A02 **Environmental Controls Character Precedents** A03 Interior Precedents A04 Site Plan A05 Lower Ground Floor Plan A06 A07 Ground Floor Plan A08 First Floor Plan A09 Elevations A10 Elevations Detailed Plan - Unit 1 A11 Detailed Plan - Unit 4 A12 Detail Plan - Unit 5 A13 Detailed Plan - Unit 8 A14 A15 Site Coverage A16 Aerial View A17 Materials Board A18 Waterfront Apartments A19 Unit 1 View to Water A20 Unit 3 View to Water Front Entry View A21 A22 View into Unit 7 A23 Unit 7 View to Water A24 SEPP HSPD Compliance Table A25 Location Plan

Height Limit View - 8.5m

Existing Site Plan

A01



CRYSTAL BAY APARTMENTS

CONCEPT DESIGN

Crystal Apartments Pty Ltd

July 2017

A26

2 & 4 Nooal Street& 66 Bardo Road, Newport



139 PALMGROVE ROAD
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Plan - Existing Site
1:500

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No.	Revision Description	Date
Α	Concept Design Issue	30.03.15
D	Revised Concept Design	30.05.17
F	Revised Concept Design	26.07.17
G	Revised Concept Design	22.08.17

CRYSTAL BAY
APARTMENTS
Crystal Apartments Pty Ltd

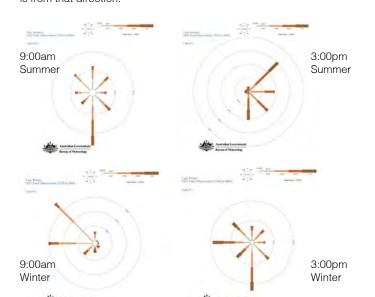
Existing Site Plan			
Project number	1503	Checked by	RC
Date	July 2017	Scale	1 : 500
Drawn by	RC		A01

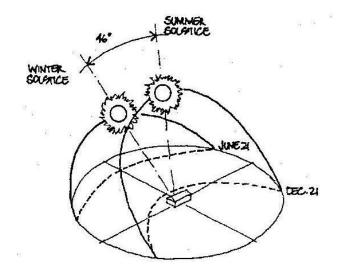
WIND ROSE

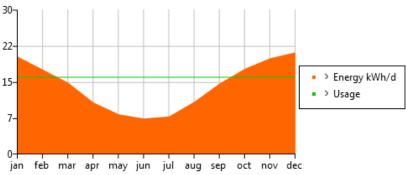
160

120

The arrows indicate the frequency of the wind direction with the longest arrows being the most frequent. The percentages indicate the amount of time the wind is from that direction.

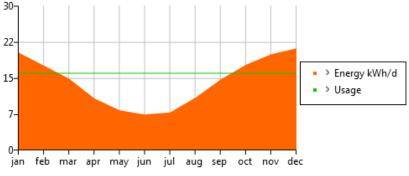






System specifications	grid connect solar inverter 18 x 175W solar panels
Warranty on Solar Panels	25 years
System annual output ^	> 4.698 MWh per year
	> 117.45 MWh over warranty period
	> 187.92 MWh over solar panel expected lifetime
Greenhouse gas emission reduction []	> 6107.4 kg per year
	> 152685 kg over warranty period
	> 244296 kg over solar panel expected lifetime
Expected annual energy consumption after install	1142 kWh per year
Energy consumption reduction	80.45%
Approximate cost (including installation)	Use our instant online quoting system. The tool will open in a new window in case you need to refer back to this page
Government rebate(s) available	Up to 9,000.00 Solar Credits AUD 2,700.00 RECs

3 kW grid connected solar power system Solar Electric Grid System Output



ENVIRONMENT AND ENERGY

Energy Conservation

Passive

The new apartment building has been designed to take advantage of passive solar heating and cooling. The apartments will open to the north and provide thermal mass for direct gain benefits. The construction is insulated cavity brickwork which is efficient in terms of moderating temperature extremes, retaining heat in winter and remaining cool in summer. The design features cross-ventilation to all spaces.

The design of highlight glazing increases sun penetration into the rear upper level apartments. High performance glass will be incorporated to insulate glazed areas during winter nights.

Active

Solar Panels

Six by 3.0 kilowatt photovoltaic solar systems with mains linked inverters can be incorporated into the design. Each system could incorporate 12 x 250 watt solar panels which would be oriented to the north or west. This system would produce 80% of the average Australian houshold energy usage and reduce greenhouse gases by 6 tonnes per year.

Heating

A gas boosted evacuated tube solar hydronic heating system would be provided for efficient hot water, space and pool heating.

Cooling

An efficient packaged unit air conditioning system will be provided to bedrooms and living

Solar Hot Water

The design will incorporate gas boosted solar hot water systems integrated with the hydronic system.

Water Conservation

Roof water runoff will be collected on site for reuse and connected to rainwater tanks with mains diversion pumps. Water efficient fixtures and fittings will be provided.

Water and sewerage treatment

The building will be connected to the reticulated mains sewer system.

Landscape Design

A landscape plan which utilizes locally endemic and drought resistant species will be integrated with the design. Existing stret trees will be retained.



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CRYSTAL BAY APARTMENTS

Environmental Controls			
Project number	1503	Checked by	RC
Date	July 2017	Scale	
Drawn by	RC		A02





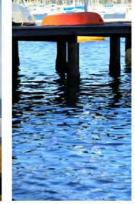


































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CRYSTAL BAY APARTMENTS

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Project number	1503	Checked by	RC	
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Drawn by	RC		A03	

































