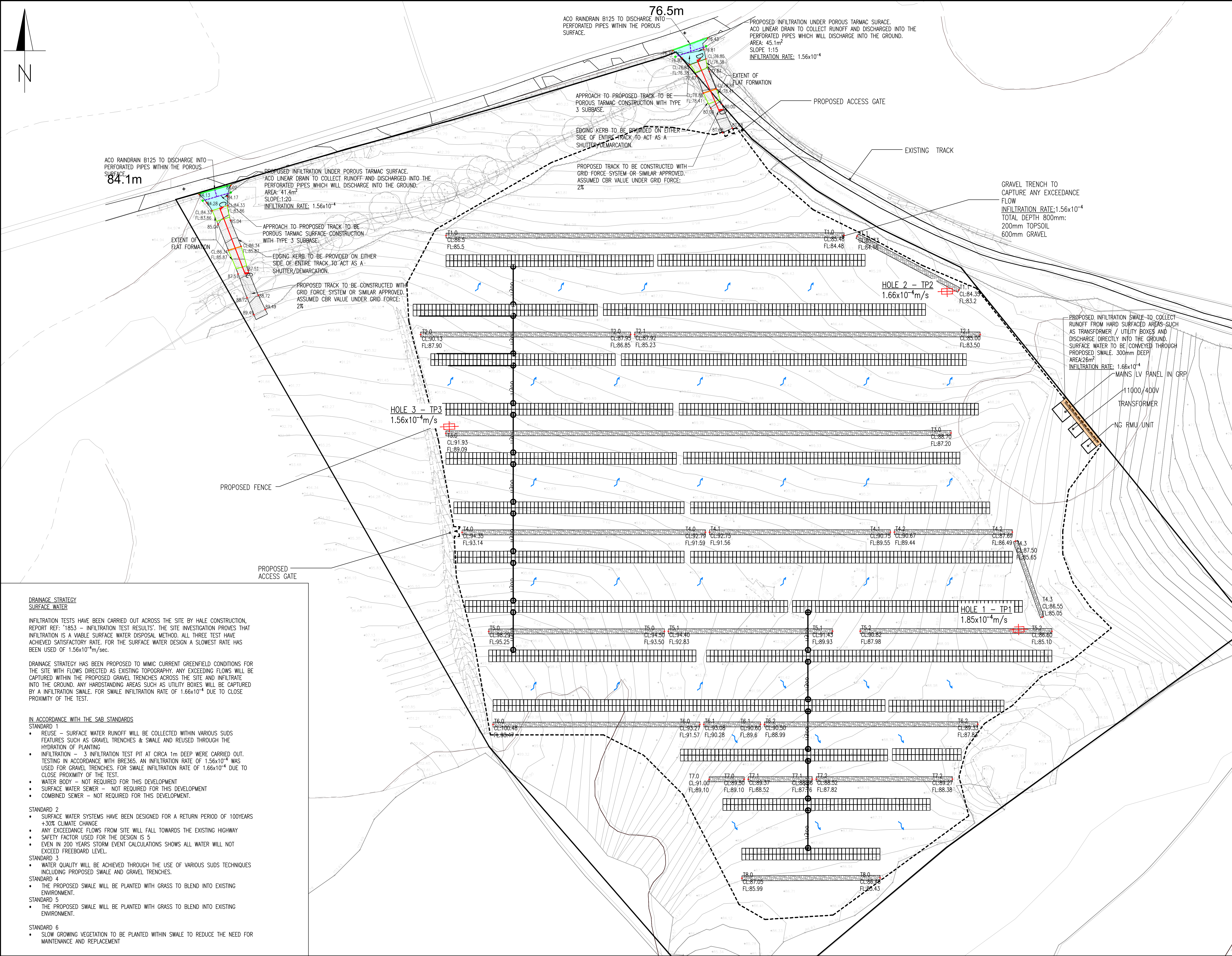




**DRAINAGE STRATEGY
SURFACE WATER**

INFILTRATION TESTS HAVE BEEN CARRIED OUT ACROSS THE SITE BY HALE CONSTRUCTION, REPORT REF: '1853 - INFILTRATION TEST RESULTS'. THE SITE INVESTIGATION PROVES THAT INFILTRATION IS A VIABLE SURFACE WATER DISPOSAL METHOD. ALL THREE TEST HAVE ACHIEVED SATISFACTORY RATE. FOR THE SURFACE WATER DESIGN A SLOWEST RATE HAS BEEN USED OF 1.56×10^{-4} m/sec.

