





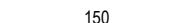
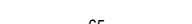






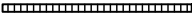








PROPOSED DEVELOPMENT

Lot 2 (No.45A) ORANA AVENUE, HORNSBY

STORMWATER MANAGEMENT PLANS

LEGEND	
	DENOTES ON-SITE DETENTION TANK
	DENOTES ON-SITE RETENTION TANK
	DENOTES DWELLING FOOTPRINT
	DENOTES 100mm DIA. STORMWATER/SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
	DENOTES 100mm DIA. FULLY SEALED RAINWATER SYSTEM PIPE U.N.O.
	DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES RISING MAIN AND PIPE DIA. U.N.O.
	DENOTES SUBSOIL DRAINAGE LINE AND DIA. WRAPPED IN GEOFABRIC U.N.O.
	DENOTES DOWNPIPE
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL FOR SYSTEM FLUSHING PURPOSES
	STORMWATER PIT - SOLID COVER
	STORMWATER PIT - GRATED INLET
	DENOTES GRATED DRAIN
	DENOTES ABSORPTION TRENCH
	NON RETURN VALVE
	PUMP
	STOP VALVE (ISOLATION VALVE)
	240v REQUIRED
	DENOTES LEVEL OF INLET /OUTLET OF STORMWATER PIPE. NOTE: UNLESS NOTED OTHERWISE, THE BASE OF THE PIT IS THE SAME AS THE PIPE INLET/OUTLET.

DIAL BEFORE YOU DIG



IMPORTANT: THE CONTRACTOR IS TO MAINTAIN A CURRENT SET OF "DIAL BEFORE YOU DIG" DRAWINGS ON SITE AT ALL TIMES.

GENERAL NOTES	
1.	THESE PLANS SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS. WHERE DISCREPANCIES ARE FOUND ACOR CONSULTANTS (CC) MUST BE CONTACTED IMMEDIATELY FOR VERIFICATION
2.	WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES
3.	SUBSOIL DRAINAGE SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL ENGINEER. SUBSOIL DRAINAGE SHALL NOT BE CONNECTED INTO THE STORMWATER SYSTEM IDENTIFIED ON THESE PLANS UNLESS APPROVED BY ACOR CONSULTANTS (CC)

STORMWATER CONSTRUCTION NOTES	
1.	ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500 (CURRENT EDITION) AND THE REQUIREMENTS OF THE LOCAL COUNCIL'S POLICIES AND CODES
2.	THE MINIMUM SIZES OF THE STORMWATER DRAINS SHALL NOT BE LESS THAN DN90 FOR CLASS 1 BUILDINGS AND DN100 FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY THE REGULATORY AUTHORITY
3.	THE MINIMUM GRADIENT OF STORMWATER DRAINS SHALL BE 1%, UNLESS NOTED OTHERWISE
4.	COUNCIL'S TREE PRESERVATION ORDER IS TO BE STRICTLY ADHERED TO. NO TREES SHALL BE REMOVED UNTIL PERMIT IS OBTAINED
5.	PUBLIC UTILITY SERVICES ARE TO BE ADJUSTED AS NECESSARY AT THE CLIENT'S EXPENSE
6.	ALL PITS TO BE BENCHED AND STREAMLINED. PROVIDE STEP IRONS FOR ALL PITS OVER 1.2m DEEP
7.	MAKE SMOOTH JUNCTION WITH ALL EXISTING WORK
8.	VEHICULAR ACCESS AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION
9.	SERVICES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM INFORMATION SUPPLIED BY THE RELEVANT AUTHORITIES AND FIELD INVESTIGATIONS AND ARE NOT GUARANTEED COMPLETE NOR CORRECT. IT IS THE CLIENT & CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PRIOR TO CONSTRUCTION
10.	ANY VARIATION TO THE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY ACOR CONSULTANTS (CC) PRIOR TO THEIR COMMENCEMENT

