed to the issue of managing increasingly large volumes of waste generated by our society.

Sustainable resource management and waste minimisation has emerged as a priority area for Ecologically Sustainable Development (ESD). Critical actions in this regard include avoiding unnecessary resource consumption; recovering resources for reuse; recovering resources for recycling or reprocessing and disposing of residual waste (as a last resort).

OBJECTIVES

The objectives in pursuit of sustainable waste management include:

- To assist applicants in planning for sustainable waste management through the preparation of a site waste minimisation and management plan (SWMMP);
- To minimise adverse environmental impacts associated with waste management and
- To discourage illegal dumping.

WASTE AVOIDANCE

- To minimise resource consumption and waste production throughout the lifecycle of the building or premises.

WASTE MANAGEMENT

- To assist applicants to develop systems for waste management that ensure waste is transported and disposed of in a lawful manner;
- To provide guidance in regards to space, storage, amenity and management of the waste management facilities;
- To ensure waste management systems are compatible with building type and collection services;
- To minimise risks associated with waste management at all stages of the development and
- To maximise reuse and recycling of waste from the ongoing use of the site or premises.

Source: Mosman Waste Minimisation Policy

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INTRODUCTION

The following waste management plan pertains to the completed residential development located at 339 Military Road, Cremorne. This waste management plan is an operational waste management plan and will address the phases of the completed development.

The plan outlines measures to achieve the following objectives:

- avoid the generation of unnecessary waste;
- minimise the quantities of wastes generated ending up as landfill;
- recover, reuse and recycle waste generated onsite where possible; and
- aim to achieve Federal and State Government waste minimisation targets in accordance with regional waste plans.

For the purpose of this report the proposed development will consist of:

- 5-level building and townhouses incorporating 68 apartments (see unit mix)
- Commercial space on ground level – 130m2

APARTMENT MIX

Units	Number
1 Bed	45
2 Bed	11
2 Bed T	3
2 Bed BTH	1
3 Bed	1
3 Bed T/H	1
3 Bed Stables	2
Studio/SOHO	4
Total	68

Each section of this development has been examined individually within this report however; the waste management process must be effectively coordinated between all sections for the system to work.

All figures and calculations are based on area schedules as advised by our client and shown on architectural drawings.

All waste facilities and equipment are to be designed and constructed to be in compliance with the *Mosman Waste Minimisation Policy 2012*, Australian Standards and statutory requirements.

EQUIPMENT

All putrescible waste and recyclables from the development will be collected in 240L MGBs with Council servicing the bins from the loading bay accessed off Belmont Road subject to approval. Waste and recycling bins will be serviced weekly.

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WASTE

CONSTRUCTION AND DEVELOPMENT WASTE

When appointed, the head contractor will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements. A separate construction and waste management plan will be submitted prior to the construction certification and Council should condition this as part of the consent.

WASTE DEFINITION

Garbage: All domestic wastes (except recyclables and green waste)
Recycling (mixed containers): Glass bottles and jars - PET, HDPE and PVC plastics;
Aluminium, aerosol, and steel cans; milk and juice cartons, soft drink, milk, and shampoo containers;
Recycling (paper products): Paper, cardboard, junk mail, newspapers and magazines.

WASTE CARETAKER/S

The development's management will appoint full time waste caretaker/s (assisted by maintenance personnel/cleaners) who will carry the overall responsibility for staffing and managing all waste generated by the buildings.

All equipment movements in the building will be managed by the appointed waste caretakers/cleaners at all times. No residents or tenants will be allowed to transport waste or recyclables to the waste room and loading bay; residents will transport waste and recycling to the chutes on each residential level or the cardboard collection receptacle, tenants will only transport their waste to the areas allocated.

The building manager/ cleaner duties include, but are not limited to, the following:

- General maintenance and cleaning of the residential chute doors on each level (Frequency will be dependent upon waste generation and will be determined based upon building operation)
- Organising, maintaining and cleaning the general and recycled waste holding areas (Frequency will be dependent upon waste generation and will be determined based upon building operation)
- Educating and updating all residents and tenants on sorting methods for recycled waste into appropriate receptacles, ensuring all waste drop-off points safe and accessible to residents and tenants at all times
- Transporting MGB to and from collection points
- Organising both garbage and recycled waste pick-ups as required
- Cleaning and exchanging all bins

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EDUCATION

All waste generators occupying the building along with cleaning personnel will be given written instructions on how to operate the Waste Management System and will also be given an introduction to the system when they move into the building.

Educational material encouraging correct separation of garbage and recycling items must be provided to staff or occupiers to ensure correct use of the chute and to ensure an understanding of the chute's use. This should include the correct disposal process for bulky goods (old furniture, large discarded items etc.) It is recommended that information is provided in multiple languages to support correct practises and minimise contamination in the collection MGBs as well as chute blockages. This is the responsibility of building management.

It is also recommended that the developments website, if applicable, contain information for building occupiers to refer to regarding use of the chute.

Information should include:

- Directions on using the chute
- Recycling and garbage descriptions
- Disposing of bulky goods, large cardboard boxes and any other items that are not garbage or recycling
- Obligations to WHS and building management
- How to prevent damage or blockages to the chute (example below)

TO PREVENT DAMAGE OR BLOCKAGE TO RUBBISH CHUTE DO NOT *PLACE RECYCLABLES, NEWSPAPERS, UMBRELLAS, BEDDING, CIGARETTES, CARTONS, COAT HANGERS, BROOMS, MOPS, LARGE PLASTIC WRAPPINGS FROM FURNITURE, WHITE GOODS, ANY SHARP OBJECTS, HOT LIQUID OR ASHES, OIL, UNWRAPPED VACUUM DUST, SYRINGES, PAINT AND SOLVENTS, CAR PARTS, BIKE PARTS, CHEMICALS, CORROSIVE AND FLAMMABLE ITEMS, SOIL, TIMBER, BRICKS OR OTHER BUILDING MATERIALS, FURNITURE, ETC DOWN THE CHUTE.*

It is expected that leasing arrangements with commercial and SOHO tenancies contain direction on waste management services and expectations.

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RESIDENTIAL APARTMENTS

Using council's waste generation rates, the total residential waste generated by the development can be calculated as follows:

Garbage: 80L/unit/week
Recycling: 40L/unit/week

WASTE GENERATION

64 units @ 80L/unit/week requires 22 x 240L MGB weekly

64 units @ 40L/unit/week requires 11 x 240L MGB weekly

RESIDENTIAL TOWNHOUSES

There are four townhouses within the development that will be supplied with individual 140L garbage and recycling bins. Bins will be transported to an approved kerbside collection point on Belmont Road on collection days.

On collection days, building management and/or the resident/s will be responsible for transporting all required bins to the kerbside collection area prior to the collection and removing the empty bins to the townhouses as soon as possible after collection to ensure the street remains aesthetically pleasing.

BIN SUMMARY

Residential
Garbage: 22 x 240L MGB collected weekly
Recycling: 11 x 240L MGB collected weekly

Townhouses
Garbage: 4 x 140L MGB collected weekly
Recycling: 4 x 140L MGB collected fortnightly

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WASTE MANAGEMENT SYSTEM

RESIDENTIAL WASTE HANDLING

All units will be supplied with collection receptacles in each unit (generally in the kitchen and bathroom areas) to deposit bagged garbage, sort and collect recyclable material suitable for one day's storage.

All garbage should be contained in tied plastic bags. Dimensions of bags should not exceed a cube with 350mm sides. Weight of waste bags should not exceed 3kg.

Recycling must not be bagged. It is recommend that residents ensure correct separation before depositing in the recycling bin. It is expected that clean and empty recycling items will be placed into the recycling bin/s.

Once putrescible and recyclable waste streams are separated, the resident/s will carry these to the waste compartment *(see Appendix 4 – Typical Waste Compartment)* housing the chute door and recycling bins and deposit bagged waste using the chute door. Separated recycling items are placed in the allocated bins.

Council requires maximum storage area for each waste service compartment and doors are required to open outwards and should be of adequate width to accommodate the recommended bin sizes.

OTHER WASTE STREAMS

A dedicated room or caged area of a minimum of 8m³ is provided for the temporary storage of discarded bulky items which are awaiting removal. It is envisaged that any bulky goods movement and disposal will be managed by building management.

Disposal or recycling of any hard, electronic, liquid waste and home detox (paint/chemicals) etc shall also be organised with the assistance of the building caretaker. Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors.

GREEN WASTE

There will be minimal green waste generated by the building's landscaping and internal requirements. Any green waste will be collected and removed from site by the maintenance contractor.

SMOKING

Any designated smoking areas throughout the development will be supplied with appropriate collection receptacles to prevent unsightly butt litter.

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WASTE CHUTES

The waste chutes for the residential building are supplied per the following specifications:

- Either 510mm galvanised steel or 510mm recycled LLDPE polyethylene plastic with 2-hour fire rated doors
- Galvanised steel chutes or plastic chutes are fully wrapped with 50mm poly-wool R1.3 noise insulation foil to assist in noise reduction
- Chutes are fixed to each slab level with galvanised steel brackets and Dynabolts
- 30 mm Embleton Neoprene rubber isolation mounts under brackets on all levels
- Mounting brackets are site specific to accommodate penetrations or building shafts
- penetrations on each building level at vertically perpendicular points with minimum penetration dimensions of 600mm x 600mm (square or round) are required to accommodate the chute installation
- Chute is supplied with a vent exiting at the top of each chute, openings for placement of fire sprinklers on every second level and wash down system.
- Council and supplier require that all chutes are installed without offsets to achieve best practise operationally for the building
- Two hour fire-rated (AS1530.4-2005) stainless steel refuse chute doors and throat assemblies are fitted at each required service level.
- Bottom discharge chute supplied with sliding door and fusible link
- Waste discharges directly into bins situated on a carousel track fitted with a compactor (2:1)

Note: Chutes and waste room must be fully enclosed in a fire rated shaft constructed of approved material in accordance with BCA requirements.

CHUTE SUMMARY

Galvanised steel or recycled LLDPE polyethylene plastic chutes, as supplied by Elephants Foot Recycling Solutions (or similar): One required with carousel compactor system suitable for 240L MGBs *(see Appendix 5 – Typical Waste Chute)*.

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COMMERCIAL WASTE

WASTE GENERATION

As per the drawings, there is a total of 130sqm of commercial space allocated at level one ground. At this time, the mix of tenant type is unknown so a generic waste rate has been recommended interim.

Total net lettable area	Waste Generation- 7 day cycle	Non recyclable	Recyclable
130sqm	50ltrs/100m2/day – waste 50ltrs/100m2/day - recycle	455L	455L

COMMERCIAL BIN REQUIREMENTS

Waste: 2 x 240L MGB collected weekly
Recycling (comingled): 2 x 240L MGB collected weekly

It is recommended that:

- All garbage should be bagged and garbage bins should be plastic lined
- Bagging of recyclables is not permitted
- *All waste collections located BOH during operations and waste and recycling removed by the appointed waste caretaker/commercial cleaner to the designated area in the refuse room on a daily basis; (See below)
- Individual recycling programs are recommended to ensure commingled recycling is separated correctly
- Any food and beverage tenant will make arrangements for storing used cooking oil in a bunded area and for its collection by a recycler
- The food and beverage operator will organise grease interceptor trap servicing
- Dry basket arresters need to be provided to the floor wastes in any food preparation and waste storage areas.

*Tenants in a mixed-use development must be actively discouraged from using residential waste facilities through the provision of a separate storage area. Depending on the type of commercial tenancy, the tenant may arrange a contracted service with a private waste services provider.

Collections will be made from the commercial/retail waste room by private contractors using small vehicle. Note: bins will not be collected from kerbside.

It is noted that the commercial outlets are accessed off Military Road and therefore arrangements to collect from each commercial premise must be with approval of Council and the service provider, to ensure minimum impact to residential dwellings.

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BIN COLLECTIONS

RESIDENTIAL

All general waste bins will be transported by building management from the waste room to the collection point and collected weekly as per Council's waste collection schedule.

