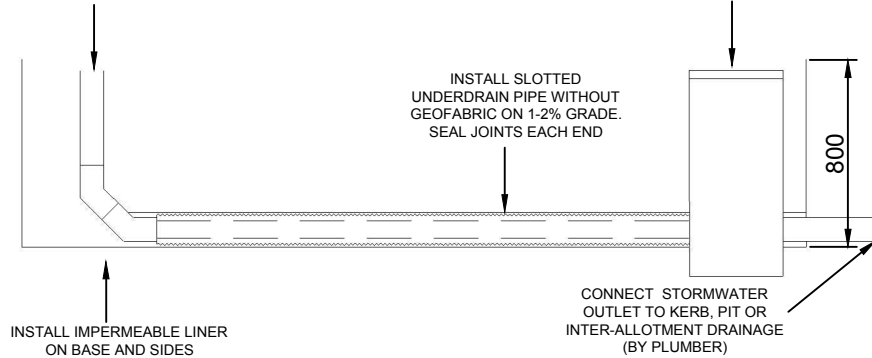


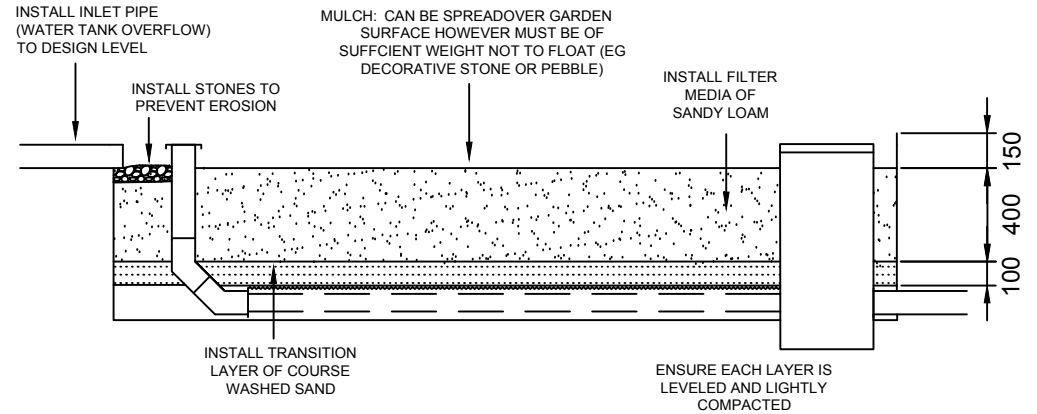
THIS SITE IS ON CLAY SOIL

PROTECT THE RAINGARDEN WITH EROSION AND SEDIMENT CONTROL MEASURES (SUCH AS SEDIMENT FENCING) TO ENSURE THE AREA IS NOT CLOGGED WITH OTHER SOILS DURING CONSTRUCTION

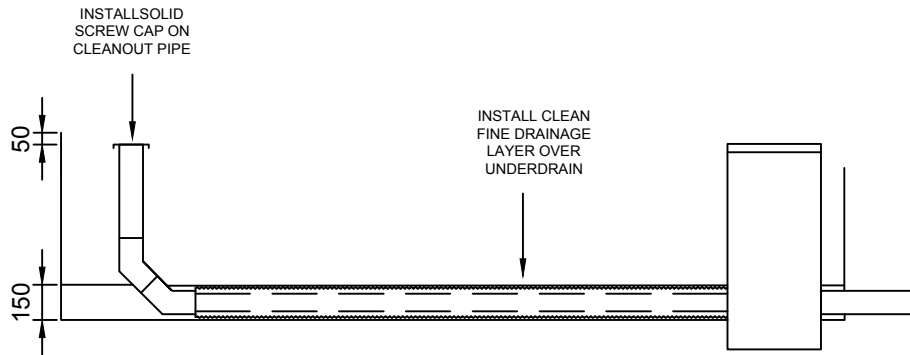
INSTALL CLEANOUT PIPE. SET TOP 100M ABOVE FINISHED FILTER MEDIA LEVEL. PIPE IS USED FOR OVERFLOW AND OCCASIONAL FLUSHING OF UNDERDRAIN