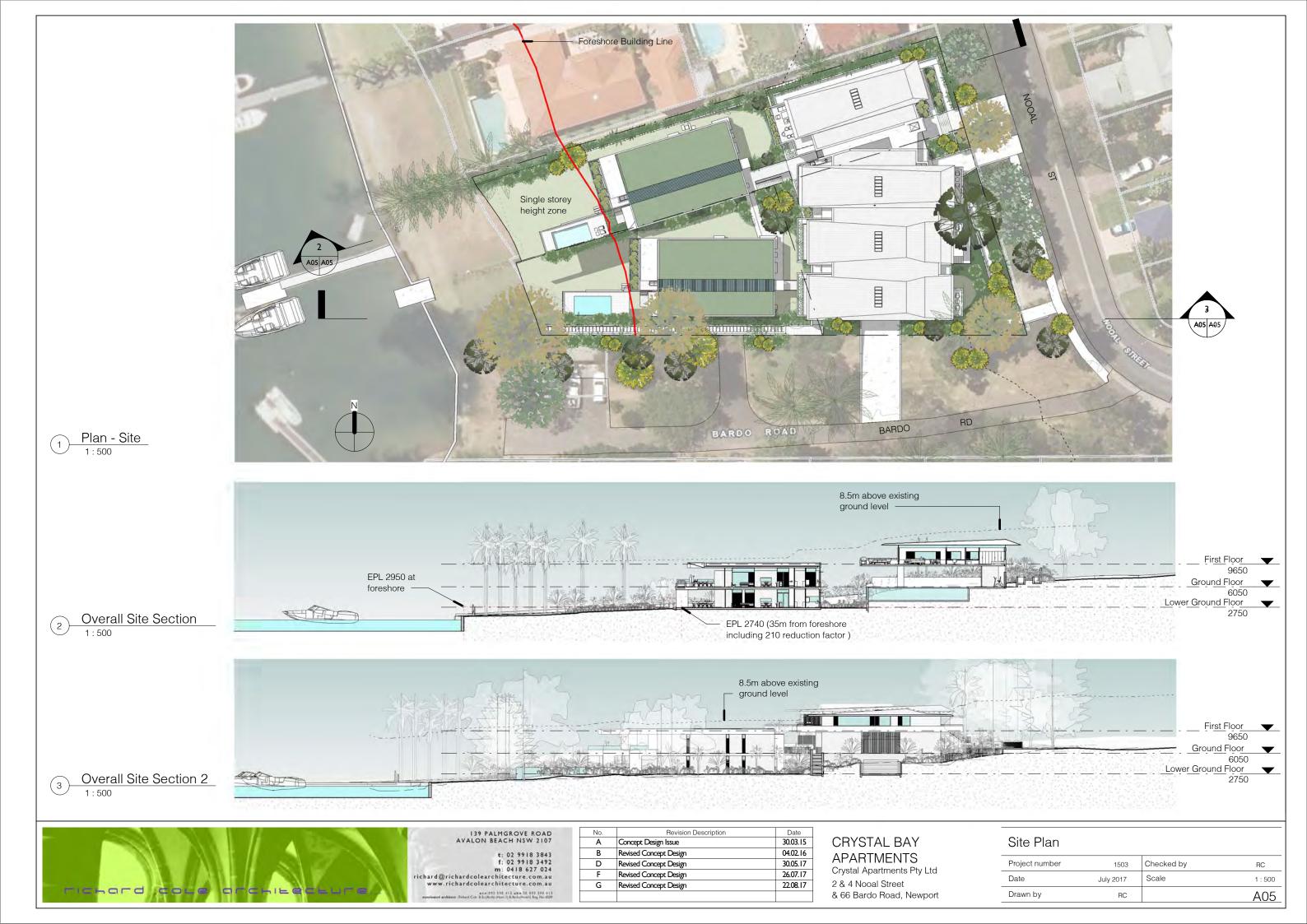
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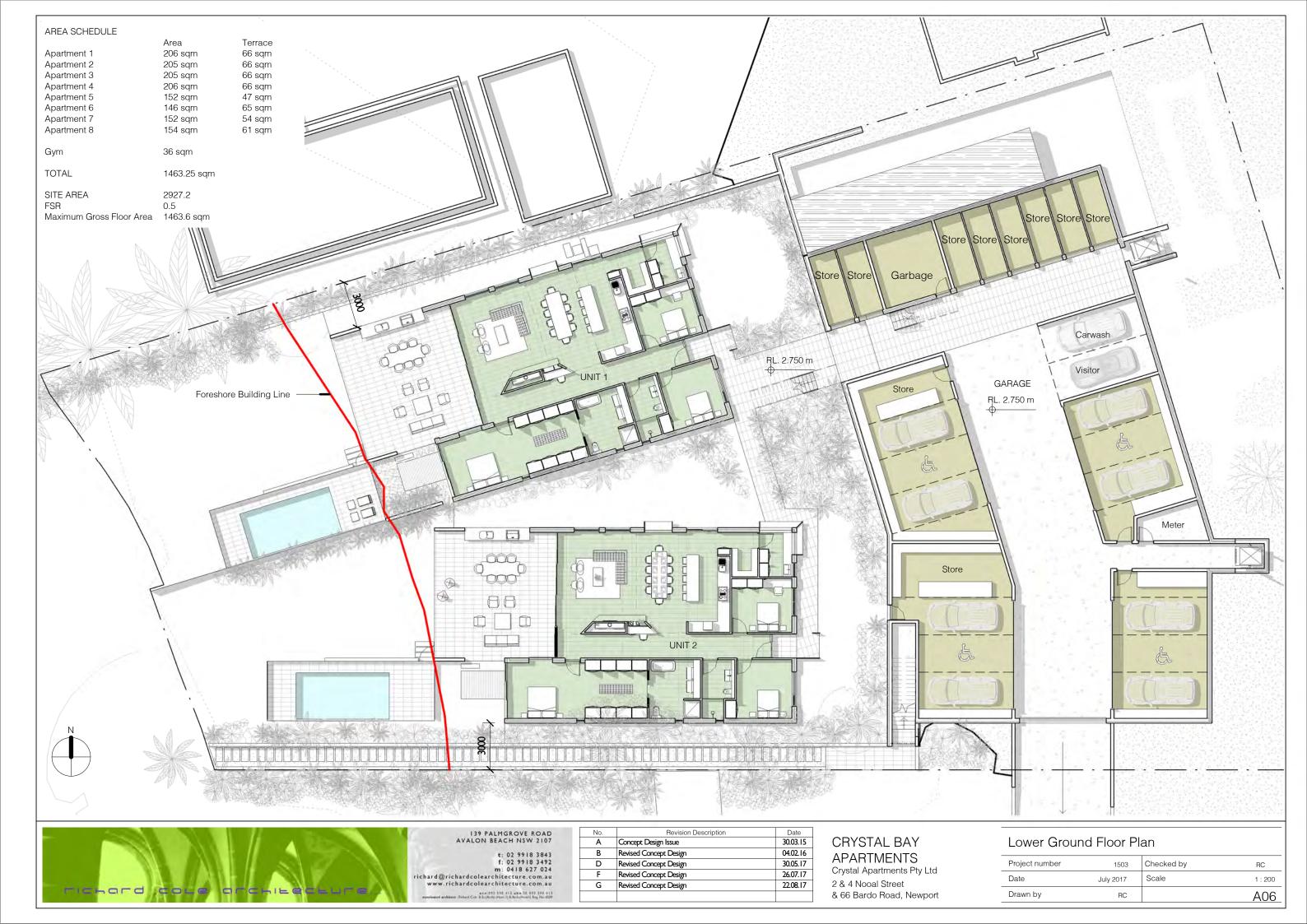
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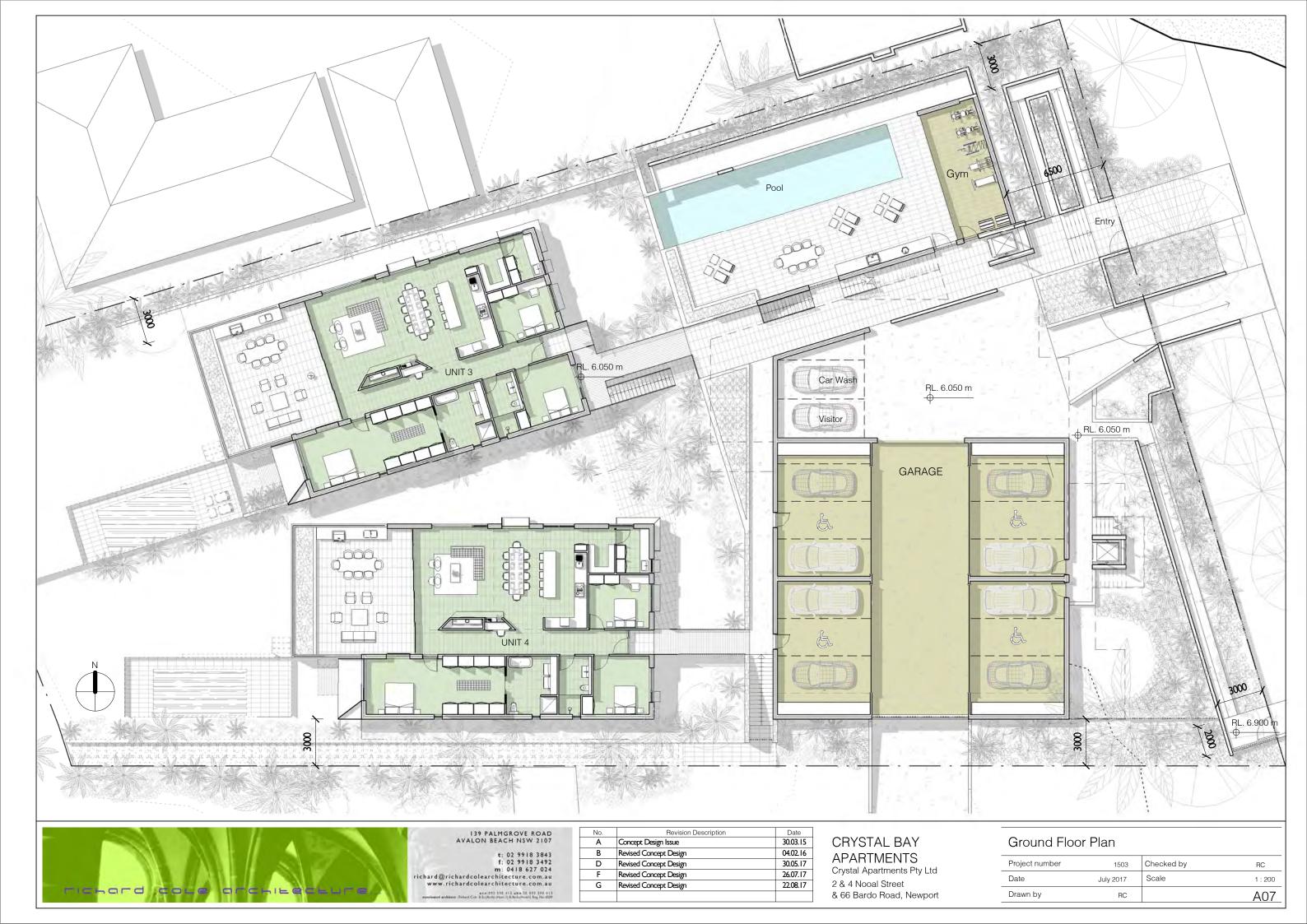
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CRYSTAL BAY