Recycling bins will be collected weekly from the collection point.

On collection days, building management will be responsible for transporting all required bins to the collection area prior to the collection and removing the empty bins to the waste room or residential levels as soon as possible after collection.

All access to the loading dock, parking and waste room is via Belmont Road *(see Appendix 3 – Garbage Room & Loading Bay).*

Details of the collection strategy will need to be discussed further and an action plan established with building management for implementation.

COMMERCIAL

Commercial tenants will enter into an agreement with private waste service providers for weekly bin collections. Collections will be made from the basement level commercial/retail waste room using small rear lift vehicle with an operating height of 2.4 metres.
Note: Capital City Waste provide smaller rear lift trucks servicing in the CBD and also provide servicing on behalf of Sita, Cleanaway and Remondis. Capital City Waste requires a clearance height of 2.4m with no ceiling drops for access. Capital City Waste will deliver bins as required. Collections can be made 7 days per week including all public holidays – the truck is in service area between midnight and 5am daily. *See Useful Contacts – Capital City Waste*

WASTE ROOMS

The waste room will house the carousel compactor system plus garbage and recycling MGBs and spare bins required *(see Appendix 3 – Garbage Room & Loading Bay)*. A minimum of 26.1 sqm is required for the waste room (10 sqm has been included for manoeuvring of bins) not including the space needed to house the carousel compactor.

A separate area for storage of commercial bins is also allocated in this area with signage identifying the area erected. This are should be a minimum of 7sqm (this includes 5 sqm for access and manoeuvring of bins).

The final number of truck movements will depend on management of waste contract/s; final configuration of waste and recycling arrangements and additional irregular truck movements for hard waste. It is our understanding that a traffic consultant is preparing drawings to confirm the swept paths for waste collections, access and egress, internal manoeuvring to assume parked position for loading and to exit as well as collection vehicle dimensions. This information and supporting drawings will be provided separate to this report.

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WASTE ROOMS

CONSTRUCTION REQUIREMENTS

The garbage room will be required to contain the following facilities to minimise odours, protect surrounding areas, and make it a user-friendly and safe area:

- Waste room floor to be constructed of reinforced concrete (or other approved material) at least 75mm thick and sealed with a two pack epoxy
- Waste room floor surface is flat and even
- All corners coved and sealed 100mm up, this is to eliminate build-up of dirt
- A hot and cold water facility provided for washing the bins
- Tap height of 1.6m
- All walls painted with light colour and washable paint
- Protective galvanized metal railing must be placed around the inside wall of all waste and recycling rooms and communal bin areas at 1m above the floor and at least 50mm clear of the wall to protect the walls from damage caused by moving bins
- Equipment electric outlets to be installed 1700mm above floor levels
- Light switch installed at height of 1.6m and should be in accordance with AS1680
- Waste rooms must be provided with sufficient artificial light controlled by a motion sensor located both outside and inside the room
- Optional automatic odour and pest control system installed to eliminate all pest types. This process generally takes place at building handover – building management make the decision to install. Please note that odour systems spraying product directly onto galvanised steel surfaces may cause corrosion.
- All personnel doors are hinged and self-closing and must provide a minimum clearance of 900mm
- Waste storage area should not be located behind lockable gates, grilles or roller doors unless a separate lockable door is available to waste collectors. A key must be provided for access.
- Appropriate signage prominently displayed on walls and above all bins clearly stating what type of waste or recyclable is to be placed in the bin underneath
- Building management/caretaker is responsible for waste room signage and further education after building handover
- Waste collection area must hold all bins – bin movements should be with ease of access
- All chute doors on all levels will be labelled with signs encouraging occupants to recycle and minimise their waste
- Signage directing chute operations regarding waste and recycling will be posted on each chute door, waste compartment wall and in the garbage store and collection area.
- Design and construction of waste facilities will conform to the Building Code of Australia, Australian Standards and local laws
- Childproofing and public/operator safety shall be assessed and ensured by the operator/s
- All waste bins other than public place bins should be hidden from external view and stored in the designated onsite areas
- Transfer of waste and all bin movements require minimal manual handling therefore the operator must assess manual handling risks and provide any relevant documentation to building management

ELEPHANTS FOOT WASTE COMPACTORS PTY LTD ABN 70 001 378 294
Sydney Head Office 44-46 Gibson Ave Padstow NSW 2211 Ph: +612 9780 3500 Fax: +612 9707 2588
Website: www.elephantsfoot.com.au - Email: info@elephantsfoot.com.au
Offices in Victoria & Queensland - Toll Free 1800 025 073

GARBAGE CHUTES

All chute doors on all levels will be labelled with signs encouraging occupants to recycle and minimise their waste. A sign stating '*GARBAGE ONLY IN THE CHUTE*' will be posted and separate signage instructing residents on how and where to place recycling will also be placed on each level.

VENTILATION

Mechanical exhaust systems shall comply with AS1668 and not cause any inconvenience, noise or odour problem.

ADDITIONAL INFORMATION

Transfer of waste and all bin movements require minimal manual handling therefore the operator must assess manual handling risks and provide any relevant documentation to building management.

LIMITATIONS

The purpose of this report is to document a Waste Management Plan as part of a development application and is supplied with the following conditions:

- Drawings and information supplied by the project architect.
- The figures presented in the report are an estimate only. The actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the building managements approach to waste management.
- Any manual handling equipment should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply.
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures.

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USEFUL CONTACTS

Mosman Council
PO Box 211
Spit Junction NSW 2088
Phone: (02) 9978 4132
Email: council@mosman.nsw.gov.au

SULO MGB (MGB, Public Place bins, tugs and bin hitches)
Phone: 1300 364 388

REMONDIS Australia Pty Ltd
Head Office
Level 5, Airport Central 241 O\'Riordan Street
Mascot NSW 2020
Tel.: +61 2 90327100 OR 13 73 73

Capital City Waste Services
30 Seville Street,
Fairfield NSW 2165
Phone: 1300 965 067

Note: Elephants Foot Recycling Solutions does not warrant or make representation for goods or services provided by suppliers.

Elephants Foot Recycling Solutions (Chutes, compactor and eDiverter systems)
Natalie Beattie
44 – 46 Gibson Avenue
Padstow NSW 2211
Free call: 1800 025 073
Email: natalie@elephantsfoot.com.au

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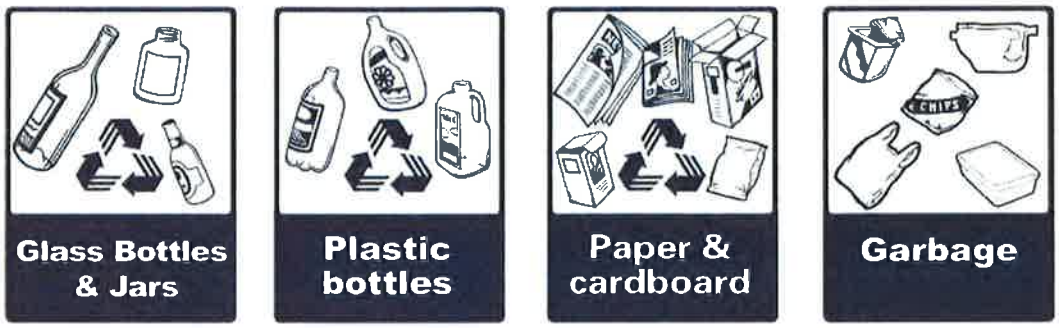
APPENDIX 1 – STANDARD SIGNAGE WASTE & RECYCLING BINS

WASTE SIGNS

Example wall posters



Example bin lid stickers

SAFETY SIGNS

The design and use of safety signs for waste rooms and enclosures should comply with AS 1319 Safety signs for the occupational environment. Safety signs should be used to regulate and control safety related to behaviours, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Each development will need to decide which signs are relevant for its set of circumstances and services provided.

Examples of Australian Standards:

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APPENDIX 2 – WASTE MANAGEMENT EQUIPMENT

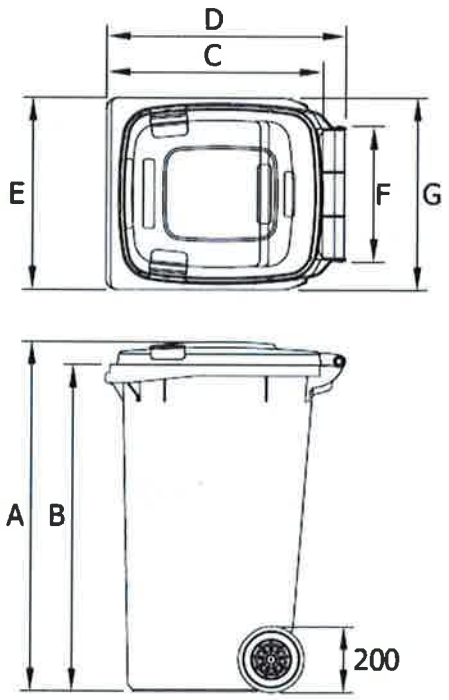
240L MGB

Dimensions - Weights - Standards

- Nominal volume: 240 litres
- Net weight: approx 13 kg
- Max load: 96 kg
- Permitted total weight: 110 kg

