DESIGN SUBJECT TO THE CONFIRMATION OF:
EXTERNAL LEVELS DESIGN
ORDINARY WATERCOURSE APPROVAL
ROOT PROTECTION AREAS
RAINWATER DOWN PIPE POSITIONS

DESIGN SUBJECT TO THE APPROVAL OF:
PLANNING AUTHORITY
BUILDING CONTROL

S6 Control Chamber
SEL Protected Orifice
Orifice = 27mmØ
Restricts to 2 l/s in the critical 1 in 100yr event +45% CCA
CL 17.700
IL 16.229
SL 15.929
500Ø SEL Chamber
D400

Erosion Control - Scour protection slabs

SWD 300Ø 12.8m 1:300

SWD 300Ø 1:2m 1:

HW2
IL 16.448

HW3
CL 17.361
IL 16.191

16.690

WARNING

Ditch downstream to be cleared of all debris before commencement of works

NO PART OF HEADWALL STRUCTURE IS TO ENCROACH INTO THE DITCH PROFILE

Existing bunding adjacent watercourse

Attenuation Storage Pond 1
CL 17.700
Top of Bank Level = 17.700
Max Water Level = 17.700
Permanent Water Level = 16.448
Bed Level = 15.888
Bed level Area = 152.2m²
1:3 Side Slopes

HW1
IL 16.452

300mm high bunding with 1:3 side slopes to provide protection to the attenuation pond from contaminated overland flows

SWD 300Ø 20.6m 1:300

S4
CL 18.350
IL 16.519
600Ø IC
D400

S13
CL 17.700
IL 16.608
600Ø IC
D400

SWD 300Ø 11.7m 1:225

S12
Sealed Chamber
CL 17.700
IL 16.700
600Ø IC
D400

SWD 300Ø 25.9m 1:300

SWD 300Ø 25.8m 1:225

SWD 300Ø 12.4m 1:49

S3
Sealed Manhole
CL 18.000
IL 16.615
SL 16.315
600Ø CP
D400

SWD 300Ø 15.9m 1:25

S2
Sealed Manhole
CL 18.100
IL 16.900
600Ø IC
D400

S11
Sealed Chamber
CL 18.070
IL 17.370
600Ø IC
D400

Proposed surface water run to be installed within covered walkway

SWD 300Ø 15m 1:300

FOR CONTINUATION SEE: C2822_101_SURFACE WATER DRAINAGE LAYOUT SHEET 1 OF 2

DRAINAGE LEGEND

EXISTING FEATURES

Ex SWD — Existing surface water sewer/drain and manhole

PROPOSED FEATURES

SWD — Surface Water Drainage

Rainwater pipe

Storm water inspection chamber (600Ø)

Storm water catchpit chamber (600Ø)

Storm water orifice flow control chamber (600Ø)

DWD — Dirty Water Drainage

Dirty water inspection chamber (600Ø)

Dirty Water Channel drain

100Ø 4.5m 1:100 Z BED — Pipe info - diameter, length, gradient, bedding type

ABBREVIATIONS

MH	- MANHOLE
IC	- INSPECTION CHAMBER
AC	- ACCESS CHAMBER
CP	- CATCHPIT
BC	- BRAKE CHAMBER
RE	- RODDING EYE
IL	- INVERT LEVEL
SL	- SUMP LEVEL
RA	- RESTRICTED ACCESS COVER
CL	- COVER LEVEL
TL	- TOP OF CELLULAR SA
BL	- BASE OF CELLULAR SA
FL	- FORMATION LEVEL

