

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED).

DRAWING INDEX	
DRAWING NUMBER	DRAWING TITLE
GD07_00	COVER PAGE AND DRAWING INDEX
GD07_01	TYPICAL ROCKBORE – FOR FRACTURED ROCK (SECTION)
GD07_02	TYPICAL ROCKBORE – FOR FRACTURED ROCK (PLAN)
GD07_03	TYPICAL ROCKBORE FILTER CAGE – FOR FRACTURED ROCK (DETAILS)
GD07_04	TYPICAL STORMWATER SOAKPIT (PLAN) – FOR PERMEABLE SOIL
GD07_05	TYPICAL STORMWATER SOAKPIT (SECTION) – FOR PERMEABLE SOIL
GD07_06	TYPICAL STORMWATER SOAKPIT WITH STORAGE MANHOLE (PLAN) – FOR PERMEABLE SOIL
GD07_07	TYPICAL STORMWATER SOAKPIT WITH STORAGE MANHOLE (SECTION A-A) – FOR PERMEABLE SOIL
GD07_08	TYPICAL GROUNDWATER RECHARGE SOAKPIT – FOR PEAT SOIL (PLAN)
GD07_09	TYPICAL GROUNDWATER RECHARGE SOAKPIT – FOR PEAT SOIL (SECTION A-A)
GD07_10	TYPICAL GROUNDWATER RECHARGE SOAKPIT – FOR PEAT SOIL (SECTION B-B)
GD07_11	EXAMPLES OF PRE-TREATMENT DEVICES – FOR HIGH CONTAMINANT GENERATING SOURCES (ROADS, CAR PARKS)



PLOT DATE 23/6/2021 11:05 am U:\C00\IES\ETS\2. DTG\3. Guidance docs\GD07 – Soakage\Drawings\CAD\GD07_00.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_00.DWG

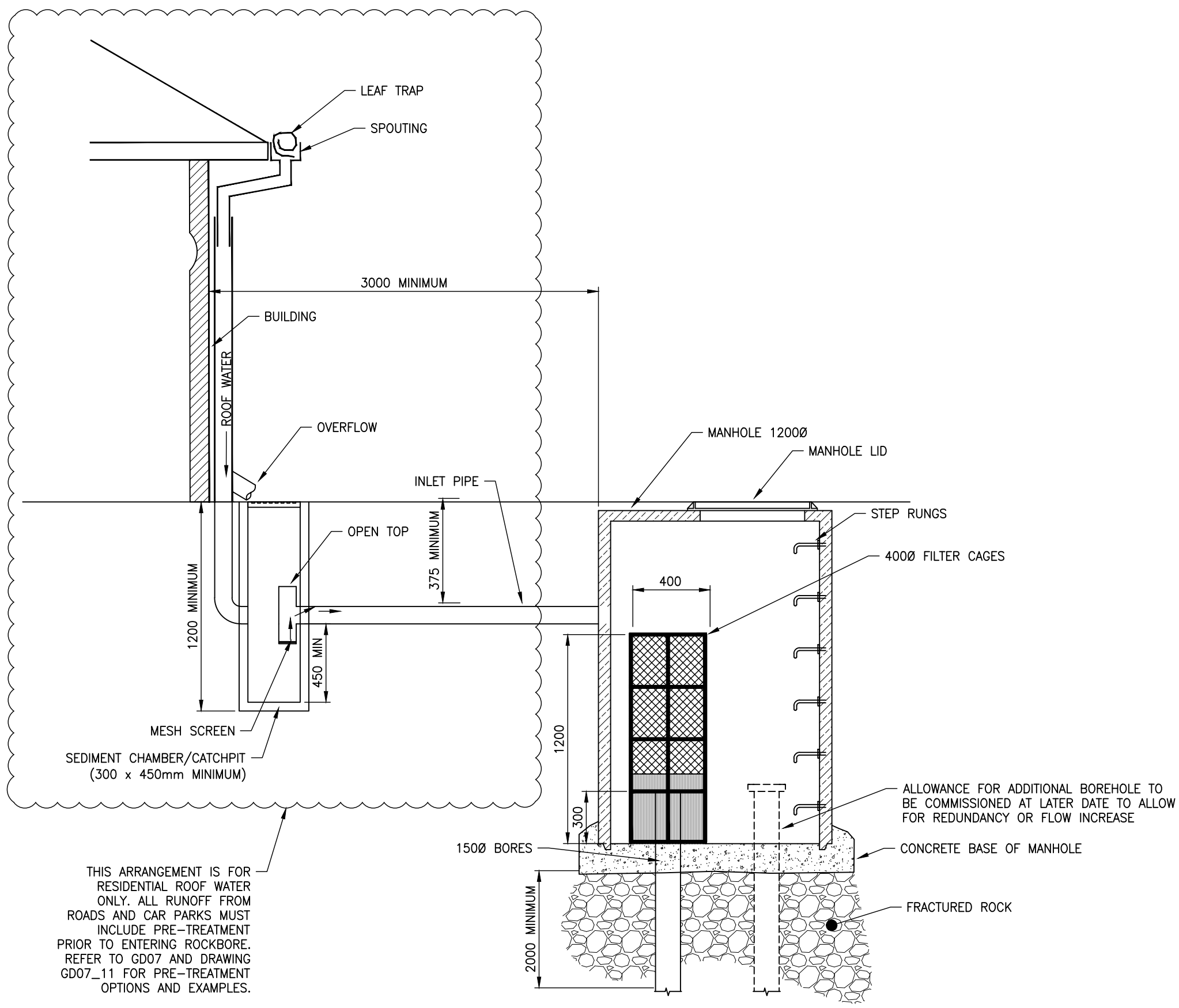
AUCKLAND COUNCIL

STORMWATER SOAKAGE AND GROUNDWATER RECHARGE IN THE AUCKLAND REGION 2020/007

COVER PAGE AND DRAWING INDEX

ENVIRONMENTAL – SW	ORIGINAL SCALE	A3
	SCALE: N.T.S.	
	DRAWING SET	SHEET
	GD07	1 OF 1
	DRAWING No.	REV
	GD07_00	0

PLOT DATE 23/6/2021 11:05 am U:\G00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_01.dwg



ROCKBORE WITH 1 BORE

NOTES:

1. MINIMUM MANHOLE DIAMETER SIZED TO ACCOMODATE AN ADDITIONAL BOREHOLE TO BE COMMISSIONED AT A LATER DATE.
- | No. OF BORES | ALLOWANCE FOR ADDITIONAL BORES | MIN. MANHOLE DIAMETER FOR ROCKBORE |
|--------------|--------------------------------|------------------------------------|
| 1 | 1 | 1200 |
| 2 | 1 | 1500 |
| 3 | 1 | 1800 |
2. FLOW TESTING OF ROCKBORES TO BE CARRIED OUT BEFORE AND AFTER CAGE INSTALLATION.
 3. NEW ROCKBORE MINIMUM DEPTH OF MANHOLE 1.5m. MANHOLES DEEPER THAN 2.5m WILL NEED DISCUSSION AS ACCESSIBILITY FOR MAINTENANCE BECOMES AN ISSUE.
 4. MINIMUM DEPTH OF BOREHOLE FROM CONCRETE BASE OF MANHOLE IS 2.0m.
 5. ACCESS RUNGS SHALL BE PROVIDED FOR MANHOLE ACCESS. REFER TO DRAWING IN STORMWATER CODE OF PRACTICE FOR DETAILS.
 6. BOREHOLE POSITIONS RELATIVE TO MANHOLE LID NOT SHOWN TO ACCURATELY TO AID CLARITY. POSITION SHOULD BE AS PER DRAWING GD07_02.
 7. SETBACK REQUIREMENTS
BUILDINGS AND PROPERTY BOUNDARIES:
 - A SETBACK DISTANCE OF 3m IS RECOMMENDED FOR BUILDINGS AND PROPERTY BOUNDARIES. SPECIFIC GEOTECHNICAL DESIGN WILL BE REQUIRED WHERE THE DEVICE MAY AFFECT ADJACENT STRUCTURES (SUBJECT TO COUNCIL APPROVAL).
 - WHERE THIS IS NOT PRACTICALLY POSSIBLE A SITE-SPECIFIC GEOTECHNICAL DESIGN MUST BE COMPLETED TAKING INTO ACCOUNT THE EFFECTS OF THE SOAKAGE DEVICE ON BUILDING FOUNDATIONS AND POTENTIAL FOR FLOODING OF NEIGHBOURING PROPERTIES. THIS MUST BE DONE BY A CHARTERED GEOTECHNICAL ENGINEER OR A PROFESSIONAL ENGINEERING GEOLOGIST.
 - DEVICES SHALL NOT BE PLACED BELOW BUILDINGS AND BUILDINGS SHALL NOT BE BUILT OVER SOAKAGE DEVICES.
 - RETAINING WALLS:
 - FOR WALLS < 2m HIGH, THE SETBACK MUST NOT BE LESS THAN THE HEIGHT OF THE RETAINING WALL + 1.5m AND WHERE THE SOAKAGE DEVICE IS UP SLOPE OF THE WALL, THEN THE WALL MUST HAVE BEEN DESIGNED TO TAKE FULL WATER LOADING.
 - THE ROCK BORE MUST BE DESIGNED TO DISCHARGE IN A ZONE THAT IS BELOW THE TOE OF ANY WALL WITHIN 10 M.
 - FOR WALLS > 2m HIGH, A SITE-SPECIFIC DESIGN MUST BE CARRIED OUT BY A GEOTECHNICAL ENGINEER, CONSIDERING RELEVANT GEOTECHNICAL ISSUES AND CUT-OFF DRAINAGE OF THE RETAINING WALL.
 - UNDERGROUND INFRASTRUCTURE:
 - A SETBACK DISTANCE OF 2m IS REQUIRED FROM ANY EXISTING WATER AND WASTEWATER PIPES.
 8. DEVICES THAT WILL BE VESTED TO AUCKLAND TRANSPORT SHALL BE DESIGNED IN ACCORDANCE WITH THE AUCKLAND TRANSPORT CODE OF PRACTICE.
 9. PIPE EMBEDMENT DETAILS FOR PRIVATE DRAINAGE SHALL COMPLY WITH BUILDING CODE AS PER NZS 7643.
 10. PIPE EMBEDMENT DETAILS FOR THE PUBLIC DRAINAGE SHALL COMPLY WITH STORMWATER CODE OF PRACTICE (SWCOP) DRAWINGS.