A	1060 mm	D	730 mm	G	550 mm
B	990mm	E	585 mm		
C	660 mm	F	400 mm		

Measurements to be used as a guide only – variations will occur



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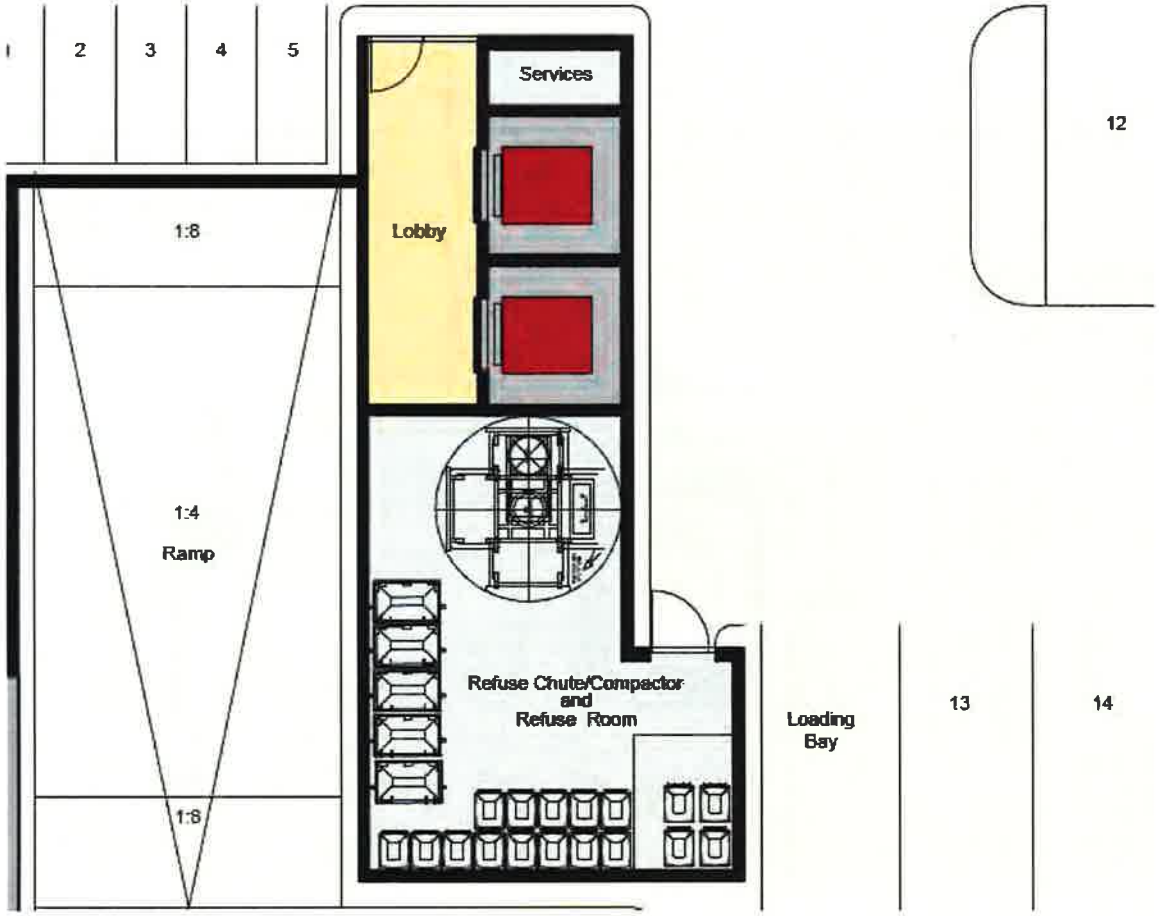
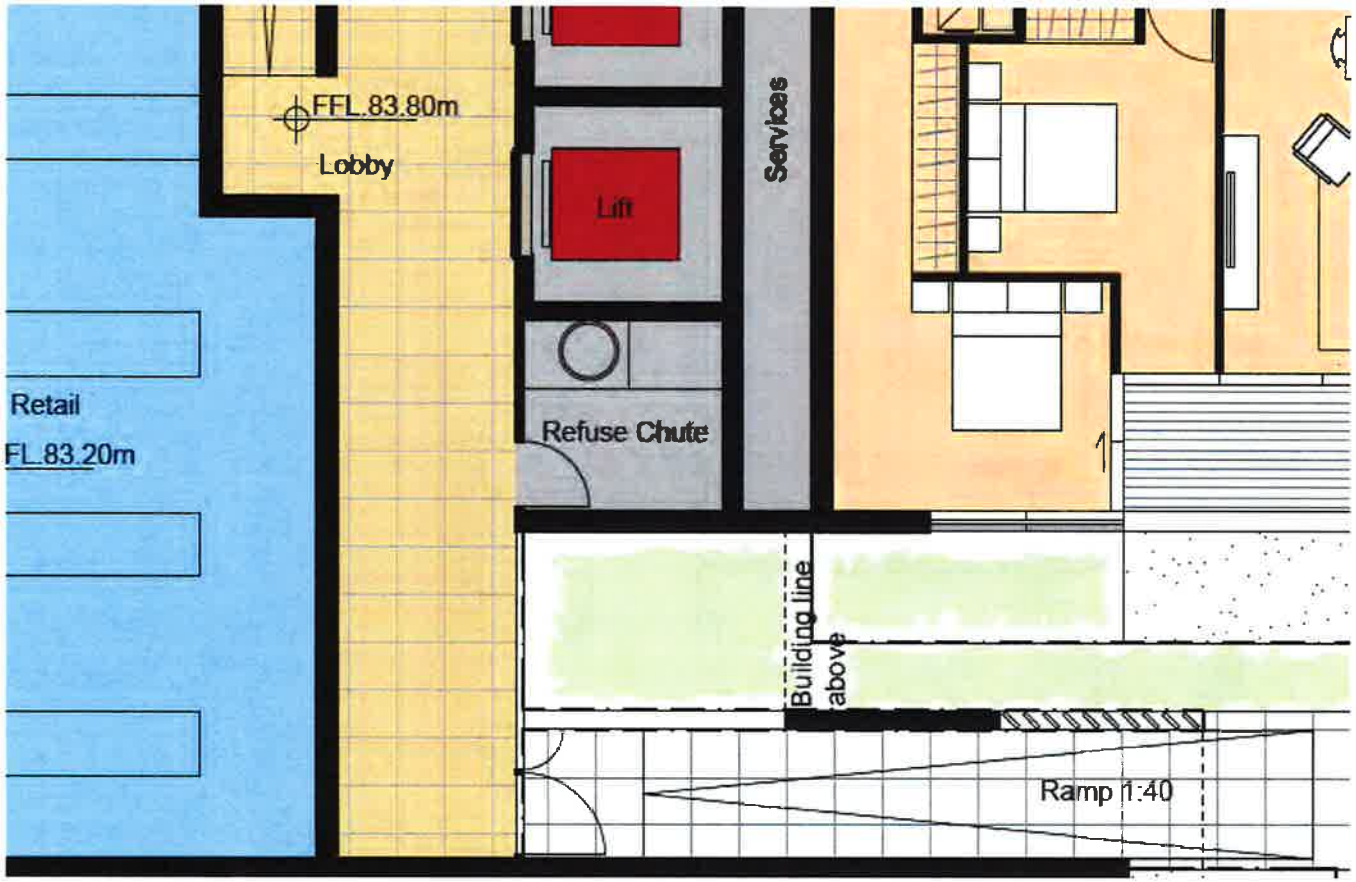
APPENDIX 3 – GARBAGE ROOM & LOADING BAY

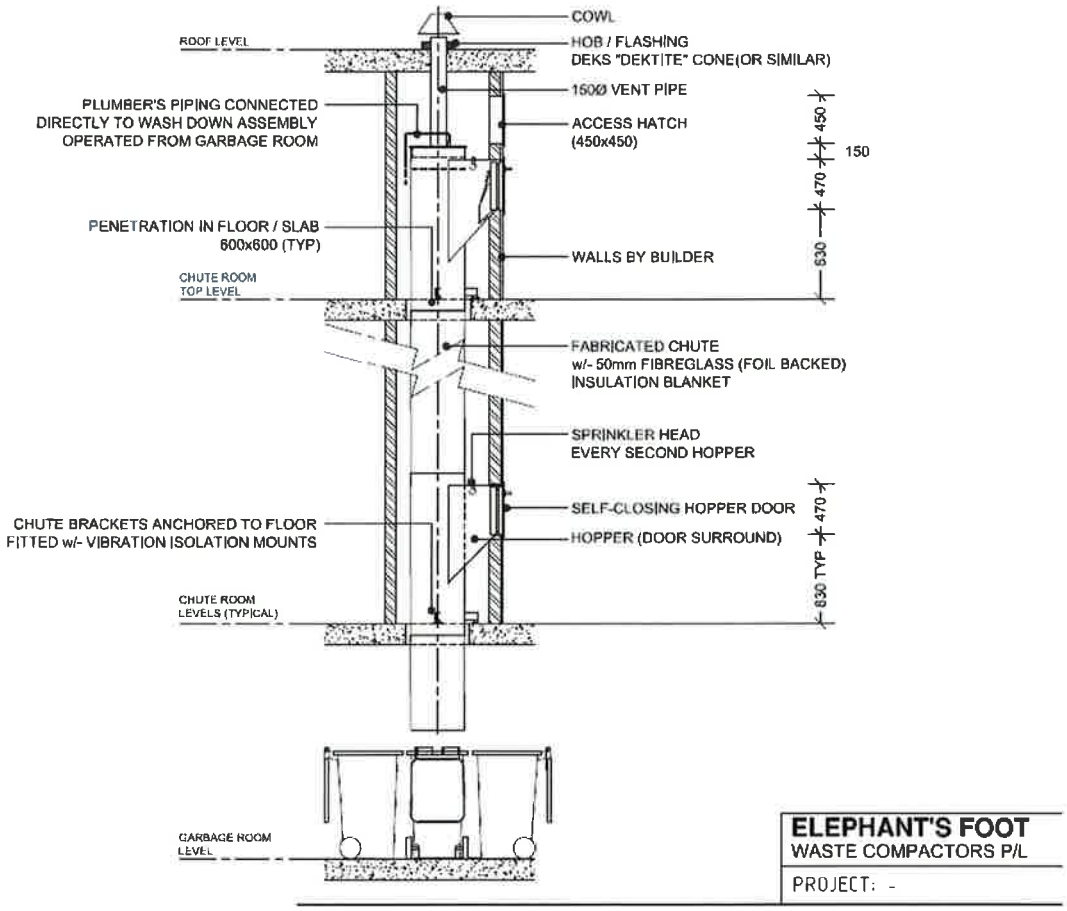
Accessed off Belmont Road



APPENDIX 4 – TYPICAL WASTE COMPARTMENT



APPENDIX 5 – TYPICAL WASTE CHUTE



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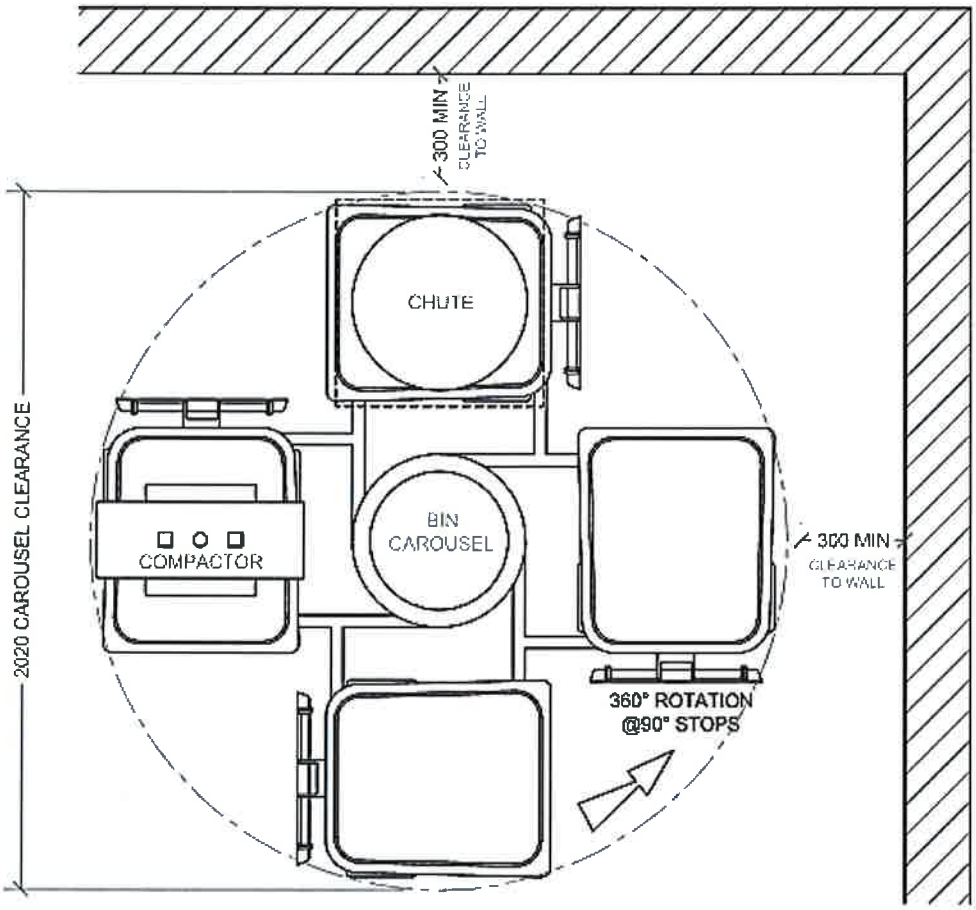
APPENDIX 6 – CAROUSEL COMPACTOR SUITABLE FOR 240L BINS



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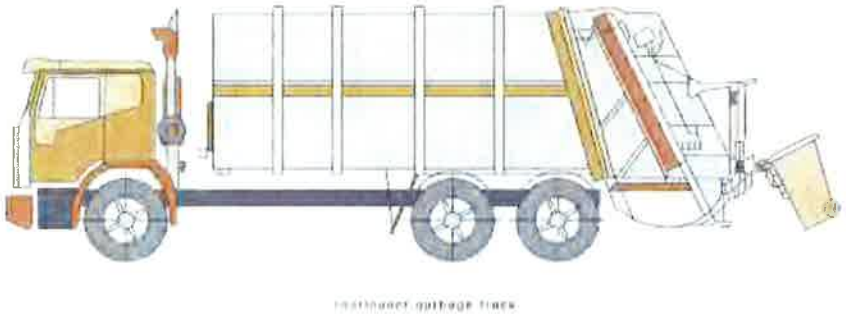
APPENDIX 7 – COLLECTION VEHICLE SPECIFICATIONS

Below includes information regarding the dimensions of garbage trucks that are typically used for the collection of residential waste.

