STAGING OF DEVELOPMENT		
 24. The first application shall provide details of the final form of the development to ensure the orderly and coordinated development of the site. The initial stages of the development should include the construction of the Retail and Club precinct within the eastern portion of the site. Each stage described above shall provide full details of inclusions in respect of: a) demolition; b) earthworks; 	The subject DA represents the third and final stage of the Residential Precinct. Once this is complete the landscaped foreshore works should also be complete. No timing of the foreshore works is required under the Concept Plan and as such Council is liaising with the applicant to ensure delivery of these works at the same time as completion of the Residential Precinct.	Yes / No
 c) buildings and all other structures; d) any elements of the overall public domain plan to be dedicated or embellished; e) any site remediation works; f) stormwater management works; g) any vehicular or pedestrian access to the site; h) measures to mitigate and manage nuisance caused by stages under construction to completed stages and clashes between stages including vehicle access, noise, parking and safety; and i) waste and construction management. An access application shall be made to Council to obtain footpath crossing and boundary alignment levels before commencing the detailed design of internal driveways, paths and car park area.	The retail development is likely to commence early in 2018.	
 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN 25. Future applications shall demonstrate that the layout of the buildings and landscape treatments adopt the principles of Crime Prevention through Environmental Design. 	The applicant has submitted a CPTED report addressing the principles and detailing the required considerations under the Concept Approval. The submission has been reviewed by Council staff and the NSW Police Force under Council's adopted Protocol and is considered to be acceptable subject to the imposition of suitable conditions of development consent.	Yes
 TRANSMISSION LINES 26. Future applications shall demonstrate that EMF exposure to the northern most residential building envelopes is minimised taking into account a precautionary principle approach in consultation with Ausgrid. Such measures shall include those matters outlined in the Bluestone Property Solutions letter dated 5 June 2012. 	The rephrasing of the power lines in accordance with the Magshield report submitted by the applicant as part of the Concept Plan approval has been completed.	Yes
 27. Future applications shall demonstrate that the recommendations of Magshield Products (Aust.) International Pty Ltd report dated 7 June 2012 in relation to the EMF mitigation measures comprising reversal of two outer phases of feeder 917, have 	The subject application has been reviewed by Ausgrid and is satisfactory subject to the inclusion of conditions regarding safety and protection of the Ausgrid easement. These have been included in Appendix A .	Yes

been implemented.			
		N/A	
28. Future applications shall address required access provisions by Ausgrid.	N/A		
SPORTING FIELDS			
29. The first application for the Residential Precinct shall demonstrate that a site has	This has occurred with the new sports fields down near	Yes	
been identified and agreements reached for the replacement of the two western playing	Greenhills Beach.		
fields, with the sporting fields completed prior to construction commencing on the			
residential component. SCHEDULE 4			
SUBDIVISION CONDITIONS OF CONSENT			
Restriction as to User			
1. Prior to the issue of an Occupation Certificate for the Retail Development,	N/A	N/A	
documentary rights of carriageway must be created between Lot 1 and Lot 2 that			
enables parking within Lot 1 from users of Lot 2 and created pursuant to Section 88B			
of the Conveyancing Act 1919, to Council's satisfaction.			
Publicly Accessible Land2. Prior to the issue of an Occupation Certificate for the Retail Development, rights of	N/A	N/A	
way, easements and positive covenants must be created over the publicly accessible		IN/A	
land for the site to provide and maintain public access, pursuant to Section 88B of			
the Conveyancing Act 1919.			
Sydney Water Certificate			
3. A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be	A condition has been included in Appendix A in this regard.		
obtained from Sydney Water Corporation.			
Application must be made through an authorised Water Servicing Coordinator. Please			
refer to the Building Development and Plumbing section on the web site			
www.sydneywater.com.au then refer to the Water Servicing Coordinator under			
'Developing your Land' or telephone 13 20 92 for assistance.			
Following application a 'Nation of Deguirements' will advise of water and sower			
Following application a 'Notice of Requirements' will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the			
Coordinator, since building of water / sewer infrastructure can be time consuming and			
may impact on other services and building, driveway or landscape design.			
The s.73 Certificate must be submitted to Council or the PCA prior to a Subdivision			
Certificate being issued. SCHEDULE 5			
JOHLDOLL J			

STATEMENT OF COMMITMENTS		
1. Approved Development Future applications for development will be generally in accordance with the scheme described at Section 3.0 of the Environmental Assessment Report, as amended in Section 5.0 of this Preferred Project Report, the Masterplan and Retail Concept Plans prepared by Scott Carver and Associates, the Residential Built Form Controls Drawings prepared by Turner and Associates, the Landscape Concept Plans prepared by ASPECT Studios, and the Roadworks and Stormwater Plans prepared by AT+L.	Proposal complies with the building height and envelope controls	Yes
 2. Contamination and Acid Sulfate Soils An OEH Licensed independent contaminated site auditor shall be appointed to review future site investigations. Any condition included on the Site Audit Statement shall become a condition of this consent. Future applications for development will be accompanied by a Phase 2 detailed Site Investigation Report to address site contamination. Future applications for development will be accompanied by an Acid Sulfate Soils Management Plan prepared in accordance with the Acid Sulfate Soils Assessment Guidelines (ASSMAC 1998). Additional groundwater monitoring wells shall be installed on the site to obtain a more accurate understanding of groundwater conditions and inform the Phase 2 investigations. Groundwater shall not be extracted for use in the development. Future applications for development will include a Methane Gas Management Plan. The plan shall include details of proposed methane gas monitoring and management on the site to protect buildings from the ingress of methane gas. The Plan shall be approved by	Side auditor has been appointed and signed off on Stage 1 and Stage 2. Conditions have been imposed in Appendix A for Stage 3 residential.	Yes
the Site Auditor. 3. Traffic Management The proponent shall work with NSW Transport and Sutherland Shire Council to investigate the most effective route for a public bus route servicing the site. The proponent shall provide a shuttle bus service operating between the site and	Existing bus service 987 stops in front of the subject site. This supersedes previous shuttle bus requirement. Refer Assessment Report.	Yes

Woolooware Station for a period of time beginning with the commencement of works on the subject site and ending when the site is first serviced by a public bus route. Details of the capacity and frequency of the service shall be submitted with each Project Application / Development Application.		
Future applications for development shall include provision for on-site bicycle parking and the provision of shower / amenities for employees in accordance with relevant standards.	More than adequate bicycle parking provided within the development.	Yes
 A draft Travel Access Guide (TAG) will be submitted with future Project / Development Applications for the neighbourhood retail centre and Shark Club development. The draft TAG will address: Provision of public transport information for employees; Encourage walking / cycling; Display of travel information Transport information at the retail centre's Information Desk Noticeboard advertising transport options and connections. 	A TAG has been submitted with the application and will form part of the approval with a condition of consent included in Appendix A .	Yes
 4. Stormwater and Flooding Future applications for development shall include a detailed Stormwater Management Plan addressing: Water quality management measures to be implemented including Water Sensitive Urban Design; Provide details with regard to improvements in water quality and the hydraulic regimes to protect the mangrove areas in the drainage channel and Woolooware Bay. 	The proposal is satisfactory subject to conditions. Refer Assessment section of the report above.	Yes
 Future applications for development shall include a detailed flood assessment incorporating: Prepare hydrologic model of the catchment draining to the site using the RAFTS modelling software. Assessment of the 1 in 20, 1 in 100 year and PMF events climate change impact considered by increasing design rainfall intensities of each storm in accordance with state government policy. Prepare detailed hydrologic model for the site using the TUFLOW 2D flood modelling system. This will require a detailed contour survey of the site and surrounding areas. Review pre and post-development flooding inundation levels / extents. Produce hydraulic hazard map for the developed site. Assess development and community safety on flood prone land up to the PMF in 		

accordance with the NSW FDM (2005) relevant sections of Council's DCP and other relevant guidelines.		
5. Noise Future applications for development will be accompanied by a Noise Report which demonstrates compliance with the relevant standards for internal amenity.	The proposal includes a Noise Impact Assessment prepared by Acoustic Logic. The report demonstrates that acceptable internal amenity levels can be achieved for the units.	Yes
6. Community Proponent shall consult with the Cronulla Caringbah Junior Rugby League Football Club, Cronulla Sutherland Water Polo, Sutherland Shire Council, Cronulla High School and the NSW Department of Education and Training in order to facilitate the provision of new facilities for the Club. Appropriate facilities shall be identified prior to the commencement of works on the western (residential) portion of the development site.	This consultation resulted in the provision of new playing fields near Greenhills Beach as part of the Stage 1 residential development.	Yes
7. Environmentally Sustainable Development Future applications for development shall address the environmental performance targets outlined in the Executive Summary to Cronulla Sharks Redevelopment ESD DA Report prepared by Cundall (Appendix R of Environmental Assessment Report).	ESD principles have been incorporated in the design of the proposed development to Council's satisfaction.	Yes
 8. Ecology Proponent shall prepare and implement a vegetation management plan (VMP) for the foreshore riparian buffer areas. The VMP shall be submitted with the future applications for development and address: Suitable design; Retention, where appropriate of existing native vegetation; Species selection and propagation; Replanting techniques; Removal and disposal of weeds; Ongoing monitoring and adaptive management. 	The VMP submitted with the application has been reviewed by Council's Environmental team and is satisfactory subject to minor changes. It will be required to be implemented for the area adjacent the Stage 3 development and the tidal channel and is referenced in the conditions of consent in Appendix A .	Yes
Revegetation shall be undertaken using local provenance species that are consistent with estuarine vegetation communities (i.e. mangrove – coastal saltmarsh – swamp oak floodplain forest)		
Future applications for development to the north of the retail site shall incorporate species characteristic of the Swamp Oak Floodplain Forest endangered ecological community in quantities commensurate to that removed elsewhere within the site, if relevant.		

Any future application for the reconstruction of the western grandstand of Toyota Stadium will incorporate an appropriate environmental buffer to the tidal stormwater channel where practical.		
Future applications for development will address any potential light spill impacts on flora and fauna in proximity to the development site.		
Should detailed surveys for the Large-footed Myotis confirm the presence of this species roosting within the mangroves adjoining the site, specific management plans will be developed and implemented to prevent adverse impacts as a result of the proposed development.		
9. Access Future applications for development will demonstrate compliance with the relevant provisions of the DDA Premises Act, Building Code of Australia 2011 and the applicable Australian Standards for access.	The proposal can comply. The proposed access ramp on the south-eastern side of Building A is shown on the landscape drawings but not on the architectural plans and as such has been conditioned to ensure it is provided. Refer Appendix A .	Yes
10. Archaeology If Aboriginal objects are identified during the development, works must stop immediately and the Office of Environment and Heritage and an archaeologist must be contacted.	A similar condition is included in Appendix A .	Yes
11. Developer contributions Future applications shall demonstrate development contributions to be paid to Council towards the provision or improvement of public amenities and services. This shall be by way of either the proponent entering into a Voluntary Planning Agreement (VPA) with Sutherland Shire Council or the payment of Section 94 developer contributions as a condition of consent for each detailed stage of the development in accordance with the requirements of Council's Contributions Plan current at the time of approval.	Section 94 contributions are levied for the Stage 3 development consistent with Stages 1 and 2 of the Residential Precinct.	Yes



		e e e i puie	
[A]	Adaptable	Е	
AC	Air Conditioning	ELEC	
ACC	Accessible	EN	
AP	Access Panel	EXH	
В	Bathroom	FEX	
B1, 2, 3	Bedroom 1, 2, 3	FHR	
BKP	Bike Parking	FEP-1,2	2
BY	Balcony	FIP	
C&C	"Click and Collect"	FH	
СОМ	Commercial	FHR	
COMS	Communications Services	FS-1,2.	
CPE	Car Park Exhaust	GB	
CW	Cold Water	GBR	
D	Dining	GHR	
		GD	
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Entry	GE
Electrical Services	GL
Ensuite	Н
Exhaust	K
Fire Extinguisher	L
Fire Hose Reel	[L]
Fire Egress Passage 1,2	LG
Fire Indicator Panel	LY
Fire Hydrant	М
Fire Hose Reel	MBX
Fire Stair No. 1, 2 etc	MDR
Garbage	MSB
Garbage Room	MTR
Garbage Holding Room	Р
Garage Door	

Pantry

Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

Photo Voli
Recycling
Residentia
Retail
Rainwate
Store
Skylight
Study
Terrace
Tandem C
Utility Are
Void
Wardrobe
WC
Wheel Stop

WC

WS

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

 rainwater storage
 No BASIX requirement for rain water tank

 Fire Sprinkler
 Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system

 System
 system for reuse during the next test.

DA Plans Level 7

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For Information

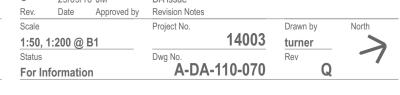
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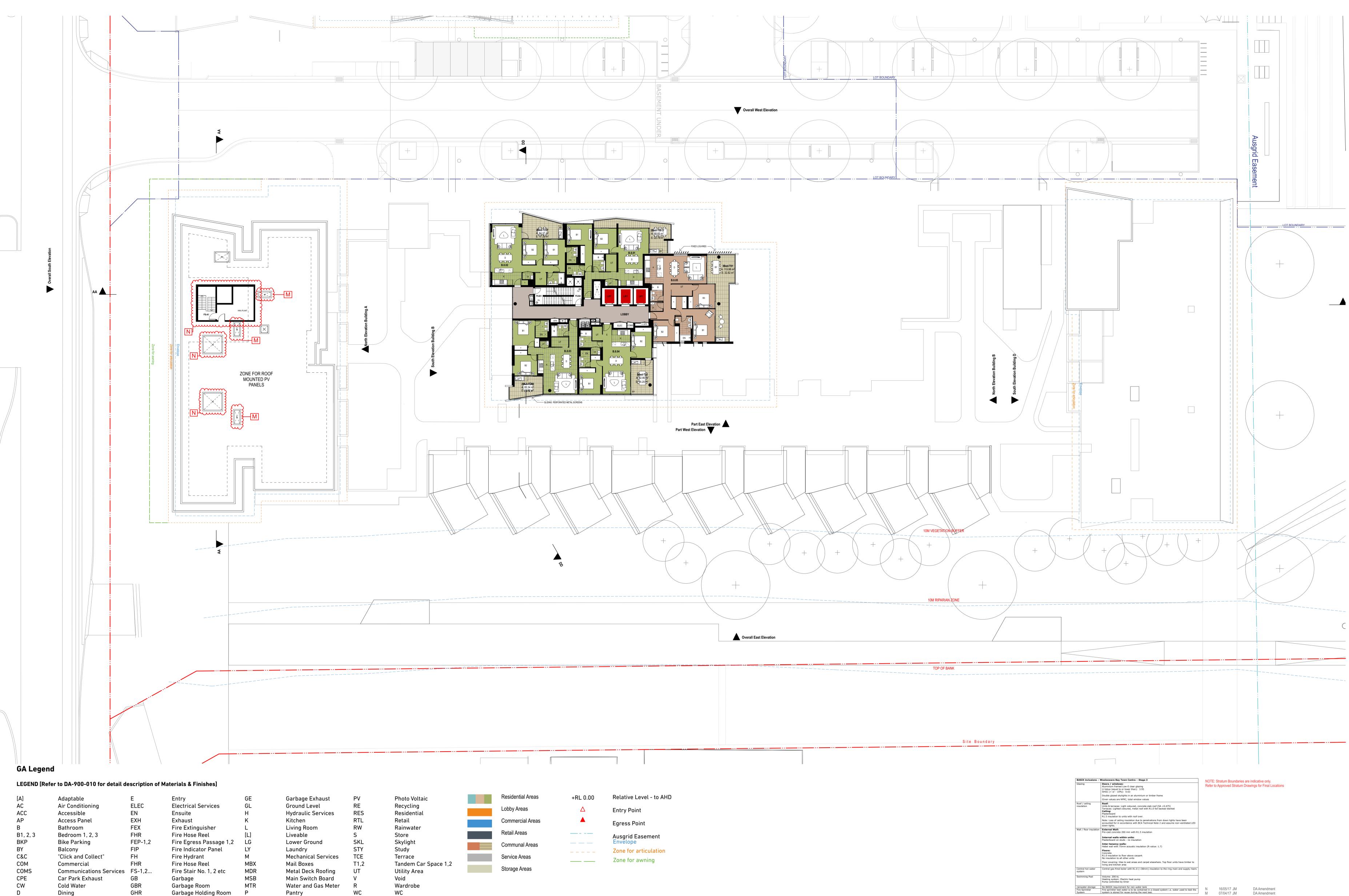
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L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia





[A]	Adaptable	Е	
AC	Air Conditioning	ELEC	
ACC	Accessible	EN	
AP	Access Panel	EXH	
В	Bathroom	FEX	
B1, 2, 3	Bedroom 1, 2, 3	FHR	
BKP	Bike Parking	FEP-1,	2
BY	Balcony	FIP	
C&C	"Click and Collect"	FH	
СОМ	Commercial	FHR	
COMS	Communications Services	FS-1,2	
CPE	Car Park Exhaust	GB	
CW	Cold Water	GBR	
D	Dining	GHR	
		GD	
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DLCS Quality Endorsed Company ISO 9001:2008, Licence Number 4168 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911

		0
	Electrical Services	G
	Ensuite	Н
	Exhaust	K
	Fire Extinguisher	L
	Fire Hose Reel	[L
2	Fire Egress Passage 1,2	L
	Fire Indicator Panel	Ľ
	Fire Hydrant	Μ
	Fire Hose Reel	Μ
	Fire Stair No. 1, 2 etc	Μ
	Garbage	Μ
	Garbage Room	Μ
	Garbage Holding Room	Р
	Garage Door	
CLIENT		

Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

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Terrace
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roject Title
Voolooware Bay Town Centre Residential Stage 3
Captain Cook Drive Cronulla NSW 2230 Australia

Drawing Title **DA Plans** Level 8

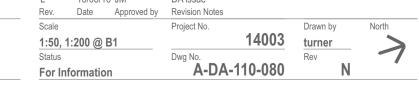
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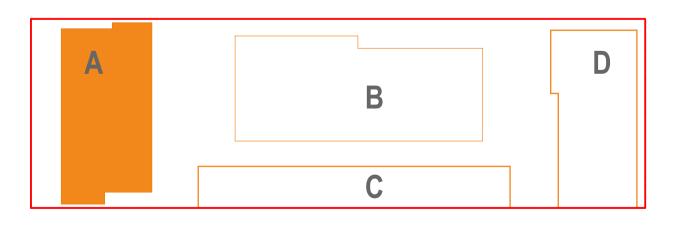




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Solar to Living Area





Key Plan - Woolooware Bay Stage 3

Key Plan - Building A

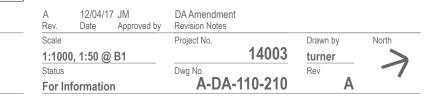


Level 1 Level 2, 4, 6 Level 3, 5, 7

BASIX inclusions -	Woolooware Bay Town Centre – Stage 3	NOTE	: Stratum Bo	undaries are	indicative only.
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				wings for Final Locatio
	Double glazed skylights in an aluminium or timber frame				
	Given values are NFRC, total window values				
Roof / ceiling nsulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.				
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.				
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation				
	Internal walls within units: Plasterboard on studs - no insulation				
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)				
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units				
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area				
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers				
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer				
rainwater storage	No BASIX requirement for rain water tank				
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				
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Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams



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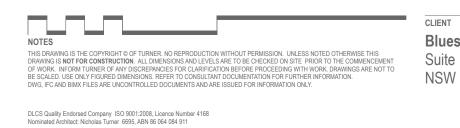
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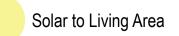
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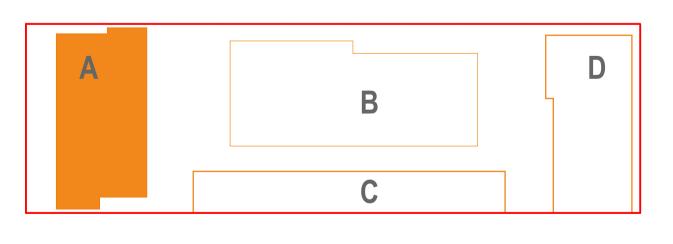
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SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)





Key Plan - Woolooware Bay Stage 3

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Key Plan - Building A



Level 1 Level 2, 4, 6 Level 3, 5, 7

	Scale			Project No.	
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system is stored for reuse during the next test.					
Heating system: Electric heat pump Pump controlled by timer					
Central gas-lired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Volume: 200 kL					
Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area					
Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units					
Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)					
Internal walls within units: Plasterboard on studs - no insulation					
External Wall: Pre-cast concrete 200 mm with R1.5 insulation					
Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.					
Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.					
Given values are NFRC, total window values					
SHGC (+ or - 10%): 0.63					
Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95					tions
	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame Given values are NFRC, total window values Roof: Unlis & terraces: Light coloured, concrete slab roof (SA < 0.475)	Dors / windows: INUTE. Aluminium framed Low-E clear glazing INUTE. U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame Given values are NFRC, total window values Rof: Initiation to units with roof owne Unlike terraces: Light coloured, concrete slab roof (SA < 0.475)	Dors / windows: NOTE: Stratum Bu Aluminium framed Low-E clear glazing Worker (1998) U-Value (equal to or low-E than): 3.95 SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame Given values are NFRC, total window values Rof: Unlis & terraces: Light coloured, concrete slab roof (SA < 0.475)	Dors / windows: Auminium framed Low-E clear glazing Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame Given values are NFRC, total window values Rof: Particle coloured, concrete slab roof (SA < 0.475)	Auminum framed Low-E clear glazing U-Value (equal to or low rhan): 3.95 SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame Given values are NFRC, total window values Foo: Inits & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Uptited coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard R1.5 insulation to units with roof over. Note: Loss of celling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. External Wali : Pre-cast concrete 200 mm with R1.5 insulation Inter-tenacy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Flors: Concrete R1:0 insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central gas-fired boiler with R1.0 (-38mm) insulation to the ring main and supply risers Volume: 200 kL Heating system: Electric heat pump Pump controlled by time? No BASIX requirement for rain water tank. Fre sprinker: Elst water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test. A 12/04/17 JM DAAmendment

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams

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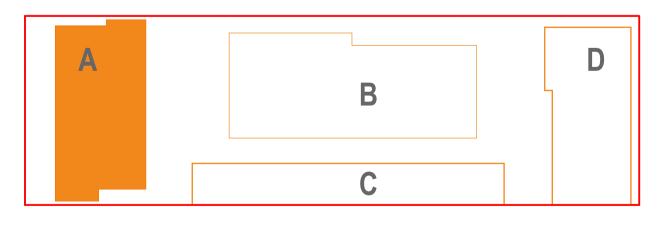


DLCS Quality Endorsed Company ISO 9001:2008, Licence Number 4168 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911

SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)

Solar to Living Area





Key Plan - Woolooware Bay Stage 3

Level 1	

Key Plan - Building A



Level 2, 4, 6 Level 3, 5, 7

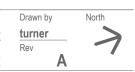
BASIX inclusions –	Woolooware Bay Town Centre – Stage 3	NOTE	: Stratum Bo	undaries are	indicative only.
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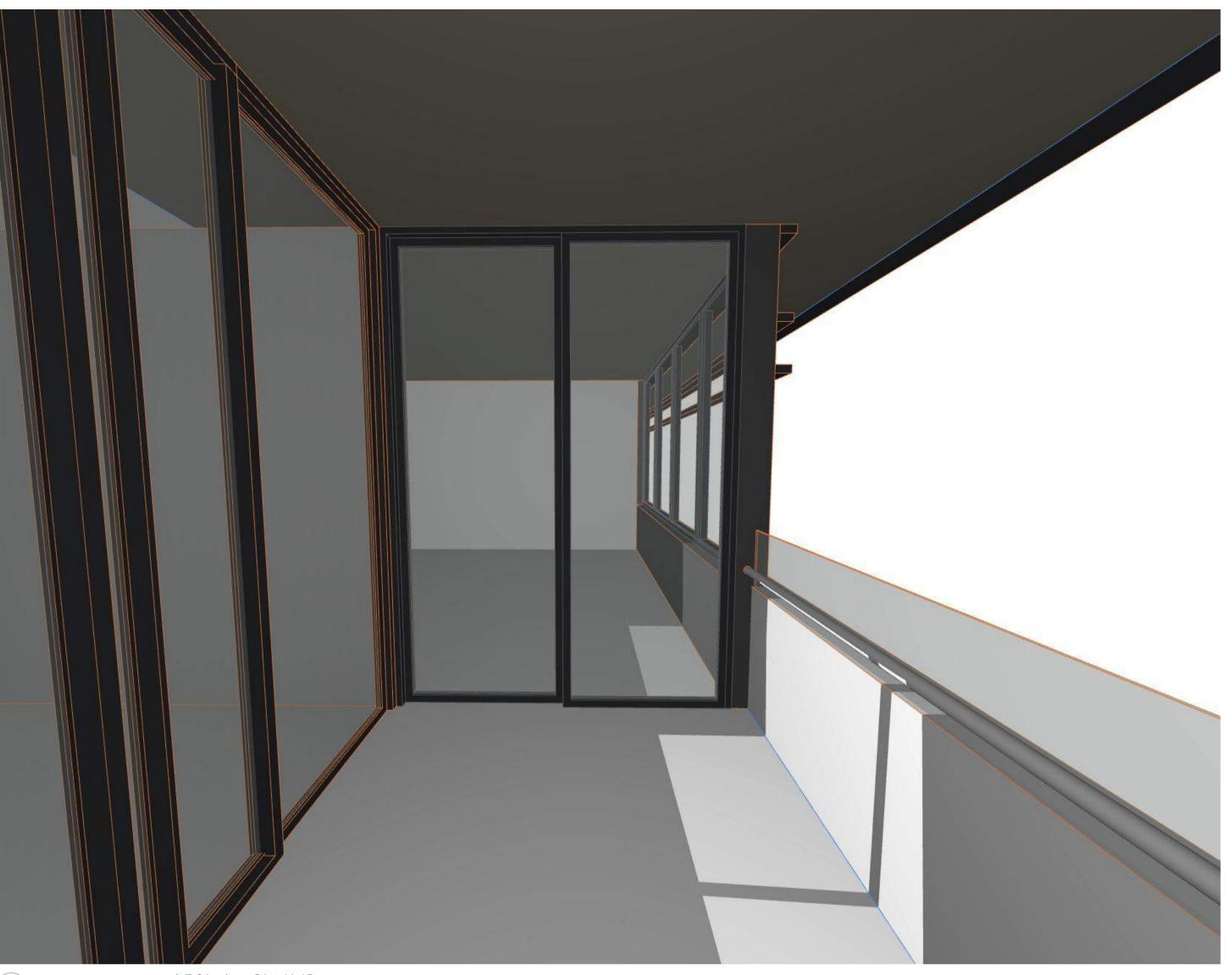
Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams

A Rev.	12/04/17 Date	JM Approved by	DA Amendment Revision Notes	
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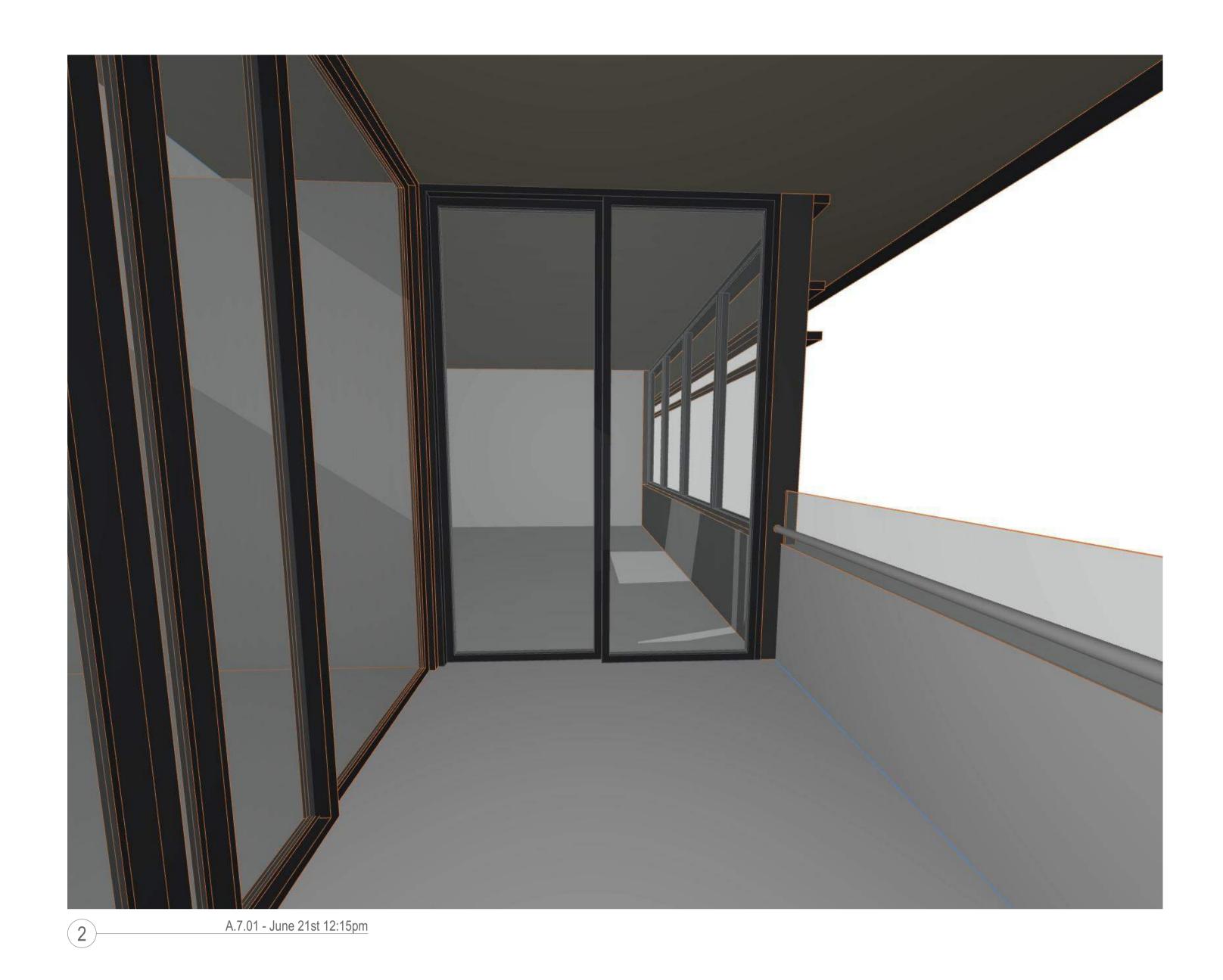


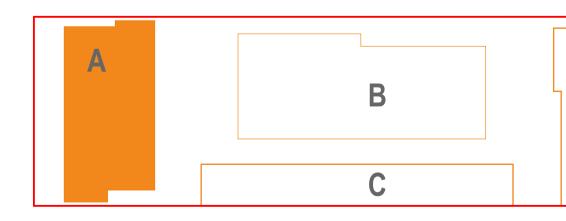
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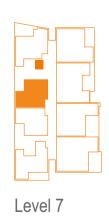
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)

DLCS Quality Endorsed Company ISO 9001:2008, Licence Number 4168 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911





Key Plan - Woolooware Bay Stage 3



D

Key Plan - Building A

		NOTE:	Stratum Bo	undaries are	indicative only.
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame				ings for Final Locations
	Given values are NFRC, total window values				
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard R1.5 insulation to units with roof over.				
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.				
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation				
	Internal walls within units: Plasterboard on studs - no insulation				
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)				
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units				
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area				
Central hot water system	Central gas-fired boiler with R1.0 (\sim 38mm) insulation to the ring main and supply risers				
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer				
rainwater storage	No BASIX requirement for rain water tank				
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

