A1

N

Area under planting/construction

Existing cold store and planting enclosure temporarily reduced in size during construction phase to provide space to build Welfare building.

Drainage trench along this length to be wrapped in Terram Rootguard

E.G.L. 53.000

Exposed pipe protruding from ground. No formal headwall constructed.

Proposed Klargester BioDisc BF packaged foul water treatment plant. Size of unit = 4.345 x 2.45m. Allow for neccessary builder's work associated with installation of unit.

Allowance to be made for existing drainage for whole site to be surveyed and traced by a CCTV contractor to establish exact location and the possibility to re-use to minimise disruption to existing vegetation.

Proposed Staff Welfare Building F.F.L. 54.689

Existing Leightweight Planting Enclosure F.F.L. 56.250

Existing Cold Frame

Existing Greenhouse F.F.L. 56.400

Existing Leightweight Planting Enclosure F.F.L. 57.750

Old Frame

Retaining Wall

Area For New Storage Containers

E.G.L. 55.700

E.G.L. 56.400

E.G.L. 54.200

E.G.L. 56.700

FW9 FW10 FW11 FW12 FW13

SW1 SW2 SW6 SW7 SW8 SW9 SW10

SVP RWP RE DC SO

100Ø 150Ø 225Ø

ACO S150 Channel

9m 7.5m

Catch pit Inspection manhole

To be a minimum of 15m

Proposed foul water drainage field infiltration system. For details please refer to HL drawing D-D-001

Proposed 7 x 3 x 1m deep surface water soakaway. To be of Stone filled trench construction wrapped with permeable geotextile. For details refer to drawing D-D-002

Catch pit manhole

5000 litre Triple Chamber ClearWater washpad recycling system tank. Outlet 580mm below finished ground level.

Designated ClearWater recycling system and washpad area.

Proposed Yar Concrete Fini

Drainage trench along this length to be wrapped in Terram Rootguard

Legend:

- Proposed Surface Water Drain
- Proposed Foul Water Drain
- Proposed Filter/Retaining wall Drain
- Proposed Manhole
- RE Proposed Rodding Eye
- RWP Proposed Rainwater Pipe
- SO Proposed ACO Channel Drain with sump & outlet. See Plan For Channel Type
- Proposed Buildings
- Proposed Soakaway Structures
- Proposed Washpad Area

Notes

1. This drawing should be read in conjunction with all relevant consultants drawings and specialist contractors/supply chain drawings and specifications.

2. All dimensions are in m, all levels in mOD unless specified otherwise.

3. All drainage works are to be in accordance with The Building Regulations part H and CESWI 7th Edition unless specified otherwise.

4. For Downpipes information refer to Above Ground Drainage drawings.

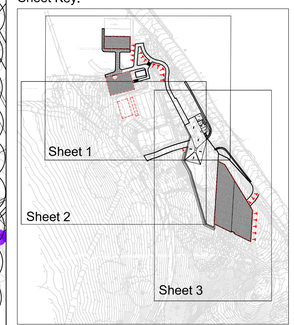
5. All Foul Drainage pipes to be Ø100 at 1/40 gradient and all Surface Water pipes to be Ø100 at 1/60 gradient unless specified otherwise on the plans and schedules.

6. Foul Water Pipes and fittings to be Plastic to BS EN 1401-1:2009.

7. Surface Water Pipes and fittings to be Plastic to BS EN 1401-1:2009.

8. All above ground drainage connections to have an access-eye/rodding-eye at the base of the stack pipe.

Sheet Key:



Revision

Issue	Date	By	Chkd	Appd
T4	31.07.19	MF	NH	NH
Proposed drainage route amended and yard channels updated where clouded.				
T5	12.08.19	MF	NH	NH
Proposed yard channels updated where clouded to suit new layout.				
C1	11.10.19	MF	NH	NH
Issued for Construction.				
C2	21.10.19	MF	NH	NH
Drainage field moved out of root protection area.				
C3	09.01.20	MF	NH	NH
FW treatment plan relocated.				
C4	31.03.20	MF	NH	NH
Amended to suit wash pad & stores.				

HL Structural Engineers
HL Structural Engineers Ltd.
Liverpool Science Park, 131 Mount Pleasant
Liverpool, L3 5TF
t: +44 (0)151 440 2185
w: www.HLengineers.co.uk

Client
National Trust

Job Title
Whitegate Project
Bodnant Gardens

Drawing Title
Proposed Drainage Layout

Sheet 2 of 3

Scale at A1
1:125

Drawing Status
Construction

Job No	Drawing No	Issue
0344	D-L-002	C4

© HL Structural Engineers