NORTHERN BEACHES COUNCIL

PROPOSED SUBDIVISION
39 STARKEY ST, FORESTVILLE NSW 2087

STORMWATER DRAINAGE CONCEPT PLAN

DIAL 1100 BEFORE YOU DIG

STORMWATER DRAINAGE NOTES

1. ALL LINES ARE TO BE MIN. 100ø UPVC @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS. ALL DESIGN LEVELS SHOWN ON PLAN SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. EXISTING STORMWATER DRAINAGE SYSTEM TO BE CCTV CAMERA TESTED BY LICENSED PLUMBER PRIOR TO CONSTRUCTION.
4. ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN THE PROPERTY.
5. ENSURE ALL PIT GRATES ARE SET BELOW FINISHED SURFACE LEVEL WITHIN THE PROPERTY.
6. TOP OF PIT RL'S ARE APPROXIMATE ONLY AND MAY BE VARIED SUBJECT TO APPROVAL OF THE ENGINEER. ALL INVERT LEVELS ARE TO BE ACHIEVED.
7. ALL PITS IN DRIVEWAYS BE HEAVY DUTY GRATES. DIRECT SURFACE FLOW TO ALL GRATED SURFACE INLET PITS.
8. ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3:2018 AND COUNCIL SPECIFICATIONS.
9. LOCATION OF DOWNPIPES & FLOOR WASTES ARE INDICATIVE ONLY. DOWNPIPE & FLOOR WASTE SIZE, LOCATION & QUANTITY TO BE DETERMINED BY BUILDER & IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
10. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, HYDRAULIC, LANDSCAPE AND STRUCTURAL PLANS.
11. ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE DESIGN ENGINEER FOR RESOLUTION PRIOR PROCEEDING CONSTRUCTION.
12. THE SITE SHALL BE GRADED AND DRAINED SO THAT STORMWATER WILL BE DIRECTED AWAY FROM THE BUILDING PLATFORM.
13. SITE TO BE GRADED AS SUCH SO WATER CAN NOT POND ON THE SURFACE.
14. ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
15. ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES.
16. PROVIDE EMERGENCY OVERFLOW TO ALL PLANTER BOX AND BALCONIES.
17. ALL PITS WITH DEPTH MORE THAN 1M MUST HAVE IRON STEPS.
18. ADEQUATE SUB-SOIL DRAINAGE CONNECTING TO THE STORMWATER DRAINAGE SYSTEM SHALL BE PROVIDED TO ALL RETAINING WALLS & EMBANKMENTS.
19. PROVIDE STORMWATER GRATE 150W×150D AT THE BASE OF ALL MECHANICAL SHAFTS AND UNCOVERED STAIRS OR OPENINGS.
20. ENSURE ALL DRAINAGE WORKS ARE AWAY FROM TREE ROOTS.

AS3500.3:2021 MIN. REQUIREMENTS

MINIMUM GRADIENT OF PIPES	
PIPE DIAMETER (mm)	MINIMUM GRADIENT
100	1:100
150	1:100
225	1:200
300	1:250
375	1:300

MINIMUM PIPE COVERS	
LOCATION	PLASTIC PIPES MINIMUM COVER (mm)
1. NO VEHICULAR LOADING	-
(a) NOT PAVED	-
(i) SINGLE DWELLING	100
(ii) OTHERS	300
(b) PAVED	100 BELOW UNDERSIDE OF PAVEMENT
2. VEHICULAR LOADING (NOT ROAD)	-
(i) NOT PAVED	450
(ii) PAVED	100 BELOW UNDERSIDE OF PAVEMENT

MINIMUM INTERNAL DIMENSIONS FOR PITS	
DEPTH TO INVERT OF OUTLET	MINIMUM PIT SIZE (mm)
≤ 450mm	350 x 350
≤ 600mm	450 x 450
< 600mm ≤ 900mm	600 x 600
< 900mm ≤ 1200mm	600 x 900
> 1200mm	900 x 900

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".
2. RAINWATER TANK TO BE CONNECTED TO AT LEAST ONE OUTDOOR TAP.
3. OVERFLOW FROM RAINWATER TANK TO BE CONNECTED TO STORMWATER DRAINAGE SYSTEM. NO OTHER CONNECTIONS TO THE OVERFLOW PIPELINE SUCH AS SURFACE WATER INLETS.
4. ALL RECYCLE WATER PIPES TO BE COLOUR CODED FOR IDENTIFICATION.
5. FIRST-FLUSH DEVICES ARE REQUIRED TO BE CHECKED AND CLEANED REGULARLY.
6. WATER AUTHORITY MUST BE CONTACTED REGARDING RECYCLED WATER ON THE BUILDING AND FOR THE BACKFLOW PREVENTION REQUIREMENTS AND TOP-UP SYSTEM.
7. ANY GARDEN OR CARWASH TAPS CONNECTED RECYCLE SYSTEM MUST BE LOCATED 1.5m MIN. ABOVE THE SURFACE.
8. 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.
9. PUMPS AND FILTERS ON OUTLETS FROM RECYCLE SYSTEM TO BE SUPPLIED AS MAY BE REQUIRED.

