

- 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 (EN518 OR EQUIVALENT) AND FLEXIBLY JOINTED TO BS 437.
 7. DRAINS AT GROUND LEVEL ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS EN 251+ SUPER STRENGTH SPECIFICATION (HEP WORTH SUPERLEVEL) 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 ENCASEMENT 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. SIDS ARE TO BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE WITHIN THE CIRIA SIDS MANUAL C753 (WITH PARTICULAR ATTENTION DRAWN TO CHAPTER 31) AND CIRIA GUIDANCE ON THE CONSTRUCTION OF SIDS C768. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSIDER CONSTRUCTION PROGRAMME OF SIDS.
 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-001
 - 23.

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
Do not scale from this drawing.

| LEGEND | | PROPOSED PERMEABLE SURFACING WITH 4/20 COARSE GRADED PERMEABLE SUBBASE | | EXISTING POND | |
|--------|--|--|--|---------------|----------------|
| ● | FOUL WATER MANHOLE | ■ | PROPOSED PERMEABLE SURFACING WITH 4/20 COARSE GRADED PERMEABLE SUBBASE | ■ | EXISTING POND |
| ○ | SURFACE WATER MANHOLE | ■ | EXISTING DITCH | ■ | PROPOSED POND |
| ○ | KITCHEN WATER MANHOLE | ■ | EXISTING DITCH TO BE REMOVED | ■ | PROPOSED SWALE |
| ○ | PROPOSED FOUL WATER | ■ | PROPOSED BUILDING | | |
| ○ | PROPOSED SURFACE WATER | ■ | SITE BOUNDARY | | |
| ○ | PROPOSED THRESHOLD DRAIN WITH BRICK SLOT UPSTAND | ■ | NORTH PARK BOUNDARY | | |
| ○ | PROPOSED PRIVATE SURFACE WATER PUMPING STATION | ■ | MAIN RESORT BOUNDARY | | |
| ○ | PROPOSED PRIVATE FOUL WATER PUMPING STATION | ■ | | | |
| ○ | RG | ■ | | | |
| ○ | CG | ■ | | | |
| ○ | YG | ■ | | | |
| ○ | 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 | ■ | | | |

NOT FOR CONSTRUCTION

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|-----|----|----------|-----|-----|------------------------------|
| P3 | S2 | 17.06.22 | HHu | PDa | Planning Condition Discharge |
| P2 | S2 | 30.03.22 | HHu | PDa | RIBA 3 Issue |
| P1 | S2 | 18.02.22 | HHu | PDa | RIBA 3 Part 1 Issue |
| rev | sc | date | by | chk | description |

