

GROUND FLOOR PLAN
SCALE: 1:100 @ A1

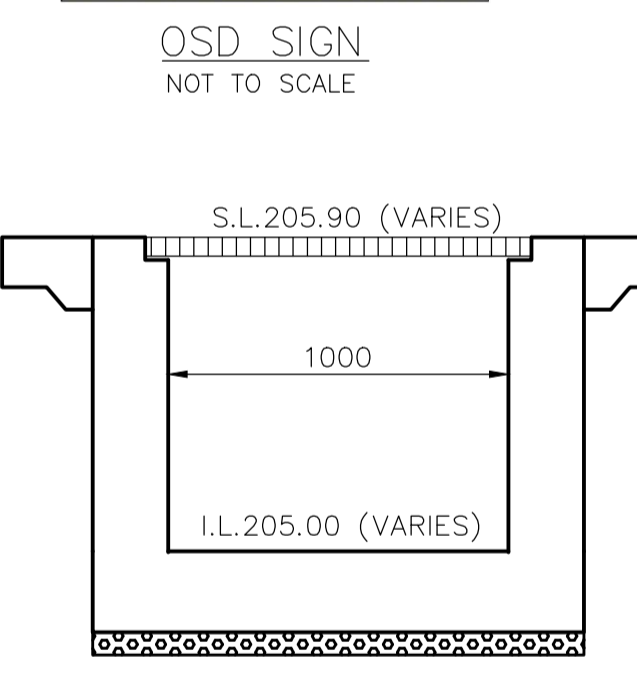
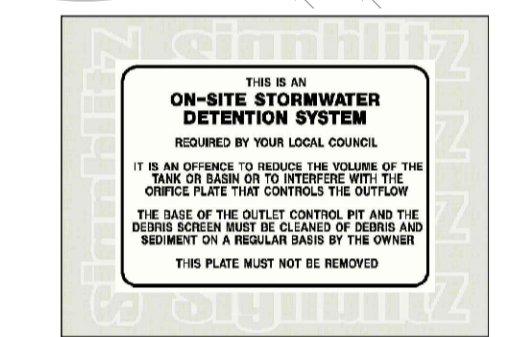
OSD CALCULATION

THE DRAINS MODEL HAS BEEN USED TO CALCULATE THE PSD AND THE OSD VOLUME.

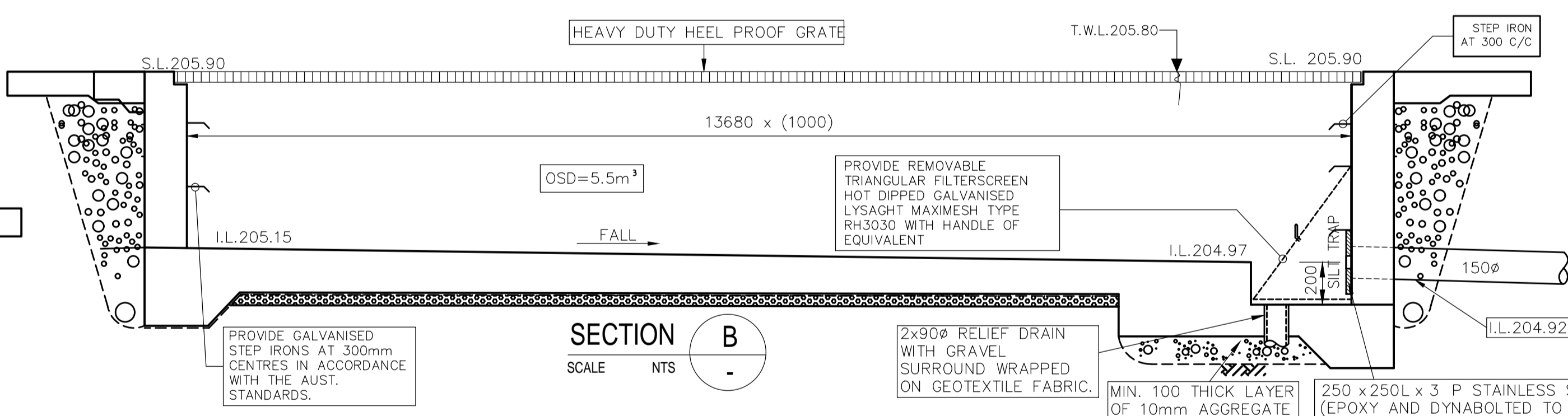
- THE PROPOSED DEVELOPMENT HAS BEEN PROVIDED WITH OSD TANKS IN ORDER TO REDUCE THE POST DEVELOPMENT FLOW RATES LESS THAN OR EQUAL TO PREDEVELOPMENT FLOW RATES
- THE ROOF AREA RUNOFF HAS BEEN TAKEN TO THE ROAD VIA OSD SYSTEM TO MINIMIZE THE AMOUNT OF WATER DISCHARGING IT TO THE REAR.
- THE DRAINS MODEL HAS BEEN USED TO CALCULATE THE PSD AND VOLUME FOR ALL STORMS FROM 2 YEAR ARI TO 100 YEAR ARI
- THE CALCULATION ARE AS FOLLOWS :
- THE TOTAL SITE AREA = 1017.72m²
- PRE DEVELOPMENT IMPERVIOUS AREA (ASSUMING 20% OF THE GRAVEL DRIVEWAY AS IMPERVIOUS) = 499m²
- POST DEVELOPMENT IMPERVIOUS AREA = 580m²
- ROOF AREA TO THE ROAD TO OSD IS 314m²
- DRIVEWAY AND PAVED AREA IS 314m²
- THE RESULT FROM THE DRAINS MODEL ARE AS FOLLOWS :