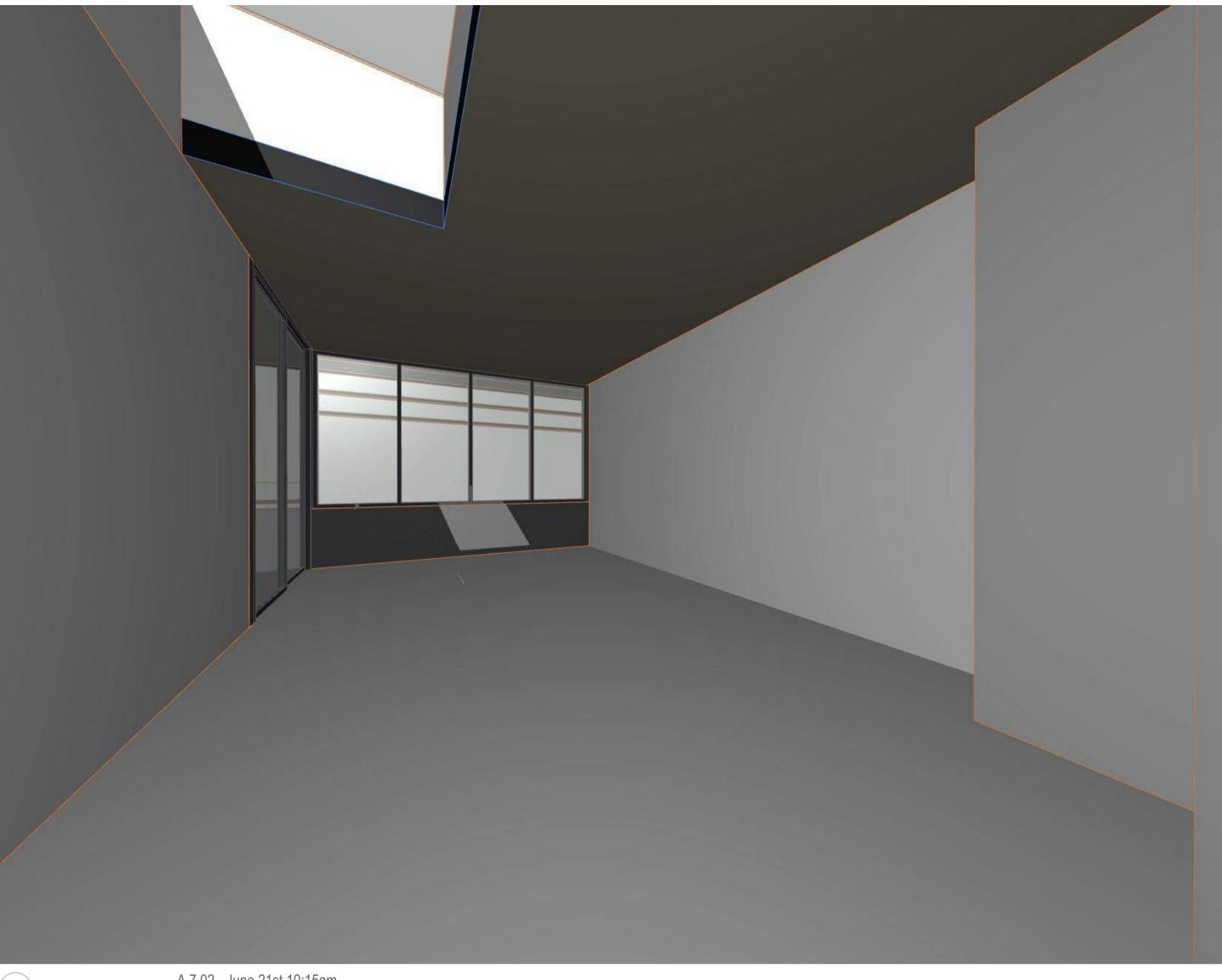
DA Amendment 01 Building A - Solar Access Diagrams - A.7.01 Skylight **TURNER**

3 Rev.	16/05/17 Date	JM Approved by	DA Amendment Revision Notes	
Scale			Project No.	
I:1000 @ B1				14003
Status			Dwg No.	
For Information			A-DA-1	10-213

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B Drawn by North turner Rev B B



A.7.02 - June 21st 10:15am

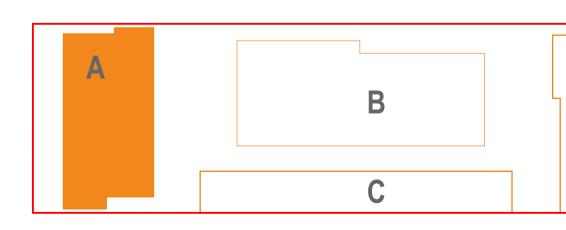


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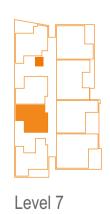
DLCS Quality Endorsed Company ISO 9001:2008, Licence Number 4168 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911

SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)





Key Plan - Woolooware Bay Stage 3



Key Plan - Building A

BASIX inclusions -	Woolooware Bay Town Centre – Stage 3	NOTE: Stratum Boundaries are indicative only.				
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63					vings for Final Locations
	Double glazed skylights in an aluminium or timber frame					
	Given values are NFRC, total window values					
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.					
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.					
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation					
	Internal walls within units: Plasterboard on studs - no insulation					
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)					
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units					
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area					
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers					
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer					
rainwater storage	No BASIX requirement for rain water tank					
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.					
		B R	} lev.	16/05/17 Date	JM Approved by	DA Amendment Revision Notes

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.7.02 Skylight **TURNER**

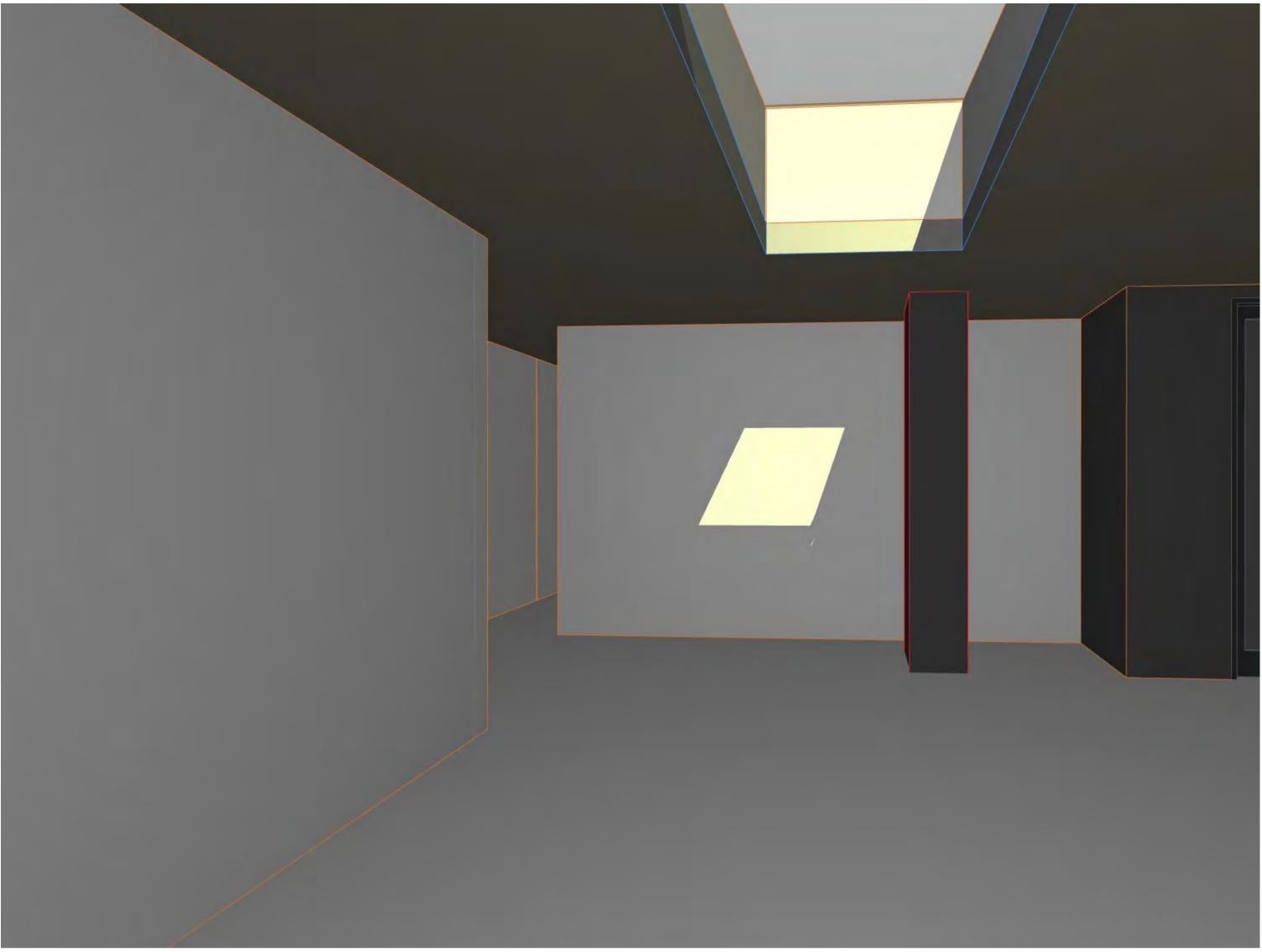
B Rev.	16/05/17 Date	JM Approved by	DA Amendment Revision Notes	
Scale			Project No.	
1:1000	@ B1			14003
Status			Dwg No.	
or Inf	ormatior	ı	A-DA-1	10-214

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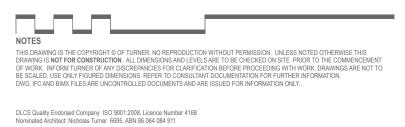
B turner Rev B B



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A.7.08 - June 21st 12:30pm

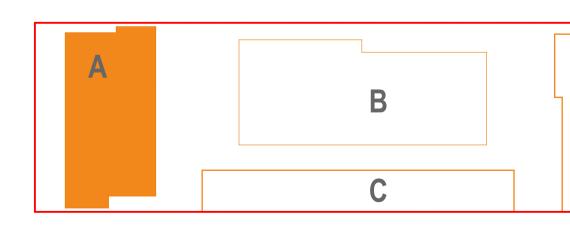




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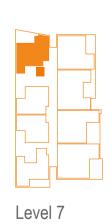
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



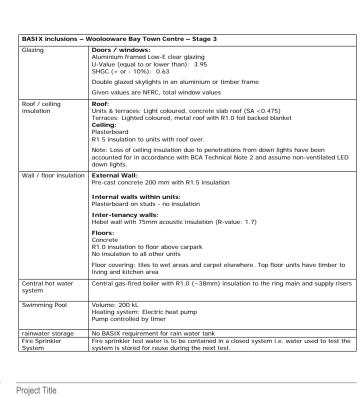


Key Plan - Woolooware Bay Stage 3





Key Plan - Building A



Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.7.08 Skylight

A 12/04/17 JM DA Amendment Rev. Date Approved by Revision Notes Scale Project No. 14003 turner Rev 1:1000 @ B1 Status Dwg No. A-DA-110-215 For Information

NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

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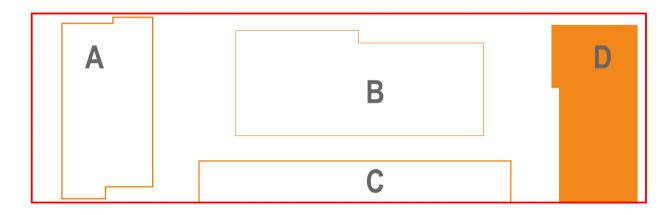
DLCS Quality Endorsed Company ISO 9001:2008, Licence Number 4168 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911 SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)

Solar to Living Area



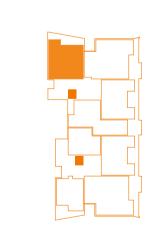


Extent of opening in Elevation

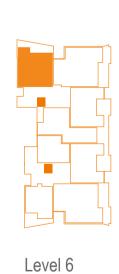


Key Plan - Woolooware Bay Stage 3





Level 3 & 5



Key Plan - Building D

Woolooware Bay Town Centre – Stage 3
Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
Double glazed skylights in an aluminium or timber frame
Given values are NFRC, total window values
Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard R1.5 insulation to units with roof over.
Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LEE down lights.
External Wall: Pre-cast concrete 200 mm with R1.5 insulation
Internal walls within units: Plasterboard on studs - no insulation
Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)
Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units
Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area
Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply rise
Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer
No BASIX requirement for rain water tank
Fire sprinkler test water is to be contained in a closed system i.e. water used to test th

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building D - Solar Access Diagrams



NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

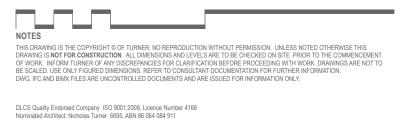
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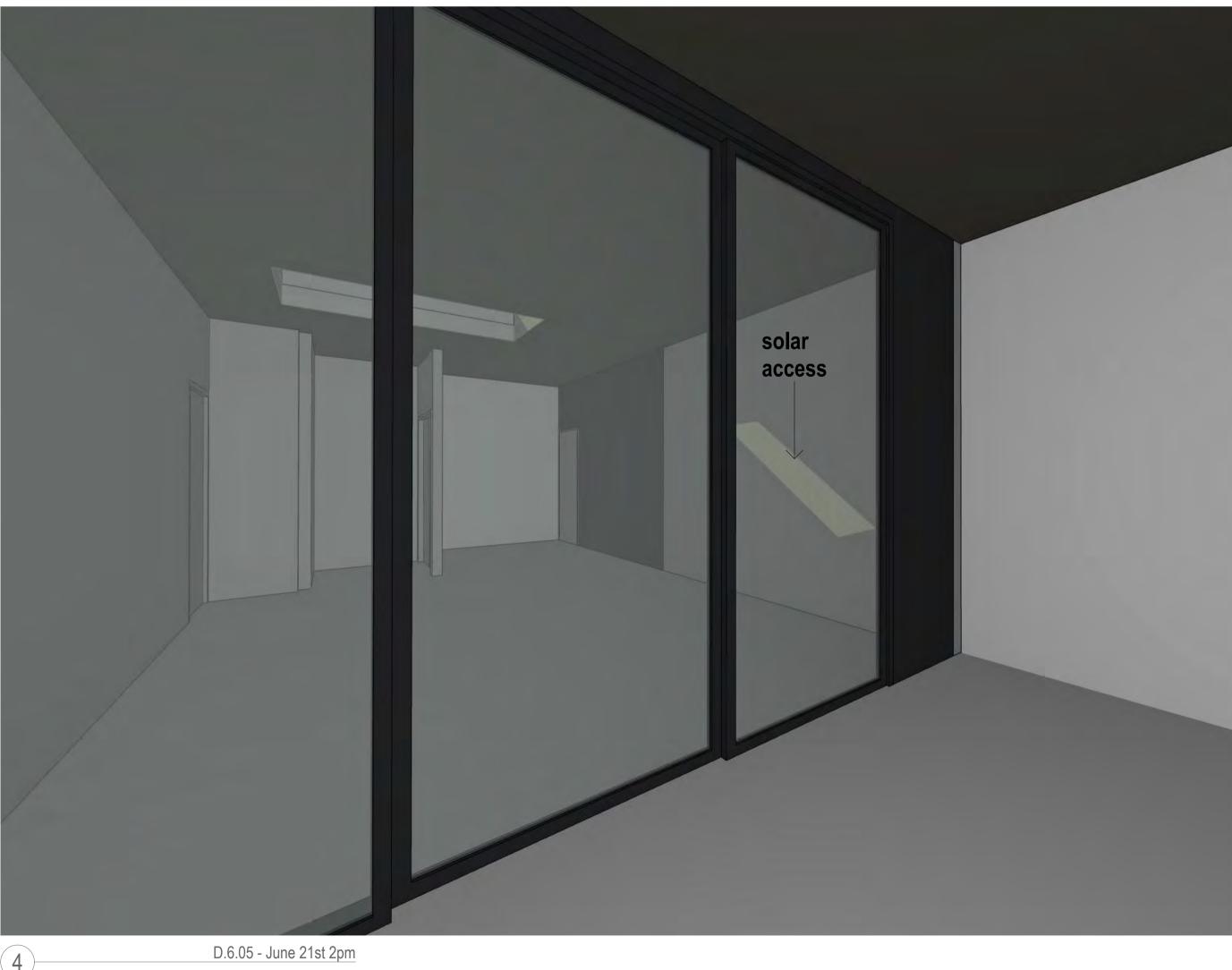


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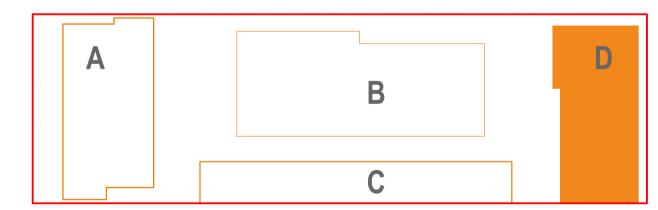
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



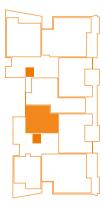




D.6.05 - June 21st 2pm

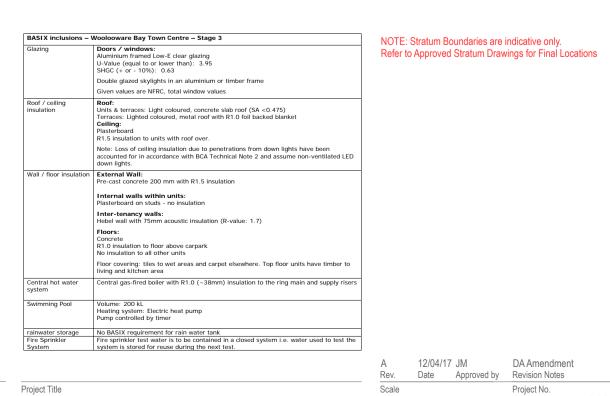


Key Plan - Woolooware Bay Stage 3



Level 6

Key Plan - Building D

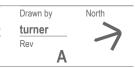


For Information		A-DA-1	10-221	
Status			Dwg No.	
1:1000) @ B1			14003
Scale			Project No.	
A Rev.	12/04/17 Date	JM Approved by	DA Amendment Revision Notes	

Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

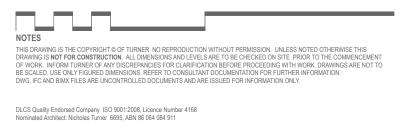
DA Amendment 01 Building D - Solar Access Diagrams - D.6.05 Skylight **TURNER**

L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia



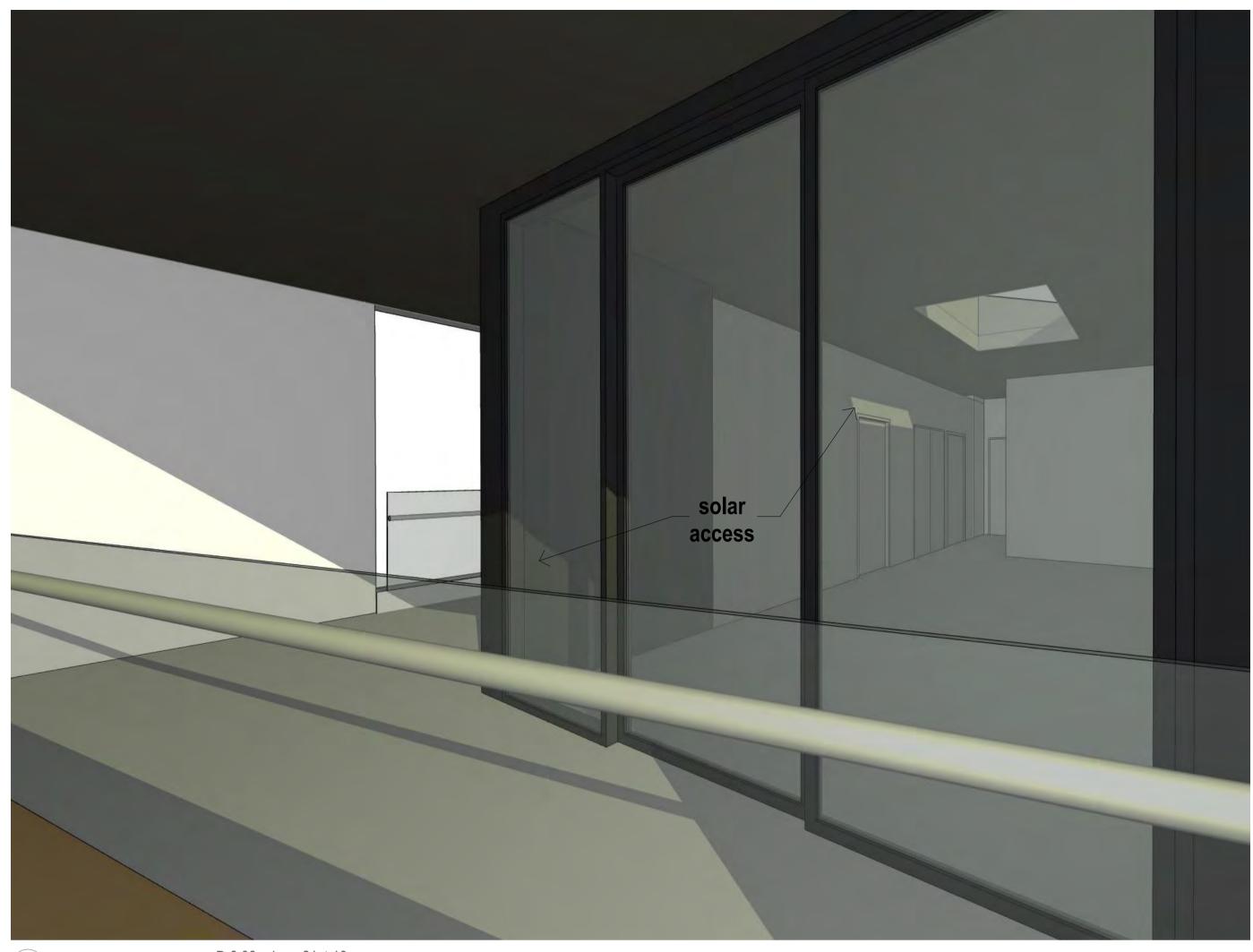




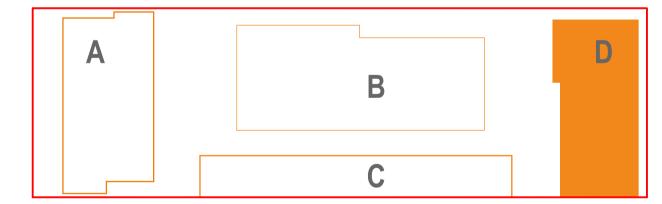


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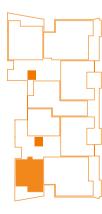
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



2 D.6.08 - June 21st 10am



Key Plan - Woolooware Bay Stage 3



Level 6

Key Plan - Building D

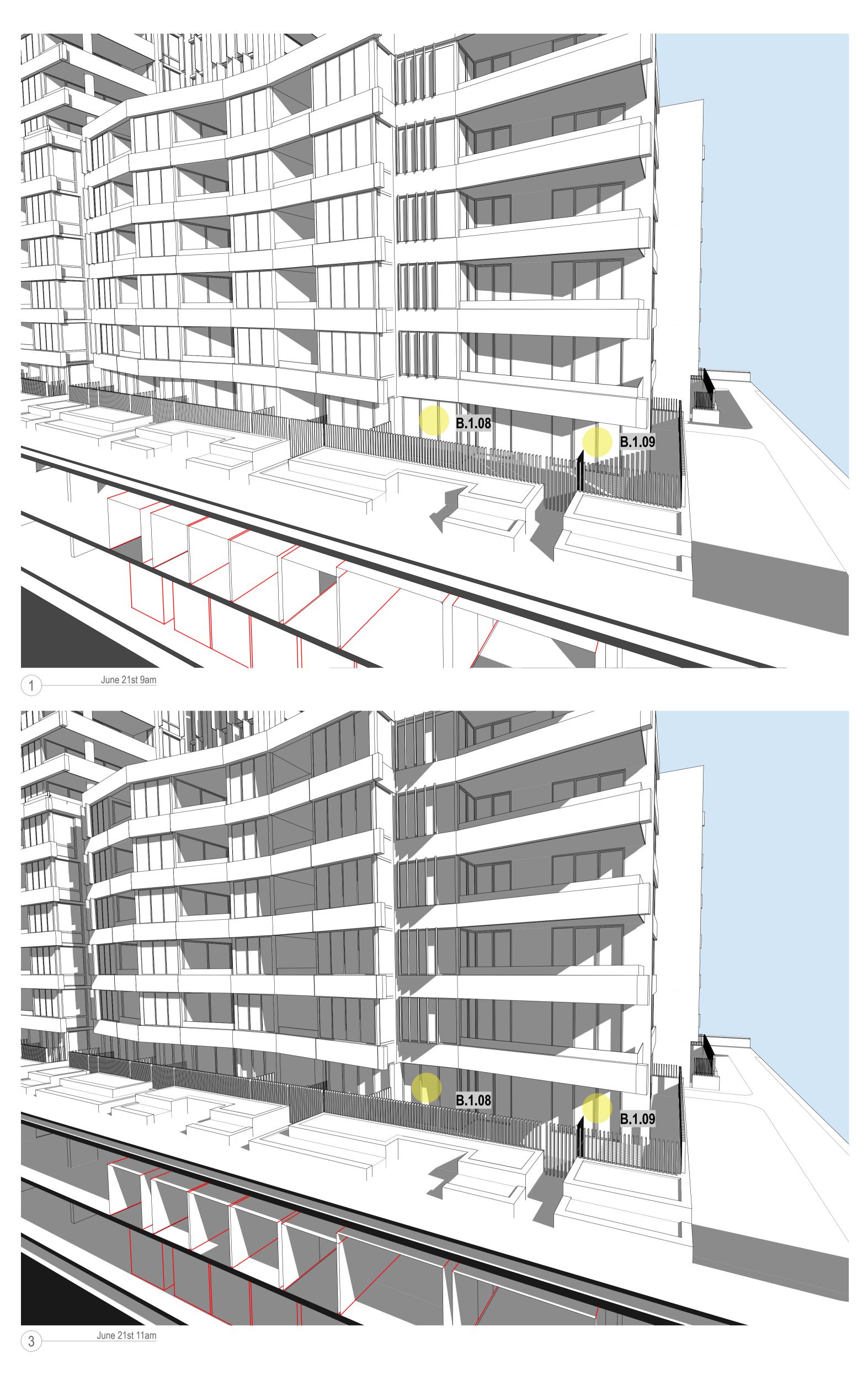
BASIX inclusions –	Woolooware Bay Town Centre – Stage 3	NOTE:	Stratum Bo	oundaries are	indicative only.
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				vings for Final Locations
	Double glazed skylights in an aluminium or timber frame				
	Given values are NFRC, total window values				
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.				
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.				
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation				
	Internal walls within units: Plasterboard on studs - no insulation				
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)				
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units				
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area				
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers				
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer				
rainwater storage	No BASIX requirement for rain water tank				
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				
		٨	10/04/17	11.4	DA Amondmont
		A Rev.	12/04/17 Date	JIVI Approved by	DA Amendment Revision Notes
roiect Title		Scale			Project No.

Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

12/04/17 JM DA Amendment Date Approved by Revision Notes Project No. 1:1000 @ B1 Status Dwg No. A-DA-110-222 For Information

DA Amendment 01 Building D - Solar Access Diagrams - D.6.08 Skylight **TURNER**





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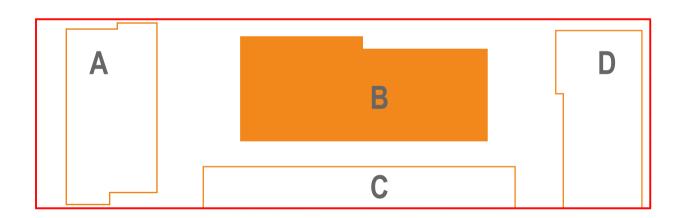
Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

Legend

Solar to Living Area

SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)





Key Plan - Woolooware Bay Stage 3

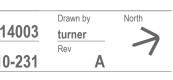


Key Plan - Building B

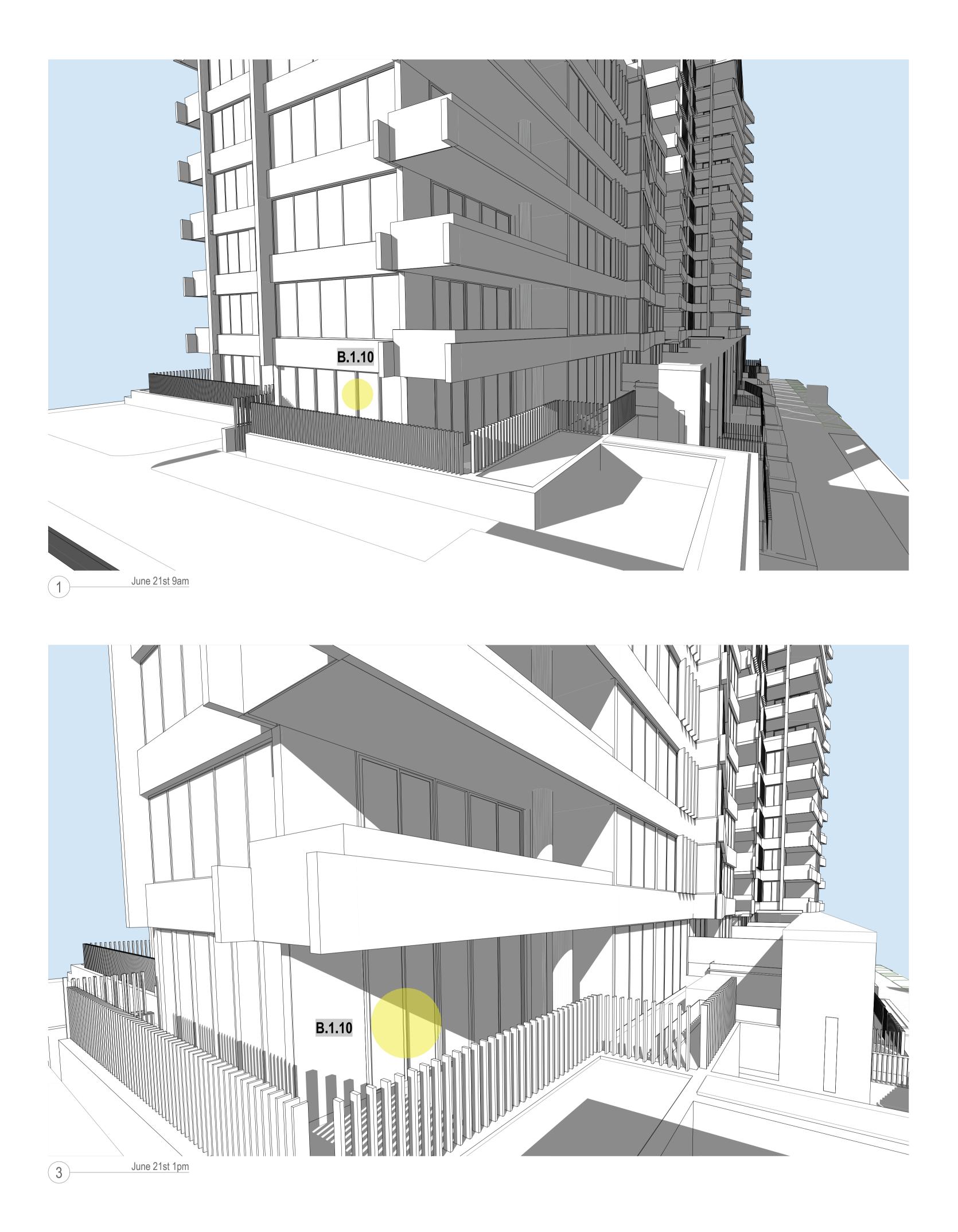
Glazing	Doors / windows:				indicative only.	
Claring	Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63	Refer to	c Approved S	Itratum Drav	vings for Final Locat	tions
	Double glazed skylights in an aluminium or timber frame					
	Given values are NFRC, total window values					
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.					
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.					
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation					
	Internal walls within units: Plasterboard on studs - no insulation					
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)					
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units					
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area					
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers					
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer					
rainwater storage	No BASIX requirement for rain water tank					
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.					
		A Rev.	12/04/17 J Date A	JM Approved by	DA Amendment Revision Notes	
Project Title		Scale			Project No.	
Nooloowar	e Bay Town Centre Residential Stage 3	1:1000), 1:50 @ B	1		14
Captain Cook Drive Cronulla NSW 2230 Australia		Status For Information			Dwg No. A-DA-110-	

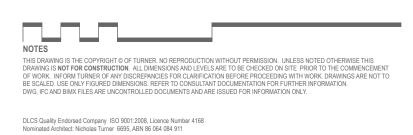
DA Amendment 01 Building B - Solar Access Diagrams

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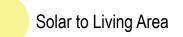




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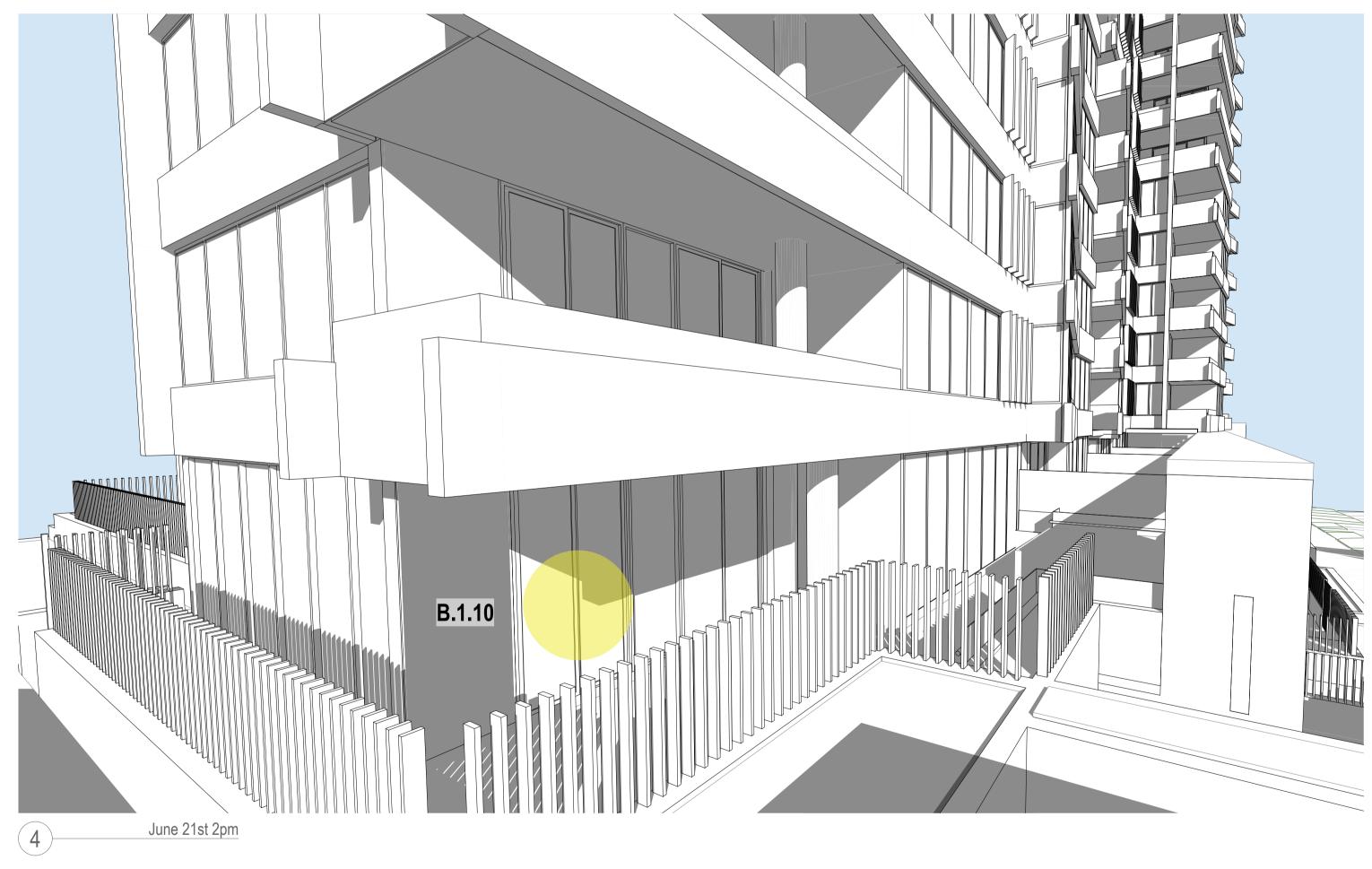
CLIENT

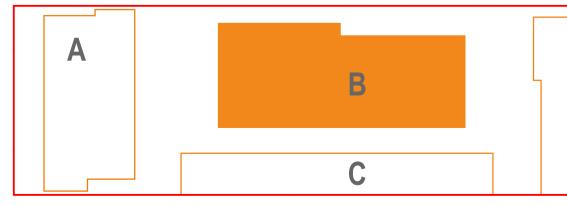




SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)







Key Plan - Woolooware Bay Stage 3





Key Plan - Building B

Glazing	Doors / windows:
5	Aluminium framed Low-E clear glazing
	U-Value (equal to or lower than): 3.95
	SHGC (+ or - 10%): 0.63
	Double glazed skylights in an aluminium or timber frame
	Given values are NFRC, total window values
Roof / ceiling	Roof:
insulation	Units & terraces: Light coloured, concrete slab roof (SA < 0.475)
	Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling:
	Plasterboard
	R1.5 insulation to units with roof over.
	Note: Loss of ceiling insulation due to penetrations from down lights have been
	accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED
	down lights.
Wall / floor insulation	External Wall:
	Pre-cast concrete 200 mm with R1.5 insulation
	Internal walls within units:
	Plasterboard on studs - no insulation
	Inter-tenancy walls:
	Hebel wall with 75mm acoustic insulation (R-value: 1.7)
	Floors:
	Concrete R1.0 insulation to floor above carpark
	No insulation to all other units
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to
	living and kitchen area
Central hot water	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply riser
system	contral gas med bolici with the C bolinny insulation to the mig main and supply rise
Swimming Pool	Volume: 200 kl
Swimming room	Heating system: Electric heat pump
	Pump controlled by timer
rainwater storage	No BASIX requirement for rain water tank
Fire Sprinkler	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the
System	system is stored for reuse during the next test.

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building B - Solar Access Diagrams - B.1.10

For In	formation	A-DA-	10-232
Status		Dwg No.	
1:1000 @ B1			14003
Scale		Project No.	
A Rev.	12/04/17 JM Date Approved by	DA Amendment Revision Notes	

NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

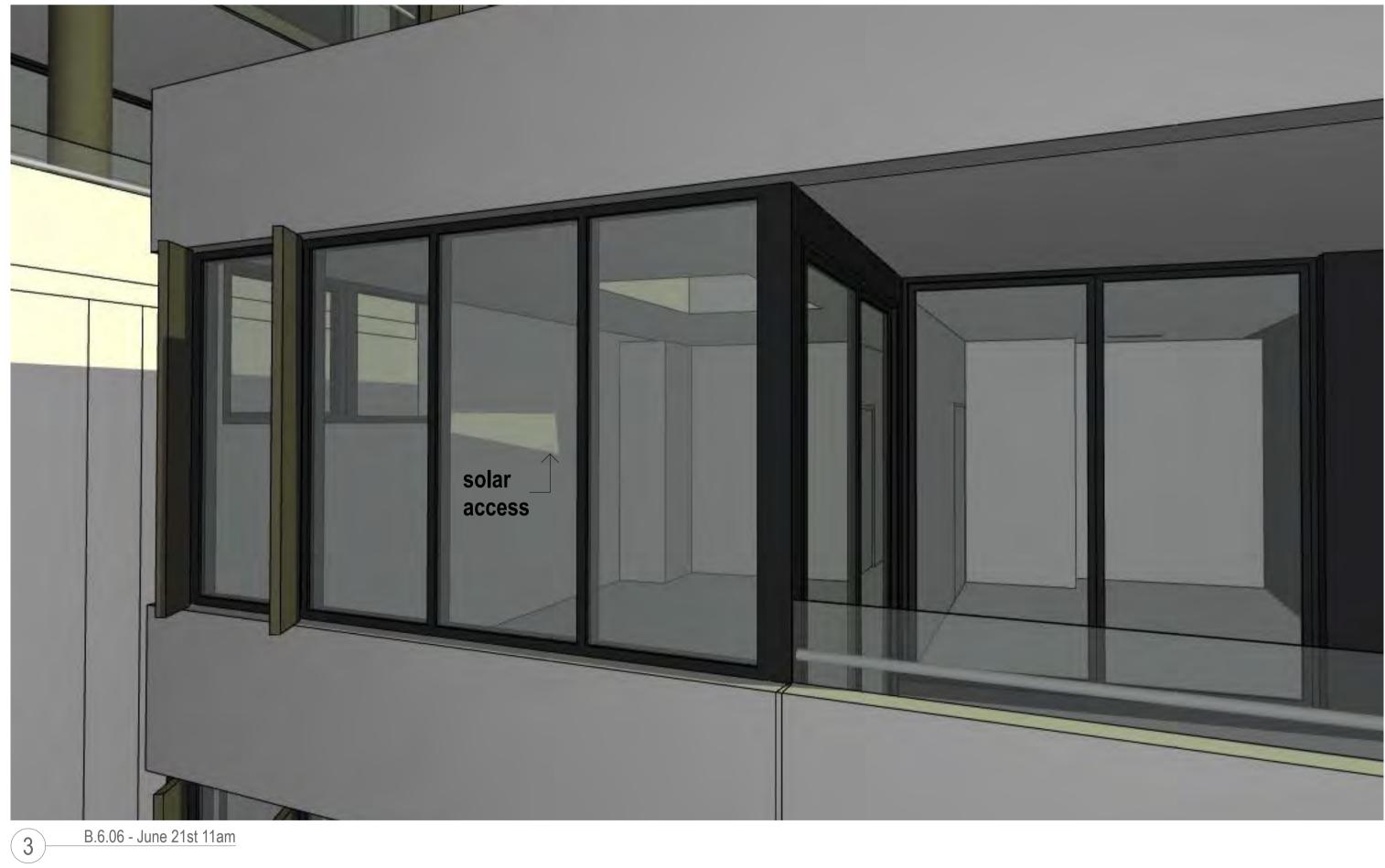
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Drawn by North turner Rev A







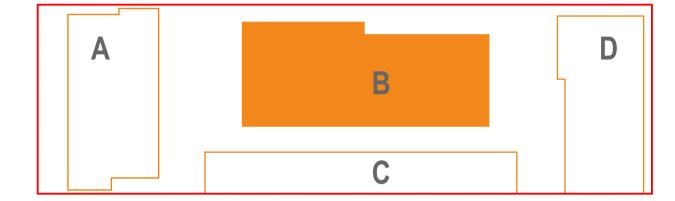
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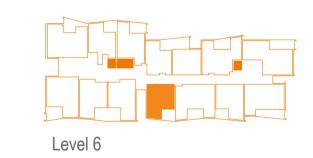
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



2 B.6.06 - June 21st 10am



Key Plan - Woolooware Bay Stage 3

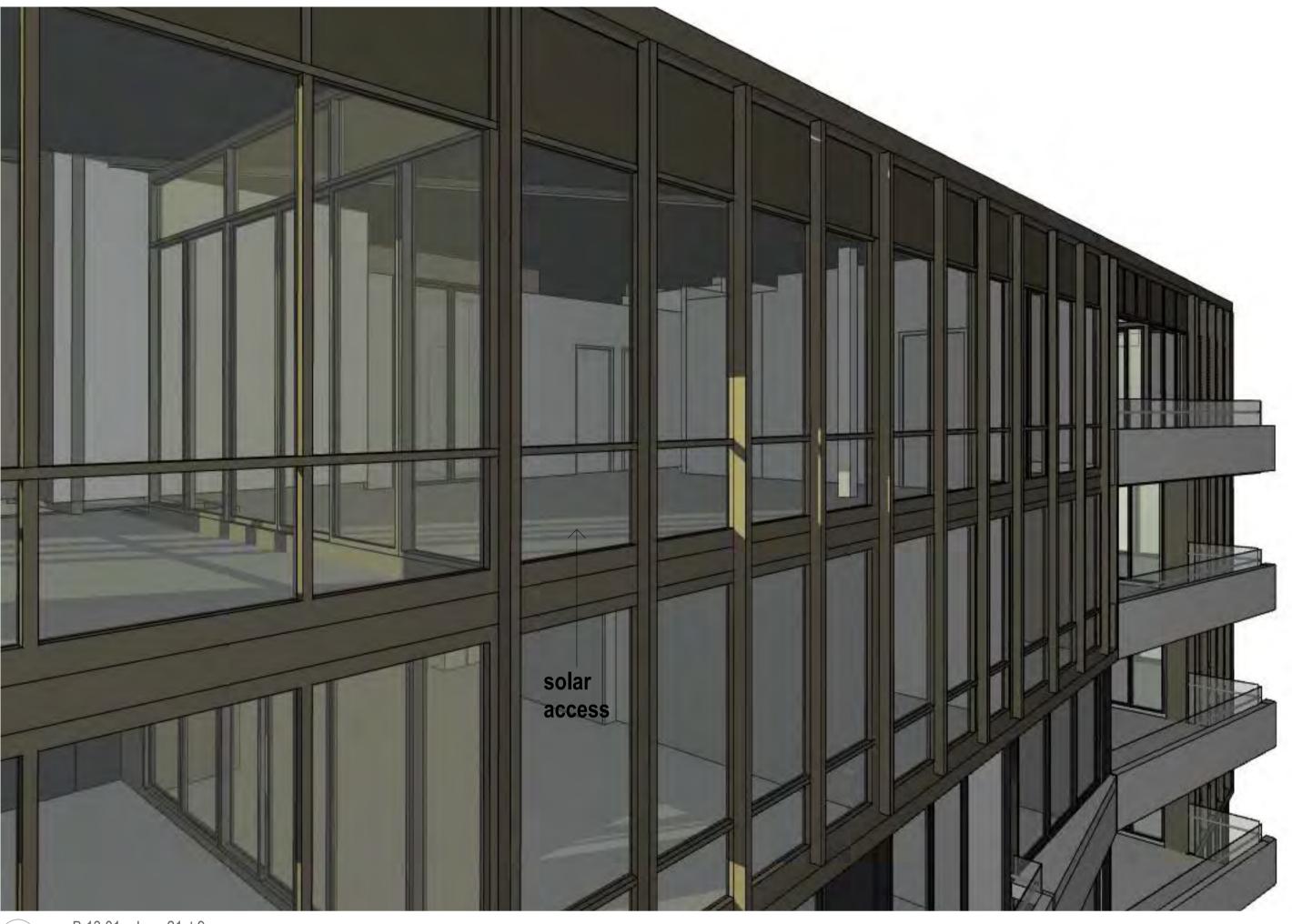


Key Plan - Building B

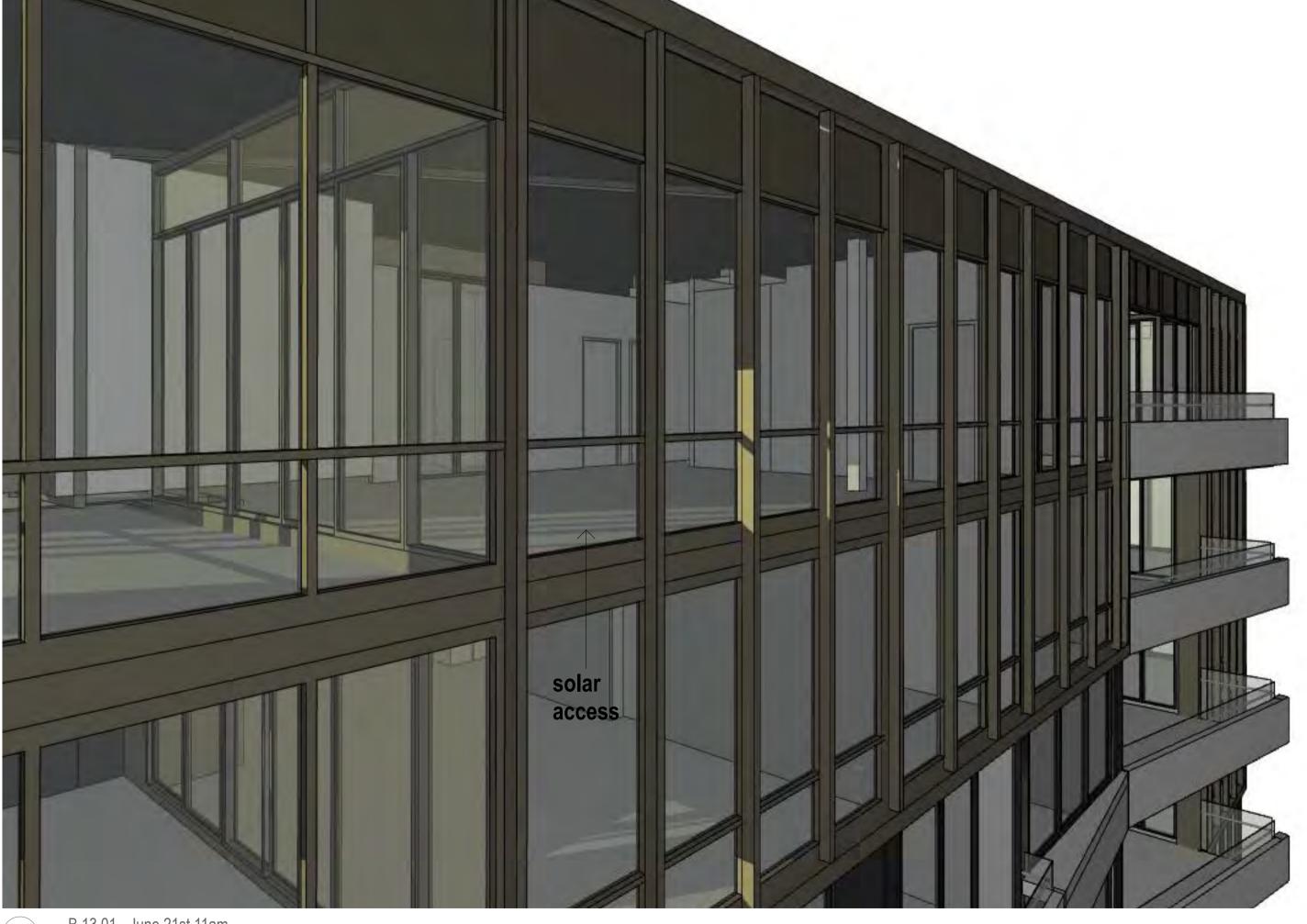
BASIX inclusions -	Woolooware Bay Town Centre – Stage 3	NOTE	: Stratum B	oundaries are	indicative only.	
Glazing	Doors / windows: Aluminum framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				wings for Final Loca	tions
	Double glazed skylights in an aluminium or timber frame					
	Given values are NFRC, total window values					
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475)					
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.					
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation					
	Internal walls within units: Plasterboard on studs - no insulation					
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)					
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units					
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area					
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers					
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer					
rainwater storage	No BASIX requirement for rain water tank					
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.					
		А	12/04/17	7 JM	DA Amendment	
		Rev.	Date	Approved by	Revision Notes	
Project Title		Scale			Project No.	
Nooloowar	e Bay Town Centre Residential Stage 3	1:100	0 @ B1			14003
	ok Drive Cronulla NSW 2230 Australia	Status			Dwg No.	
	IN DIVE CIVITUIIA NOVY 2200 AUSUALIA	For Information			A-DA-1	110-233
rawing Title						
) A Amondr	mont 01					
Drawing Title	ment 01	1011	normation	1	IN DIN	

DA Amendment 01 Building B - Solar Access Diagrams - B.6.06 Skylight TURRER L7 ONE Oxford Street Darlinghurst NSW 2010 Australia T+61 2 8668 0000 F + 61 2 8668 0000 Turnerstudio.com.au 140

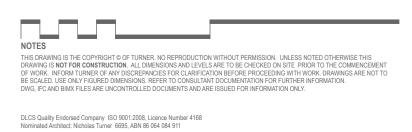








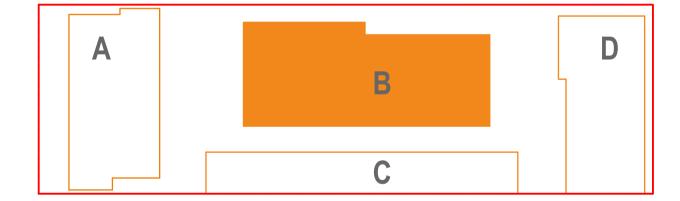
3 B.13.01 - June 21st 11am



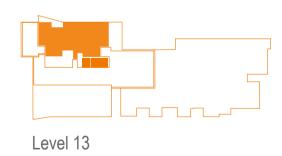
CLIENT Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)





Key Plan - Woolooware Bay Stage 3



Key Plan - Building B

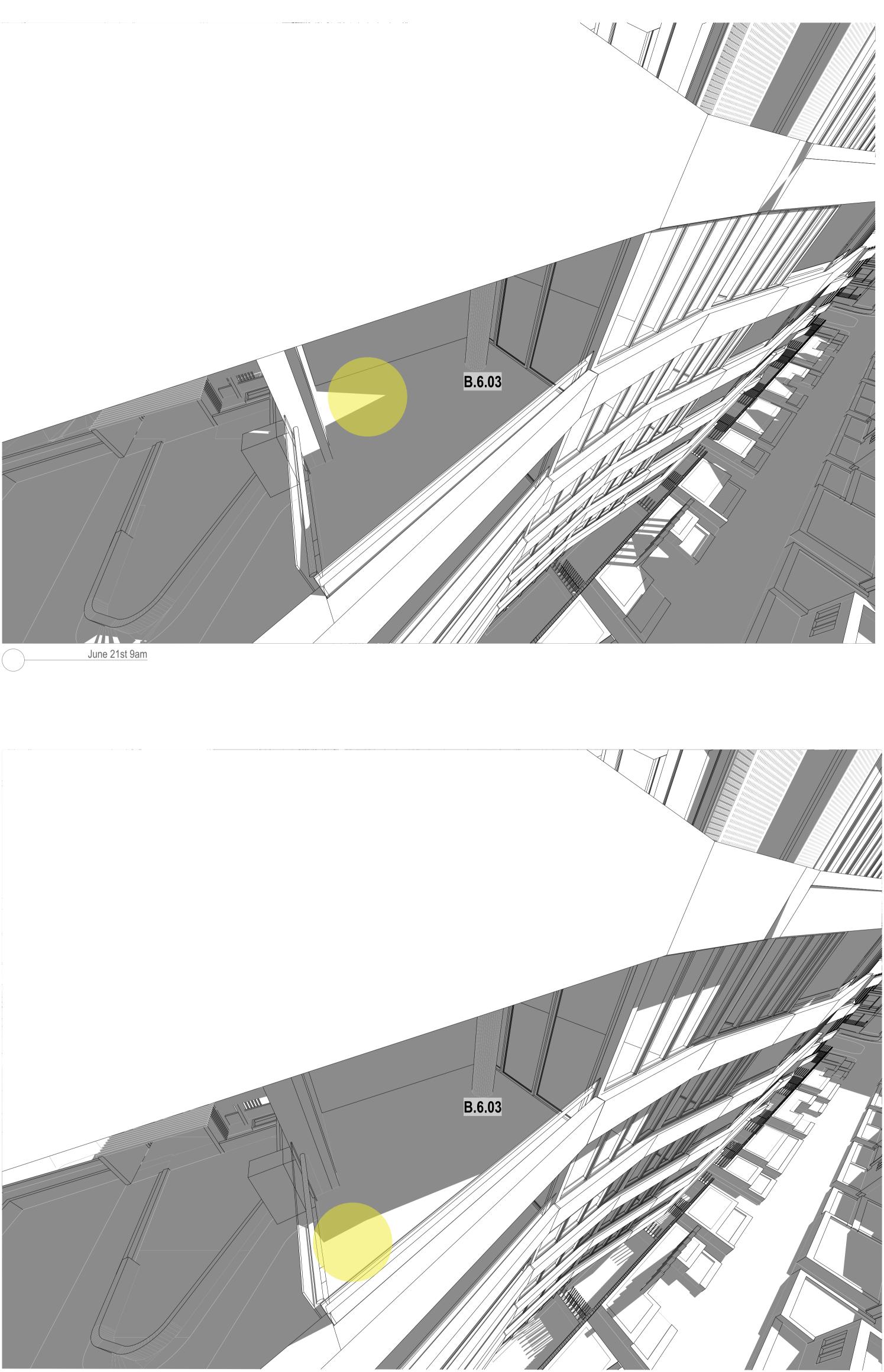
	Noolooware Bay Town Centre – Stage 3				indicative only.	
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63	Refer	to Approved	I Stratum Drav	vings for Final Loca	tions
	Double glazed skylights in an aluminium or timber frame					
	Given values are NFRC, total window values					
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475)					
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.					
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	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area					
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers					
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer					
rainwater storage Fire Sprinkler	No BASIX requirement for rain water tank Fire sprinkler test water is to be contained in a closed system i.e. water used to test the					
System	system is stored for reuse during the next test.					
		A Rev.	12/04/17 Date	7 JM Approved by	DA Amendment Revision Notes	
roject Title		Scale			Project No.	
Vooloowar	e Bay Town Centre Residential Stage 3	1:100	0 @ B1			14003
		Status			Dwg No.	
	ok Drive Cronulla NSW 2230 Australia	Australia For Information		n	A-DA- 1	10-234
rawing Title						
A Amondr						

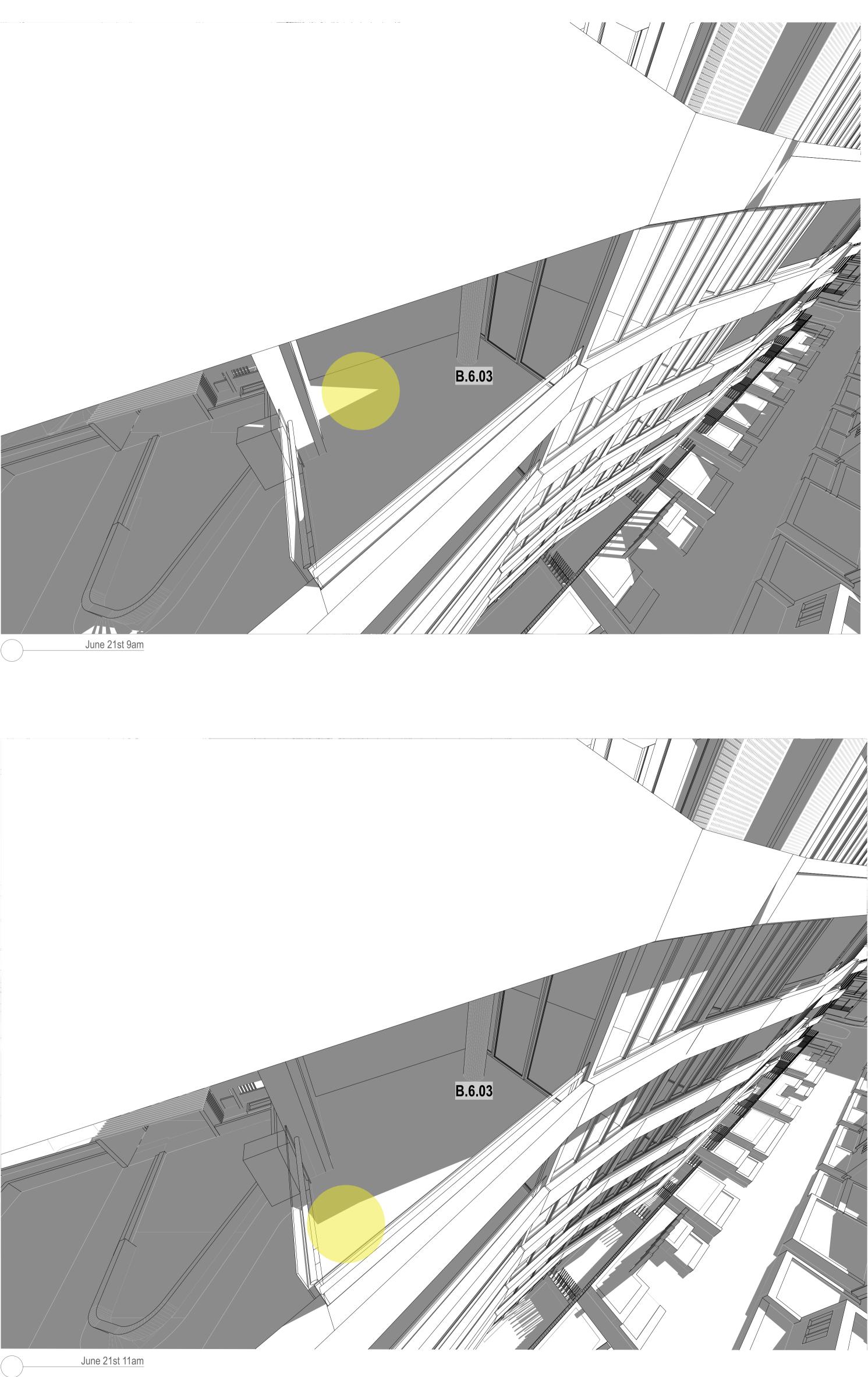
DA Amendment 01 Building B - Solar Access Diagrams - B.13.01

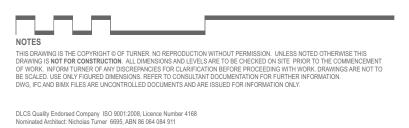
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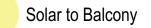


