

GENERAL NOTES

1. THE PLUMBER/ DRAINER SHALL INSPECT THE SITE AND CONFIRM THE EXISTING SITE STRUCTURES, SERVICES AND CONDITIONS PRIOR TO PROCEEDING. IF ANY DISCREPANCIES FOUND, CONTACT THE ENGINEER FOR DISCUSSION.

2. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS, BUILDING CODE OF AUSTRALIA AND LOCAL GOVERNMENT'S REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE PLUMBER/ DRAINER TO OBTAIN ANY APPROVALS/ PERMITS/ LICENSES ISSUED BY THE AUTHORITIES PRIOR TO PROCEEDING WITH STORMWATER WORKS.

3. UNLESS NOTED AS OTHERWISE, ALL DOWNPIPES TO BE $\phi 100$ ROUND (OR 100×75 RECTANGULAR) AND FULLY SEALED. ALL EAVE GUTTERS TO BE 115 QUAD HI-FRONT OR EQUIVALENT, ALL BOX GUTTERS TO BE 200×150 H. ALL STORMWATER PIPES TO BE $\phi 100$ SEWER GRADE AND LAID AT 1% MIN. FALL. ALL MATERIALS USED IN THE WORK SHALL BE NEW AND CONFORM WITH RELEVANT AUSTRALIAN STANDARDS AND BEAR THE REQUIRED STANDARDS MARK.

4. LOCATION OF STORMWATER SYSTEMS, INCLUDING DOWNPIPES, PIPES, PITS AND RAINWATER TANK ARE INDICATIVE ONLY. EXACT LOCATION SHALL BE DETERMINED ON SITE TO SUIT SITE CONDITIONS.

5. SUB-SOIL DRAINS FOR RETAINING WALL SHALL BE INSTALLED BY THE BUILDER AND CONNECTED TO STORMWATER LINES. ALL AGG. LINES SHALL BE 100mm DIA., UNLESS NOTED OTHERWISE.

6. NATURAL GROUND LEVELS ALONG ALL BOUNDARIES MUST BE MAINTAINED UNALTERED. ALL RETAINING WALLS TO BE SETBACK FROM BOUNDARIES TO AVOID CONCENTRATION OF STORMWATER FLOWS.

7. LEVELS ARE APPROXIMATE ONLY. THE PLUMBER/ DRAINER SHALL CONFIRM THE LEVELS PRIOR TO PROCEEDING. IF ANY DISCREPANCIES FOUND, CONTACT THE ENGINEER FOR DISCUSSION.

8. INSPECTION AND CERTIFICATION, IF REQUIRED, SHALL BE DONE PRIOR TO BACKFILLING. ALLOW 24 HOUR NOTICE FOR THE ENGINEER TO CARRY OUT INSPECTION.

9. ANY DAMAGE TO SERVICES DURING CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY AT THE PLUMBER/ DRAINER'S OWN EXPENSE.

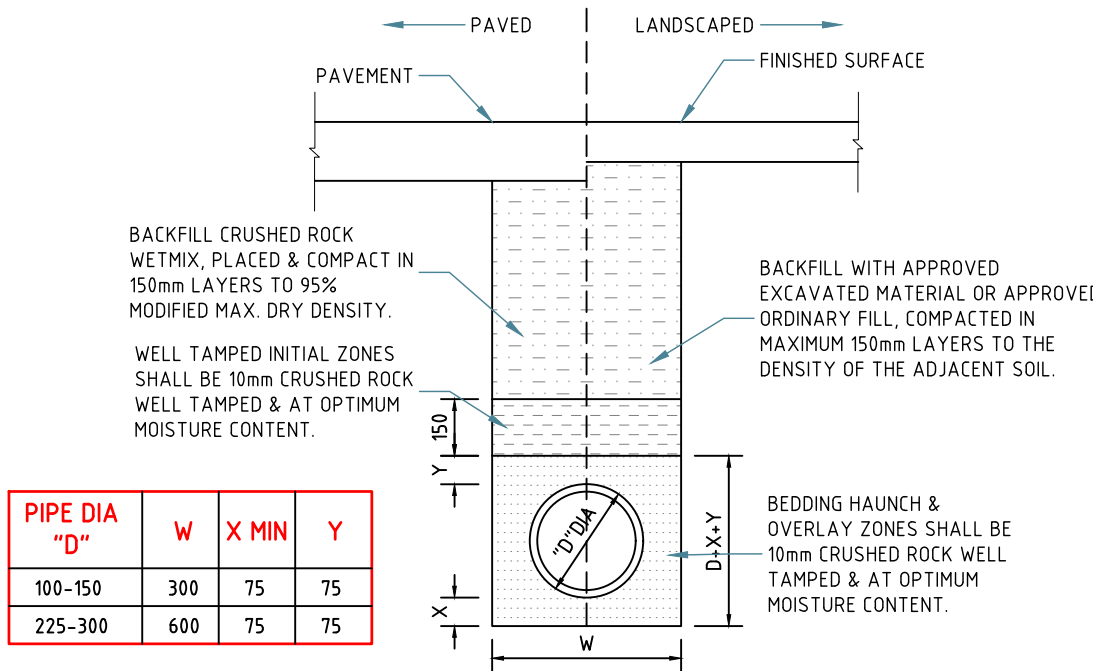
10. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:
- ARCHITECTURAL PLAN BY OLIVER KEAVENEY, JOB No. 18456, DATED 07/10/22

