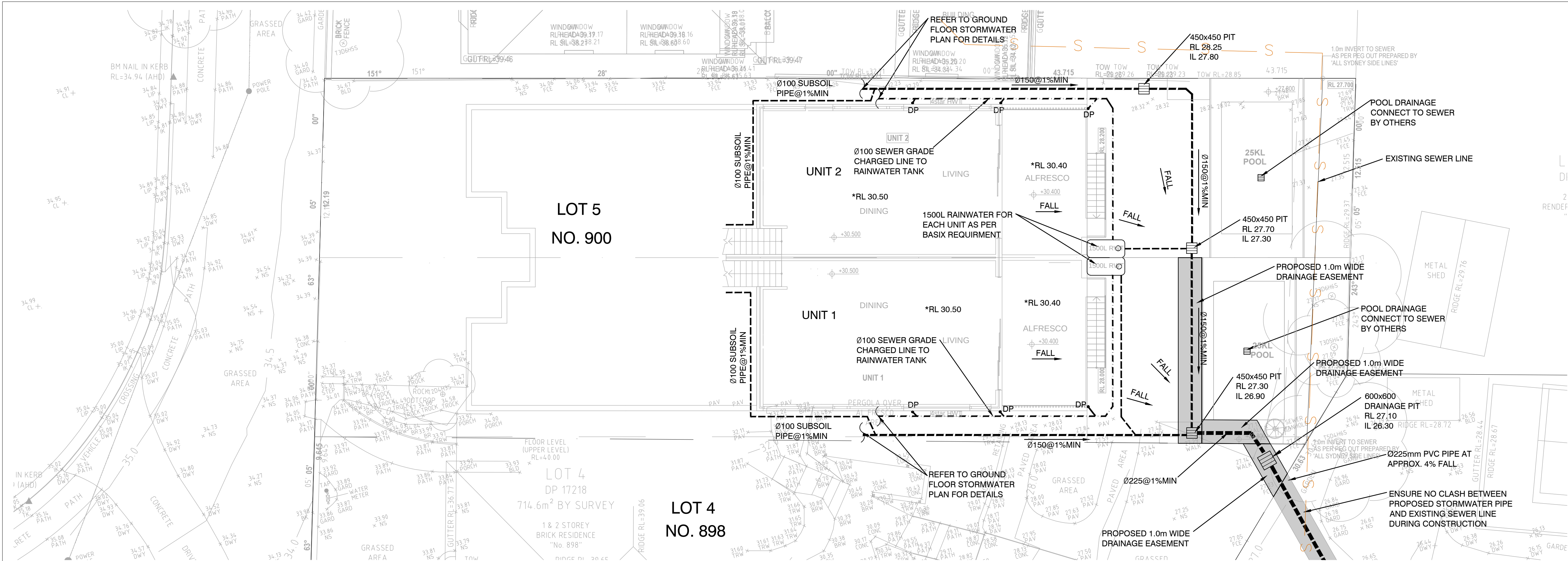




NOTE RE. SERVICES

APPROXIMATE LOCATIONS OF EXISTING SERVICES SHOWN ON LONGITUDINAL SECTION. EXACT LOCATIONS & DEPTHS TO BE ACCURATELY LOCATED BY THE BUILDING CONTRACTOR BY CONTACTING THE RELEVANT AUTHORITIES BEFORE COMMENCEMENT OF ANY WORKS



NOTES

- ALL LINES ARE TO BE MIN. 1000 UPVC @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE.
- 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.
- ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN PROPERTY.
- ALL PITS IN DRIVEWAYS BE HEAVY DUTY GRATES. DIRECT SURFACE FLOW TO ALL GRATED SURFACE INLET PITS.
- ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3.2:2003 AND COUNCIL SPECIFICATIONS.
- 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.
- THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, LANDSCAPE AND STRUCTURAL PLANS.
- ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE DESIGN ENGINEER FOR RESOLUTION.
- ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
- ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES

SYMBOLS

F.F.L.	FINISHED FLOOR LEVEL
T.K.	TOP OF KERB
RL	PIT SURFACE LEVEL
IL	INVERT LEVEL
---	STORMWATER DRAINAGE PIPE
----	DOWNPIPE TO RAINWATER TANK
• DP	1000 DOWN PIPE (U.N.O.)
• SP	SPREADER
• IE	INSPECTION EYE
////	MASONRY RETAINING WALL
⊙ FW	FLOOR WASTE 1500
■	GRATED INLET PIT
▨	GRATED DRAIN
←	OVERLAND FLOW PATH
ES	EMERGENCY SPILTTER
VD•	VERTICAL DROP
• EDP	EXISTING 1000 DOWN PIPE (U.N.O.)
---	EXISTING STORMWATER DRAINAGE PIPE
RM	RISER MAIN

PROPOSED EASEMENT PIPE CAPACITY ANALYSIS:

RATIONAL METHOD EQUATION

TOTAL SITE AREA (LOT4 AND LOT 5) = 1255m²

THE RATIONAL METHOD IS AN ACCEPTABLE METHOD FOR DETERMINING FLOW RATE. STORMWATER PEAK DISCHARGE CAN BE ESTIMATED BY RATIONAL METHOD AS BELOW :

STORM WATER QUANTITY: $Q = C.I.A/360$

WHERE,
C = COEFFICIENT OF RUNOFF
I = INTENSITY OF RAINFALL (BASED ON 100 YEAR, 5MIN, mm/hr) FOR THE DURATION EQUAL TO TIME OF CONCENTRATION AND
A = DRAINAGE AREA IN HECTARES

RUNOFF COEFFICIENT OF 0.85 CAN BE USED AS A REASONABLE FACTOR TO DETERMINE THE STORMWATER PEAK DISCHARGE.

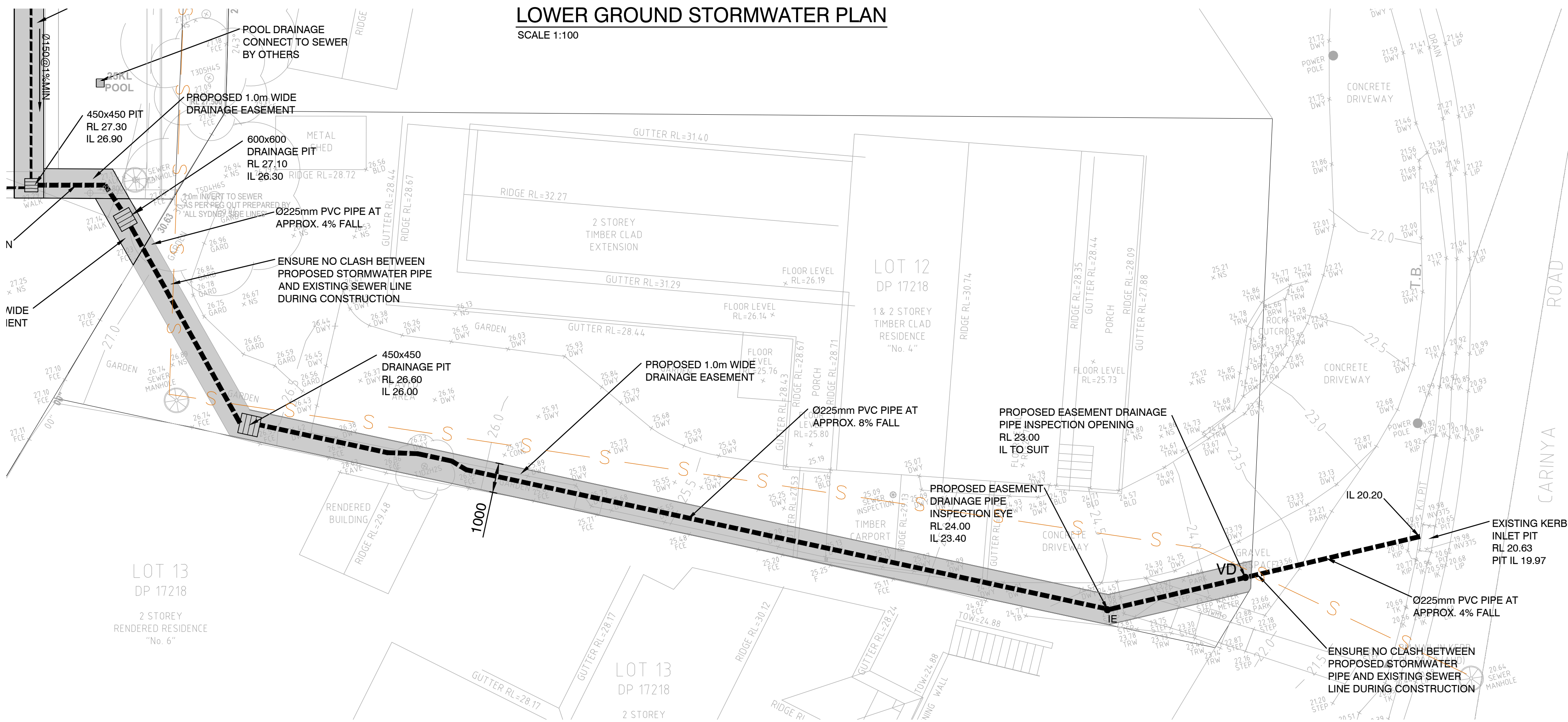
THEREFORE, THE PEAK FLOW RATE DISCHARGED TO THE PROPOSED EASEMENT PIPE IS CALCULATED AS BELOW:
 $Q = C.I.A/360 = 0.85 \times 0.1255 \times 201/360 = 59.56 \text{ L/s}$