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_01.DWG

AUCKLAND COUNCIL

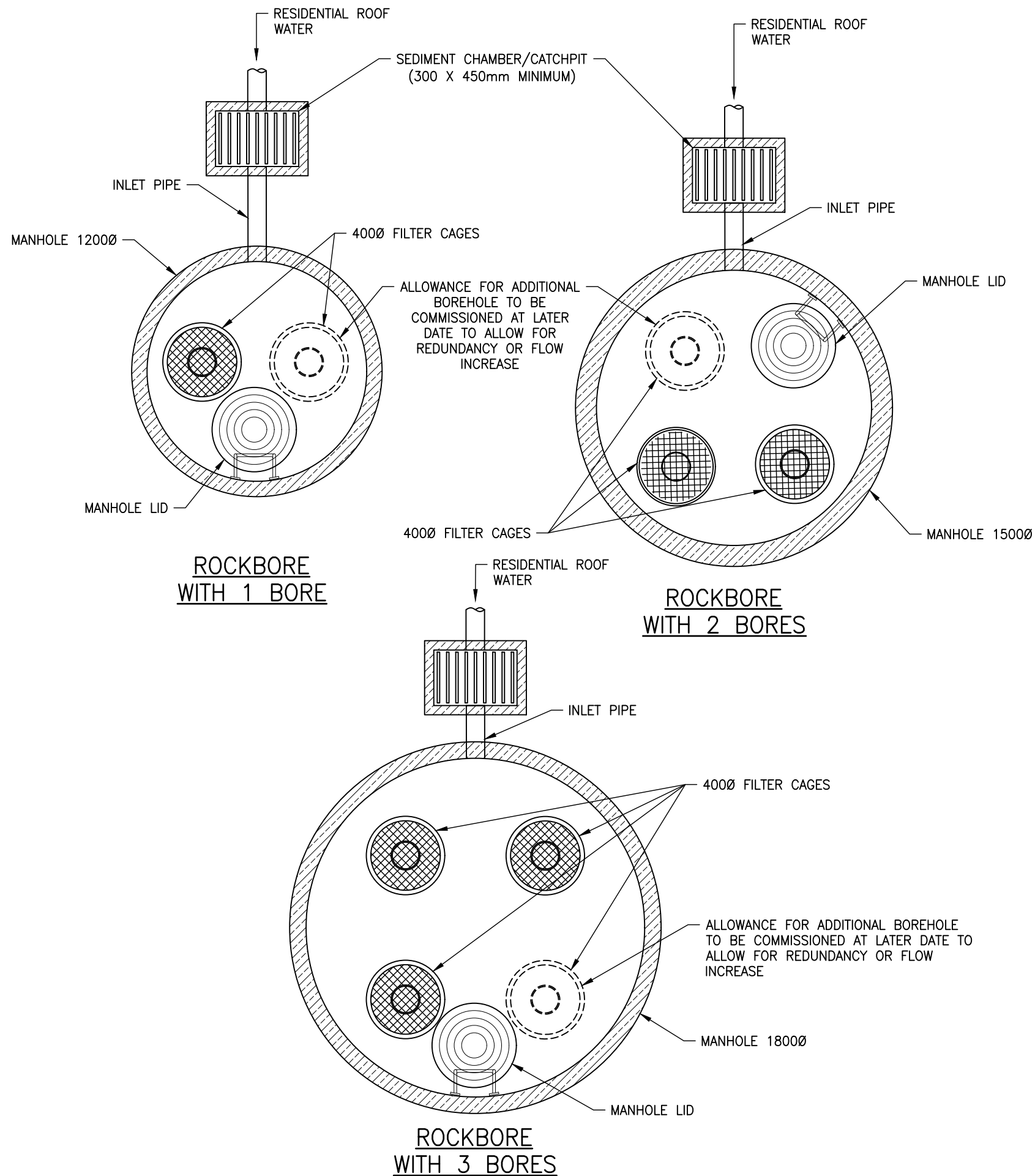
**TYPICAL ROCKBORE
FOR FRACTURED ROCK (SECTION)**

ENVIRONMENTAL-SW

ORIGINAL SCALE A3
SCALE: N.T.S.



DRAWING SET	SHEET
GD07	1 OF 1
DRAWING No.	REV
GD07_01	0



NOTES:

1. REFER TO DRAWING GD07_01 NOTES 1.
2. ALLOWANCE SHALL BE MADE FOR 1 ADDITIONAL BORE TO BE DRILLED FOR REDUNDANCY DUE TO BLOCKAGE OR INCREASED FLOW.
3. ALL RESIDENTIAL ROOF WATER SHALL DISCHARGE TO SEDIMENT CHAMBER / CATCHPIT AND NOT DIRECTLY INTO THE DEVICE.
4. ALL RUNOFF FROM ROADS, CAR PARKS OR OTHER CONTAMINANT SOURCES MUST INCLUDE PRE-TREATMENT OF RUNOFF PRIOR TO ENTERING ROCKBORE. REFER TO GD07 AND DRAWING GD07_11 FOR PRE-TREATMENT OPTIONS AND EXAMPLES.
5. LEAF TRAP TO BE INSTALLED IN ROOF GUTTERS.

PLOT DATE 23/6/2021 11:05 am U:\C00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_02.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS

REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_02.DWG

AUCKLAND COUNCIL

**TYPICAL ROCKBORE
FOR FRACTURED ROCK (PLAN)**

ENVIRONMENTAL-SW

ORIGINAL SCALE A3
SCALE: N.T.S.

DRAWING SET SHEET

GD07 1 OF 1

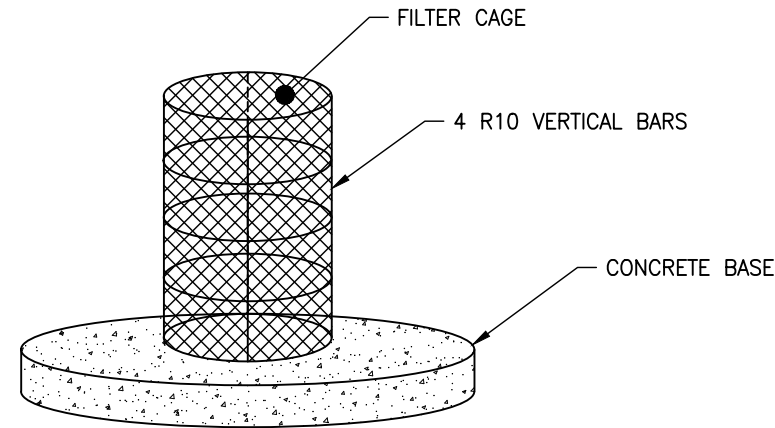
DRAWING No. REV

GD07_02 0

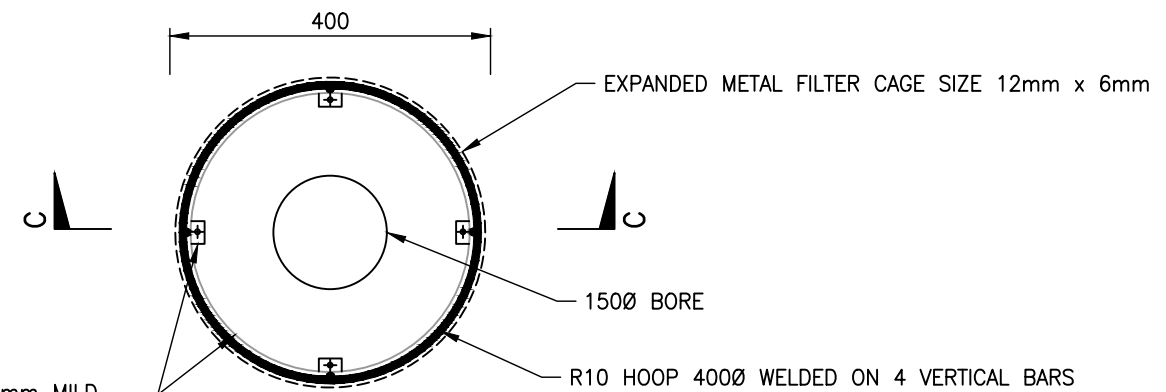


NOTES:

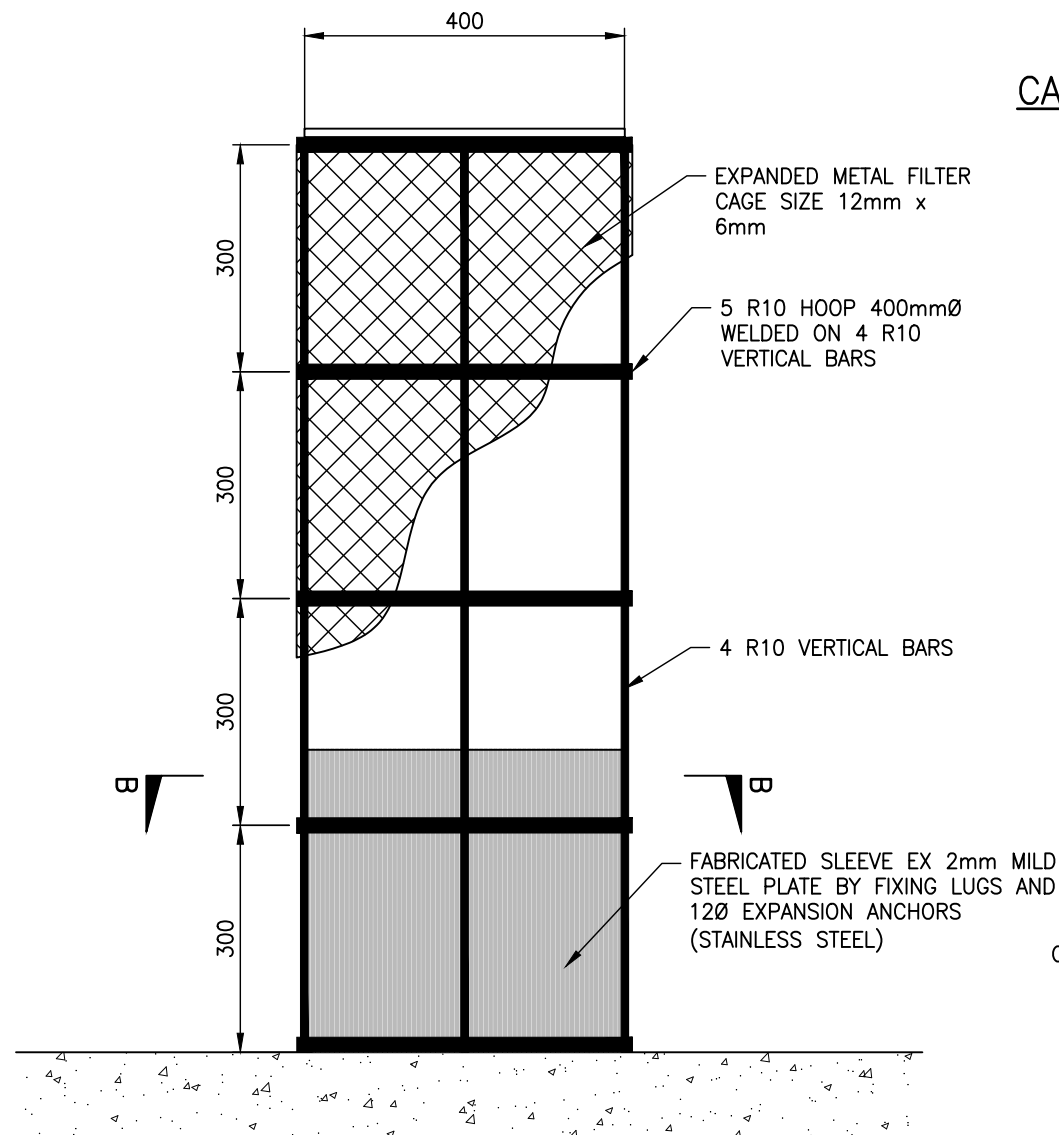
1. HOT DIP GALVANISE WHOLE CAGE AND SLEEVE AFTER FABRICATION. (APPROXIMATE WEIGHT OF WHOLE CAGE 16 TO 18kg)
2. RETROFIT TO EXISTING ROCKBORE: CAGE HEIGHT = MANHOLE DEPTH - 1.0m. MINIMUM CAGE HEIGHT TO BE 1.0m.



CAGE 3D VIEW

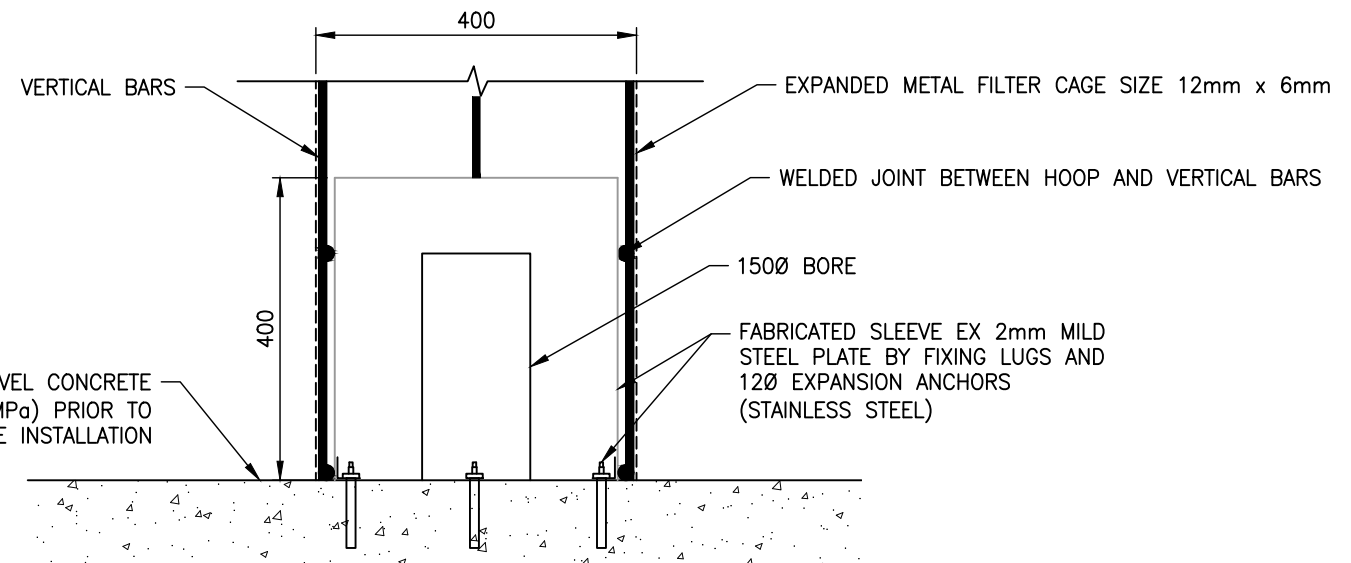


SECTION B-B



ELEVATION

FABRICATED SLEEVE EX 2mm MILD STEEL PLATE BY FIXING LUGS AND 12Ø EXPANSION ANCHORS (STAINLESS STEEL)



SECTION C-C

PLOT DATE 23/6/2021 11:05 am U:\G00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_03.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS

REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_03.DWG

AUCKLAND COUNCIL
TYPICAL ROCKBORE FILTER CAGE (DETAILS)
FOR FRACTURED ROCK

ENVIRONMENTAL-SW



ORIGINAL SCALE A3
SCALE: N.T.S.

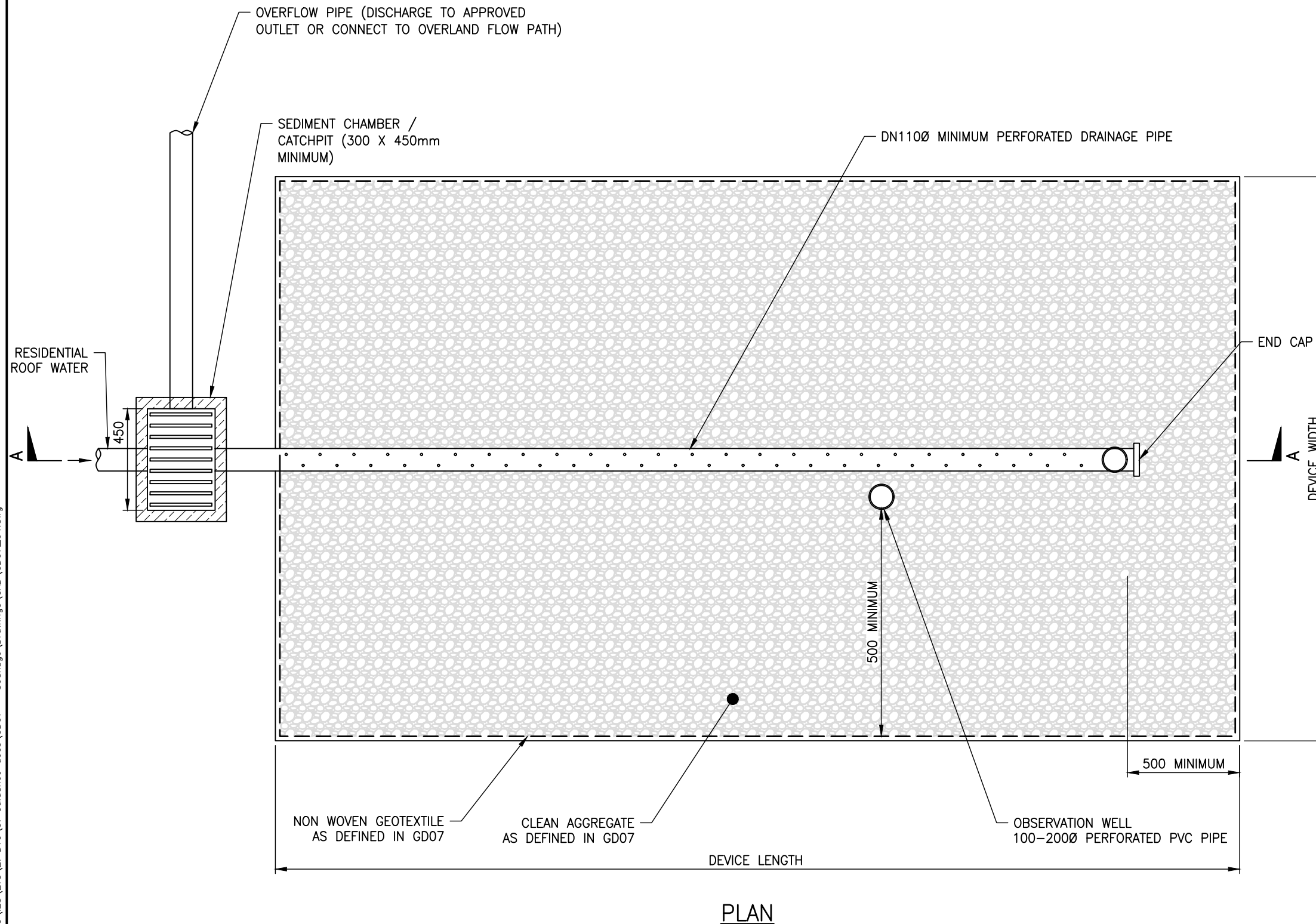
DRAWING SET SHEET

GD07 1 OF 1

DRAWING No. REV

GD07_03 0

PLOT DATE 23/6/2021 11:05 am U:\C00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_04.dwg



NOTES:

1. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED).
2. PRIVATE SW CONNECTION PIPES LAID WITH < 600mm COVER REQUIRE CONCRETE PROTECTION.
3. MANHOLE INSTALLATION AND SW CONNECTION TO THE PUBLIC SYSTEM AS PER THE RELEVANT PARTS OF THE AT/AC CODE.
4. LEAF TRAP TO BE INSTALLED IN ROOF GUTTERS.
5. ALL AGGREGATE INTERFACES TO BE LINED WITH NON WOVEN GEOTEXTILE.
6. DEVICE SHALL BE SIZED AND SPECIFIED AS PER GD2020/007.
7. ALL RESIDENTIAL ROOF WATER SHALL DISCHARGE TO SEDIMENT CHAMBER CATCHPIT AND NOT DIRECTLY TO THE DEVICE.
8. ALL RUNOFF FROM ROADS, CAR PARKS OR OTHER CONTAMINANT SOURCES MUST INCLUDE PRE-TREATMENT OF RUNOFF PRIOR TO ENTERING STORMWATER SOAKPIT. REFER TO GD07 AND DRAWING GD07_11 FOR PRE-TREATMENT OPTIONS AND EXAMPLES.
9. SETBACK REQUIREMENTS
 - BUILDINGS AND PROPERTY BOUNDARIES:
 - A SETBACK DISTANCE OF 3m IS RECOMMENDED FOR BUILDINGS AND PROPERTY BOUNDARIES. SPECIFIC GEOTECHNICAL DESIGN WILL BE REQUIRED WHERE THE DEVICE MAY AFFECT ADJACENT STRUCTURES (SUBJECT TO COUNCIL APPROVAL).
 - WHERE THIS IS NOT PRACTICALLY POSSIBLE A SITE-SPECIFIC GEOTECHNICAL DESIGN MUST BE COMPLETED TAKING INTO ACCOUNT THE EFFECTS OF THE SOAKAGE DEVICE ON BUILDING FOUNDATIONS AND POTENTIAL FOR FLOODING OF NEIGHBOURING PROPERTIES. THIS MUST BE DONE BY A CHARTERED GEOTECHNICAL ENGINEER OR A PROFESSIONAL ENGINEERING GEOLOGIST.
 - DEVICES SHALL NOT BE PLACED BELOW BUILDINGS AND BUILDINGS SHALL NOT BE BUILT OVER SOAKAGE DEVICES.
 - RETAINING WALLS:
 - FOR WALLS < 2m HIGH:
 1. THE SETBACK MUST NOT BE LESS THAN THE HEIGHT OF THE RETAINING WALL + 1.5m.
 2. WHERE THE SOAKAGE DEVICE IS LESS THAN 10m UP-SLOPE OF THE WALL, THEN THE WALL MUST HAVE BEEN DESIGNED TO TAKE FULL WATER LOADING AND THE BASE OF THE SOAKAGE DEVICE SHOULD, WHERE POSSIBLE, BE AT AN ELEVATION BELOW THE TOE OF THE WALL.
 - FOR WALLS > 2m HIGH WITHIN 10m OF A SOAKAGE DEVICE, A SITE-SPECIFIC DESIGN MUST BE CARRIED OUT BY A GEOTECHNICAL ENGINEER, CONSIDERING RELEVANT GEOTECHNICAL ISSUES AND CUT-OFF DRAINAGE OF THE RETAINING WALL.
 - UNDERGROUND INFRASTRUCTURE:
 - A SETBACK DISTANCE OF 2m IS REQUIRED FROM ANY EXISTING WATER AND WASTEWATER PIPES.
10. PIPE EMBEDMENT DETAILS FOR PRIVATE DRAINAGE SHALL COMPLY WITH BUILDING CODE AS PER NZS 7643.
11. PIPE EMBEDMENT DETAILS FOR THE PUBLIC DRAINAGE SHALL COMPLY WITH STORMWATER CODE OF PRACTICE (SWCOP) DRAWINGS.
12. OBSERVATION WELL LOCATION IS INDICATIVE ONLY. MINIMUM OFFSET OF 500mm REQUIRED BETWEEN WELL EDGE AND DEVICE EDGE.

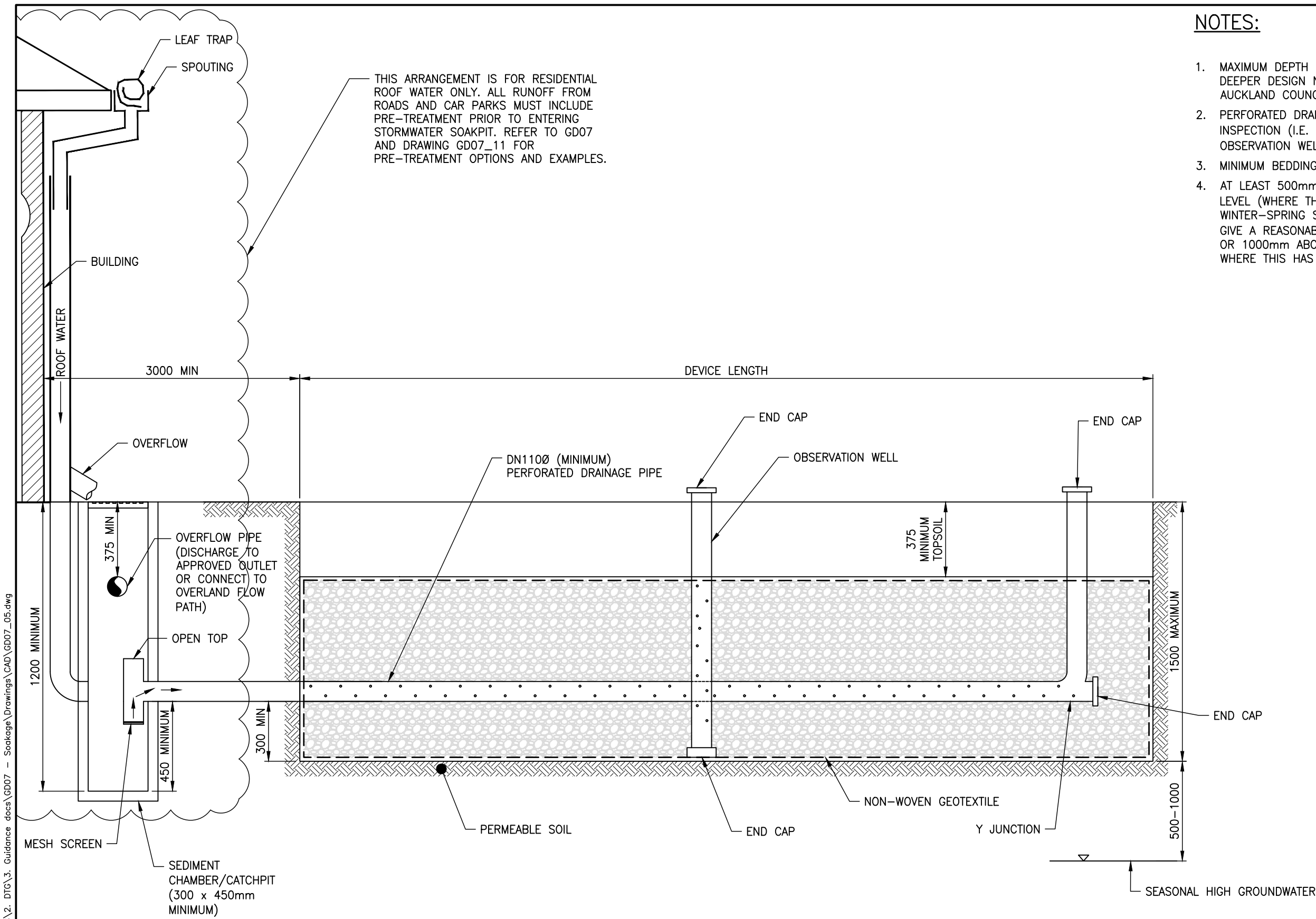
SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_04.DWG

AUCKLAND COUNCIL
TYPICAL STORMWATER SOAKPIT (PLAN)
FOR PERMEABLE SOIL

ENVIRONMENTAL-SW	ORIGINAL SCALE SCALE: N.T.S.	A3
	DRAWING SET GD07	SHEET 1 OF 1
	DRAWING No. GD07_04	REV 0

NOTES:

1. MAXIMUM DEPTH OF DEVICE IS 1500mm FROM SURFACE. ANY DEEPER DESIGN NEEDS A SPECIFIC DESIGN AND IS SUBJECT TO AUCKLAND COUNCIL APPROVAL.
2. PERFORATED DRAINAGE PIPE SHALL BE ACCESSIBLE FOR INSPECTION (I.E. CCTV) AND MAINTENANCE (I.E. WATER JET) VIA OBSERVATION WELL OR UPSTREAM SEDIMENT CHAMBER/CATCHPIT.
3. MINIMUM BEDDING DEPTH FOR DRAINAGE PIPE IS 300mm.
4. AT LEAST 500mm ABOVE THE SEASONAL HIGH GROUNDWATER LEVEL (WHERE THIS HAS BEEN MENTIONED OVER A FULL WINTER-SPRING SEASON WITH A PIEZOMETER OR SIMILAR TO GIVE A REASONABLE MEASUREMENT OF SEASONAL HIGH LEVEL) OR 1000mm ABOVE SEASONAL HIGH GROUNDWATER LEVEL WHERE THIS HAS NOT BEEN UNDERTAKEN.



THIS ARRANGEMENT IS FOR RESIDENTIAL ROOF WATER ONLY. ALL RUNOFF FROM ROADS AND CAR PARKS MUST INCLUDE PRE-TREATMENT PRIOR TO ENTERING STORMWATER SOAKPIT. REFER TO GD07 AND DRAWING GD07_11 FOR PRE-TREATMENT OPTIONS AND EXAMPLES.