SITE LOCATION PLAN

LEGEND

• EX. DP#	EXISTING DOWNPIPE
• DP#	DOWNPIPE
•E SP#	DOWNPIPE SPREADER
SW	PROPOSED STORMWATER PIPES
RWT	PROPOSED PIPES CONNECTING TO RAINWATER TANK
	PIPED FLOW DIRECTION
	SURFACE FALL/OVERLAND FLOW DIRECTION
	GRATED PIT
	STRIP DRAIN
IO	INSPECTION OPENING

DRAWING SCHEDULE

DWG NO.	DWG TITLE
D000	COVER SHEET
D010	GROUND FLOOR AND ROOF STORMWATER DRAINAGE CONCEPT PLAN
D020	OSD SECTIONS AND DETAILS
D030	OSD CATCHMENT PLANS AND CALCULATIONS
D040	WSUD CATCHMENT PLANS AND MUSIC MODELING RESULTS

REVISIONS

REV.	BY	DATE	DESCRIPTION	APPD.
E	F.Y.	19.01.2024	PRELIMINARY ISSUE	O.S.
D	F.Y.	07.12.2023	PRELIMINARY ISSUE	O.S.
C	F.Y.	14.11.2023	PRELIMINARY ISSUE	O.S.
B	F.Y.	16.06.2023	PRELIMINARY ISSUE	O.S.
A	F.Y.	27.02.2023	PRELIMINARY ISSUE	O.S.

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RISE CONSULTING ENGINEERS PTY. LTD.

