

COMPLIANCE WITH STANDARD PRINCIPLES

THE PROPOSED SURFACE WATER DRAINAGE SCHEME WILL COMPLY BY ADHERING TO THE SIX STANDARD PRINCIPLES WHILST DISCHARGING TO AN AGREED RUN-OFF RATE.

THE SCHEME SHALL LOOK TO MEET THE INTERCEPTION CRITERIA FOR THE FIRST 5mm OF RAINFALL BY ENSURING THAT ALL HARDBAVED SURFACES ARE CAPTURED BY A ROAD SIDE SWALE / POND.

ATTENUATION WILL BE PROVIDED ABOVE GROUND IN A SHALLOW SWALE/POND AND SIZED FOR THE 1 IN 100YR+40% EVENT.

TREATMENT OF RUN-OFF SHALL BE ACHIEVED BY A FILTER STRIP AND SWALE/POND.

STANDARD 1 - SURFACE WATER DESTINATION

THERE IS NO DEMAND FOR RAINWATER HARVESTING ON THE SITE.

THE SITE INVESTIGATION BY INTEGRAL GEOTECHNIQUE HAS CONFIRMED VIA BRE 365 SOAKAWAY TESTING THAT THERE IS INSUFFICIENT INFILTRATION ON THE SITE AND SOAKAWAY SOLUTIONS ARE NOT VIABLE FOR A DISPOSAL METHOD.

THE NEAREST WATER BODY TO THE SITE IS THE DAYLIGHTED CULVERT TO THE SOUTH WEST WHICH WILL DRAIN THE SITE. THE PV ARRAY LAND WILL DISCHARGE UNRESTRICTED TO THE CHANNEL THE NEW HARDSTANDING ASSOCIATED WITH THE ACCESS & COMPOUND WILL BE RESTRICTED TO GREENFIELD RUNOFF RATES. THE PROPOSED CATCHMENT FOR THE COMPOUND AREA IS 1,025m².

STANDARD 2 - SURFACE WATER RUNOFF HYDRAULIC CONTROL

CATCHMENT AREA REQUIRING RESTRICTION = 1,025m².
 QBAR (ReFH2) = 10.06l/s/ha. DISCHARGE RESTRICTION = 1 l/s.
 ATTENUATION REQUIREMENT FOR 1 IN 100YR+40% = 96.8m³

INTERCEPTION CRITERIA WHERE THERE IS A REQUIREMENT TO PREVENT THE FIRST 5MM OF RAINFALL LEAVING THE SITE SHALL BE MET BY PROVIDING RUNOFF DIRECT TO THE SWALE/POND TO THE SOUTH OF THE COMPOUND.

STANDARD 3 - WATER QUALITY

GENERALLY, THE RUNOFF FROM THE ACCESS ROADS AND SUBSTATION HOUSING WOULD BE DEEMED AS 'LOW' POLLUTION HAZARD LEVELS. GENERALLY, RUNOFF FROM THESE AREAS WILL REQUIRE ONE TO TWO LEVELS OF TREATMENT. THE SIMPLE INDEX APPROACH METHOD SHOULD BE ADOPTED TO ENSURE SUFFICIENT TREATMENT MEASURES ARE IN PLACE.

THE RUNOFF IS PROPOSED TO BE TREATED VIA A FILTER STRIP AND SWALE.

STANDARD 4 - AMENITY

THE NEW SWALE FEATURE WILL PROMINENT NEAR THE SITE ACCESS AND GIVE OPPORTUNITIES FOR DIVERSE PLANTING. THE SITE IS SECURED AND NOT OPEN TO THE PUBLIC.

STANDARD 5 - BIODIVERSITY

THE SCHEME PROVIDES OPPORTUNITIES FOR BIODIVERSITY VIA THE PROPOSED SWALE NEAR THE SITE ACCESS. REFER TO LANDSCAPING PROPOSALS & BIODIVERSITY STRATEGY.