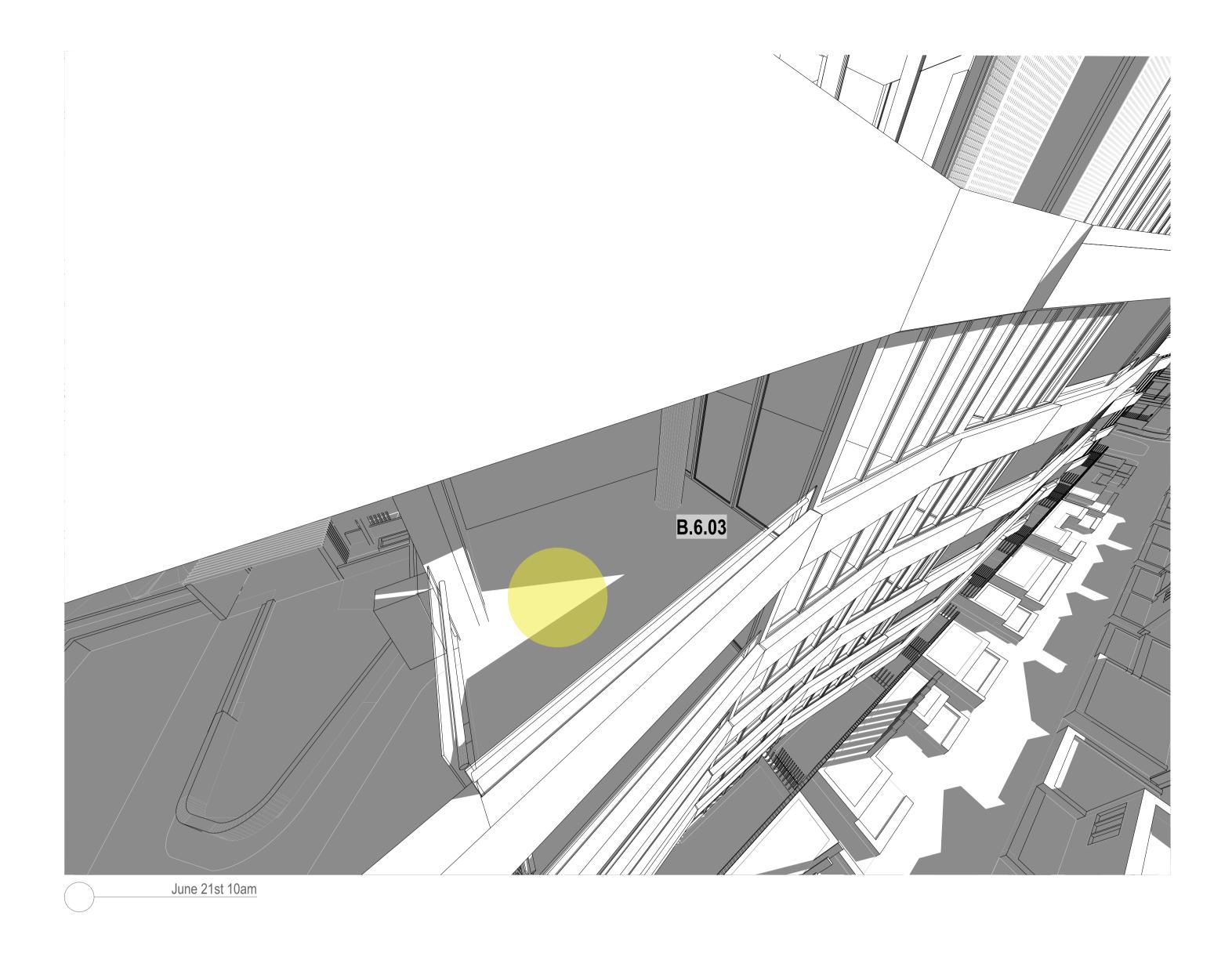


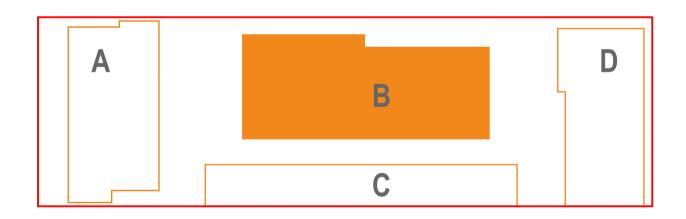
Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

CLIENT

Legend







Key Plan - Woolooware Bay Stage 3



Level 2-6

Key Plan - Building B

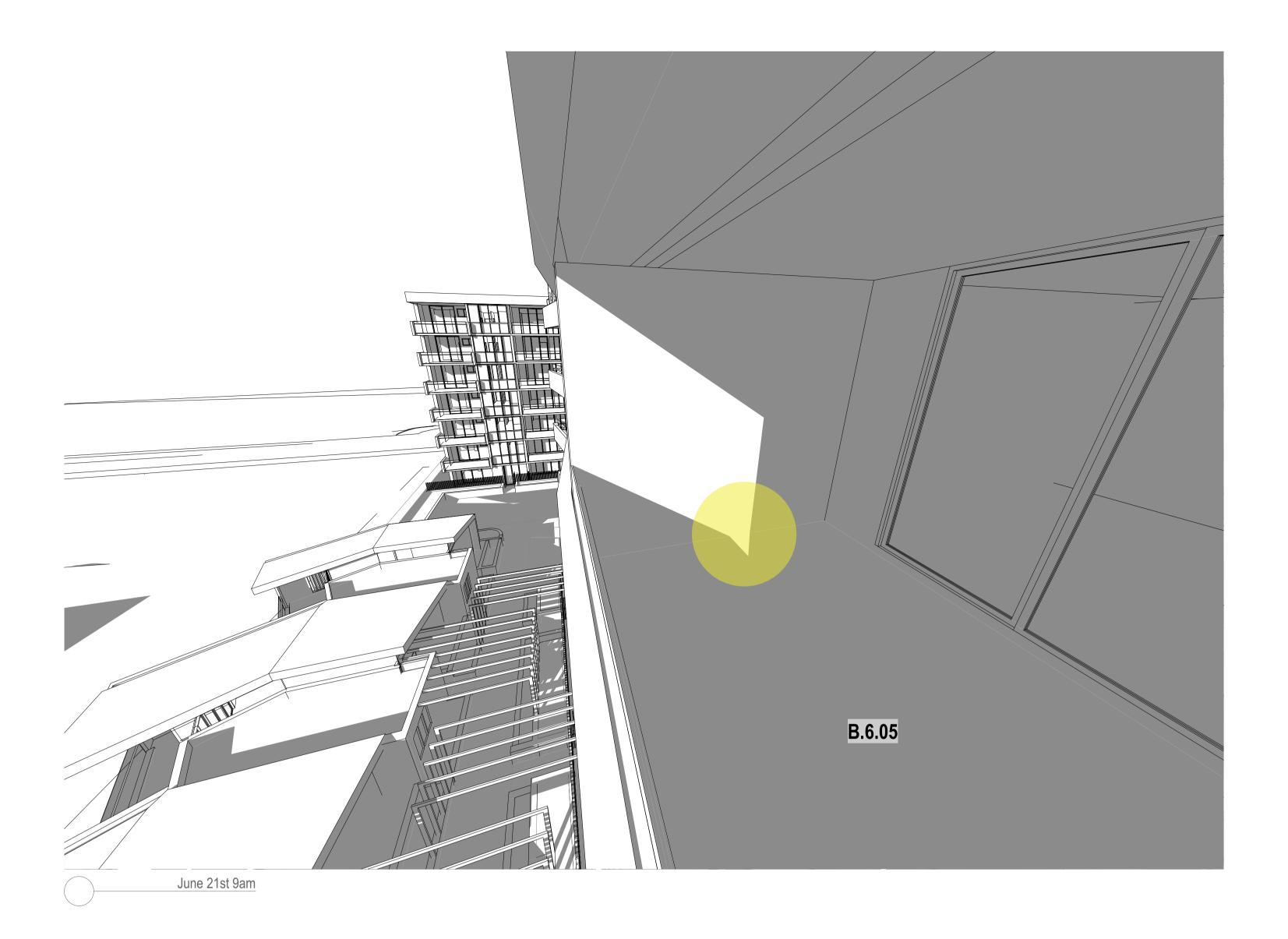
BASIX inclusions –	Woolooware Bay Town Centre – Stage 3	NOTE	: Stratum B	oundaries are	indicative only.	
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				vings for Final Loca	tions
	Double glazed skylights in an aluminium or timber frame					
	Given values are NFRC, total window values					
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard R1.5 insulation to units with roof over.					
	Note: Loss of celling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.					
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation					
	Internal walls within units: Plasterboard on studs - no insulation					
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)					
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units					
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area					
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers					
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer					
rainwater storage	No BASIX requirement for rain water tank					
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.					
		A Rev.	16/05/1 Date	7 JM Approved by	DA Amendment Revision Notes	
roject Title		Scale			Project No.	
Nooloowar	e Bay Town Centre Residential Stage 3	1:100	0 @ B1			14003
		Status			Dwg No.	
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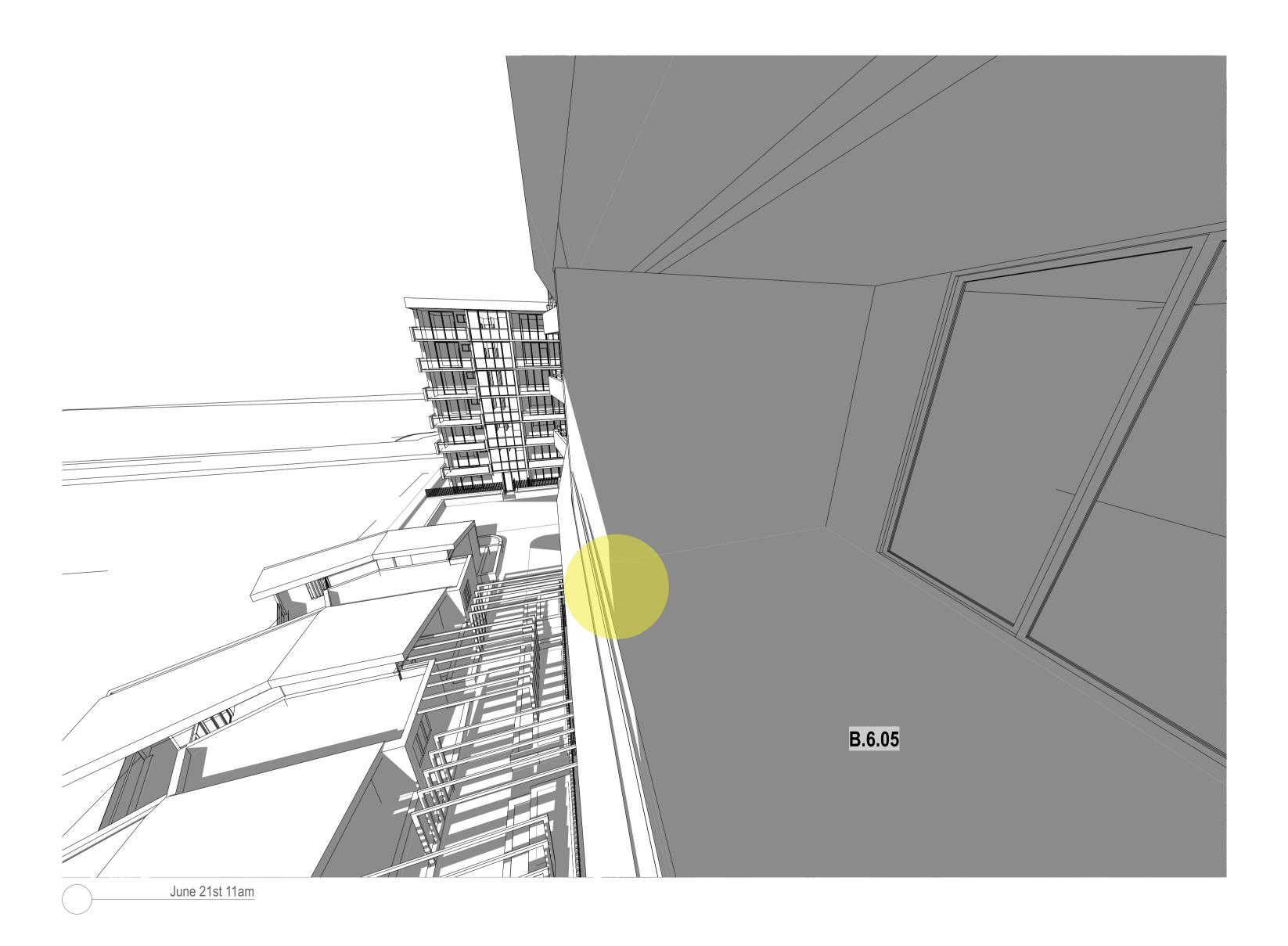
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DA Amendment 01 Building B - Solar Access Diagrams B.6.03







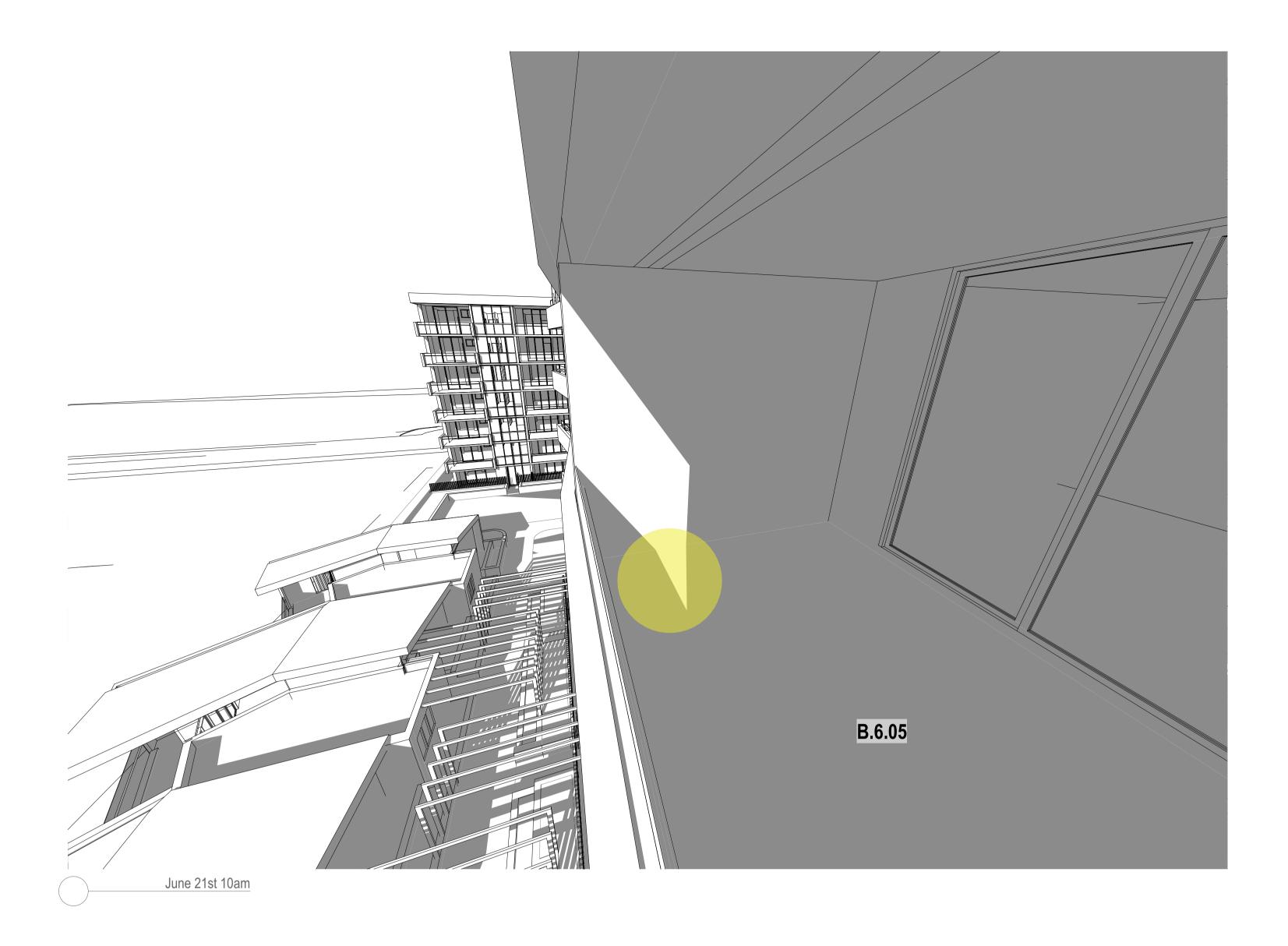


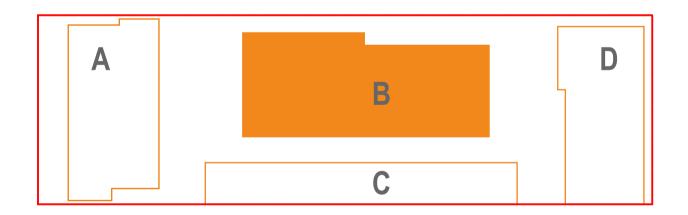


Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

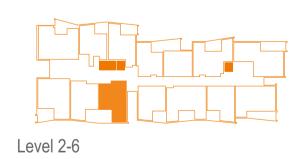
Legend

Solar to Balcony





Key Plan - Woolooware Bay Stage 3



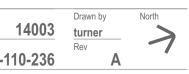
Key Plan - Building B

Captain Cook Drive Cronulla NSW 2230 Australia		Status For In	formation	Dwg No. A-DA-110-2	
Woolooware Bay Town Centre Residential Stage 3			0 @ B1		140
Project Title		Scale		Project No.	440
		A Rev.	16/05/17 JM Date Approved by		
rainwater storage Fire Sprinkler System	No BASIX requirement for rain water tank Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer				
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers				
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area				
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units				
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)				
	Internal walls within units: Plasterboard on studs - no insulation				
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation				
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.				
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard R1.5 insulation to units with roof over.				
	Given values are NFRC, total window values				
	SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame				
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95	s: Refer to Approved Stratum Dra row-E clear glazing or lower than): 3.95			ations
BASIX inclusions –	Woolooware Bay Town Centre – Stage 3	NOTE	: Stratum Boundaries ar	o indicativo only	

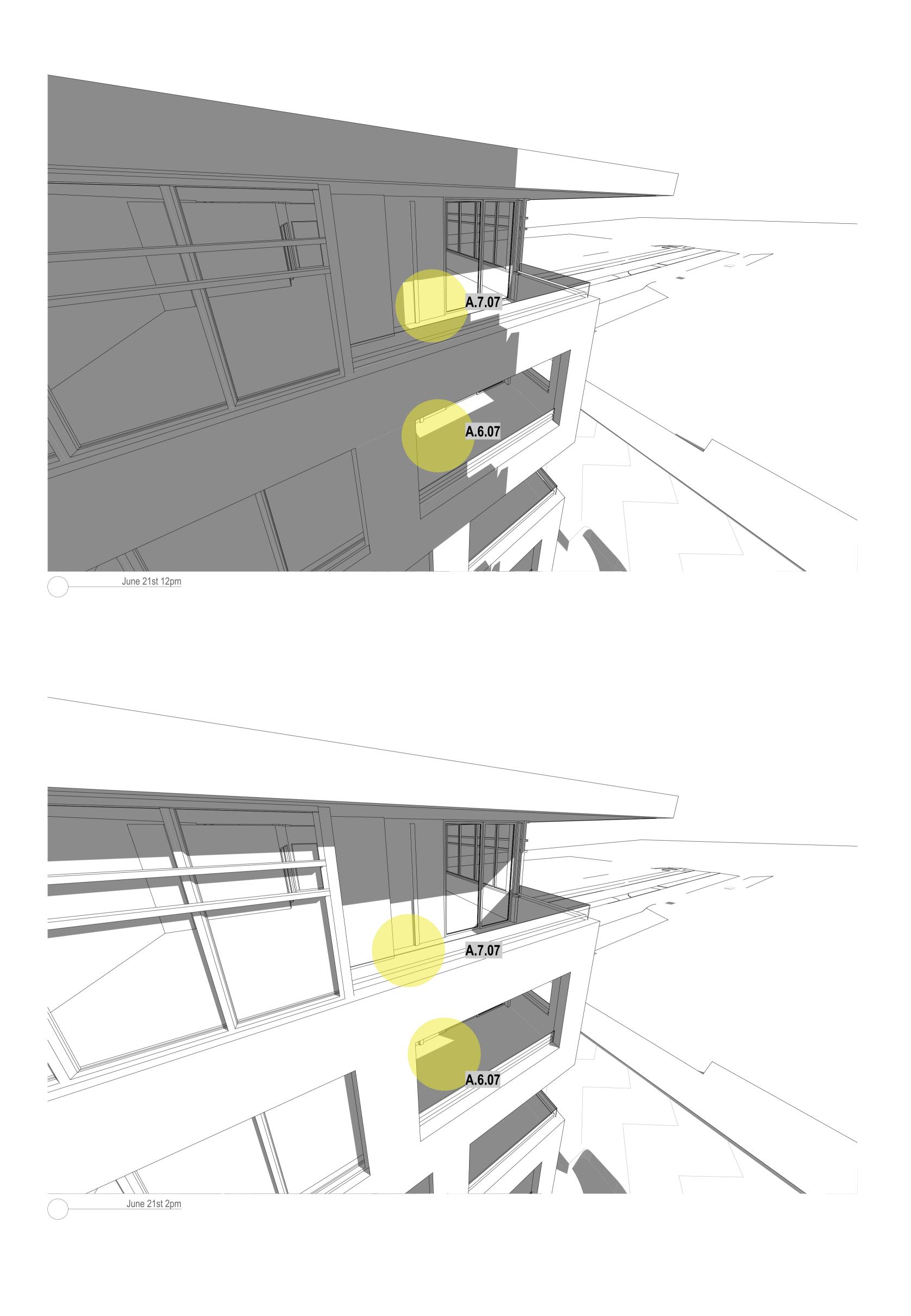
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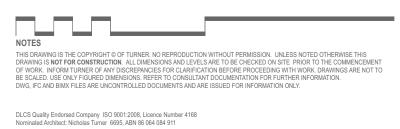
Building B - Solar Access Diagrams B.6.05

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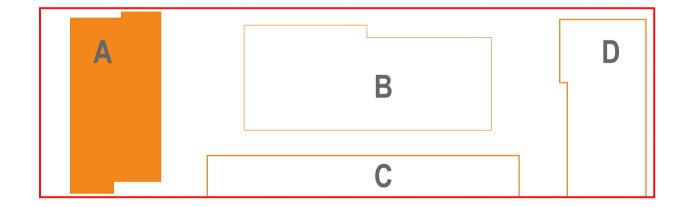
Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

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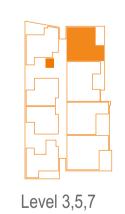
Solar to Balcony

Legend





Key Plan - Woolooware Bay Stage 3



Key Plan - Building B

Level	2,4,6

ASIX inclusions -	Woolooware Bay Town Centre – Stage 3	NOTE: Stratum Boundaries are indicative only.
lazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63	Refer to Approved Stratum Drawings for Final Locations
	Double glazed skylights in an aluminium or timber frame	
	Given values are NFRC, total window values	
oof / ceiling isulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.	
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.	
/all / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation	
	Internal walls within units: Plasterboard on studs - no insulation	
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)	
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units	
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area	
entral hot water ystem	Central gas-fired bolier with R1.0 (~38mm) insulation to the ring main and supply risers	
wimming Pool	Volume: 200 kL. Heating system: Electric heat pump Pump controlled by timer	
ainwater storage	No BASIX requirement for rain water tank	
ire Sprinkler ystem	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.	

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

A 16/05/17 JM DA Amendment Rev. Date Approved by Revision Notes Scale Project No.
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 1:1000, 1:78.74 @ B1
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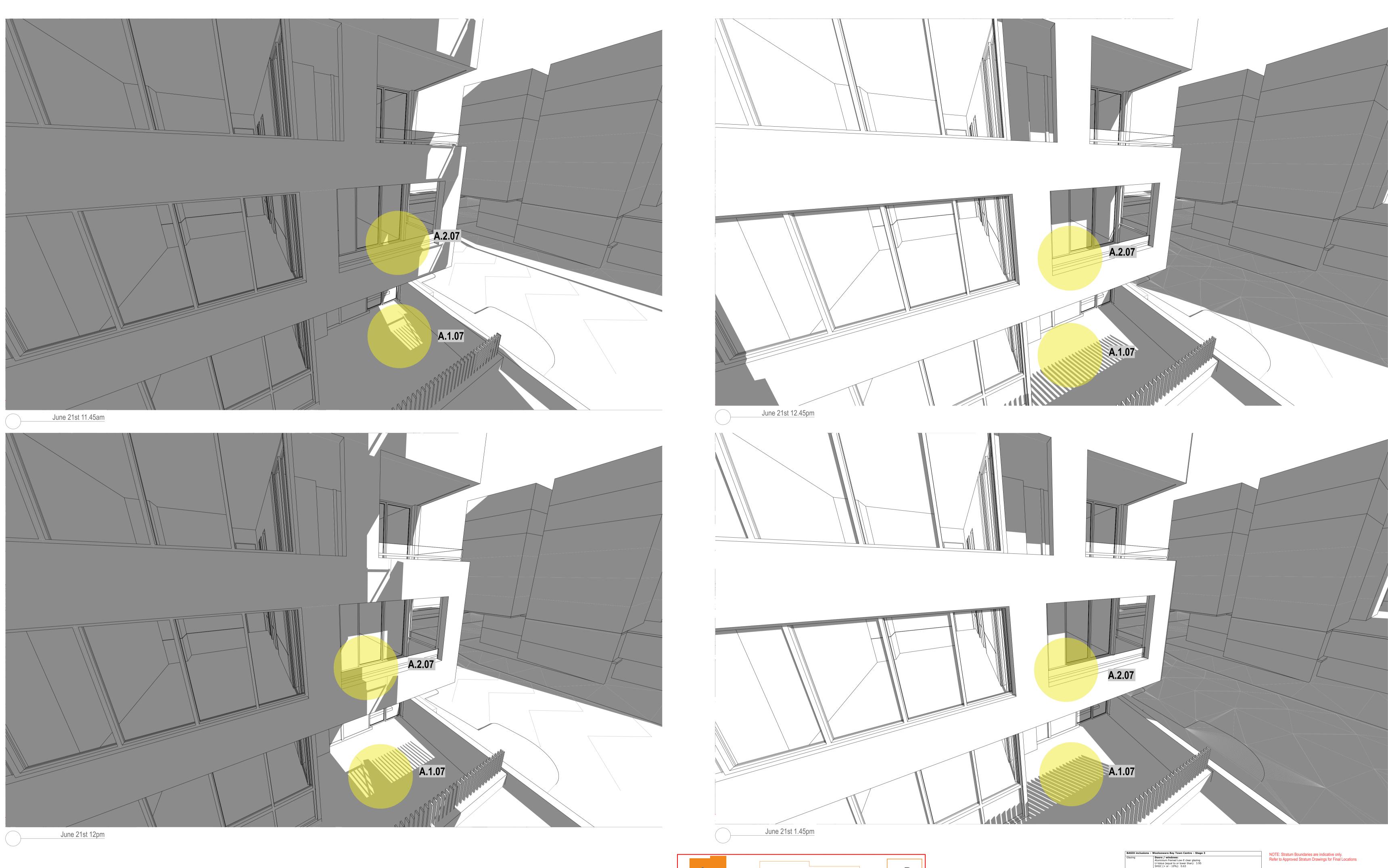
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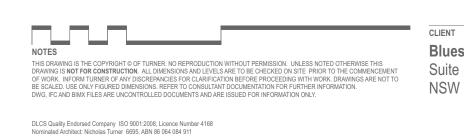
DA Amendment 01 Building A - Solar Access Diagrams A.6.07 to 7.07

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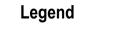
L7 ONE Oxford Street T +61 2 8668 0000 Darlinghurst NSW 2010 F +61 2 8668 0088 Australia turnerstudio.com.au 144

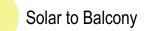




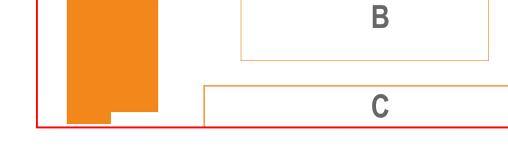


Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia



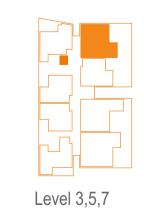


SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)

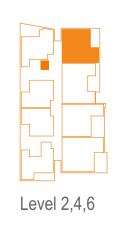


Key Plan - Woolooware Bay Stage 3





Key Plan - Building A



	Woolooware Bay Town Centre – Stage 3
lazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
	Double glazed skylights in an aluminium or timber frame
	Given values are NFRC, total window values
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Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

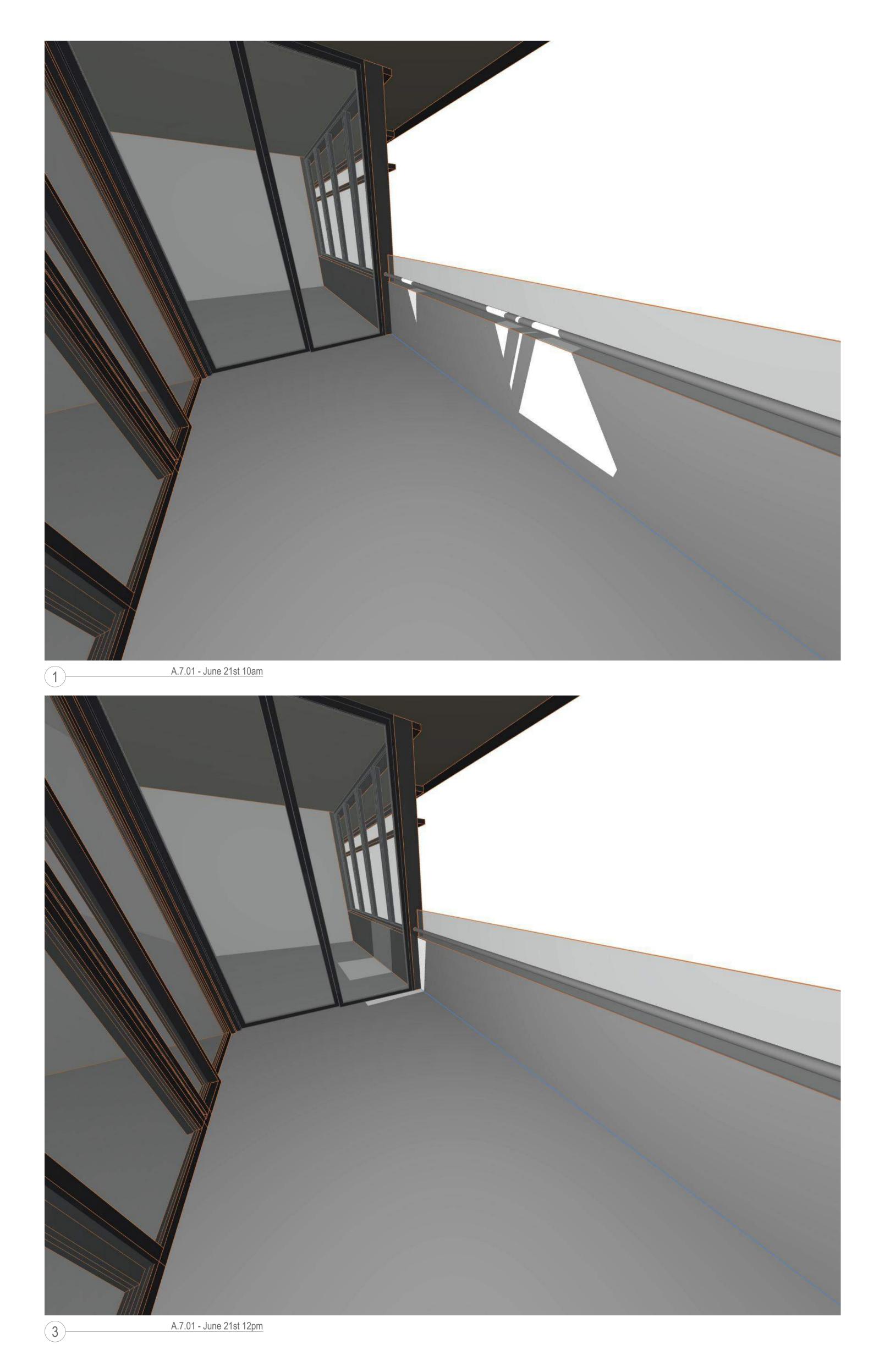
DA Amendment 01 Building A - Solar Access Diagrams A.1.07 to 2.07