DRAWN	F.Y.
DESIGNED	F.Y.
CHECKED	O.S.
SCALE	AS INDICATED
SIZE	A1

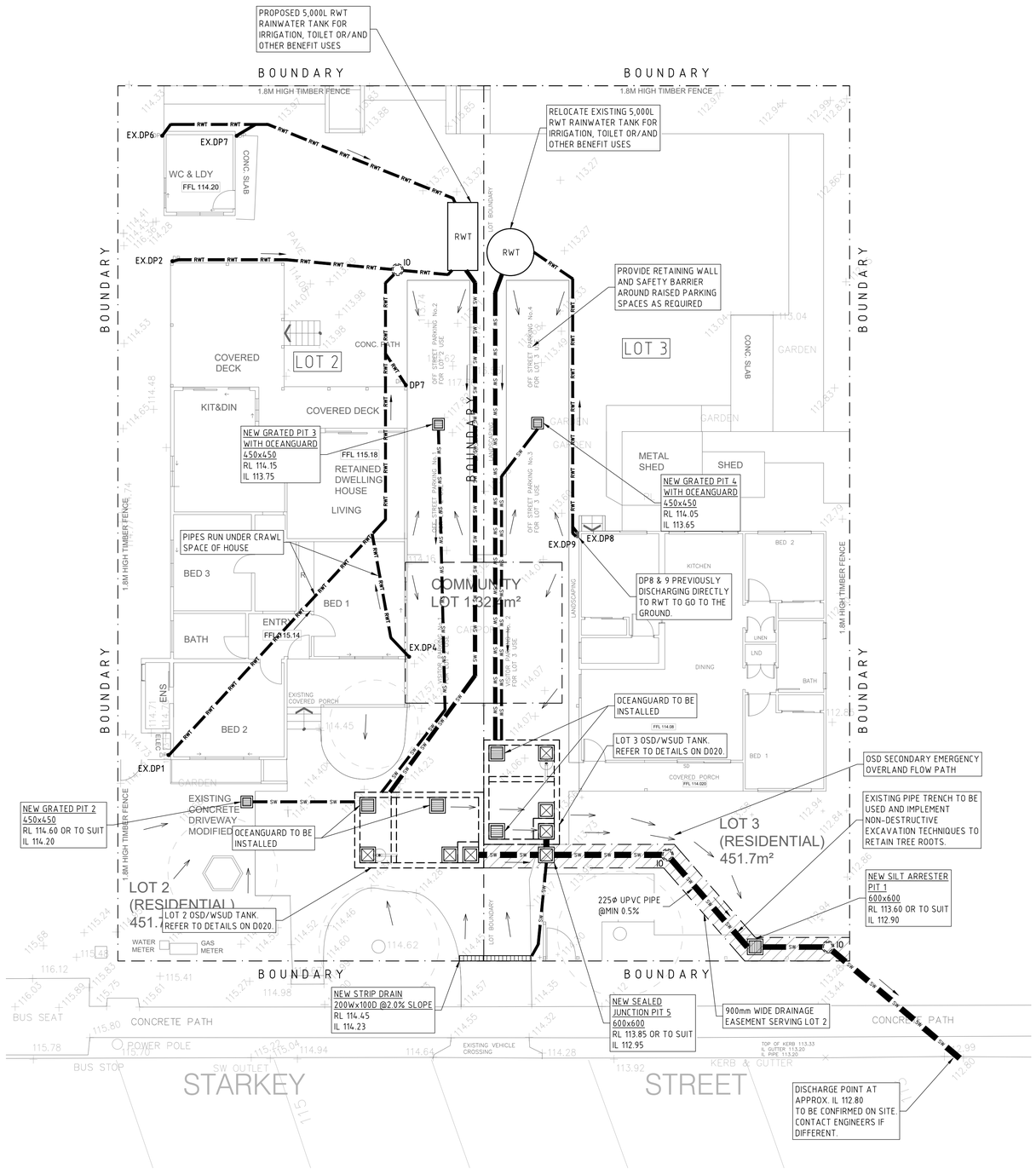
PROJECT: PROPOSED SUBDIVISION 39 STARKEY ST, FORESTVILLE NSW 2087

DRAWING NO.: D000

REV.: E

DRAWING TITLE: COVER SHEET

JOB NO.: 20144

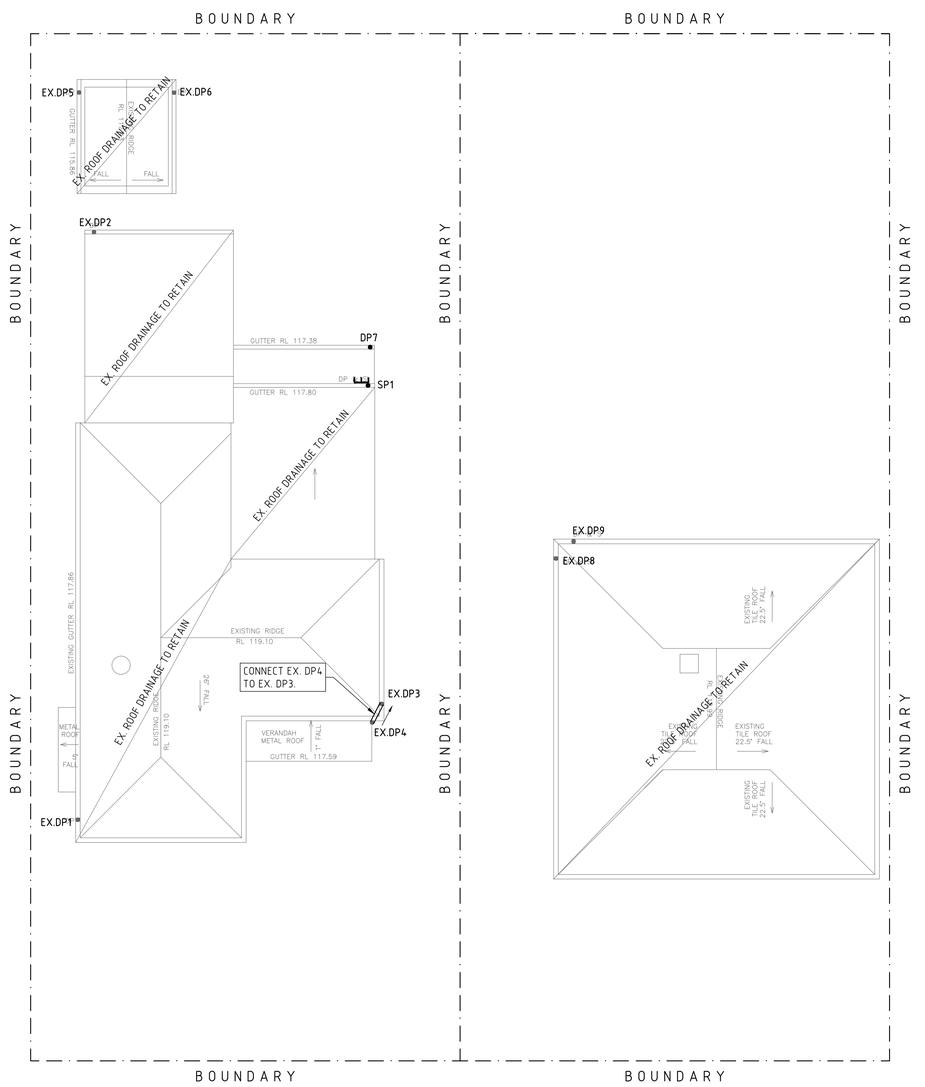


GROUND FLOOR STORMWATER DRAINAGE CONCEPT PLAN

SCALE: 1:100

NOTES:

1. ALL DOWNPIPE LOCATIONS TO BE CHECKED BY ARCHITECT AND CONTRACTOR PRIOR TO CONSTRUCTION.
2. ALL EXISTING AND FUTURE PROPOSED ROOF DOWNPIPES ARE CONNECTED TO THE RAINWATER TANK.
3. OCEANGUARD 200MICRON TO BE INSTALLED IN ALL GRATED PITS/ OSD/WSUD ACCESS GRATES ON THE DRIVEWAY.



ROOF LEVEL STORMWATER DRAINAGE CONCEPT PLAN

SCALE: 1:100

NOTES:

1. ALL DOWNPIPE LOCATIONS TO BE CHECKED BY ARCHITECT AND CONTRACTOR PRIOR TO CONSTRUCTION.

DIAL 1100 BEFORE YOU DIG

REVISIONS					
REV.	BY	DATE	DESCRIPTION	APPD.	
F	F.Y.	23.01.2024	PRELIMINARY ISSUE	O.S.	
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D	F.Y.	07.12.2023	PRELIMINARY ISSUE	O.S.	
C	F.Y.	14.11.2023	PRELIMINARY ISSUE	O.S.	
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DESIGNED	F.Y.
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SCALE	AS INDICATED
SIZE	A1