SECTION A-A

PLOT DATE 23/6/2021 11:05 am U:\C00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_05.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_05.DWG

AUCKLAND COUNCIL
TYPICAL STORMWATER SOAKPIT (SECTION)
FOR PERMEABLE SOIL

ENVIRONMENTAL-SW	ORIGINAL SCALE	A3
	SCALE: N.T.S.	
Auckland Council <small>Te Kaitiaki o Tāmaki Makaurau</small>	DRAWING SET	SHEET
	GD07	1 OF 1
	DRAWING No.	REV
	GD07_05	0

NOTES:

1. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED).
2. PRIVATE SW CONNECTION PIPES LAID WITH < 600mm COVER REQUIRE CONCRETE PROTECTION.
3. MANHOLE INSTALLATION AND SW CONNECTION TO THE PUBLIC SYSTEM AS PER THE RELEVANT PARTS OF THE AT/AC CODE.
4. LEAF TRAP TO BE INSTALLED IN ROOF GUTTERS.
5. ALL AGGREGATE INTERFACES TO BE LINED WITH NON WOVEN GEOTEXTILE.
6. 200 Holes in MH Chamber to be drilled at 300mm HORIZONTAL SPACING AND 150mm VERTICAL SPACING.
7. DEVICE SHALL BE SIZED AND SPECIFIED AS PER GD2020/007.
8. ALL RESIDENTIAL ROOF WATER SHALL DISCHARGE TO SEDIMENT CHAMBER/CATCHPIT AND NOT DIRECTLY TO THE DEVICE.
9. ALL RUNOFF FROM ROADS, CAR PARKS OR OTHER CONTAMINANT SOURCES MUST INCLUDE PRE-TREATMENT OF RUNOFF PRIOR TO ENTERING STORMWATER SOAKPIT. REFER TO GD07 AND DRAWING GD07_11 FOR PRE-TREATMENT OPTIONS AND EXAMPLES.
10. SETBACK REQUIREMENTS

BUILDINGS AND PROPERTY BOUNDARIES:

- A SETBACK DISTANCE OF 3m IS RECOMMENDED FOR BUILDINGS AND PROPERTY BOUNDARIES. SPECIFIC GEOTECHNICAL DESIGN WILL BE REQUIRED WHERE THE DEVICE MAY AFFECT ADJACENT STRUCTURES (SUBJECT TO COUNCIL APPROVAL).
- WHERE THIS IS NOT PRACTICALLY POSSIBLE A SITE-SPECIFIC GEOTECHNICAL DESIGN MUST BE COMPLETED TAKING INTO ACCOUNT THE EFFECTS OF THE SOAKAGE DEVICE ON BUILDING FOUNDATIONS AND POTENTIAL FOR FLOODING OF NEIGHBOURING PROPERTIES. THIS MUST BE DONE BY A CHARTERED GEOTECHNICAL ENGINEER OR A PROFESSIONAL ENGINEERING GEOLOGIST.
- DEVICES SHALL NOT BE PLACED BELOW BUILDINGS AND BUILDINGS SHALL NOT BE BUILT OVER SOAKAGE DEVICES.

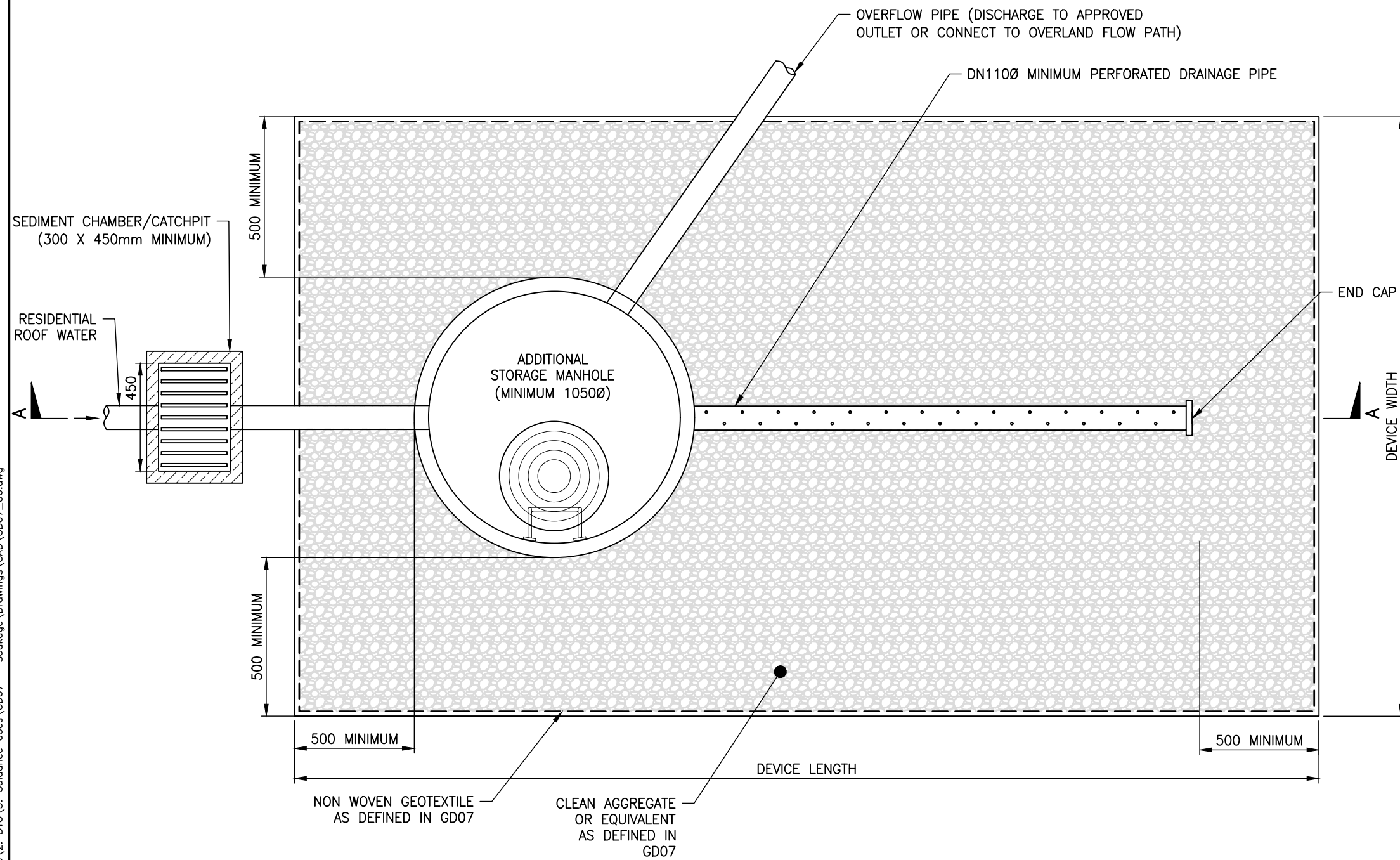
RETAINING WALLS:

- FOR WALLS < 2m HIGH:
 1. THE SETBACK MUST NOT BE LESS THAN THE HEIGHT OF THE RETAINING WALL + 1.5m
 2. WHERE THE SOAKAGE DEVICE IS LESS THAN 10m UP-SLOPE OF THE WALL, THEN THE WALL MUST HAVE BEEN DESIGNED TO TAKE FULL WATER LOADING AND THE BASE OF THE SOAKAGE DEVICE SHOULD, WHERE POSSIBLE, BE AT AN ELEVATION BELOW THE TOE OF THE WALL.
- FOR WALLS > 2m, A SITE SPECIFIC DESIGN MUST BE CARRIED OUT BY A GEOTECHNICAL ENGINEER, CONSIDERING RELEVANT GEOTECHNICAL ISSUES AND CUT-OFF DRAINAGE OF THE RETAINING WALL.

UNDERGROUND INFRASTRUCTURE:

- A SETBACK DISTANCE OF 2m IS REQUIRED FROM ANY EXISTING WATER AND WASTEWATER PIPES.

11. PIPE EMBEDMENT DETAILS FOR PRIVATE DRAINAGE SHALL COMPLY WITH BUILDING CODE AS PER NZS 7643.
12. PIPE EMBEDMENT DETAILS FOR THE PUBLIC DRAINAGE SHALL COMPLY WITH STORMWATER CODE OF PRACTICE (SWCOP) DRAWINGS.



PLAN


PLOT DATE 23/6/2021 11:06 am U:\C00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_06.dwg

SOAKAGE GUIDELINE DOCUMENT STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_06.DWG

