KEY

- PROPOSED PRIVATE SURFACE WATER DRAINAGE 100mmØ @ 1:100min
- PROPOSED PRIVATE ACO TYPE DRAIN
- PROPOSED PRIVATE SOAKAWAY CONSTRUCTED USING MODULAR INFILTRATION UNITS (WAVIN AQUACELL OR SIMILAR)
- PROPOSED PRIVATE SURFACE WATER POLYPROPYLENE INSPECTION CHAMBER (475Ø/450Ø P.P.I.C.) (WAVIN SILT TRAP)
- PROPOSED CATCHPIT WITH LEAF AND DEBRIS FILTER
- PROPOSED PRIVATE ROAD GULLY

SURFACE WATER:

THE SITE IS LOCATED IN THE VILLAGE OF TREVONE, NEAR TO PADSTOW. PERCOLATION TESTS WERE UNDERTAKEN ON SITE TO BRE 365 TO DETERMINE WHETHER THE IMPERMEABLE AREAS CREATED BY THE PROPOSED DEVELOPMENT COULD BE DRAINED BY INFILTRATION. TESTS CONFIRMED THAT AN INFILTRATION DRAINAGE SYSTEM COULD BE USED TO DISCHARGE SURFACE WATER FROM THE PROPOSED DEVELOPMENT. THE FOLLOWING RATE HAS BEEN USED FOR THE CALCULATIONS TO DETERMINE THE DIMENSIONS OF THE SOAKAWAYS REQUIRED.

PIT 1: 0.203m/hr

THE PROPOSED LAYOUT IN THIS DRAWING SHOWS THE PROPOSED LAYOUT OF THE SURFACE WATER INFILTRATION SYSTEM AT THE SITE.

MICRO-DRAINAGE SOFTWARE HAS BEEN USED TO SIZE THE STORAGE REQUIRED TO DRAIN THE IMPERMEABLE AREAS FROM THE PROPOSED DEVELOPMENT. THIS CALCULATION IS BASED ON MODULAR INFILTRATION UNITS TO ACCOMMODATE THE WORST CASE DESIGN STORM (100-YEAR) WITH RAINFALL INTENSITIES INCREASED BY 50% TO ALLOW FOR THE EFFECTS OF CLIMATE CHANGE. FEH RAINFALL DATA HAS BEEN USED. AS REQUIRED BY THE LOCAL DRAINAGE GUIDANCE FOR THIS AREA.

FUTURE MANAGEMENT PLAN & MAINTENANCE OF THE SYSTEM:

THE PROPOSED SURFACE WATER SYSTEM WILL REMAIN PRIVATE AND WILL BE OPERATED AND MAINTAINED BY OWNER OF THE PROPERTY.

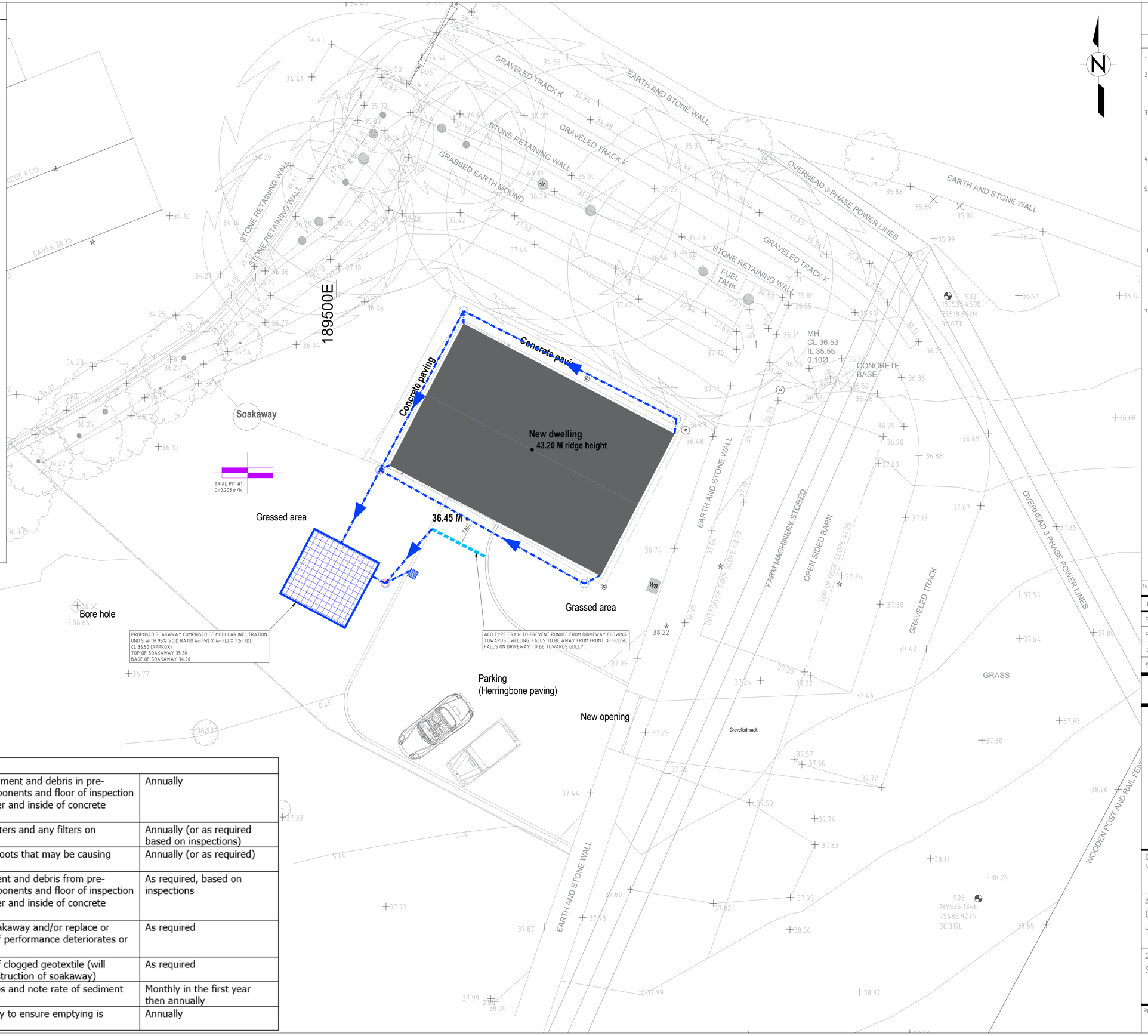
REGULAR INSPECTION AND CLEANING OF THE DRAINAGE INFRASTRUCTURE, INCLUDING GUTTERING, DOWN-PIPE/GULLEY NETWORKS SHOULD BE CARRIED OUT FREQUENTLY TO PREVENT BUILD-UP OF SILT AND DEBRIS, WHICH WILL REDUCE THE SYSTEM CONVEYANCE CAPACITY. VISUAL INSPECTION SHOULD IDEALLY BE CARRIED OUT AFTER ANY HEAVY RAINFALL EVENT DURING THE FIRST YEAR OF OPERATION, THEN SIX-MONTHLY AFTER THAT. PARTICULAR ATTENTION SHOULD BE PAID DURING THE AUTUMN MONTHS WHEN LEAF LITTER AND OTHER DEAD PLANT MATERIAL MAY CAUSE OBSTRUCTION.