Interior Prec	Interior Precedents			
Project number	1503	Checked by	RC	
Date	July 2017	Scale		
Drawn by	RC		A04	















2 West Elevation
1:200



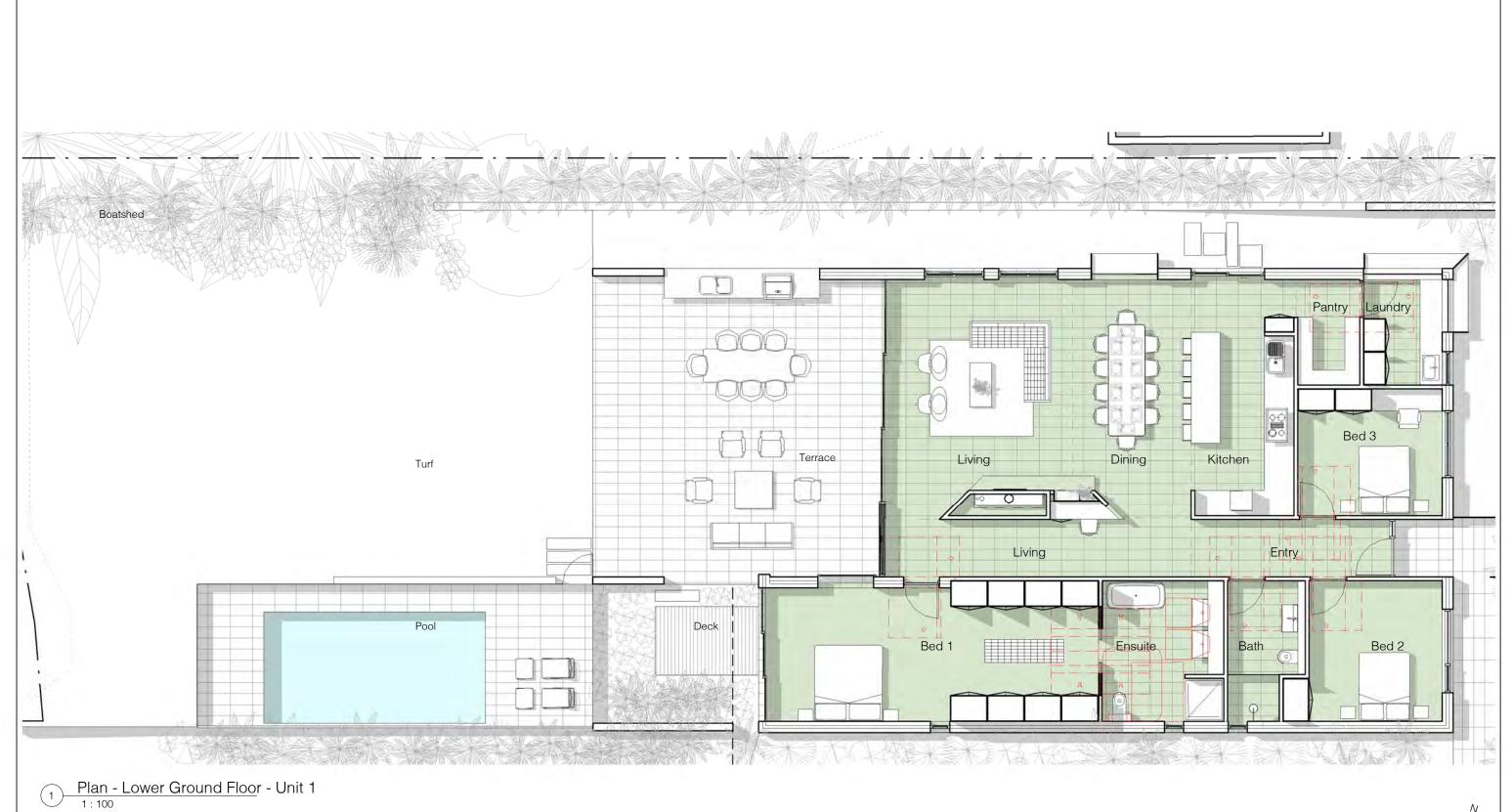
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CRYSTAL BAY APARTMENTS