BASIX REQUIREMENTS

THIS DEVELOPMENT REQUIRES A 3500L RWT. A 3500L ABOVE GROUND RWT IS PROVIDED TO MEET THE REQUIREMENT

OSD REQUIREMENTS

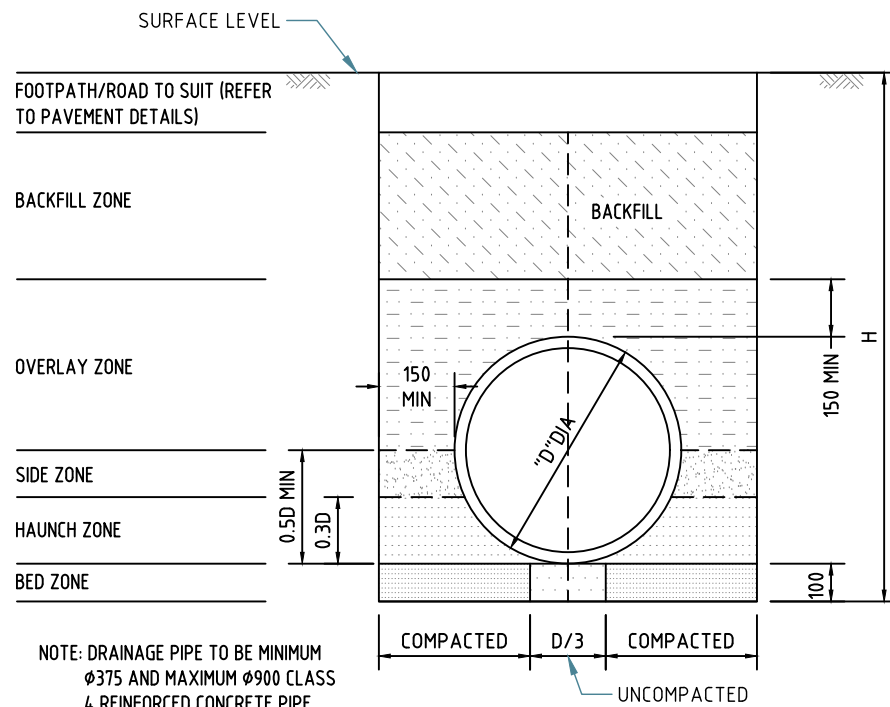
SITE AREA = 1004 m²
TOTAL IMPERVIOUS AREA = 290m²
IMPERVIOUS RATIO = 28% < 35%
THEREFOR, OSD IS NOT REQUIRED



PIPE DIA "D"	W	X MIN	Y
100-150	300	75	75
225-300	600	75	75

UPVC PIPE TRENCH BACKFILL TYP. DETAILS

SCALE 1:20

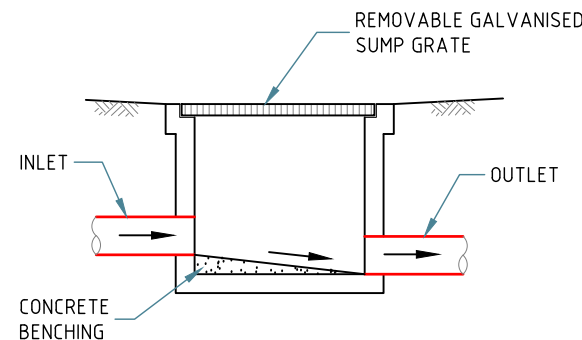


CONCRETE PIPE TRENCH BACKFILL TYP. DETAILS

SCALE 1:20

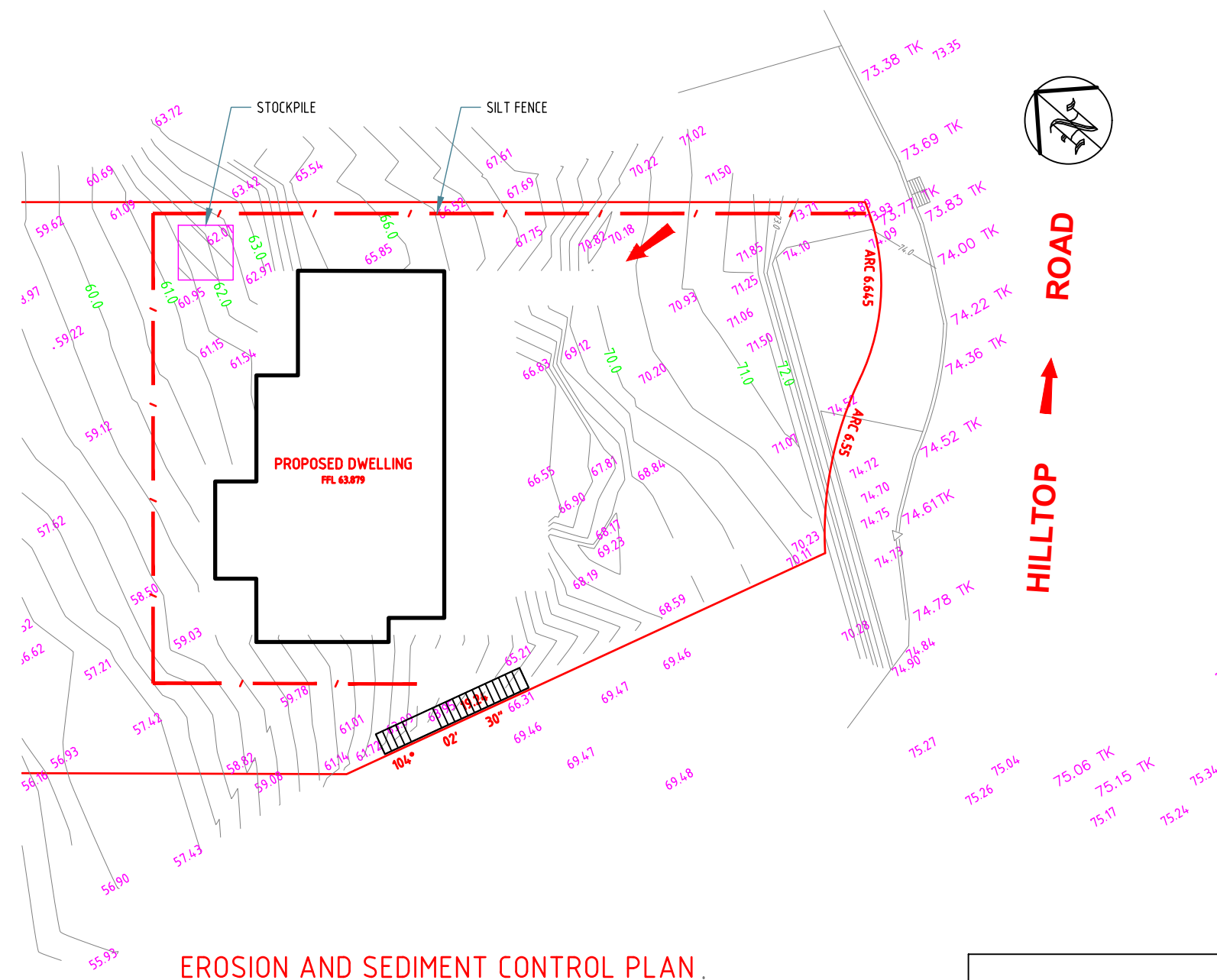
MINIMUM PIPE COVER (FROM FINISHED SURFACE TO TOP OF PIPE)		
LOCATION	MINIMUM COVER (mm)	
	CAST/DUCTILE IRON GAL STEEL	OTHER AUTHORISED PRODUCTS (-)
1. NOT SUBJECT TO VEHICULAR LOADING: A. WITHOUT PAVEMENT i. FOR SINGLE DWELLING ii. OTHER THAN SINGLE DWELLING B. WITH PAVEMENT OF BRICK/UNREINFORCED CONCRETE	0 0 0(~~)	100 300 50(~~)
2. SUBJECT TO VEHICULAR LOADING: A. OTHER THAN ROAD: i. WITHOUT PAVEMENT ii. WITH PAVEMENT OF: - REINFORCED CONC. FOR HEAVY VEHICLE - BRICK/UNREINF. CONC. LIGHT VEHICLE B. ROAD i. SEALED ii. UNSEALED	300 0(~~#) 0(~~#) 300 300	450 100(~~#) 75(~~#) 500(#) 500(#)
3. SUBJECT TO CONSTRUCTION VEHICLE OR IN ENBANKMENT CONDITION	300	500(#)