THE PROPOSED PIPE IN THE 1.0m WIDE EASEMENT IS Ø225mm PVC PIPE AT APPROX. 4% FALL, WHICH HAS A CAPACITY OF 120L/s.

THEREFORE, THE PROPOSED EASEMENT PIPE CAPACITY IS SUFFICIENT TO CATER FOR THE RUNOFF FROM THE PROPOSED DEVELOPMENTS ON LOT 4 AND LOT 5.

LOWER GROUND STORMWATER PLAN

SCALE 1:100



EASEMENT DRAINAGE PLAN

SCALE 1:100



P/ (02) 9623 0015
F/ (02) 4744 2479
E/ info@danmorconsulting.com.au
A/ L2 Suite 208, 43 Majors Bay Rd, Concord 2137

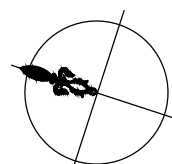
COPYRIGHT
THIS DRAWING AND THE INFORMATION SHOWN HEREON
IS THE PROPERTY OF DANMOR CONSULTING ENGINEERS P/L AND MAY
NOT BE USED FOR ANY OTHER PURPOSE THAN FOR WHICH SUPPLIED.

AMENDMENTS		
NO.	DESCRIPTION	DATE
A	FOR DA APPROVAL	24-02-25
B	FOR DA APPROVAL	17-04-25
C	FOR DA APPROVAL	24-06-25

DRAWN: D.M.	DESIGNED: D.M.
APPROVED: DANNY MORCHED B.E CIVIL M.E STRUCTURAL CPEng, MIEAust, NPER MEMB. NO: 2320868	DATE: 14-09-24
SCALE AT A1: 1:100 UNO	

PROJECT:

PROPOSED SUBDIVISION
900 HENRY LAWSON DRIVE,
PICNIC POINT NSW



CLIENT:

ROBAK DEVELOPMENTS PTY LTD

TITLE:

LOWER GROUND STORMWATER PLAN

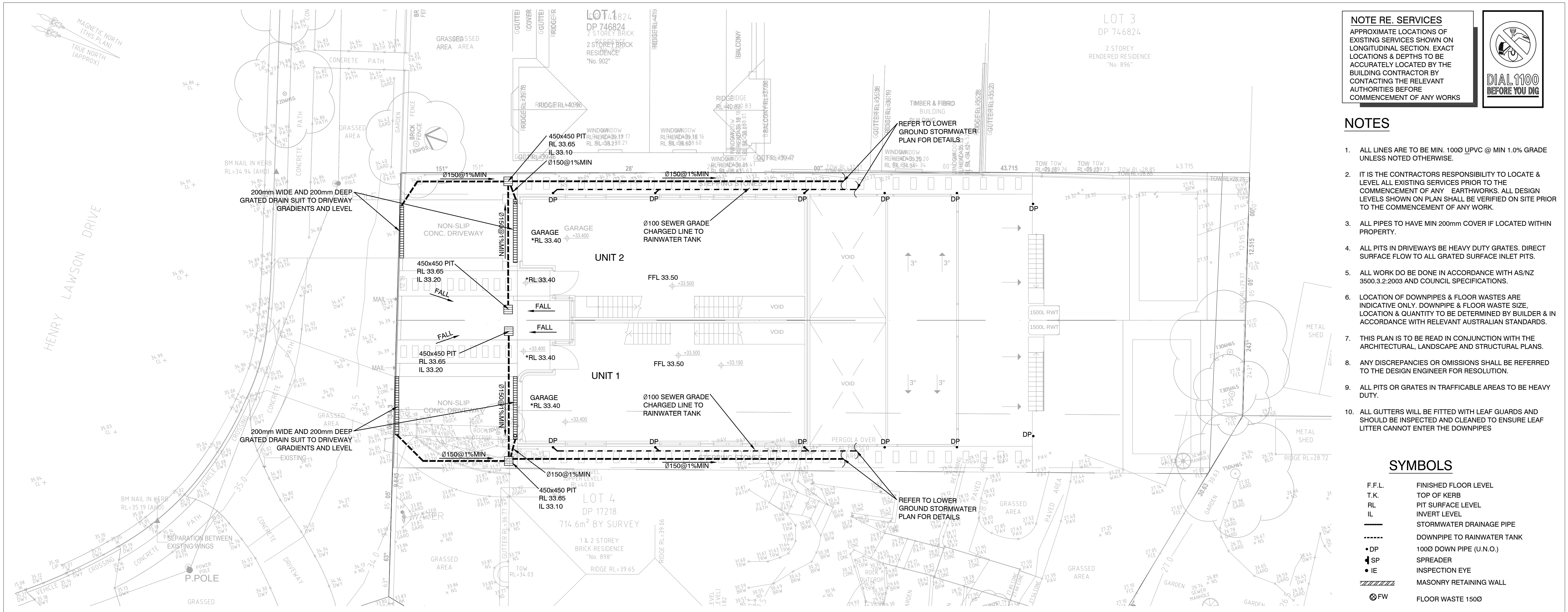
ALL DIMENSIONS IN 'mm'
UNLESS OTHERWISE STATED

JOB NO.

D24114

DRAWING NO.

ST01



NOTE RE. SERVICES

APPROXIMATE LOCATIONS OF EXISTING SERVICES SHOWN ON LONGITUDINAL SECTION. EXACT LOCATIONS & DEPTHS TO BE ACCURATELY LOCATED BY THE BUILDING CONTRACTOR BY CONTACTING THE RELEVANT AUTHORITIES BEFORE COMMENCEMENT OF ANY WORKS

- NOTES
1.

ALL LINES ARE TO BE MIN. 1000 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.

ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN PROPERTY.
4.

ALL PITS IN DRIVEWAYS BE HEAVY DUTY GRATES. DIRECT SURFACE FLOW TO ALL GRATED SURFACE INLET PITS.
5.

ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3.2:2003 AND COUNCIL SPECIFICATIONS.
6.

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.
7.

THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, LANDSCAPE AND STRUCTURAL PLANS.
8.

ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE DESIGN ENGINEER FOR RESOLUTION.
9.

ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
10.

ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES

SYMBOLS

F.F.L.

FINISHED FLOOR LEVEL

T.K.

TOP OF KERB

RL

PIT SURFACE LEVEL

IL

INVERT LEVEL

STORMWATER DRAINAGE PIPE

DOWNPIPE TO RAINWATER TANK

•DP

1000 DOWN PIPE (U.N.O.)

•SP

SPREADER

•IE

INSPECTION EYE

=====

MASONRY RETAINING WALL

⊙FW

FLOOR WASTE 1500

▣

GRATED INLET PIT

▨

GRATED DRAIN

←

OVERLAND FLOW PATH

ES

EMERGENCY SPILTTER

VD•

VERTICAL DROP

•EDP

EXISTING 1000 DOWN PIPE (U.N.O.)

EXISTING STORMWATER DRAINAGE PIPE

RM

RISER MAIN

LOWER GROUND STORMWATER PLAN

SCALE 1:100

- NOTES: RAINWATER TANKS
1.

RAINWATER TANK CAPACITY TO BE AS PER BASIX REQUIREMENT.
2.