Elevations			
Project number	1503	Checked by	RC
Date	July 2017	Scale	1 : 200
Drawn by	RC		Δ10





0 0.5m 1.0m 1.5m 2.0m 2.5m

1:50 @ A1, 1:100 @ A3



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CRYSTAL BAY
APARTMENTS
Crystal Apartments Pty Ltd
2 & 4 Nooal Street

& 66 Bardo Road, Newport

Detailed Pla	n - Unit 1			
Project number	1503	Checked by	RC	
Date	July 2017	Scale	1 : 100	
Drawn by	RC		A11	



Plan - Ground Floor - Unit 4



0 0.5m 1.0m 1.5m 2.0m 2.5m

1:50 @ A1, 1:100 @ A3

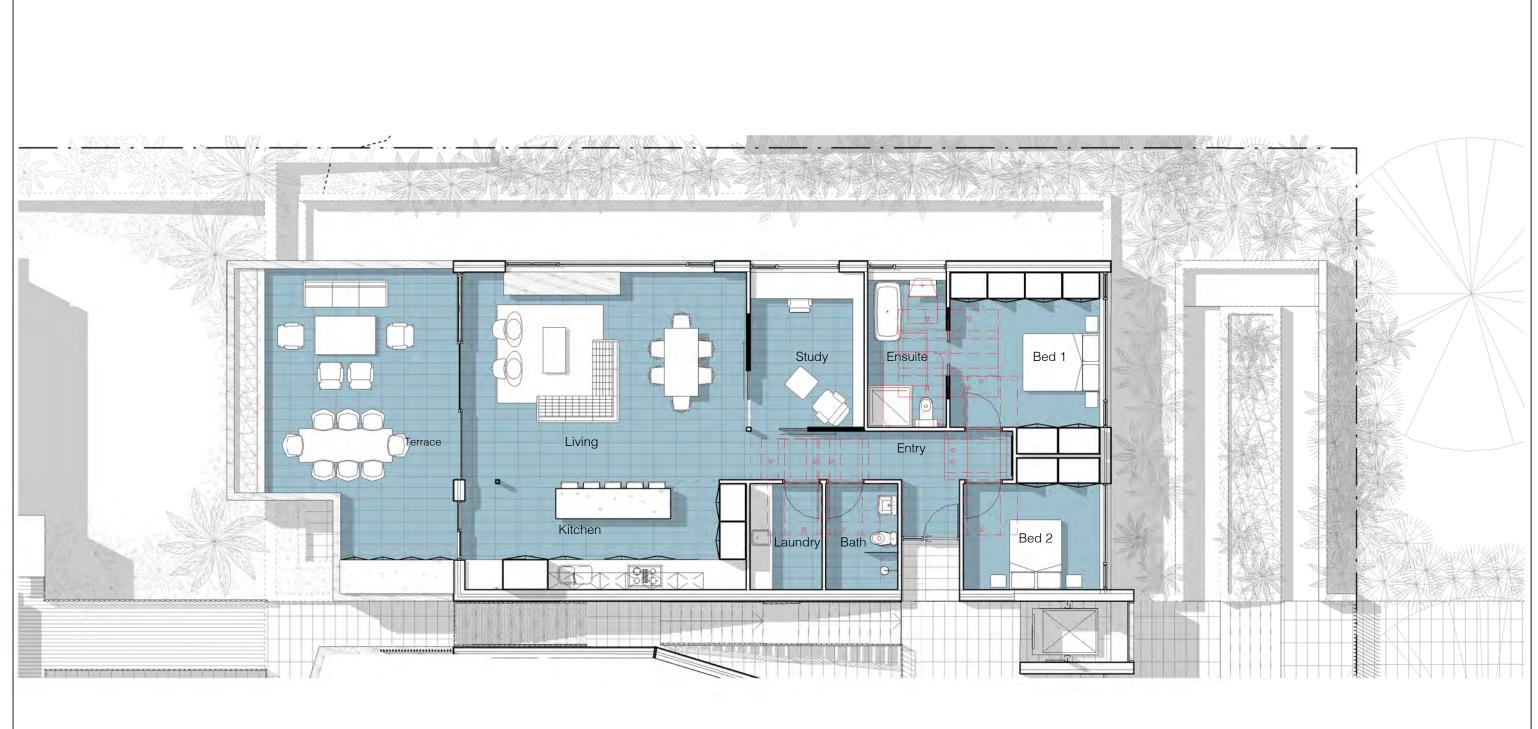


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CRYSTAL BAY APARTMENTS
Crystal Apartments Pty Ltd 2 & 4 Nooal Street

& 66 Bardo Road, Newport

Detailed Pla	n - Unit 4		
Project number	1503	Checked by	RC
Date	July 2017	Scale	1 : 100
Drawn by	RC		A12