RAINWATER RE-USE SYSTEM NOTES	
1.	RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO OUTLETS WHERE REQUIRED BY BASIX CERTIFICATE (BY OTHERS)
2.	TOWN WATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF THE REGULATORY AUTHORITY. THIS MAY REQUIRE PROVISION OF: 2.1. PERMANENT AIR GAP 2.2. BACKFLOW PREVENTION DEVICE
3.	NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAIN WATER SUPPLY
4.	AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
5.	PROVIDE APPROPRIATE FLOAT VALVES AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP INDICATED ON THE TYPICAL DETAIL
6.	ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE
7.	PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN
8.	ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER INLETS ARE NOT TO BE CONNECTED
9.	PIPE MATERIALS FOR RAINWATER SUPPLY PLUMBING ARE TO BE APPROVED MATERIALS TO AS/NZS3500 PART 1 SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED AS 'RAINWATER'. THIS MAY BE ACHIEVED FOR BELOW GROUND PIPES USING IDENTIFICATION TAPE (MADE IN ACCORDANCE WITH AS2648) OR FOR ABOVE GROUND PIPES BY USING ADHESIVE PIPE MARKERS (MADE IN ACCORDANCE WITH AS1345)
10.	EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELED 'RAINWATER' ON A METALLIC SIGN IN ACCORDANCE WITH AS1319
11.	ALL INLETS AND OUTLETS TO THE RAINWATER TANK ARE TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO AND VERMIN ENTRY

SHEET INDEX	
COVER SHEET & NOTES	SHEET C1
STORMWATER MANAGEMENT PLAN (GROUND FLOOR)	SHEET C2
STORMWATER MANAGEMENT PLAN (LOWER GROUND)	SHEET C3
STORMWATER MANAGEMENT DETAILS SHEET No.1	SHEET C4

HORNSBY SHIRE COUNCIL REQUIREMENTS	
SITE AREA (m²)	550.6
PROPOSED ROOF AREA (m²)	186
PROPOSED HARDSTAND AREA(m²)	146
POST DEVELOPED IMPERVIOUS AREA (m²)	332 (60%)
1.	RAINWATER RE-USE PROVIDE 5m³ RETENTION STORAGE FOR RAINWATER RE-USE. REFER SHEETS C3 & C4 FOR DETAIL.
2.	ON-SITE DETENTION PROVIDE 5.0m³ ON-SITE DETENTION. MAXIMUM PERMITTED SITE DISCHARGE = 8.0 l/s. REFER SHEETS C3 & C4 FOR DETAIL.
3.	STORMWATER DISPOSAL DISCHARGE OSR / OSD TANK OVERFLOW TO EXISTING EASEMENT. REFER TO SHEET C3 FOR DETAILS.
DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH COUNCIL'S "HORNSBY DEVELOPMENT CONTROL PLAN 2013", AR&R AND AS/ANZS 3500.	





DEVELOPMENT APPLICATION ISSUE
NOT FOR CONSTRUCTION

DRAWINGS MUST BE PRINTED IN COLOUR

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					North	Client		Architect		ACOR Consultants (CC) Pty Ltd Platinum Building, Suite 2.01, 4 Ilya Avenue ERINA NSW 2250, Australia T +61 2 4324 3499		Project		Drawing Title					
						TANYA LEE PERRING ADAM JOHN PERRING		PNB ARCHITECTURE		 ENGINEERS MANAGERS INFRASTRUCTURE PLANNERS DEVELOPMENT CONSULTANTS		PROPOSED NEW RESIDENCE		COVER SHEET & NOTES					
B	ISSUED FOR DEVELOPMENT APPLICATION			13.01.23	RH	BK	2/68 Tulloh St, Willoughby NSW 2068		LOT 2 (No.45A) ORANA AVENUE HORNSBY			Drawn RH		Date JAN 23	Scale AS NOTED	A1	O.A. Check -	Date -	
A	ISSUED FOR CLIENT REVIEW & COMMENT			13.01.23	RH	BK						Designed BK		Project No. CC220120		Dwg. No. C1		Issue B	
Issue		Description			Date	Drawn	Approved												
																			