(-) INCLUDES OVERLAY ABOVE THE TOP OF THE PIPE OF NOT LESS THAN 50mm THICK
(~~) BELOW THE UNDERSIDE OF THE PAVEMENT
(#) SUBJECT TO COMPLIANCE WITH AS1762, AS2033, AS/NZS2566.1, AS3725 OR AS4060



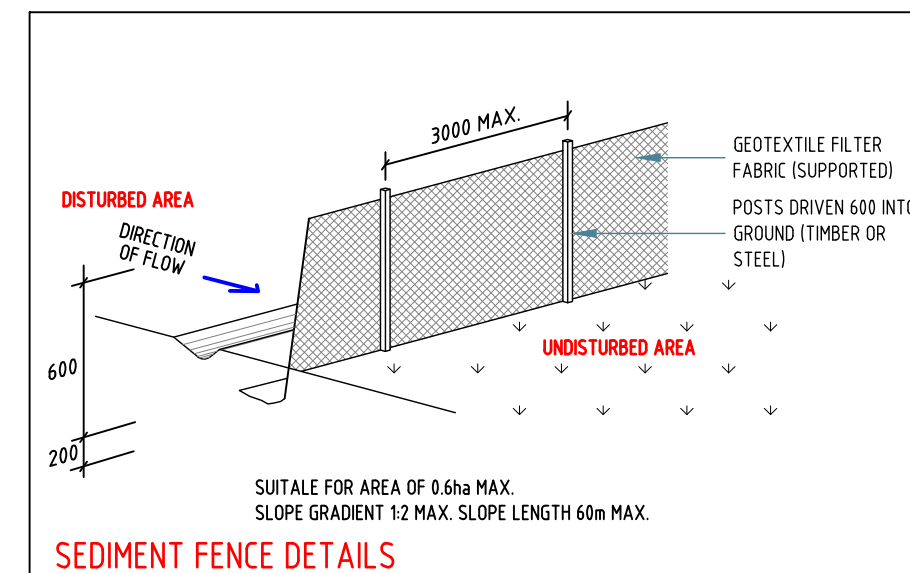
TYP. GRATED PIT DETAILS

SCALE 1:20



NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER
2. MINIMISE DISTURBED AREA
3. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATH
4. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE
5. ROADS AND FOOTPATH TO BE SWEEPED DAILY
6. KERB SIDE INLET TO BE PROTECTED WITH FABRIC FILLED WITH GRAVEL



Paper size: **A3**

All dimensions are in millimetres. Do not scale the drawing. Use written dimensions. Dimensions must be confirmed prior to commencement. Location of services are approximate only. Dial 1100 before any excavation or demolition.

Revisions	
Absorption System Relocated	
Designed: CH	Checked: HN

Approved:

Quoc Huy Nguyen
PhD (Eng), MIEAust, CPEng,
NER Reg. No. 208 2513

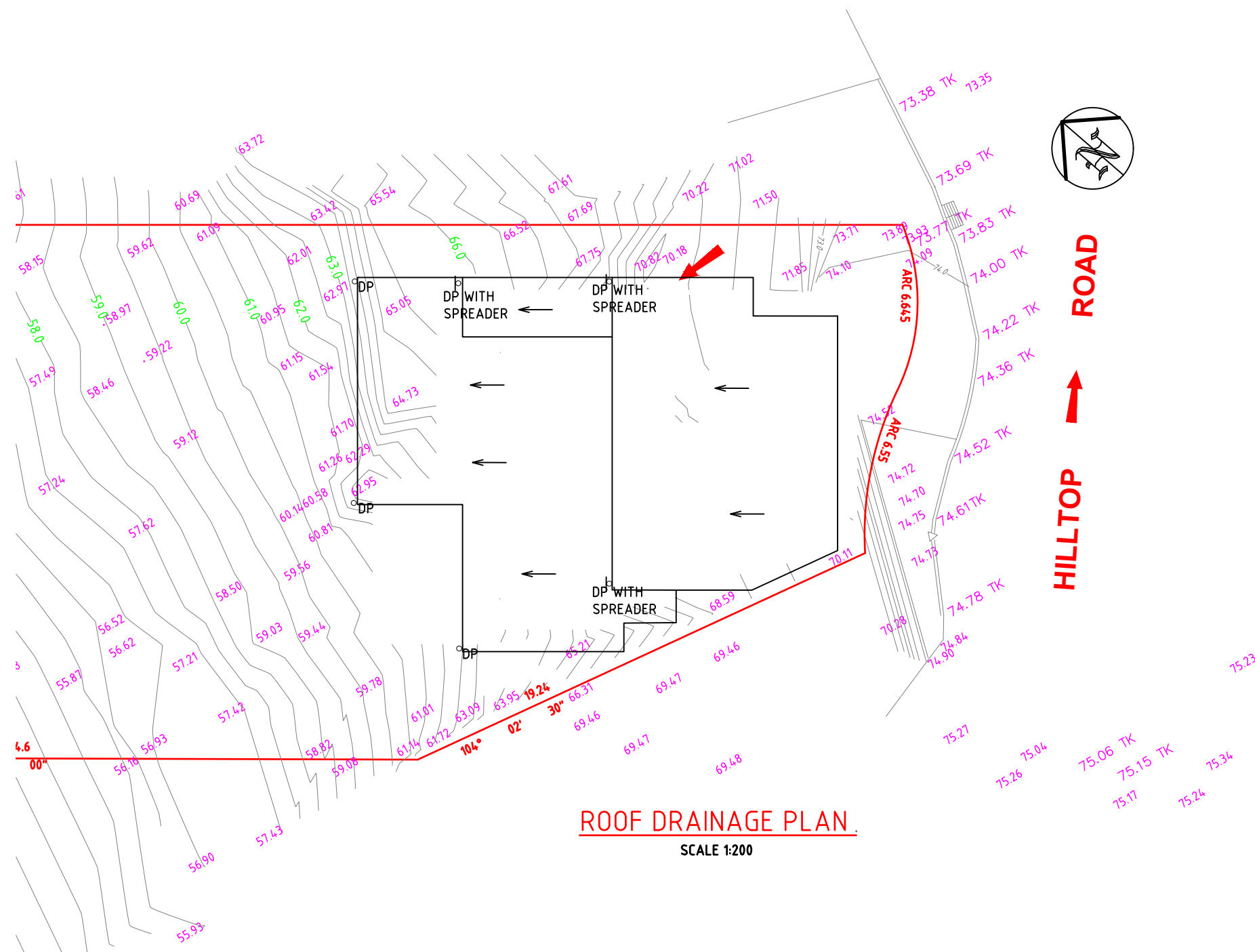
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PROJECT: PROPOSED DWELLING
ADDRESS: 100 HILLTOP RD, AVALON
LGA: NORTHERN BEACHES COUNCIL

EROSION & SEDIMENT CONTROL PLAN

Project No: 5652H Issue: B Date: 01.07.2024 Sheet No: 2 of 7



LEGEND

DP	DOWNPIPE
GP	GRATED PIT
SP	SILT ARRESTOR PIT
CP	CLEAN-OUT PIT
SL	SURFACE LEVEL
IL	INVERT LEVEL
	GRATED BOX DRAIN
	ROOF- WATER PIPELINE
	SURFACE- WATER PIPELINE
	EXISTING PIPELINE
	SURFACE RUNOFF DIRECTION
	EXISTING GROUND CONTOUR
	PROPOSED GROUND LEVEL

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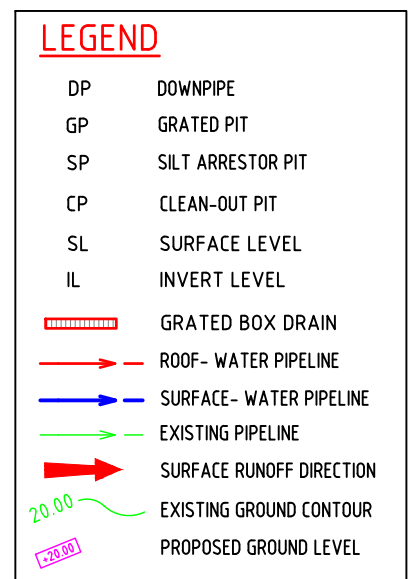
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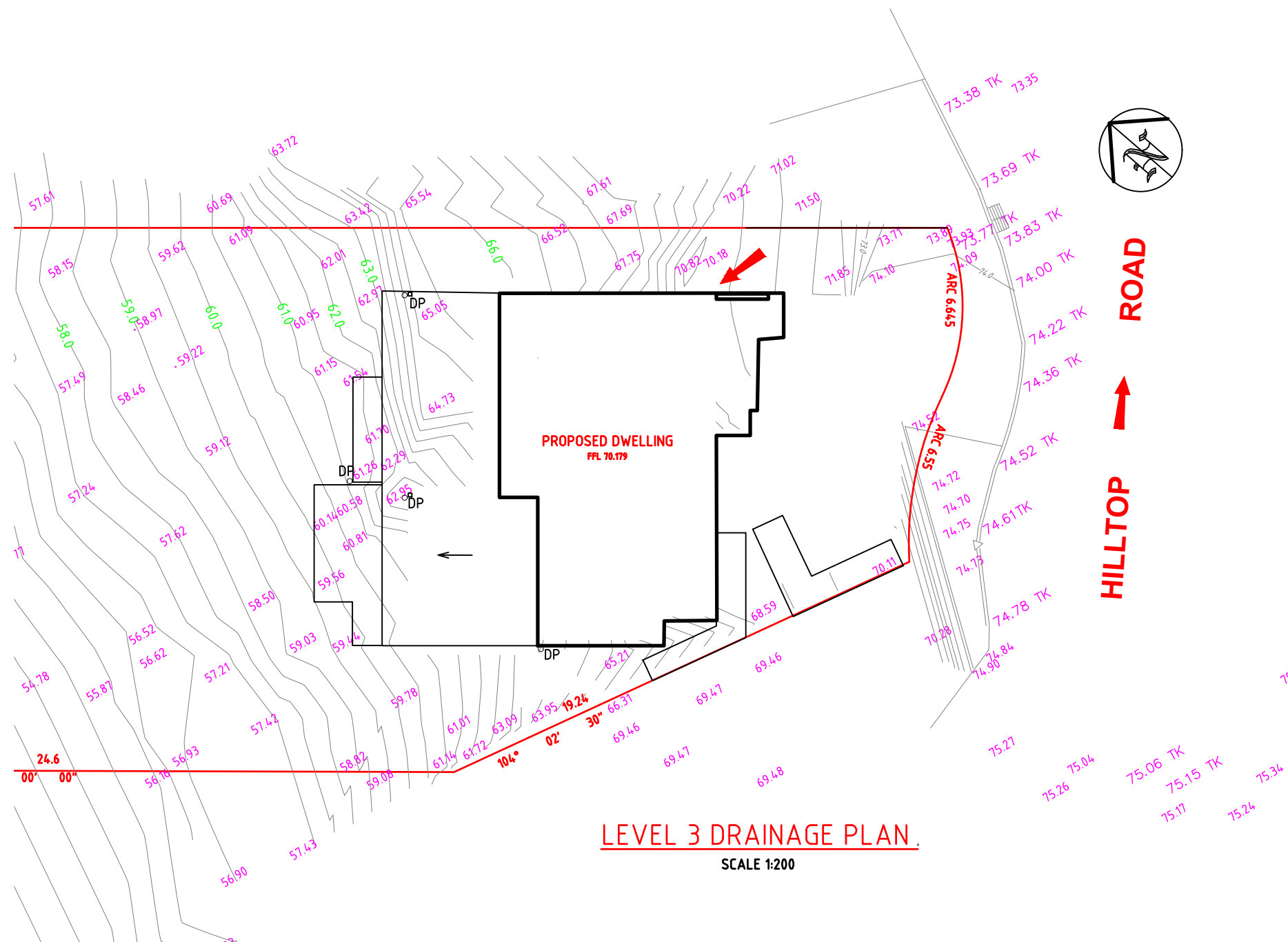
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LEVEL 3 DRAINAGE PLAN