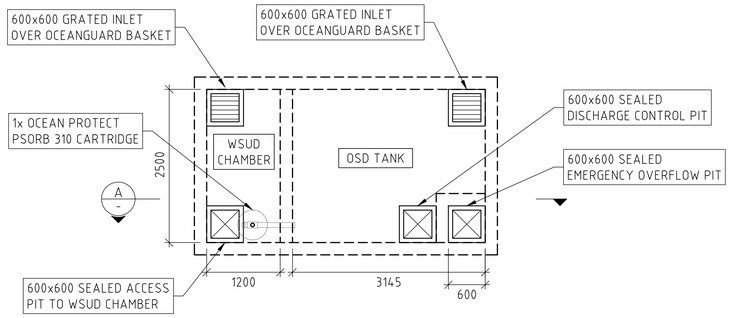
PROJECT: PROPOSED SUBDIVISION
39 STARKEY ST, FORESTVILLE NSW 2087

DRAWING TITLE: GROUND FLOOR AND ROOF STORMWATER DRAINAGE CONCEPT PLAN

DRAWING NO.: D010

REV.: F

JOB NO.: 20144

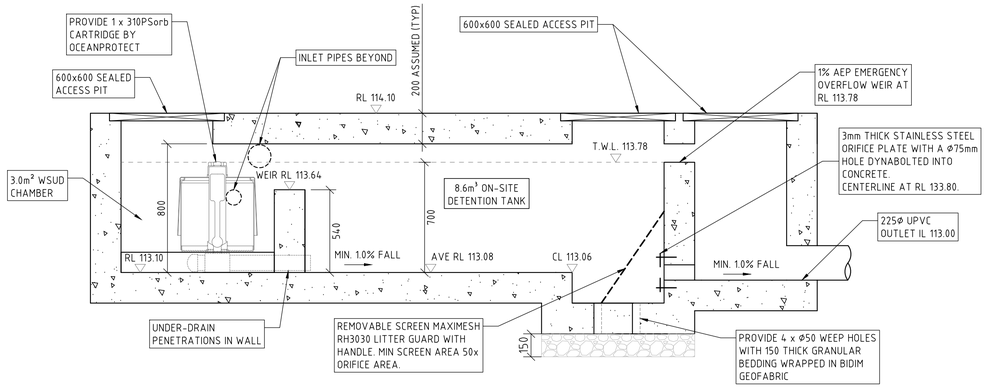


LOT 2 OSD/WSUD TANK PLAN DETAIL

SCALE: 1:50

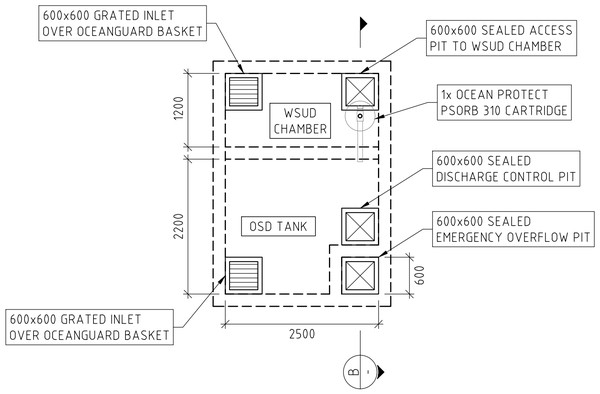
NOTES:

1. ALL TANK DIMENSION SHOWN ON PLAN ARE INTERNAL.
2. OSD LID AND ALL INTERNAL WALLS AND WEIRS ASSUMED TO BE 200mm THICK.



SECTION A

SCALE: 1:20

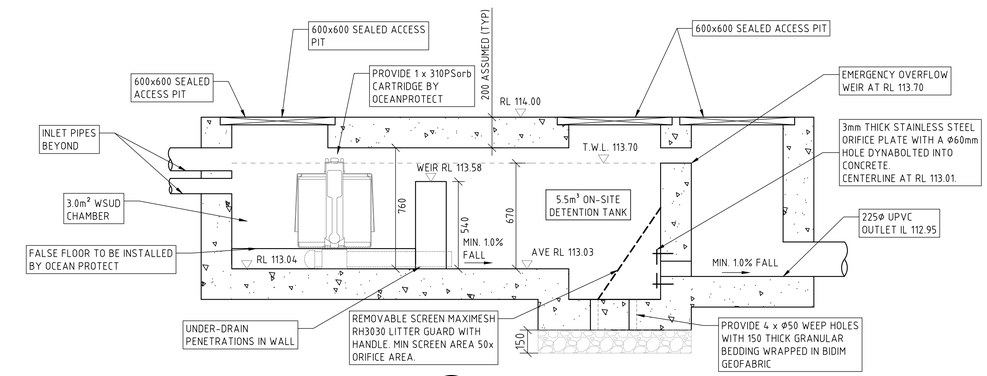


LOT 3 OSD/WSUD TANK PLAN DETAIL

SCALE: 1:50

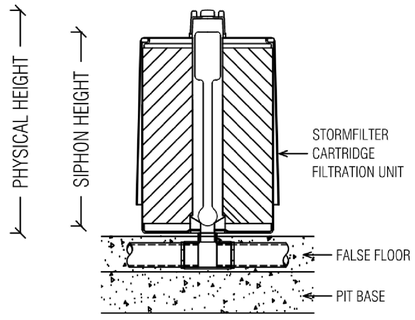
NOTES:

1. ALL TANK DIMENSION SHOWN ON PLAN ARE INTERNAL.
2. OSD LID AND ALL INTERNAL WALLS AND WEIRS ASSUMED TO BE 200mm THICK.



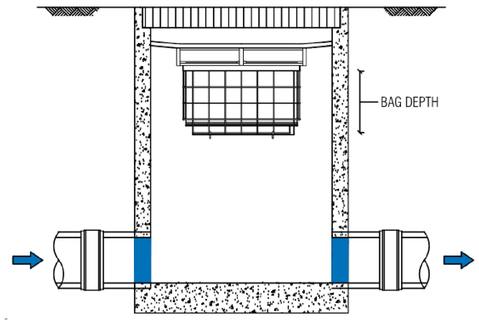
SECTION B

SCALE: 1:20



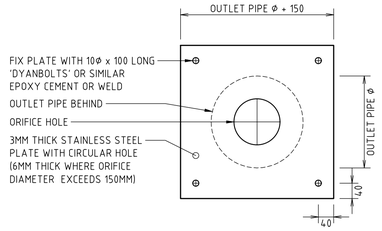
TYPICAL STORMFILTER CARTRIDGE DETAIL

SCALE: NTS



TYPICAL OCEAN GUARD DETAIL

SCALE: NTS

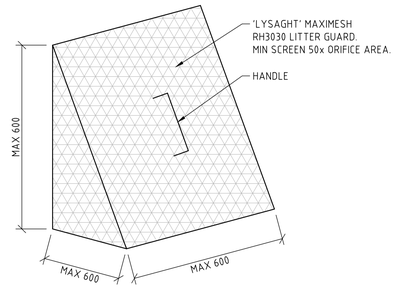


ORIFICE PLATE TYPICAL DETAIL

SCALE: NTS

NOTES:

1. HOLE IN ORIFICE PLATE TO BE PRECISION CUT WITH SHARP EDGES TO 0.5MM ACCURACY TO THE SPECIFIED DIAMETER.
2. ORIFICE PLATE TO BE PLACED CENTRALLY OVER OUTLET PIPE.
3. PLATE TO BE MADE FROM STAINLESS STEEL. HOT DIPPED GALVANIZED.
4. OUTLET PIPE TO BE CAST INTO THE WALL OF THE PIT
5. HOLE IN PLATE TO BE CENTRALLY PLACED
6. ORIFICE PLATE AND PIT WALL TO BE SEALED WITH SILICON TO PROVIDE WATERPROOF JOINING



TRASH SCREEN TYPICAL DETAIL

SCALE: NTS

NOTES:

1. MAXIMESH SCREENS MUST BE PLACED SUCH THAT THE LONG AXIS OF THE OVAL SHAPED HOLES ARE ORIENTATED HORIZONTALLY WITH THE PROTRUDING LIP ANGLED UPWARDS AND FACING TOWARDS THE OUTLET
2. THE SCREEN IS TO BE FORMED BY WELDING TWO TRIANGULAR MAXIMESH (OR EQUIVALENT) PANELS TO A RECTANGULAR FRONT MAXIMESH PANEL (OR EQUIVALENT).

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CHECKED	O.S.
SCALE	AS INDICATED
SIZE	A1

PROJECT

PROPOSED SUBDIVISION
39 STARKEY ST, FORESTVILLE NSW 2087

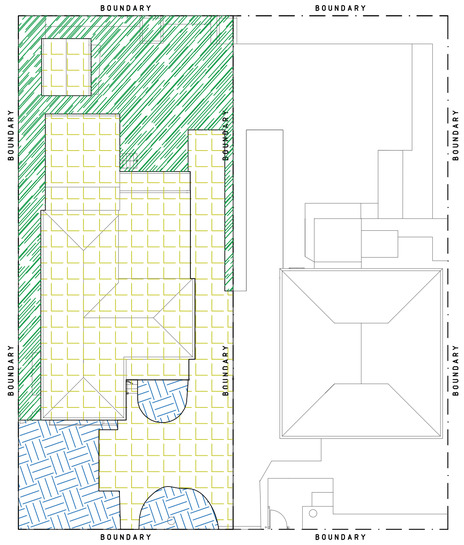
DRAWING NO. D020

REV. F

DRAWING TITLE

OSD SECTIONS AND DETAILS

JOB NO. 20144



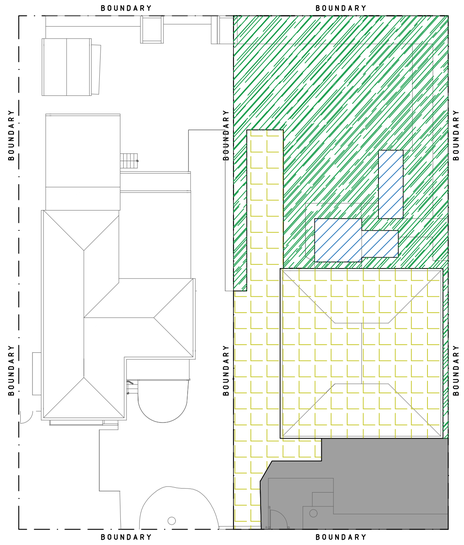
IMPERVIOUS AREA TO OSD: 274.2m^2.
(ASSUMED 372.6 m^2 FOR FUTURE DEVELOPMENT).

PERVIOUS TO OSD: 61 m^2

PERVIOUS TO REAR: 134.5 m^2
(ASSUMED 36.4 m^2 FOR FUTURE DEVELOPMENT).

TOTAL AREA:
470.0 m^2

LOT 2 OSD CATCHMENT PLAN
SCALE: 1:200



IMPERVIOUS AREA TO OSD: 189 m^2
(ASSUMED 282.0 m^2 FOR FUTURE DEVELOPMENT)

IMPERVIOUS TO REAR: 20 m^2

PERVIOUS TO REAR: 194.4 m^2
(ASSUMED 101.7 m^2 FOR FUTURE DEVELOPMENT)

PERVIOUS BYPASS TO STARKEY STREET: 66.3 m^2 < 20% SITE AREA

LOT 3 OSD CATCHMENT PLAN
SCALE: 1:200

LOT 2 SITE CALCULATIONS

PROVISION FOR POTENTIAL FUTURE SITE DEVELOPMENT TO BE 80% IMPERVIOUS AND 20% PERVIOUS WITH ALL EXISTING AND PROPOSED ROOF AREAS DRAINING TO OSD/RWT.

FLOW RATE CALCULATION:

CALCULATION ARI:	5, 20 AND 100YRS
CALCULATION METHOD USED:	DRAINS – ILSAX MODEL
RAINFALL INTENSITY:	BASED ON ARR 87
CALCULATED ORIFICE SIZE :	75Φ

AS STATED BY NORTHERN BEACHES COUNCIL OSD TECHNICAL SPECIFICATION, PERMISSIBLE SITE DISCHARGE IS TO BE CALCULATED ON THE MAXIMUM ALLOWABLE IMPERVIOUS FRACTION OF 0%.