Drawing title
Proposed Below Ground Drainage
Sheet 18 of 23

scale (s) 1:200@ A1; 1:400@A3
date February 2022
drawn HHu

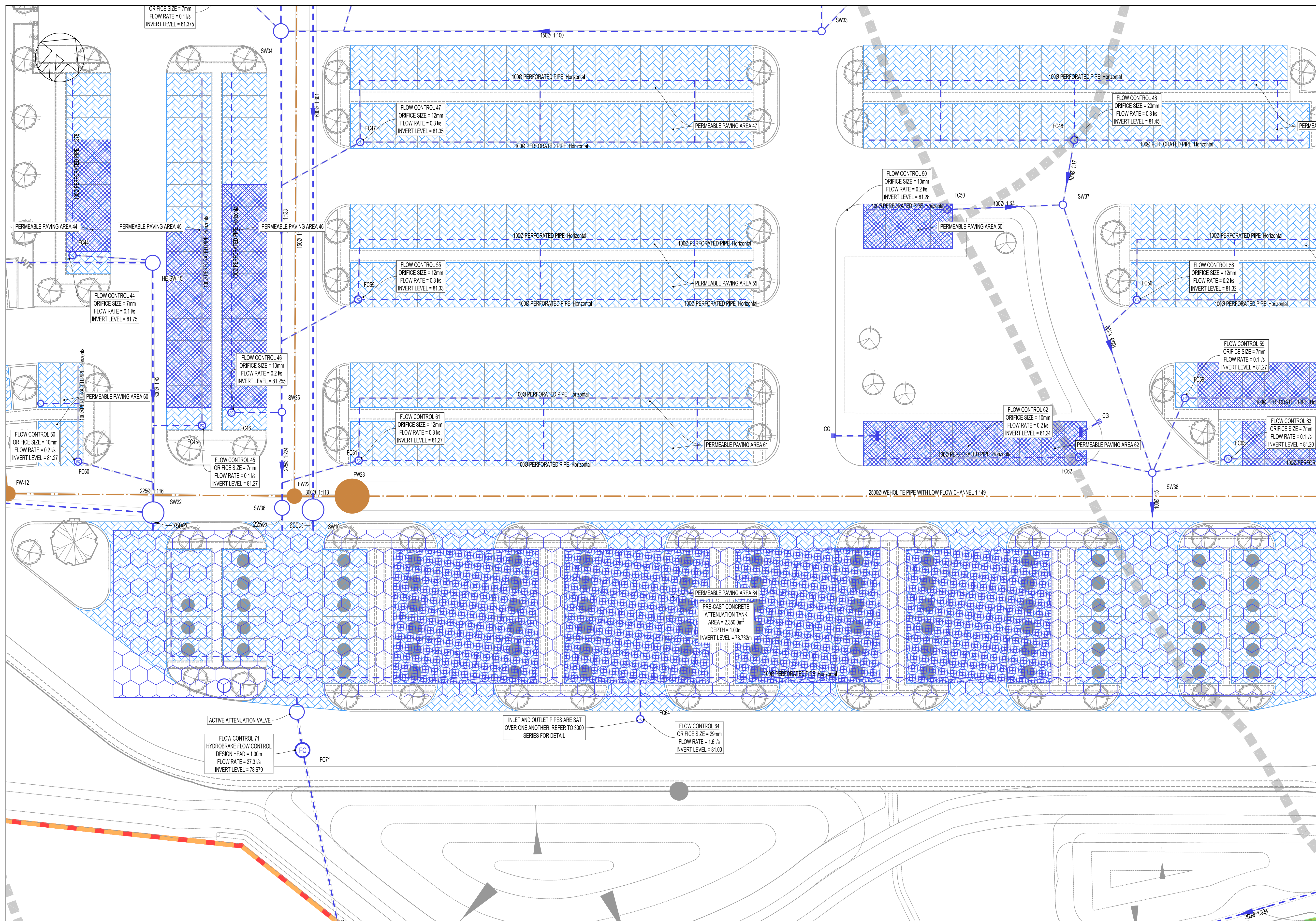
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Project
Proposed Great Wolf Lodge,
Chesterton, Bicester,
Oxfordshire