AUCKLAND COUNCIL

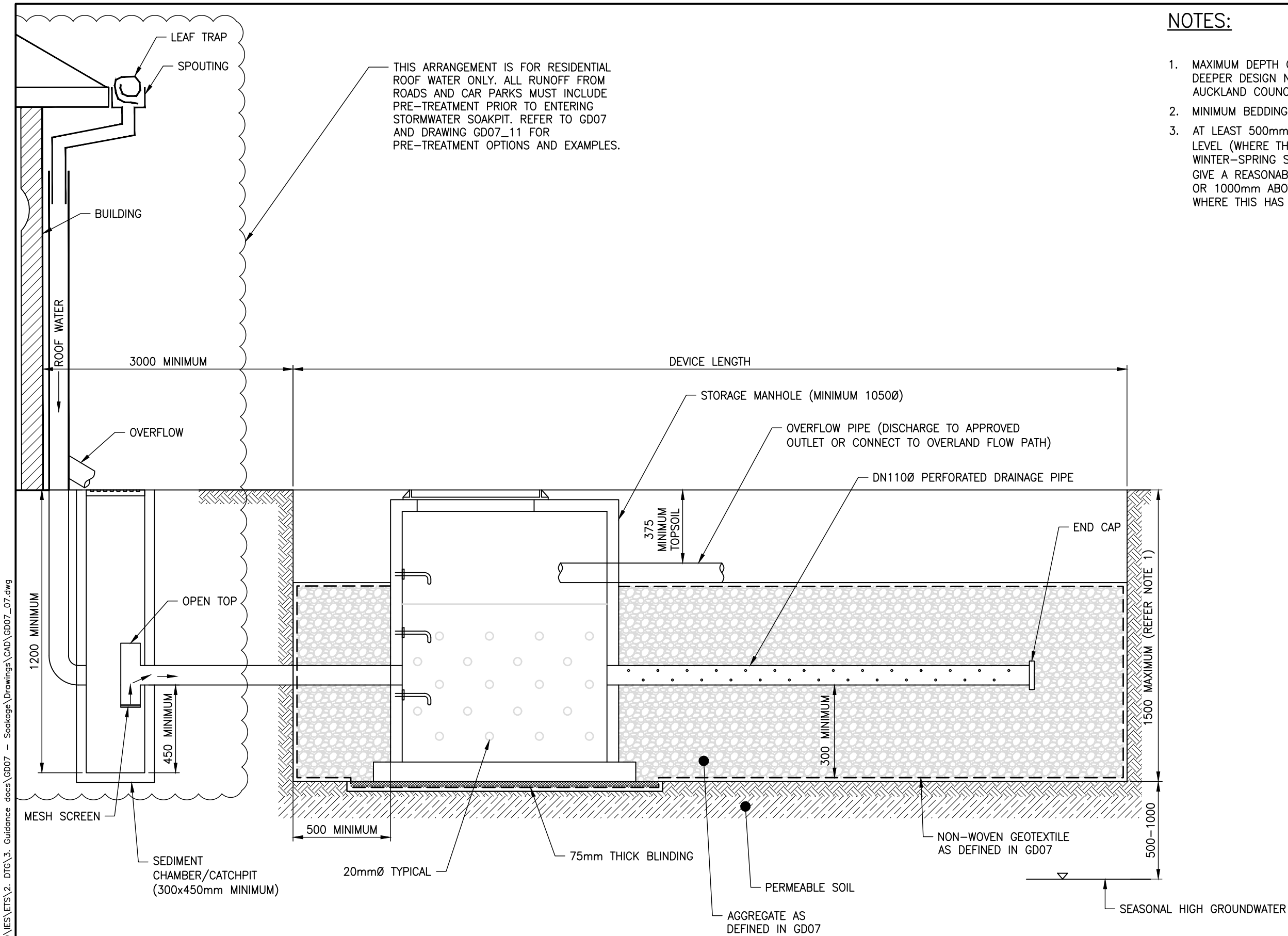
TYPICAL STORMWATER SOAKPIT WITH STORAGE MANHOLE (PLAN)

FOR PERMEABLE SOIL

	ENVIRONMENTAL-SW	ORIGINAL SCALE SCALE: N.T.S.	A3
	DRAWING SET GD07	SHEET 1 OF 1	
	DRAWING No. GD07_06	REV 0	

NOTES:

1. MAXIMUM DEPTH OF DEVICE IS 1500mm FROM SURFACE. ANY DEEPER DESIGN NEEDS A SPECIFIC DESIGN AND IS SUBJECT TO AUCKLAND COUNCIL APPROVAL.
2. MINIMUM BEDDING DEPTH FOR THE DRAINAGE PIPE IS 300mm.
3. AT LEAST 500mm ABOVE THE SEASONAL HIGH GROUNDWATER LEVEL (WHERE THIS HAS BEEN MENTIONED OVER A FULL WINTER-SPRING SEASON WITH A PIEZOMETER OR SIMILAR TO GIVE A REASONABLE MEASUREMENT OF SEASONAL HIGH LEVEL) OR 1000mm ABOVE SEASONAL HIGH GROUNDWATER LEVEL WHERE THIS HAS NOT BEEN UNDERTAKEN.




SECTION A-A

PLOT DATE 23/6/2021 11:06 am U:\G00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_07.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_07.DWG

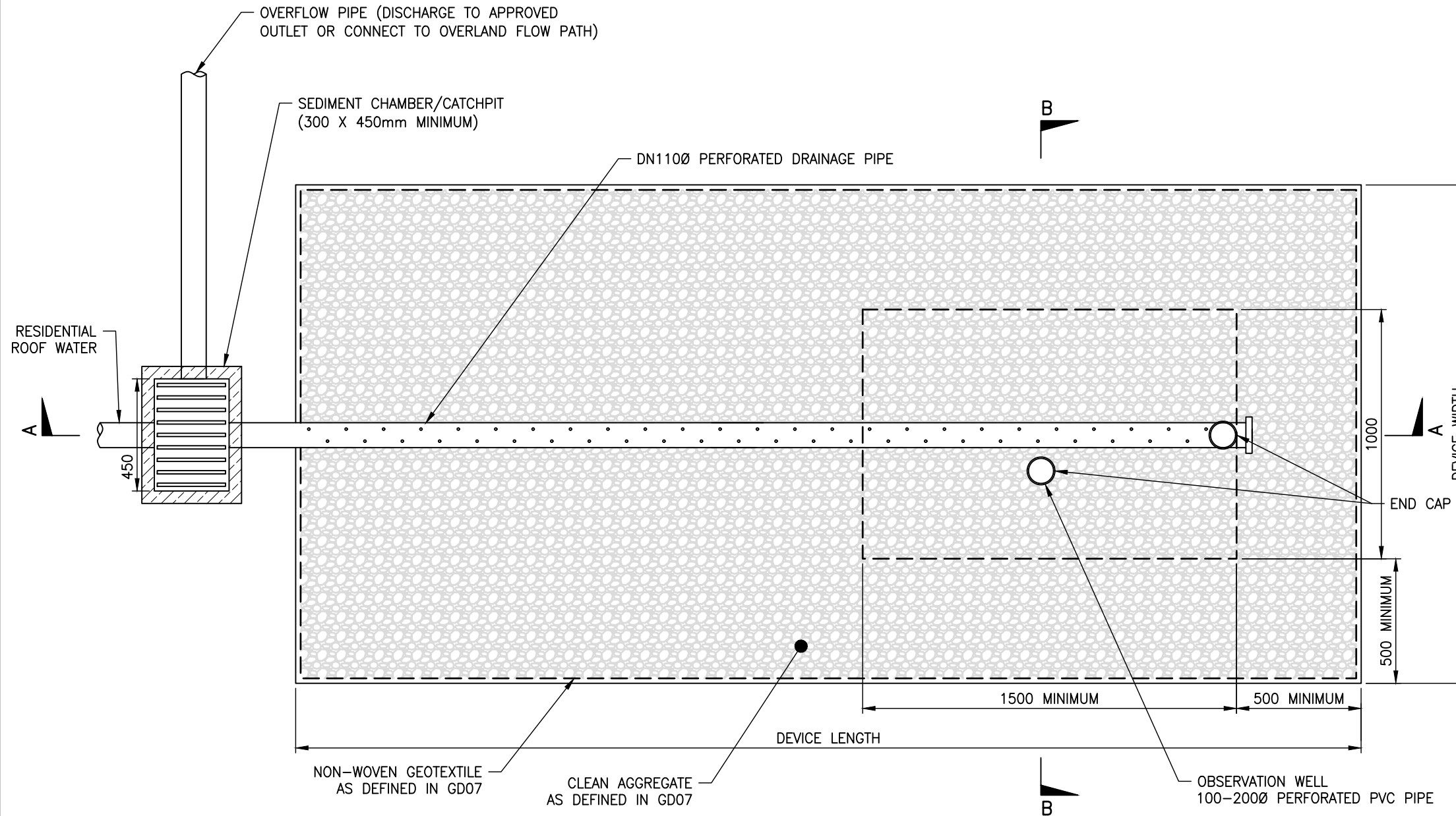
AUCKLAND COUNCIL

**TYPICAL STORMWATER SOAKPIT WITH ADDITIONAL STORAGE MANHOLE (SECTION)
FOR PERMEABLE SOIL**

	ENVIRONMENTAL-SW	ORIGINAL SCALE SCALE: N.T.S.	A3
	DRAWING SET	SHEET	
	GD07	1 OF 1	
	DRAWING No.	REV	
	GD07_07	0	

NOTES:

1. ALL DIMENSIONS ARE IN mm (UNLESS OTHERWISE SPECIFIED).
2. PRIVATE SW CONNECTION PIPES LAID WITH < 600mm COVER REQUIRE CONCRETE PROTECTION.
3. MANHOLE INSTALLATION AND SW CONNECTION TO THE PUBLIC SYSTEM AS PER THE RELEVANT PARTS OF THE AT/AC CODE.
4. LEAF TRAP TO BE INSTALLED IN ROOF GUTTERS.
5. ALL AGGREGATE INTERFACES TO BE LINED WITH NON WOVEN GEOTEXTILE.
6. DEVICE SHALL BE SIZED AND SPECIFIED AS PER GD2020/007.
7. ALL RESIDENTIAL ROOF WATER SHALL DISCHARGE TO SEDIMENT CHAMBER/CATCHPIT AND NOT DIRECTLY TO THE DEVICE.
8. ALL RUNOFF FROM ROADS, CAR PARKS OR OTHER CONTAMINANT SOURCES MUST INCLUDE PRE-TREATMENT OF RUNOFF PRIOR TO ENTERING GROUNDWATER RECHARGE PIT. REFER TO GD07 AND DRAWING GD07_11 FOR PRE-TREATMENT OPTIONS AND EXAMPLES.
9. SETBACK REQUIREMENTS
BUILDINGS AND PROPERTY BOUNDARIES:
 - A SETBACK DISTANCE OF 3m IS RECOMMENDED FOR BUILDINGS AND PROPERTY BOUNDARIES. SPECIFIC GEOTECHNICAL DESIGN WILL BE REQUIRED WHERE THE DEVICE MAY AFFECT ADJACENT STRUCTURES (SUBJECT TO COUNCIL APPROVAL).
 - WHERE THIS IS NOT PRACTICALLY POSSIBLE A SITE-SPECIFIC GEOTECHNICAL DESIGN MUST BE COMPLETED TAKING INTO ACCOUNT THE EFFECTS OF THE SOAKAGE DEVICE ON BUILDING FOUNDATIONS AND POTENTIAL FOR FLOODING OF NEIGHBOURING PROPERTIES. THIS MUST BE DONE BY A CHARTERED GEOTECHNICAL ENGINEER OR A PROFESSIONAL ENGINEERING GEOLOGIST.
 - DEVICES SHALL NOT BE PLACED BELOW BUILDINGS AND BUILDINGS SHALL NOT BE BUILT OVER SOAKAGE DEVICES.
- RETAINING WALLS:
 - FOR WALLS < 2m HIGH, THE SETBACK MUST NOT BE LESS THAN THE HEIGHT OF THE RETAINING WALL + 1.5m AND WHERE THE SOAKAGE DEVICE IS UP-SLOPE OF THE WALL THEN THE WALL MUST HAVE BEEN DESIGNED TO TAKE FULL WATER LOADING.
 - FOR WALLS > 2m, A SITE-SPECIFIC DESIGN MUST BE CARRIED OUT BY A GEOTECHNICAL ENGINEER, CONSIDERING RELEVANT GEOTECHNICAL ISSUES AND CUT-OFF DRAINAGE OF THE RETAINING WALL.
- UNDERGROUND INFRASTRUCTURE:
 - A SETBACK DISTANCE OF 2m IS REQUIRED FROM ANY EXISTING WATER AND WASTEWATER PIPES.
10. PIPE EMBEDMENT DETAILS FOR PRIVATE DRAINAGE SHALL COMPLY WITH BUILDING CODE AS PER NZS 7643.
11. PIPE EMBEDMENT DETAILS FOR THE PUBLIC DRAINAGE SHALL COMPLY WITH STORMWATER CODE OF PRACTICE (SWCOP) DRAWINGS.