THE SYSTEM TO BE DESIGNED WITH THE FOLLOWING GUIDELINES
 - A 'FIRST FLUSH' DIVERSION TO REMOVE ROOF CONTAMINANTS
 - ADEQUATE SCREENING TO PREVENT MOSQUITO BREEDING AND ENTRY OF ANIMALS OR FOREIGN MATTER
3.

TANKS TO BE PLUMBED TO TOP-UP FROM THE POTABLE WATER SUPPLY DURING DRY PERIODS WHEN THE TANKS ARE 80% EMPTY.
4.

NO DIRECT CROSS-CONNECTION WITH THE SYDNEY WATER POTABLE SUPPLY AND AN AIR GAP MAINTAINED ABOVE THE OVERFLOW IN THE TANK
5.

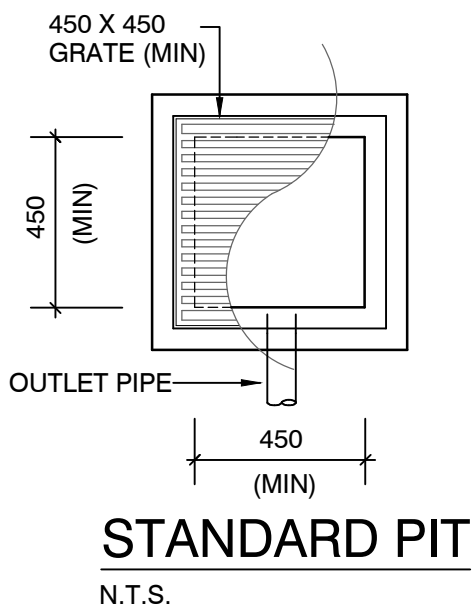
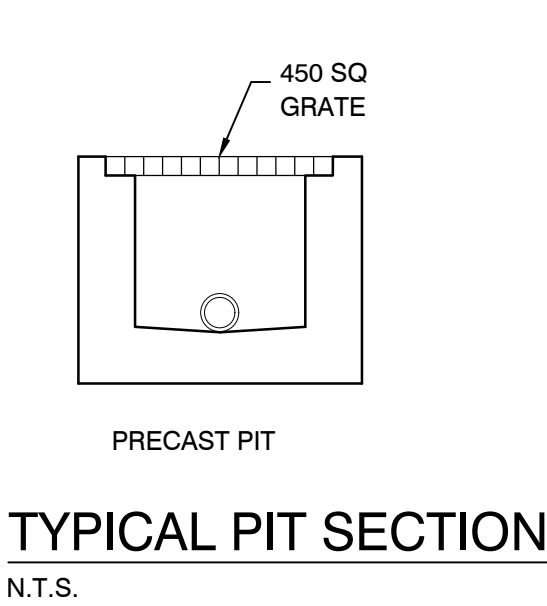
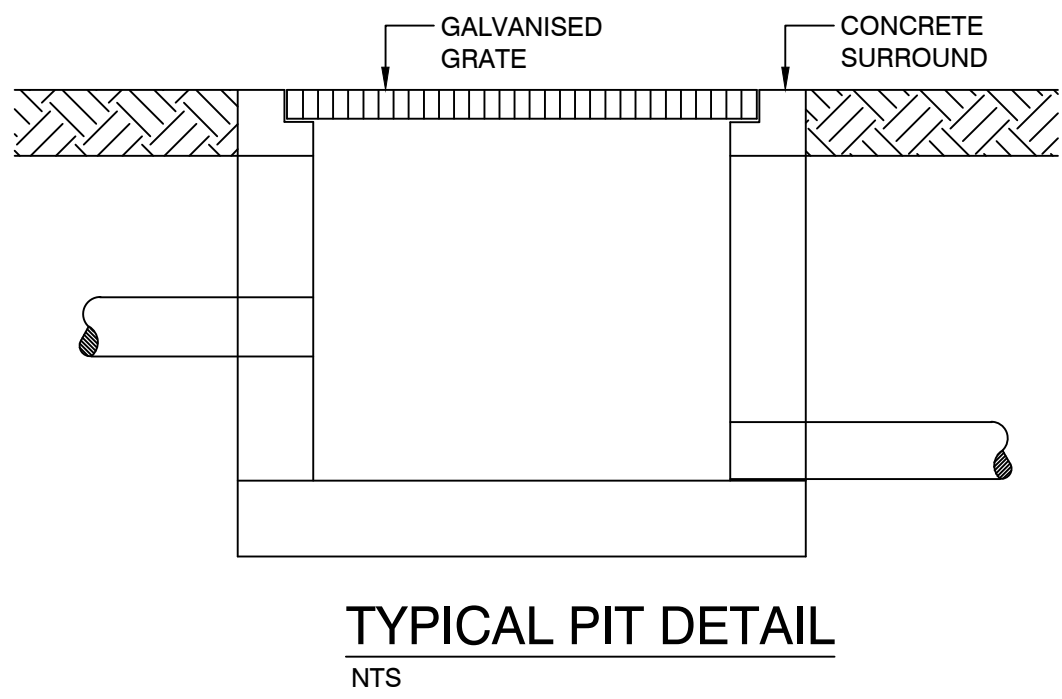
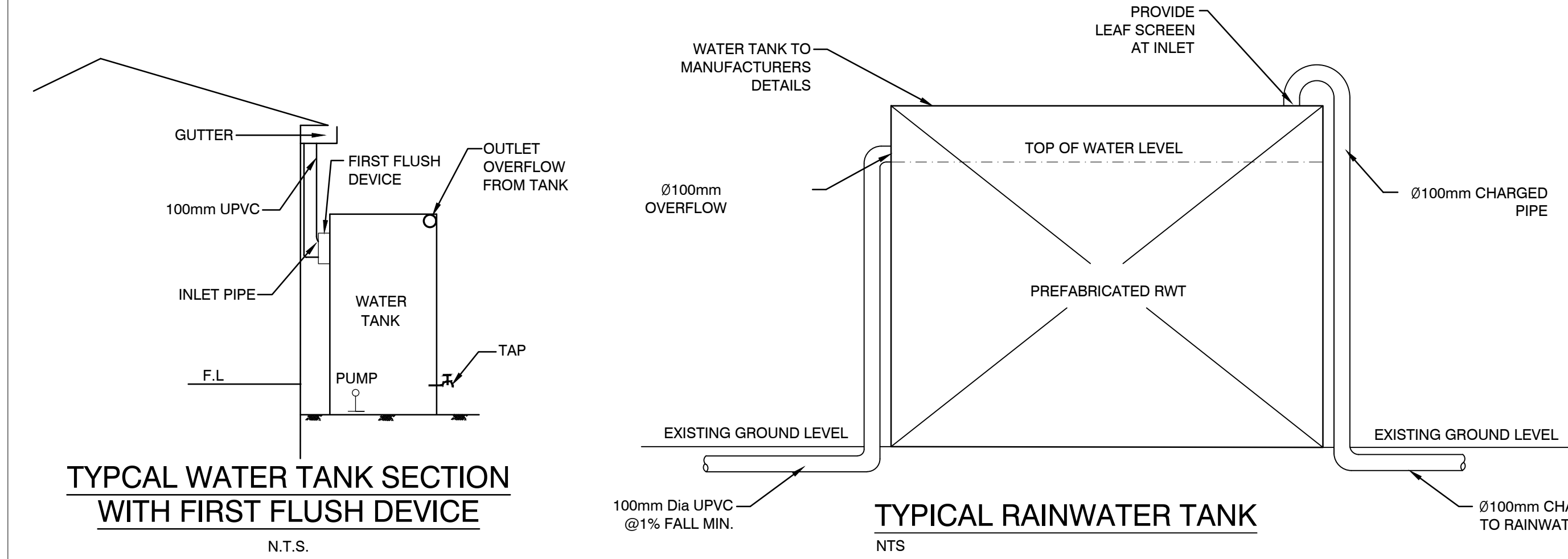
A SIGN TO BE INSTALLED STATING 'NOT FOR HUMAN CONSUMPTION.
6.

RAINWATER TANK TO BE CONNECTED AS PER BASIX REQUIREMENTS
7.

