









1 Proposed North Elevation 1:100

NOT FOR CONSTRUCTION DO NOT SCALE FROM PLANS CONFIRM ALL DIMENSION ON SITE

NOT wholl	E This drawing is the exclusive property of the Client and must no y or in part without written consent from the Client. Finished grou	ot be used, reproduced or copied und levels are subject to site	Dellingue Decision	Scale	Date	Project Address
conditions. The express purpose of the documents supplied by Dellview Design is that they will be lodged as a Development Application to Council. The documents shall not be used to serve any other suppose Development deturing. Prior to any under being understation, including development			Deuvlew Design	1:100	25.10.2019	22 Manageme D and
purpose. Do not scale from drawings. Prior to any works being undertaken, including demolition, the builder shall confirm the boundaries from a registered Surveyors Boundary Survey all works must be the all working the house the statement of the drawing or any state of experiment.			ACN 621 229 338	Drawn	Approved	22 Monserra Koad,
reported to Dellview Design and the Council or Private Certifying Authority.		ority.	e amanda@dellviewdesign.com	AM	- P P - O - O - O	Allambie Heights
С	Issued for DA Approval	26.03.2020	a 5 Lockyer Street, Merewether NSW	Council	Client	Anamore rrengints
А	Lodged for DA Approval	26.11.2019		Northern Beaches	Feng Zhang	
Rev	Description & Purpose of Issue	Date	W 0429 191 118			



Title

Proposed North Elevation







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C Issued for DA Approval	26.03.2020	e amanaacaeunewaesign.com	AM		
B Issued for Council Comment	06.03.2020	a 5 Lockyer Street, Merewether NSW	Council	Client	
A Lodged for DA Approval	26.11.2019		Northern Beaches	Feng Zhang	
Rev Description & Purpose of Issue	Date	W 0429 191 118	i torthern Deaches		



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	26.02.2020		AM		Allamble Heights
C Issued for DA Approval	26.03.2020	a 5 Lockyer Street, Merewether NSW	Council	Client	
A Lodged for DA Approval 26.11.2019		MA 0429 797 718	Northern Beaches	Feng Zhang	
Rev Description & Purpose of Issue	Date	VV UT21 191 120			

Proposed South Elevation











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С	Issued for DA Approval	26.03.2020	a 5 Lockyer Street, Merewether NSW	Council	Client		
А	Lodged for DA Approval	26.11.2019		Northern Beaches	Feng Zhang		
Rev	Description & Purpose of Issue	Date	W 0429 191 118				

Proposed West Elevation

northern beaches council THIS PLAN IS TO BE READ IN **CONJUNCTION WITH** THE CONDITIONS OF DEVELOPMENT CONSENT DA2019/1386

Title









PRELIMINARY ISSUE

AMENDMENTS

N.H.

ΒY

A 20.NOV. 19

DATE

REV.

S.W.W.

CHECKED

Lugarno NSW 2210

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Comments:



Adoptable

STORMWATER DRAINAGE NOTES

- PROVIDE INSPECTION OPENINGS TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS
- ALL PIPES TO BE 1000 UPVC SEWER GRADE UNO, LAID ON A MIN 1% GRADE, MINIMUM 2. 300mm COVER UNO.
- PIT SIZE З.

M

- IL: 90.60

- TO BE 450x450mm, PITS ARE 600mm OR LESS DEEP TO BE 450X450mm. • TO BE 600x600mm, PITS ARE GREATER THAN 600mm BUT LESS THAN 1000mm DEEP.
- 4. ALL PIPES TO BE ADVISED.
- ALL PIT FLOORS TO HAVE A MINIMUM OF 20mm FALL, PROFILED AND STEAMLINED (FOR HALF OF THE DEPTH OF THE PIPE) IN THE DIRECTION OF FLOW.
- 6. ALL GRATES ON THE DRIVEWAY TO BE HEAVY DUTY.
- ALL GUTTERS, PITS, PIPES AND DOWNPIPES TO BE INSTALLED IN ACCORDANCE WITH 7 AS3500.3.2.1 1998.
- THE CONNECTION TO COUNCIL'S DRAINAGE SYSTEM SHALL BE CONSTRUCTED PRIOR TO 8. THE CONSTRUCTION OF ALL INTERNAL DRAINAGE. THE COUNCIL ENGINEER BEING GIVEN 48 HOURS NOTICE PRIOR TO CONSTRUCTION.
- DRIVEWAY BOUNDARY LEVEL'S MUST BE CONFIRMED PRIOR TO CONSTRUCTION.