Drawing status Preliminary Status Revision
S2 P3

Project no. Originator Zone Level Type Role dwg no.
2180501-EWP-Z18-EX-DR-C-1017



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 7. DRAINS AT GROUND LEVEL ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS EN 254 - SUPER STRENGTH SPECIFICATION (HEP WORTH SUPER SLEVE) OR SIMILAR APPROVED.
 8. ALL SOIL CONNECTIONS UNDER BUILDINGS TO BE 100mm DIA LAID AT A MINIMUM GRADIENT OF 1:40 UNLESS NOTED OTHERWISE.
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 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.
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| LEGEND | | PROPOSED PERMEABLE SURFACING WITH 4/20 COARSE GRADED PERMEABLE SUBBASE | | EXISTING POND | |
|--------|--|--|--|---------------|----------------|
| ● | FOUL WATER MANHOLE | ■ | PROPOSED PERMEABLE SURFACING WITH 4/20 COARSE GRADED PERMEABLE SUBBASE | ■ | EXISTING POND |
| ○ | SURFACE WATER MANHOLE | ■ | EXISTING DITCH | ■ | PROPOSED POND |
| ○ | KITCHEN WATER MANHOLE | ■ | EXISTING DITCH TO BE REMOVED | ■ | PROPOSED SWALE |
| ○ | PROPOSED FOUL WATER | ■ | PROPOSED BUILDING | | |
| ○ | PROPOSED SURFACE WATER | ■ | SITE BOUNDARY | | |
| ○ | PROPOSED KITCHEN WATER | ■ | NORTH PARK BOUNDARY | | |
| ○ | PROPOSED PRIVATE SURFACE WATER | ■ | MAIN RESORT BOUNDARY | | |
| ○ | PROPOSED PRIVATE SURFACE WATER PUMPING STATION | ■ | RAINWATER DIFFUSER UNIT | | |
| ○ | PROPOSED PRIVATE FOUL WATER PUMPING STATION | ■ | | | |
| ○ | 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 | ■ | | | |
| ○ | RG TRAPPED ROAD GULLY | ■ | | | |
| ○ | CG CHUTE GULLY | ■ | | | |
| ○ | YG TRAPPED YARD GULLY | ■ | | | |

NOT FOR CONSTRUCTION

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|-----|----|----------|-----|-----|------------------------------|
| P3 | S2 | 17.06.22 | HHu | PDa | Planning Condition Discharge |
| P2 | S2 | 30.03.22 | HHu | PDa | RIBA 3 Issue |
| P1 | S2 | 18.02.22 | HHu | PDa | RIBA 3 Part 1 Issue |
| rev | sc | date | by | chk | description |

Drawing title
Proposed Below Ground Drainage
Sheet 19 of 23

scale (s) date drawn
1:200@ A1; 1:400@A3 February 2022 HHu

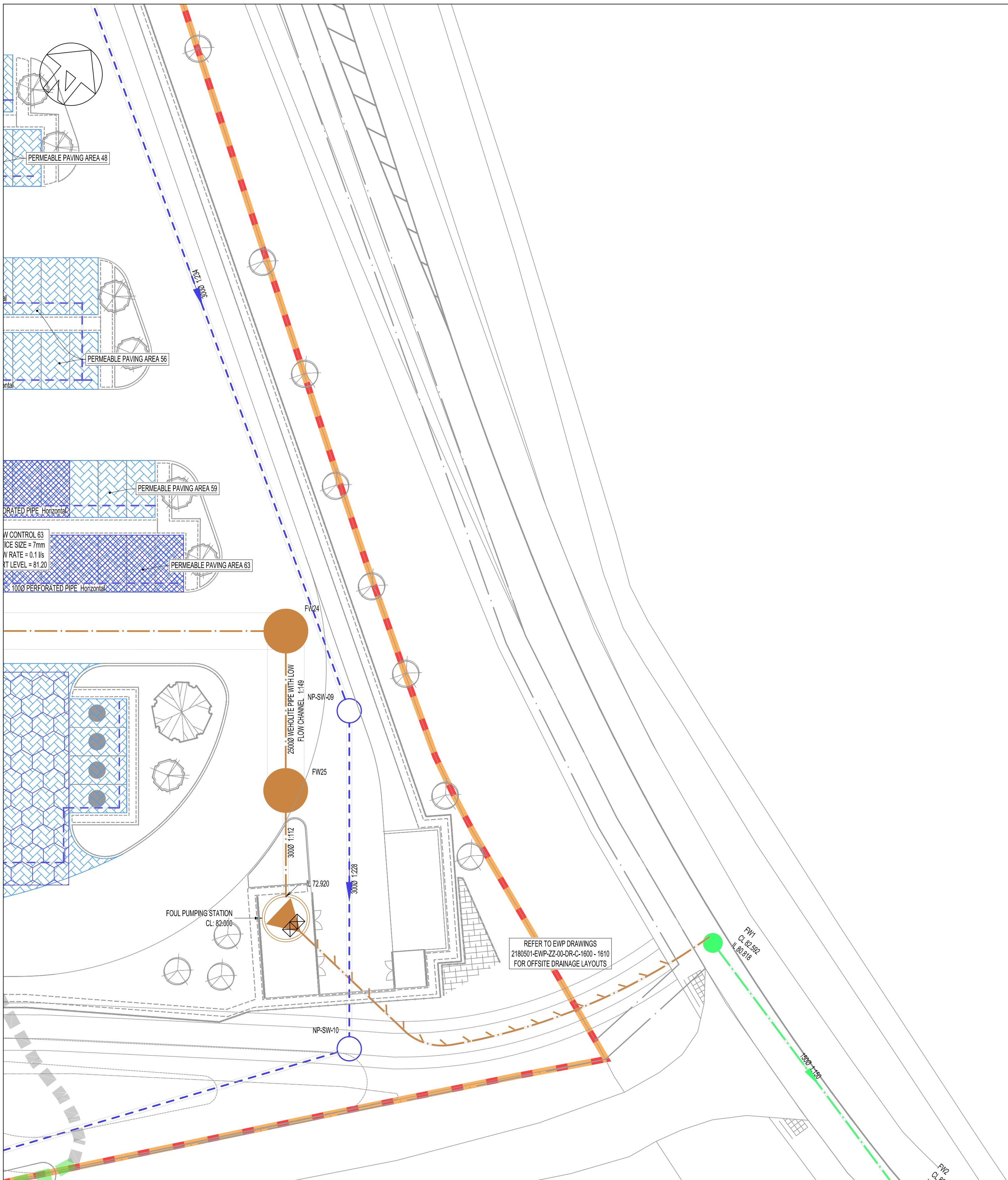
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Consulting Structural and Civil Engineers
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Project
Proposed Great Wolf Lodge,
Chesterton, Bicester,
Oxfordshire