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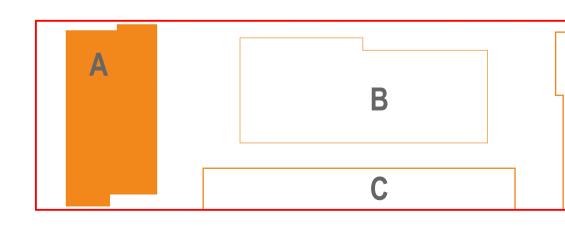




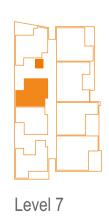
CLIENT Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia NOTES THIS DRAWING IS THE COPYRIGHT © OF TURNER. NO REPRODUCTION WITHOUT PERMISSION. UNLESS NOTED OTHERWISE THIS DRAWING IS NOT FOR CONSTRUCTION. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK. INFORM TURNER OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK. DRAWINGS ARE NOT TO BE SCALED. USE ONLY FIGURED DIMENSIONS. REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION. DWG, IFC AND BIMX FILES ARE UNCONTROLLED DOCUMENTS AND ARE ISSUED FOR INFORMATION ONLY. DLCS Quality Endorsed Company ISO 9001:2008, Licence Number 4168 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911

SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)





Key Plan - Woolooware Bay Stage 3



D

Key Plan - Building A

BASIX inclusions –	Woolooware Bay Town Centre – Stage 3	NOTE	: Stratum Bo	undaries are	indicative only.
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				vings for Final Location
	Double glazed skylights in an aluminium or timber frame				
	Given values are NFRC, total window values				
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.				
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.				
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Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

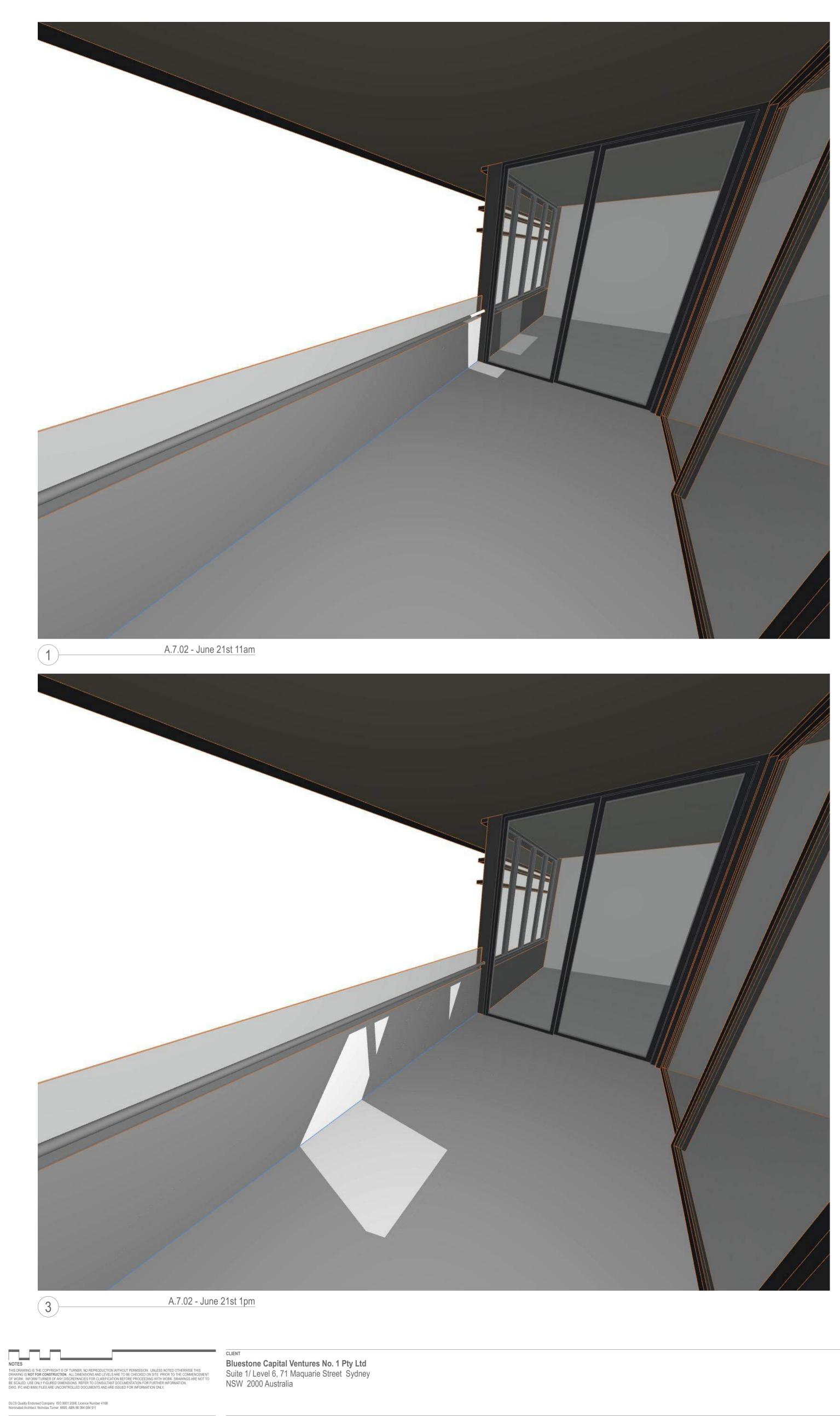
DA Amendment 01 Building A - Solar Access Diagrams - A.7.01 Balcony **TURNER**

A Rev.	16/05/17 Date	JM Approved by	DA Amendment Revision Notes	
Scale			Project No.	
1:1000	@ B1			14003
Status			Dwg No.	
For Information			A-DA-1	10-239

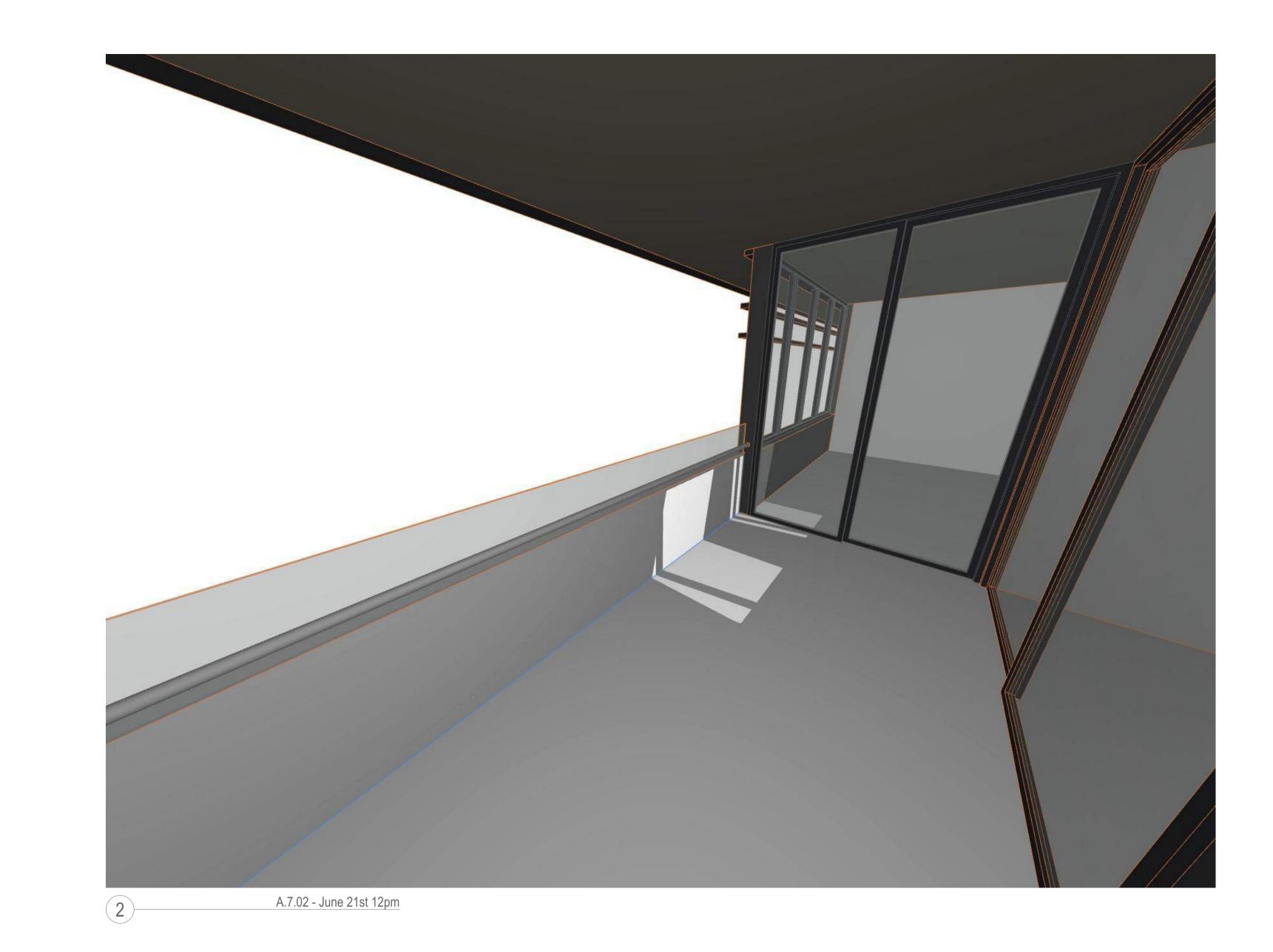
L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia

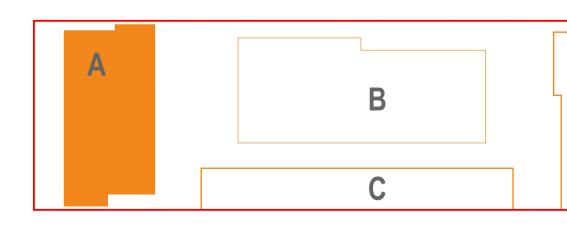
T +61 2 8668 0000 F +61 2 8668 0088 turnerstudio.com.au **146**

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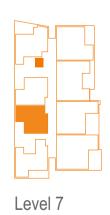


SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)





Key Plan - Woolooware Bay Stage 3



D

Key Plan - Building A

BASIX inclusions -	Woolooware Bay Town Centre – Stage 3	NOTE	: Stratum Bo	oundaries are	indicative only.
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				wings for Final Location
	Double glazed skylights in an aluminium or timber frame				
	Given values are NFRC, total window values				
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.				
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	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)				
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Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				
		A Rev.	16/05/17 Date	JM Approved by	DA Amendmen Revision Notes

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.7.02 Balcony **TURNER**

A Rev.	16/05/17 Date	JM Approved by	DA Amendment Revision Notes	
Scale			Project No.	
1:1000 @ B1				14003
Status			Dwg No.	
For Information			A-DA- 1	10-240



APT A7.01 BALCONY







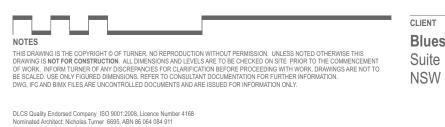
2 Solar Analysis Birds Eye View 10:45am

Key

Sunlight into internal habitable areas

Sunlight onto external balcony areas





Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

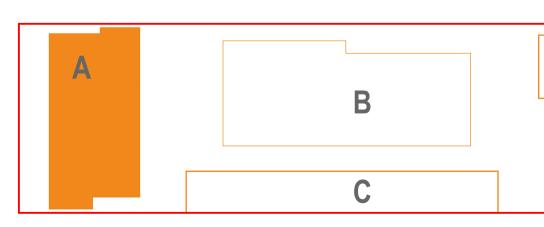


3 Solar Analysis Birds Eye View 11:30am



4 Solar Analysis Birds Eye View 11:45am

Cut plane at 1m above finished floor level



Key Plan - Woolooware Bay Stage 3

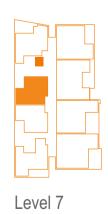


Solar Analysis Measured Area 11:30am 1:50

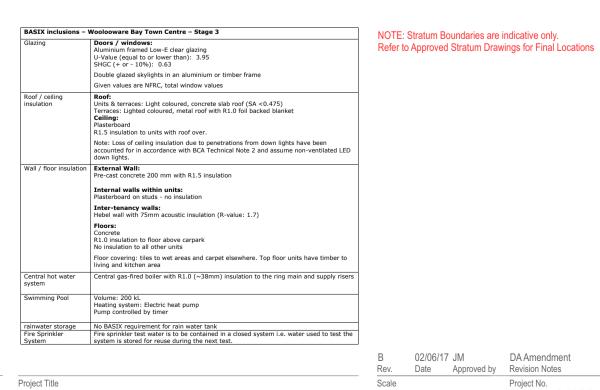


Solar Analysis Measured Area 11:45am 1:50



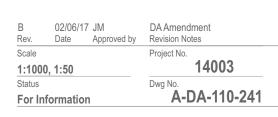


Key Plan - Building A



Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.7.01 Balcony



TURNER

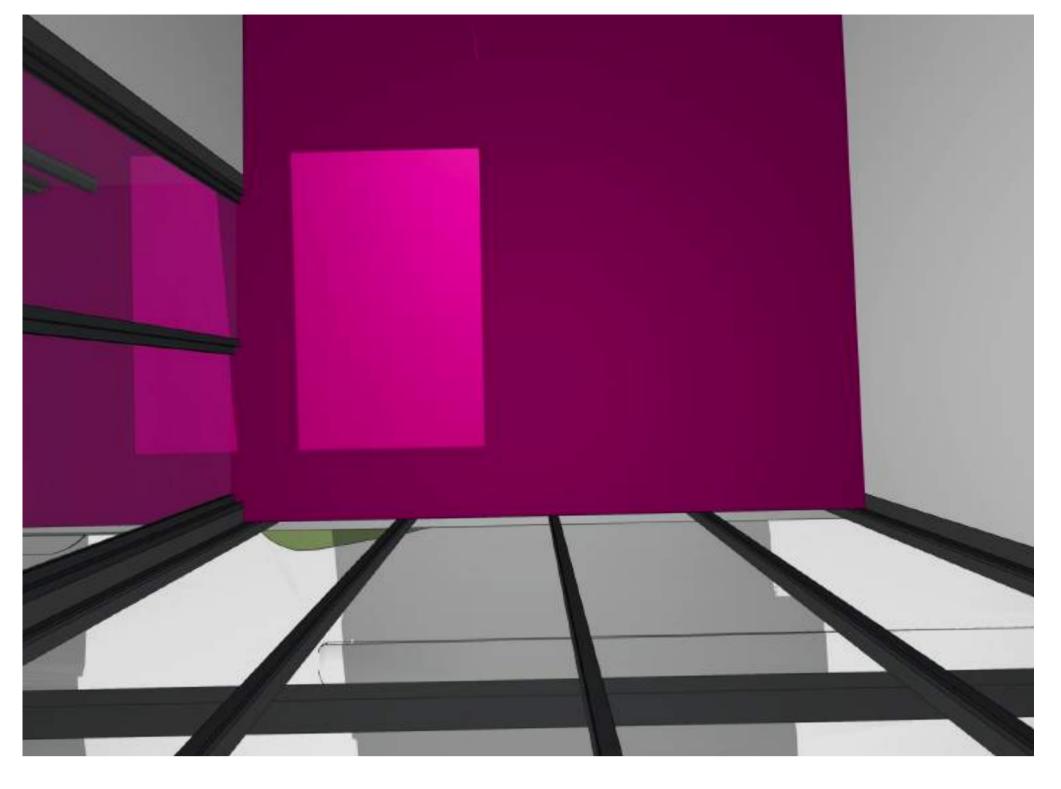
L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia

T +61 2 8668 0000 F +61 2 8668 0088 turnerstudio.com.au 148

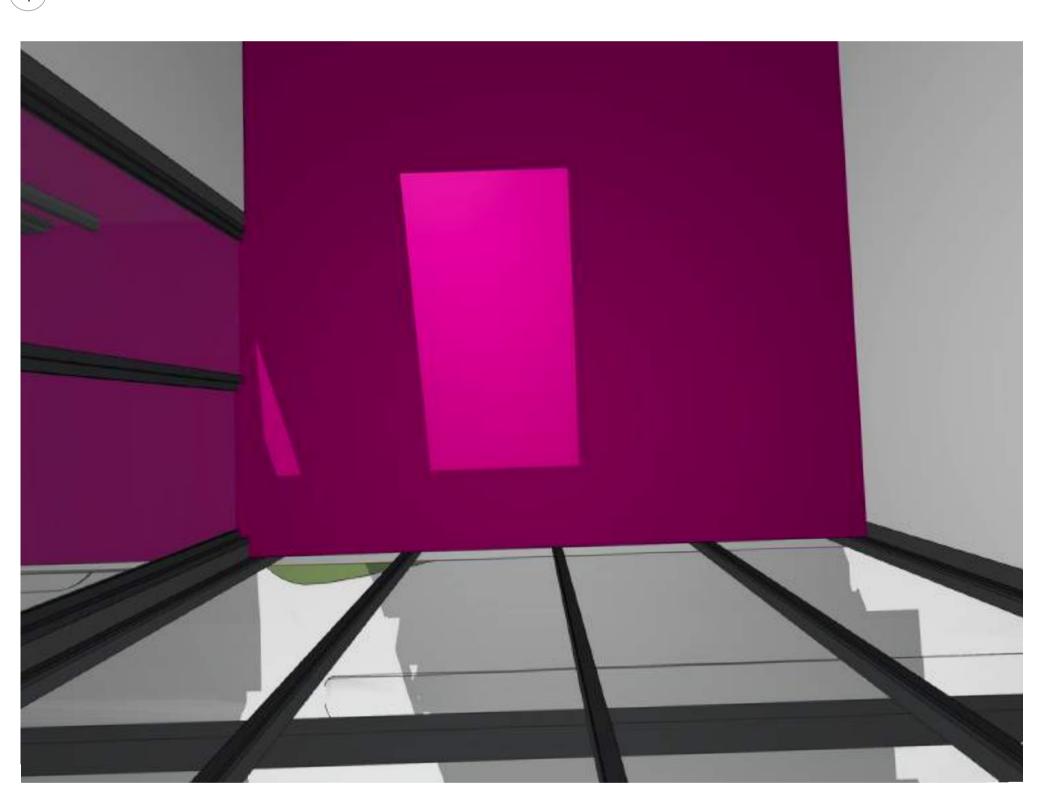
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APT A7.02 LIVING



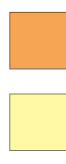
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1 Solar Analysis Birds Eye View 11:45am
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2)-

Solar Analysis Birds Eye View 12pm

Key

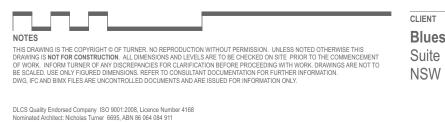


Sunlight into internal habitable areas

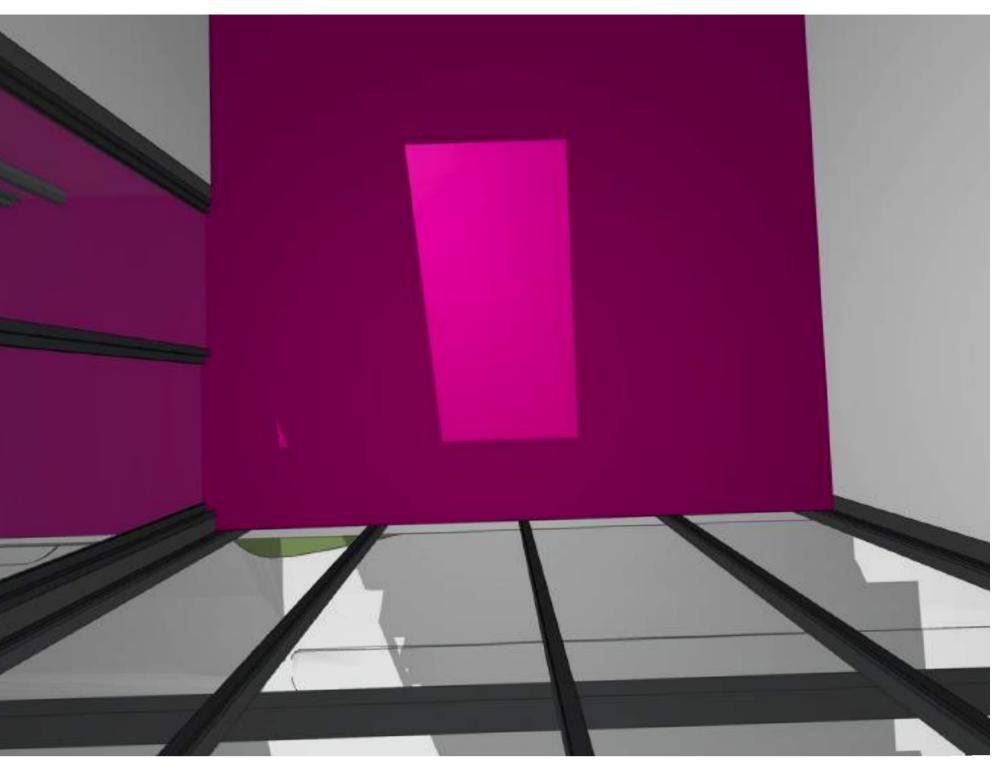
Sunlight onto external balcony areas



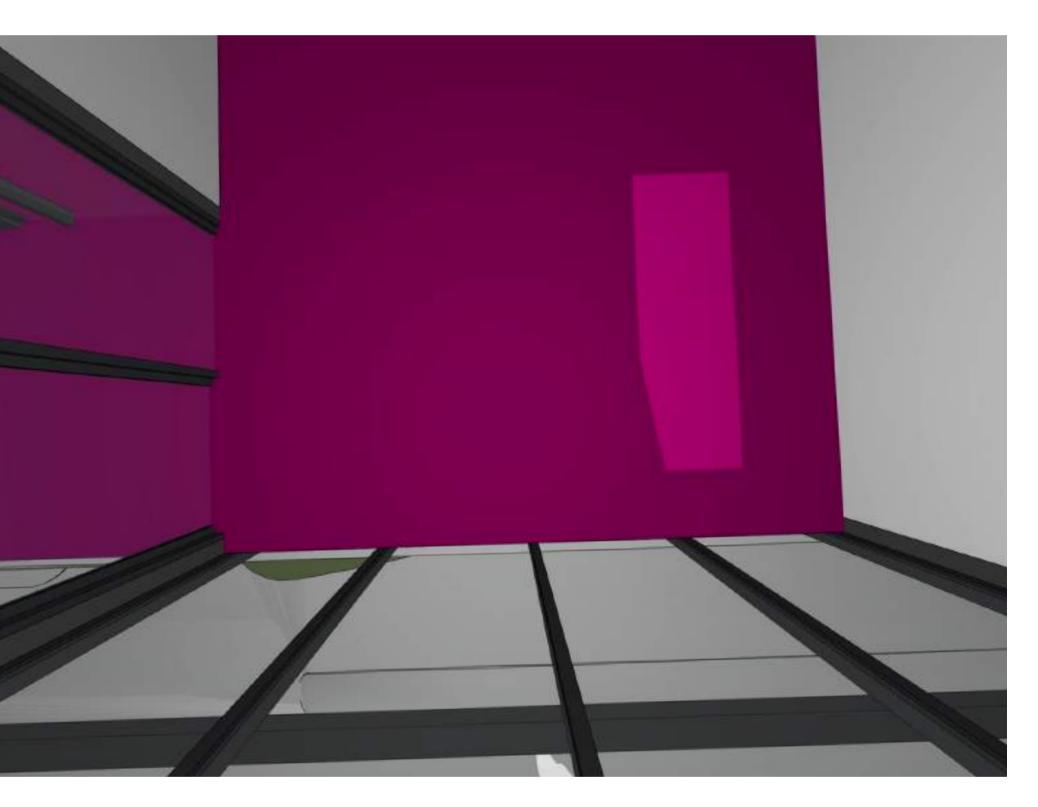
Cut plane at 1m above finished floor level



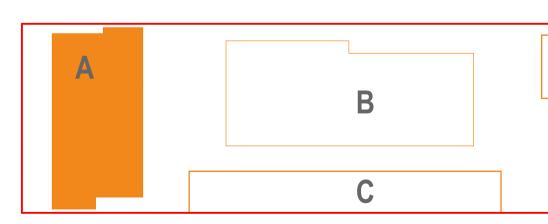
Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia



3 Solar Analysis Birds Eye View 12:45pm



4 Solar Analysis Birds Eye View 1:45pm



Key Plan - Woolooware Bay Stage 3

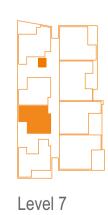


Solar Analysis 11:45am 1:50

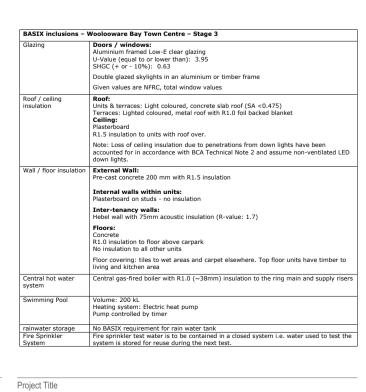


Solar Analysis 12pm 1:50





Key Plan - Building A



Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.7.02 Living **TURNER**

В	02/06/17		DA Amend	
Rev.	Date	Approved by	Revision No	tes
Scale			Project No.	
1:1000,	1:50			14003
Status			Dwg No.	
For Info	ormation		A-[DA-110-242

NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

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В



APT A7.02 BALCONY

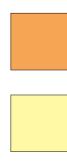


Solar Analysis Birds Eye View 11.00am



2 Solar Analysis Birds Eye View 11.45am

Key



Sunlight into internal habitable areas

Sunlight onto external balcony areas



Cut plane at 1m above finished floor level



Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

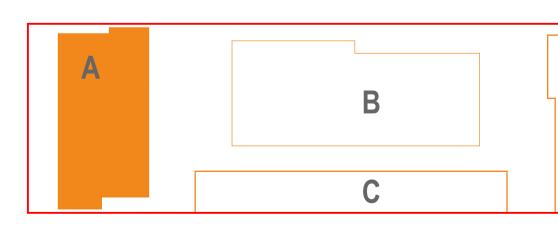
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



3 Solar Analysis Birds Eye View 12.00pm



4 Solar Analysis Birds Eye View 13.00pm



Key Plan - Woolooware Bay Stage 3

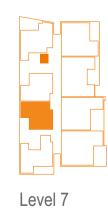


Solar Analysis Measured Area 11.45am 1:50

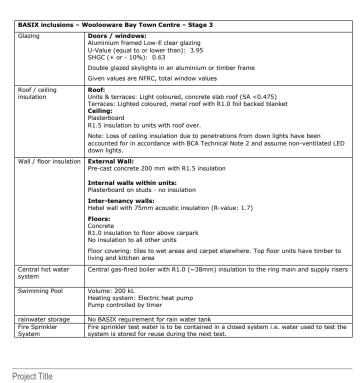
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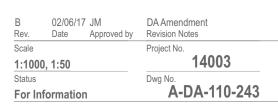


Key Plan - Building A



Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.7.02 Balcony



NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

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В

Drawn by North turner Rev

APT A1.07 BALCONY





1 Solar Analysis Birds Eye View 11.45am



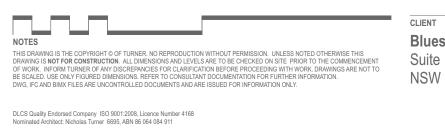
2 Solar Analysis Birds Eye View 12.00pm

Key

Sunlight into internal habitable areas

Sunlight onto external balcony areas





Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

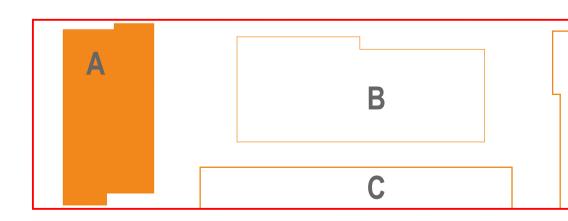


3 Solar Analysis Birds Eye View 12.30pm



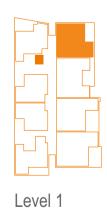
4 Solar Analysis Birds Eye View 13.45pm

Cut plane at 1m above finished floor level



Key Plan - Woolooware Bay Stage 3





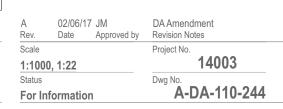
Key Plan - Building A

BASIX inclusions –	Woolooware Bay Town Centre – Stage 3
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
	Double glazed skylights in an aluminium or timber frame
	Given values are NFRC, total window values
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LEI down lights.
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation
	Internal walls within units: Plasterboard on studs - no insulation
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply rise
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer
rainwater storage	No BASIX requirement for rain water tank
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia

Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.1.07 Balcony **TURNER**



NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

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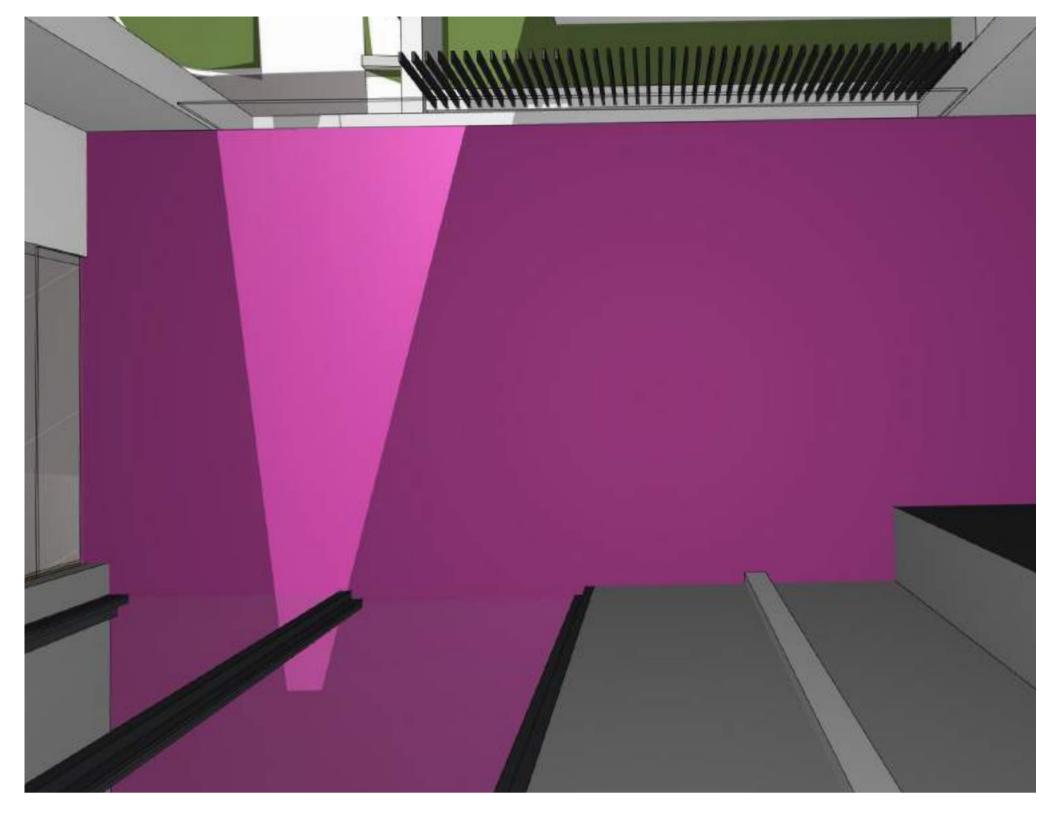
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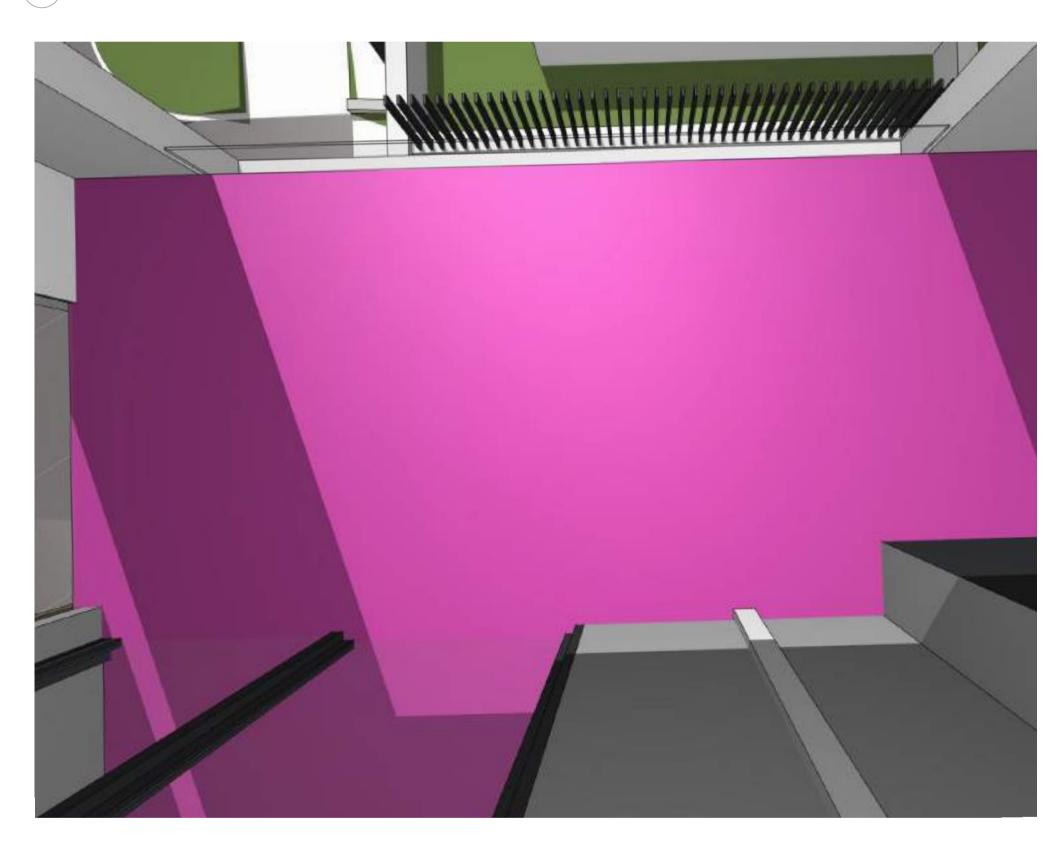
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APT A2.07 BALCONY



Solar Analysis Birds Eye View 11.50am



2 Solar Analysis Birds Eye View 12.30pm

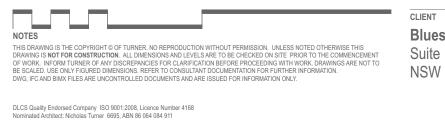
Key

Sunlight into internal habitable areas

Sunlight onto external balcony areas

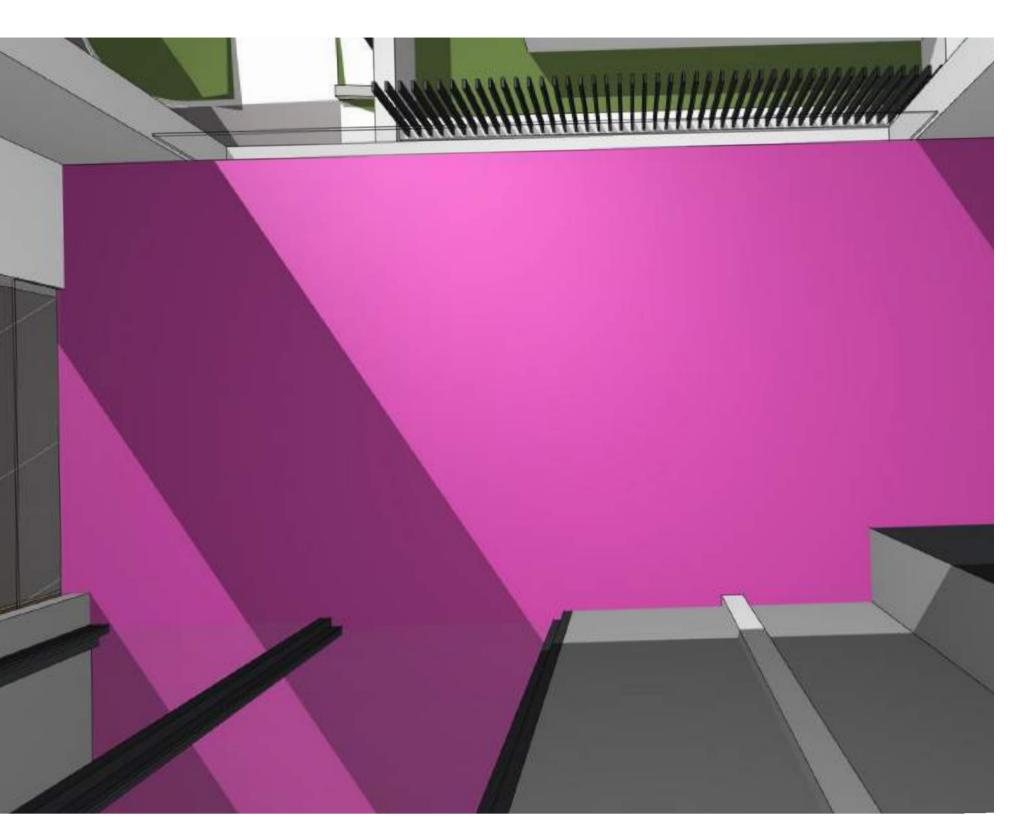


Cut plane at 1m above finished floor level

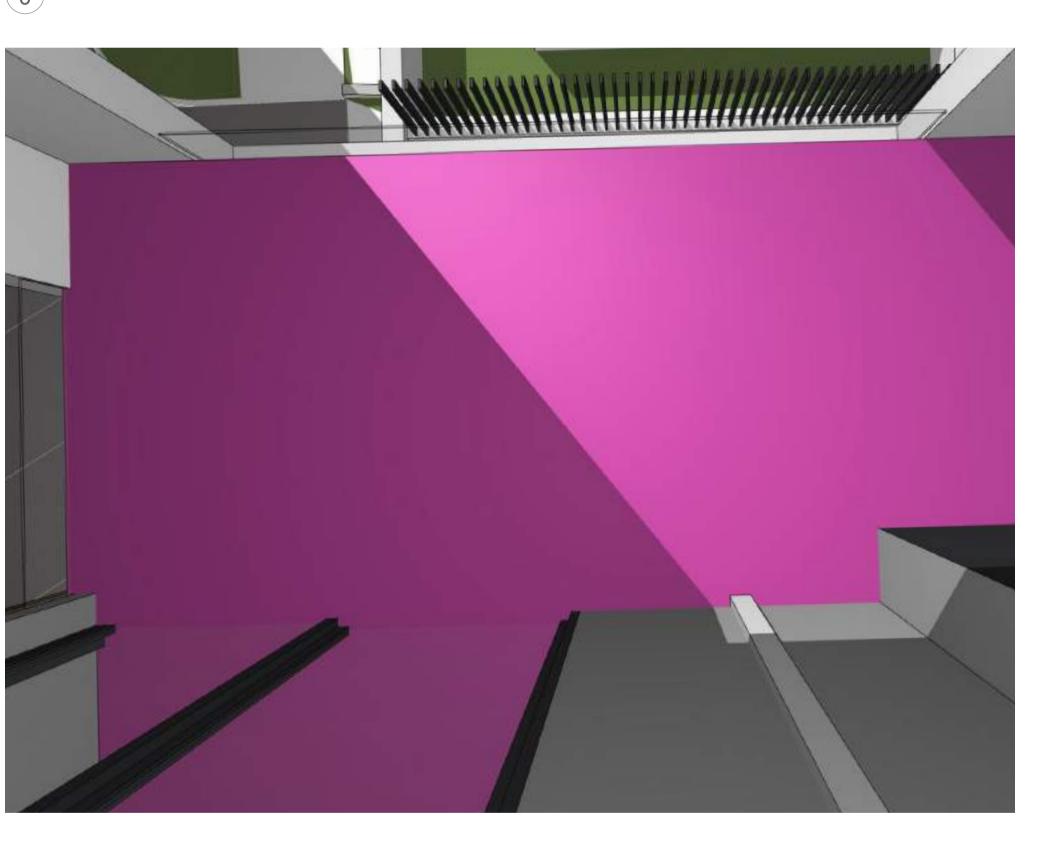


Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

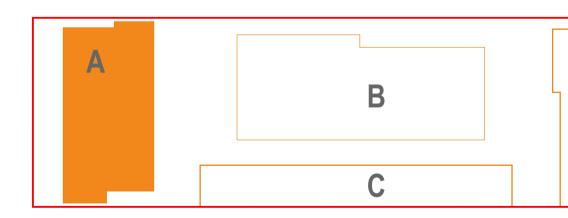
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



3 Solar Analysis Birds Eye View 1.30pm

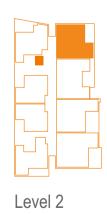


4 Solar Analysis Birds Eye View 1.50pm



Key Plan - Woolooware Bay Stage 3





Key Plan - Building A

	Woolooware Bay Town Centre – Stage 3
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
	Double glazed skylights in an aluminium or timber frame
	Given values are NFRC, total window values
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LEE down lights.
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation
	Internal walls within units: Plasterboard on studs - no insulation
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply rise
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer
rainwater storage	No BASIX requirement for rain water tank
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test th system is stored for reuse during the next test.

Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.2.07 Balcony **TURNER**

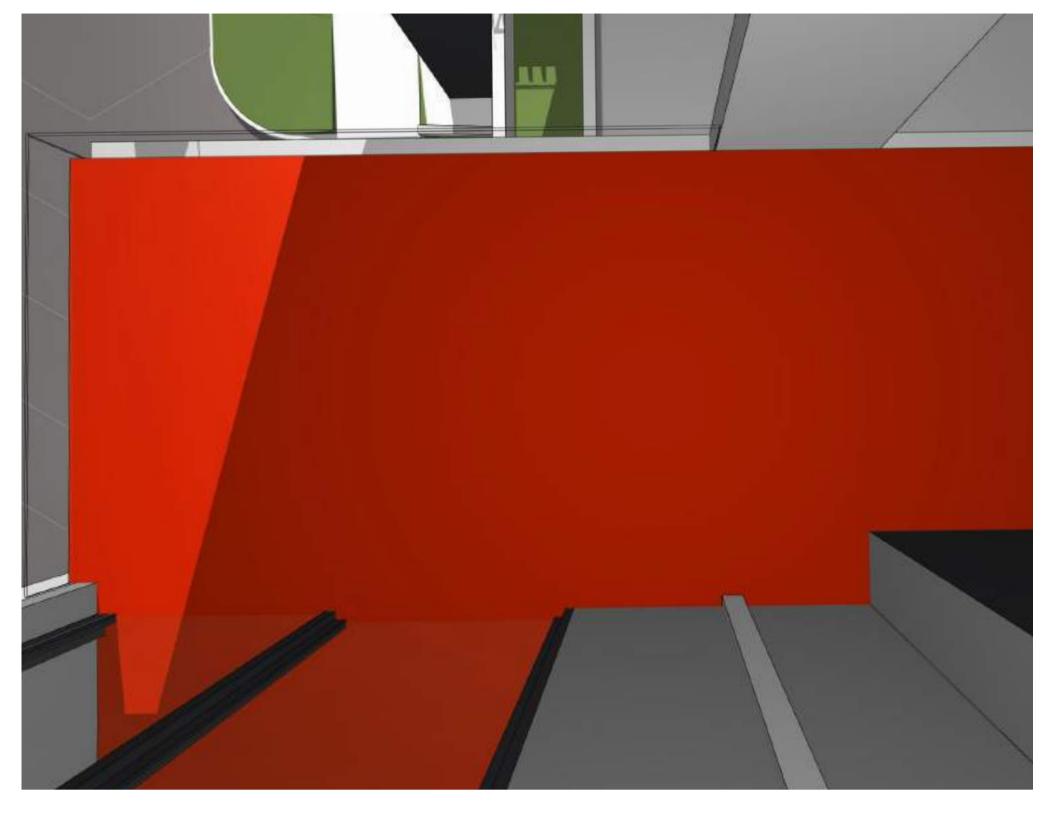
A	02/06/17		DA Amendment
Rev.	Date	Approved by	Revision Notes
Scale			Project No.
1:1000,	1:22		14003
Status			Dwg No.
For Information			A-DA-110-245

NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

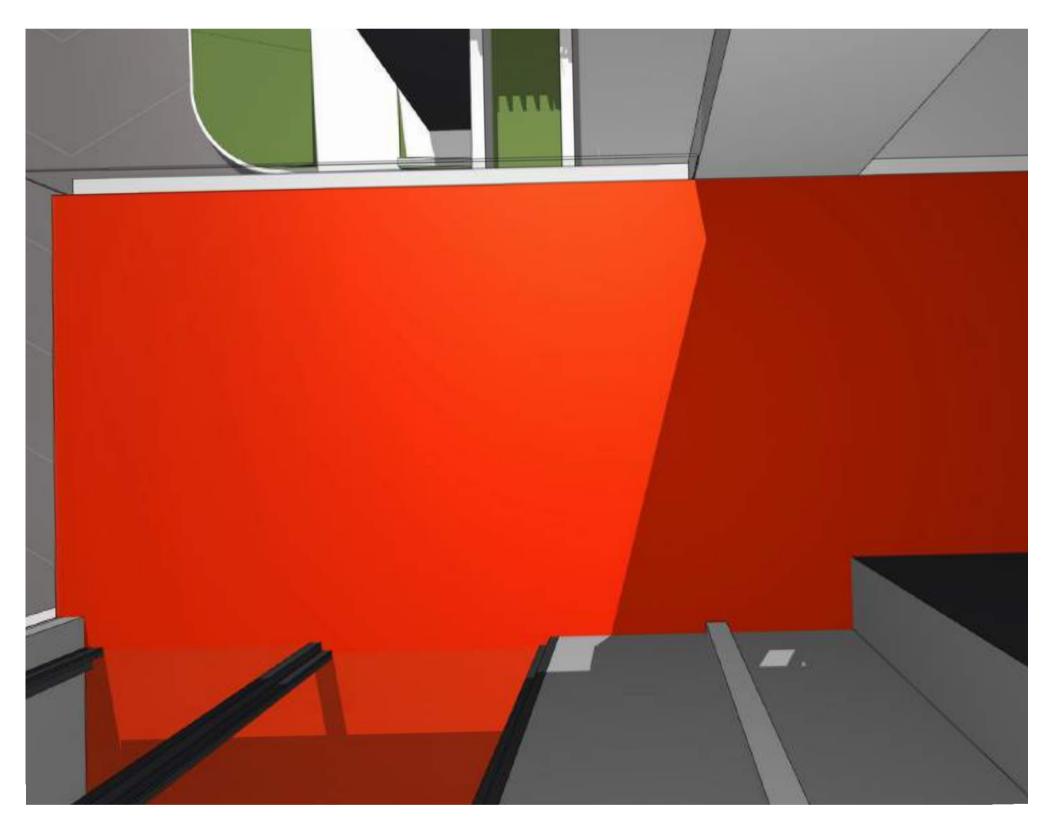
L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia



APT A3.07 BALCONY



1 Solar Analysis Birds Eye View 11.45am



2 Solar Analysis Birds Eye View 12.00pm

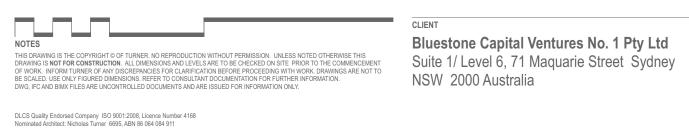
Key

Sunlight into internal habitable areas

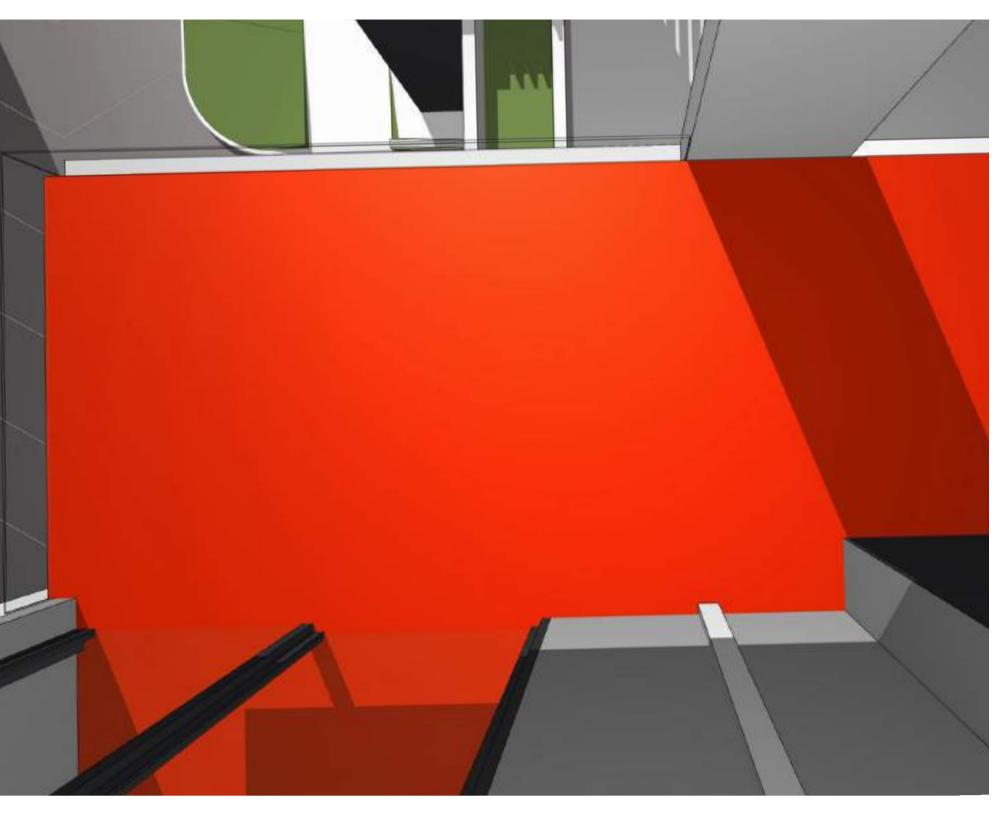
Sunlight onto external balcony areas



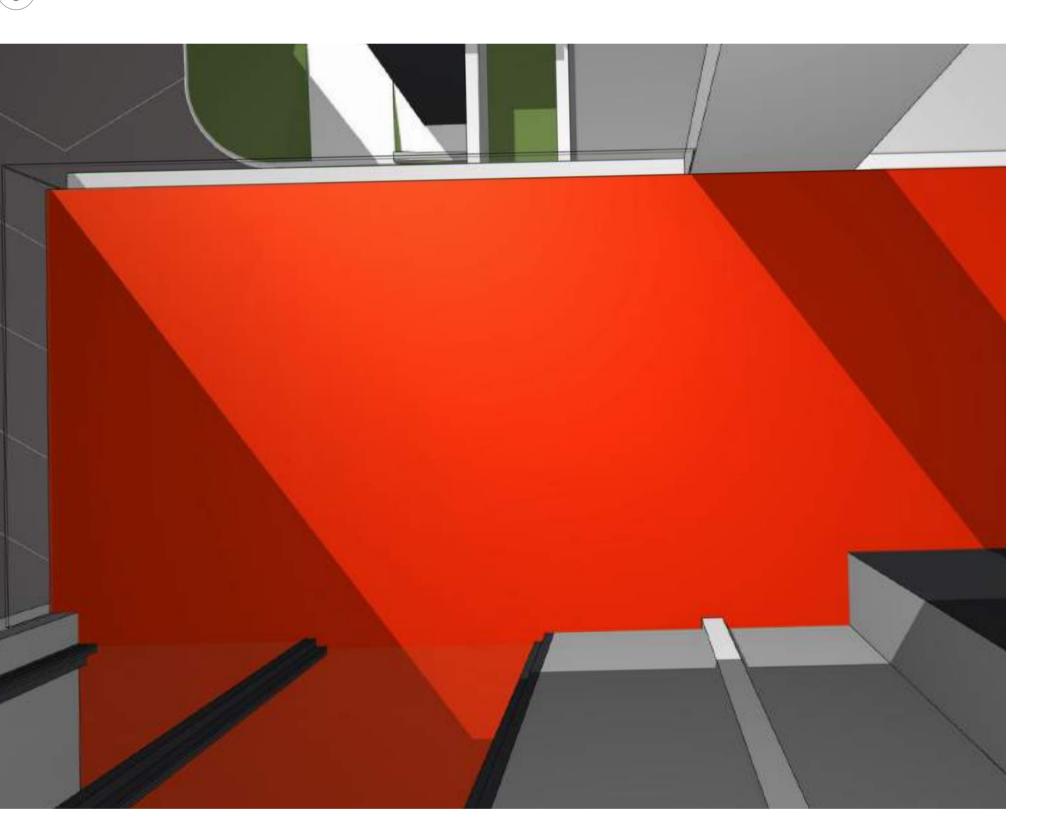
Cut plane at 1m above finished floor level



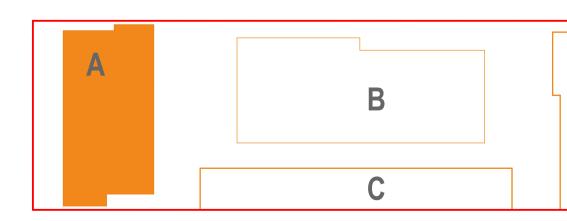
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



3 Solar Analysis Birds Eye View 12.45pm

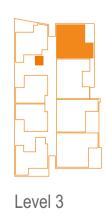


4 Solar Analysis Birds Eye View 1.45pm



Key Plan - Woolooware Bay Stage 3





Key Plan - Building A

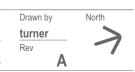
BASIX inclusions - Woolcoware Bay Town Centre - Stage 3 NOTE: Stratum Boundaries are indicative only. Glazing Doors / windows: Lu-Value (equal to or lower thm): 3.95 SHCC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame Given values are NFRC, total window values NOTE: Stratum Boundaries are indicative only. Roof / ceiling insulation Roof: Ceiling: Plasterboard R.1.5 insulation to units with roof over. Note: iso of ceiling insulation to ceiling: Plasterboard R.1.5 insulation to units with not over. Note: iso of ceiling insulation there are concrete 200 mm with R1.0 foil backed blanket Ceiling: Plasterboard on studi - no insulation There-reat concrete 200 mm with R1.5 insulation There-reat walls within units: Plasterboard on studi - no insulation Inter-tenancy walls: Hebel wall with 57m acoustic insulation (R-value: 1.7) Floor: Concrete R.1.0 insulation to floor above carpark No insulation to floor above carpark No insulation to floor above carpark No insulation to all other units Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer Fire sprinkler No decret for rain water tank Fire sprinkler Swimming Pool Volume: 200 kL Heating system: is tore for rain water tank Fire sprinkler Fire sprinkler torst water is to be contained in a closed system i.e. water used to test the system Swimming Pool No Age/NoT Mare Approved by Rendment Rev. Date Approved by Rendment Revision Notes	Aluminium frame Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63 Double glazed skylights in an aluminium or timber frame Given values are NFRC, total window values Roof / celling Insulation Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Light coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard R1.5 insulation to units with roof over. Note: Loss of celling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors:			
Given values are NFC, total window values Roof / ceiling insulation Roof: Units & terraces: Light coloured, concrete siab roof (SA < 0.475) Terraces: Light coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to uits with roof over. Wail / floor insulation External Walls: Terraces: Light coloured, metal roof with R1.5 insulation Wail / floor insulation Internal walls within units: Plasterboard on studies - no insulation Internal walls within units: Plasterboard on studies - no insulation (R-value: 1.7) Pre-cast concrete 200 mm with R1.5 insulation (R-value: 1.7) Wail / floor insulation to all other units No insulation to insu et aconce the units insume	Given values are NFRC, total window values Roof / ceiling insulation Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over. Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Inter-tenancy			0
Roof / ceiling insulation Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighte coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over. Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterboard on studia - no insulation Internal walls within units: Plasterboard on studia - no insulation Internal walls within form acoustic insulation (R-value: 1.7) Floorseit R1.0 insulation to floor above carpark No insulation to R1.0 (~38mm) insulation to the ring main and supply risers system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers system Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage System No BASIX requirement for rain water tank Fire Sprinkler System is stored for reuse during the next test.	Roof / ceiling insulation Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over. Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)			
insulation Units & terraces: Light coloured, concrete sale roof (SA < 0.475)	Inits & terraces: Light coloured, concrete slab roof (SA <0.475)			
accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Pasterbaard on sinsulation Internal walls within units: Pasterbaard on sinsulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Fire sprinkler Fire sprinkler text water is to be contained in a closed system i.e. water used to test the system Swimming No BASIX requirement for rain water tank Fire sprinkler Fire sprinkler Fire sprinkler Fire sprinkler Fire sprinkler System System is stored for reuse during the next test. A 02/06/17 JM	accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors:			
Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: Concrete Concrete in to floor above carpark No insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Heating system: Electric heat pump Pump controlled by timer rainwater storage Fire Sprinkler Fire sprinkler System is stored for reuse during the next test. A 02/06/17 JM	Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors:			
Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: Concrete R. 1.0 insulation to allo other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central lot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer Fire Sprinkler Fire sprinkler Fire sprinkler System is stored for reuse during the next test. A 02/06/17 JM	Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors:			
Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Central abot water Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Esprinkler test water is to be contained in a closed system i.e. water used to test the System System A 02/06/17 JM DAAmendment	Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors:			
Concrete R.D. insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Fire sprinkler Fire sprinkler test water is to be contained in a closed system i.e. water used to test the System System A 02/06/17 JM DA Amendment				
Iving and kitchen area Central das-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage Fire Sprinkler Esprinkler test System System System System Heating system: to econtained in a closed system i.e. water used to test the system is stored for reuse during the next test. A 02/06/17 JM DA Amendment	R1.0 insulation to floor above carpark			
system Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system System System is stored for reuse during the next test.				
Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Ere sprinkler test water is to be contained in a closed system i.e. water used to test the System system is stored for reuse during the next test. A 02/06/17 JM DA Amendment				
Fire Sprinkler System System is stored for reuse during the next test. A 02/06/17 JM DA Amendment	Heating system: Electric heat pump			
System system is stored for reuse during the next test. A 02/06/17 JM DA Amendment				
Project Title Scale Project No.		 Duit	, thhister ph	

Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.3.07 Balcony **TURNER**

A Rev.	02/06/17 Date	JM Approved by	DA Amendment Revision Notes
Scale			Project No.
1:1000,	1:22		14003
Status			Dwg No.
For Info	ormation	1	A-DA-110-246

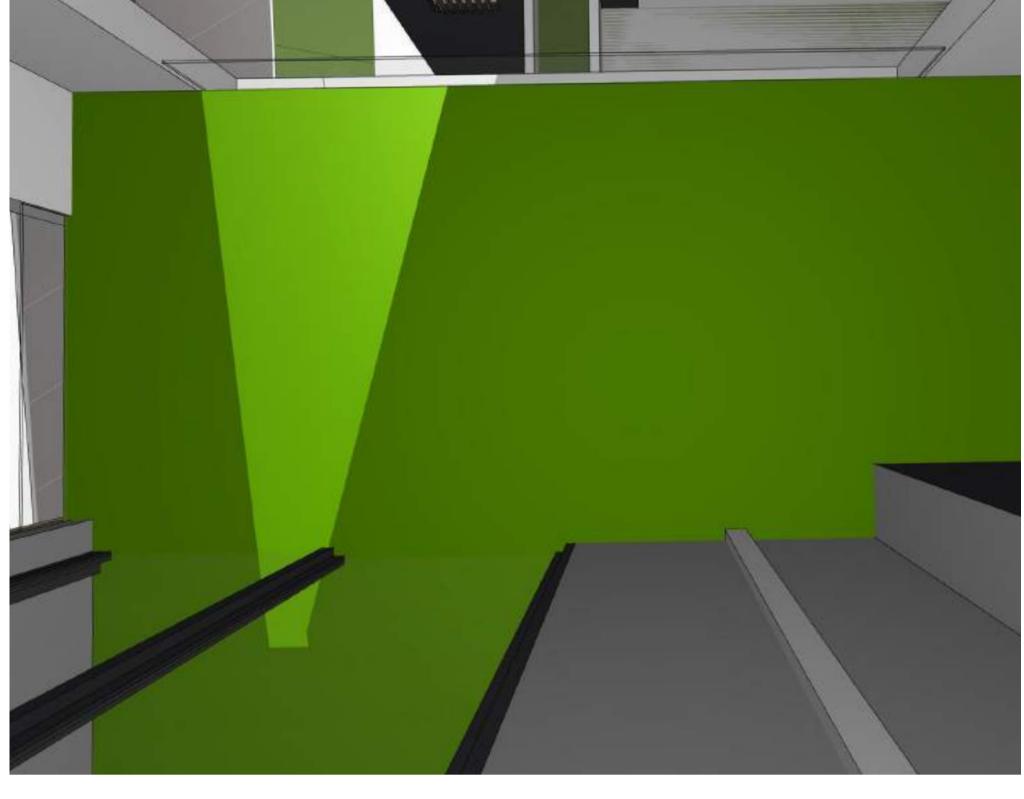
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APT A4.07 BALCONY