Project No: 5652H Issue: B Date: 01.07.2024 Sheet No: **3** of 7



**LEGEND**

DP	DOWNPIPE
GP	GRATED PIT
SP	SILT ARRESTOR PIT
CP	CLEAN-OUT PIT
SL	SURFACE LEVEL
IL	INVERT LEVEL
	GRATED BOX DRAIN
	ROOF- WATER PIPELINE
	SURFACE- WATER PIPELINE
	EXISTING PIPELINE
	SURFACE RUNOFF DIRECTION
	EXISTING GROUND CONTOUR
	PROPOSED GROUND LEVEL

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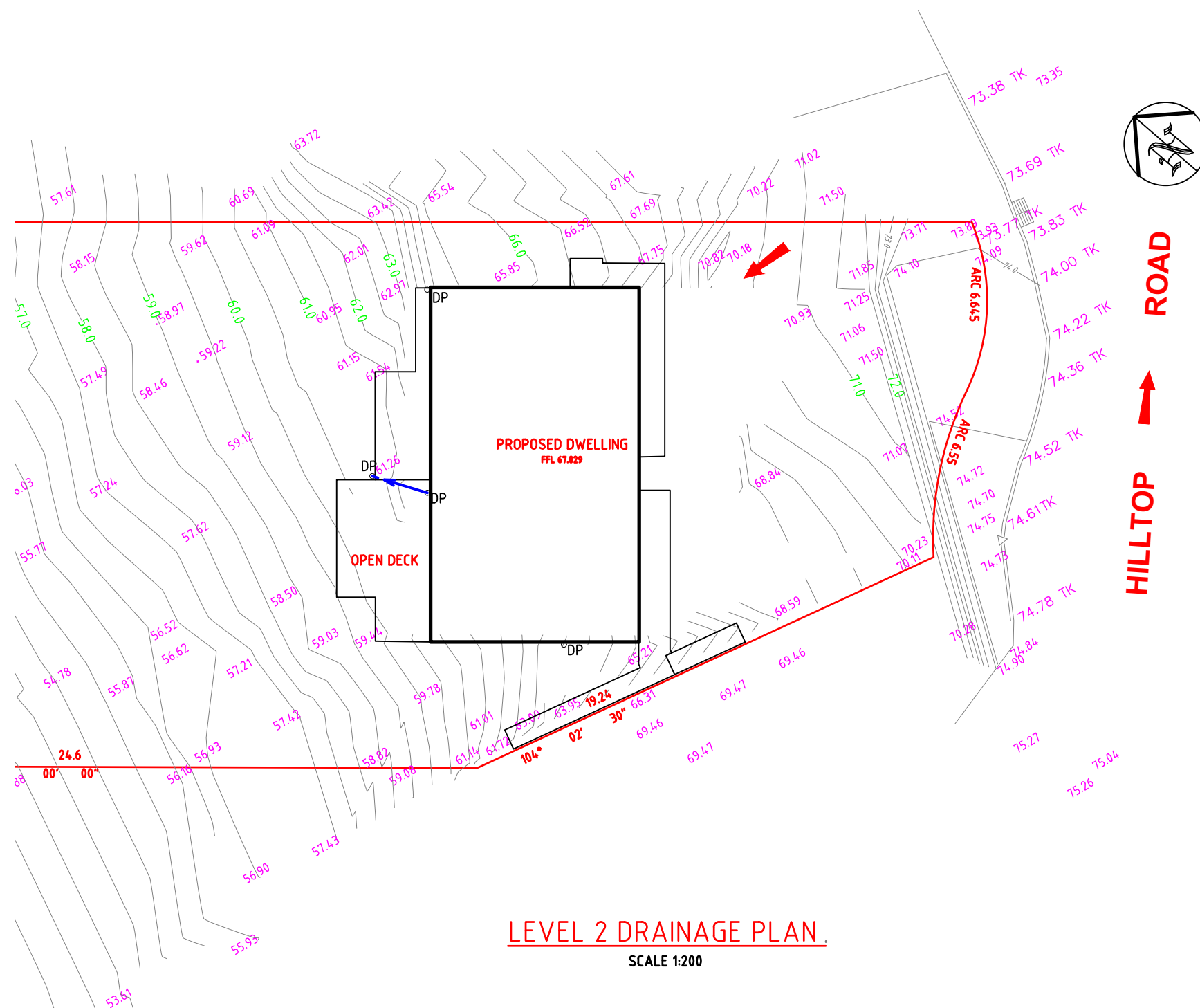
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LEVEL 3 DRAINAGE PLAN