Drawing status Status Revision
Preliminary S2 P3

Project no. Originator Zone Level Type Role dwg no.
2180501-EWP-Z19-EX-DR-C-1018



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 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 (EN5IGN OR EQUIVALENT) AND FLEXIBLY JOINTED TO BS 437.
 7. DRAINS AT GROUND LEVEL ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS EN 251 SUPER STRENGTH SPECIFICATION (HEPWORTH SUPERLEVEL) 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.
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 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 C788. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSIDER CONSTRUCTION PROGRAMME OF SUDS.
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| 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 |
| | 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 |
| | PROPOSED PERMEABLE SURFACING WITH 4/20 COARSE GRADED PERMEABLE SUBBASE |
| | EXISTING POND |
| | PROPOSED POND |
| | PROPOSED SIALE |
| | EXISTING DITCH |
| | EXISTING DITCH TO BE REMOVED |
| | PROPOSED BUILDING |
| | SITE BOUNDARY |
| | NORTH PARK BOUNDARY |
| | MAIN RESORT BOUNDARY |
| | 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 |
| | RG |
| | CG |
| | YG |

NOT FOR CONSTRUCTION

| rev | sc | date | by | chk | description |
|-----|----|----------|-----|-----|------------------------------|
| P3 | S2 | 17.06.22 | HHu | PDa | Planning Condition Discharge |
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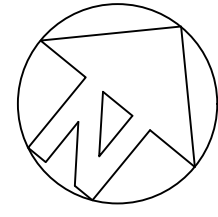
Drawing title
Proposed Below Ground Drainage
 Sheet 20 of 23

scale (s) 1:200@ A1; 1:400@A3 date February 2022 drawn HHu

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| Project | | Status | Revision |
|--|------------|-------------|----------|
| Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire | | Preliminary | S2 P3 |
| Project no. | Originator | Zone | Level |
| 2180501-EWP-Z20-EX-DR-C-1019 | | | |



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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-001
- 23.

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

Do not scale from this drawing.