Plan - First Floor - Unit 5



RC

1:100

A13

0 0.5m 1.0m 1.5m 2.0m 2.5m

1:50 @ A1, 1:100 @ A3



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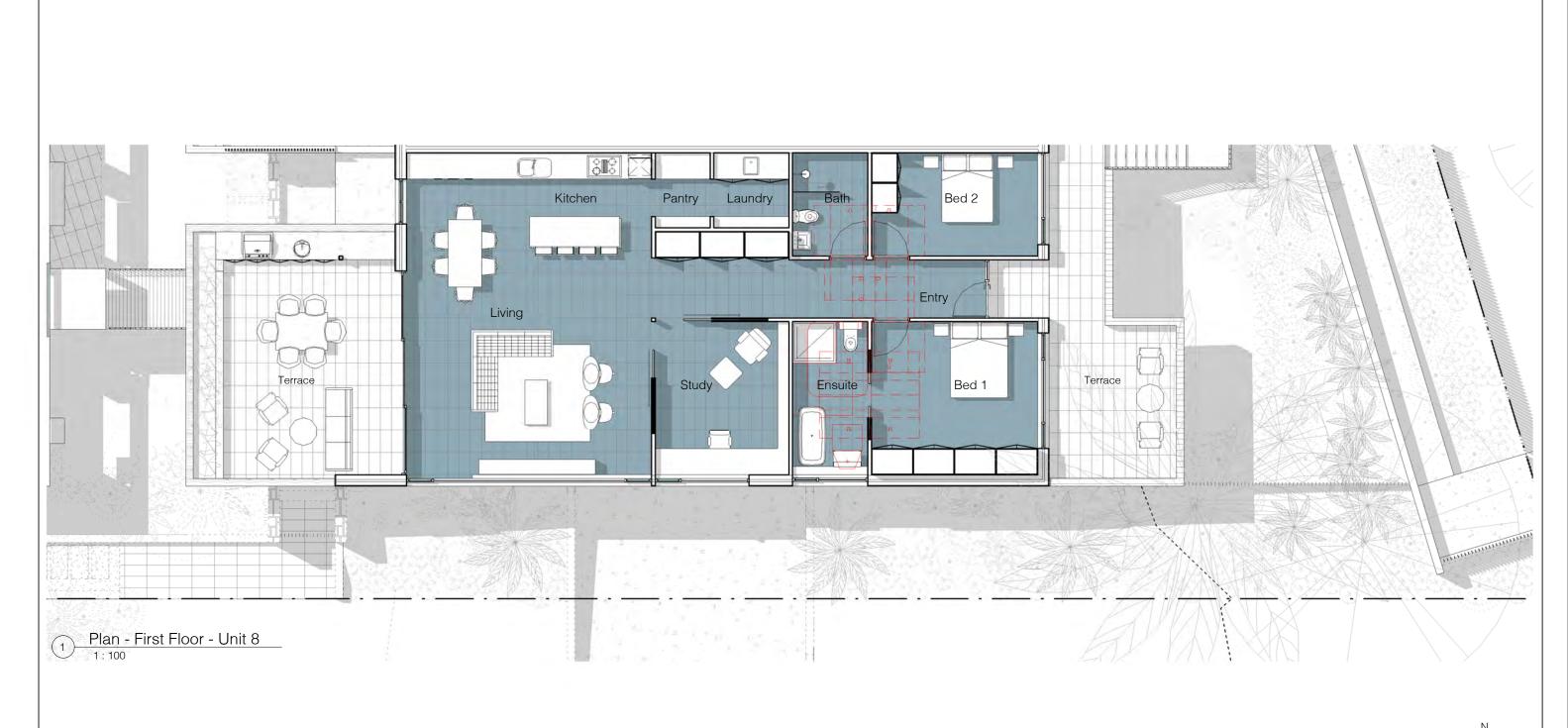
CRYSTAL BAY APARTMENTS

Crystal Apartments Pty Ltd 2 & 4 Nooal Street & 66 Bardo Road, Newport

Detail Plan - Unit 5			
Project number 1503		Checked by	
Date	July 2017	Scale	

RC

Drawn by





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1:50 @ A1, 1:100 @ A3

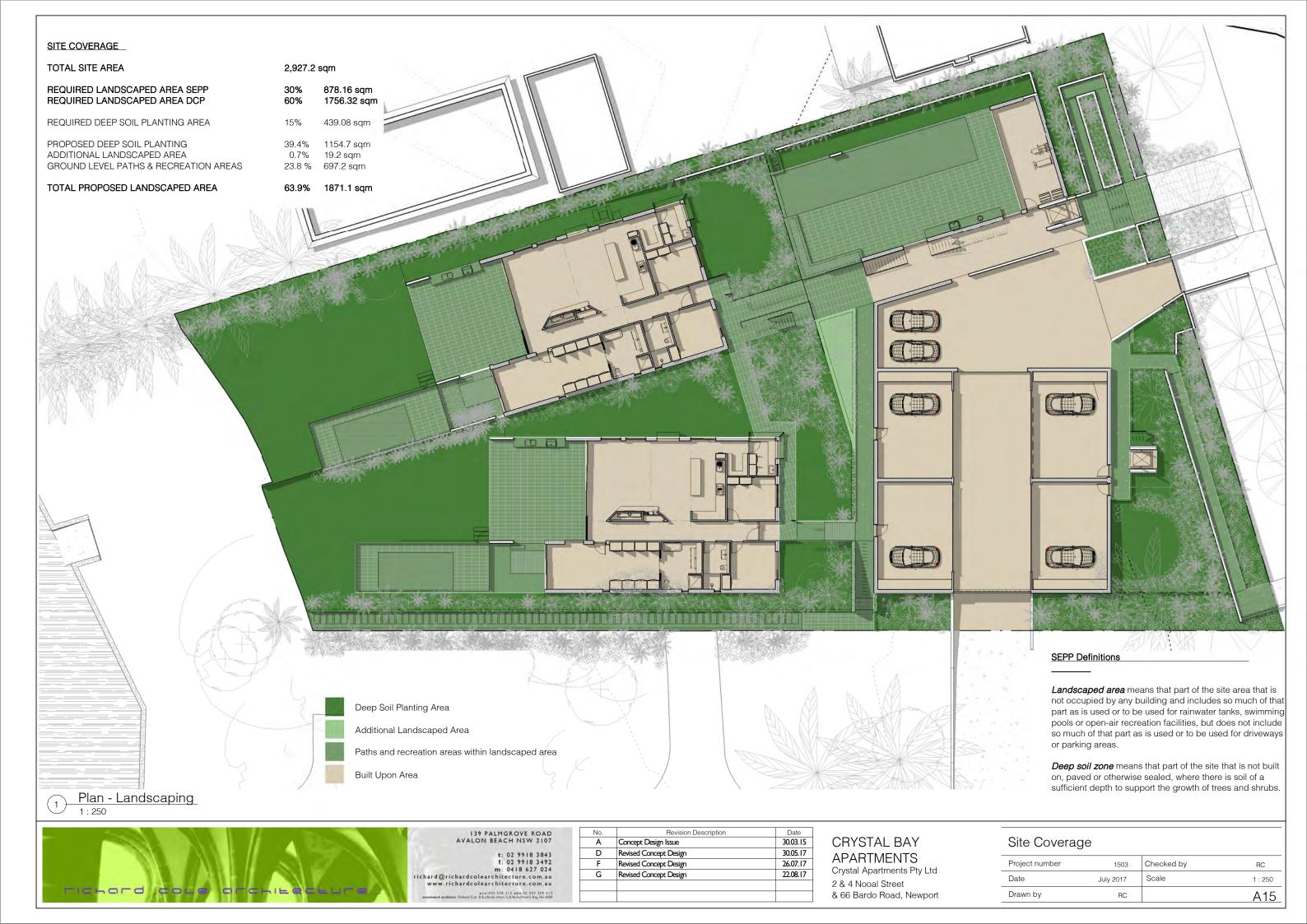
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CRYSTAL BAY APARTMENTS

Detailed Pla	n - Unit 8		
Project number	1503	Checked by	RC
Date	July 2017	Scale	1 : 100
Drawn by	RC		A14







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	No.	Revision Description	Date
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CRYSTAL BAY APARTMENTS

Aerial View			
Project number	1503	Checked by	RC
Date	July 2017	Scale	1:1
Drawn by	RC		A16