Solar Analysis Birds Eye View 11.50am





2 Solar Analysis Birds Eye View 12.00pm

Key



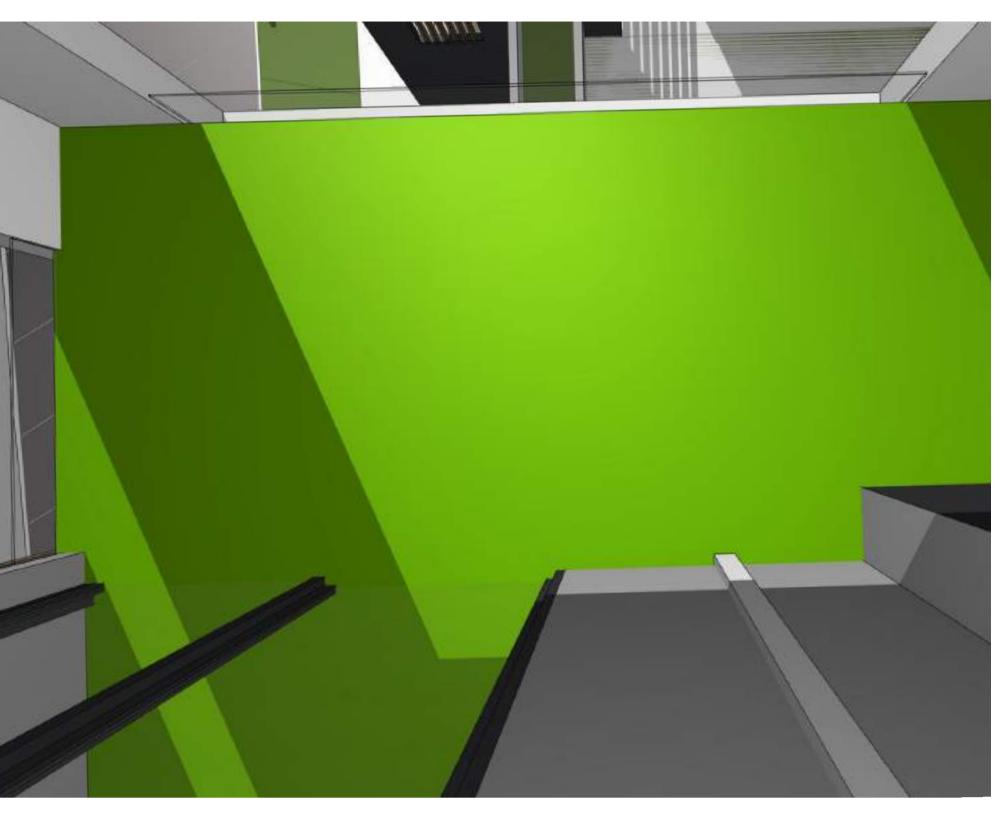
Sunlight into internal habitable areas

Sunlight onto external balcony areas

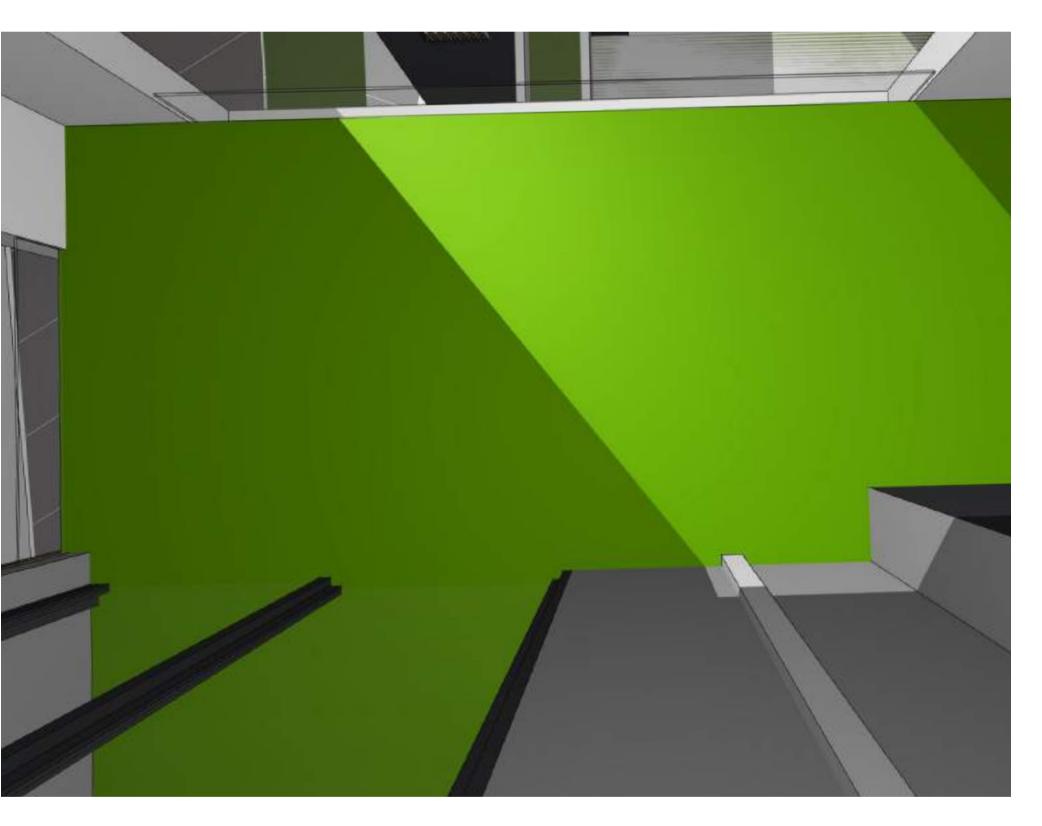




SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)

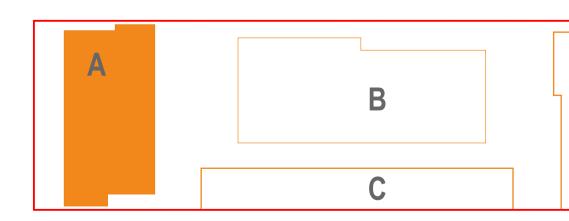


3 Solar Analysis Birds Eye View 12.50pm



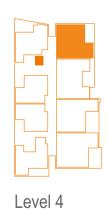
4 Solar Analysis Birds Eye View 1.50pm

Cut plane at 1m above finished floor level



Key Plan - Woolooware Bay Stage 3





Key Plan - Building A

Glazing Nors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.03 Refer to Approved Stratum Drawings for Final Location Roof / celling insulation Roof: Given values are NFRC, total window values Roof: Roof / celling insulation Roof: Roof / celling insulation Roof: Roof / celling insulation Roof: Celling: Page Page Page Page Page Page Page Page	BASIX inclusions -	Woolooware Bay Town Centre – Stage 3	NOTE: Stratum Boundaries are indicative only.				
Given values are NFRC, total window values Roof / ceiling Roof / ceiling Units & terraces: Light coloured, concrete siab roof (SA <0.475) Terraces: Light coloured, metal roof with R1.0 foil backed blanket Ceiling: Roif / ceiling Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation Therea Pre-cast concrete 200 mm with R1.5 insulation Roof reuse Walls: Plasterboard on studs - no insulation Inter-rel walls Hebel wall with? from reuse with BCA rechnical Note : 1.7) Floors: Concrete R1.0 insulation to all other units No insulation to floor above carpark No insulation to floor above carpark No insulation to all other units Partice Lise to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool No Imsulter for rain water tank Fire Sprinkler test water is to be contained in a closed system i.e. water used to test the system Fire Sprinkler Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system System No BASIX requiremen	Glazing	Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95					
Roof / ceiling insulation Roof: Units & terraces: Light coloured, concrete slab roof (SA < 0.475) Terraces: Light coloured, metal roof with R1.0 foil backed blanket pasterinard R1.5 insulation to units with roof over. Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterboard on studs - no insulation (R-chancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: CR_D insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers system Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage System No BASIX requirement for rain water tank Fire Sprinkler System rainwater storage System No BASIX requirement for rain water tank Fire Sprinkler System rainwater storage No BASIX requirement for rain water tank fire Sprinkler Fire sprinkler test water is to be contained in a closed system i.e. water used to test the System		Double glazed skylights in an aluminium or timber frame					
insulation Units & terraces: Light coloured, concrete slab roof (SA < 0.475) Terraces: Lighted coloured, metal roof with R1.0 foll backed blanket Celling: Plasterboard Note: Los of celling neutration to units with roof over. Note: Los of celling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Inter-tenancy walls within units: Plasterboard on studs - no insulation (R-value: 1.7) Floors: Concrete R1.0 insulation to floor above carpark No insulation to floor with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rine sprinkler est water is to be contained in a closed system i.e. water used to test the System Swimming Pool No BASIX requirement for rain water tank Fire Sprinkler Fire Sprinkler est water is to be contained in a closed system i.e. water used to test the System		Given values are NFRC, total window values					
accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights. Wall / floor insulation External Wall: Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterbaard on studies - no insulation Internal walls within units: Plasterbaard on studies - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floorsi: Concrete R1.0 insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Toter covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Fire sprinkler Fire sprinkler test water is to be contained in a closed system i.e. water used to test the System System is stored for reuse during the next test. A 02/06/17 JM Rev. Date Approved by Parison Notes	Roof / ceiling insulation	Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard					
Pre-cast concrete 200 mm with R1.5 insulation Internal walls within units: Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: Concrete Concrete R1.0 insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Fire sprinkler Fire sprinkler System System is stored for reuse during the next test. A 02/06/17 JM Rev. Date Approved by A pproved by Mexiston Notes		accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED					
Plasterboard on studs - no insulation Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: Concrete R.D. Insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central lot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer Fire Sprinkler Fire Sprinkler Fire Sprinkler System is stored for reuse during the next test. A 02/06/17 JM Rev. Date Approved by Revision Notes	Wall / floor insulation						
Hebel wall with 75mm acoustic insulation (R-value: 1.7) Floors: Concrete R1.0 insulation to floor above carpark No insulation to floor above carpark No insulation to all other units Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area Central hot water system Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage System No BASIX requirement for rain water tank Fire Sprinkler Esprinkler e							
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Iving and kitchen area Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers Swimming Pool Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Esprinkler test water is to be contained in a closed system i.e. water used to test the System System Signed for reuse during the next test. A 02/06/17 JM DA Amendment Rev. Date Approved by Revision Notes		Concrete R1.0 insulation to floor above carpark					
system Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer rainwater storage No BASIX requirement for rain water tank Fire Sprinkler Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system System System is stored for reuse during the next test. A 02/06/17 JM DA Amendment Rev. Date Approved by Revision Notes							
Heating system: Electric heat pump Pump controlled by timer rainwater storage Fire Sprinkler Esprinkler test water is to be contained in a closed system i.e. water used to test the System is stored for reuse during the next test. A 02/06/17 JM DA Amendment Rev. Date Approved by Revision Notes	Central hot water system	Central gas-fired boiler with R1.0 (\sim 38mm) insulation to the ring main and supply risers					
Fire Sprinkler Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test. A 02/06/17 JM DA Amendment Rev. Date Approved by Revision Notes	Swimming Pool	Heating system: Electric heat pump					
System is stored for reuse during the next test. A 02/06/17 JM DA Amendment Rev. Date Approved by Revision Notes	rainwater storage						
Rev. Date Approved by Revision Notes	Fire Sprinkler System						
				Date	, when one on ph		
						11000	

Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.4.07 Balcony **TURNER**

 A
 02/06/17 JM
 DA Amendment

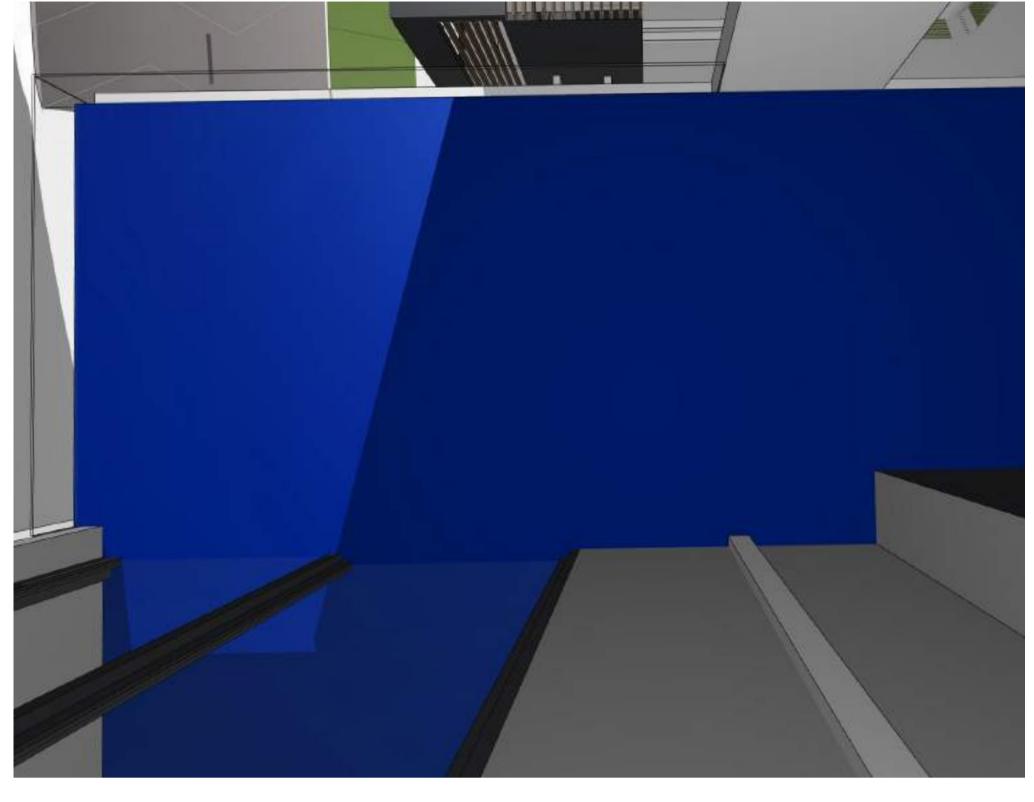
 Rev.
 Date
 Approved by
 Revision Notes

 Scale
 Project No.
 14003 1:1000, 1:22 Status Dwg No. **A-DA-110-247** For Information

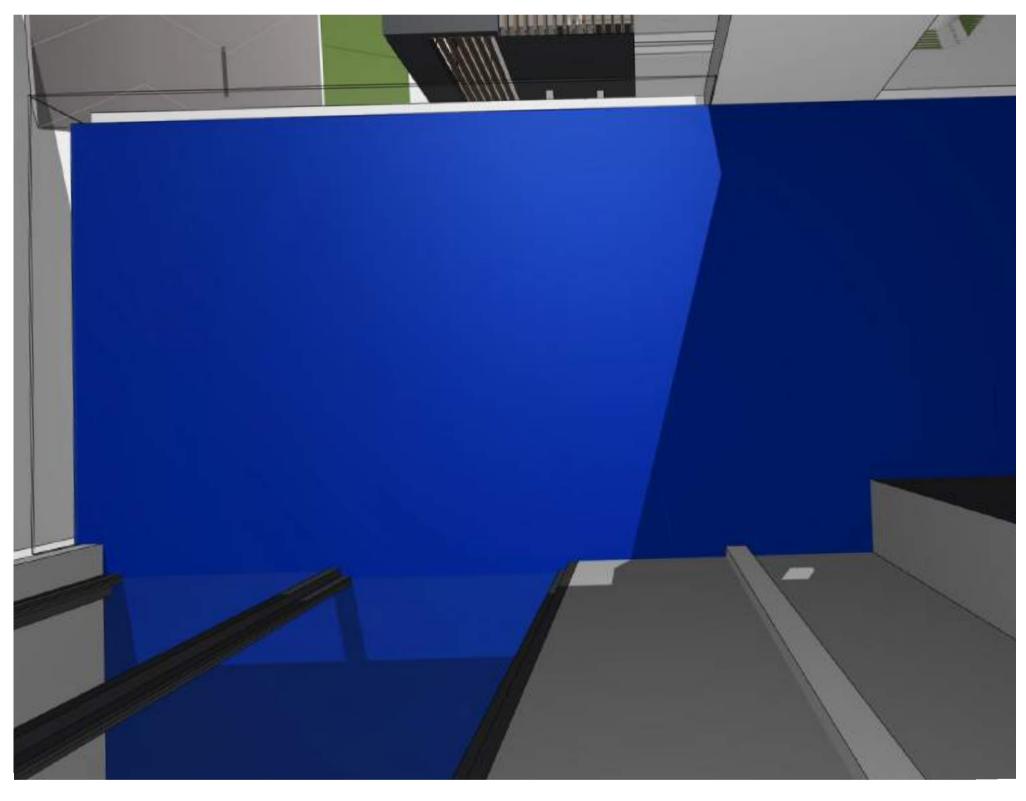
L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia



APT A5.07 BALCONY



1 Solar Analysis Birds Eye View 11.50am





2 Solar Analysis Birds Eye View 12.00pm

Key

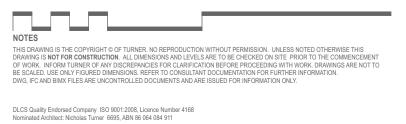


Sunlight into internal habitable areas

Sunlight onto external balcony areas

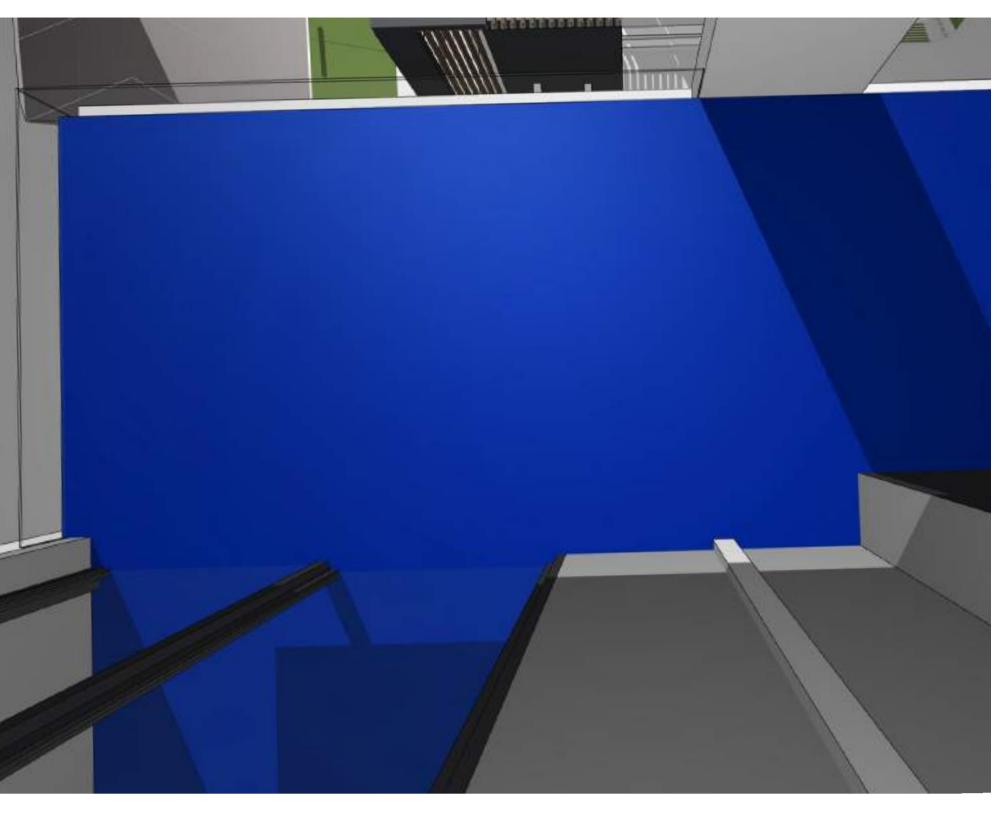


Cut plane at 1m above finished floor level

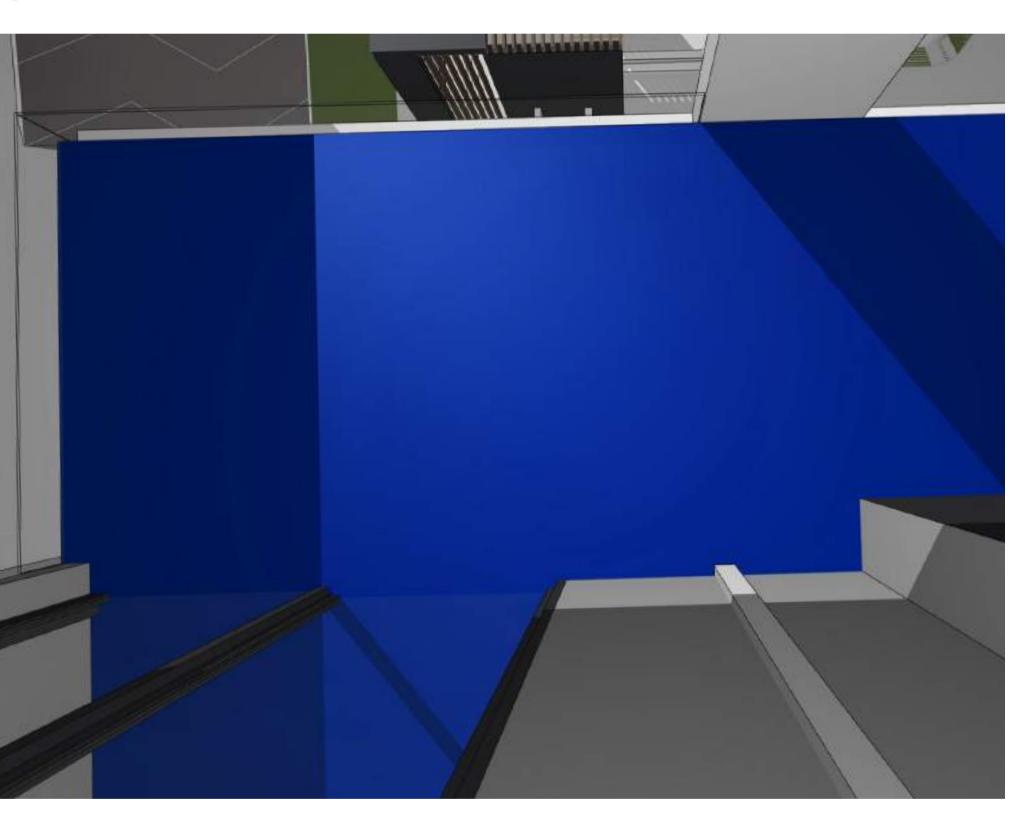


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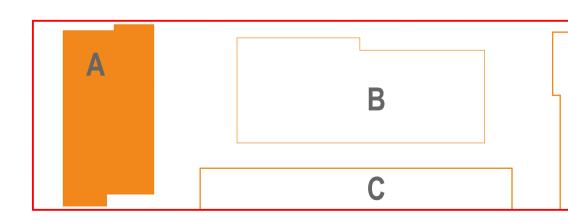
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



3 Solar Analysis Birds Eye View 12.50pm

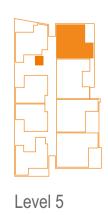


4 Solar Analysis Birds Eye View 1.50pm



Key Plan - Woolooware Bay Stage 3





Key Plan - Building A

BASIX inclusions – V	Voolooware Bay Town Centre – Stage 3	NOTE: Stratum Boundaries are indicative only.			
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				vings for Final Location
	Double glazed skylights in an aluminium or timber frame				
	Given values are NFRC, total window values				
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.				
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.				
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation				
	Internal walls within units: Plasterboard on studs - no insulation				
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)				
	Floors: Concrete R.1.0 insulation to floor above carpark No insulation to all other units				
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area				
Central hot water system	Central gas-fired boiler with R1.0 (${\sim}38\text{mm})$ insulation to the ring main and supply risers				
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer				
rainwater storage	No BASIX requirement for rain water tank				
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				
		А	02/06/17	7 JM	DA Amendment
		Rev.	Date	Approved by	Revision Notes

Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building A - Solar Access Diagrams - A.5.07 Balcony

A 02/06/17 JM DA Amendment Rev. Date Approved by Revision Notes Scale Project No. 14003 1:1000 Status Dwg No. A-DA-110-248 For Information

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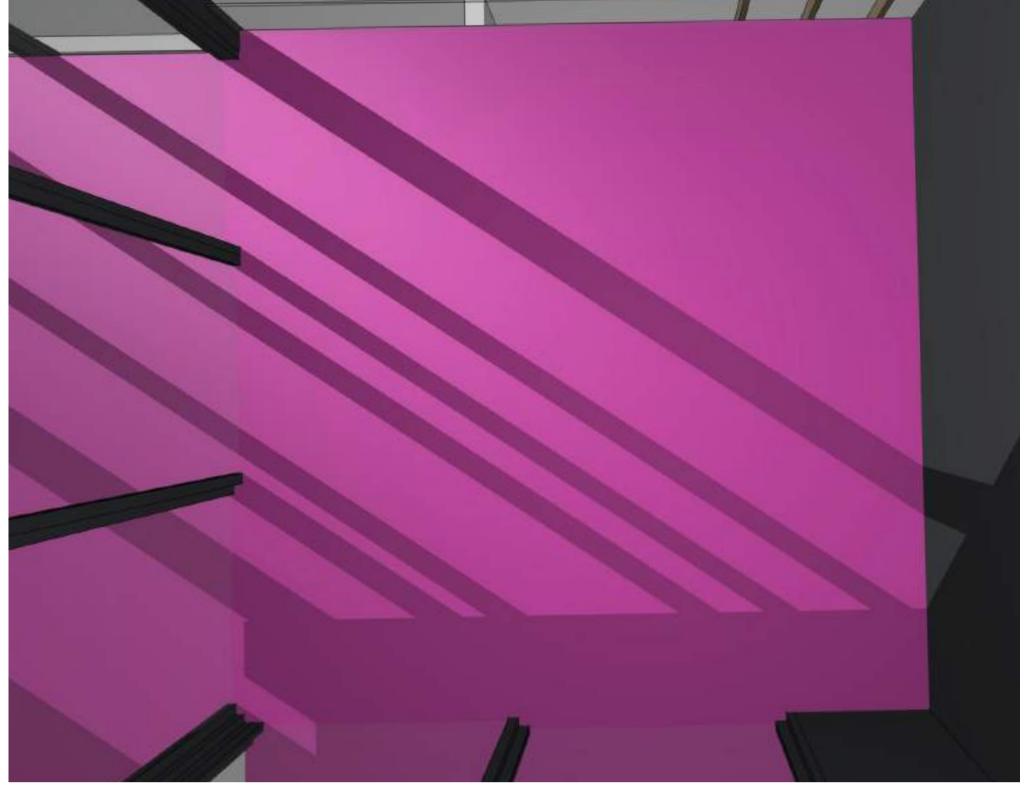
L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia

T +61 2 8668 0000 F +61 2 8668 0088 turnerstudio.com.au 155

turner Rev



APT B2.05 BALCONY



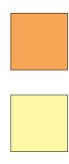
1 Solar Analysis Birds Eye View 09.00am





2 Solar Analysis Birds Eye View 09.15am

Key

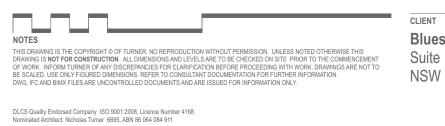


Sunlight into internal habitable areas

Sunlight onto external balcony areas



Cut plane at 1m above finished floor level



Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia

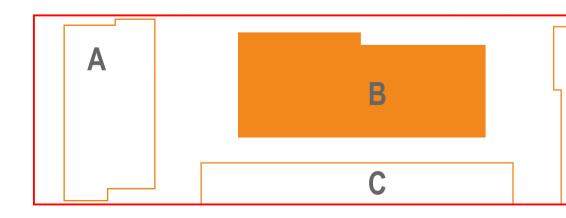
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



3 Solar Analysis Birds Eye View 10.00am

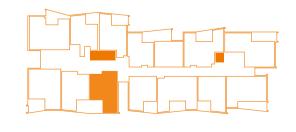


4 Solar Analysis Birds Eye View 11.00am



Key Plan - Woolooware Bay Stage 3





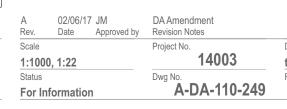
Level 2

Key Plan - Building B

Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
	Double glazed skylights in an aluminium or timber frame
	Given values are NFRC, total window values
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.
	Note: Loss of celling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LI down lights.
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation
	Internal walls within units: Plasterboard on studs - no insulation
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)
	Floors: Concrete R1.0 insulation to floor above carpark No insulation to all other units
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber t living and kitchen area
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply ris
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer
rainwater storage	No BASIX requirement for rain water tank
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test system is stored for reuse during the next test.

