Appendix

D. Drawings

AMBIENTAL
ENVIRONMENTAL ASSESSMENT
a company of Royal HaskoningDHV

THE PROPOSED DEVELOPMENT IS FOR THE CONSTRUCTION OF RESIDENTIAL AND COMMERCIAL PURPOSE STRUCTURES OVER GREENFIELD LAND.

THE TOTAL PROPOSED IMPERMEABLE AREA IS APPROXIMATELY 0.71HA. THIS IS COMPOSED OF THE STRUCTURES (GLAMPING TENTS, STABLES), HARDSTANDING (ACCESS ROAD, PARKING, VANS PARKING) AND AN ADDITIONAL CONSERVATIVE 50% OF THE GENERAL TENT AREA TO ASSUME FULL OCCUPANCY.

THE GEOLOGY AT THE SITE IS PREDOMINANTLY CLAY AND ALSO GIVEN THE NUMEROUS WATERCOURSES IN THE WIDER AREA IT IS DEEMED THAT INFILTRATION WOULD NOT BE SUITABLE AS A MAIN METHOD FOR SURFACE WATER DISCHARGE. HOWEVER, IT IS SUGGESTED TO ALLOW ANY SUDS STRUCTURES TO INFILTRATE RUNOFF INTO THE SUBGRADE TO PROMOTE INFILTRATION AND VEGETATION GROWTH.

THE PROPOSED DISCHARGE LOCATION IS TO AN EXISTING PIPE CROSSING THE SITE NORTH TO SOUTH (PIPE DETAILS TBC AT DETAILED DESIGN), LINKING TWO DITCHES AT THE RESPECTIVE ENDS.

THE GREENFIELD QBAR RATE OF THE PROPOSED IMPERMEABLE AREA IS 2.9 l/s. IT IS SUGGESTED TO CONTROL RUNOFF AT 2.9l/s DURING THE 1 IN 100 YEAR + 40%CC RAINFALL EVENT THROUGH A Ø39mm ORIFICE PLATE.

IT IS SUGGESTED TO ATTENUATE RUNOFF WITHIN PERMEABLE PAVING/GRAVEL PAVING SUB-BASE (0.3 VOID RATIO) PLACED BENEATH THE PROPOSED HARDSTANDING. SUBJECT TO FINAL SITE LEVELS, LANDSCAPING REQUIREMENTS AND FURTHER DETAILED INFORMATION IT WOULD BE POSSIBLE TO PARTLY USE OPEN WATER SUDS FEATURES (IE POND, SWALES).

THE PROPOSED FOUL WATER DRAINAGE SCHEME IS FOR THE USE OF KINGSPAN BIODISK (OR SIMILAR) DOMESTIC/COMMERCIAL UNITS WITH EFFLUENT ADEQUATE FOR DISCHARGES TO WATERCOUSES.

SEE ADDITIONAL INFORMATION AND CALCULATIONS IN AMBIENTAL REPORT 6732.

Grange Farm

Waste and Recycling Point

KLARGESTER BIODISK COMMERCIAL (OR SIMILAR) WASTEWATER TREATMENT SYSTEM, CERTIFIED FOR DISCHARGES TO WATERCOUSES. SIZIING OF UNIT TO SUIT MAXIMUM CAMPSITE POPULATION SIZE.

WC

EXISTING DITCH ACCORDING TO THE CLIENT AND LIDAR DATA. 2m LIDAR DATA INDICATES THAT THE DITCH IS APPROXIMATELY 1m DEEP. (IL APPROX. 10.3mAOD).

Vans Space

VANS SPACE (1660m²) TO BE BUILT AS PERMEABLE PAVING (TYPE B - PARTIAL INFILTRATION) WITH 0.65m DEEP SUB-BASE (0.3 VOID RATIO), PROVIDING 323.7m³ ATTENUATION STORAGE CAPACITY.

SUB-BASE TO BE WRAPPED IN PERMEABLE GEOTEXTILES.

EXISTING PIPE ACCORDING TO THE CLIENT. DEPTH AND DIAMETER TBC AT THE DETAILED DESIGN STAGE. TO BE MAINTAINED/REPLACED AS EXISTING.

Tents Space

TENTS SPACE AREA (4460m²) ASSUMED HALF IMPERMEABLE TO ACCOUNT CONSERVATIVELY FOR MAXIMUM OCCUPANCY.

Existing Site Electric Pole TBC By Client

ACCESS ROAD (400m²) TO BE BUILT AS PERMEABLE PAVING (TYPE B - PARTIAL INFILTRATION) WITH 0.65m DEEP SUB-BASE (0.3 VOID RATIO), PROVIDING 78m³ ATTENUATION STORAGE CAPACITY.

SUB-BASE TO BE WRAPPED IN PERMEABLE GEOTEXTILES.

TREATED WASTEWATER HAS SIMILAR PROPERTIES AS SURFACE WATER THEREFORE PIPES COULD BE INSTALLED WITH SHALLOW GRADIENTS (IE 1 IN 150 OR 200) TO ACHIEVE GRAVITY DISCHARGE TO THE WATERCOURSE.