ARI (YEAR)	OSD FLOW(L/S)		BY PASS FLOW (L/S) (TO REAR)	TOTAL FLOW (L/S) POST DEVT. (TO REAR)	TOTAL FLOW (L/S) PRE DEVT. (TO REAR)
	TO ROAD (ROOF)	TO REAR (PARKING AREA)			
2	3	3	6	9	13
5	4	4	9	13	20
10	5	4	12	16	25
20	5	5	14	19	30
50	6	5	17	22	35
100	7	5	19	24	40

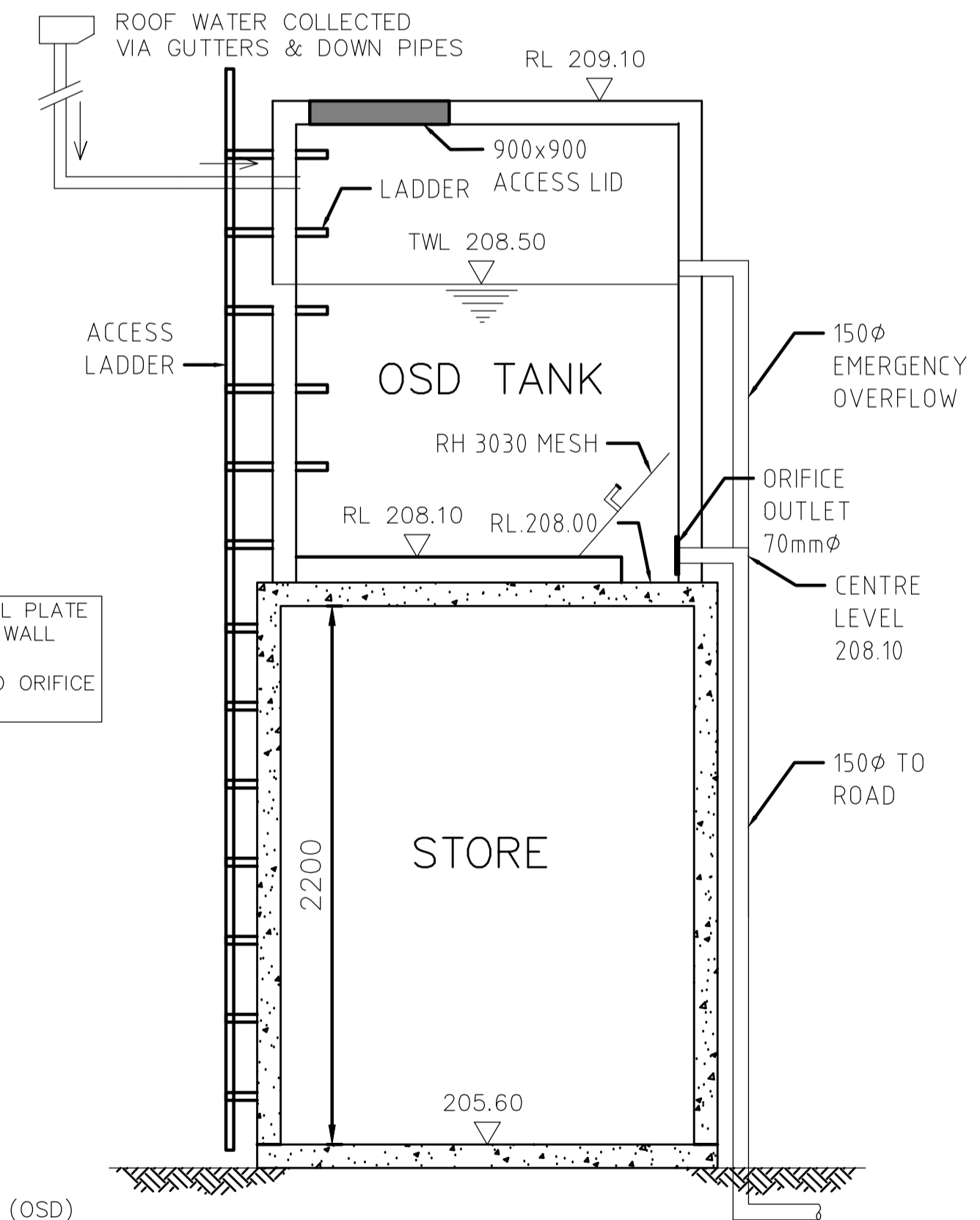
- TOTAL OSD VOLUME REQUIRED TO CONTROL ALL STORM EVENTS UP TO AND INCLUDING 1 IN 100 YEAR ARI STORM WILL BE
- OSD VOLUME REQUIRED (TO ROAD) = 4.0m³
- OSD VOLUME REQUIRED (TO REAR) = 6.5m³
- ORIFICE DIAMETER (FOR ROOF 70mm AND FOR DRIVEWAY 58mm)



