

STORMWATER MANAGEMENT PLAN PROPOSED ADDITIONS & ALTERATIONS 6 CAPTAIN HUNTER ROAD, BAYVIEW (NORTHERN BEACHES LGA)

GENERAL

- THESE DRAWINGS CAN BE USED IN CONJUNCTION WITH ARCHITECTS AND OTHER CONSULTANTS DRAWINGS.
- ANY DIFFERENCES ARE TO BE REFERRED TO THE ENGINEER PRIOR TO PROCEEDING WORK.
- ALL MATERIALS AND WORKMANSHIP MUST MEET AS/NZS 3500.3:2003 STORMWATER DRAINAGE, BCA AND LOCAL COUNCIL DEVELOPMENT POLICIES, CONSENTS AND REQUIREMENTS.
- ALL DIMENSIONS AND LEVELS TO BE VERIFIED BY THE BUILDER PRIOR TO COMMENCEMENT OF WORKS. THIS INCLUDES EXISTING SERVICES AND/OR OTHER STRUCTURES THAT MAY AFFECT/BE AFFECTED BY THIS DESIGN PRIOR TO CONSTRUCTION.
- ALL SURVEY INFORMATION, PROPOSED BUILDING LEVELS, FINISHED SURFACE LEVELS AND SITE DETAILS SHOWN IN THESE DRAWINGS ARE BASED UPON LEVELS OBTAINED FROM DETAILS BY OTHERS.
- THESE DRAWINGS DEPICT THE DESIGN OF SURFACE STORMWATER RUNOFF DRAINAGE SYSTEMS ONLY AND DO NOT DEPICT ROOF DRAINAGE OR SUBSOIL DRAINAGE SYSTEMS UNLESS NOTED OTHERWISE. THE DESIGN OF ROOF AND SUBSOIL DRAINAGE SYSTEMS ARE THE RESPONSIBILITY OF OTHERS.
- IT IS THE BUILDERS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES OR OTHER STRUCTURES WHICH MAY AFFECT/BE AFFECTED BY THIS DESIGN PRIOR TO COMMENCEMENT OF WORKS.
- UNLESS NOTED OTHERWISE, ALL LEVELS ARE IN METRES AND DIMENSIONS IN MILLIMETRES.
- ANY SUBSTITUTION OF MATERIALS SHALL BE APPROVED BY THE ENGINEER AND INCLUDED IN THE DEVELOPMENT APPLICATION.
- THIS DRAWING IS NOT TO BE USED FOR SET-OUT PURPOSES. REFER TO ARCHITECTURAL DRAWINGS.
- CONTRACTOR TO INVESTIGATE ALL EXISTING SERVICES AND APPLY FOR "DIAL BEFORE YOU DIG" BEFORE CONSTRUCTION COMMENCES.

COMPLIANCE

- THESE PLANS WERE PREPARED IN ACCORDANCE WITH COUNCIL'S POLICIES AND REQUIREMENTS, AS 3500:2013, BASIX REQUIREMENTS, ARR(1997), ARQ (2006), RELEVANT LEGISLATION, AND NSW MUSIC MODELLING GUIDELINES.
- THE OSD SYSTEM DESIGN PRESENTED HAS BEEN MODELLED TO LIMIT THE POST-DEVELOPMENT RUNOFF TO PRE-DEVELOPMENTS RUNOFF FOR ALL DESIGN STORM EVENTS (1 IN 1YR ARI TO 1 IN 100YR ARI)

SCOPE OF WORKS

- DETAILED DESIGN, MODELLING AND DOCUMENTATION FOR THE FOLLOWING (WHERE APPLICABLE): ROOFED, IMPERVIOUS AND PERVIOUS AREAS; RAINWATER REUSE SYSTEM; OSD; AND STORMWATER DISPOSAL.

