Ex MH3
CL 130.44
IL 127.550

SW8a
CL 131.137
IL 129.620
600Ø Catchpit

SWD1
CL 130.350
IL 127.315
1200Ø PCC
Catchpit with 300mm sump

Rodding Eye 1
CL 131.000
IL 129.750

SW8b
CL 131.014
IL 129.570
600Ø Catchpit

Ex MH6
CL 130.810
IL 129.510
Rebuild of manhole
may be required - TBC

New pond position to be agreed
as part of planning process

SW8e
CL 129.959
IL 128.400
600Ø Catchpit

Ex MH2
CL 130.630
IL 127.530

SWD2
CL 130.000
IL 127.202
600Ø PPIC

Base of pond =
127.600
Refer to levels
layout for details

SW8f
CL 129.947
IL 128.350
600Ø Catchpit

Outfall IL 127.600m

SW8d
CL 129.930
IL 128.550 (150)
IL 128.475 (225)
600Ø Catchpit

SW8c
CL 129.900
IL 128.740
600Ø Catchpit

SW7
CL 129.965
IL 128.100
1200Ø PCC

SW5
CL 129.970
IL 128.300
1200Ø Catchpit

Rodding Eye 2
CL 129.794
IL 128.850

SWD3b
CL 129.963
IL 127.506
1200Ø PCC
Hydrobrake
Head 2.094m
Flow: 5l/s

SW8
CL 130.000
IL 128.125 (225)
IL 128.050 (300)
1200Ø PCC

150Ø 1:80

SWD3
CL 130.000
IL A 126.768
IL B 127.449
1200Ø PCC
Catchpit 300mm sump

SW6
CL 129.965
IL 128.180
1200Ø Catchpit

RWPs for orangutan
building shown indicatively
only - TBC by architect

Rodding Eye 4
CL 129.457
IL 128.000

Rodding Eye 3
CL 130.074
IL 128.800

SW24e
CL 129.794
IL 128.520 (150)
600Ø Catchpit

Proposed trees to be
moved to miss drainage

IMPORTANT NOTE
All chambers within permeable
paving to be catchpits with 300mm
sump

SW24a
CL 128.984
IL 127.500
1200Ø PCC

SW24b
CL 129.136
IL 127.400
600Ø Catchpit

SW24c
CL 129.148
IL 127.180 (150)
IL 127.105 (225)
600Ø Catchpit

Rodding Eye 5
CL 128.452
IL 127.150

SWD3a
CL 129.125
IL 126.318
1200Ø PCC

Orang building RWPs to be rodable
from above ground and where distance
between RWP to SW10 exceeds 22m the
RWP to be fitted with large access fitting
225mm x 100mm

SW12a
CL 129.313
IL 128.000
600Ø Catchpit

SW24g
CL 128.277
IL 127.000 (150)
IL 126.925 (225)
600Ø Catchpit

SW24d
CL 128.950
IL 126.780
600Ø Catchpit

Rodding Eye 6
CL 128.533
IL 127.000

SW12b
CL 128.903
IL 127.600
600Ø Catchpit

SW9
CL 128.469
IL 127.150 (150)
IL 127.000 (300)
1200Ø PCC

SW10
CL 128.730
IL 127.215
600Ø PPIC

1 MATCH LINE

SW12c
CL 127.912
IL 126.610
600Ø Catchpit

SW25a
CL 126.780
IL 125.686
600Ø PPIC

SW25B
CL 126.850
IL 125.550
600Ø PPIC

SW24i
CL 128.381
IL 126.800
600Ø Catchpit

Ex MH1
CL 127.72
IL 126.820

SW12
CL 127.792
IL 126.525 (150)
IL 126.375 (300)
1200Ø PCC

Existing ditch to be removed. No connections
have been identified during survey, a
diversion is not required.

SW24
CL 128.013
IL 126.397 (150)
IL 126.322 (225)
1200Ø PCC

SW25
CL 126.775
IL 125.400
1200Ø Catchpit

SW25d
CL 127.150
IL 125.838
1200Ø Catchpit

RE25a
CL 127.125
IL 126.166
1200Ø Catchpit

SWD5
CL 126.675
IL 125.628
600Ø PPIC
catchpit 300mm sump

SWD4
CL 126.880
IL 125.796

SWD6
CL 126.525

SW14

1 MATCH LINE

5m SCALE 1:250

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Notes

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

Design Notes

1. Cover levels in line with Landscape Architect drawings ref P22009-00-001-DZ-0107 Levels Plan, received 27.11.24.
2. Ditch connection subject to LLFA approval.
3. Downpipe locations indicative only - to be confirmed by Architect.
4. All manhole lids subject to vehicular loading to have D400 lids. All others to be B125.
5. Manholes within block paved areas to have recessed lids to allow continuation of surfaces.
6. Manhole/chamber access covers to be orientated in the same direction as any hard landscaping pavers/flags.
7. All permeable sub-bases formation levels to fall to perforated pipework

Legend

- Red line boundary
- Existing private SW drain / manhole
- Proposed diversion to existing SW drainage
- 150Ø 1:150 — FW drain (I/D & gradient)
- 150Ø 1:150 — SW drain (I/D & gradient)
- Type A Filter Drain System
- Type B Filter Drain System
- Type C Filter Drain System
- Class Z Pipe Installation
- RE ▶ Rodding Eye
- Drainage channel with sump at outlet
- FW manhole / access chamber
- SW manhole / access chamber
- H 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
D/S - downstream
mAOD - meters above Ordnance Datum
MH - manhole
CL - cover level
IL - invert level
I/D - internal diameter
BD - backdrop
EX - existing

Rev	Date	Details of Issue	Drawn	R'wd
C11	13.10.25	Minor note amendments	ST	ST
C10	10.10.25	Minor note amendments	ST	ST
C09	03.09.25	S24f and S24h removed	ST	ST
C08	21.08.25	Updates in clouded areas	ST	ST
C07	13.08.25	ACO specs added	ST	ST
C06	21.07.25	Updates in clouded areas	ST	ST
C05	14.07.25	Updates in clouded areas	KJ	ST
C04	11.07.25	Updates in clouded areas	KJ	ST
C03	03.07.25	Construction Issue - changes made in clouded areas	KJ	ST
C02	29.06.25	Preliminary construction - some items still outstanding	ST	ST
C01	23.06.25	First construction issue - diversion works only	ST	ST
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

Issues & Revisions

Consultant

HEXA

Client

HENRY BROTHERS

Project Title

TWYCROSS 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: STAGE 5 — Status: A

Project - Originator - Zone - Level - Type - Role - Number: TWZ-HEX-XX-XX-DR-C-9200 — Revision: C11