Typical Council Garbage Truck used for Domestic Waste Collection	
Length overall	8.0 metres
Width overall	2.5 metres
Operational height	4.3 metres
Travel height	4.3 metres
Weight (vehicle and load)	22.5 tonnes
Weight (vehicle only)	13 tonnes
Turning Circle	25.0 metres



Example of a Council garbage truck.
Source of diagram: *Better Practice Guide for Waste Management in Multi-Unit Dwellings, DECC 2008.*

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Vehicle access/Turning circles

General

Appropriate heavy vehicle standards should be incorporated into the development design including those specified in Acts, regulations, guidelines, and codes administered by Austroads, Standards Australia, the NSW Roads and Traffic Authority, NSW WorkCover and any local traffic requirements.

Designers are encouraged to consult with council and other relevant authorities prior to the design of roads and access points to ascertain specific requirements for the proposed development.

Road and driveway construction and geometry

Roads and driveways must be designed and constructed in accordance with the relevant authority requirements to allow the safe passage of a laden collection vehicle in all seasons.

Factors to be considered in design include:

- gradients for turning heads;
- longitudinal road gradients;
- horizontal alignments;
- vertical curves;
- cross-falls;
- carriageway width;
- verges;
- pavement widths;
- turning areas (see below);
- local area traffic management requirements (for example speed humps);
- sight distance requirements;
- clearance heights (for example a vertical clearance of 6.5m is required to load front-lift vehicles);
- manoeuvring clearance; and
- road strength (industrial-type strength pavement required, designed for a maximum wheel loading of seven tonnes per axle to accommodate garbage and recycling collection vehicles).

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Turning circle templates and reverse entry templates for medium and heavy rigid vehicles are provided below.

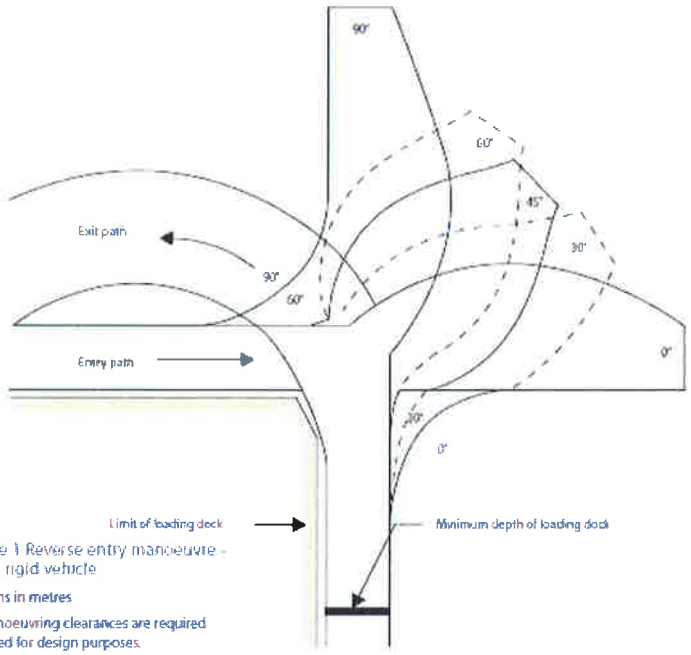
- Turning path templates – should be used in the design of access driveways and circulation roadways, and in checking on the path of vehicles leaving service bays.
- Reverse entry templates – should be used in the design of service bays and service area aprons to accommodate the backing manoeuvres required to undertake a Y-shaped turn.

These templates can be printed and copied onto a transparent medium or imported into computer drawing packages to check vehicle paths on intersection layout drawings.

These templates are applicable for the following vehicle dimensions:

Vehicle class	Overall length (m)	Design width (m)	Design turning radius (m)	Swept circle (m)	Clearance (travel) height (m)
Medium rigid vehicle	8.80	2.5	10.0	21.6	4.5
Heavy rigid vehicle	12.5	2.5	12.5	27.8	4.5

Templates have been sourced from AS 2890.2 Parking Facilities: Off-Street Commercial Vehicle Facilities. Please refer to this standard for the latest vehicle access requirements. This standard is available from SAI Global (www.saiglobal.com) through its webshop.



Template 1 Reverse entry manoeuvre – medium rigid vehicle

Dimensions in metres

Note: manoeuvring clearances are required to be added for design purposes.

Source: Better Practice Guide for Waste management in Multi-Unit Dwellings

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Colston Budd Hunt & Kafes Pty Ltd
as Trustee for C & B Unit Trust
ABN 27 623 918 759

Our Ref: SK/9230/sk

7 November, 2014

Transport Planning
Town Planning
Retail Studies

Centuria Property Funds Limited
Suite 39.01, Level 39
100 Miller Street
NORTH SYDNEY NSW 2060

Attention: Andre Bali
Email: Andre.Bali@centuria.com.au

Dear Sir,

RE: PROPOSED RESIDENTIAL DEVELOPMENT
339 MILITARY ROAD, MOSMAN

1. As requested, we are writing to respond to traffic matters raised by Council in their letter dated 31 October 2014. Point 3 of Council's letter is as follows:-

   3. ***Right of Carriageway***. *Council's Development Engineer has requested that the applicants traffic engineer comment on the best means of managing pedestrians and vehicular traffic (including vehicles from 114 Belmont Road) within the right of carriageway.*

2. As shown on plans submitted with the proposed development application, part of the proposed driveway will be located within the existing right of way. The right of carriageway occupies half of the proposed driveway (entry lane to the proposed basement car park).

3. Given the low traffic generation of the proposed development and that of the adjacent residential development on 114 Belmont Road, and given the good sight lines for both vehicles and pedestrians within the right of carriageway, vehicular and pedestrian movements are proposed to be managed with appropriate signage and a convex mirror on the western side of the driveway.

4. With regards to access to the Ausgrid electrical substation on the western side of the driveway, and given the relatively infrequent maintenance access to the

Suite 1801/Tower A, Zenith Centre, 821 Pacific Highway, Chatswood NSW 2067
P.O. Box 5186 West Chatswood NSW 1515 Tel: (02) 9411 2411 Fax: (02) 9411 2422
Directors - Geoff Budd - Lindsay Hunt - Stan Kafes - Tim Rogers - Joshua Hollis ACN 002 334 296
EMAIL: cbhk@cbhk.com.au

substation via the right of way, access is proposed to be managed by a traffic management plan.

5. The overall principles for the traffic management plan would include the following:-

   - provide appropriate access via the right of way for Ausgrid to carry out the required maintenance work;
   - provide convenient and safe access for pedestrians along the adjacent footpath;
   - maintain access to the adjacent residential development on 114 Belmont Road;
   - manage and control traffic movements to and from the basement car park via the single travel lane.

6. We understand that Ausgrid has confirmed that they have no objection to the traffic access arrangements as documented in the DA.

7. We trust the above provides the information you require. Finally, if you should have any queries, please do not hesitate to contact us.

Yours faithfully,
COLSTON BUDD HUNT & KAFES PTY LTD

Stan Kafes

S. Kafes
Director

PHILIP CHUN
ACCESS CONSULTING

SUITE 404, 44 HAMPDEN ROAD
ARTARMON NSW 2064
T: 61 2 9412 2322
F: 61 2 9412 2433

sydney@philipchun.com

Ref: AN14-202582 20141103 APR Accessibility Report 339 Military Road, Mosman Rev 03_JM

3 November 2014

Bates Smart
1/243 Liverpool Street
East Sydney NSW 2010

Attention: **Natalie Lane - Rose**

Dear Natalie,

Re: **Accessibility Review and Report _ Rev 03**
Project: **Prosposed Residential Development**
Address: **339 Military Road, Mosman**

Philip Chun Accessibility provides the following professional opinion in regards to access for people with disabilities to and throughout the proposed development at 339 Military Road, Mosman. The assessment and feedback is provided as part of reviewing the plans identified in the introduction below.

1.0 INTRODUCTION

This revised access report (Rev 02) has been prepared for Bates Smart and represents a review of aspects of access to and within the site with respect to the Building Code of Australia (BCA) Disability (Access to Premises – Buildings) Standards 2010, Disability Discrimination Act 1992 (*Cth*) (DDA), and relevant Australian Standards as applicable to this project. This report confirms accessibility has been considered in the associated planning documentation and confirms the Client's commitment to the development of an equitable and accessible environment for all.

Philip Chun Accessibility permits submission of this report to the Council to satisfy planning requirements which stipulate the submission of an Accessibility Report as part of the Development Application process.

The following documentation prepared by Bates Smart (Project No. S11586) was reviewed as part of our assessment:

Document No	Title	Revision
DA03.00	Ground 00	08
DA03.01	Level 01	07
DA03.02	Level 02	07
DA03.03	Level 03	06
DA03.04	Level 04	08
DA03.10	Stables Ground 00 and First 01	03
DA03.B1	Basement 01	10
DA03.B2	Basement 02	09
DA07.01	Elevations	04
DA07.02	Elevations	04
DA08.01	Sections	04
DA08.02	Sections	04
DA08.03	Sections	01
DA11.00	Adaptable Units	03

2.0 DISABILITY DISCRIMINATION ACT 1992 (*Cth*) (DDA)

The Disability Discrimination Act 1992 (*Cth*) (DDA) states it is unlawful to discriminate on the basis of disability, protecting persons with disability and their associates. Section 23 of the DDA relates to access to premises and facilities which the public may enter or use, and states it is unlawful to:

a) Refuse access to, or the use of, any premises, or the facilities within them.
b) Impose terms or conditions specific to persons with disability and their associates on the access and use of any premises or facilities;
c) Exclude access based on the provision of an appropriate means of access;
d) Request persons with disability or their associates to leave premises or cease use of facilities.

The DDA also addresses discrimination in other areas, including:

a) In employment (Sections 15 to 21);
b) Education (Section 22);
c) Provision of goods, services and facilities (Section 24);
d) Accommodation (Section 25);
e) Land (Section 26);
f) Clubs and associations (Section 27;
g) Sport and recreation (Section 28);
h) Administration of Commonwealth laws and programs (Section 29);
i) Requests for information (Section 30).

The Act is enforced primarily through a complaints mechanism, which allows individuals who have directly or indirectly experienced unlawful discrimination to seek a conciliated outcome through the Australian Human Rights Commission and, in the instance of unsuccessful conciliation, to bring an action in the Federal Magistrates Court or the Federal Court of Australia.

In contrast to building regulations, the DDA is not prescriptive and previously, there was a lack of uniformity between the building regulations in each State and Territory and the DDA. Since the DDA, it became evident that compliance with the Building Code of Australia (BCA) was insufficient to meet the objectives of the DDA. However subsection 31(1) of the DDA permits the development of Disability Standards, leading to

the implementation of the *Disability (Access to Premises - Buildings) Standards 2010* (Premises Standards) and *Disability Standards for Accessible Public Transport 2002* (DSAPT). It is unlawful to contravene the Disability Standards, however if the Disability Standards are met, those responsible for the building cannot be subject to a successful complaint for the matters covered by the Standards.

The implementation of the Premises Standards, and corresponding changes to the BCA, is a significant step towards achieving equal access to premises and is crucial to justice and social inclusion for people with disabilities. The Premises Standards will assist in the creation of a more sustainable built environment which is responsive to the changing circumstances of the wider Australian community.

It is noted that the Premises Standards are limited in scope, covering aspects of building compliance applicable under the BCA. It is acknowledged that the Premises Standards could address a broader range of accessibility issues including considerations to accessibility of parkland, playgrounds, transport vehicles, interior fit-out of buildings, and fixtures and fittings. As such, there are features which fall beyond the scope of the Standards which may be subject to the general complaints provisions of the DDA.

The scheme has been assessed against the BCA 2013, Premises Standards and key Mosman Council DCP requirements.