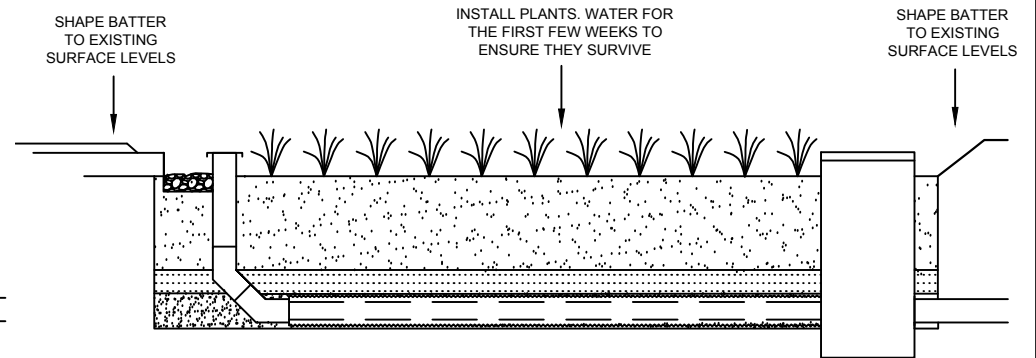
STEP ONE



STEP THREE



STEP TWO



STEP FOUR

THIS SITE IS ON CLAY SOIL

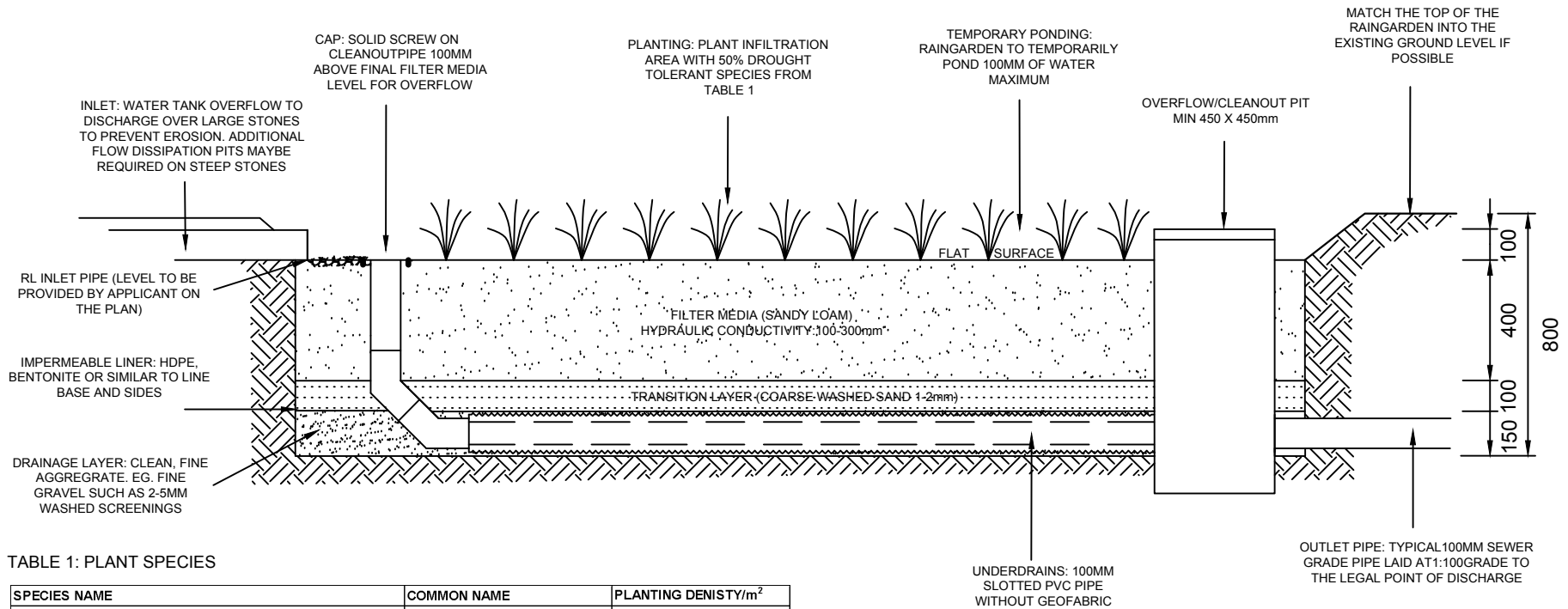


TABLE 1: PLANT SPECIES

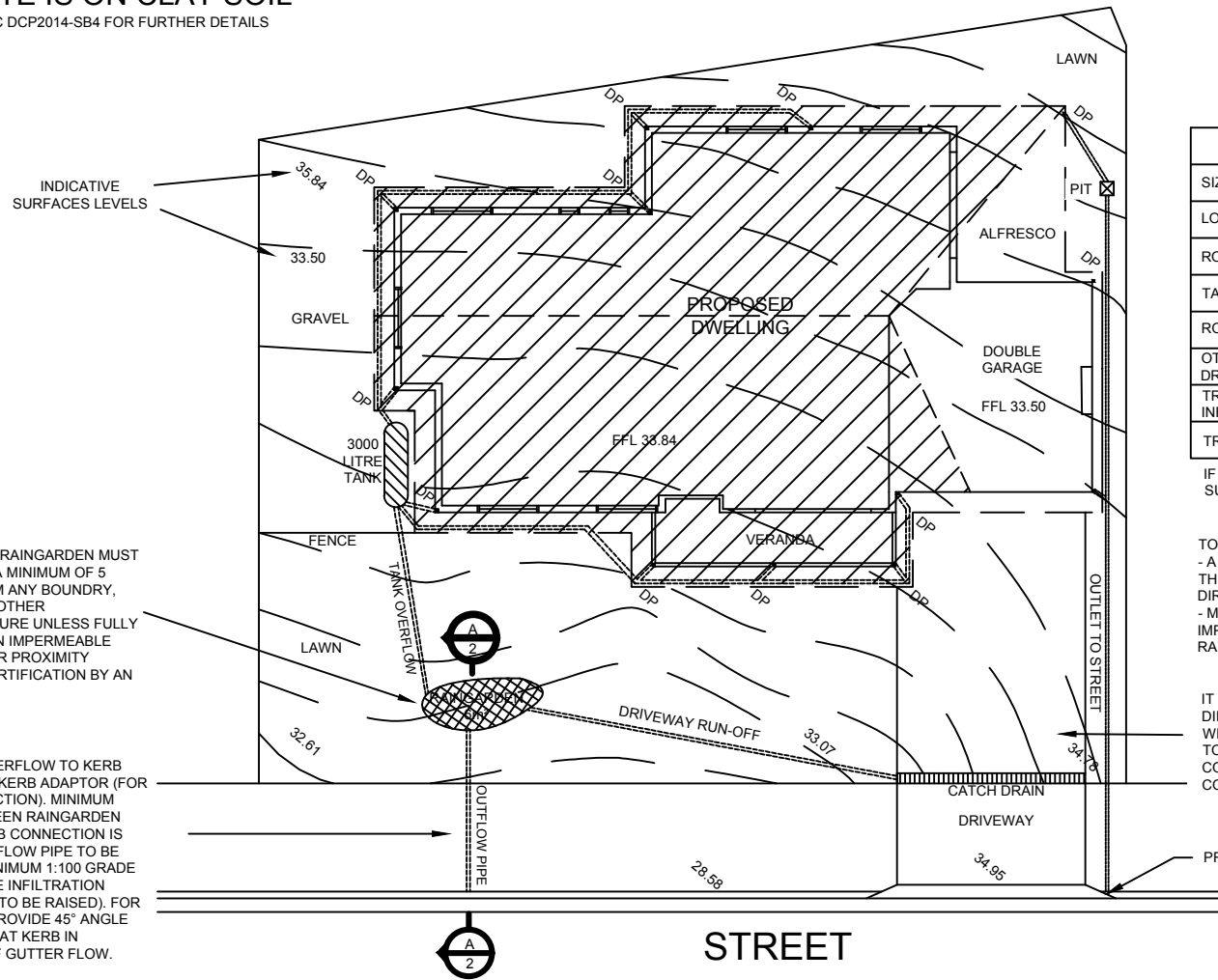
SPECIES NAME	COMMON NAME	PLANTING DENSITY/m <sup>2</sup>
<b>SHRUBS / TREES</b>		
MELALEUCA ERICIFOLIA	SWAMP PAPERBARK	1
MELALEUCA LINARIIFOLIA	FLAX-LEAF PAPERBARK	1
MELALEUCA NODOSA	PRICKLY-LEAFED PAPERBARK	2
MELALEUCA QUINQUENERVIA	BROAD-LEAFED PAPERBARK	1
MELALEUCA SIEBERI	SMALL-LEAVED PAPERBARK	1
<b>SEDGES / RUSHES</b>		
CAREX APPRESSA	TALL SEDGE	10
CAREX FASCICULARIS	TASSEL SEDGE	10
CAREX POLYANTHA	CREEK SEDGE	10
CYPERUS EXALTATUS	TALL FLAT SEDGE	6
FICINIA NODOSA (FORMERLY ISOLEPIS NODOSA)	KNOBBY CLUB RUSH	6
JUNCUS KRAUSSII (SUITABLE FOR SALTY CONDITIONS)	SEA RUSH	8
DIANELLA LONGIFOLIA VAR. LONGIFOLIA (SHADE TOLERANT)	PALE FLAX-LILY	6
LOMANDRA LONGIFOLIA	MATT RUSH	6
LOMANDRA HYSTRIX	CREEK MATT RUSH	6