LEGEND

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

NOT FOR CONSTRUCTION

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|-----|----|----------|-----|-----|------------------------------|
| P3 | S2 | 17.06.22 | HHu | PDa | Planning Condition Discharge |
| P2 | S2 | 30.03.22 | HHu | PDa | RIBA 3 Issue |
| P1 | S2 | 18.02.22 | HHu | PDa | RIBA 3 Part 1 Issue |
| rev | sc | date | by | chk | description |

Drawing title
Proposed Below Ground Drainage
 Sheet 21 of 23

scale (s) 1:200@ A1; 1:400@A3
 date February 2022
 drawn HHu

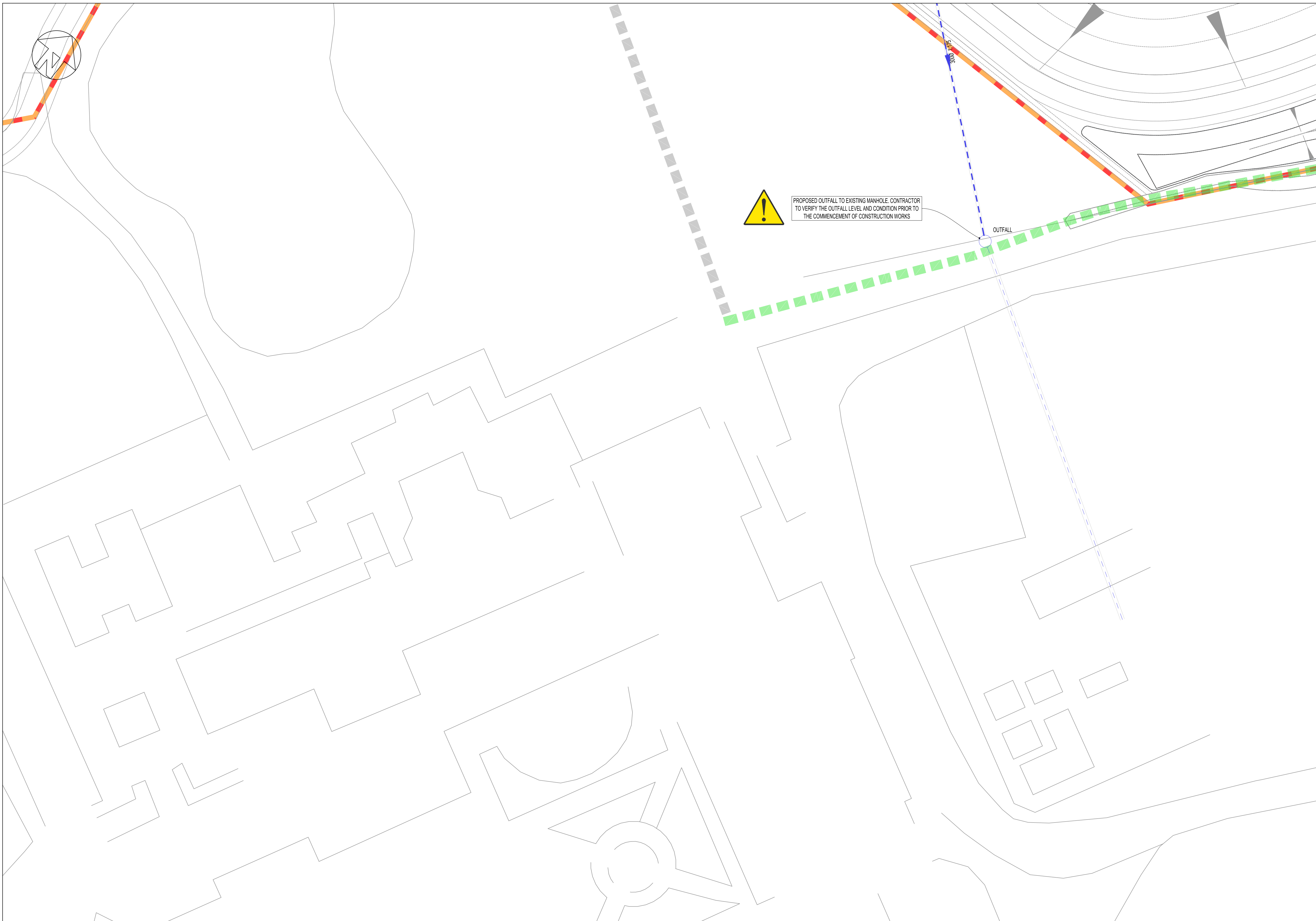
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Elliott Wood Partnership Ltd
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 Consulting Structural and Civil Engineers
 (020) 7499 5688 • elliottwood.co.uk

