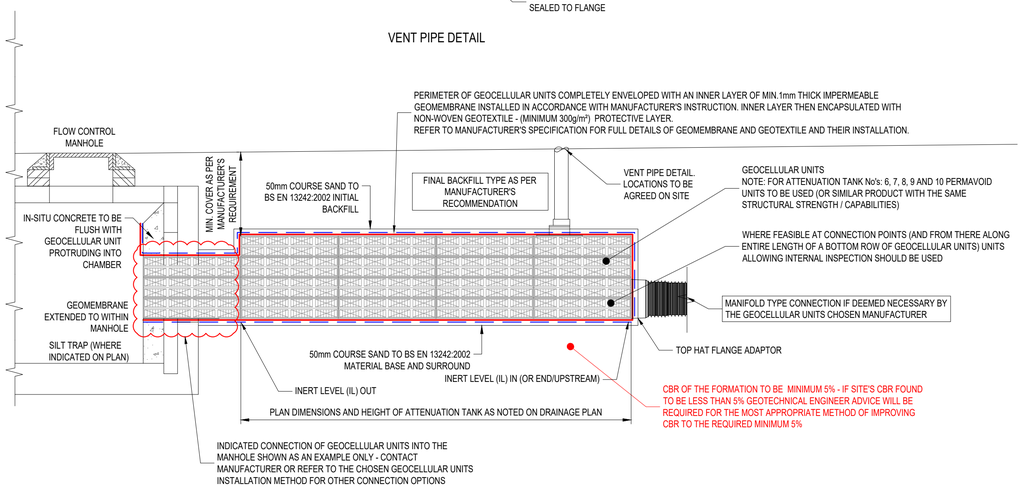
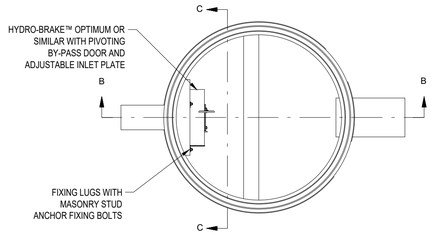


NOTES:
1. IT IS RECOMMENDED THAT ONE VENT PIPE, 110mm IN DIAMETER, IS PROVIDED PER 7,500 m² OF IMPERMEABLE CATCHMENT AREA ON A SITE.
2. ALTERNATIVE VENTING COULD BE IN A FORM OF AN AIR VENT THROUGH MANHOLE (REFER TO MANUFACTURER'S INSTALLATION METHODS).

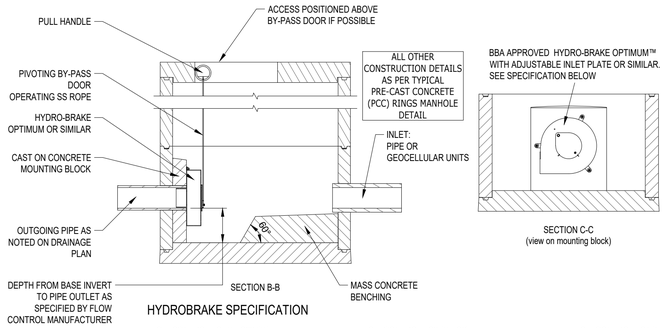
VENT PIPE DETAIL



TYPICAL SECTION THROUGH GEOCELLULAR STORAGE ATTENUATION TANK



PLAN ON FLOW CONTROL / HYDROBRAKE MANHOLES



HYDROBRAKE SPECIFICATION

FLOW CONTROL FC (MH S38-S1):
FLOW CONTROL TYPE - HYDRO-BRAKE® Optimum
FLOW CONTROL REF - MD-SHE-0089-3500-1015-3500
DESIGN HEAD - 1.015 m
DESIGN FLOW - 3.5 l/s
FLOW CONTROL IL - 33.350

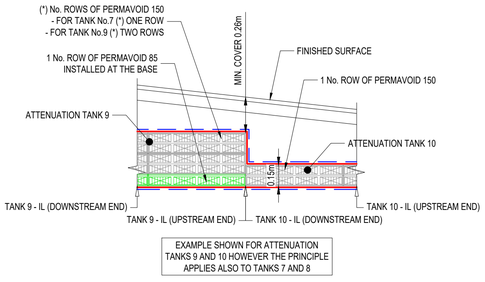
FLOW CONTROL FC1 (MH S12):
FLOW CONTROL TYPE - HYDRO-BRAKE® Optimum
FLOW CONTROL REF - MD-SHE-0093-4000-1100-4000
DESIGN HEAD - 1.1 m
DESIGN FLOW - 4.0 l/s
FLOW CONTROL IL - 32.400