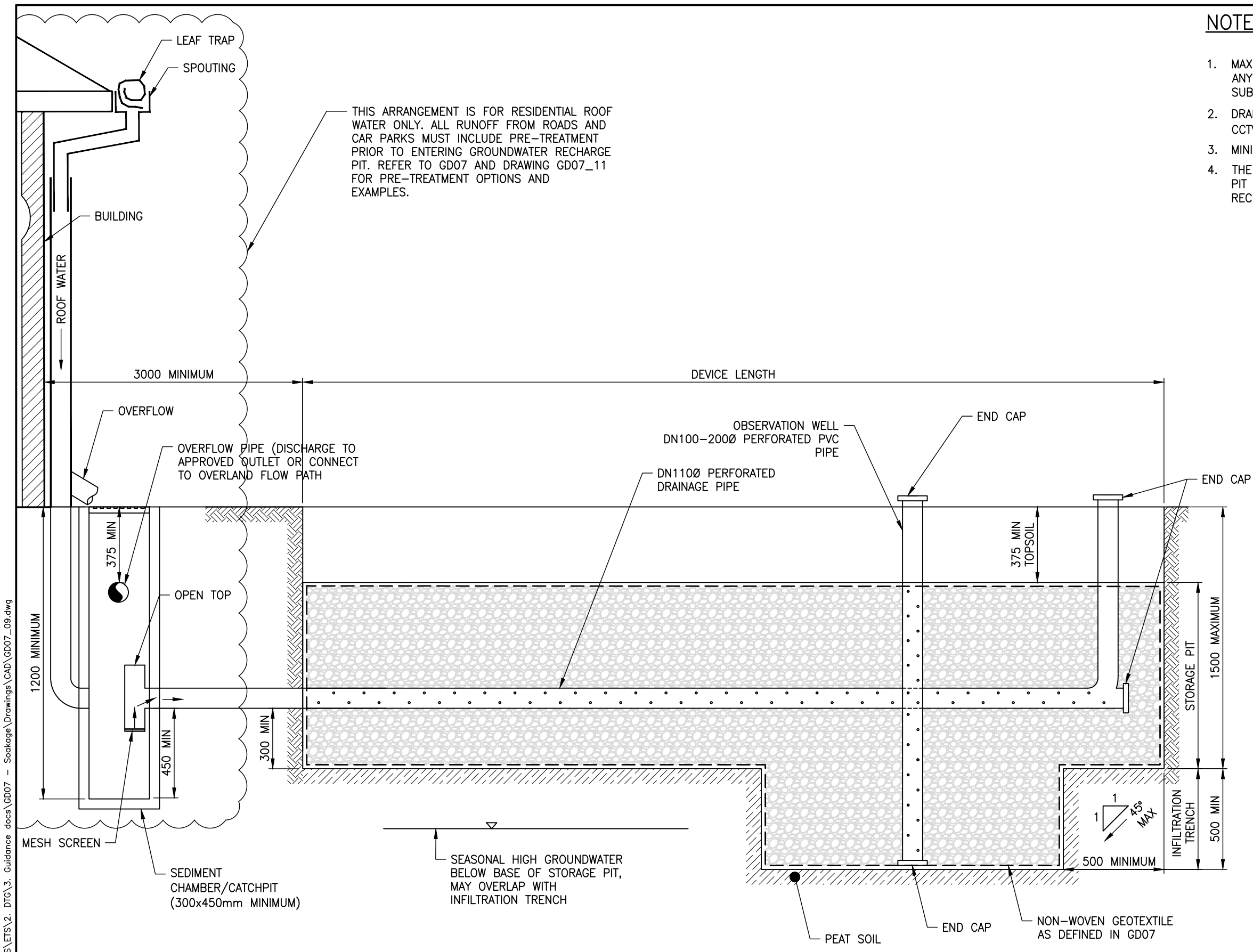
PLAN

PLOT DATE 23/6/2021 11:06 am U:\C00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_08.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_08.DWG

AUCKLAND COUNCIL
TYPICAL GROUNDWATER RECHARGE SOAKPIT (PLAN)
FOR PEAT SOIL

ENVIRONMENTAL-SW		ORIGINAL SCALE SCALE: N.T.S.	A3
		DRAWING SET	SHEET
		GD07	1 OF 1
DRAWING No.		REV	
GD07_08			0



THIS ARRANGEMENT IS FOR RESIDENTIAL ROOF WATER ONLY. ALL RUNOFF FROM ROADS AND CAR PARKS MUST INCLUDE PRE-TREATMENT PRIOR TO ENTERING GROUNDWATER RECHARGE PIT. REFER TO GD07 AND DRAWING GD07_11 FOR PRE-TREATMENT OPTIONS AND EXAMPLES.

NOTES:

1. MAXIMUM DEPTH OF STORAGE PIT IS 1500mm FROM SURFACE. ANY DEEPER DESIGN NEEDS A SPECIFIC DESIGN AND IS SUBJECT TO AUCKLAND COUNCIL APPROVAL.
2. DRAINAGE PIPE SHALL BE ACCESSIBLE FOR INSPECTION (I.E. CCTV) AND MAINTENANCE (I.E. WATER JET).
3. MINIMUM BEDDING DEPTH FOR DRAINAGE PIPE IS 300mm.
4. THE OFFSET FROM STORAGE PIT TO GROUNDWATER RECHARGE PIT SHALL BE 500mm MINIMUM. THE DEPTH OF GROUNDWATER RECHARGE PIT SHALL BE THE SAME DIMENSION.

SECTION A-A


PLOT DATE 23/6/2021 11:06 am U:\C00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_09.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_09.DWG

AUCKLAND COUNCIL

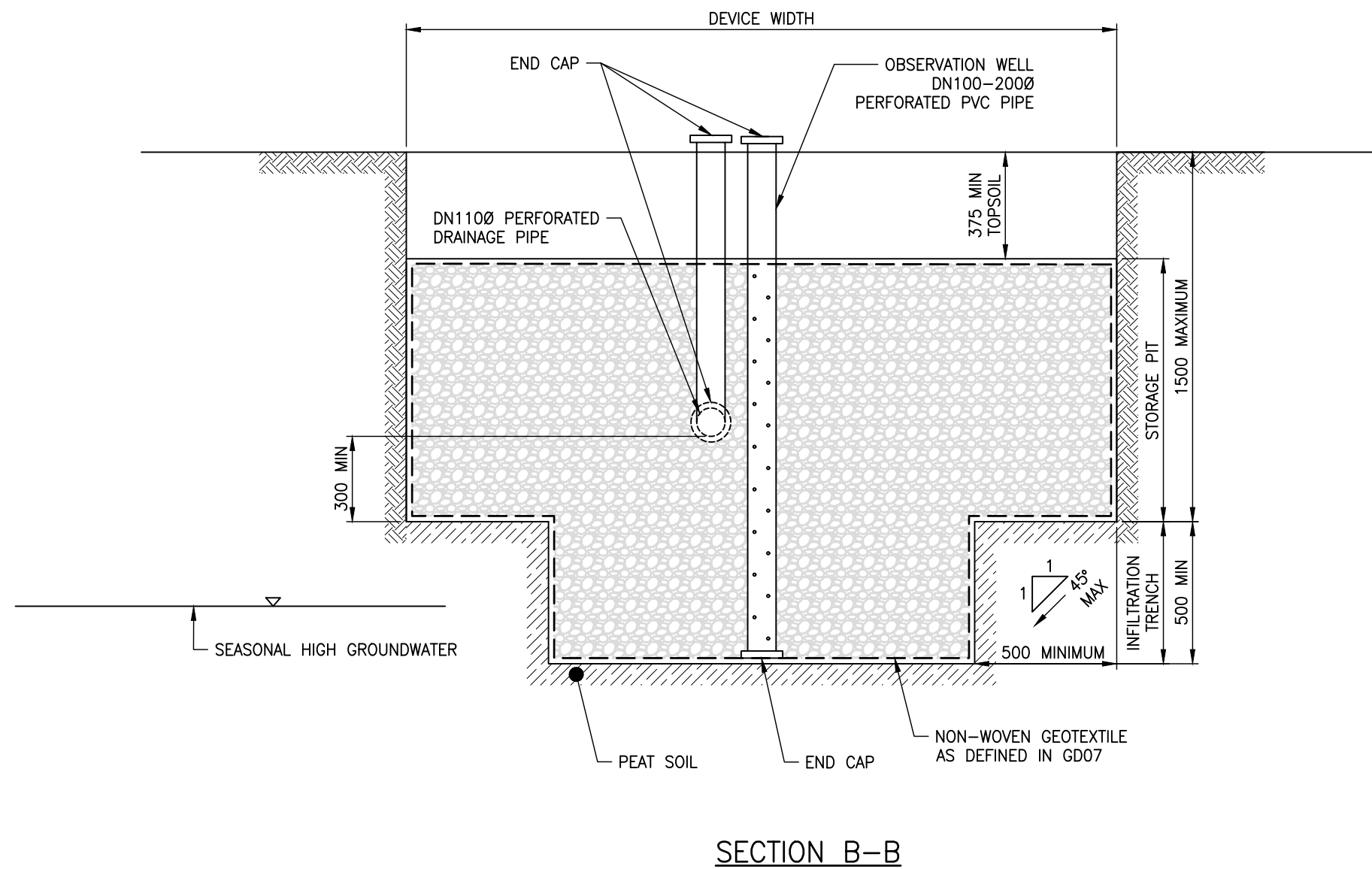
TYPICAL GROUNDWATER RECHARGE SOAKPIT (SECTION)