DRAINAGE STRATEGY HAS BEEN PROPOSED TO MIMIC CURRENT GREENFIELD CONDITIONS FOR THE SITE WITH FLOWS DIRECTED AS EXISTING TOPOGRAPHY. ANY EXCEEDING FLOWS WILL BE CAPTURED WITHIN THE PROPOSED GRAVEL TRENCHES ACROSS THE SITE AND INFILTRATE INTO THE GROUND. ANY HARDSTANDING AREAS SUCH AS UTILITY BOXES WILL BE CAPTURED BY AN INFILTRATION SWALE. FOR SWALE INFILTRATION RATE OF 1.66×10^{-4} DUE TO CLOSE PROXIMITY OF THE TEST.

IN ACCORDANCE WITH THE SAB STANDARDS

- STANDARD 1
- REUSE - SURFACE WATER RUNOFF WILL BE COLLECTED WITHIN VARIOUS SUDS FEATURES SUCH AS GRAVEL TRENCHES & SWALE AND REUSED THROUGH THE HYDRATION OF PLANTING
 - INFILTRATION - 3 INFILTRATION TEST PIT AT CIRCA 1m DEEP WERE CARRIED OUT. TESTING IN ACCORDANCE WITH BRE365, AN INFILTRATION RATE OF 1.56×10^{-4} WAS USED FOR GRAVEL TRENCHES. FOR SWALE INFILTRATION RATE OF 1.66×10^{-4} DUE TO CLOSE PROXIMITY OF THE TEST.
 - WATER BODY - NOT REQUIRED FOR THIS DEVELOPMENT
 - SURFACE WATER SEWER - NOT REQUIRED FOR THIS DEVELOPMENT
 - COMBINED SEWER - NOT REQUIRED FOR THIS DEVELOPMENT.
- STANDARD 2
- SURFACE WATER SYSTEMS HAVE BEEN DESIGNED FOR A RETURN PERIOD OF 100YEARS
 - +30% CLIMATE CHANGE
 - ANY EXCEEDANCE FLOWS FROM SITE WILL FALL TOWARDS THE EXISTING HIGHWAY
 - SAFETY FACTOR USED FOR THE DESIGN IS 5
 - EVEN IN 200 YEARS STORM EVENT CALCULATIONS SHOWS ALL WATER WILL NOT EXCEED FREEBOARD LEVEL.
- STANDARD 3
- WATER QUALITY WILL BE ACHIEVED THROUGH THE USE OF VARIOUS SUDS TECHNIQUES INCLUDING PROPOSED SWALE AND GRAVEL TRENCHES.
- STANDARD 4
- THE PROPOSED SWALE WILL BE PLANTED WITH GRASS TO BLEND INTO EXISTING ENVIRONMENT.
- STANDARD 5
- THE PROPOSED SWALE WILL BE PLANTED WITH GRASS TO BLEND INTO EXISTING ENVIRONMENT.
- STANDARD 6
- SLOW GROWING VEGETATION TO BE PLANTED WITHIN SWALE TO REDUCE THE NEED FOR MAINTENANCE AND REPLACEMENT

GENERAL NOTES

1. DO NOT SCALE THIS DRAWING.
2. CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
3. ANY DISCREPANCY TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
4. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.

KEY:

- OVERLAND EXCEEDANCE
- GRAVEL TRENCH (INFILTRATING)
- POROUS TARMAC SURFACE WITH TYPE 3 SUBBASE
- INFILTRATION SWALE
- ACO LINEAR DRAIN
- PRIVATE PERFORATED STORM DRAINAGE
- FLAT FORMATION AREA
- BAFFLE CONSTRUCTION

Rev.	Detail	By	Date
C	TRENCHES AND ACCESS SURFACE AMENDED ON PLAN	DH	22.01.26
B	PROPOSED SWALE AMENDED ON PLAN	AJ	07.01.26
A	PROPOSED DRAINAGE STRATEGY REVISED	AJ	19.08.25

Revisions

Reinforcement schedules nos.

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Client
HALE CONSTRUCTION

Project
**GELLI BWCH FARM
LLANDARCY**

Drawing Title
**SOLAR FARM DRAINAGE
STRATEGY**

Project No. C1853		Drawing No. C-SK04	
Scales 1:500	Drawn DF	Date 02.09.21	Revision C
Checked DH	Sheet Size A1		