3.0 PROJECT DESCRIPTION

The proposed development site at 339 Military Road, Mosman consists of both Class 1 and 2 development:

- A New Class 1 residential development on the ground level, which contains two (2) town houses;
- Refurbishment of existing "Stables Building" into Class 1 Residential Units at Ground Level, which contains two (2) townhouses;
- A new Class 2 residential multi-unit development and associated basement car parking, on a site off Military Road, located at the corner block off the Belmont Road, at the edge of a residential zone, adjacent to a vacant lot. The development Class 2 element includes:
    - 2 levels of basement car parking;
    - 5 storey residential development, and a total of 68 residential units
    - Of those 68 units, 7 units will be designed as adaptable units, as identified in this report, meeting Mosman residential DCP requirements for a minimum of 10%.

The Class 2 element will provide for an accessible path of travel to the principal entrance off the junction of Military Road and Belmont Road. Ongoing access through to the main passenger lifts (providing vertical access) is via compliant ramped and stepped access, meeting AS1428.1 (2009) requirements.

The Class 1 elements of the development have a stepped approach off Belmont Road through to the approaches of each of the dwelling units. (Note: There are no BCA / Premises Standards requirements to provide an accessible path of travel from the allotment boundary through to the entrance doors of each of dwellings).

Basement parking provides means for parking for all the residential units and also the commercial / retail element, as shown on the plans. A compliant accessible path of travel is provided from all car parking bays, including accessible car parking provision, through to the passenger lifts, which serve all upper floor accommodation. Allocated accessible parking has been provided on the basis of the Mosman Residential DCP, as identified in 4.1, below.

4.0 ACCESS PROVISION

The following areas of the development will be accessible by residents, the public and staff, excluding maintenance and storage facilities, enabling safe, equitable and independent travel.

4.1 Parking Provisions

A two level basement car park is proposed, consisting of a combination of residential, commercial and visitor spaces. A total of 95 car parking bays are proposed, with three (3) bays identified solely for people with disabilities.

Access to the basement car park will be via a ramped approach off Belmont Road.

All three of the designated accessible car parking bays will fully meet BCA 2013 / AS/NZS 2890.6 (2009) requirements. This meets the required provision for accessible car parking under the Mosman Residential DCP (Section 5.10 Transport, access and parking - Objective O7). The provision of three compliant bays meets the requirements of both the Building Code of Australia 2013 and the Disability (Access to Premises – Buildings) Standards 2010.

The three car parking spaces for people with disabilities will be provided with appropriate dimensions of not less than 2400mm x 5400mm (dedicated space) with an adjacent space of 2400mm x 5400mm designated for loading and unloading (shared area).

Appropriate head height clearances to the three accessible car parking areas will be achieved in accordance with AS/NZS 2890.6 (2009), including not less than 2200mm between car park entry / exit and accessible car parking bays. The height to the designated accessible car parking bay itself and any overhead obstruction / ceiling will be not less than 2500mm (the height may be reduced to no less than 2200mm for a distance of no less than 1000mm from the front of the space, where the height must be no less than 2200mm), as identified in Figure 2.7 of AS/NZS 2890.6 (2009). Vertical signage incorporating the international symbol of access will be installed, in addition to delineation on the surface of the parking area to meet the requirements of AS 1428.1 (2009) and AS/NZS 2890.6 (2009).

All designated accessible car parking areas will be located within close proximity to passenger lifts, with a compliant accessible path of travel to the passenger lifts, which in turn provides compliant vertical circulation to all upper floors.

On the basis that seven (7) adaptable units are proposed, suitable car parking spaces will be provided for each of the adaptable units. This will be achieved by providing two conjoined car spaces per adaptable unit, which will have the capability of being converted to an accessible car parking space post-adaptation.

4.2 External Access to the Site

Access to the building can be achieved both via its principal entrance on the north corner for the apartment units; and the footpath off Belmont Road on the northeast of the development serving the class 1 dwellings. Both access routes are relatively short, from boundary line to building footprint allowing ready access onto the site and into the main apartment lobby. As the building occupies the majority of the site footprint, with commercial shop fronts located on the Northwest elevation of the building block, the external pedestrian access routes to the commercial component of the development are accessed directly from the street frontage, with compliant access and approach to entry doors proposed.

It is noted that the main entry off the Belmont Road into the apartment building provides a compliant accessible path of travel, meeting AS 1428.1 (2009) requirements.

External path widths of not less than 1200mm will be maintained to paths of travel and crossfalls will not exceed 1:40. External paths will be designed and constructed in accordance with AS 1428.1 (2009), AS 1428.2 (1992) and other accessibility guidelines relating to surface finish and path delineation, including suitable turning and passing places being incorporated into the detailed design.

4.3 Building Entrances and Internal Doors

A single-leaf pivot door is proposed to the lift lobby entrance at the North corner of the building. Due to the level changes from the building entrance to the lift lobby, a stepped and ramped access is provided, providing access to the lift lobby (see Section 4.6, below). Ongoing complying access can therefore be achieved through all levels of the development, including the basement level car parking.

The entrance to the development will provide a clear opening width of not less than 850mm (minimum 920mm door leaf width). Approach to entrances will be at no greater than 1:40 grade with sufficient area on both sides of the door to enable independent access by wheelchair users, persons with ambulant disabilities and parents with prams, in accordance with AS 1428.1 (2009). See also Section 4.6 below on graded walkway approach to the main entrance off Belmont Road, at the North comer of the development.

Where waterproofing is a concern, thresholds will not exceed 35mm in height, with localised ramping installed at the door with a gradient of 1:8 (maximum length 280mm).

All internal doors will enable independent access by all users, including clear opening widths of not less than 850mm to the operable leaf (minimum 920mm door leaf width) and appropriate circulation space for operation, per AS 1428.1 (2009). This will include all entry doors to all upper floor residential units (to enhance visitability). As noted in Section 4.9, below, all adaptable units will also have suitable circulation clearances required to meet Clause 13 of AS 1428.1 (2009), either from the outset or as part of any future adaptation.

Door hardware and any security measures will be selected and installed to comply with the requirements of AS 1428.1 (2009).

4.4 Internal Paths of Travel

Internal paths of travel will be designed to enable safe and dignified travel by all. Continuous accessible paths of travel will be provided from the car parking area and building entrances to and within each common facility, as well as to the entry doorway of each residence to enhance visitability by people of all abilities.

All common areas of the Class 2 residential development, excluding service and maintenance areas, are considered capable of being accessible, by means compliant accessways, two passenger lifts and complying corridors to upper floors as shown on the plans.

Accessways and corridors will be designed to ensure a 1540mm clear width to allow a wheelchair user to turn. Additional space is provided to the front of the lifts to enable passing of wheelchair users and occupants with prams or luggage.

Finished surfaces, including wall, floor and door finishes will be selected to ensure adequate definition for people with varying degrees of vision impairment, such as minimum 30% luminance contrast between door and door frame, or door frame and adjacent wall. Appropriate visual indication which meets the compliance criteria of AS 1428.1 (2009) will be installed to all frameless or fully glazed doors and sidelights, and any glazing which may be mistaken for a doorway or opening.

4.5 Stairs

The primary means of circulation within the main apartment building will be by passenger lift, which provides access to all floors, including the Basement Levels and building entry foyer off the Belmont Road. The main internal stairs provided will be utilised primarily for emergency egress purposes only. These fire-isolated stairs will only be required to meet the details in the BCA 2013, Clause D3.3 (a)(iii).

All other stairs used for common access and circulation will meet the provisions in Clause 11 of AS 1428.1 (2009), including the provision of suitable handrail detailing to both sides, highlighted nosings and tactile ground surface indicators.

Where appropriate, general communication stairs will be setback a minimum of 400mm from transverse paths of travel to accommodate handrails extensions, without interrupting perpendicular paths of travel.

4.6 Ramps

There is an external 1:14 ramp within the design of the building, which can be accessed from ground floor court yard via second entry point at Northeast corner of the development; the ramp will comply with Clause 10.3 of AS 1428.1(2009) and will include provision for compliant access and circulation, including suitable landing spaces to ensure onward travel.

Internally a 1:14 ramp is proposed, providing access from the entrance foyer at the North corner to the lift lobby, to address a change in level. This ramp will meet the requirements of Clause 10.3 of AS1428.1 (2009).

Ongoing vertical circulation within the main apartment building can then be achieved by passenger lift, as described in Section 4.7, below.

4.7 Lifts

Two passenger lifts are proposed within the development, which service the residential and car parking elements of the development.

The passenger lifts will be provided with minimum internal dimensions of not less than 1400mm (width) x 1600mm (depth).

The lifts will be provided with enhanced features for people with disabilities to meet the parameters of AS 1735.12 (1999), including however not limited to, handrails and tactile and Braille lift landing and car controls.

4.8 Common Facilities

Finished surfaces, including communal facilities and the background to which each is viewed will be selected to ensure adequate definition for people with varying degrees of vision impairment, such as minimum 30% luminance contrast between doors / frames and adjoining wall.

Common facilities will be reviewed to ensure compliance with the BCA 2013. Common facilities, such as garbage and recycling facilities will be designed to enable access for residents on all levels of the development. External fixtures and furniture will be designed against the principles in AS1428.1 (2009) and AS1428.2 (1992).

As noted in Section 4.10 below, public and common facilities will be provided with suitable signage (including directional signage) to enable those not familiar with the building to identify the facilities and their location.

4.9 Sole-Occupancy Units

This development has been designed against the accessibility requirements under the Mosman residential DCP, with the provision of adaptable units at a ratio of 10% to meet Mosman Council guidelines.

On this basis, seven (7) of the 68 residential units (10%) will be designed as 'adaptable units, assessed against the requirements of AS 4299 (1995). The following units have been identified as adaptable units:

- Units 0.08, 2.12, 4.03, 4.05 and 4.07 (1 bed units);
- Units 3.02 and 4.10 (2 bed unit).

Philip Chun Access recommends apartments are designed to enable ease of adaptability by residents in the future, which is likely to enhance the value of the apartments. Adaptability should be assessed to ensure appropriate circulation exists internally to facilitate access to and within at least the main bathroom facility, in addition to, sufficient access to and throughout the master bedroom and kitchen. All fixtures are to be located with consideration to ease of modification in the future, including the location of plumbing and provision of modular joinery units. Detailed guidance is available in AS 4299 (1995).

At a minimum (and to meet BCA 2013) all residential units will be designed to enable access to and through the main entrance with clear opening widths to entrances of not less than 850mm (refer Building Entrances and Internal Doors). The design of vertical circulation and upper floor corridors will enable all residential units to be visitable, which will meet the broader requirements of the BCA.

The location of accessible units will be considered with respect to proposed egress routes (refer Emergency Evacuation in Section 4.11, below), although the nature and design of the apartments should ensure the corridor approaches remain sufficiently safe for use during the early stages of any unit fire, providing additional time to effect an evacuation for all occupants of the building.

The following is identified in support of these adaptable unit designs.

Parking

Section 4.1 above provides detailed feedback on the design of the basement car parking. Three designated car parking bays are proposed, which will exceed the requirements of the Mosman Residential DCP - Objective O7.
An accessible car park is required for every adaptable unit. This will be achieved by providing two conjoined car spaces per adaptable unit, which will have the capability of being converted to an accessible car parking space post-adaptation. Being underground, all car parking bays will be covered and will provide protection from the weather. A level access route is provided to all of the adaptable units, from both the main entrance and the basement parking off the Belmont Road. The basement parking can also be accessed via passenger lifts, providing a compliant accessible path of travel for people with disabilities.

Details of the car parking bay design are identified in Section 4.1, above.

Access to Common Use Areas

This is predominantly addressed in Section 4.8 above, with common facilities and common access routes required for access by those living in the adaptable units being compliant with AS1428.1 (2009) requirements.

Circulation - Lift

Two passenger lifts have been provided to the development. As identified in Section 4.7, access has been provided from the basement car parking through to all upper floor levels, which meets BCA requirements. All the designated adaptable units have compliant access from these lifts.