STANDARD DRAINAGE NOTES

1. DO NOT SCALE FROM THIS DRAWING, REFER TO FIGURED DIMENSIONS ONLY. THE CONTRACTOR SHOULD CHECK ALL DIMENSIONS ON SITE.
2. ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS ARE IN METERS UNLESS NOTED OTHERWISE.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECT AND ENGINEERING DETAILS, DRAWINGS AND SPECIFICATIONS.
4. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ARCHITECT AND/OR ENGINEER IMMEDIATELY, SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO THE COMMENCEMENT OF WORK.
5. BEFORE COMMENCING CONSTRUCTION THE CONTRACTOR MUST CHECK THE INVERT LEVELS OF EXISTING SEWERS TO WHICH CONNECTIONS ARE MADE. IN ADDITION THE CONTRACTOR MUST LOCATE AND DETERMINE INVERT LEVELS OF THE EXISTING SPURS TO WHICH CONNECTIONS ARE PROPOSED. ANY DISCREPANCIES ARE TO BE NOTIFIED TO THE ENGINEER IMMEDIATELY, PRIOR TO CONSTRUCTION.
6. ALL DRAINAGE WORKS SHOULD COMMENCE AT THE PROPOSED DOWNSTREAM CONNECTION POINT, THE WORKS CONTINUING UPSTREAM FOLLOWING CONFIRMATION OF THE TIE-IN INVERT LEVELS TO THE ENGINEER. CONNECTIONS TO MANHOLES OR LARGER SIZED PIPES ETC. SHOULD BE SOFFIT TO SOFFIT UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER, IF THIS IS NOT POSSIBLE INFORM THE ENGINEER IMMEDIATELY.
7. COVER LEVELS SHOWN ARE APPROXIMATE. COVERS AND FRAMES SHALL BE SET TO FINISHED GROUND LEVELS AND FALLS.
8. ALL UN-REFERENCED PIPES ARE TO BE 100mm DIA
9. ALL PIPES TO BE ADOPTED, OR CONNECTING TO ADOPTED SEWERS, TO BE VITRIFIED CLAY TO BS EN 295 AND BS65 (SWS ONLY), OR CONCRETE PIPES TO BE EN 1916 AND BS5911:PART 1.
10. ROAD GULLY OUTLET PIPES ARE TO BE 150mm DIA. WITH CONCRETE SURROUND AND FLEXIBLE JOINTS. ALL GULLIES SHALL BE FITTED WITH GRADE D400 GRATINGS AND FRAMES TO BS EN124, UNLESS OTHERWISE STATED.
11. ALL ADOPTABLE SEWERS SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATION LAID DOWN DOWN IN 'SEWERS FOR ADOPTION' 6th EDITION, WITH A VIEW TO ADOPTION UPON COMPLETION OF WORKS.
12. ALL PRIVATE DRAINAGE TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS APPROVED DOCUMENT PART-H, AND TO THE SATISFACTION OF THE BUILDING CONTROL INSPECTOR.
13. THE CONTRACTOR IS TO KEEP A RECORD OF ANY VARIATIONS MADE ON SITE, INCLUDING THE RELOCATION OF SEWERS OR DRAINS, SO THAT AN AS CONSTRUCTED DRAWING CAN BE PREPARED UPON COMPLETION OF THE PROJECT.
14. STUB CONNECTIONS TO ADOPTABLE MANHOLES SHALL BE MADE FROM VITRIFIED CLAY AND CONSIST OF TWO ROCKER PIPES LAID AT THE SAME GRADIENT AS THE UP OR DOWNSTREAM PIPE.
15. IF ANY SUB SOIL DRAINAGE SYSTEMS ARE UNCOVERED DURING THE WORKS CONTACT THE ENGINEER FOR INSTRUCTIONS. SUB SOIL DRAINS ARE TO BE DIVERTED AROUND NEW WORKS AND CONNECTED INTO THE SURFACE WATER.
16. NO PRIVATE AREAS ARE TO DRAIN ONTO ADOPTABLE AREAS AND VICE VERSA.
17. ALL EXISTING MANHOLE COVER'S, GULLIES, ETC, ARE TO BE RAISED/LOWERED TO SUIT NEW LEVELS.
18. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THE LOCATION AND DEPTH OF ALL EXISTING SERVICES AND UTILITIES THAT MAY BE PRESENT
19. UPON COMPLETION BUT PRIOR TO HANDOVER, CONTRACTOR TO CARRY OUT FULL CCTV SURVEY OF DRAINAGE SYSTEM WHICH IS TO BE REVIEWED BY ENGINEER TO ENSURE SATISFACTORY INSTALLATION
20. MANHOLE AND CHAMBER COVER GRADES:

- 'A15' IN ALL LANDSCAPED AREAS AND ON FOOTPATHS
- 'B125' IN ALL DRIVEWAYS
- 'C250' IN PRIVATE PARKING AREAS
- 'D400' IN CARRIAGEWAY/ACCESS ROAD

Prefixed to drawing numbers shall signify the following:-

PL = PLANNING	Shall not be used for contract or construction purposes
P = PRELIMINARY	Shall not be used for contract or construction purposes
T = TENDER	Shall not be used for construction purposes
C = CONSTRUCTION	These are the only drawings that shall be used for construction purposes
R = RECORD	Record of actual completed work

Site Specific Notes

1. The proposed scheme consists of the increase in size of an existing cattle barn and associated silage clamp in order to increase the welfare of cattle on site and reduce the amount of contaminated water.
2. The British Geological Survey website confirms the bedrock geology to be made up of Weald Clay Formation which is comprised of Sandstone and Mudstone. At the time of writing, the BGS website does not have any recorded information of the superficial deposits on site.
3. The BGS website also holds information on historical borehole records. A nearby borehole confirms the presence of clay up to a depth of 33mbgl.
4. It is proposed the surface water runoff from the site is to be discharged into an existing watercourse located to the north of the site. This discharge will mimic the disposal of surface water runoff from the existing roof areas. The proposed discharge is to be restricted to 2.0l/s.
5. The proposed roof area from the cattle barn will reduce the amount of hard paved area on site by 0.162 Ha which will provide a significant betterment on the amount of dirty water produced by the site as runoff from the hard paved areas surrounding the cattle barn will be classed as dirty water. Therefore,1620m² of impermeable area will not need discharging into the slurry lagoon.
6. The proposed silage clamp will have a seperate dirty water network which will discharge into the existing network on site prior to being discharged into the slurry lagoon.

REV	DATE	DESCRIPTION	BY	CHK	APP
PL2	13.08.24	ADDED EXCEEDANCE ROUTING	LH	CS	CS
PL1	16.05.24	REVISED TO SUIT COMMENTS	LH	CS	CS
P-	12.04.24	PRELIMINARY ISSUE	LH	CS	CS

FOR PLANNING ONLY

cgs civils
Consulting Civil Engineers

CLIENT: BRINSBURY COLLEGE

ARCHITECT: BOND BRYAN ARCHITECTS LTD

JOB TITLE: BRINSBURY AGRICULTURAL COLLEGE PULBOROUGH

DRAWING TITLE: SURFACE WATER DRAINAGE LAYOUT SHEET 2 OF 2

DRAWN	ENGINEER	CHECKED	APPROVED
LH	C SLADE	CS	CS

DATE	SCALE @ A1
MARCH 2024	1:200

JOB No.	STATUS	DRAWING No.	REV.
C2822	PL	102	PL2