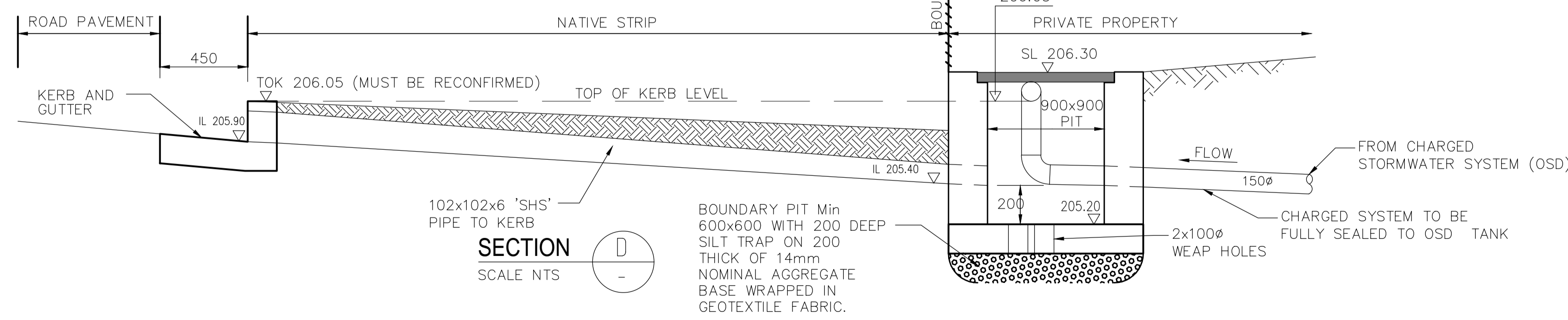
SECTION A
SCALE NTS



SECTION B
SCALE NTS



OSD TANK DETAIL
SECTION C
SCALE NTS



SECTION D
SCALE NTS

Issue	Date	Description
D	22.08.2023	ISSUED FOR DA APPROVAL (REVIEW)
C		ISSUED AS REV 3
B	03.07.2023	ISSUED FOR DA APPROVAL (FOR REVIEW)
A	03.07.2022	ISSUED FOR DA APPROVAL