Entrance and Access to Adaptable Units

All units (including adaptable units) will be designed to enable access to and through the main entrance with clear opening widths to entrances of not less than 850mm and appropriate circulation space per AS 1428.1 (2009) Clause 13.3 (refer also to Section 4.5 above) as part of any post-adapted layout.

In regards to internal doors, each will possess appropriate clear opening width of 820mm, with the door to the proposed post-adapted accessible bathroom meeting AS 1428.1 (2009) requirements with a minimum clear width of 850mm.

A minimum unobstructed width of internal pathways to be 1000mm, except at key doorways where increased space is required to meet the circulation requirements of AS 1428.1 (2009).

Bedroom

The main bedroom within the adaptable units will possess sufficient circulation space to permit movement by a wheelchair user, being not less than 1540mm x 2070mm clear circulation to at least one side and/or base of a queen size bed along with the allowance of a wardrobe unit.

Bathroom

One bathroom within each adaptable unit is sufficient in width and/or length to enable ease of adaptability in the future. Typically, the dimensions provide sufficient circulation space per AS 1428.1 (2009). The WC pan and shower have been located with consideration to current accessibility requirements, ensuring sufficient circulation space with minimal (max. 100mm) encroachment of the washbasin.

Structural support (such as structural ply sheeting) is to be provided at toilet and shower grab rail zones to allow for ease of installation of any future fixings. Where appropriate, a vanity unit can be removed and non-loadbearing walls relocated to enhance circulation as required. Generally, unit bathrooms have been designed with the pan and shower in the appropriate location for compliant circulation space or provision made for easy relocation with sacrificial service provision.

The final detailing of the bathrooms will be further reviewed as part of the building approval process

Laundry

Laundry facilities and joinery will be designed to allow for easy removable or relocation to cater for accessibility in the future, as appropriate; the post adapted location provided allows a clear 1500mm approach to the facility. Any additional sacrificial plumbing services will be included in the pre-adapted layout, to allow easy relocation, as required.

Kitchen

The kitchen facilities have been located and designed to allow simple modification and achieve a minimum circulation of 1540mm between opposing walls, cabinets and appliances to facilitate completion of a 180 degree turn by a wheelchair user. The workbench with the sink located within it is proposed to be potentially relocated as part of the post-adapted arrangement. However provision of water service and

waste pipes will be designed as part of the base building to accommodate any changes that a prospective occupier would wish to make, meeting the principles in AS 4299 (1995).

Outdoor Areas

The width of the outdoor areas to adaptable units is 1540mm or greater which will permit access to these spaces and facilitate completion of a 180 degree turn by a wheelchair user. Internal and external surfaces will be designed and constructed at grade (the maximum change in level between abutting surfaces to be 3mm, or 5mm where edges are rounded or beveled) to enable access by all. Where waterproofing is a concern a maximum threshold of 35mm will be provided, with a 1:8 graded ramp abutting the door (to a maximum length of 280mm). Alternatively, consideration will be given to a raised, permeable external surface, such as decking which will not impede drainage. Any balustrades will be not less than 1000mm in height above the final finished surface to the adaptable units. The door accessing the outside area will possess appropriate clear opening width and circulation space to permit independent operation by a person with a disability.

Visitability

The Building Code of Australia now seeks access to common areas and common facilities. AS 4299 (1995) also has similar objectives to ensure that all residential units on accessible levels are visitable. In this respect all units (including adaptable units) will provide scope for visitors to enter the building and gain access to the entry doors, allowing occupants to meet and provide access to their unit for visitors with a disability, via the compliant access routes throughout the apartment block.

4.10 Way-finding Strategy and Facility Signage

Limited documentation is available at this stage regarding the proposed way-finding strategy for the development.

When development of the designs progress, a comprehensive review of the proposed way-finding strategy will be undertaken and signage package to ensure predictability and consistency of information which facilitates safe, independent and dignified travel by all, particularly on approach to the building externally as well as to the community facilities, which will be on all 5 floors plus 2 basement levels.

The way-finding strategy will be developed with consideration to existing landmarks and visual features of the development, including the use of varied finished surfaces to differentiate areas of each building.

Tactile and Braille signage will be provided to meet the compliance requirements of the BCA and provisions outlined in AS 1428.1 (2009) and AS 1428.2 (1992) including additional signage where deemed appropriate.

4.11 Emergency Evacuation

Limited detail has been provided at this stage regarding the proposed evacuation strategy, including the procedure for the evacuation of individuals with temporary and permanent impairments and high level mobility needs. However the fire compartmented design of the units should allow for common approaches to egress stairs to be sufficiently safe for a temporary period to allow for assistance to enable ongoing evacuation.

This access plan has been prepared at the request of the applicant and does not absolve the applicant and owner of the requirements pursuant of the Disability Discrimination Act 1992 (Cth) and ongoing detailing of the scheme to ensure compliance with statutory requirements and the Mosman DCP requirements.

Philip Chun Access has endeavored to ensure all key aspects of access provision have been addressed and all reasonable attempts have been made to identify the main matters pursuant to the BCA, Premises Standards and DDA, with the information provided at the time of this report. This professional opinion is subject to further assessment of detailed design documentation; to ensure the design principles are adhered to throughout subsequent stages of design and construction.

If you have any queries in regard to the above, please do not hesitate to contact the undersigned.

Yours sincerely,

Juleia Moore
Access Consultant
PHILIP CHUN ACCESS

339 Military Road, Cremorne

CLIENT: CENTURIA PROPETY FUNDS LIMITED

STATUS: DA LANDSCAPE REPORT

ISSUE: E

PRINTED: November 2014

SITE CONTEXT AND OVERVIEW

The site is bordered by Military Road to the north-west, and Belmont Road to the north-east. The south-eastern boundary adjoins the heritage cottage Alma House.

The site is located within the Cremorne Junction Business Centre area, and is currently occupied by an office complex.

The Military Road frontage is exposed to 6 lanes of traffic. The pedestrian experience is somewhat dominated by the presence of vehicles.

The landscape proposal includes upgrades to the surrounding streetscape, building interfaces and provision of internal path networks and common areas. Key landscape issues include relationship of building to street and public domain, enhancing pedestrian amenity, and an internal communal space.

Existing street trees include a mix of species in varying health. In particular, some trees are exhibiting signs of poor health, form, and vigour. This is likely an effect of the planting conditions / tree pit, and the presence of root barriers. Proposed street tree planting should address this poor performance ensuring future trees grow into exemplary specimens. Trees are valuable green infrastructure in urban environments and should be given validity amongst the imperatives of civil, structural, and service engineering. Particularly along Military Road, trees will serve to minimise the heat island effect, enhance passive solar initiatives of buildings, shade pedestrians and vehicles, mask the visual bulk and scale of structures, and maintain the leafy character that is characterised as Mosman. We will achieve these objectives with our proposed landscaping plan.

Mosman Council's Street Tree Master Plan Strategy identifies the following:

- Street trees to be 9m from street intersections;
- Street trees to be located 800mm from services and street signs;
- Military Road to be planted with Eucalyptus sideroxylon;
- Belmont Street to be planted with Banksia integrifolia, and Tristaniopsis laurina.

LEGEND

- Site Boundary
- +E83.20 Existing Levels
- Existing Eucalyptus street trees on Military Road to be retained
- Existing Jacaranda street trees to be retained
- Existing Brushbox to be retained
- Existing Celtis australis to be retained
- Existing Palm Trees to be retained
- Trees to be removed
- Existing planting areas
- Existing clay paving. Belmont Road requires minor repairs.
- Existing courtyard paving
- Existing river pebble to be removed

1. Existing street trees set back 8m from intersection as per council guidelines.
2. Existing tiled pavement
3. Harsh exposed conditions along Military Rd.
4. Existing Lophostemon tree to be removed for proposed driveway entry.
5. 10 x existing palms, and Clivea understorey to be removed.
6. Garden bed with ivy planting and side access via stepping stones.
7. Existing Ctenanthe humilis and Cordyline to be retained.

BATES SMART | turf

Existing Site Plan

SCALE 1:250 @ A3
ISSUE E
DATE 06-11-14

L-DA-3

LEGEND

- Site Boundary
- Carpark Basement Boundary
- +E83.20 Existing Levels
- +P83.20 Proposed Levels
- Existing Trees
- Lawn
- Communal space pavement to compliment lobby pavement
- Secondary pavement to private residences
- Gravel Paving
- Refurbish existing clay pavement to streetscape. Salvage pavers removed for new roadside planting and reuse within site boundary for consistent paving finish
- Timber decking
- Planting areas. Refer detail plans
- DA-? Detail plan references

PROPOSED TREE LEGEND

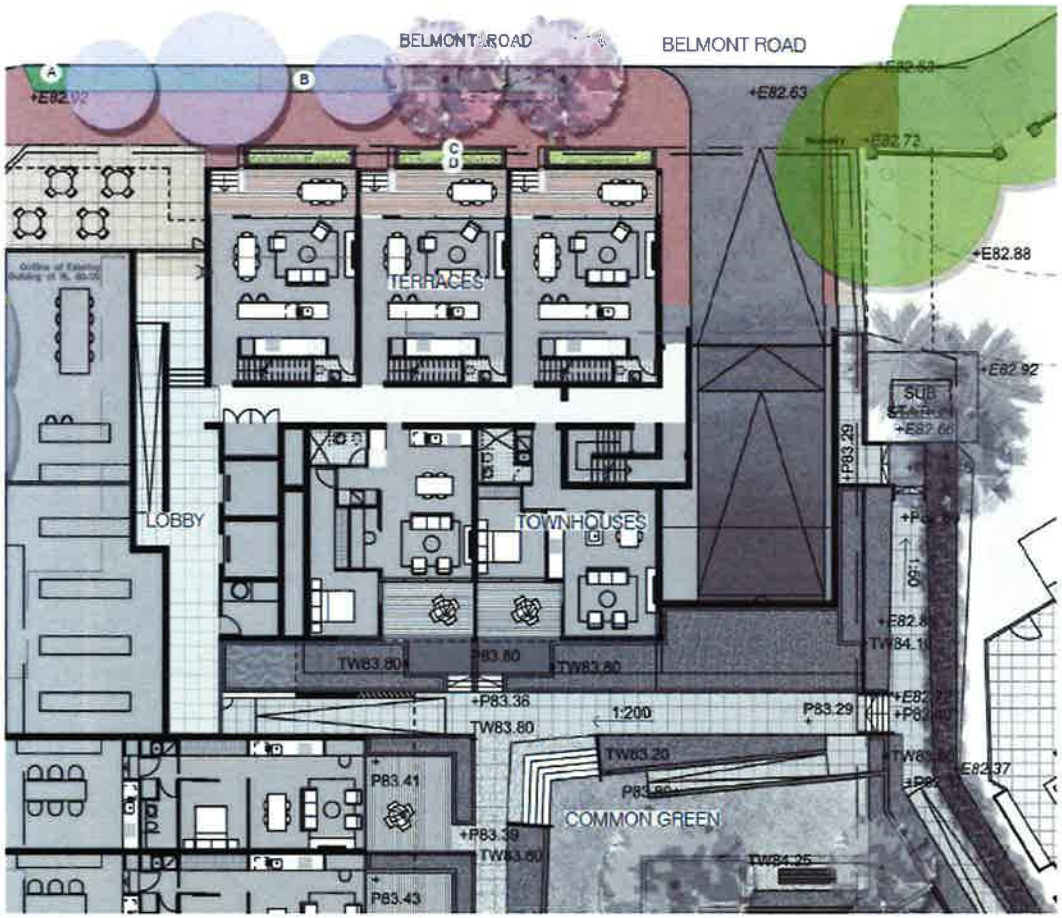
- 2 new Jacaranda's to Belmont Road
- Eucalyptus sideroxylon to Military Road
- New Tristaniopsis laurina 'Luscious' to walkway
- New Scheffera actinophylla to walkway
- New Elaeocarpus eumundii to screen Alma House

BATES SMART | turf

Landscape Plan

SCALE: 1:250 @ A3
ISSUE: E
DATE: 06-11-14

LDA-4



BELMONT ROAD

DESIGN DESCRIPTION

Belmont Road is characterised by large Lophostemon street trees with a decorative corner of three (3) feature Jacaranda trees approaching the intersection of Belmont Road and Military Road. The tree strategy for future Belmont Road envisages a mix of Banksia integrifolia and Jacaranda's street trees. Two (2) Jacaranda's trees are proposed to be planted within the consolidated nature strip.