1 IN 5 YEARS PERMISSIBLE SITE DISCHARGE:	9 L/s
1 IN 20 YEARS PERMISSIBLE SITE DISCHARGE:	13L/s
1 IN 100 YEARS PERMISSIBLE SITE DISCHARGE:	18 L/s
1 IN 5 YEARS PEAK DISCHARGE RATE:	8 L/s
1 IN 20 YEARS PEAK DISCHARGE RATE:	10 L/s
1 IN 100 YEARS PEAK DISCHARGE RATE:	11 L/s

DESIGN SATISFIES PERMISSIBLE SITE DISCHARGE FOR 20%, 5%, AND 1% AEP STORMS.

LOT 3 SITE CALCULATIONS

PROVISION FOR POTENTIAL FUTURE SITE DEVELOPMENT TO BE 65% IMPERVIOUS AND 35% PERVIOUS WITH ALL EXISTING AND PROPOSED ROOF AREAS DRAINING TO OSD/RWT.

FLOW RATE CALCULATION:

CALCULATION ARI:	5, 20 AND 100YRS
CALCULATION METHOD USED:	DRAINS – ILSAX MODEL
RAINFALL INTENSITY:	BASED ON ARR 87
CALCULATED ORIFICE SIZE :	60Φ

AS STATED BY NORTHERN BEACHES COUNCIL OSD TECHNICAL SPECIFICATION, PERMISSIBLE SITE DISCHARGE IS TO BE CALCULATED ON THE MAXIMUM ALLOWABLE IMPERVIOUS FRACTION OF 0%.

1 IN 5 YEARS PERMISSIBLE SITE DISCHARGE:	9 L/s
1 IN 20 YEARS PERMISSIBLE SITE DISCHARGE:	11 L/s
1 IN 100 YEARS PERMISSIBLE SITE DISCHARGE:	17 L/s
1 IN 5 YEARS PEAK DISCHARGE RATE:	9 L/s
1 IN 20 YEARS PEAK DISCHARGE RATE:	10 L/s
1 IN 100 YEARS PEAK DISCHARGE RATE:	14 L/s

DESIGN SATISFIES PERMISSIBLE SITE DISCHARGE FOR 20%, 5%, AND 1% AEP STORMS.

DRAINS results prepared from Version 2023.06.8578.17142

SUB-CATCHMENT DETAILS (LOT 2, 1%AEP)

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)	Supp. Tc (min)	Due to Storm
LOT 2 TO OSD	0.024	0.022	0.002	5	8	2	1% AEP, 5 min burst, Storm 1
PRE-DEVELOPMENT	0.018	0	0.018	5	8	2	1% AEP, 10 min burst, Storm 5
LOT 2 BYPASS	0.001	0	0.001	5	8	2	1% AEP, 10 min burst, Storm 5

DETENTION BASIN DETAILS (LOT 2, 1% AEP)

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
LOT 2 OSD	113.78	7.7	0.01	0.01	0

Run Log for LOT 2 OSD Design - Felix - DRAINS run at 14:32:58 on 14/11/2023 using Watercom Drains v2023.06.8578.17

SUB-CATCHMENT DETAILS (LOT 2, 5% AEP)

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)	Supp. Tc (min)	Due to Storm
LOT 2 TO OSD	0.019	0.018	0.001	5	8	2	5% AEP, 5 min burst, Storm 1
PRE-DEVELOPMENT	0.013	0	0.013	5	8	2	5% AEP, 10 min burst, Storm 5
LOT 2 BYPASS	0.001	0	0.001	5	8	2	5% AEP, 10 min burst, Storm 5

DETENTION BASIN DETAILS (LOT 2, 5% AEP)

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
LOT 2 OSD	113.58	5.6	0.009	0.009	0

Run Log for LOT 2 OSD Design - Felix - DRAINS run at 14:32:58 on 14/11/2023 using Watercom Drains v2023.06.8578.17

SUB-CATCHMENT DETAILS (LOT 2, 20% AEP)

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)	Supp. Tc (min)	Due to Storm
LOT 2 TO OSD	0.015	0.014	0.001	5	8	2	20% AEP, 5 min burst, Storm 1
PRE-DEVELOPMENT	0.009	0	0.009	5	8	2	20% AEP, 10 min burst, Storm 1
LOT 2 BYPASS	0.001	0	0.001	5	8	2	20% AEP, 10 min burst, Storm 1

DETENTION BASIN DETAILS (LOT 2, 20% AEP)

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
LOT 2 OSD	113.4	3.6	0.007	0.007	0

Run Log for LOT 2 OSD Design - Felix - DRAINS run at 14:32:58 on 14/11/2023 using Watercom Drains v2023.06.8578.17

LOT 2 DRAINS MODEL RESULTS

DRAINS results prepared from Version 2023.06.8578.17142

SUB-CATCHMENT DETAILS (1% AEP)

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)	Supp. Tc (min)	Due to Storm
LOT 3 TO OSD	0.017	0.017	0	5	8	2	1% AEP, 5 min burst, Storm 1
PRE-DEVELOPMENT	0.018	0	0.018	5	8	2	1% AEP, 10 min burst, Storm 5
LOT 3 BYPASS	0.008	0.001	0.007	5	8	2	1% AEP, 10 min burst, Storm 1

DETENTION BASIN DETAILS (1% AEP)

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
LOT 3 OSD	113.7	5.7	0.006	0.006	0

Run Log for LOT 3 OSD Design - Felix - DRAINS run at 11:09:03 on 10/11/2023 using Watercom Drains v2023.06.8578.