DESIGN BY: VNK CONSULTING PTY LTD
PO BOX 9118 HARRIS PARK NSW 2150
Mobile: 0401 132 386
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PRINCIPAL ENGINEER: LOGAN N LOGESWARAN

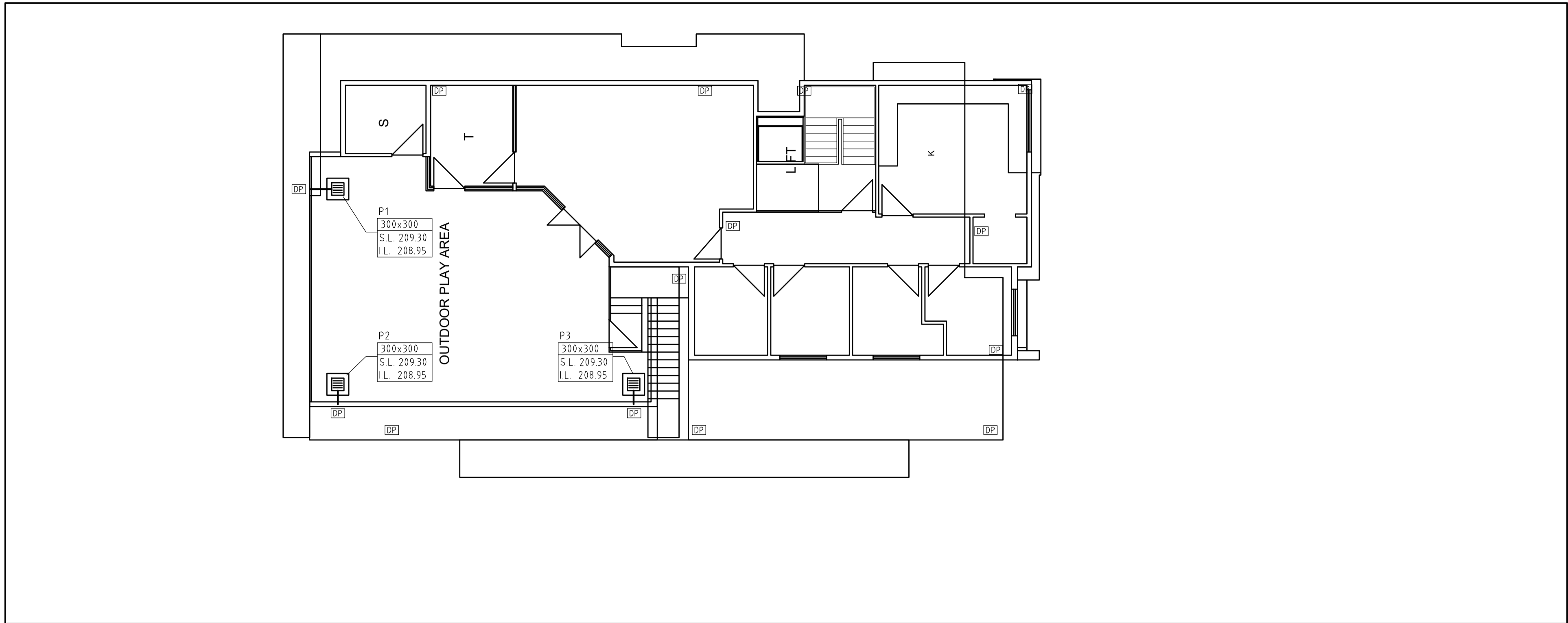
QUALIFICATIONS: BscEng, MEng, MEngStud, M.ASCE, MIEAust, CPEng, NER