Project No: 5652H Issue: B Date: 01.07.2024 Sheet No: **3** of 7



LEVEL 2 DRAINAGE PLAN

SCALE 1:200

LEGEND	
DP	DOWNPIPE
GP	GRATED PIT
SP	SILT ARRESTOR PIT
CP	CLEAN-OUT PIT
SL	SURFACE LEVEL
IL	INVERT LEVEL
	GRATED BOX DRAIN
	ROOF- WATER PIPELINE
	SURFACE- WATER PIPELINE
	EXISTING PIPELINE
	SURFACE RUNOFF DIRECTION
	EXISTING GROUND CONTOUR
	PROPOSED GROUND LEVEL

Paper size: **A3**

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Revisions	
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Designed: CH	Checked: HN

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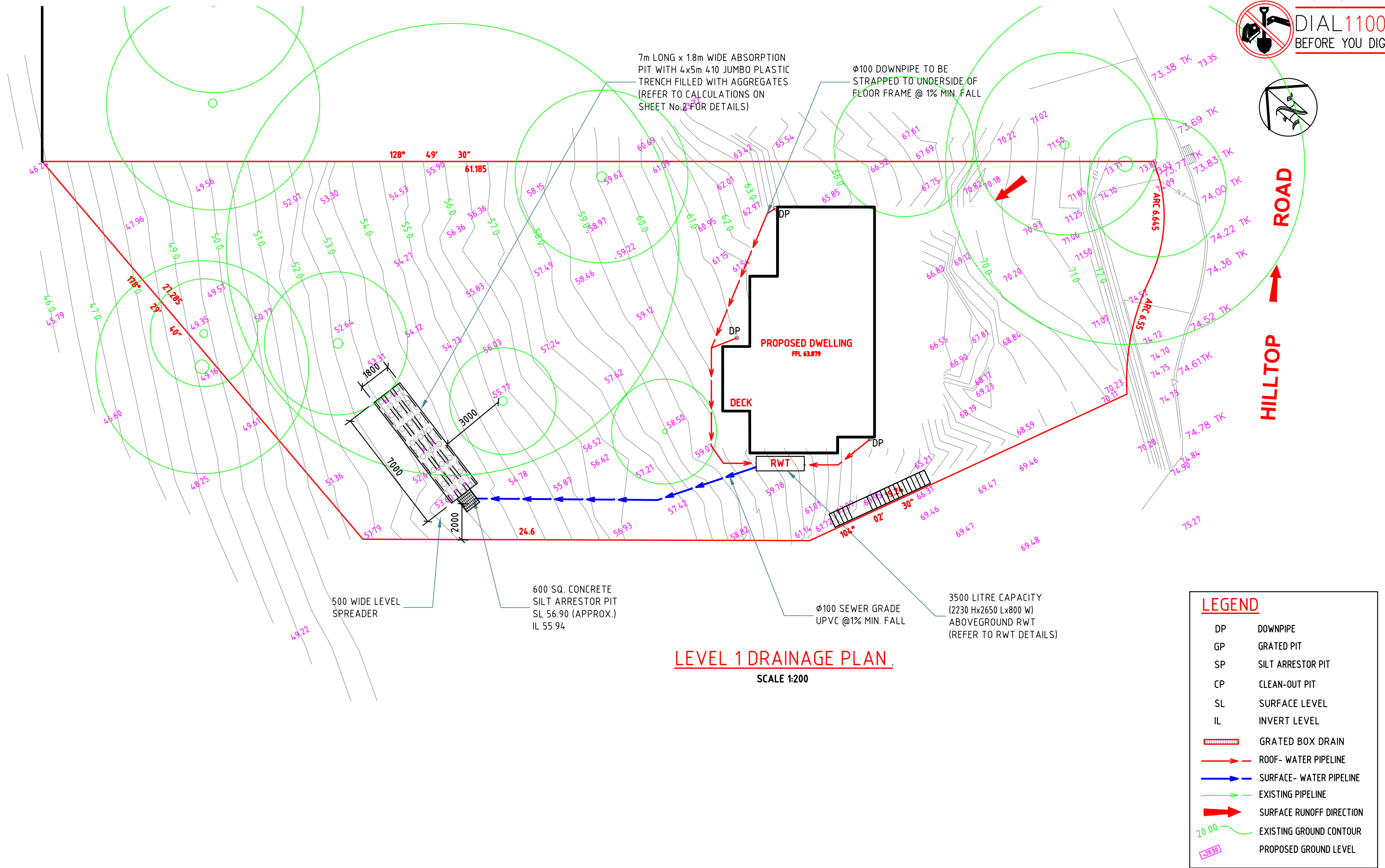
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LEVEL 2 DRAINAGE PLAN

Project No: 5652H Issue: B Date: 01.07.2024 Sheet No: **4** of 7



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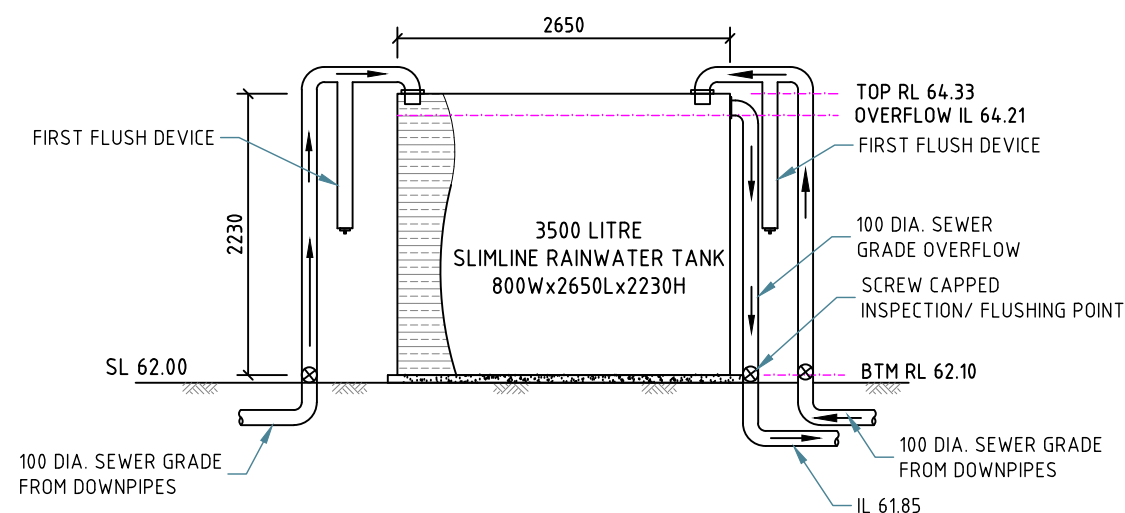
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LEVEL 1 DRAINAGE PLAN