- NOTES:
- TOP OF GRATE LEVELS HAVE BEEN DETERMINED FROM THE SURVEY DETAIL PROVIDED. FOLLOWING EARTHWORKS AND BENCHING, VALIDITY OF GRATE LEVELS SHOULD BE ASSESSED AND ADJUSTED AS REQUIRED TO MEET THE INTENT OF THE DESIGN. WHERE IN DOUBT CONTACT THE DESIGN ENGINEER.
 - LANDSCAPE SURFACE DRAINAGE SYSTEM TO DETAIL BY OTHERS. THIS SYSTEM IS TO BE INTEGRATED WITH ANY LANDSCAPE REQUIREMENTS. THE COLLECTION OF LANDSCAPE STORMWATER SHALL BE CONVEYED BY A SEPARATE SYSTEM OF PITS AND PIPES. NO CONNECTION IS ALLOWED INTO THE RAINWATER PIPE SYSTEM IDENTIFIED AS SHOWN:  .
 - THE LOCATIONS OF DOWNPIPES SHOWN ON THIS DRAWING ARE INDICATIVE AND WILL NEED TO BE SITE VERIFIED BY THE BUILDER. ALL DOWNPIPES TO BE 90mm MIN. DIA. U.N.O. IF CHANGES ARE MADE TO THE NUMBER OR POSITION OF DOWNPIPES THE DESIGN ENGINEER SHALL BE CONTACTED FOR VERIFICATION.
 - FOR CHARGED/SEALED LINES PROVIDE APPROPRIATE CLEAN OUT FACILITY AT LOW POINTS OF SYSTEM, TYP.

RESIDENCE METAL ROOF
43

DENOTES OUTLINE OF
ROOF OVER

FOR ALL DOWNPIPES
REFER TO NOTE 3.





150 DIA STORMWATER PIPE
FROM GRATED DRAIN DROPS
ON WALL TO BELOW

CONSTRUCT 200 WIDE GRATED BOX DRAIN
MIN 100 DEEP. INVERT TO GRADE TO
OUTLET AT A MINIMUM GRADE OF 2%
GRATE TO BE POSITIONED NOMINALLY
30mm BELOW FINISHED GARAGE LEVEL.
PROVIDE UNIMPEDED STORMWATER
FLOWPATH IN THE EVENT OF BLOCKAGE
OF THE DRAIN OR OUTLET.

CROSSOVER AND DRIVEWAY TO BE IN
ACCORDANCE WITH COUNCIL
REQUIREMENTS. THE LEVELS AND
DESIGN OF THE CROSSOVER AND
DRIVEWAY SHALL BE BY OTHERS.

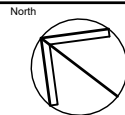
WARNING
LOCATION AND DEPTH OF ALL
UNDERGROUND SERVICES TO BE
INVESTIGATED WITH THE
RELEVANT AUTHORITIES PRIOR
TO COMMENCING WORK

STORMWATER LEGEND

-  DENOTES 100mm DIA. FULLY SEALED UNDERGROUND RAINWATER SYSTEM PIPE U.N.O.
-  DENOTES 100mm DIA. UNDERGROUND STORMWATER / SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
-  DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
-  DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.

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Issue	Description	Date	Drawn	Approved
B	ISSUED FOR DEVELOPMENT APPLICATION	13.01.23	RH	BK
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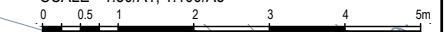


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Project
**PROPOSED NEW
RESIDENCE**
LOT 2 (No 45A)
ORANA AVENUE
HORNSBY

STORMWATER MANAGEMENT PLAN
SCALE - 1:50/A1, 1:100/A3



Drawn	Date	Scale	A1	O.A. Check	Date
RH	JAN 23	AS NOTED	-	-	-
Designed	Project No.	Dwg. No.	Issue		
BK	CC220120	C2	B		

DISCHARGE STORMWATER TO EXISTING INTER-ALLOTMENT DRAINAGE PIT & MAKE GOOD CONNECTION TO EXISTING 150 DIA PIPE STUBB PROVIDED ON SITE.
REFER TO INTERALLOTMENT STORMWATER DRAINAGE SYSTEM DESIGN DRAWINGS & STAMPED PLANS APPROVED UNDER SUBDIVISION WORKS CERTIFICATE NO. SWC/18/2021
INVERT LEVEL OF OUTLET SHALL BE SITE CONFIRMED PRIOR TO COMMENCEMENT OF WORKS.
DESIGN INVERT: IL 159.70 NOM.
NOTE: EXISTING OUTLET FROM STORMWATER PIT TO BE CONFIRMED PRIOR TO COMMENCEMENT OF ANY WORK TO ENSURE COMPATIBILITY WITH THE DESIGN INTENT

