



**PROPOSED TANK 01**  
 CL: VARIES (MINIMUM 198.300m)  
 IL: 196.204m  
 TOP OF TANK: 197.404  
 POLYSTORM-R  
 DEPTH: 1.2m  
 DESIGNED TO CONTAIN 116.5m³  
 POROSITY: 95%  
 INSTALLED IN ACCORDANCE WITH MANUFACTURES DETAILS.  
 PLAN AREA: 142.0m²

**PROPOSED TANK 02**  
 CL: 197.700m  
 IL: 196.204m  
 TOP OF TANK: 197.205  
 POLYSTORM-R  
 DEPTH: 800mm  
 DESIGNED TO CONTAIN 61.6m³  
 POROSITY: 95%  
 INSTALLED IN ACCORDANCE WITH MANUFACTURES DETAILS.  
 PLAN AREA: 13.5m x 6m = 81m²

**PROPOSED 3no BOX CULVERTS**  
 CL: VARIES (MINIMUM 197.100)  
 IL: 195.510m  
 TOP OF CULVERT: 196.610m  
 FPM CANN 1m x 1m CULVERT  
 DEPTH: 1000mm  
 POROSITY: 100%  
 INSTALLED IN ACCORDANCE WITH MANUFACTURES DETAILS.

**YORKSHIRE WATER NOTES:**

- ALL ADAPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH 'CODE FOR ADOPTION'. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
- MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
- FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
- YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADAPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION REGARDING THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF.
- THE ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
- SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT.
- SEWERS TO BE LAID IN CLASS 'S1' BEDDING (150mm GRANULAR BED AND SURROUND), WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES (OR LESS THAN 900mm IN NONVEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
- BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
- YORKSHIRE WATER POLICY IS THAT TYPE 'C' BRICK MANHOLES AND 1050mm DIAMETER MANHOLE RINGS ARE NOT PREFERRED. INSTEAD, IT IS PREFERRED THAT YOU USE A TYPE 'F' MANHOLE WITH 1200mm DIAMETER OR 1500mm DIAMETER RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5m.
- ADAPTABLE PLASTIC SEWER PIPES TO BE BS1 KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS EN 13476). ADAPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD REQUIRE CLAY WARE CHANNEL IN MANHOLES.
- THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 45kN/m AND 300mm DIA. 72kN/m. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE (CLASS 120 TO EN 1916/BS5911-1:2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
- WHERE A BY25 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.
- THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES, APPROX. 300mm. IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY NEED TO BE INCREASED.

THE INFORMATION ON THIS DRAWING IS FOR APPROVAL PURPOSES ONLY. NO CONSTRUCTION WORKS ARE TO BE UNDERTAKEN UNTIL WRITTEN APPROVAL IS RECEIVED FROM YORKSHIRE WATER.

- BOUNDARY KEY**
- = PROPOSED SITE BOUNDARY
- S104 DRAINAGE KEY**
- S01 = PROPOSED S104 SURFACE WATER CHAMBER
  - S02 = PROPOSED S104 SURFACE WATER SEWER
  - F01 = PROPOSED S104 FOUL WATER CHAMBER
  - F02 = PROPOSED S104 FOUL WATER SEWER
  - = PROPOSED PRIVATE SW DRAINAGE
  - = PROPOSED PRIVATE FW DRAINAGE
  - = PROPOSED SW HIGHWAY GULLY
  - DS 01 = PROPOSED SW LATERAL AND DEMARCATION CHAMBER
  - DF 01 = PROPOSED FW LATERAL AND DEMARCATION CHAMBER
  - = EXISTING SURFACE WATER DRAINAGE
  - = EXISTING FOUL WATER DRAINAGE
  - = 2.5m EASEMENT

**NOTES:**

- THESE NOTES ARE INTENDED TO AUGMENT DRAWINGS AND SPECIFICATIONS. WHERE CONFLICT OF REQUIREMENTS EXIST THE ORDER OF PRECEDENCE SHALL BE AS SHOWN IN THE SPECIFICATION. OTHERWISE THE STRICTEST PROVISION SHALL GOVERN.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS AND ARCHITECTS DRAWINGS.
- DRAWINGS NOT TO BE SCALED. ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER AND FURTHER INSTRUCTIONS OBTAINED BEFORE WORK IS COMMENCED.
- ALL LEVELS ARE AOD (ABOVE ORDNANCE DATUM) UNO.

Rev	Description	Date	By	Crk	App
P05	UPDATED EASEMENTS	24.06.26	HD	SC	--
P04	UPDATED EASEMENT	18.06.26	HD	SC	--
P03	UPDATED TO SUIT YORKSHIRE WATER COMMENTS	17.05.26	HD	SC	--
P02	MINOR UPDATES TO DRAINAGE LAYOUT	19.05.26	MJC	SC	--
P01	FIRST ISSUE	12.05.26	MJC	SC	--

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Project:	PROPOSED DEVELOPMENT AT LAND OFF WAREMILL GARDENS, PENISTONE				
Client:	MULGRAVE PROPERTY GROUP LTD				
Drawing:	SECTION 104 - DRAINAGE LAYOUT (SHEET 1)				
Role:	CIVIL ENGINEER				
Drawing Status:	FOR APPROVAL				Suitability Code: S4
Job no.:	47480	Scale@ A1:	1:200	Rev.	P05
Project:	MDL - AWP - ZZ - XX - DR - C - 3301	Originator:		Zone:	
Level:		Type:		Role:	