Drawing Title:
STORMWATER DRAINAGE LAYOUT PLAN - 1

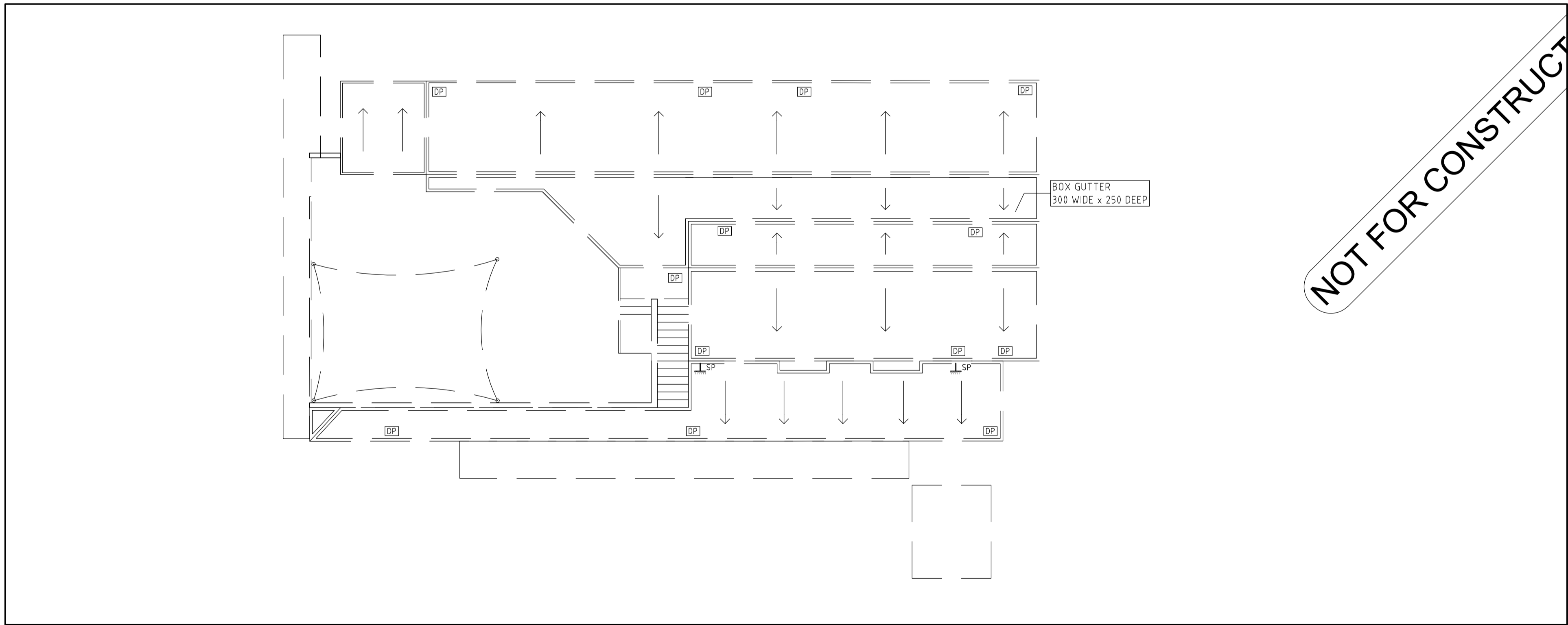
DESIGNED	NL
DRAWN	AJ
DATUM	AHD
DATE	03.07.2022

Project:
**PROPOSED CHILDCARE CENTRE
32 HALLORAN STREET
TURVEY PARK NSW 2650**

Ref No. 030722-01
Issue: D
SHEET 1 of 2



FIRST FLOOR PLAN
SCALE: - 1:100 @ A1



ROOF PLAN
SCALE: - 1:100 @ A1

CAUTION:
ALL THE LEVELS AND DIMENSIONS ARE CRITICAL. PLEASE FOLLOW THE SW PLAN FOR CONSTRUCTION TO AVOID FINAL CERTIFICATION DELAY. IF YOU SEE SOMETHING NOT CORRECT OR NOT SUITED FOR SITE PLEASE CONTACT THE STORMWATER ENGINEER FOR CLARIFICATION AND FURTHER DIRECTIONS.

NOTE:
THE SURFACE INLET PITS SHALL BE HEAVY DUTY PLASTIC PITS IF IT IS LESS THAN 400mm DEEP.

NOTE:
PRIOR TO CONSTRUCTION THE BUILDER IS TO COORDINATE ALL THE PLANS (ARCHITECTURE PLAN, LANDSCAPE PLAN, STRUCTURAL ENGINEER'S PLAN AND THE STORMWATER PLAN) TO MAKE SURE ALL THE DESIGN LEVELS, DOWNPIPE LOCATIONS AND THE FLOOR LEVELS ARE SAME IN ALL THE PLANS.