ON-SITE DETENTION/RAINWATER RE-USE TANKS

INSTALLED WITHIN SUBFLOOR BELOW

PROVIDE 2 x 5000 litre ABOVE GROUND TANK FOR OSD/RE-USE IN ACCORDANCE WITH THE REQUIREMENTS OF THE BASIX CERTIFICATE & COUNCIL REQUIREMENTS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION, AS/NZS 3500 AND COUNCIL'S GUIDELINES. REFER TO SHEET C4 FOR DETAILS.
FINAL LOCATION OF TANK TO BE SITE CONFIRMED.

OSD = 5m³
RE-USE = 5m³

PROVIDE TANK RE-USE PUMP CONTROL UNIT TO MANUFACTURERS SPECIFICATION. PROVIDE FIRST FLUSH DEVICE OR EQUIVALENT PRIOR TO DISCHARGING TO TANK.

NOTES:

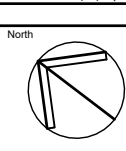
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- FOR CHARGED/SEALED LINES PROVIDE APPROPRIATE CLEAN OUT FACILITY AT LOW POINTS OF SYSTEM, TYP.

STORMWATER LEGEND

- RW DENOTES 100mm DIA. FULLY SEALED UNDERGROUND RAINWATER SYSTEM PIPE U.N.O.
- SW DENOTES 100mm DIA. UNDERGROUND STORMWATER / SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
- 150 — DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
- 150 — DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
- DENOTES SEALED AERIAL LINE RAINWATER PIPE CONVEYING ROOF WATER AND DIA. INSTALLED IN ACCORDANCE WITH AS3500.3
- DENOTES SEALED AERIAL LINE STORMWATER PIPE CONVEYING SURFACE WATER RUNOFF AND DIA. INSTALLED IN ACCORDANCE WITH AS3500.3

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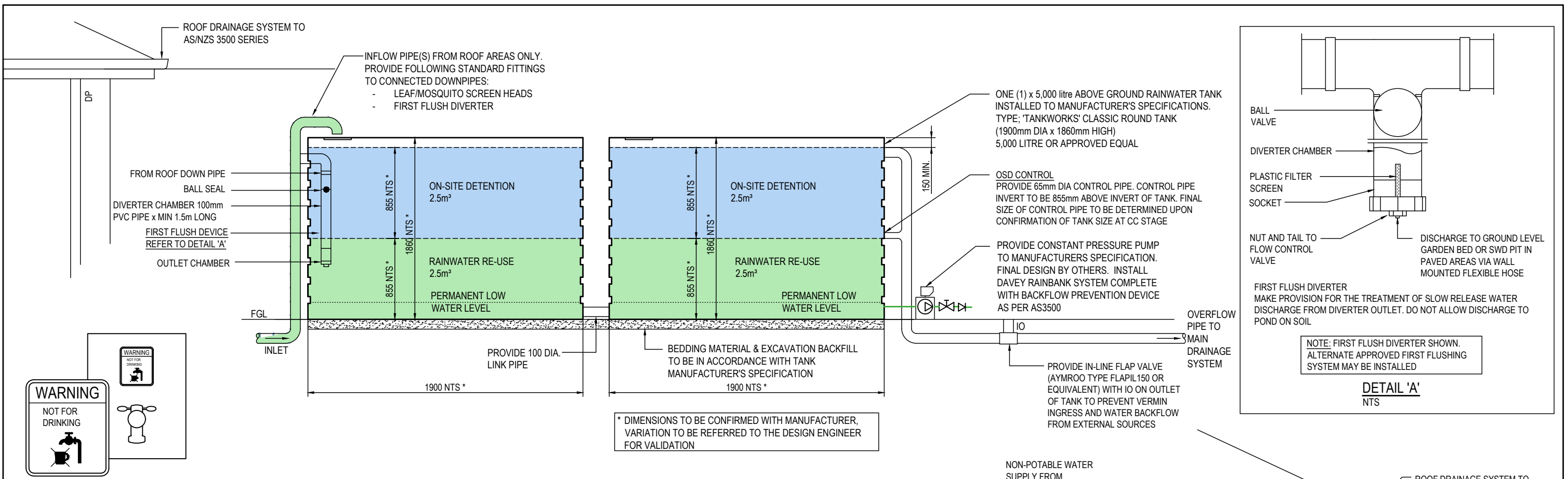
Project
PROPOSED NEW RESIDENCE
LOT 2 (No 45A)
ORANA AVENUE
HORNSBY

