

DRAINS POST DEVELOPMENT INPUTS

PIT / NODE DETAILS													
Name	Type	Family	Version 9 Size	Ponding Volume (cu.m)	Pressure Change Coeff. Ku	Surface Elev (m)	Max Pond Depth (m)	Base Inflow (cu.m/s)	Blocking Factor	x	y	Bolt-down id	id
N SWComm	Node						24		0		279.861	-227.778	29
N outSW	Node						5.5		0		101.62	-236.458	12
N SW MDRes	Node						20		0		344.167	-280	30
N SW LDRes	Node						6		0		309.167	-380	31
N NW Comm	Node						24		0		686.667	-385	32
N out NW	Node						11		0		868.981	-279.861	13
N NW MDRes	Node						21		0		585	-333.333	33
N NW LDRes	Node						12		0		622.14	-251.743	34
N NW undev	Node						12		0		747.5	-185	489117
DETENTION BASIN DETAILS													
Name	Elev	Surf. Area	Init Vol. (cu.m)	Outlet Type	K	Dia(mm)	Centre RL	Pit Family	Pit Type	x	y	HED	Crest RL
SW Basin		4.5 2000		0 Culvert		0.5				201.157	-283.912	No	
		4.75 2000											
		5 2000											
		5.5 2000											
		6 2000											
NW Basin		9.6 2200		0 Culvert		0.5				769.495	-280.209	No	
		10 2200											
		10.5 2200											
		11 2200											
		12 2200											
SUB-CATCHMENT DETAILS													
Name	Pit or Node	Total Area (ha)	Paved Area %	Grass Area %	Supp Area %	Paved Time (min)	Grass Time (min)	Supp Time (min)	Paved Length (m)	Grass Length (m)	Supp Length (m)	Paved Slope(%) %	Grass Slope %
SW Commercial	N SWComm	0.68		90	10	0	5	0	0				
SW Med Dens Res	N SW MDRes	1.27		75	25	0	5	0	0				
SW Low Dens Res	N SW LDRes	8.28		60	40	0	0	0	0	300	20	0	5 2
NW Commercial	N NW Comm	0.73		90	10	0	5	0	0				
NW Med Dens Res	N NW MDRes	0.24		75	25	0	5	0	0				
NW Low Dens Res	N NW LDRes	7.56		60	40	0	0	0	0	300	20	0	5 2
NW Undeveloped area	N NW undev	1.83		0	100	0	0	0	0	0	200	0	0 2
PIPE DETAILS													
Name	From	To	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Type	Dia (mm)	I.D. (mm)	Rough	Pipe Is	No. Pipes	Chg From
P SW Comm	N SWComm	SW Basin		20	5	4.5	2.5 RCP Class 2		600	610	0.6 NewFixed	1	N SWComm
Pipe out SW	SW Basin	N out SW		20	4.5	4.4	0.5 RCP Class 2		375	375	0.6 NewFixed	5	SW Basin
P SW MD Res	N SW MDRes	SW Basin		20	5	4.5	2.5 RCP Class 2		600	610	0.6 NewFixed	1	N SW MDRes
P SW LD Res	N SW LDRes	SW Basin		20	5	4.5	2.5 RCP Class 2		600	610	0.6 NewFixed	5	N SW LDRes
P NW Comm	N NW Comm	NW Basin		20	10.7	10.5	1 RCP Class 2		600	610	0.6 NewFixed	1	N NW Comm
Pipe out NW	NW Basin	N out NW		10	9.6	9.5	1 RCP Class 2		600	610	0.6 NewFixed	2	NW Basin
P NW MD Res	N NW MDRes	NW Basin		20	10.7	10.5	1 RCP Class 2		600	610	0.3 NewFixed	1	N NW MDRes
P NW LDRes	N NW LDRes	NW Basin		20	10.7	10.5	1 RCP Class 2		600	610	0.6 NewFixed	3	N NW LDRes
P NW undev	N NW undev	NW Basin		20	10.7	10.5	1 RCP Class 2		600	610	0.6 NewFixed	3	N NW undev

