



SW43
CL 130.056
IL 129.006
1200Ø PCC

SW44
CL 130.520
IL 128.840
1200Ø PCC

SW42
CL 130.210
IL 128.748
1200Ø PCC

SW24
CL 130.117
IL 128.450
1200Ø PCC

450mm Ø culvert

SW25
CL 129.172
IL 127.972
1200Ø PCC

SW
CL 132.000
IL 130.950
1200Ø PCC

Ex MH2
CL 130.630
IL 127.530

SW22
CL 130.000
IL 128.652
1200Ø PCC

SW21
CL 130.001
IL 128.695
1200Ø PCC

SW20
CL 130.006
IL 128.806
1200Ø PCC

SW2
CL 129.360
IL 128.139
1200Ø PCC

SW3
CL 128.725
IL 127.154
1200Ø PCC

SW
CL 128.350bc
IL 127.499
600Ø PPIC

SW11
CL 126.700
IL 125.400
1200Ø PCC

Geo cellular attenuation tank
CL = Varies

Ex MH3
CL 130.44
IL 127.550

Ex MH6
CL 130.810
IL 129.510

SW1
CL 129.410
IL 128.285
1200Ø PCC

SW4
CL 129.550
IL 128.425
1200Ø PCC

SW
CL 129.275
IL 128.150
1200Ø PCC

SW5 (bd)
CL 129.000
IL 127.062
1200Ø PCC

SW9
CL 128.010
IL 126.885
1200Ø PCC

Existing ditch to be removed. No connections have been identified during survey, a diversion is not required. Engineer should be notified if any existing connections are identified during construction works.

Existing connection

Flat roof drainage to be confirmed

Notes

- Do not scale this drawing. All dimensions must be checked/verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in meters unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.
- This drawing should be printed and read in colour.

Design Notes

- Cover levels in line with Landscape Architect drawings ref P22009-00-01-DZ-0107 Levels Plan, received 27.11.24.
- Connection to ditch subject to Lead Local Flood Authority (LLFA), Environment Agency approval and a Land Drainage Consent.
- Proposed ditch culvert pipework sizes to be agreed with LLFA.
- Infiltration design based on infiltration rate of 6.0 x 10-7m/s - 0.00216m/hr (2.16mm/hr). It is recommended that additional testing is undertaken at soakaway formation depth prior to construction.
- Downpipe locations indicative only - to be confirmed by Architect.
- All manhole lids subject to vehicular loading to have D400 lids. All others to be S125.
- Manholes within block paved areas to have recessed lids to allow continuation of surfaces.
- Manhole/chamber access covers to be orientated in the same direction as any hard landscaping pavers/flags.

Legend

- Red line boundary
- Existing private SW drain / manhole
- Proposed diversion to existing SW drainage
- FW drain (I/D & gradient)
- SW drain (I/D & gradient)
- Perforated pipe
- Drainage channel with sump at outlet
- FW manhole / access chamber
- SW manhole / access chamber
- Hydro-Brake flow control manhole
- Headwall
- Attenuation tank
- Permeable paving
- Existing ditch / watercourse
- Culvert
- Drainage to be abandoned

Abbreviations:

- FW - foul water
SW - surface water
CW - combined water
U/S - upstream
- MH - manhole
CL - cover level
IL - invert level
I/D - internal diameter

5m SCALE 1:250

P03	07.02.25	Car park drainage amended	HW	ST
P02	03.12.24	Draft Stage 4 Issue	AW	AS
P01	26.07.24	First Issue	AW	AS
Rev	Date	Details of Issue	Drawn	Rwd

Issues & Revisions

Consultant

HEXA

Client



HENRY BROTHERS

Project Title

TWYXCROSS ZOO

Drawing Title

SURFACE WATER
DRAINAGE - SHEET 1 OF 2

Drawn By	AW	Reviewed By	AS
Hexa Ref	600902	Scale at A1	1:250

Purpose of Issue	Status
STAGE 4	S3

Project - Originator - Zone - Level - Type - Role - Number	Revision
TWZ-HEX-XX-XX-DR-C-9200	P03