STORMWATER MANAGEMENT PLAN

SCALE - 1:50/A1, 1:100/A3



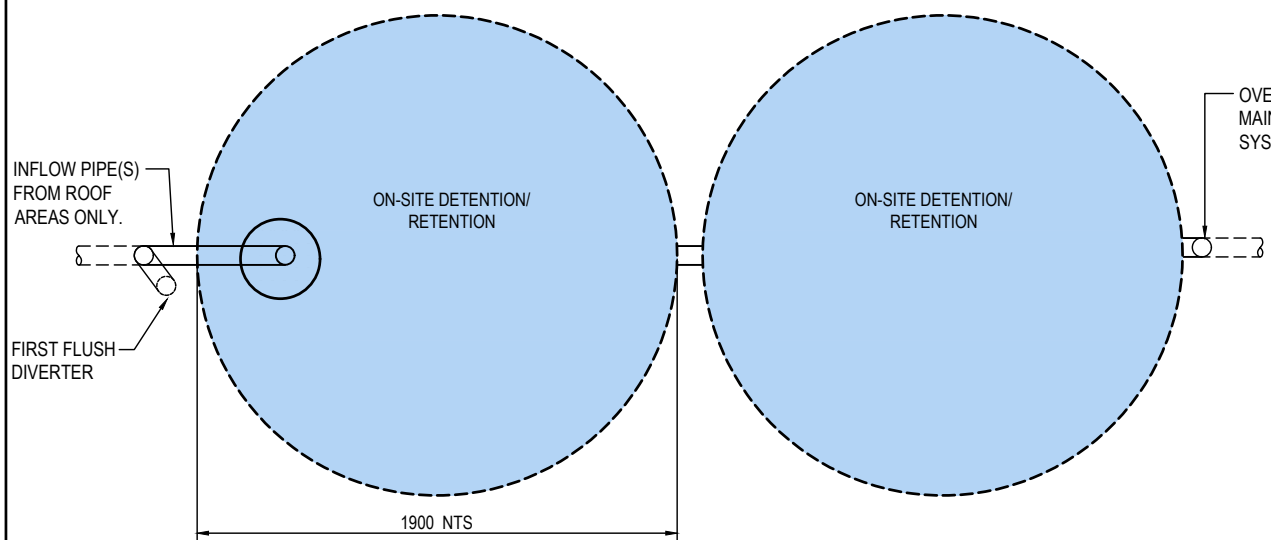
Drawing Title		Project		Drawing Title	
STORMWATER MANAGEMENT PLAN (LOWER GROUND FLOOR)		LOT 2 (No 45A) ORANA AVENUE HORNSBY		STORMWATER MANAGEMENT PLAN (LOWER GROUND FLOOR)	
Drawn	Date	Scale	A1	O.A. Check	Date
RH	JAN 23	AS NOTED	-	-	-
Designed	Project No.	Dwg. No.	Issue		
BK	CC220120	C3	B		



