

**CDM REGULATIONS HEALTH AND SAFETY INFORMATION FOR THE LIFETIME OF THE DEVELOPMENT**

The hazards noted are in addition to the normal hazards and risks faced by a competent contractor when dealing with the type of works detailed on this drawing.

**CONSTRUCTION RISKS:**

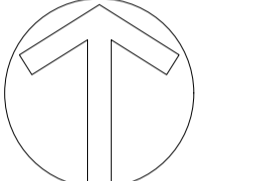
1. Confined spaces entry and hazardous waste materials / gas.
2. Deep manholes / excavations
3. Contractor to locate services prior to excavating.
4. Asbestos may be present.
5. Drainage connection requires deep excavation temp works required.
6. Existing drains to be protected and bridged over where required.
7. Works adjacent to busy road and river. Watercourse / ditch levels may rise rapidly following prolonged periods of rainfall.
8. Soft ground during construction works particularly in wet weather.

**MAINTENANCE/CLEANING RISKS:**

1. Pavement deformations to be monitored to ensure that designed pavement falls are maintained. If significant deformation is allowed to propagate then localised flooding could occur.
2. Silt traps, drainage channels, permeable pavements and inspection chambers require the standard periodic inspection regime and cleaning routine to ensure continued performance and reduce the risk of flooding.
3. Works adjacent to Watercourse / ditch. Watercourse / ditch levels will vary during heavy rainfall events.
4. Potential for soft spots within existing ground after heavy rainfall.
5. Dust and noise impacts on local community.
6. Existing live services and utilities.
7. Deep manholes / excavations - appropriate entry equipment required.
8. Soft ground during construction works particularly in wet weather.

**DEMOLITION / ADAPTION RISKS:**

1. Apparatus located in landscaped areas has not been designed to support heavy vehicle loading.
2. The surface water drainage apparatus has been designed to accommodate the designed catchment area. no additional areas of hardstanding can be connection into the system without risk of localised flooding on site.
3. Hazardous waste materials / dust and debris released into the air.
4. Deep manholes / excavations - appropriate entry equipment required.
5. Works adjacent to river. Watercourse / ditch levels will vary during heavy rainfall events.
6. Unknown ground conditions during / after heavy rainfall.
7. Soft ground during construction works particularly in wet weather.



**PRELIMINARY DRAWING:**

This drawing is for preliminary purposes only and must not be read as a construction issue.  
The design is not fixed and design changes are likely.

**Hydrobrake Flow Control**  
 CL: 27.574m  
 IL: 25.525m  
 Design Head: 2.049m  
 Max flow rate 30l/s  
 Model No: CTL-SHF-0222-3000-2049-3000  
 Designed for all storm events up to and including the 1 in 100 year event plus 45% climate change

**Permeable Paving**  
 Area 180m²  
 Depth of sub-base 0.35m  
 Porosity 0.30  
 Total Volume 18.9m³  
 Designed for all storm events up to and including the 1 in 100 year event plus 45% climate change

**Legend**

|  |   |
|--|---|
|  | Existing AW surface water drainage                        |
|  | Existing AW foul water drainage                           |
|  | Private surface water drainage                            |
|  | Private foul water drainage                               |
|  | Private permeable pavement                                |
|  | Private attenuation tank                                  |
|  | Road gully  |
|  | Rodding Eye   |
|  | Perforated pipe collector drain within permeable pavement |
|  | Raised DPC  |
|  | Underbuild  |
|  | Retaining ≤ 450mm (gravel board fences)                   |
|  | Retaining ≥ 450mm (retaining walls-details tbc)           |
|  | Timber Sleepers Max 500mm high                            |
|  | Proposed levels   |
|  | Proposed channel drains                                   |

| P1  | 28/07/23 | Preliminary | RB | PP    |
|-----|----------|-------------|----|-------|
| Rev | Date     | Description | By | Check |
|     |          |             |    |       |

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 Do not thaw layers that have been frozen.

**Client**  
Cocksedge Building Contractors

**Project**  
Barrett's Lane, Needham Market  
Suffolk  
IP68DL

**Title**  
Engineering Layout  
Sheet 4

**Scale @ A1** 1:100      **Status** Preliminary



| Date      | Job Number | By | Checked By |
|-----------|------------|----|------------|
| July 2023 | 0304       | RB | JRS        |

| Drawing No. | Revision |
|-------------|----------|
| C409        | P1       |