



BELOW GROUND DRAINAGE NOTES

1. THE LOCATION AND LEVEL OF EXISTING DRAINAGE CONNECTIONS AND EXISTING SERVICES IS TO BE CHECKED PRIOR TO COMMENCEMENT OF DRAINAGE WORKS. ANY VARIANCE TO THE DETAILS ON THIS DRAWING AND THE SCHEDULE IS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. THE DESIGN IS BASED ON THE INFORMATION AVAILABLE ON THE DATE OF ISSUE FROM OTHER PARTIES (EG. ARCHITECT AND M & E ENGINEER). IT IS SUBJECT TO CHANGE RESULTING FROM UPDATES TO THE AVAILABLE INFORMATION FROM OTHERS.
3. THE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE NBS SPECIFICATIONS, ASSOCIATED MANHOLE SCHEDULE AND STANDARD DRAINAGE DETAIL DRAWINGS WHERE APPLICABLE.
4. THE POSITIONS OF FOUL AND SURFACE WATER DRAINAGE POINTS ARE INDICATIVE ONLY. REFER TO THE ARCHITECTS AND M&E ENGINEERS DRAWINGS FOR SETTING OUT DETAILS.
5. PRIVATE FOUL AND SURFACE WATER DRAINAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH BUILDING REGULATIONS PART H, BS EN752 AND BS EN12056.
6. DRAINS AT BASEMENT LEVEL ARE TO BE CONSTRUCTED USING CAST IRON (ENSIGN OR EQUIVALENT) AND FLEXIBLY JOINTED TO BS 437.
7. DRAINS AT GROUND LEVEL ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS EN 295-1 SUPER STRENGTH SPECIFICATION (HEPWORTH SUPERSELEVE) OR SIMILAR APPROVED.
8. ALL SOIL CONNECTIONS UNDER BUILDINGS TO BE 100mm DIA LAID AT A MINIMUM GRADIENT OF 1:40 UNLESS NOTED OTHERWISE.
9. ALL SURFACE WATER CONNECTIONS TO BE 150mm DIAMETER AND TO BE LAID AT A MINIMUM GRADIENT OF 1:80 UNLESS NOTED OTHERWISE.
10. ALL SOIL CONNECTIONS AND RAINWATER PIPES SHOULD BE RODDABLE FROM GROUND LEVEL.
11. IN CASES OF IN SITU CONCRETE FLOOR SLABS, DRAINS ARE TO BE CAST INTEGRAL WITH THE SLAB WHERE PIPE COVER TO THE CROWN IS LESS THAN 300mm - NOTE SPECIAL PROVISIONS APPLY TO BASEMENT FLOOR SLABS - SEE DETAILED DRAINAGE AND STRUCTURAL DRAWINGS. CONCRETE ENCASUREMENT TO BE REINFORCED AS PER DRAINAGE DETAIL.
12. IN CASES OF SUSPENDED FLOORS WHERE A VOID OF 300mm OR MORE EXISTS BELOW FLOOR DRAINS ARE TO BE SUSPENDED USING A PROPRIETARY HANGER SYSTEM OR CAST INTEGRAL WITH THE FLOOR.
13. WHERE DRAINS PASS THROUGH FOUNDATIONS OR OTHER RIGID STRUCTURES A LINTEL OR SLEEVE IS TO BE USED AND PROVISION FOR FLEXIBILITY IS TO BE MADE USING ROCKER PIPES.
14. BACKFILLING OF DRAIN TRENCHES ADJACENT TO BUILDING OR OTHER STRUCTURES IS TO BE IN ACCORDANCE WITH DIAGRAM 8 OF THE BUILDING REGULATIONS.
15. ANY PIPE OR GULLY OR OTHER FITTING OR DUCT PENETRATING THE BASEMENT SLAB OR WALL IS TO BE WATERPROOFED USING HYDROPHILIC STRIPS OR PUDDLE FLANGES TO ENSURE A WATER TIGHT JOINT. CONCRETE SURROUND TO DRAINAGE PIPES AND FITTINGS MAY BE REQUIRED IN CERTAIN CASES - REFER TO DETAILED DRAINAGE DRAWINGS AND RELEVANT STRUCTURAL DETAILS.
16. EXISTING FOUNDATIONS AND RETAINING WALLS MUST NOT BE UNDERMINED BY NEW DRAINAGE RUNS UNLESS AGREED IN WRITING WITH THE STRUCTURAL ENGINEER. CONTRACTOR TO SUBMIT METHOD STATEMENTS AND TEMPORARY WORKS PROPOSALS TO THE STRUCTURAL ENGINEER FOR COMMENT PRIOR TO COMMENCEMENT OF WORKS.
17. ALL DRAINAGE EXCAVATIONS SHOULD BE RISK ASSESSED BY THE CONTRACTOR TO ENSURE TRENCH SAFETY / STABILISATION MEASURES ARE CONSIDERED DURING THE CONSTRUCTION PERIOD. ANY EXCAVATIONS LEFT EXPOSED SHOULD BE INSPECTED BY A COMPETENT PERSON ON A DAILY BASIS. GROUND CONDITIONS SHOULD BE MONITORED AND TOOL BOX TALKS SHOULD INCLUDE SITE INVESTIGATION INFORMATION TO AID THE CONTRACTORS ONGOING RISK ASSESSMENT AND METHOD OF EXCAVATION. ALL EXCAVATIONS SHOULD BE ASSESSED BY A COMPETENT PERSON FOR CONFINED SPACES REQUIREMENTS.
18. THE CONTRACTOR IS TO CONSIDER PHASING OF THE DRAINAGE INSTALLATION AND ARE TO PROVIDE TEMPORARY DRAINAGE MEASURES THEY DETERMINE ARE REQUIRED.
19. SUDS ARE TO BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE WITHIN THE CIRIA SUDS MANUAL C753 (WITH PARTICULAR ATTENTION DRAWN TO CHAPTER 31) AND CIRIA GUIDANCE ON THE CONSTRUCTION OF SUDS C768. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSIDER CONSTRUCTION PROGRAMME OF SUDS.
20. DETAILED DESIGN OF GEOCELLULAR ATTENUATION CRATES IS A CDP ITEM AND SHOULD BE BASED ON LEVEL LAYOUT AND VOLUME DETAILS SHOWN. DETAILED DESIGN INFORMATION SHOULD BE PROVIDED TO THE CIVIL ENGINEER TO PASS COMMENT.
21. MANHOLES LOCATED WITHIN PAVED AREAS ARE TO BE FITTED WITH RECESSED FRAME AND COVERS. COVERS IN ASPHALT AND LANDSCAPED AREAS ARE TO BE FITTED WITH A SOLID FRAME AND COVER.
22. FOR DETAILS OF PERMEABLE PAVING CONSTRUCTION AND LEVELS, REFER TO ELLIOTT WOOD DOCUMENT 2180501-EWP-ZZ-XX-SH-C-0001.