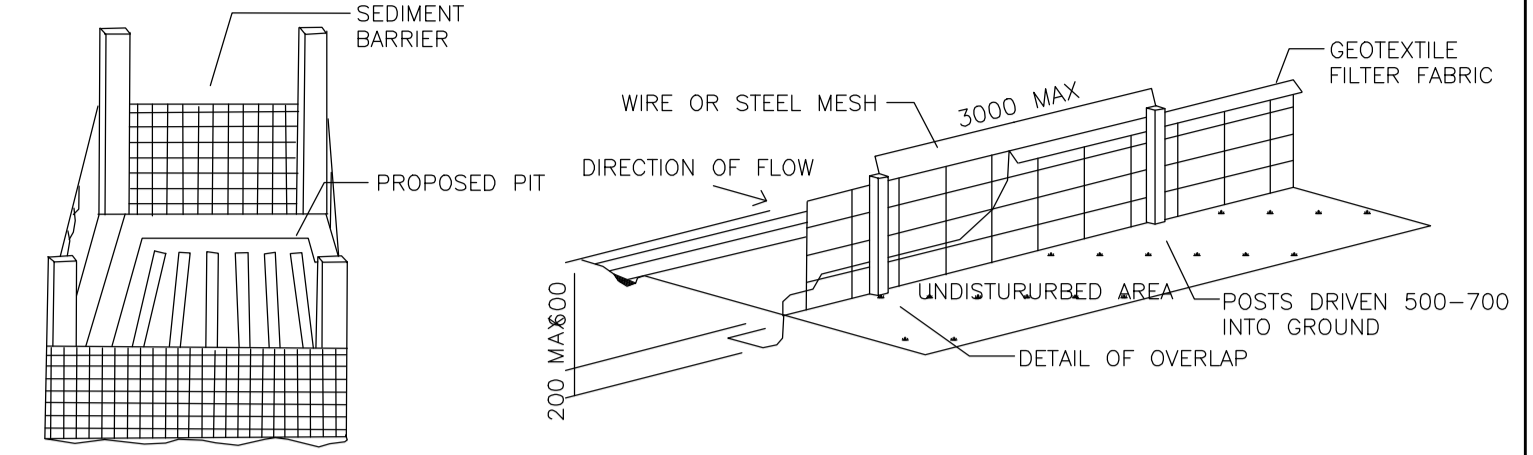
NOTE:
THE PIT SURFACE LEVELS AND THE TOP OF RETAINING WALLS SHALL BE RE-CONFIRMED AT SITE