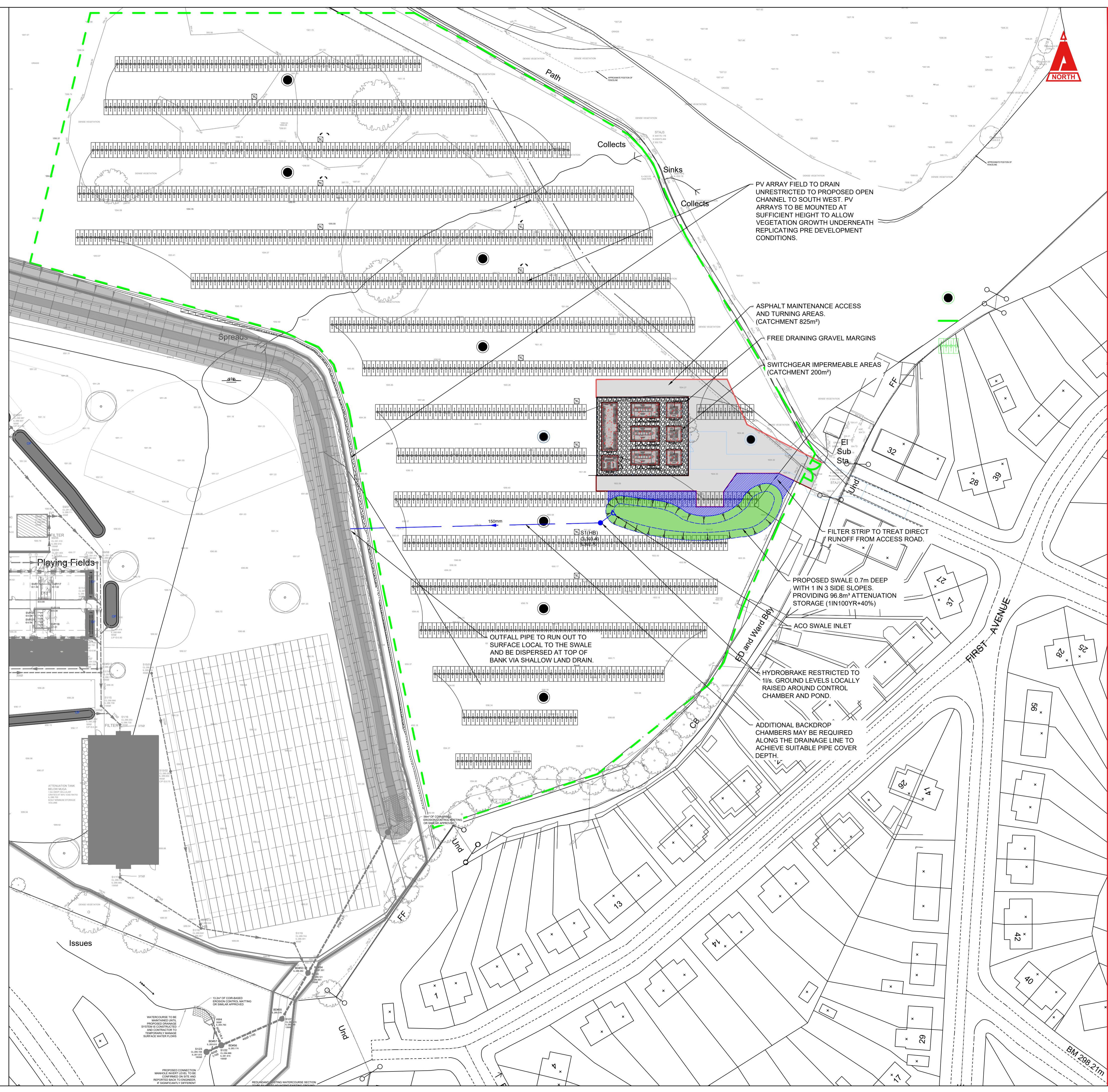
STANDARD 6 - DESIGN OF DRAINAGE FOR CONSTRUCTION, OPERATION AND MAINTENANCE

THE SUDS SOLUTION HAS BEEN DESIGNED IN ACCORDANCE WITH THE SUDS MANUAL AND IS GENERALLY SERVED BY SHALLOW SUDS FEATURES. THERE ARE NO INHERENT SAFETY ISSUES WITH THE PROPOSED SCHEME AND ANY ISSUES WILL BE ADDRESSED VIA DESIGNER'S RISK ASSESSMENTS DURING THE REMAINDER OF THE DESIGN PROCESS.

THE PROPOSED SUDS INFRASTRUCTURE IS IN AN ACCESSIBLE AREA FOR EASE OF MAINTENANCE.

EXCEEDANCE FLOWS SHALL BE DIRECTED AWAY FROM THE EXISTING PROPERTIES TO THE SOUTH AND EAST.

THE SUDS FEATURES WILL REMAIN IN PRIVATE OWNERSHIP AND WILL BE SUBJECT TO A MAINTENANCE PLAN.



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CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE. ONLY FIGURED DIMENSIONS ARE TO BE WORKED FROM. DISCREPANCIES MUST BE REPORTED IMMEDIATELY TO CAMBRIA CONSULTING LIMITED BEFORE PROCEEDING.

THE CONTRACTOR IS TO REFER TO THE SPECIFICATION, FULL SCHEDULE OF RESIDUAL RISKS IN THE CONTRACT DOCUMENTATION AND ALSO TO INFORMATION FROM OTHER DESIGNERS, IN PARTICULAR THE M&E CONSULTANT REGARDING EXISTING LIVE SERVICES.

! THIS SYMBOL IS USED TO HIGHLIGHT INSTANCES OF RISK WITHIN THE CONSTRUCTION PROCESS. ALWAYS CHECK FOR LATER REVISIONS OF THIS DRAWING.

- NOTES:**
1. DRAINAGE STRATEGY SUBJECT TO CONSULTATION WITH THE SAB AND THE SAB APPROVAL PROCESS.
 2. UPDATED PV ARRANGEMENT REQUIRED TO SUIT SITE ACCESS AND MAINTENANCE ROAD EXTENTS AS WELL AS SUDS PROVISION.
 3. STRATEGY SUBJECT TO PROPOSED GROUND LEVELS DESIGN.

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PEN Y DRE COMPREHENSIVE SCHOOL CC2268

Drawing Title:
PV ARRAY DRAINAGE STRATEGY

Drawing No.
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Status	Scale @A1:	Rev
S1 PRELIMINARY	1:500	P01

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