FLOW CONTROL FC2 (MH S6):
FLOW CONTROL TYPE - HYDRO-BRAKE® Optimum
FLOW CONTROL REF - MD-SHE-0038-5000-0500-5000
DESIGN HEAD - 0.5 m
DESIGN FLOW - 0.5 l/s
FLOW CONTROL IL - 33.923

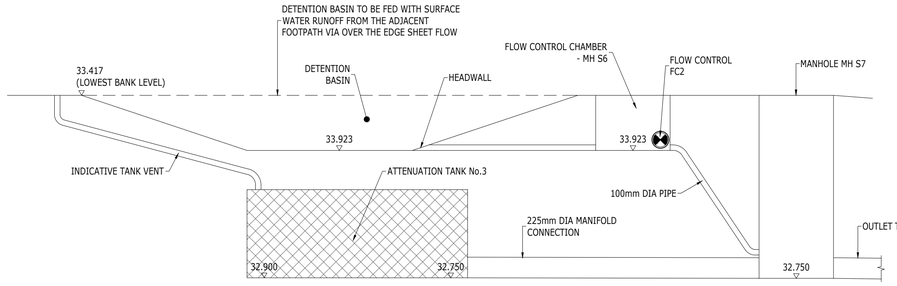
FLOW CONTROL FC3 (MH S17):
FLOW CONTROL TYPE - HYDRO-BRAKE® Optimum
FLOW CONTROL REF - MD-SHE-0117-5500-0500-5500
DESIGN HEAD - 0.5 m
DESIGN FLOW - 5.5 l/s
FLOW CONTROL IL - 34.290

FLOW CONTROL FC4 (MH S15):
FLOW CONTROL TYPE - HYDRO-BRAKE® Optimum
FLOW CONTROL REF - MD-SHE-0107-4400-0450-4400
DESIGN HEAD - 0.45 m
DESIGN FLOW - 4.4 l/s
FLOW CONTROL IL - 34.470

FLOW CONTROL MANHOLE DETAIL

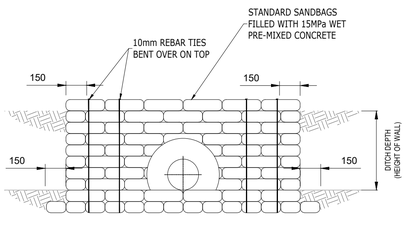


SKETCH OF STORAGE ATTENUATION TANK WITH VARYING TANK DEPTHS

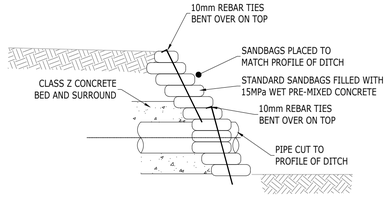


ATTENUATION TANK No.3 AND DETENTION BASIN
GENERAL ARRANGEMENT

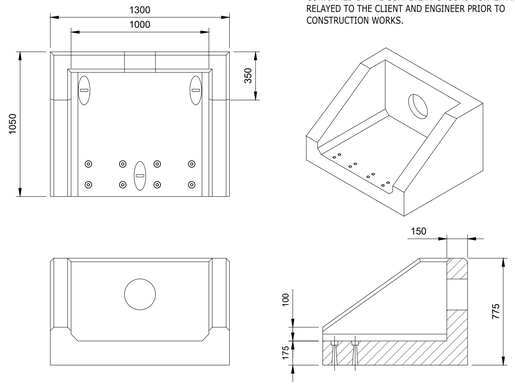
NOTES:
1. ISOMETRIC DRAWING IS FOR REFERENCE ONLY, DETAILS MAY NOT ACCURATELY REPRESENT ACTUAL DESIGN. PLEASE SEE DETAILED VIEWS FOR TECHNICAL INFORMATION
2. PLEASE REFER TO THE MANUFACTURER'S INSTALLATION GUIDE FOR ENABLING WORKS AND FULL INSTALLATION METHOD.
3. OTHER TYPE HEADWALL MIGHT BE MORE SUITABLE DEPENDING ON THE SITE CONDITIONS AND THIS SHOULD BE CONFIRMED BY THE COMPETENT GROUNDWORKER AND RELAYED TO THE CLIENT AND ENGINEER PRIOR TO CONSTRUCTION WORKS.