DRAINS POST DEVELOPMENT OUTPUTS

DRAINS results prepared 08 July, 2010 from Version 2009.09					
PIT / NODE DETAILS			Version 8		
Name	Max HGL	Max Pond	Max Surface	Max Pond	Min
		HGL	Flow Arriving (cu.m/s)	Volume (cu.m)	Freeboard (m)
N SWComm	5.51		0.53		
N out SW	4.78		5.337		
N SW MDRes	5.67		0.976		
N SW LDRes	5.9		5.908		
N NW Comm	11.3		0.569		
N out NW	10.11		1.802		
N NW MDRes	11.3		0.184		
N NW LDRes	12.35		5.395		
N NW undev	11.3		0.094		
SUB-CATCHMENT DETAILS					
Name	Max Flow Q (cu.m/s)	Paved Max Q (cu.m/s)	Grassed Max Q (cu.m/s)	Paved Tc (min)	Grassed Tc (min)
SW Commercial	0.53	0.481	0.049	5	0
SW Med Dens Res	0.976	0.749	0.227	5	0
SW Low Dens Res	5.908	3.705	2.294	6.3	5.47
NW Commercial	0.569	0.517	0.052	5	0
NW Med Dens Res	0.184	0.142	0.043	5	0
NW Low Dens Res	5.395	3.382	2.094	6.3	5.47
NW Undeveloped area	0.094	0	0.094	0	335.95
Outflow Volumes for Total Catchment (11.9 Impervious + 8.68 pervious = 20.6 total ha)					
Storm	Total Rainfall cu.m	Total Runoff cu.m (Runoff %)	Impervious Runoff cu.m (Runoff %)	Pervious Runoff cu.m (Runoff %)	
AR&R 100 year, 10 minutes storm, Coastal Region	7995.78	6576.83 (82.3%)	4504.25 (97.4%)	2072.58 (61.5%)	
AR&R 100 year, 20 minutes storm, Coastal Region	12148.1	10225.78 (84.2%)	6905.17 (98.3%)	3320.60 (64.8%)	
AR&R 100 year, 30 minutes storm, Coastal Region	15236.6	12894.26 (84.6%)	8691.01 (98.6%)	4203.25 (65.4%)	
AR&R 100 year, 1 hour storm, Coastal Region	21825.4	18689.08 (85.6%)	12500.74 (99.1%)	6188.34 (67.2%)	
AR&R 100 year, 2 hours storm, Coastal Region	27590.6	23669.91 (85.8%)	15834.22 (99.3%)	7835.69 (67.3%)	
PIPE DETAILS					
Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm
P SW Comm	0.53	2	5.506	5.414	AR&R 100 year, 20 minutes storm, Coastal Region
Pipe out SW	1.163	2.1	5.047	4.775	AR&R 100 year, 20 minutes storm, Coastal Region
P SW MD Res	0.976	3.3	5.669	5.414	AR&R 100 year, 20 minutes storm, Coastal Region
P SW LD Res	5.908	4	5.905	5.414	AR&R 100 year, 20 minutes storm, Coastal Region
P NW Comm	0.569	2	11.301	11.301	AR&R 100 year, 20 minutes storm, Coastal Region
Pipe out NW	1.797	3.1	10.267	10.11	AR&R 100 year, 2 hours storm, Coastal Region
P NW MD Res	0.184	0.6	11.303	11.301	AR&R 100 year, 20 minutes storm, Coastal Region
P NW LDRes	5.395	6.2	12.352	11.301	AR&R 100 year, 20 minutes storm, Coastal Region
P NW undev	0.094	0.1	11.301	11.301	AR&R 100 year, 2 hours storm, Coastal Region
CHANNEL DETAILS					
Name	Max Q (cu.m/s)	Max V (m/s)	Chainage (m)	Max HGL (m)	Due to Storm
OVERFLOW ROUTE DETAILS					
Name	Max Q U/S	Max Q D/S	Safe Q	Max D	Max DxV
OF SW	5.337	5.337	2.545	0.456	0.42
OF NW	1.802	1.802	2.545	0.246	0.16
DETENTION BASIN DETAILS					
Name	Max WL	Max Vol	Max Q Total	Max Q Low Level	Max Q High Level
SW Basin	5.41	1834.8	6.5	1.163	5.337
NW Basin	11.3	3745.5	3.598	1.797	1.802

CAUTION

This plan has been prepared for the purpose of a concept plan application. The information shown herein is only reliable for the above purpose. It should not therefore be used for any other purpose without verification.

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REV.	DATE	DESCRIPTION
A	06.07.2010	ISSUED FOR INFORMATION
B	07.07.2010	ISSUED FOR EA
C	14.10.2010	ISSUED FOR EA

DATUM: AHD SCALE: NOT TO SCALE

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DA NO.:							
DESIGNED BY:	ES/MT	PROJECT:	LOT 1 DP 374315 & LOT 4 DP615261 OCEAN DRIVE, PORT MACQUARIE				
DRAWN BY:	MW						
CHECKED BY:	PJR	CLIENT:	MILLAND PTY LTD & SEAWIDE PTY LTD		DRAWING NO:	SHEET:	REVISION:
DATE CREATED:	FEB 2010				14898_DrainsData.dwg	6	C