SUB-CATCHMENT DETAILS (5% AEP)

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)	Supp. Tc (min)	Due to Storm
LOT 3 TO OSD	0.013	0.013	0	5	8	2	5% AEP, 5 min burst, Storm 1
PRE-DEVELOPMENT	0.013	0	0.013	5	8	2	5% AEP, 10 min burst, Storm 5
LOT 3 BYPASS	0.005	0.001	0.005	5	8	2	5% AEP, 10 min burst, Storm 5

DETENTION BASIN DETAILS (5% AEP)

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
LOT 3 OSD	113.51	4.2	0.005	0.005	0

Run Log for LOT 3 OSD Design - Felix - DRAINS run at 11:09:03 on 10/11/2023 using Watercom Drains v2023.06.8578.

SUB-CATCHMENT DETAILS (20% AEP)

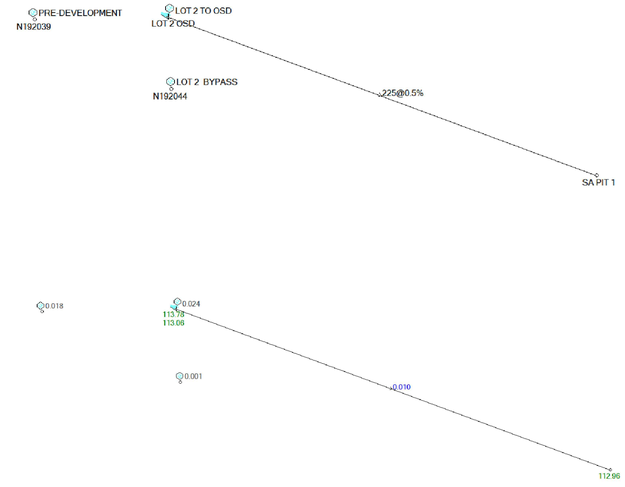
Name	Max Flow Q (cu.m/s)	Paved Max Q (cu.m/s)	Grassed Max Q (cu.m/s)	Paved Tc (min)	Grassed Tc (min)	Supp. Tc (min)	Due to Storm
LOT 3 TO OSD	0.01	0.01	0	5	8	2	20% AEP, 5 min burst, Storm 1
PRE-DEVELOPMENT	0.009	0	0.009	5	8	2	20% AEP, 10 min burst, Storm 1
LOT 3 BYPASS	0.004	0.001	0.003	5	8	2	20% AEP, 10 min burst, Storm 3

DETENTION BASIN DETAILS (20% AEP)

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
LOT 3 OSD	113.35	2.8	0.005	0.005	0

Run Log for LOT 3 OSD Design - Felix - DRAINS run at 11:09:03 on 10/11/2023 using Watercom Drains v2023.06.8578.

LOT 3 DRAINS MODEL RESULTS



LOT 2 DRAINS MODEL LAYOUT FOR 1% AEP (LOT 3 SIMILAR)
SCALE: NTS

REVISIONS					
F	F.Y.	23.01.2024	PRELIMINARY ISSUE	O.S.	
E	F.Y.	19.01.2024	PRELIMINARY ISSUE	O.S.	
D	F.Y.	07.12.2023	PRELIMINARY ISSUE	O.S.	
C	F.Y.	14.11.2023	PRELIMINARY ISSUE	O.S.	
B	F.Y.	16.06.2023	PRELIMINARY ISSUE	O.S.	
A	F.Y.	27.02.2023	PRELIMINARY ISSUE	O.S.	
REV.	BY	DATE	DESCRIPTION	APPD.	

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RISE CONSULTING ENGINEERS PTY. LTD.

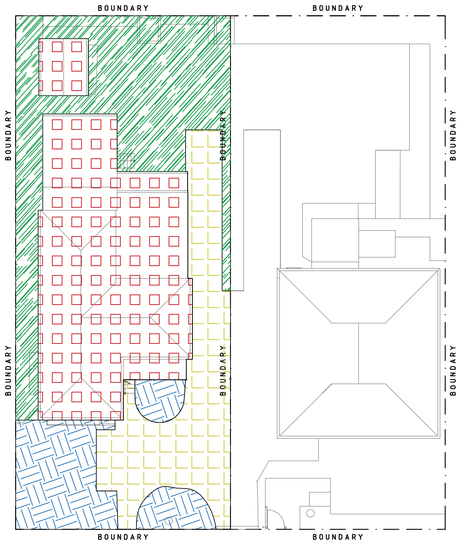
DRAWN	F.Y.
DESIGNED	F.Y.
CHECKED	O.S.
SCALE	AS INDICATED
SIZE	A1

PROJECT
PROPOSED SUBDIVISION
39 STARKEY ST, FORESTVILLE NSW 2087

DRAWING NO. D030
REV. F

DRAWING TITLE
OSD CATCHMENT PLANS AND CALCULATIONS

JOB NO. 20144



ROOF AREA TO RWT: 178.3 m^2
(ASSUMED 300.6 m^2 FOR FUTURE DEVELOPMENT)

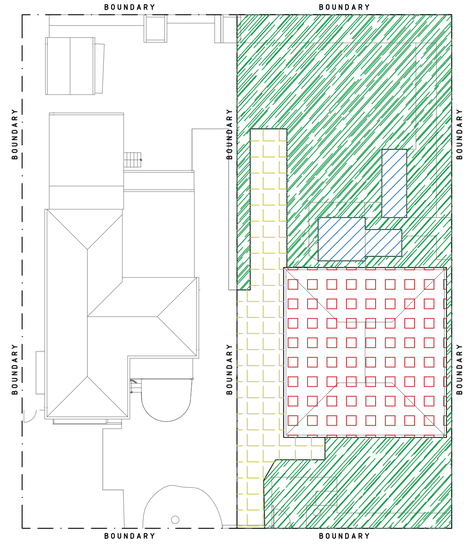
DRIVEWAY TO OCEANGUARD AND SF CHAMBER: 72 m^2

LANDSCAPE TO SF CHAMBER: 61 m^2

LANDSCAPE BYPASS TO REAR: 134.5 m^2
(ASSUMED 36.4 m^2 FOR FUTURE DEVELOPMENT).