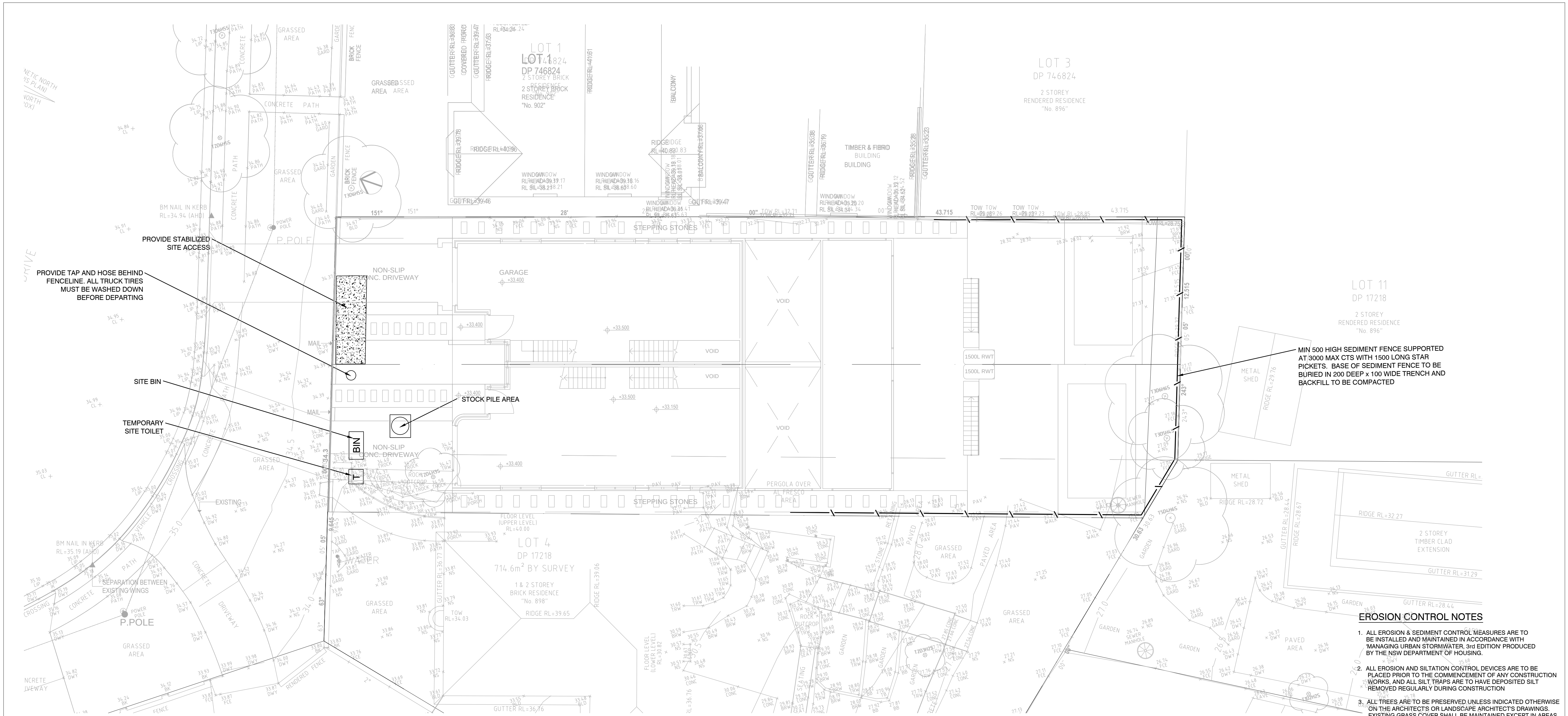
OVERFLOW FROM THE TANK SHALL BE PIPED TO THE DRAINAGE SYSTEM.