TIMBER SCREENS

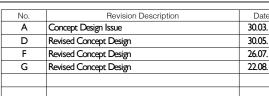
OFF FORM CONCRETE CEILINGS WITH EXPRESSED JOINTS



COPPER CLADDING

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WHITE PAINTED BRICKWORK



Date 30.03.15 30.05.17 26.07.17 22.08.17

DARK GLAZED BRICKWORK

CRYSTAL BAY APARTMENTS
Crystal Apartments Pty Ltd 2 & 4 Nooal Street & 66 Bardo Road, Newport

Materials Board Project number 1503 Checked by RC Date Scale July 2017 Drawn by RC A17

ROOFING

OFF FORM CONCRETE

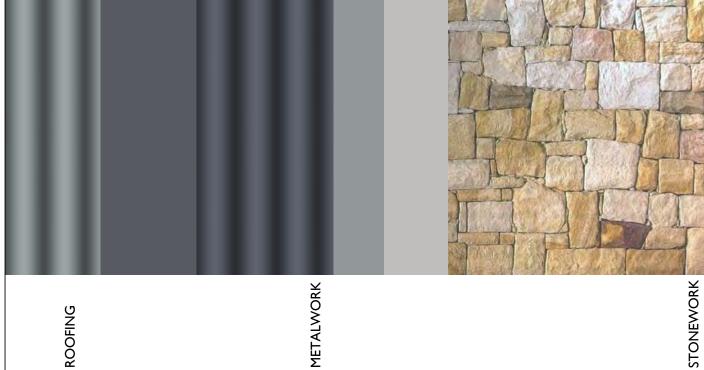
PAINTED TIMBER CEILINGS

STONE FLOORS

ALUMINIUM WINDOWS

FRAMELESS GLASS BALUSTRADES





STONEWORK





FIBRE CEMENT CLADDING





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CRYSTAL BAY APARTMENTS

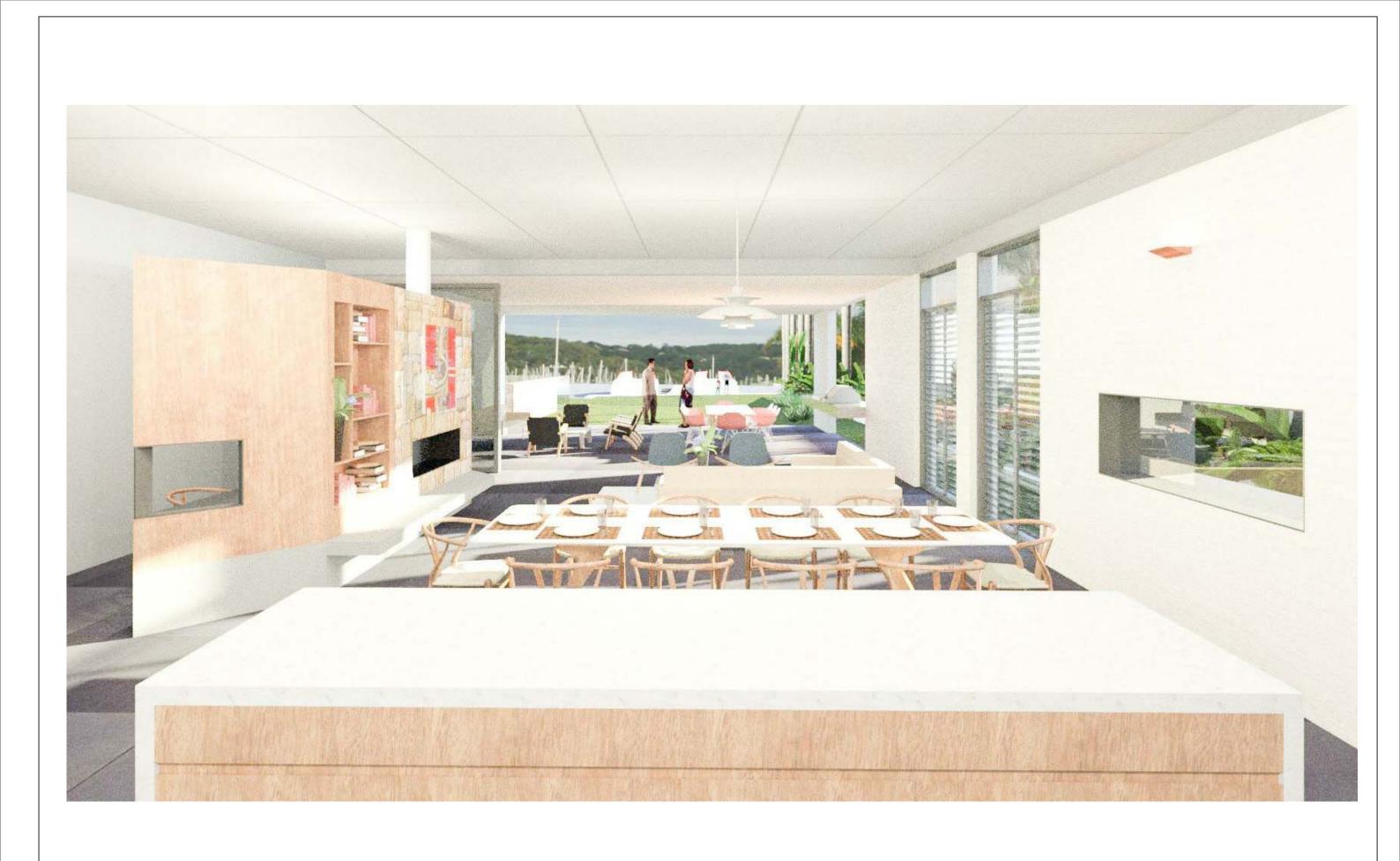
APARTMENTS
Crystal Apartments Pty Ltd
2 & 4 Nooal Street
& 66 Bardo Road, Newport