BAGWORK HEADWALL DETAIL
(N.T.S)



SECTION THROUGH BAGWORK HEADWALL
(N.T.S)



TYPICAL PRECAST HEADWALL DETAIL
(ALTHON RSFA 11A SHOWN)

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELATED DRAWINGS AND SPECIFICATIONS ISSUED BY THE ARCHITECT, ENGINEER, SIGMA HOMES SPECIFICATIONS AND NHBC STANDARDS.
2. IF THERE IS ANY AMBIGUITY BETWEEN THE SPECIFICATION AND THE DRAWINGS OR ANY OTHER DISCREPANCIES ARE FOUND THESE SHOULD BE REPORTED TO THE ENGINEER AND/OR CLIENT IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO THE COMMENCEMENT OF WORK.
3. ANY SOFT SPOTS TO BE REMOVED AND REPLACED WITH TYPE 1 MATERIAL OR ENGINEER APPROVED MATERIAL.
4. DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
5. WHERE GROUND CONDITIONS DICTATE CONCRETE TO BE SULPHATE RESISTANT.
6. ALL PIPES ENTERING INSPECTION CHAMBER / MANHOLE OR OTHER STRUCTURE TO INCORPORATE ROCKER PIPES MIN. 600mm LONG AND FLEXIBLE JOINTS.
7. DRAINS TO BE CONSTRUCTED UNDER DWELLINGS WITH SUSPENDED FLOOR SLABS SHOULD EITHER BE INSTALLED USING A PROPRIETARY HANGER SYSTEM WHERE "BEAM AND POT" OR SIMILAR CONSTRUCTION IS USED, OR SHOULD BE CAST INTO LOCAL SLAB THICKENING WHERE REINFORCED CONCRETE GROUND SLABS ARE TO BE POURED IN SITU.
8. PIPE LAYING IN MADE / SOFT GROUND
WHERE THE TRENCH FORMATION HAS LITTLE BEARING STRENGTH AND THEREFORE WILL NOT SUPPORT PIPE BEDDING MATERIAL EFFECTIVELY, IT IS NECESSARY TO PROVIDE A STABLE FORMATION BEFORE PIPE LAYING. SUCH CONDITIONS MOST COMMONLY OCCUR IN PEAT, SILTY GROUND, SOFT TO VERY ALLUVIAL CLAYS, RUNNING SAND OR IN ARTIFICIALLY FILLED GROUND. THE TRENCH FORMATIONS AND MANHOLE BASE SHOULD BE OVER-EXCAVATED BY 600-800MM, DEPENDING ON THE BEARING STRENGTH OF THE GROUND. GRAVEL REJECT MATERIAL OR SMALL HARDCORE, LESS THAN 75MM, IS THEN COMPACTED IN LAYERS TO FORM A FIRM TRENCH BOTTOM. A 50MM THICKNESS OF LEAN-MIX CONCRETE IS THEN PLACED AS BINDING. THE PIPE IS THEN LAID ON GRANULAR BEDDING MATERIAL. THE PIPE BEDDING CONSTRUCTION REQUIREMENTS ARE CALCULATED IN THE NORMAL WAY, BUT IT IS IMPORTANT THAT 'WIDE TRENCH' DESIGN CRITERIA ARE USED BECAUSE 'NARROW TRENCH' CONDITIONS CANNOT BE GUARANTEED IN THIS SITUATION.

Rev	Amendments	Drn	Chk	App	Date
B	VARYING DEPTH ATTENUATION TANK SKETCH ADDED, FLOW CONTROL SPEC UPDATED	AK	SW	SW	30.01.24
A	FLOW CONTROL DETAIL UPDATED	AK	SW	SW	16.10.23

ODYSSEY
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Romsey SO51 9QJ
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Job Title
SUMNERS POND, CHAPEL ROAD, BARNS GREEN, HORSHAM

Drawing Title
DRAINAGE CONSTRUCTION DETAILS - SHEET 3

Client
SIGMA HOMES

Scale	Date	Designed
N.T.S. @ A1	SEP 23	AK
Drawn	Checked	Approved
JK	SW	SW
Job No	Drawing No	Rev
23-020	23-020-503	B

P:\23-020 - Sumners Pond, Barns Green, Horsham\Tech\Acad\Drawings\23-020-501 Drainage Construction Details.dwg