Stable Space

STABLE AREA (1515m²) ASSUMED FULLY IMPERMEABLE.

TO DRAIN TOWARD THE FILTER DRAIN AT THE SOUTH. SUBJECT TO LEVEL OF POLLUTION IT IS RECOMMENDED TO PROVIDE A DRAINAGE CHANNEL (COVERED WITH FINE-MEDIUM GRATING AS REQUIRED TO AVOID INQUIRIES) TO INTERCEPT SEDIMENTS. RUNOFF FROM THE CHANNEL WOULD OVERFLOW INTO THE ADJACENT FILTER DRAIN. THE CHANNEL TO BE INSPECTED REGULARLY AND CLEANED AS NECESSARY.

DO NOT CONNECT DRAINAGE CHANNEL TO ANY SUDS/DRAINAGE ELEMENT.

DO NOT CONNECT OTHER PIPES TO THE PERFORATED PIPES LEADING TO THE FLOW CONTROL MANHOLE.

RUNOFF TO BE FILTERED THROUGH THE SUB-BASE (BUILT WITH 6-20mm CRUSHED STONE) TRAPPING ANY LARGE SEDIMENTS THAT WOULD OTHERWISE BLOCK THE FLOW CONTROL.

FLOW CONTROL MANHOLE TO BE FITTED WITH Ø39mm ORIFICE PLATE LIMITING OUTFLOWS DURING THE 1 IN 100 YEAR + 40%CC RAINFALL EVENT TO 2.9 l/s (GREENFIELD QBAR RATE OF 2.9 l/s), GENERATING 462m³ ATTENUATION VOLUME REQUIREMENT.

PROVIDE PRE-SCREENING MESH AND CATCHPIT TO REDUCE RISK OF BLOCKAGES.

PROVIDE NEW MANHOLE ON EXISTING PIPE. DEPTH OF PIPE SHOULD BE AT APPROXIMATELY 10.0mAOD (TBC AT DETAILED DESIGN) BASED ON DITCH UP/DOWNSTREAM LEVELS.

PROVIDE NON-RETURN VALVE ON OUTFALL PIPE INTO THE NEW MANHOLE.

TOTAL 100m² AREA OF FILTER DRAINS WITH DEPTH OF AT LEAST 0.65m BUILT WITH CLEAN CRUSHED STONE 6-20mm PROVIDING 19.5m³

EXISTING DITCH ACCORDING TO THE CLIENT AND LIDAR DATA. 2m LIDAR DATA INDICATES THAT THE DITCH IS APPROXIMATELY 1m DEEP (APPROX. 10mAOD).

SEE CONTINUATION ON DRW 6732-01/02 (SHEET 2 OF 2)

+11.15 +11.1 +11.0

1. GENERAL
a. THIS DRAWING IS NOT TO BE SCALED, WORK TO FIGURED DIMENSIONS ONLY, CONFIRMED ON SITE.
b. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL DRAWINGS, DETAILED SPECIFICATIONS WHERE APPLICABLE AND ALL ASSOCIATED DRAWINGS IN THIS SERIES.
c. ANY DISCREPANCY ON THIS DRAWING IS TO BE REPORTED IMMEDIATELY TO THE PARTNERSHIP FOR CLARIFICATION.
d. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS AND FOR THE STABILITY OF THE WORKS IN PROGRESS.
e. CDM REGULATIONS 2015. ALL CURRENT DRAWINGS AND SPECIFICATIONS MUST BE READ IN CONJUNCTION WITH THE DESIGNER'S HAZARD RISK AND ENVIRONMENT ASSESSMENT RECORD. DESIGN HAS BEEN PRODUCED BASED ON INFORMATION PROVIDED BY THE CLIENT/PRINCIPLE DESIGNER AVAILABLE AT TIME OF ISSUE. CONTRACTOR TO REVIEW DRAWING AND SPECIFICATION IN CONTEXT WITH THE WIDER SITE AND SPECIFIC SITE INVESTIGATION, CONTAMINATION ASSESSMENT, ASBESTOS SURVEY, ENVIRONMENTAL SURVEY, UXO SURVEY AND ANY OTHER RELEVANT INFORMATION AND MANAGE RISKS RELATING TO THE WORKS OUTLINED IN THE DRAWINGS AND SPECIFICATION. PRINCIPLE CONTRACTOR TO MAKE DESIGNER AND CLIENT AWARE OF SITE SPECIFIC RISKS THAT MAY AFFECT THE DRAWING AND SPECIFICATION.
f. CDM REGULATIONS 2015. FOR GENERIC MAINTENANCE AND MANAGEMENT RISKS REFER TO CHAPTER 36 OF CIRIA 752 SUDS MANUAL. FOR PROPRIETARY SYSTEMS SEE MANUFACTURER'S MANAGEMENT AND MAINTENANCE DETAILS AND RISK ASSESSMENT WITH REGARDS TO MAINTENANCE OF PROPRIETARY SYSTEMS.