TOTAL AREA:
470.0 m^2

LOT 2 WSUD CATCHMENT PLAN
SCALE: 1:200



ROOF AREA TO RWT: 118.0 m^2
(ASSUMED 240 m^2 FOR FUTURE DEVELOPMENT).

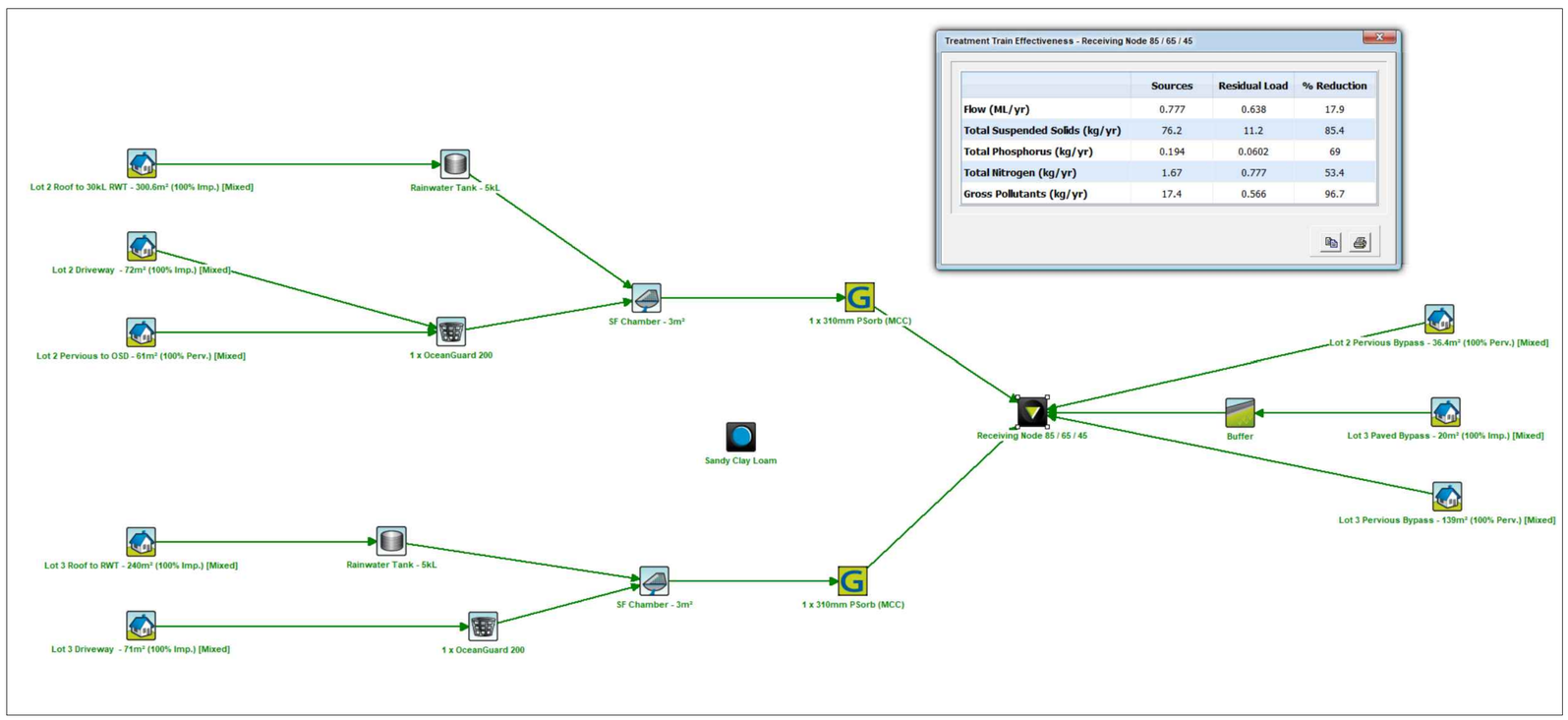
DRIVEWAY TO OCEANGUARD AND SF CHAMBER: 71 m^2

PAVED BYPASS: 20 m^2

LANDSCAPE BYPASS: 260.8 m^2
(ASSUMED 139 m^2 FOR FUTURE DEVELOPMENT)

TOTAL AREA:
470.0 m^2

LOT 3 WSUD CATCHMENT PLAN
SCALE: 1:200



MUSIC MODELING RESULTS

REVISIONS					
C	F.Y.	19.01.2024	PRELIMINARY ISSUE	O.S.
B	F.Y.	07.12.2023	PRELIMINARY ISSUE	O.S.
A	F.Y.	14.11.2023	PRELIMINARY ISSUE	O.S.
REV.	BY	DATE	DESCRIPTION	APPD.

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DRAWN	F.Y.
DESIGNED	F.Y.
CHECKED	O.S.
SCALE	AS INDICATED
SIZE	A1

PROJECT
PROPOSED SUBDIVISION
39 STARKEY ST, FORESTVILLE NSW 2087

DRAWING NO.
D040

REV.
C

DRAWING TITLE
WSUD CATCHMENT PLANS AND MUSIC MODELING RESULTS

JOB NO.
20144