Waterfront Aparti	ments	
Project number	1503	Checked by

 Project number
 1503
 Checked by
 RC

 Date
 July 2017
 Scale

 Drawn by
 RC
 A18





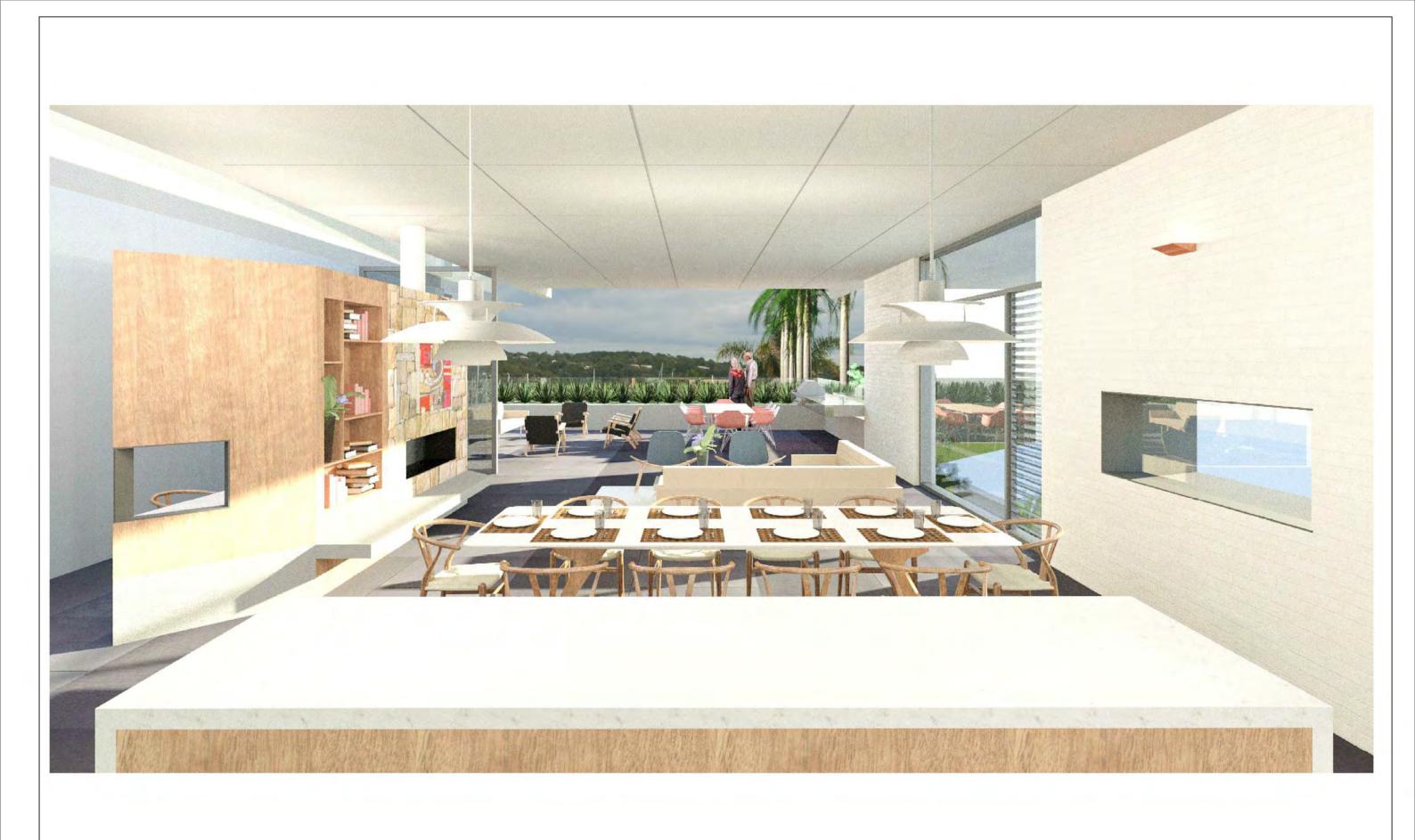
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No.	Revision Description	Date
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D	Revised Concept Design	30.05.17
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G	Revised Concept Design	22.08.17

CRYSTAL BAY

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Project number	1503	Checked by	RC
Date	July 2017	Scale	
Drawn by	RC		A19





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F	Revised Concept Design	26.07.17
G	Revised Concept Design	22.08.17

CRYSTAL BAY APARTMENTS

Init 3	View.	to	Water	
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Project number	1503	Checked by	RC
Date	July 2017	Scale	1:1
Drawn by	RC		A20





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CRYSTAL BAY APARTMENTS

ront	Entr.	Viou
TOTIL	Entry	VIEW

Project number	1503	Checked by	RC
Date	July 2017	Scale	1:1
Drawn by	RC		A21





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naminated architect: Biolact Cale Bio(Arch) (Host 1) B.Arch(Host) Reg. No 6309

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G	Revised Concept Design	22.08.17

CRYSTAL BAY

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Project number	1503	Checked by	RC
Date	July 2017	Scale	
Drawn by	RC		A22





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nominated architect (Richard Code B.S.(Arch) (Heni J) B.Arch(Heni) Reg. No 6300

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CRYSTAL BAY

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Project number	1503	Checked by	RC
Date	July 2017	Scale	
Drawn by	RC		A23

BUILDING HEIGHT SEPP STANDARD: if all proposed buildings are 8 metres or less in height (and regardless of any other standard specified by another environmental planning instrument development to 2 storeys) UNIT 1 - COMPLIES UNIT 2 - COMPLIES UNIT 3 - COMPLIES UNIT 4 - COMPLIES UNIT 5 - COMPLIES **UNIT 6 - COMPLIES** UNIT 7 - COMPLIES UNIT 8 - COMPLIES **COMPLIES DENSITY AND SCALE** SEPP STANDARD: ratio is 0.5:1 or less

8.5 metres or less in height
UNIT 1 - COMPLIES UNIT 2 - COMPLIES UNIT 3 - COMPLIES UNIT 4 - COMPLIES UNIT 5 - COMPLIES UNIT 6 - COMPLIES UNIT 7 - COMPLIES UNIT 8 - COMPLIES
COMPLIES

BUILDING HEIGHT

PITTWATER DCP:

SOLAR ACCESS SEPP STANDARD: if living rooms and private open spaces for a minimum of 70% of the dwellings of the

development receive a minimum of 3 hours of direct sunlight between 9am and 3pm in

UNIT 1	COMPLIES
UNIT 2	COMPLIES
UNIT 3	COMPLIES
UNIT 4	COMPLIES
UNIT 5	COMPLIES
UNIT 6	COMPLIES
UNIT 7	COMPLIES
UNIT 8	COMPLIES

COMPLIES

DIVISION 1 GENERAL

Development Standards - minimum sizes and building height

PART 4 DEVELOPMENT STANDARDS TO BE COMPLIED WITH

The size of the site must be at least 1000 square metres

COMPLIES

Site Frontage:

The site frontage must be at least 20 metres wide measured at the building line

COMPLIES

Height in Zones where residential flat buildings are not permitted The height of all buildings in the proposed development must be 8 metres or less (refer building height section of this table)

NON-COMPLIANT

A building that is adjacent to a boundary of the site (being the site, not only of that particular development, but also of any other associated development to which this policy applies) must not be more than 2 storeys in height

COMPLIES

A building located in the rear 25% area of the site must not exceed 1 storey in height

COMPLIES

if the density and scale of the buildings when expressed as a floor space

	Area	Terrace
UNIT 1	206 sqm	66 sqm
UNIT 2	205 sqm	66 sqm
UNIT 3	205 sqm	66 sqm
UNIT 4	206 sqm	66 sqm
UNIT 5	152 sqm	47 sqm
UNIT 6	146 sqm	65 sqm
UNIT 7	152 sqm	54 sqm
UNIT 8	154 sqm	61 sqm