ROOFING

- EAVES GUTTERS & DOWNPIPES TO BE CONSTRUCTED ACCORDINGLY TO AS 3500. IT IS THE RESPONSIBILITY OF THE PLUMBER AND/OR BUILDER TO COMPLY.
- ROOF GUTTERS TO HAVE OVERFLOW PROVISION SET IN ACCORDANCE WITH AS/NZS 3500.3:2003 AND SECTIONS 3.5.3, 3.7.5.

TREES

- IT IS THE RESPONSIBILITY OF THE BUILDER TO OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPECT TO POTENTIAL IMPACT ON TREES.

MINIMUM PIPE COVER

TOP OF PIPE TO FINISHED SURFACE LEVEL

LOCATION	MINIMUM COVER (mm)	
	CAST IRON DUCTILE IRON GALV. STEEL	OTHER AUTHORISED PRODUCTS*
1. NOT SUBJECT TO VEHICULAR LOADING:		
(a) WITHOUT PAVEMENT –		
(i) FOR SINGLE DWELLINGS	0	100
(ii) FOR ITEMS OTHER THAN (i)	0	300
(b) WITH PAVEMENT OF BRICK/ UNREINFORCED CONCRETE	0 (†)	50 (†)
2. SUBJECT TO VEHICULAR LOADING:		
(a) OTHER THAN ROADS		
(i) WITHOUT PAVEMENT	300	450
(ii) WITH PAVEMENT OF:		
– REINFORCED CONCRETE FOR HEAVY VEHICULAR LOADINGS	0 (†‡)	100 (†‡)
– BRICK/UNREINFORCED CONCRETE FOR LIGHT VEHICULAR LOADING	0 (†‡)	75 (†‡)
(b) ROADS		
(i) SEALED	300	500 (‡)
(ii) UNSEALED	300	500 (‡)
3. SUBJECT TO CONSTRUCTION EQUIPMENT OR IN EMBANKMENT CONDITIONS	300	500 (‡)

* INCLUDES OVERLAY ABOVE TOP OF THE PIPE OF NOT LESS THAN 50mm THICK
† BELOW THE UNDERSIDE OF THE PAVEMENT
‡ SUBJECT TO COMPLIANCE WITH AS 1762, AS 2033, AS/NZS 2566.1, AS 3725, AS 4060

MODELLING AND CALCULATIONS

- SEE ATTACHED DRAINS MODEL AND OUTPUT DATA (ELECTRONIC COPY ONLY)

DRAINAGE LINES

- ALL DRAINAGE LEVELS TO BE CONFIRMED ON SITE, PRIOR TO COMMENCING CONSTRUCTION.
- TRENCH BACKFILL IN ROADWAYS TO COMPRISE OF SHARP, CLEAN GRANULAR BACKFILL IN ACCORDANCE WITH LOCAL AUTHORITY SPEC.
- SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS AND EMBANKMENTS WITH THE LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM.

MINIMUM PIPE Ø (U.N.O)	mm	MINIMUM STORMWATER DRAIN GRADIENT (U.N.O)	
a) WHERE THE LINE ONLY RECIEVES ROOFWATER	90	NOMINAL SIZE Ø (mm)	MIN. GRADE
b) WHERE THE LINE RECIEVES RUN -OFF FROM PAVED/UNPAVED AREAS OF THE SITE	100	90 to < 225	1:100 (1%)
		225 to < 300	1:200 (0.5%)
		300 to < 375	1:250 (0.4%)
		375 +	1:300 (0.33%)