LEGEND

- SURFACE WATER DRAIN
- PERFORATED SURFACE WATER DRAIN
- EXISTING SURFACE WATER DRAIN
- SLOT/CHANNEL DRAIN
- FOUL WATER DRAIN
- TREATED FOUL WATER DRAIN
- TYPE 2 SURFACE WATER MANHOLE
- TYPE 3 SURFACE WATER INSPECTION CHAMBER
- TYPE 4 SURFACE WATER INSPECTION CHAMBER
- TYPE 3 FOUL WATER INSPECTION CHAMBER
- TYPE 3 TREATED FOUL WATER INSPECTION CHAMBER
- RODDING EYE
- PERMEABLE PAVING
- FILTER DRAIN/GRAVEL PAVING
- OVERLAND FLOW
- +11.1 PROPOSED LEVEL

REV	DATE	BY	CKD	APP	DESCRIPTION
##	XX.XX.XX	--	--	--	--

PRELIMINARY DRAWING
FOR INFORMATION ONLY. NOT FOR CONSTRUCTION.

Client: TREND ARCHITECTURE

AMBIENTAL ENVIRONMENTAL ASSESSMENT
a company of Royal HaskoningDHV

Project: LAND NEXT TO GRANGE FARM, HU12 0SA
PROJECT NO. 6732

Drawing: SURFACE WATER DRAINAGE STRATEGY PRELIMINARY LAYOUT

Drawn by: SD Date: JUNE-2022

Drawing No. 6732-01/01 (SHEET 1 OF 2) Revision -

Drawing Scale: 1:100 @ A1
0 1m 2m 3m 4m 5m

Drawing No: C:\Users\305228\Box\WAT-DW-AEA General\PROJECTS\6732_TrendArchitecture_Welwick\Plans\6732.dwg

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Vans Space

VANS SPACE AREA (1660m²) ASSUMED FULLY IMPERMEABLE.

Access Point

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+11.15

BUILT AS
PARTIAL
UB-BASE
323.7m³
APACITY.

MEABLE
EXTILES.

EXISTING PIPE ACCORDING TO THE CLIENT. DEPTH AND DIAMETER TBC AT THE DETAILED DESIGN STAGE. TO BE MAINTAINED/REPLACED AS EXISTING.

Main Street

+11.2

Tents Space

+11.1

TENTS SPACE AREA (4460m²) ASSUMED HALF IMPERMEABLE TO ACCOUNT CONSERVATIVELY FOR MAXIMUM OCCUPANCY.

Existing Pond

PROVIDE NEW MANHOLE ON EXISTING PIPE. DEPTH OF PIPE SHOULD BE AT APPROXIMATELY 10.0mAOD (TBC AT DETAILED DESIGN) BASED ON DITCH UP/DOWNSTREAM LEVELS.

PROVIDE NON-RETURN VALVE ON OUTFALL PIPE INTO THE NEW MANHOLE.

TED WITH
UTFLOWS
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CATCHPIT
LOCKAGES.

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Glamping Space

GLAMPING SPACE AREA (830m²) ASSUMED FULLY IMPERMEABLE, WHICH INCLUDES ONLY THE FIXED TENTS AND ASSUMED GRAVEL HARDSTANDING AT THE FRONT.

10125 10125 10125 10125 10125

+11.5

Waste and Recycling Point

+11.25

Septic Tank

DO NOT CONNECT OTHER PIPES TO THE PERFORATED PIPES LEADING TO THE FLOW CONTROL MANHOLE.

RUNOFF TO BE FILTERED THROUGH THE SUB-BASE (BUILT WITH 6-20mm CRUSHED STONE) TRAPPING ANY LARGE SEDIMENTS THAT WOULD OTHERWISE BLOCK THE FLOW CONTROL.

HARDSTANDING (220m²) TO BE BUILT AS PERMEABLE PAVING (TYPE B - PARTIAL INFILTRATION) WITH 0.65m DEEP SUB-BASE (0.3 VOID RATIO), PROVIDING 42.9m³ ATTENUATION STORAGE CAPACITY.

SUB-BASE TO BE WRAPPED IN PERMEABLE GEOTEXTILES.

KLARGESTER BIODISK COMMERCIAL (OR SIMILAR) WASTEWATER TREATMENT SYSTEM, CERTIFIED FOR DISCHARGES TO WATERCOUSES. SIZIING OF UNIT TO SUIT MAXIMUM CAMPSITE POPULATION SIZE.

Lay-by

42080

SEE CONTINUATION ON DRW 6732-01/01 (SHEET 1 OF 2)

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Client
TREND ARCHITECTURE

AMBIENTAL
ENVIRONMENTAL ASSESSMENT
a company of Royal HaskoningDHV

Project
LAND NEXT TO GRANGE FARM, HU12 0SA
PROJECT NO. 6732

Drawing
SURFACE WATER DRAINAGE STRATEGY
PRELIMINARY LAYOUT

Drawn by: SD Date: JUNE-2022

Drawing No. 6732-01/02 (SHEET 2 OF 2) Revision .

Drawing Scale: 1:100 @ A1
0 1m 2m 3m 4m 5m

Drawing No.: C:\Users\326228\Box\WAT-DW-AEA General\PROJECTS\6732_TrendArchitecture_WeWick\Plans\6732.dwg