INSPECTION OF UPSTREAM CATCH-PITS, UPSTREAM GULLIES AND PIPEWORK TO INCLUDE REMOVAL OF DEBRIS SHOULD BE UNDERTAKEN AS NECESSARY. OPTIONAL CCTV INSPECTION AND DE-SILT SHOULD BE UNDERTAKEN IF REQUIRED ON A TEN-YEARLY BASIS.

ROUTINE INSPECTION OF THE SOAKAWAYS SHOULD OCCUR TO ENSURE THAT THEY REMAIN EFFICIENT, SILT REMOVAL MAY BE NEEDED FROM TIME TO TIME.

A MAINTENANCE SCHEDULE FOR THE SOAKAWAYS IS OUTLINED ON THE TABLE BELOW, OBTAINED FROM CIRIA 753 SUDS MANUAL

ANY ISSUES OR FAILURES IDENTIFIED WITH THE SYSTEM SHOULD BE RECTIFIED IMMEDIATELY BY A SUITABLE CONTRACTOR, OBSERVING SUITABLE WORKING PRACTICES AND FOLLOWING THE GUIDANCE AND PROCEDURES AS IDENTIFIED ABOVE.



SOAKAWAYS		
Regular maintenance	Inspect for sediment and debris in pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	Annually
	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required)
Occasional maintenance	Remove sediment and debris from pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	As required, based on inspections
Remedial actions	Reconstruct soakaway and/or replace or clean void fill, if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will required reconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year then annually
	Check soakaway to ensure emptying is occurring	Annually

NOTES

1. This drawing is copyright. Refer to details above.
2. This drawing is only to be used for the purposes described in the status box below. Work to figured dimensions only, do not scale for construction purposes.
3. This drawing is to be read in conjunction with all other drawings, details and specifications pertaining to the work described. It should only be used for the purpose marked in the status box below, and shall not be used for construction unless clearly marked CONSTRUCTION.
4. Materials and workmanship shall comply to the appropriate British Standards and Codes of Practice unless otherwise stated.
5. The activities required to construct the work, shown on drawings clearly marked CONSTRUCTION, may be subject to the provisions of the Construction (Design & Management) Regulations 2015. The Contractor and Client must ensure that they are adequately conversant with these regulations and that the appropriate procedures required under the regulations are observed at all times.
6. The contractor is responsible for locating services prior to excavation. Any services shown on the drawing should be considered 'indicative' only. Where no services are shown on the drawing it does not necessarily mean there are no services present, only that a services search has not been undertaken. Where in doubt refer to HSE booklet "avoiding danger from underground services"
7. Design Risk Assessment

   A risk assessment relating to potential hazards associated with the works described within this drawing, in so far as they have been designed by EDS Ltd, has been undertaken. Risks identified have been eliminated by design wherever practicable. The status with regard to residual risks is as follows:

   The work is of low complexity with low level of risk, it is considered that there are no significant residual risks that would not be readily foreseeable by a competent contractor, observing good working practices.

Designer - EDS Drawing revision - A
Date - 14/03/24

DATE	DRWN.	CHKD.	REV.	NOTES.
14/03/24	LT	AW	A	PRELIMINARY ISSUE

PROJECT MANAGER:-	JAN CLARK
PROJECT ENGINEER:-	LEILA THOMPSON
DRAWN DATE:-	MARCH 2024
SCALE & SHEET SIZE:-	1:100 @ A1

PRELIMINARY

EDS
Engineering & Development Solutions
- Flood Risk Assessment
- SuDS and Surface Water
- Foul and Sewage Treatment
- Highway Design
- Civil Engineering
- Statutory Approvals

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PROJECT
CONSTRUCTION OF NEW DWELLING ON LAND NORTH EAST OF TREVONE FARM,

DRAWING TITLE
SURFACE WATER DRAINAGE DESIGN

PROJECT No.	DRAWING No.	REV.
J-3349	3001	A