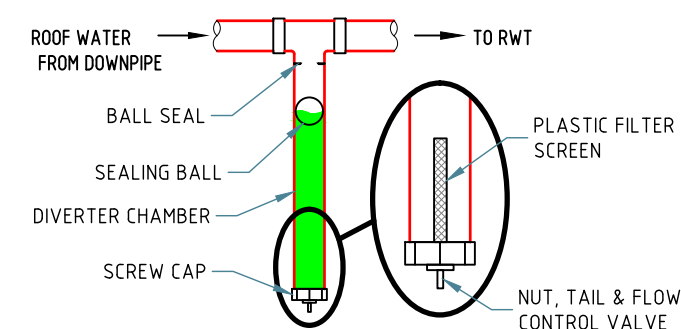
Project No: 5652H Issue: B Date: 01.07.2024 Sheet No: **5** of 7

RAINWATER TANK NOTES:

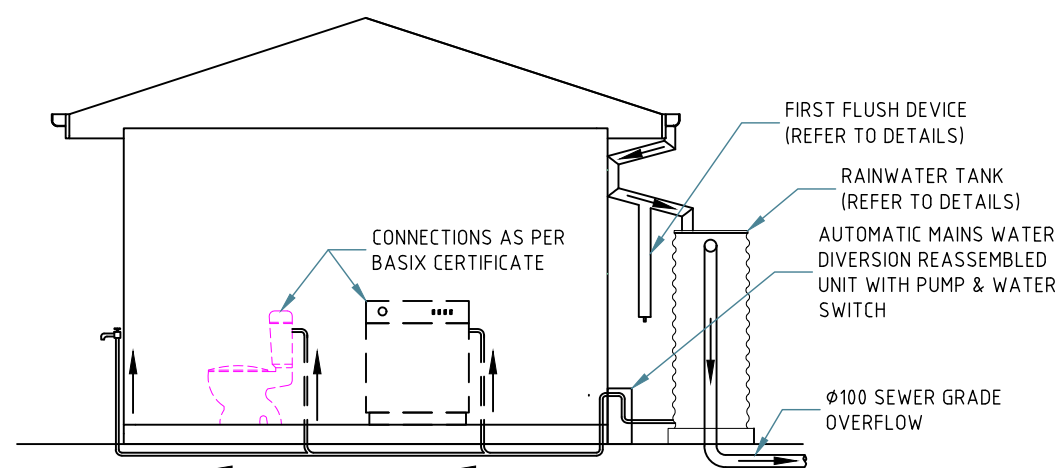
1. RAINWATER TANKS BY TANKWORKS AUSTRALIA (TEL: 1300 736 562) OR SIMILAR.
2. DIMENSIONS ARE INDICATIVE ONLY. EXACT DETAILS TO MANUFACTURER'S SPECIFICATIONS.
3. A FIRST FLUSH DEVICE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS SHALL BE FITTED TO RAINWATER TANK SYSTEM TO FLUSH OUT THE FIRST 0.5mm OF RUN-OFF FROM THE ROOF AREA THAT DRAINED INTO THE TANK (E.G. 0.5L/m²).
4. RAINWATER OUTLET CONNECTIONS AS PER BASIX CERTIFICATE.