RAINWATER REUSE NOTES:

- 1. EVERY FIXTURE SERVICED FROM THE RECYCLED WATER SUPPLY MUST BE NOTED WITH A PLAQUE FOR IDENTIFICATION AND MARKED WITH "NOT FOR HUMAN CONSUMPTION" OR "NON-POTABLE WATER".
- OVERFLOW FROM RAINWATER TANK TO BE CONNECTED TO STORMWATER 2. DRAINAGE SYSTEM.
- ALL RECYCLE WATER PIPES TO BE COLOUR CODED FOR IDENTIFICATION. З.
- 4. WATER AUTHORITY MUST BE CONTACTED REGARDING RECYCLED WATER ON THE BUILDING AND FOR THE BACKFLOW PREVENTION REQUIREMENTS AND TOP-UP SYSTEM.
- 5. ANY GARDEN OR CARWASH TAPS CONNECTED RECYCLE SYSTEM MUST BE LOCATED 1.5m MIN. ABOVE THE SURFACE.
- 6. FOR PERIOD OF LOW WATER LEVEL IN THE RAINWATER TANK, A CONNECTION TO WATER MAIN IS NEEDED AND TO BE PROVIDED IN ACCORDANCE WITH THE WATER AUTHORITY.
- PUMPS AND FILTERS ON OUTLETS FROM RECYCLE SYSTEM TO BE SUPPLIED AS 7 MAY BE REQUIRED.



ROPOSED SINGLE DWELLING DEVELOPMENT T 22 MONSERRA ROAD, LLAMBIE HEIGHTS RCHITECT ELLVIEW DESIGN TITLE SITE AND GROUND FLOOR STORMWATER RAINAGE CONCEPT PLAN AND OSD DETAILS	NO. IN SET	Job No	1638.19	Drg. No D1	Rev A			
AT 22 MONSERRA ROAD, ALLAMBIE HEIGHTS	Scale	Designed	Drawn	Date	No.			
Architect	N.T.S.	S.W.W.	N.H.	NOV. 2019				
DELLVIEW DESIGN	/IEW DESIGN		Man STEVEN WATERS					
G TITLE SITE AND GROUND FLOOR STORMWATER DRAINAGE CONCEPT PLAN AND OSD DETAILS		A	B.E., M.I.E. Reg. N CIVIL 4	M.ENG.SC. AUST., C.P. ENG NO. 417092 AND STRUCTURAL	i, NPER-3			

PIPE@MIN1.0% CONNECTING TO PROPOSED SILT ARRESTOR PIT AT THE FRONT YARD

THIS PLAN IS TO BE READ IN **CONJUNCTION WITH** THE CONDITIONS OF DEVELOPMENT CONSENT

DA2019/1386

RAWING TITLE

Fax: (02) 9543 1058

Mobile: 0418 285 592

Email : Imwdesigngroup@bigpond.com

ON-SITE DETENTION CALCULATION - STREAMLINE METHOD:

FOR ALL GRAVITY FED DRAINAGE SYSTEMS CONNECTED TO COUNCIL'S DRAINAGE SYSTEM:

1. COUNCIL REQUIREMENT:

- MINIMUM SITE STORAGE REQUIRED (SSR) 200m³ PER Ha: 13.244 m³ _
- MAXIMUM PERMISSIBLE SITE DISCHARGE (PSD) FOR ALL STORMS UP TO AND INCLUDING 1 IN 100 YEAR ARI DESIGN STORM 400L/s PER Ha: 26.488 L/s

2. COMPUTER MODELING (USING DRAINS):

RE-DEVELOPMENT PEAK FLOW RATE						
STORM	PEAK FLOW (M ³ /s)					
AR&R 1 year, 30 minutes storm, average 44.7 mm/h, Zone 2	0.010					
AR&R 5 year, 30 minutes storm, average 76.4 mm/h, Zone 2	0.022					
AR&R 10 year, 30 minutes storm, average 87.3 mm/h, Zone 2	0.025					
AR&R 20 year, 30 minutes storm, average 101 mm/h, Zone 2	0.030					
AR&R 50 year, 30 minutes storm, average 120 mm/h, Zone 2	0.033					
AR&R 100 year, 30 minutes storm, average 135 mm/h, Zone 2	0.038					