STREET

HALLORAN

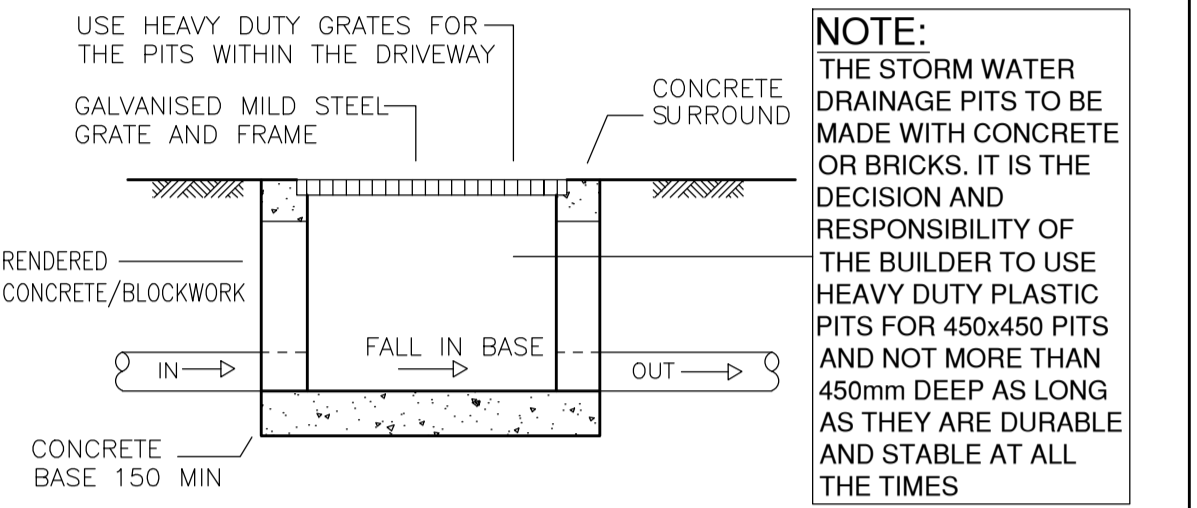
STREET

HALLORAN



SEDIMENT BARRIER AROUND STORMWATER PIT (DURING CONSTRUCTION)
NOT TO SCALE

SILT FENCE DETAIL (TO BE WITHIN THE PROPERTY BOUNDARY - DURING CONSTRUCTION ONLY)
NOT TO SCALE



STANDARD PIT DETAIL (PROVIDE STEP IRONS @ 300 CENTRES FOR PITS WHERE THE DEPTH EXCEEDS 900mm)
NOT TO SCALE

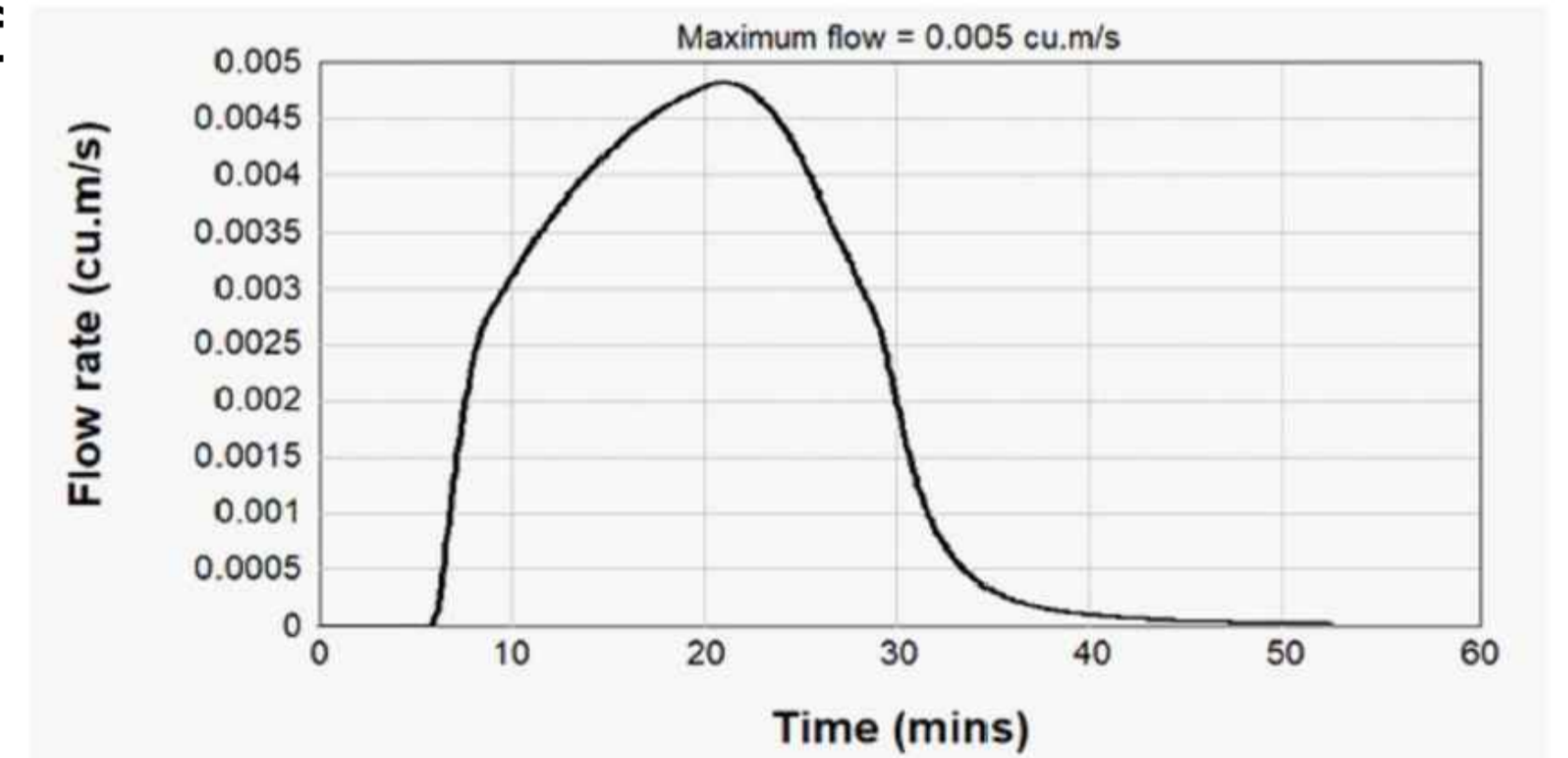
NOTE:
THE STORM WATER DRAINAGE PITS TO BE MADE WITH CONCRETE OR BRICKS. IT IS THE DECISION AND RESPONSIBILITY OF THE BUILDER TO USE HEAVY DUTY PLASTIC PITS FOR 450x450 PITS AND NOT MORE THAN 450mm DEEP AS LONG AS THEY ARE DURABLE AND STABLE AT ALL THE TIMES