LEGEND CONTINUED

- K-FG-V WADE Q2434 GRADE 304 SS FLOOR GULLY WITH 192mm SQUARE Q42 NON-SLIP MESH GRATING
- K-TFG-V WADE Q2434 GRADE 304 SS FLOOR GULLY WITH BOLT ON TUNDISH
- K-CD-V WADE RP GRADE 304 SS LINEAR CHANNEL AND 199mm WIDE S572065F GRATING WITH Q28DS OUTLET
- FOH-FG-V WADE Q2434 GRADE 316 SS FLOOR GULLY WITH 192mm SQUARE Q6230 SMOOTH PERFORATED GRATING
- FOH-CD-V WADE RP GRADE 316 SS LINEAR CHANNEL AND 149mm WIDE S540150A1 GRATING WITH Q28DS OUTLET
- SH-CD-V SCHLUTER KERDI LINE LINEAR DRAIN
- PR-FG-V WADE G1014 CAST IRON FLOOR GULLY WITH 150mm SQUARE L2601 GRATING
- BD DENOTES DRAINAGE PIPE CAST-IN TO FOUNDATION
- BD DENOTES BACKDROP

LEGEND

- FOUL WATER MANHOLE
- SURFACE WATER MANHOLE
- KITCHEN WATER MANHOLE
- PROPOSED FOUL WATER
- PROPOSED SURFACE WATER
- PROPOSED PRIVATE SURFACE WATER PUMPING STATION
- PROPOSED PRIVATE FOUL WATER PUMPING STATION
- PROPOSED FOUL WATER RISING MAIN
- PROPOSED SURFACE WATER RISING MAIN
- PROPOSED LINEAR CHANNEL WITH HEELGUARD GRATING
- PROPOSED THRESHOLD DRAIN WITH BRICK SLOT UPSTAND
- TRAPPED ROAD GULLY
- CHUTE GULLY
- TRAPPED YARD GULLY
- FD TRAPPED FLOOR DRAIN
- FOUL DROP POINT
- GEOCELLULAR SURFACE WATER ATTENUATION (TO CONTRACTOR DESIGN)
- PERMAVOID CRATES
- PROPOSED IMPERMEABLE SURFACE WITH 4/20 COARSE GRADED PERMEABLE SUBBASE
- EXISTING DITCH
- EXISTING DITCH TO BE REMOVED
- PROPOSED BUILDING
- SITE BOUNDARY
- NORTH PARK BOUNDARY
- MAIN RESORT BOUNDARY
- EXISTING POND
- PROPOSED POND
- PROPOSED SWALE

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P5	S2	02.08.22	HHu	PDa	Pipe Numbers Added
P4	S2	01.07.22	HHu	PDa	RIBA 4 Issue
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P2	S2	30.03.22	HHu	PDa	RIBA 3 Issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

Drawing title  
**Proposed Below Ground Drainage**  
Sheet 16 of 23

scale (s) 1:200@ A1; 1:400@A3  
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Project  
**Proposed Great Wolf Lodge,**  
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