PITS

- ALL PITS WITHIN DRIVEWAYS TO BE 150mm THICK CONCRETE OR EQUIVALENT.
- PIT CONSTRUCTION WITHIN THE SUBJECT PROPERTY ARE TO BE OF THE FOLLOWING:
 - a) PRECAST STORMWATER PITS
 - b) CAST INSITU MASS CONCRETE
 - c) CEMENT RENDERED 230mm BRICKWORKALL PIT CONSTRUCTION IS SUBJECT TO RELEVANT LGA SPEC.
- ALL PITS ARE TO BE FITTED WITH APPROVED GALVANISED STEEL GRATES:
 - a) LIGHT DUTY FOR LANDSCAPED AREAS
 - b) HEAVY DUTY WHERE SUBJECT TO VEHICULAR TRAFFIC
- ALL PITS IN ROADWAYS ARE TO BE FITTED WITH LOCKING BOLTS AND CONTINUOUS HINGE.
- PROVIDE STEP IRONS TO STORMWATER PITS > 1200mm IN DEPTH.
- ALL PIPES SHOULD BE CUT FLUSH WITH THE WALL OF THE PITS.
- THE GRATED COVERS OF PITS LARGER THAN 600 X 600mm ARE TO BE HINGED.
- THE BASE OF THE DRAINAGE PITS SHOULD BE THE SAME LEVEL AS THE INVERT OF THE OUTLET PIPE.
- RAINWATER SHOULD NOT BE PERMITTED TO POND WITHIN THE STORMWATER SYSTEM.

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER/INLET PITS

DEPTH TO INVERT OF OUTLET		INTERNAL	
		WIDTH	LENGTH
	≤ 600	450	450
> 600	≤ 900	600	600
	≤ 1200	600	900
> 1200	900	900	

D.Q	D.Q	A	29.11.2019	ISSUE FOR APPROVAL
BY	REV.	ISS.	DATE.	DESCRIPTION



Consulting Engineers

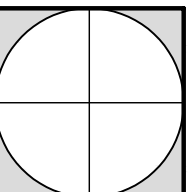
Wastewater	Contamination
Stormwater	Ecology
Bushfire	Acoustic & Noise

P: 1/23 ROWOOD RD, PROSPECT, NSW 2148
E: info@envirotech.com.au
F: (02) 8834 0760
T: 1300 888 324 | (02) 9896 1568

TITLE	STORMWATER MANAGEMENT PLAN NOTES
PROJECT	PROPOSED ADDITIONS & ALTERATIONS 6 CAPTAIN HUNTER ROAD, BAYVIEW (NORTHERN BEACHES LG)



JOB No.	DWG No.	SCALE:
19-9036-A	1 / 2	N.T.S.