The terrace frontages each have an open amenity deck space and terrace garden facing out onto Belmont Road. The planting will mediate level difference between the terraces and street.

A climbing vine will be encouraged to grow around the balustrade to bring the garden into the deck space. The shrub species will be 1-2m in height and tolerant of sun exposure. Additional species will spill out over the edge of the retaining wall to soften the architecture to street interface.

TREE LEGEND

Existing Jacaranda Street Trees to be retained

Existing Brushbox Street Tree to be retained

2 new Jacaranda's to Belmont Road

PROPOSED UNDERSTOREY PLANTING

Planting along Belmont Road edge e.g:

A *Liriope gigantea 'Evergreen Giant'.*

B *Lomandra Tanika.*

Screen plants to terraces along Belmont Road e.g:

C *Buxus microphylla 'Microphylla'.*

D *Trachelospermum jasminoides.*

Belmont Rd Street Tree.

Jacaranda c

Planting along Belmont Rd edge.

Liriope gigantea 'Evergreen Giant' Lomandra 'Tanika'

Screen plants to front of terraces along Belmont Road.

Trachelospermum jasminoides Buxus microphylla 'Microphylla'

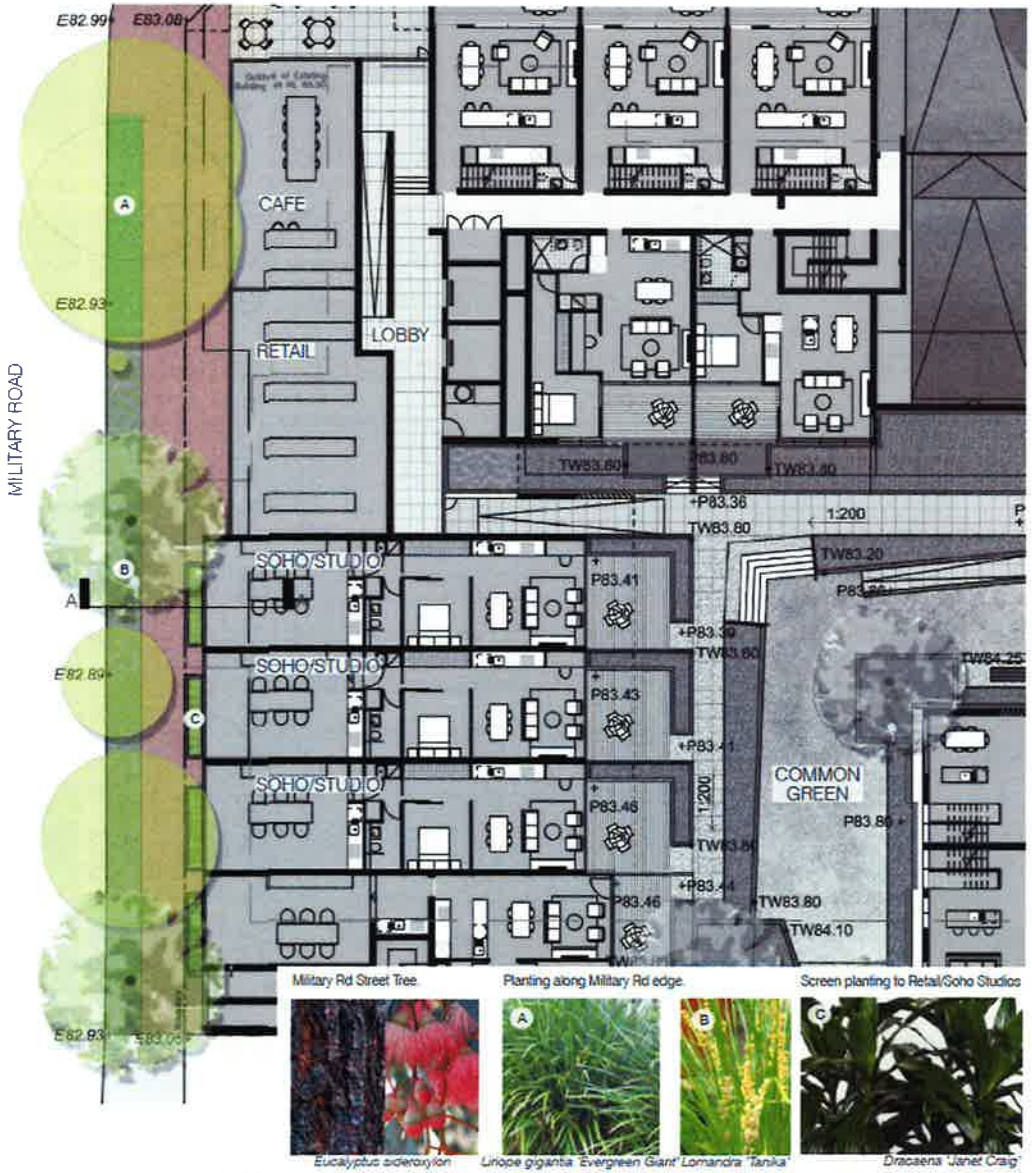
BATESSMART.

turf

Detail Plan

SCALE 1:200 @ A3
ISSUE E
DATE 05-11-14

LDA-5



MILITARY ROAD

DESIGN DESCRIPTION

An edge of continuous nature strip will provide a sense of separation along the north-western boundary from Military Road. Additional Eucalyptus sideroxylon street trees will reinforce the council tree planting strategy to define the character of Military Road.

The proposed ground floor retail and Soho/Studio spaces have large glazed frontages onto Military Road. A segmented line of ground planting to the boundary edge will delineate the corridor of entry spaces.

As the upper level overhangs the ground level, the limited light conditions have been considered. Species tolerant of shade will be required. Additionally, irrigation is provided to ensure adequate available moisture beyond drifting rain. The recommended species will have an upright lush nature that will provide a screen of foliage.

Maintenance of these planters will be provided via an access path in the shade as a decorative gravel garden behind the planter.

TREE LEGEND

Existing Eucalyptus sideroxylon Street Trees to be retained

Eucalyptus sideroxylon to Military Road

PROPOSED UNDERSTOREY PLANTING

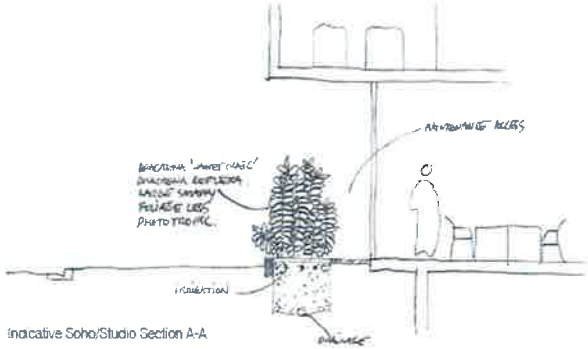
Planting along Military Road edge e.g:

A *Liriope gigantia 'Evergreen Giant'*.

B *Lomandra Tanika*.

Screen planting to Retail/Soho Studios with decorative gravel garden for maintenance access e.g:

C *Dracaena 'Janet Craig'*.



Indicative Soho/Studio Section A-A

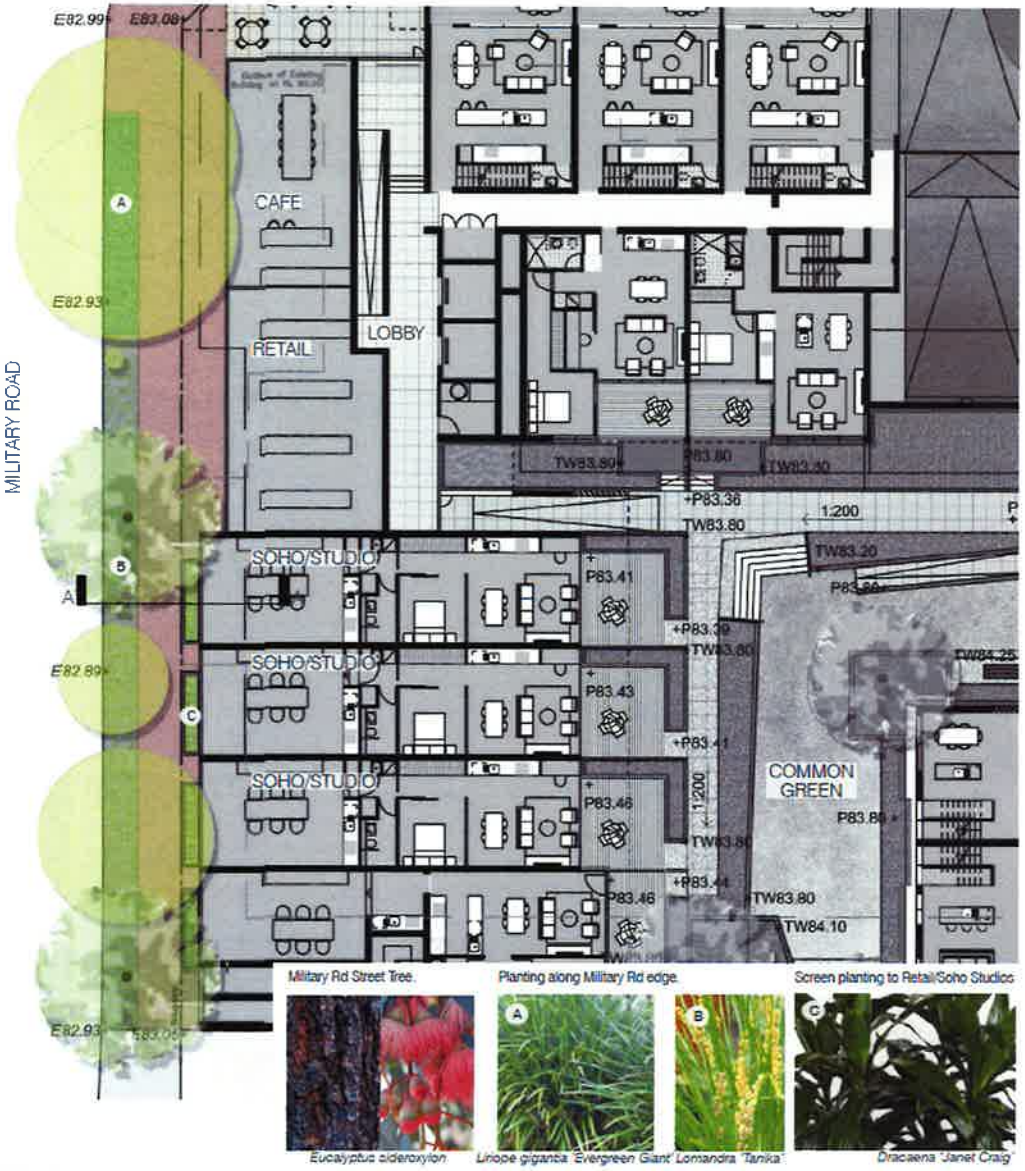
BATESSMART

turf

Detail Plan

SCALE: 1:200 @ A3
ISSUE: E
DATE: 05-11-14

LDA-6



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Maintenance of these planters will be provided via an access path in the shade as a decorative gravel garden behind the planter.