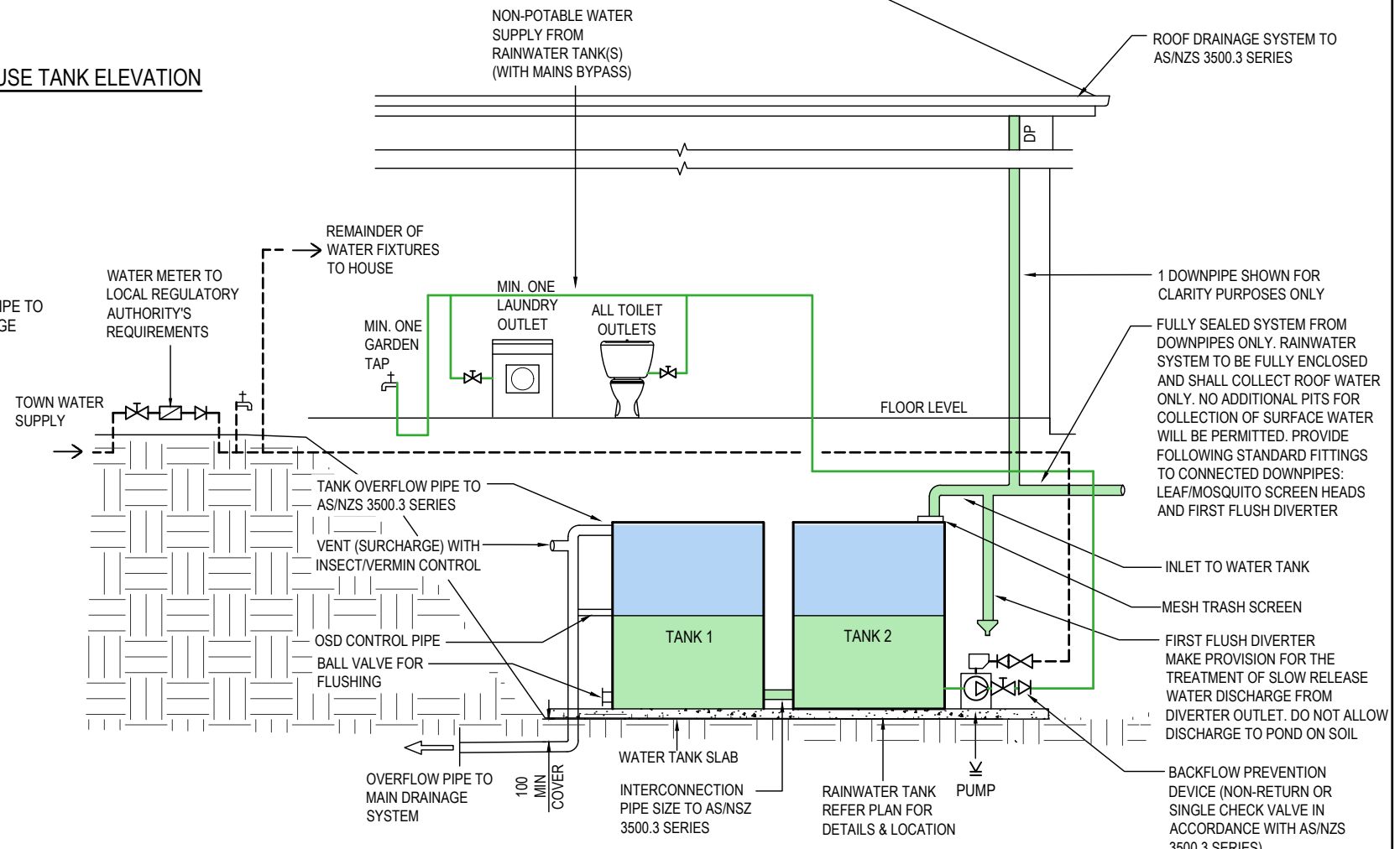
TYPICAL WARNING SIGN

SCALE N.T.S.
* EVERY EXTERNAL SUPPLY OUTLET FROM RAINWATER RE-USE TANK TO BE LABELED WITH METALLIC WARNING SIGN

ABOVE GROUND ON-SITE DETENTION/RAINWATER RE-USE TANK ELEVATION
NOT TO SCALE



ON-SITE DETENTION/RAINWATER RE-USE TANK PLAN
NOT TO SCALE



ABOVE GROUND RAINWATER/OSD TANK - SCHEMATIC LAYOUT
NOT TO SCALE

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Project
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ORANA AVENUE
HORNSBY

Drawing Title					
STORMWATER MANAGEMENT DETAILS SHEET No.1					
Drawn	Date	Scale	A1	Q.A. Check	Date
RH	JAN 23	AS NOTED	-	-	-
Designed	Project No.	Dwg. No.		Issue	
BK	CC220120	C4		B	