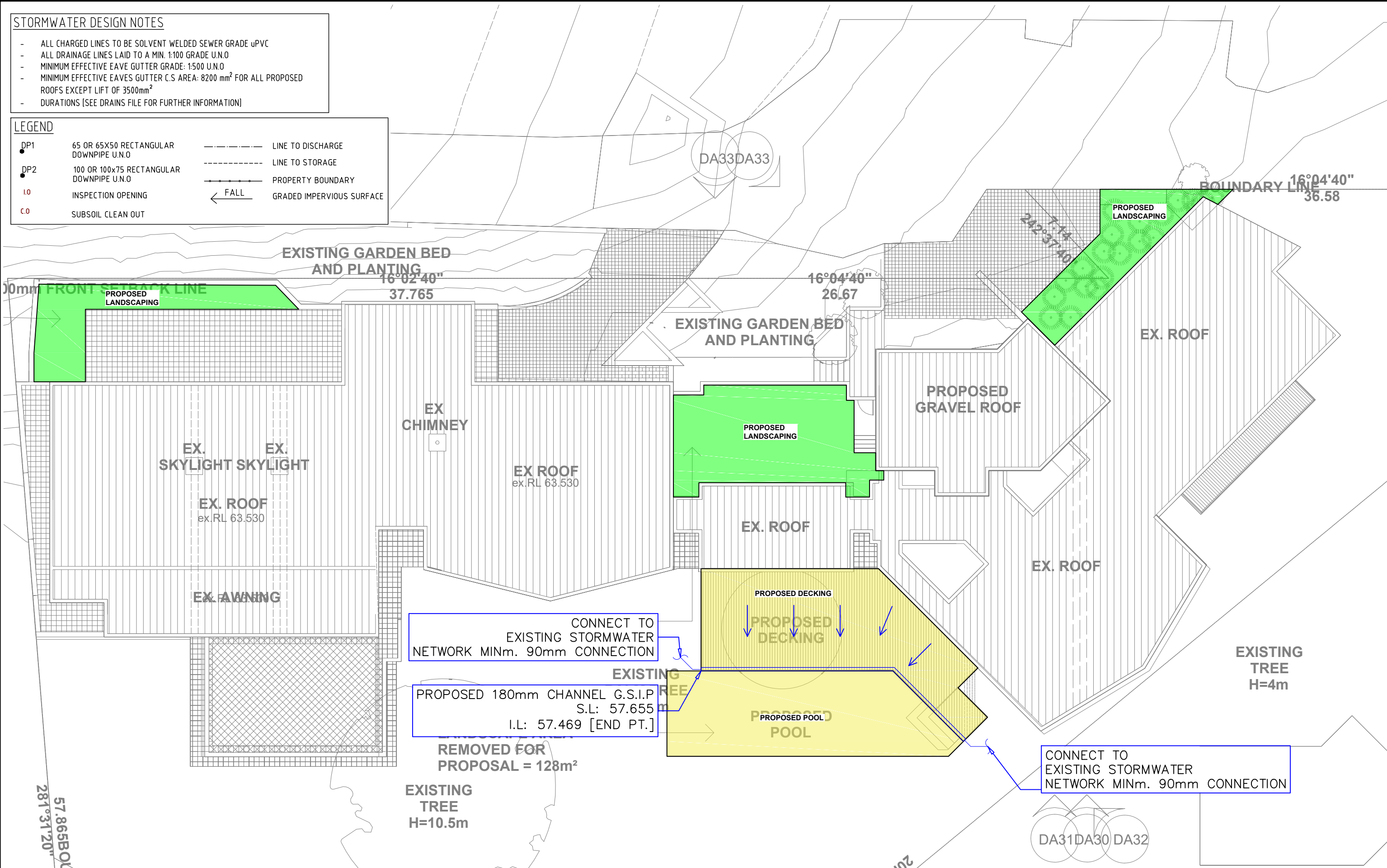


STORMWATER DESIGN NOTES

- ALL CHARGED LINES TO BE SOLVENT WELDED SEWER GRADE uPVC
- ALL DRAINAGE LINES LAID TO A MIN. 1:100 GRADE U.N.O
- MINIMUM EFFECTIVE EAVE GUTTER GRADE: 1:500 U.N.O
- MINIMUM EFFECTIVE EAVES GUTTER C.S AREA: 8200 mm² FOR ALL PROPOSED ROOFS EXCEPT LIFT OF 3500mm²
- DURATIONS [SEE DRAINS FILE FOR FURTHER INFORMATION]

LEGEND

DP1	65 OR 65X50 RECTANGULAR DOWNPIPE U.N.O	---	LINE TO DISCHARGE
DP2	100 OR 100x75 RECTANGULAR DOWNPIPE U.N.O	----	LINE TO STORAGE
I.O	INSPECTION OPENING	---	PROPERTY BOUNDARY
C.O	SUBSOIL CLEAN OUT	←	FALL
		---	GRADED IMPERVIOUS SURFACE



D.Q	D.Q	A	09.05.2018	GROUND PROOFING
BY	REV.	ISS.	DATE.	DESCRIPTION



Consulting Engineers

Wastewater
Stormwater
Bushfire

Contamination
Ecology
Acoustic & Noise

P: 1/23 ROWOOD RD, PROSPECT, NSW 2148
E: info@envirotech.com.au
F: (02) 8834 0760
T: 1300 888 324 | (02) 9896 1568

TITLE	DECK DRAINAGE
PROJECT	PROPOSED ADDITIONS & ALTERATIONS
6 CAPTAIN HUNTER ROAD, BAYVIEW (NORTHERN BEACHES LGA)	

		
JOB No.	DWG No.	SCALE.
19-9036-A	2 / 2	1:200 @ A3