36 sqm Gym

TOTAL 1463.25 sam

SITE AREA 2927.2 **FSR** 0.5

Maximum Gross Floor Area 1463.6 sqm

COMPLIES

PRIVATE OPEN SPACE

SEPP STANDARD:

in the case of a single storey dwelling or a dwelling that is located, wholly or in part, on the ground floor of a multi-storey building, not less than 15sqm of private open space per dwelling is provided and of this private open space, one area is not less than 3m wide by 3m long and is accessible from a living area located on the ground floor. in the case of any other dwelling, there is a balcony with an area of not less than 10sqm (or 6sqm for a 1 bedroom dwelling) that is not less than 2m in either length or depth and that is accessible from a living area

PRIVATE OPEN SPACE

THUNKIE OF ENOUTHOR	
UNIT 1	66 sqm
UNIT 2	66 sqm
UNIT 3	66 sqm
UNIT 4	66 sqm
UNIT 5	47 sqm
UNIT 6	65 sqm
UNIT 7	54 sqm
UNIT 8	61 sqm

COMPLIES

LANDSCAPED AREA & DEEP SOIL ZONES

TOTAL PROPOSED LANDSCAPED AREA

SEPP STANDARD:

a minimum of 30% of the area of the site is to be landscaped if, in relation to that part of the site (being the site, not only of that particular development, but also of any other associated development to which this Policy applies) that is not built on, paved or otherwise sealed, there is soil of sufficient depth to support the growth of trees and shurbs on an area of not less than 15% of the area of the site (the deep soil zone). Two-thIrds of the deep soil zone should preferably be located at the rear of the site and each area forming part of the zone should have a minimum dimension of 3 metres.

63.9% 1871.1 sqm

TOTAL SITE AREA		2,927.2 sqm
REQUIRED LANDSCAPED AREA SEPP	30%	878.16 sgm

REQUIRED LANDSCAPE AREA DCP 1756.32 sqm REQUIRED DEEP SOIL PLANTING AREA 439.08 sqm 15% PROPOSED DEEP SOIL PLANTING 39.4% 1154.7 sqm ADDITIONAL LANDSCAPED AREA 0.7% 19.2 sgm GROUND LEVEL PATHS & RECREATION AREAS 23.8 % 697.2 sqm

COMPLIES

PARKING

SEPP STANDARD:

if at least the following is provided: 0.5 car spaces for each bedroom where the development application is made by a person other than a social housing provider

LINUT 4 O by drawning	to 4 =
UNIT 1 - 3 bedrooms	min. 1.5 car spaces
UNIT 2 - 3 bedrooms	min. 1.5 car spaces
UNIT 3 - 3 bedrooms	min. 1.5 car spaces
UNIT 4 - 3 bedrooms	min. 1.5 car spaces
UNIT 5 - 2 bedrooms	min. 1 car space
UNIT 6 - 2 bedrooms	min. 1 car space
UNIT 7 - 2 bedrooms	min. 1 car space
UNIT 8 - 2 bedrooms	min. 1 car space

TOTAL REQUIRED CAR SPACES: 10

TOTAL CAR SPACES PROVIDED: 28

16 non-disabled car spaces 8 disabled car spaces 2 car wash spaces 2 visitor spaces

SCHEDULE 3 STANDARDS CONCERNING ACCESSIBILITY AND USEABILITY FOR HOSTELS AND SELF-CONTAINED **DWELLINGS**

Standards applying to hostels and self-contained dwellings

COMPLIES WITH ALL

PART 2

Additional standards for self-contained dwellings

COMPLIES WITH ALL

COMPLIES

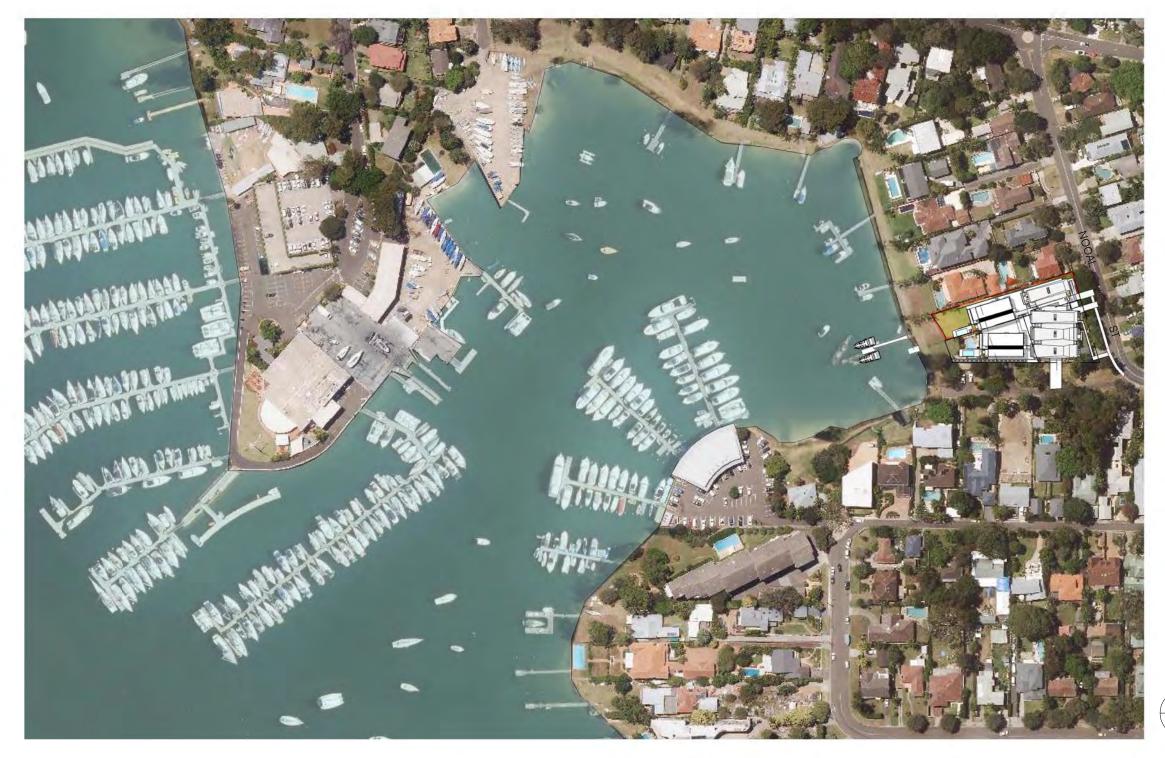
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No.	Revision Description	Date
С	COMPLIANCE CHECK	25.05.16
D	Revised Concept Design	30.05.17
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CRYSTAL BAY APARTMENTS CONCEPT DESIGN 2 & 4 Nooal Street & 66 Bardo Road, Newport Crystal Apartments Pty Ltd

SEPP HSPD Compliance Table			
Project number	1503	Checked by	Checker
Date	July 2017	Scale	
Drawn by	Author		A24







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CRYSTAL BAY APARTMENTS
CONCEPT DESIGN
2 & 4 Nooal Street
& 66 Bardo Road, Newport
Crystal Apartments Pty Ltd

Location Plan			
Project number	1503	Checked by	Checker
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Drawn by	Author		A25