IF ELEVATION IS AN ISSUE ON YOUR SITE, THE THICKNESS OF THE TRANSITION DRAINAGE AND MULCH LAYERS MAY BE NEGOTIABLE

SECTION A  
NOT TO SCALE

# THIS SITE IS ON CLAY SOIL

REFER TO PSC DCP2014-SB4 FOR FURTHER DETAILS



INDICATIVE SURFACES LEVELS

INFILTRATING RAINGARDEN MUST BE LOCATED A MINIMUM OF 5 METRES FROM ANY BOUNDRY, BUILDING OR OTHER INFRASTRUCTURE UNLESS FULLY LINED WITH AN IMPERMEABLE LINER. CLOSER PROXIMITY REQUIRES CERTIFICATION BY AN ENGINEER

CONNECT OVERFLOW TO KERB WITH A RIGID KERB ADAPTOR (FOR KERB CONNECTION). MINIMUM DEPTH BETWEEN RAINGARDEN INLET TO KERB CONNECTION IS 800mm. OVERFLOW PIPE TO BE LAID ON A MINIMUM 1:100 GRADE (MAY REQUIRE INFILTRATION RAINGARDEN TO BE RAISED). FOR FLAT SITES, PROVIDE 45° ANGLE CONNECTION AT KERB IN DIRECTION OF GUTTER FLOW.

RAINGARDENS CAN BE SHAPED TO FIT LANDSCAPING, AS LONG AS THEY STILL MEET THE REQUIRED SURFACE AREA (m<sup>2</sup>). SEE PSC DCP2014-SB4 FIG BF FOR DEEMED TO COMPLY RAINGARDEN AND TANK SIZING TABLES

STORMWATER TREATMENT SUMMARY	
SIZING METHODOLOGY USED	EG S3QM OR DEEMED COMPLY
LOT AREA (m <sup>2</sup> )	567.15
ROOF AREA (m <sup>2</sup> )	255.55
TANK SIZE (kL)	3
ROOF AREA TO TANK(%)	80
OTHER HARD STAND TO TREATMENT (EG DRIVEWAY, OUTDOOR AREAS, ETC) m <sup>2</sup>	80.99
TREATMENT TYPE (EG. RAINGARDEN, INFILTRATION GARDEN )	RAINGARDEN
TREATMENT SIZE (m <sup>2</sup> )	6

IF S3QM IS USED, ENSURE THAT THE CERTIFICATE IS INCLUDED WHEN SUBMITTING YOUR DEVELOPMENT APPLICATION

TO USE DEEMED TO COMPLY TABLE  
 - A MINIMUM OF 75% OF THE ROOF AREA IS DIRECTED TO THE RAINGARDEN WITH THE REMAINDER DISCHARGING DIRECTLY TO THE RAINGARDEN.  
 - MINIMUM OF 50% OF THE DRIVEWAY AND OTHER IMPERVIOUS SURFACES ARE DIRECTED TO FLOW INTO THE RAINGARDEN.

IT IS IMPORTANT TO HAVE SOME HARD SURFACES DIRECTLY CONNECTED TO THE RAINGARDEN AS THESE WILL ENSURE THAT THE PLANTS RECEIVE ENOUGH WATER TO GROW. IN THIS EXAMPLE, THE DRIVEWAY IS CONNECTED, ALTERNATIVELY A PERCENTAGE OF THE ROOF COULD BE DIRECTLY CONNECTED TO THE RAINGARDEN

PROVIDE A RIGID KERB ADAPTOR WHERE CONNECTING TO KERB

ROOF AREA CONTRIBUTING TO TANK

STORMWATER PIPE

## THIS SITE IS ON CLAY SOIL

REFER TO PSC DCP2014-SB4 FOR FURTHER DETAILS

COUNCIL HAS DEVELOPED THESE DEEMED TO COMPLY PROVISIONS UTILIZING A SIMPLIFIED SIZING METHODOLOGY FOR ALL SOIL TYPES, PROVIDED THE CRITERIA CAN BE MET.