FOR PEAT SOIL

ENVIRONMENTAL-SW 	ORIGINAL SCALE	A3
	SCALE: N.T.S.	
DRAWING SET	SHEET	
GD07	1 OF 1	
DRAWING No.	REV	
GD07_09	0	

NOTES:

1. THE OFFSET FROM STORAGE PIT TO GROUNDWATER RECHARGE PIT SHALL BE 500mm MINIMUM. THE DEPTH OF GROUNDWATER RECHARGE PIT SHALL BE THE SAME DIMENSION.



PLOT DATE 23/6/2021 11:06 am U:\G00\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_10.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_10.DWG

AUCKLAND COUNCIL
TYPICAL GROUNDWATER RECHARGE SOAKPIT (SECTION)
FOR PEAT SOIL

ENVIRONMENTAL-SW



ORIGINAL SCALE A3
SCALE: N.T.S.

DRAWING SET SHEET

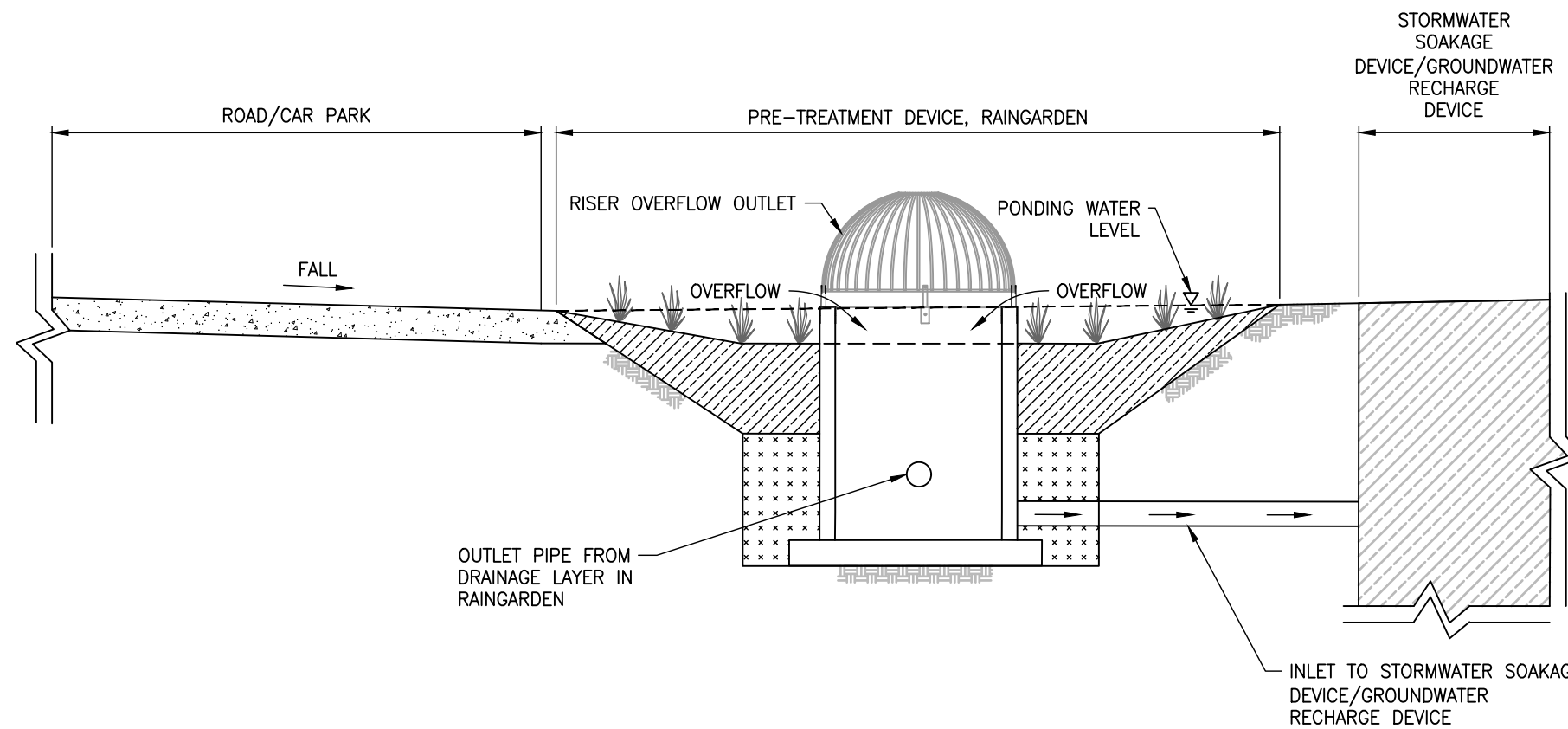
GD07 1 OF 1

DRAWING No. REV

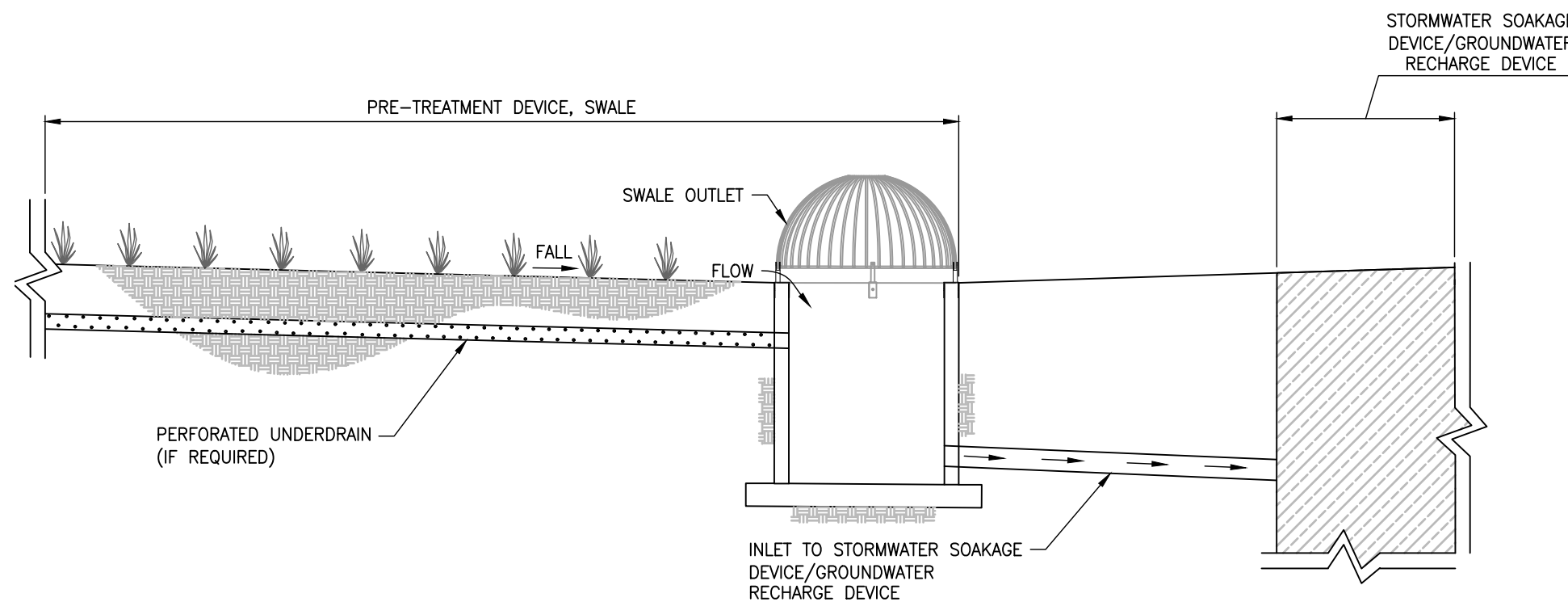
GD07_10 0

NOTES:

1. STORMWATER TREATMENT DEVICES SHALL BE SIZED AND SPECIFIED AS PER GD01.
2. REFER TO GD07 FOR OTHER PRE-TREATMENT OPTIONS.



EXAMPLE OF PRE-TREATMENT WITH RAINGARDEN




EXAMPLE OF PRE-TREATMENT WITH SWALE

PLOT DATE 23/6/2021 11:06 am U:\COO\IES\ETS\2. DTG\3. Guidance docs\GD07 - Soakage\Drawings\CAD\GD07_11.dwg

SOAKAGE GUIDELINE DOCUMENT
STANDARD DETAILS
REVISION: 0
REV DATE: 21/06/2021
CAD FILENAME: GD07_11.DWG

AUCKLAND COUNCIL

**EXAMPLES OF PRE-TREATMENT DEVICES
FOR HIGH CONTAMINANT GENERATING SOURCES (ROADS, CAR PARKS)**

ENVIRONMENTAL-SW	ORIGINAL SCALE	A3
	SCALE: N.T.S.	
	DRAWING SET	SHEET
	GD07	1 OF 1
	DRAWING No.	REV
	GD07_11	0