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building B - Solar Access Diagrams - B2.05 Balcony **TURNER**

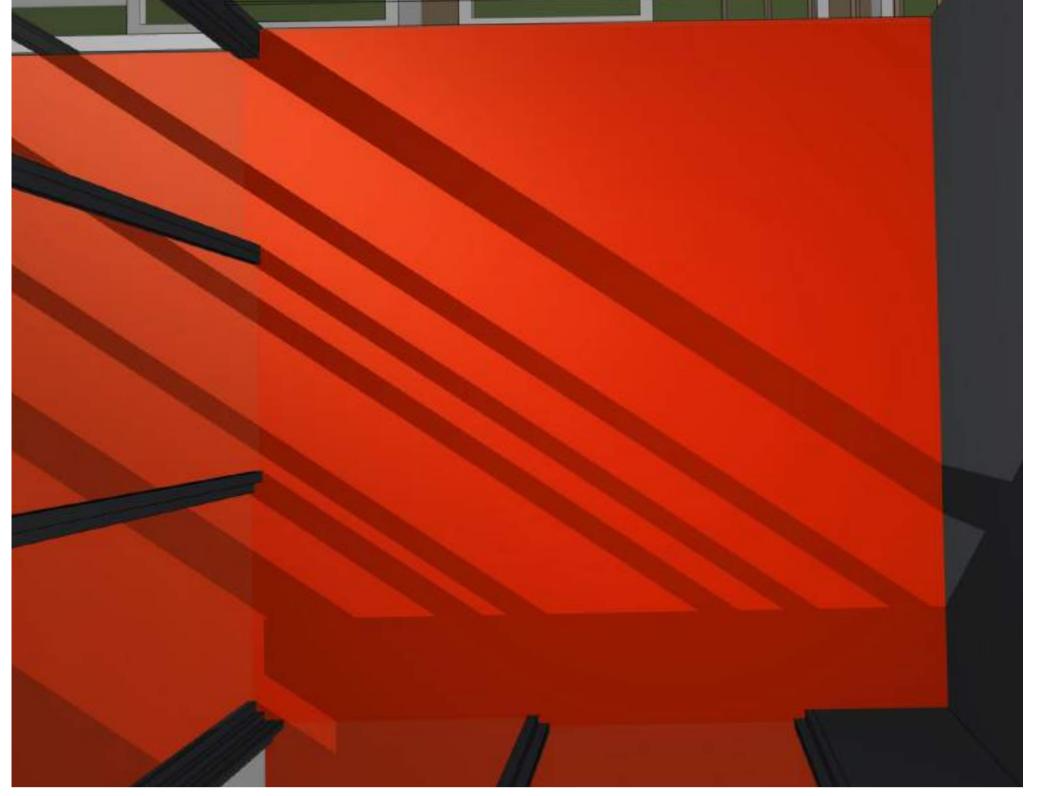


NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

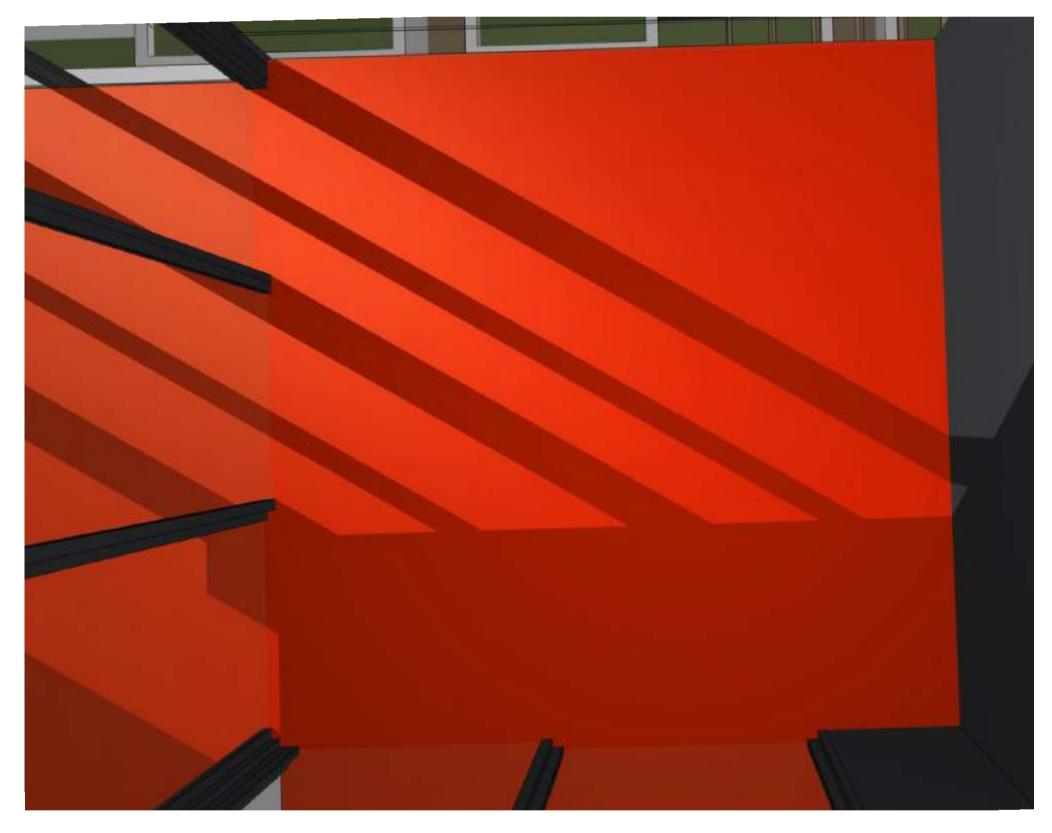
L7 **ONE** Oxford Street Darlinghurst NSW 2010 Australia



APT B3.05 BALCONY

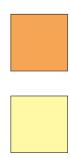


1 Solar Analysis Birds Eye View 09.00am



2 Solar Analysis Birds Eye View 09.15am

Key

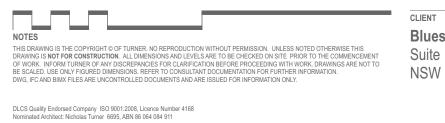


Sunlight into internal habitable areas

Sunlight onto external balcony areas



Cut plane at 1m above finished floor level



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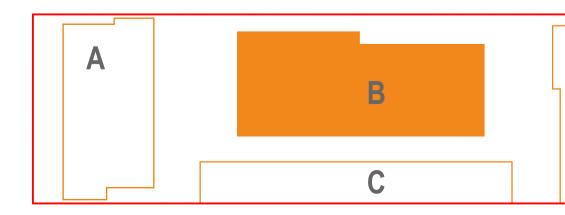
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



3 Solar Analysis Birds Eye View 10.00am

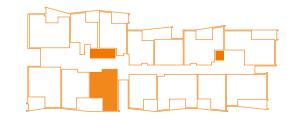


4 Solar Analysis Birds Eye View 11.00am



Key Plan - Woolooware Bay Stage 3







Key Plan - Building B

BASIX inclusions - \	Noolooware Bay Town Centre – Stage 3	NOTE	Stratum Bo	undaries are	indicative only.
Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63				vings for Final Location
	Double glazed skylights in an aluminium or timber frame				
	Given values are NFRC, total window values				
Roof / ceiling insulation	Roof: Units & teraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.				
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated LED down lights.				
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation				
	Internal walls within units: Plasterboard on studs - no insulation				
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)				
	Floors: Concrete R.1.0 insulation to floor above carpark No insulation to all other units				
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber to living and kitchen area				
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply risers				
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer				
rainwater storage	No BASIX requirement for rain water tank				
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test the system is stored for reuse during the next test.				
		A Rev.	02/06/17 Date	JM Approved by	DA Amendment Revision Notes

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building B - Solar Access Diagrams - B3.05 Balcony **TURNER**

A Rev.	02/06/17 Date	JM Approved by	DA Amendment Revision Notes
Scale			Project No.
1:1000			14003
Status			Dwg No.
For Info	ormation	1	A-DA-110-250



APT B4.05 BALCONY

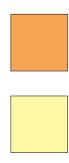


1 Solar Analysis Birds Eye View 09.00am



2 Solar Analysis Birds Eye View 09.15am

Key

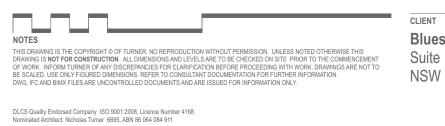


Sunlight into internal habitable areas

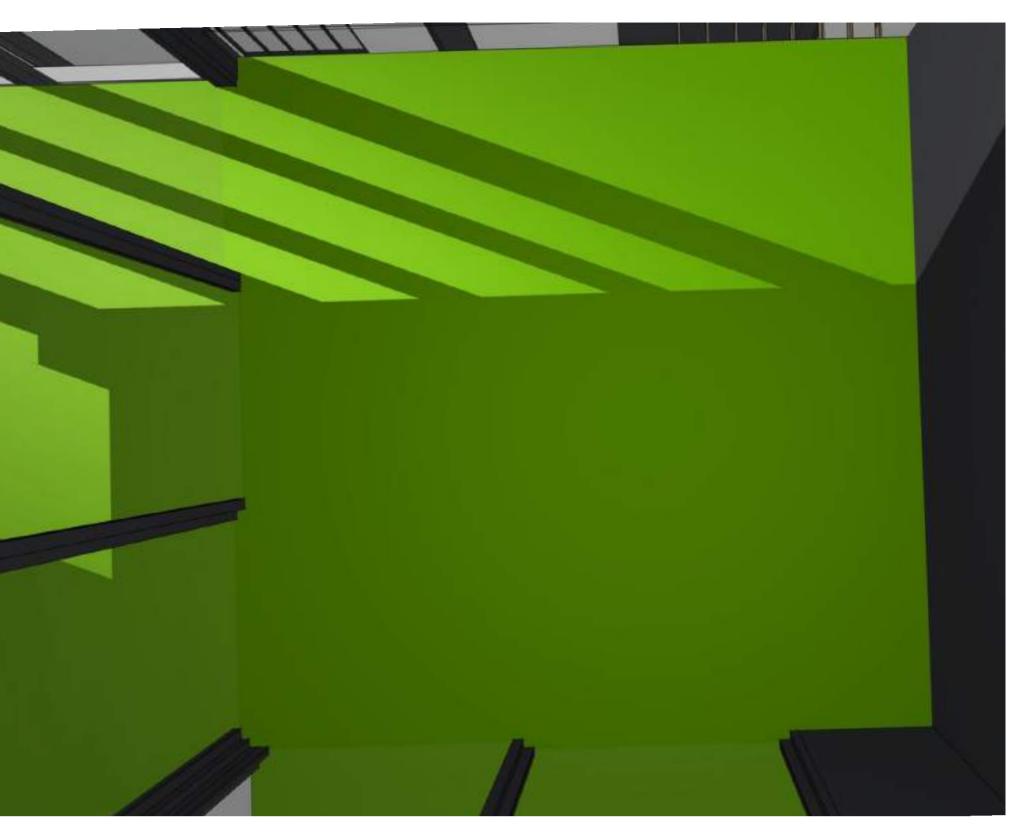
Sunlight onto external balcony areas



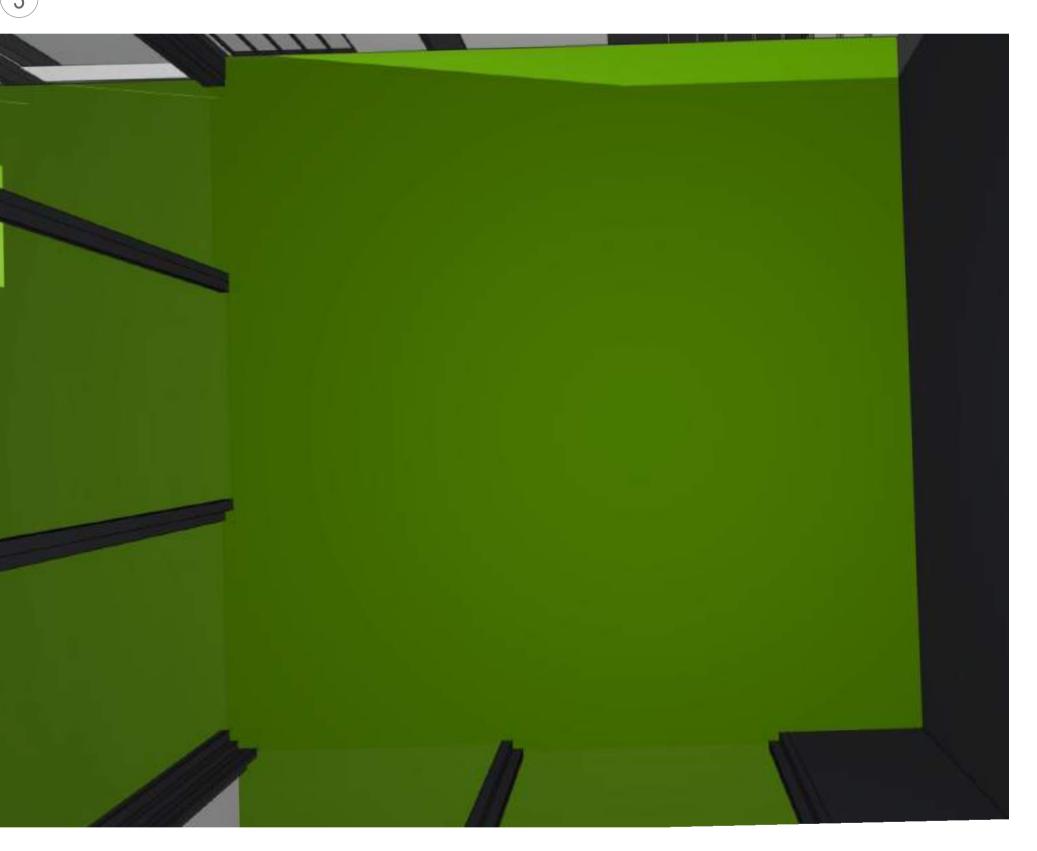
Cut plane at 1m above finished floor level



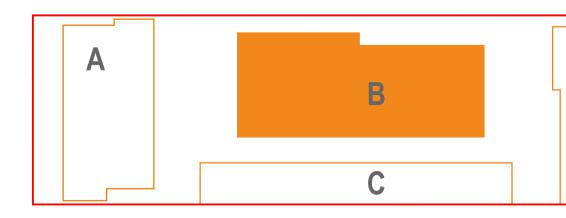
Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia



3 Solar Analysis Birds Eye View 10.00am



4 Solar Analysis Birds Eye View 11.00am



Key Plan - Woolooware Bay Stage 3





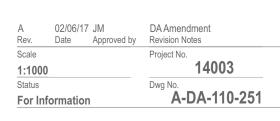




Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
	Double glazed skylights in an aluminium or timber frame
	Given values are NFRC, total window values
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Celling: Plasterboard R1.5 insulation to units with roof over.
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated L down lights.
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation
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rainwater storage	No BASIX requirement for rain water tank
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to test system is stored for reuse during the next test.

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building B - Solar Access Diagrams - B4.05 Balcony



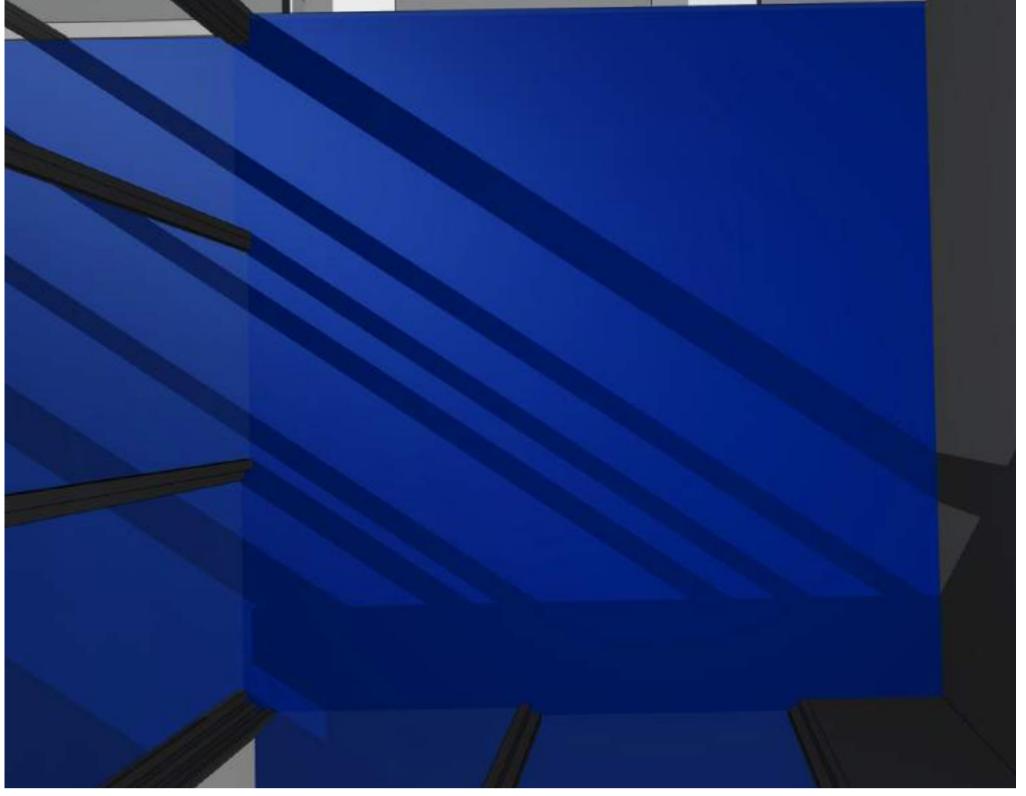
NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

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APT B5.05 BALCONY



1 Solar Analysis Birds Eye View 09.00am



2 Solar Analysis Birds Eye View 09.15am

Key

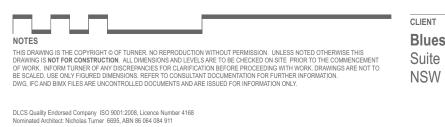


Sunlight into internal habitable areas

Sunlight onto external balcony areas

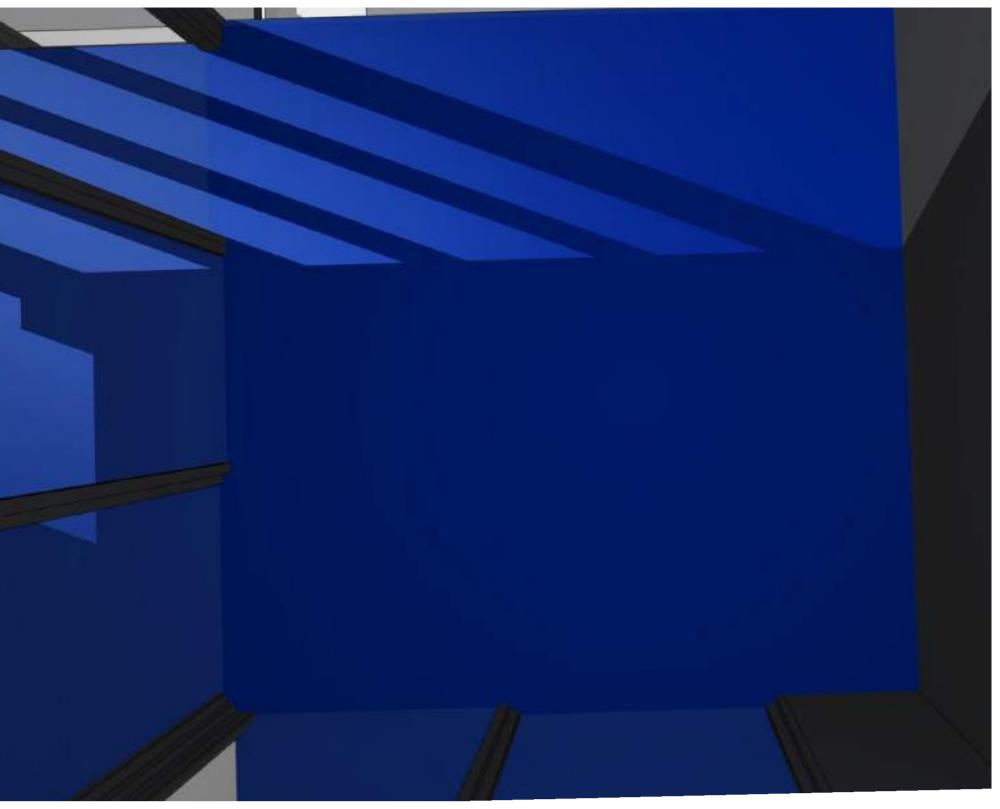


Cut plane at 1m above finished floor level

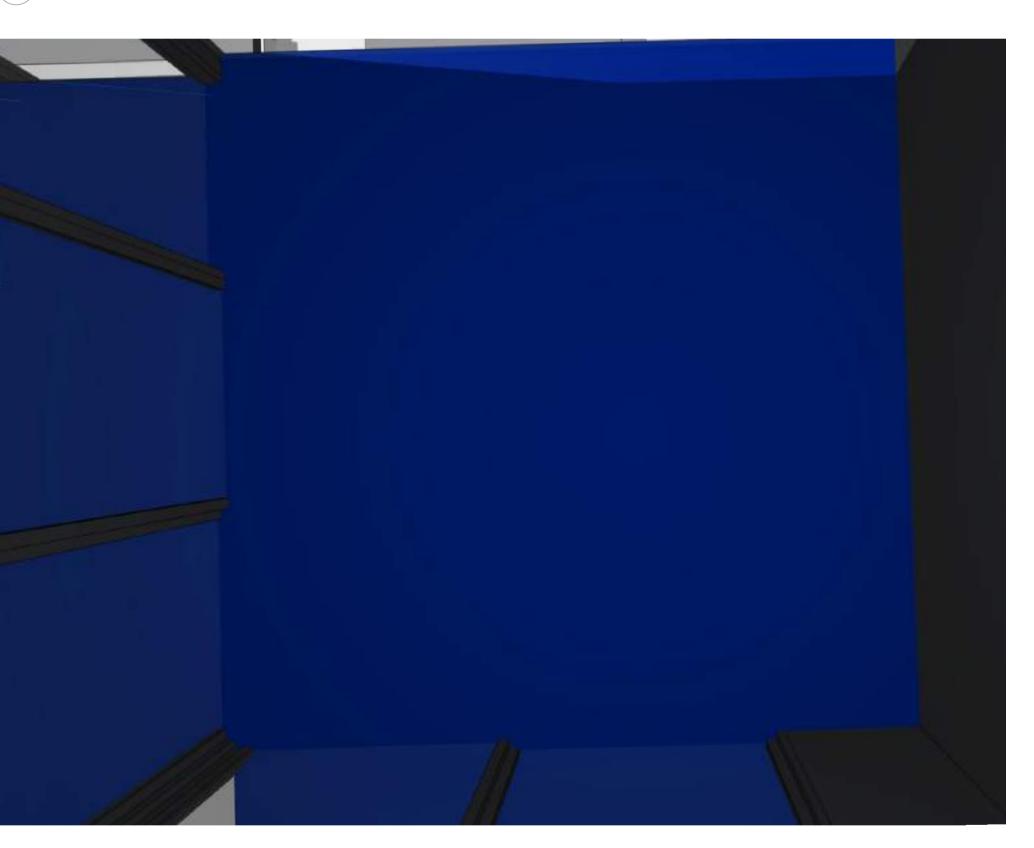


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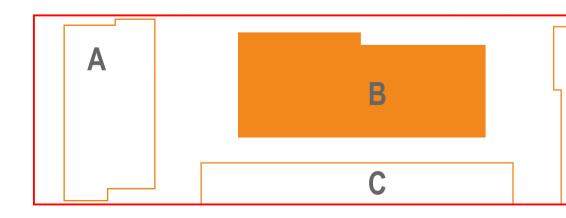
SSPP (Sydney South) Business Paper Appendices - (29 November 2017) (2016SYE090) (DA16/11068)



3 Solar Analysis Birds Eye View 10.00am

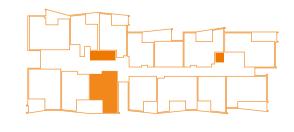


4 Solar Analysis Birds Eye View 11.00am



Key Plan - Woolooware Bay Stage 3









Glazing	Doors / windows:
Claring	Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
	Double glazed skylights in an aluminium or timber frame
	Given values are NFRC, total window values
Roof / ceiling insulation	Roof: Units & terraces: Light coloured, concrete slab roof (SA <0.475) Terraces: Lighted coloured, metal roof with R1.0 foil backed blanket Ceiling: Plasterboard R1.5 insulation to units with roof over.
	Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Note 2 and assume non-ventilated down lights.
Wall / floor insulation	External Wall: Pre-cast concrete 200 mm with R1.5 insulation
	Internal walls within units: Plasterboard on studs - no insulation
	Inter-tenancy walls: Hebel wall with 75mm acoustic insulation (R-value: 1.7)
	Floors: Concrete R.1.0 insulation to floor above carpark No insulation to all other units
	Floor covering: tiles to wet areas and carpet elsewhere. Top floor units have timber living and kitchen area
Central hot water system	Central gas-fired boiler with R1.0 (~38mm) insulation to the ring main and supply
Swimming Pool	Volume: 200 kL Heating system: Electric heat pump Pump controlled by timer
rainwater storage	No BASIX requirement for rain water tank
Fire Sprinkler System	Fire sprinkler test water is to be contained in a closed system i.e. water used to tes system is stored for reuse during the next test.

Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building B - Solar Access Diagrams - B5.05 Balcony **TURNER**

Ą	02/06/17	JM	DA Amendment
lev.	Date	Approved by	Revision Notes
Scale			Project No.
:1000			14003
Status			Dwg No.
or Inf	ormation	1	A-DA-110-252

NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations

Drawn by North turner Rev A

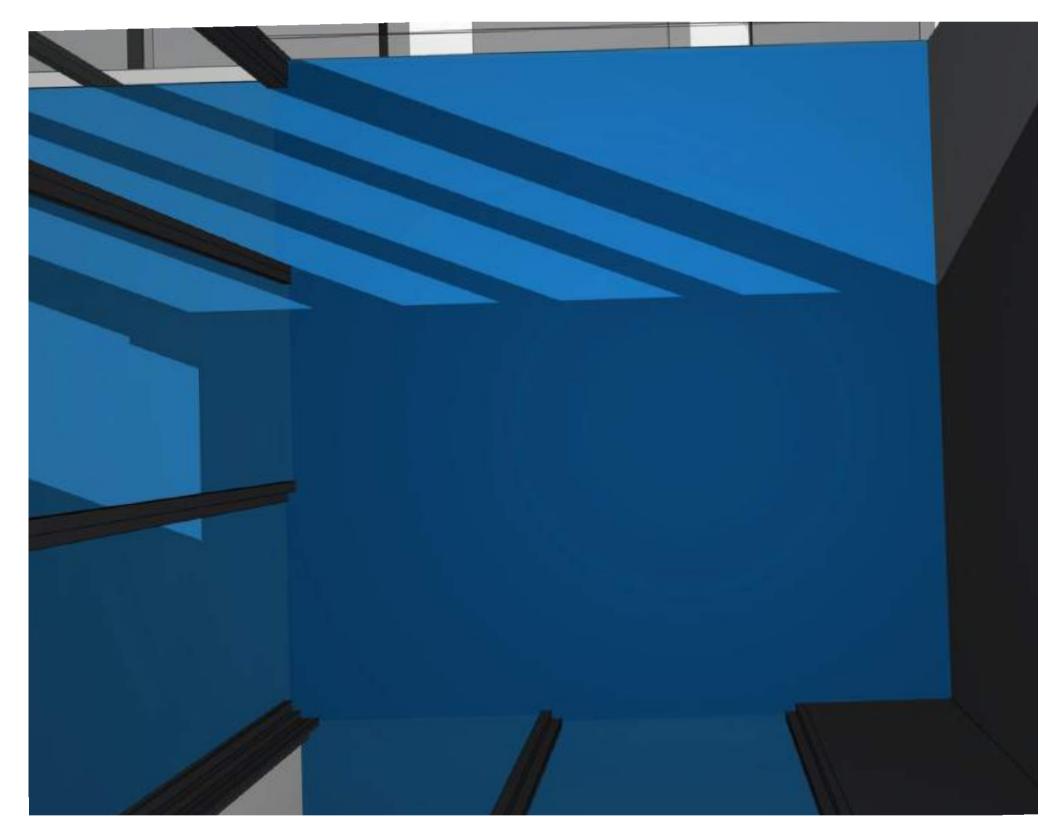


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APT B4.06 BALCONY



1 Solar Analysis Birds Eye View 09.00am



2 Solar Analysis Birds Eye View 10.00am

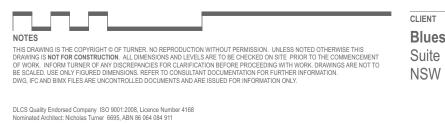
Key

Sunlight into internal habitable areas

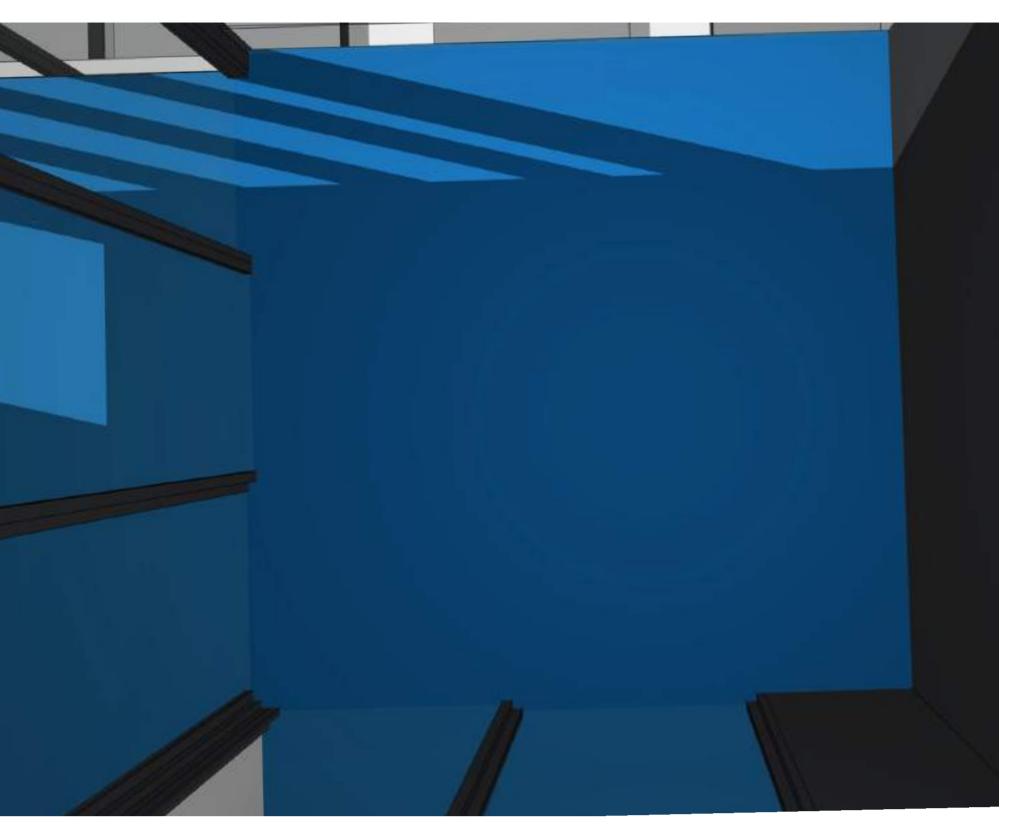
Sunlight onto external balcony areas



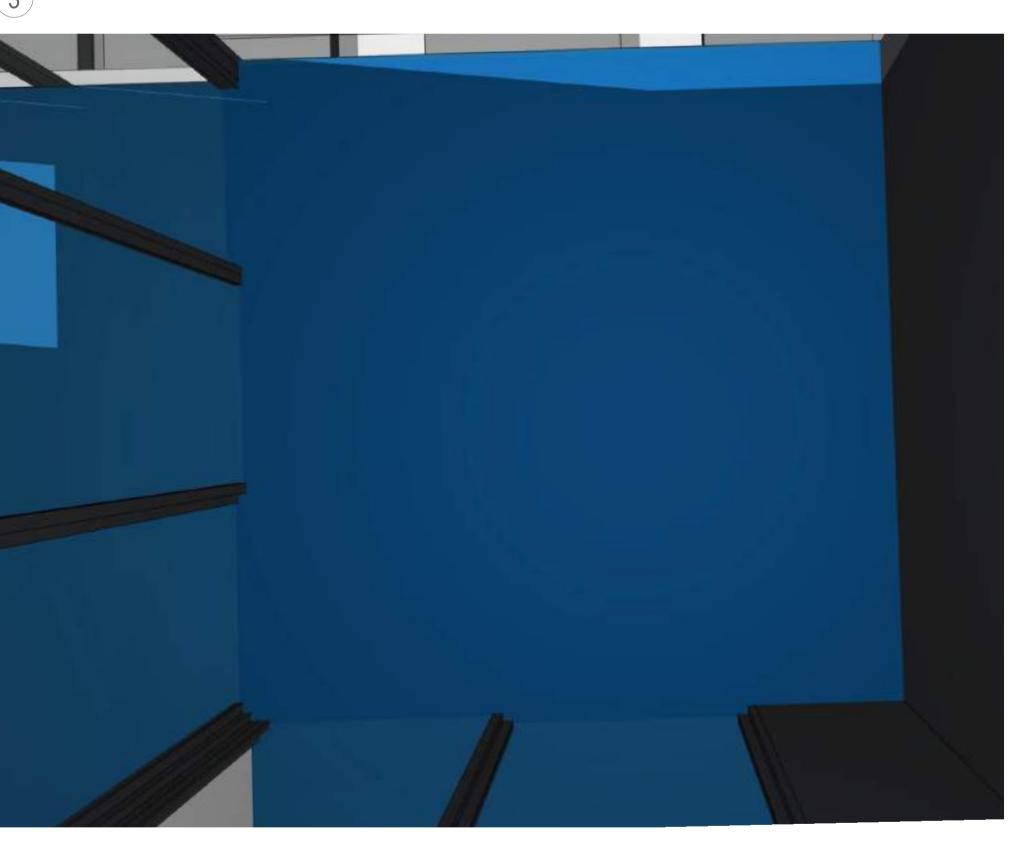
Cut plane at 1m above finished floor level



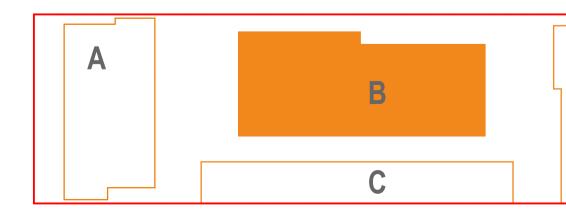
Bluestone Capital Ventures No. 1 Pty Ltd Suite 1/ Level 6, 71 Maquarie Street Sydney NSW 2000 Australia



3 Solar Analysis Birds Eye View 10.30am



4 Solar Analysis Birds Eye View 11.00am



Key Plan - Woolooware Bay Stage 3









Glazing	Doors / windows: Aluminium framed Low-E clear glazing U-Value (equal to or lower than): 3.95 SHGC (+ or - 10%): 0.63
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Project Title Woolooware Bay Town Centre Residential Stage 3 Captain Cook Drive Cronulla NSW 2230 Australia Drawing Title

DA Amendment 01 Building B - Solar Access Diagrams - B5.06 Balcony **TURNER**

4	02/06/17		DA Amendment
Rev.	Date	Approved by	Revision Notes
Scale			Project No.
1:1000			14003
Status			Dwg No.
For Info	ormation		A-DA-110-253

NOTE: Stratum Boundaries are indicative only. Refer to Approved Stratum Drawings for Final Locations



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Drawn by North turner Rev A