THE DEEMED TO COMPLY PROVISIONS PROVIDED IN THE TABLE BELOW APPLY ONLY WHERE ALL OF THE FOLLOWING CRITERIA ARE SATISFIED:

- THE **DEVELOPMENT** IS CONNECTED TO A **SEWERAGE RETICULATION SYSTEM**;
- MINIMUM OF 75% OF THE ROOF AREA IS CONNECTED TO THE RAINWATER TANK WITH THE REMAINING 25% OF THE ROOF AREA DIRECTLY CONNECTED TO A RAINGARDEN;
- THE **DRIVEWAY** AREA IS CONNECTED TO A RAINGARDEN;
- WATER FROM THE RAINWATER TANK SUPPLIES THE TOILET AND LAUNDRY FACILITIES WITHIN THE **DEVELOPMENT** AT A MINIMUM; AND
- RAINWATER TANK OVERFLOW IS DIRECTED TO A RAINGARDEN.

**NOTE:** WHERE THE LOT SIZE AND/OR ROOF SIZE ARE NOT IDENTICAL TO THE AREAS LISTED THE NEXT LARGEST LOT AND/OR ROOF SIZE MUST BE USED.

**NOTE:** THE RAINGARDEN SIZE IS MEASURED BASED ON THE PLANTED AREA.

**NOTE:** COUNCIL ENCOURAGES PROPONENTS TO PREPARE AN **OPERATION AND MAINTENANCE PLAN** FOR RAINGARDENS TO ENSURE THEY FUNCTION PROPERLY THROUGHOUT THE LIFE OF THE **DEVELOPMENT**.

Lot Area (m <sup>2</sup> )	Roof area (m <sup>2</sup> )	Tank (kL)	Minimum raingarden area (m <sup>2</sup> )
400	150	2	7
400	200	2	8
400	150	3	6
400	200	3	7
400	150	5	6
400	200	5	7
400	150	10	5
400	200	10	6
500	150	2	8
500	200	2	9
500	250	2	10
500	150	3	7
500	200	3	8
500	250	3	9
500	150	5	7
500	200	5	8
500	250	5	8
500	150	10	6
500	200	10	7
500	250	10	7
600	150	2	9
600	200	2	10
600	250	2	10
600	300	2	12
600	150	3	8
600	200	3	9
600	250	3	10
600	300	3	11

Lot Area (m <sup>2</sup> )	Roof area (m <sup>2</sup> )	Tank (kL)	Minimum raingarden area (m <sup>2</sup> )
600	150	5	8
600	200	5	9
600	250	5	9
600	300	5	10
600	150	10	7
600	200	10	8
600	250	10	8
600	300	10	9
800	200	2	12
800	250	2	12
800	300	2	13
800	400	2	16
800	500	2	18
800	200	3	11
800	250	3	12
800	300	3	13
800	400	3	15
800	500	3	17
800	200	5	11
800	250	5	11
800	300	5	12
800	400	5	14
800	500	5	16
800	200	10	10
800	250	10	10
800	300	10	11
800	400	10	13
800	500	10	15

Lot Area (m <sup>2</sup> )	Roof area (m <sup>2</sup> )	Tank (kL)	Minimum raingarden area (m <sup>2</sup> )
1000	200	2	13
1000	250	2	14
1000	300	2	15
1000	400	2	18
1000	500	2	20
1000	200	3	13
1000	250	3	14
1000	300	3	15
1000	400	3	17
1000	500	3	19
1000	200	5	12
1000	250	5	13
1000	300	5	14
1000	400	5	16
1000	500	5	18
1000	200	10	12
1000	250	10	12
1000	300	10	13
1000	400	10	15
1000	500	10	17

© PORT STEPHENS COUNCIL 2016



## SAMPLE STANDARD DRAWING FOR A RAINGARDEN ON CLAY SOIL FOR RESIDENTIAL DWELLINGS SITE PLAN

S.HALVORSEN - OCT 2019

PLAN No:  
**S161**

Dir:  
M:\Standards\S161