NOTES:

- ALL WORKS TO BE CONSTRUCTED TO THE REQUIREMENTS AND SATISFACTION OF THE WAGGA WAGGA CITY COUNCIL DCP.
- PRIOR TO COMMENCEMENT OF ANY SITE WORKS, THE BUILDING CONTRACTOR/PLUMBER HAS TO EXPOSE ALL SERVICES IN THE FULL WIDTH OF THE FOOTPATH TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPE.
- THE DRAINAGE CONTRACTOR IS TO LOCATE AND RELOCATE AS NECESSARY ALL SERVICES ON SITE.
- THE BUILDER IS TO VERIFY ALL LEVELS ON THE SITE PRIOR TO COMMENCING CONSTRUCTION.
- SILT FENCE IS TO BE ERECTED PRIOR TO COMMENCING WORK. FENCE TO BE MAINTAINED IN WORKING ORDER DURING THE TIME OF CONSTRUCTION.
- W.A.E. DRAWING BY A REGISTERED SURVEYOR IS REQUIRED PRIOR TO CERTIFICATION OF DRAINAGE.
- U.N.O. ALL DOWN PIPES ARE TO BE 100mm.
- U.N.O. ALL PIPES TO BE 100mm WITH 1% MIN SLOPE.
- ALL THE RETAINING WALLS TO STRUCTURAL ENGINEERS DETAIL AND SHOULD BE WITHIN THE SITE BOUNDARY.
- PROVIDE OSD SIGNS AS PER THE DETAIL.

LEGEND

- DRAINAGE LINE
- AG. LINE
- SILT FENCE
- EXISTING LEVEL
- SILT BARRIER AROUND PIT
- CLEANING EYE (OR INSEPECTION EYE)
- SURFACE LEVEL SL 45.50
- INVERT LEVEL IL 45.00
- REMOVED TREE
- SURFACE INLET PIT
- JUNCTION PIT
- DOWN PIPE
- SPREADER PIPE
- PLANTER GRATE
- FLOOR GRATE
- DROPPER
- STEP IN THE RETAINING WALL
- FLUSHING POINT



HYDROGRAPH FOR ROOF WATER OSD DURING 1 IN 10 YEAR ARI

<p>DESIGNED: NL DRAWN: AJ DATUM: AHD DATE: 03.07.2022</p>			<p>Project: PROPOSED CHILDCARE CENTRE 32 HALLORAN STREET TURVEY PARK NSW 2650</p>			<p>Ref No. 030722-02 Issue: B (REV 3) SHEET 2 of 2</p>		
<p>DESIGN BY: VNK CONSULTING PTY LTD PO BOX 9118 Harris Park NSW 2150 Mobile: 0401 132 386 Email: VNKCONSULTING@GMAIL.COM</p>			<p>Drawing Title: STORMWATER DRAINAGE LAYOUT PLAN - 2</p>			<p>PRINCIPAL ENGINEER: LOGAN N LOGESWARAN QUALIFICATIONS: BscEng, MEng, MEngStud, M.ASCE, MIEAust, CPEng, NER</p>		
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