RAINWATER TANK DETAILS
NOT TO SCALE



FIRST FLUSH DEVICE DETAILS
NOT TO SCALE



ABOVEGROUND RWT INSTALLATION
SCALE 1:50

Paper size: **A3**

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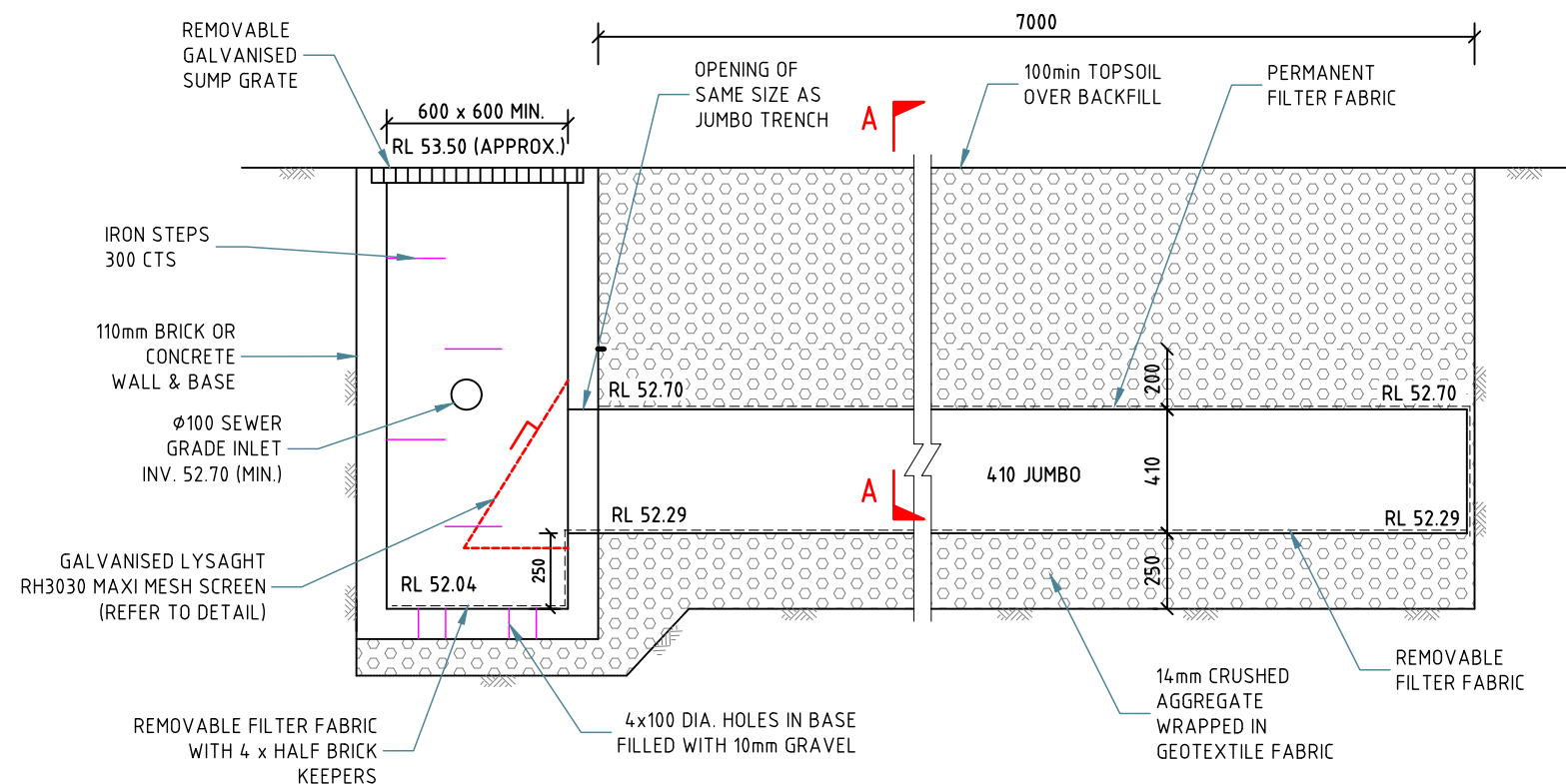
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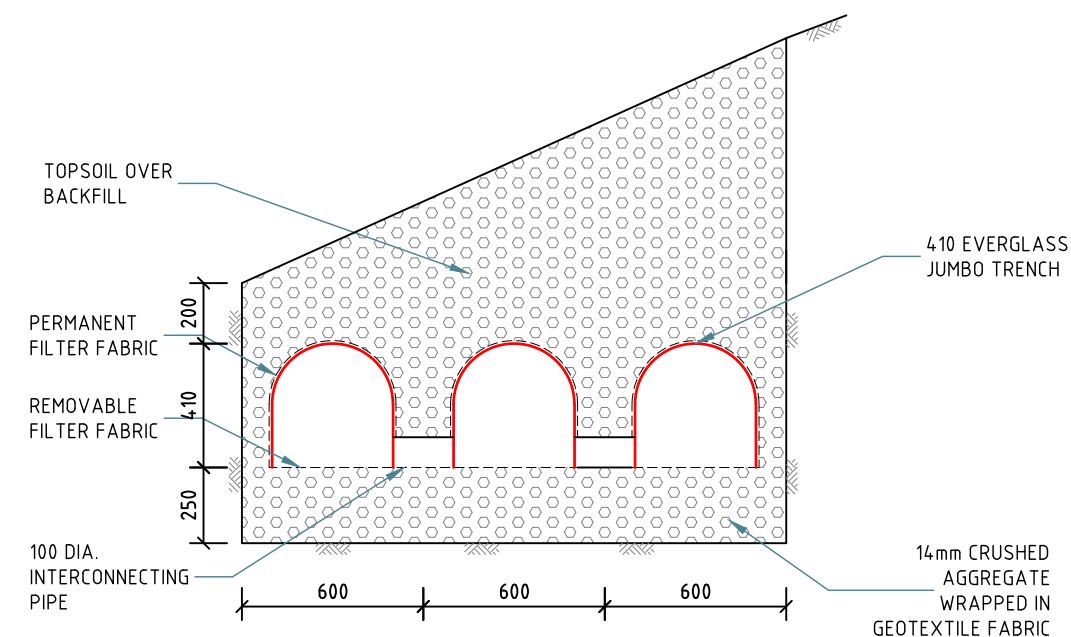
RWT AND PIT DETAILS

Project No: 5652H Issue: B Date: 01.07.2024 Sheet No: **6** of 7



ABSORPTION TRENCH LONG-SECTION.

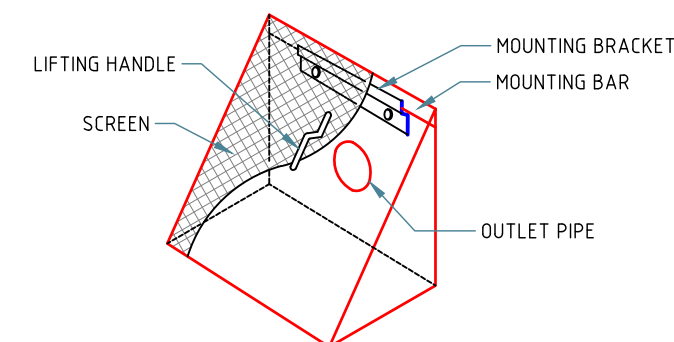
SCALE 1:25



SECTION A.

SCALE 1:25

ABSORPTION TRENCH SYSTEM CALCULATIONS		
Project No: 5652H – Address: 100 Hilltop Rd, Clareville		
Total area drained into absorption system	260	m2
Maximum required absorption system volume MRASV (m3)	3.90	m3
No of pits	1	
Storage volume of each pit	0.35	m3
Total length of Jumbo pipes	20	m
Width of each trench	0.6	m
Total length of trenches	20	m
Total trench area	12	m2
Jumbo pipe diameter	0.41	m
Assumed void ratio of gravel backfill	30	%
Thickness of gravel layer above Jumbo	0.2	m
Thickness of gravel layer below Jumbo	0.2	m
Storage capacity of 410 jumbo pipes	2.64	m3
Volume of void in gravel layer above Jumbo	0.72	m3
Volume of void in gravel layer below Jumbo	0.72	m3
Total storage volume of pits	0.35	m3
TOTAL AVAILABLE STORAGE VOLUME	4.43	m3



DEBRIS SCREEN DETAILS.

NOT TO SCALE

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ABSORPTION TRENCH DETAILS

Project No: 5652H Issue: B Date: 01.07.2024 Sheet No: 7 of 7