Project
Proposed Great Wolf Lodge,
 Chesterton, Bicester,
 Oxfordshire

Drawing status Preliminary Status Revision
 S2 P3

Project no. Originator Zone Level Type Role drg no.
 2180501-EWP-Z21-EX-DR-C-1020



- 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 (EN5IGN OR EQUIVALENT) AND FLEXIBLY JOINTED TO BS 437.
 7. DRAINS AT GROUND LEVEL ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS EN 251-1 SUPER STRENGTH SPECIFICATION (HEPWORTH SUPERSLEVE) 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.
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 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..
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 22. FOR DETAILS OF PERMEABLE PAVING CONSTRUCTION AND LEVELS, REFER TO ELLIOTT WOOD DOCUMENT 2180501-EWP-ZZ-XX-SH-C-001
 - 23.

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

Do not scale from this drawing.

| LEGEND | |
|--------|--|
| | FOUL WATER MANHOLE |
| | SURFACE WATER MANHOLE |
| | KITCHEN WATER MANHOLE |
| | PROPOSED FOUL WATER |
| | PROPOSED SURFACE WATER |
| | PROPOSED PRIVATE SURFACE WATER |
| | 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 |
| | TRAPPED FLOOR DRAIN |
| | FOUL DROP POINT |
| | GEOCELLULAR SURFACE WATER ATTENUATION (TO CONTRACTOR DESIGN) |
| | PERIMAVOID CRATES |
| | PROPOSED IMPERMEABLE SURFACE WITH 4/20 COARSE GRADED PERMEABLE SUBBASE |
| | PROPOSED PERMEABLE SURFACING 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 SIALE |

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|-----|----|----------|-----|-----|------------------------------|
| P3 | S2 | 17.06.22 | HHu | PDa | Planning Condition Discharge |
| P2 | S2 | 30.03.22 | HHu | PDa | RIBA 3 Issue |
| P1 | S2 | 18.02.22 | HHu | PDa | RIBA 3 Part 1 Issue |
| rev | sc | date | by | chk | description |

Drawing title
Proposed Below Ground Drainage
 Sheet 22 of 23

scale (s) date drawn
 1:200@ A1: 1:400@A3 February 2022 HHu

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Project
Proposed Great Wolf Lodge,
 Chesterton, Bicester,
 Oxfordshire

| | | |
|------------------------------|------------|----------|
| Drawing status | Status | Revision |
| Preliminary | S2 | P3 |
| Project no. | Originator | Zone |
| 2180501-EWP-Z22-EX-DR-C-1021 | | |



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 - 23.

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

Do not scale from this drawing.

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

NOT FOR CONSTRUCTION

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| P3 | S2 | 17.06.22 | HHu | PDa | Planning Condition Discharge |
| P2 | S2 | 30.03.22 | HHu | PDa | RIBA 3 Issue |
| P1 | S2 | 18.02.22 | HHu | PDa | RIBA 3 Part 1 Issue |
| rev | sc | date | by | chk | description |

Drawing title
Proposed Below Ground Drainage
 Sheet 23 of 23

scale (s) date drawn
 1:200@ A1: 1:400@A3 February 2022 HHu

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| | | | |
|------------------------------|------------|--|-----------------|
| Project | | Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire | |
| Drawing status | | Status Revision | |
| Preliminary | | S2 P3 | |
| Project no. | Originator | Zone | Level Type Role |
| 2180501-EWP-Z23-EX-DR-C-1022 | | | |