TREE LEGEND

Existing Eucalyptus sideroxylon Street Trees to be retained

Eucalyptus sideroxylon to Military Road

PROPOSED UNDERSTOREY PLANTING

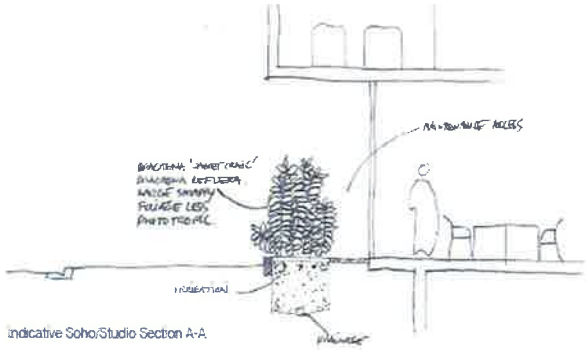
Planting along Military Road edge e.g.

A *Liriope gigantia 'Evergreen Giant'*,

B *Lomandra Tanika*.

Screen planting to Retail/Soho Studios with decorative gravel garden for maintenance access e.g:

C *Dracaena 'Janet Craig'*.



Indicative Soho/Studio Section A-A

BATESSMART turf

Detail Plan

SCALE 1:200 @ A3
ISSUE E
DATE 06-11-14

LDA-6

COMMUNAL COURTYARD

DESIGN DESCRIPTION

The communal courtyard provides communal open space for residents. An open lawn is accessed via stairs and a paved walkway. Benches are provided for a quiet retreat.

Perimeter planters will mask views into adjacent private courtyards and apartment windows.

Raised planters at tree locations ensure adequate soil volume for healthy tree growth.

TREE LEGEND

Feature Trees (flowering) to cluster around the southern pocket of the Common Green for shade of the more private communal seating areas.

PROPOSED UNDERSTOREY PLANTING

Screen planting in front of private residences to common areas e.g:

- A *Hymenosporum 'Gold Nugget'*,
- B *Linope 'Gigantia'*,
- C *Hibbertia scandens*,
- D *Westringia 'Mundi'*,
- E *Dianella 'Border Gold'*,
- F *Syzygium smithii 'Rheophytic Race'*.

Lower planting to screen retaining wall e.g:

- G Epyphitic bromeliads

Shade tolerant planting for indoor lobby e.g:

- H *Aspidistra elatior, Chlorophytum spp.*

Common Green feature flowering trees.

Brachychiton acerifolius *Jacaranda mimosifolia* *Robinia pseudoacacia*

Screen planting in front of private residences to common areas.

Hymenosporum 'Gold Nugget' *Linope 'Gigantia'* *Hibbertia scandens*

Westringia 'Mundi' *Dianella 'Border Gold'* *Syzygium smithii 'Rheophytic Race'*

Lower planting to screen retaining wall.

Epyphitic bromeliads

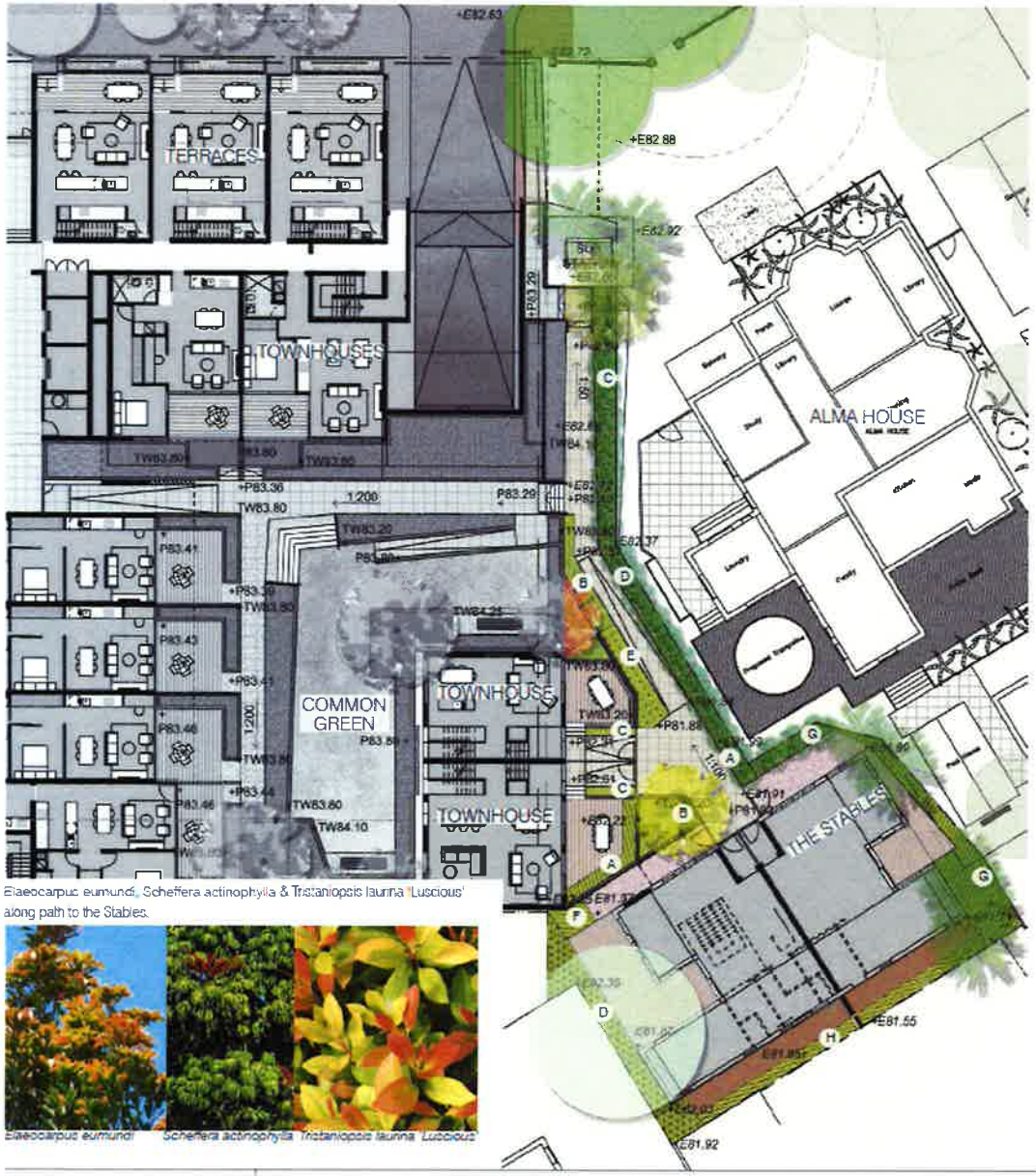
Shade tolerant planting for indoor lobby.

Aspidistra elatior *Chlorophytum spp.*

BATESSMART. turf

SCALE 1:200 @ A3
ISSUE E
DATE 05-11-14

LDA-7



Elaeocarpus eumundi, Scheffera actinophylla & Tristaniopsis laurina 'Luscious' along path to the Stables.

Elaeocarpus eumundi Scheffera actinophylla Tristaniopsis laurina 'Luscious'

SOUTHERN ACCESS AND THE STABLES

DESIGN DESCRIPTION

The southern access walkway to the Stables will feature a lower lush walkway with an avenue of striking mature Elaeocarpus eumundi to mask the development from Alma House. The understorey planting will be characterised by flowering species to offer visual cues as one proceeds through the walkway.

The planting treatment around The Stables will be well established to provide screening to private open space amenity. Plant species will be chosen by sun and shade tolerant characteristics to suitable garden beds.

A number of trees and plants will be transplanted for reuse within the design.

TREE LEGEND

- Existing Brushbox Street Tree to be retained
- Existing Acer negundo to be retained
- Existing Celtis australis to be retained
- Existing Palm Trees to be retained
- Elaeocarpus eumundi (Screening)
- New Tristaniopsis laurina 'Luscious' to walkway
- New Scheffera actinophylla to walkway

PROPOSED UNDERSTOREY PLANTING

Small shrubs and groundcovers to define movement through walkway to the Stables e.g.:

A *Rhapis excelsa,*
B *Cordyline stricta,*
C *Cordyline 'Glauca',*
D *Ctenante humilis,*
E *Chamaedorea atroviren,*
F *Clivia miniata,*
G *Philodendron xanadu,*
H *Trachelospermum jasminoides.*

Small shrubs and groundcovers to define movement through walkway to the Stables.

Rhapis excelsa *Cordyline stricta* *Cordyline 'Glauca'* *Ctenante humilis* *Chamaedorea atroviren*

Clivia miniata *Philodendron xanadu* *Trachelospermum jasminoides*

BATES SMART | turf

Detail Plan

SCALE: 1:250 @ A2
ISSUE: E
DATE: 05.11.14

L-DA-8

SUPPLEMENTARY EXPERT OPINION
SEPP 65 AMENITY COMPLIANCE
SOLAR ACCESS

Development Application No. 8.2014.162.1 for a mixed use development at premises: 339 Military Road, Mosman

10 November 2014

1.0 PRELIMINARIES

1.1 I provided an expert opinion report dated 18 August 2014, relating to **solar access and natural ventilation** compliance with relevant local controls, and with the Residential Flat Design Code (RFDC) as it gives effect to the Amenity provisions of SEPP65, for the proposed residential flat building at 339 Military Road, Mosman.

1.2 I respond to Council's letter of 31 October 2014, Reference: 8.2014.162.1 – Sarah Winnacott/SHW – Mosman Council.

2.0 MATTERS RAISED

Refer to page 1 of Council's letter:

6. **Solar access**. Clarification is required from Steven King in relation to the following matters:

- How units 4.02, 4.04, 4.06, 4.11 and 4.12 will achieve 3 hours of solar access when at no time between the 9am-3pm in the View from the Sun Diagrams do they appear in sunlight and given the POS areas are fully roofed;

Clarification:

1. Units 4.02, 4.04, 4.06, 4.11 and 4.12 have **skylights over living areas** *shown on the plans (albeit not marked on the 3-D digital model)*. The skylights provide for appropriate solar access to interior space from before 9 AM to after 4 PM June 21.

   It is conventionally accepted that solar access for amenity may be provided by optically clear skylights. In this instance, it is proposed that such skylights also be operable, to be employed for cross ventilation of the relevant units.

2. The comment was valid in relation to fully roofed verandas. The verandas of these units are now to be roofed by 'Vergola' style adjustable louvres, which give the occupants full choice to admit sun to the POS.

- How the private open space areas on the eastern side of unit 0.14(The Stables) will achieve 3hr of solar access;

Clarification:

1. The private open space of unit 0.14 includes a timber deck to the north side of the principal living area. This deck will receive full direct sun at floor level from before 11 AM to after 1:30 PM (over two hours).

- How either of the townhouses (0.11 and 0.12) achieve 3 hours of solar access to either their POS or living rooms having regard to the shadow cast from the residential flat building.

Clarification:

STEVE KING
CONSULTANT ARCHITECT
11 Clovelly Road Randwick NSW 2031 Australia
PHONE 0414385485

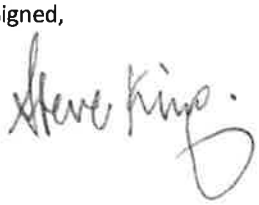
1. Townhouses 0.11 and 0.12 both have oversize skylights over their open staircases, bringing direct and reflected sun into the interior from before 9 AM till approximately 1 PM. Unit 0.12 has the additional benefit of 1.5 hours of direct sun to conventional glazing from approximately 11:15 AM.

   Given the role of winter solar access as controlled by instruments other than SEPP BASIX, is limited to 'general amenity', I consider these interiors to be suitably served by the proposed arrangement.

2. Unit 0.12 has sun on June 21 to private open space for approximately one hour at ground level. It is acknowledged that on June 21 both townhouses' POS is substantially overshadowed by the proposed main building which forms the perimeter block to Military Road.

In my considered opinion solar access amenity compliance with the RFDC may be considered to be satisfied on this site. I form that opinion on the basis that individual apartments are considered primarily with respect to whether they receive direct sun to glazing for a minimum period appropriate to high density development, and that only a very small minority of those apartments may not achieve the same duration of direct sun to private open space.

Signed,



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Steve King