DESIGN SUMMARY

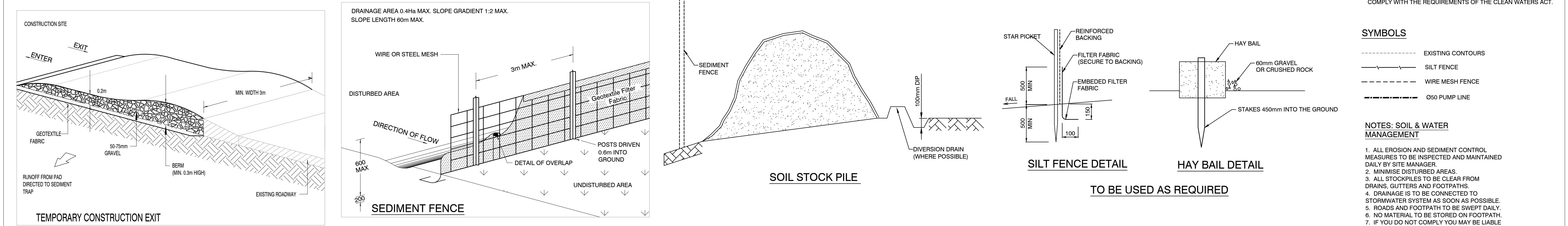
THE TOTAL IMPERVIOUS AREA OF THE PROPOSED DEVELOPMENT IS LESS THAN 66%. OSD IS NOT REQUIRED AS PER CANTERBURY-BANKSTOWN COUNCIL DCP 2023 CHAPTER 3.1 - DEVELOPMENT ENGINEERING STANDARDS.

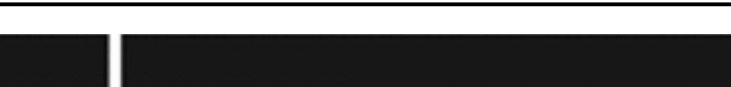


danmor CONSULTING ENGINEERS P/ (02) 9623 0015 F/ (02) 4744 2479 E/ info@danmorconsulting.com.au A/ L2 Suite 208, 43 Majors Bay Rd, Concord 2137 COPYRIGHT THIS DRAWING AND THE INFORMATION SHOWN HEREON IS THE PROPERTY OF DANMOR CONSULTING ENGINEERS P/L AND MAY NOT BE USED FOR ANY OTHER PURPOSE THAN FOR WHICH SUPPLIED.	AMENDMENTS			DRAWN: D.M.	DESIGNED: D.M.	PROJECT:	CLIENT:	ALL DIMENSIONS IN 'mm' UNLESS OTHERWISE STATED	
	NO.	DESCRIPTION	DATE	APPROVED:	DATE: 14-09-24	PROPOSED SUBDIVISION	ROBAK DEVELOPMENTS PTY LTD	JOB NO.	
	A	FOR DA APPROVAL	24-02-25	DANNY MORCHED B.E CIVIL M.E STRUCTURAL CPEng,MIEAust,NPER MEMB. NO: 2320868		900 HENRY LAWSON DRIVE, PICNIC POINT NSW	GROUND STORMWATER PLAN	D24114	
	B	FOR DA APPROVAL	17-04-25						
	C	FOR DA APPROVAL	24-06-25						
			SCALE AT A1: 1:100 UNO					DRAWING NO.	
								ST02	



EROSION AND SEDIMENT CONTROL PLAN
SCALE 1:100



 P/ (02) 9623 0015 F/ (02) 4744 2479 E/ info@danmorconsulting.com.au A/ L2 Suite 208, 43 Majors Bay Rd, Concord 2137 COPYRIGHT THIS DRAWING AND THE INFORMATION SHOWN HEREON IS THE PROPERTY OF DANMOR CONSULTING ENGINEERS P/L AND MAY NOT BE USED FOR ANY OTHER PURPOSE THAN FOR WHICH SUPPLIED.	AMENDMENTS			DRAWN: D.M.	DESIGNED: D.M.	PROJECT: PROPOSED SUBDIVISION 900 HENRY LAWSON DRIVE, PICNIC POINT NSW 	CLIENT: ROBAK DEVELOPMENTS PTY LTD	ALL DIMENSIONS IN 'mm UNLESS OTHERWISE STATED
	NO.	DESCRIPTION	DATE	APPROVED: DATE: 14-09-24	JOB NO.			
	A	FOR DA APPROVAL	24-02-25	B.E CIVIL	D24114			
	B	FOR DA APPROVAL	17-04-25	M.E STRUCTURAL				
C	FOR DA APPROVAL	24-06-25	CPEng, MIEAust, NPER					
			MEMB. NO: 2320868				TITLE: EROSION AND SEDIMENT CONTROL PLAN AND DETAILS	DRAWING NO. ST04
			SCALE AT A1: 1:100 UNO					