POST - DEVELOPMENT PEAK FLOW RATE

STORM	PEAK FLOW (m ³ /s)
AR&R 1 year, 60 minutes storm, average 30.4 mm/h, Zone 2	0.004
AR&R 5 year, 60 minutes storm, average 52.7 mm/h, Zone 2	0.010
AR&R 10 year, 60 minutes storm, average 60.5 mm/h, Zone 2	0.012
AR&R 20 year, 60 minutes storm, average 70.5 mm/h, Zone 2	0.014
AR&R 50 year, 60 minutes storm, average 83.9 mm/h, Zone 2	0.016
AR&R 100 year, 60 minutes storm, average 94.2 mm/h, Zone 2	0.018

RAINWATER RE-USE FOR SINGLE RESIDENTIAL DEVELOPMENT:

- THE MAXIMUM STORAGE VOLUME AS DETERMINED BY THE BASIX WILL BE CREDITED AGAINST THE CALCULATED OSD VOLUME.

PEAK FLOW (Q₀): 18 L/s (AR&R 100 YEAR,1 HOUR STORM, AVERAGE 94.2 mm/h, Zone 2)

STORM DURATION (WORST CASE): 1 HOUR STORM

OSD VOLUME REQUIREMENT: 23.8 m³

REVISED OSD VOLUME: $23.8 - 3 = 20.8 \text{ m}^3$

PROPOSED OSD VOLUME: 21.02 m³







					PRODUCED OR TRANSMITTED IN A IN WHOLE WITHOUT PERMISSION IN DESCRIPTION	any form or by a n of LMW design (SIGN GR	NY MEANS IN PART GROUP PTY. LTD.	PROPOSED SINGLE DWELLING AT 22 MONSERRA ROAD, ALLAMBIE HEIGHTS
					Building Consulta	ints and Struc Phone:	tural Engineer (02) 9533 5778	ENT, ARCHITECT DELLVIEW DESIGN
R	20.NOV. 19 EV. DATE	N.H. BY	S.W.W. Checked	PRELIMINARY ISSUE	igarno NSW 2210 Email : Imwdesigr	Fax: Mobile: ngroup@bigpon	(02) 9543 1058 0418 285 592 d.com	DRAINS RESULT AND DETAILS
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8 9	CONC AVAINING WHITE PEBBLES ON TOP ON TOP
	EXAMPLE 1:100 COPYRIGHT © ALL RIGHTS RESERVED, THIS DRAWING MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS IN PART OR IN WHOLE WITHOUT PERMISSION OF LAW DESIGN GROUP PTY, LTD. COPYRIGHT © ALL RIGHTS RESERVED, THIS DRAWING MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS IN PART OR IN WHOLE WITHOUT PERMISSION OF LAW DESIGN GROUP PTY, LTD. Date by dread of the service of transmitted of the service of the service of the service of the service of transmitted of the service of the service of the service of transmitted of the service of the service of the service of the service of transmitted of the service of the ser





				DA2019/1386	
DEVELOPMENT	No.			A	.
MWATER	APPROVED BY	A		STEVEN WATERS B.E., M.ENG.SC. M.I.E. AUST., C.P. ENG, NPER REG. NO. 417092	₹-3
М			÷ 	CIVIL AND STRUCTURAL	

TYPICAL CONCRETE ROOF OUTLET (R.O)

northern beaches council

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TYPICAL BALCONY FLOOR WASTE (F.W.)



AH----ACCESS HATCH DDO---DISH DRAIN OUTLET CO----CLEAR OUT DCP----DISCHARGE CONTROL PIT DP----DOWNPIPE FFL----FINISH FLOOR LEVEL FW-----FLOOR WASTE GL----GROUND FLOOR LEVEL IL-----INVERT LEVEL OSD----ON SITE DETENTION PD.----PLANTERS DRAIN PFO----PLANTER FLOOR OUTLET PP-----PLANTER PIT RH----RAINWATER HEAD RP----RELN PIT RO.----ROOF OUTLET SD0---STRIP DRAIN OUTLET SIP----SURFACE INLET PIT STP----SILT TRAP PIT SP----SPREADER TD----TUN DISH

ABBREVIATIONS

____M