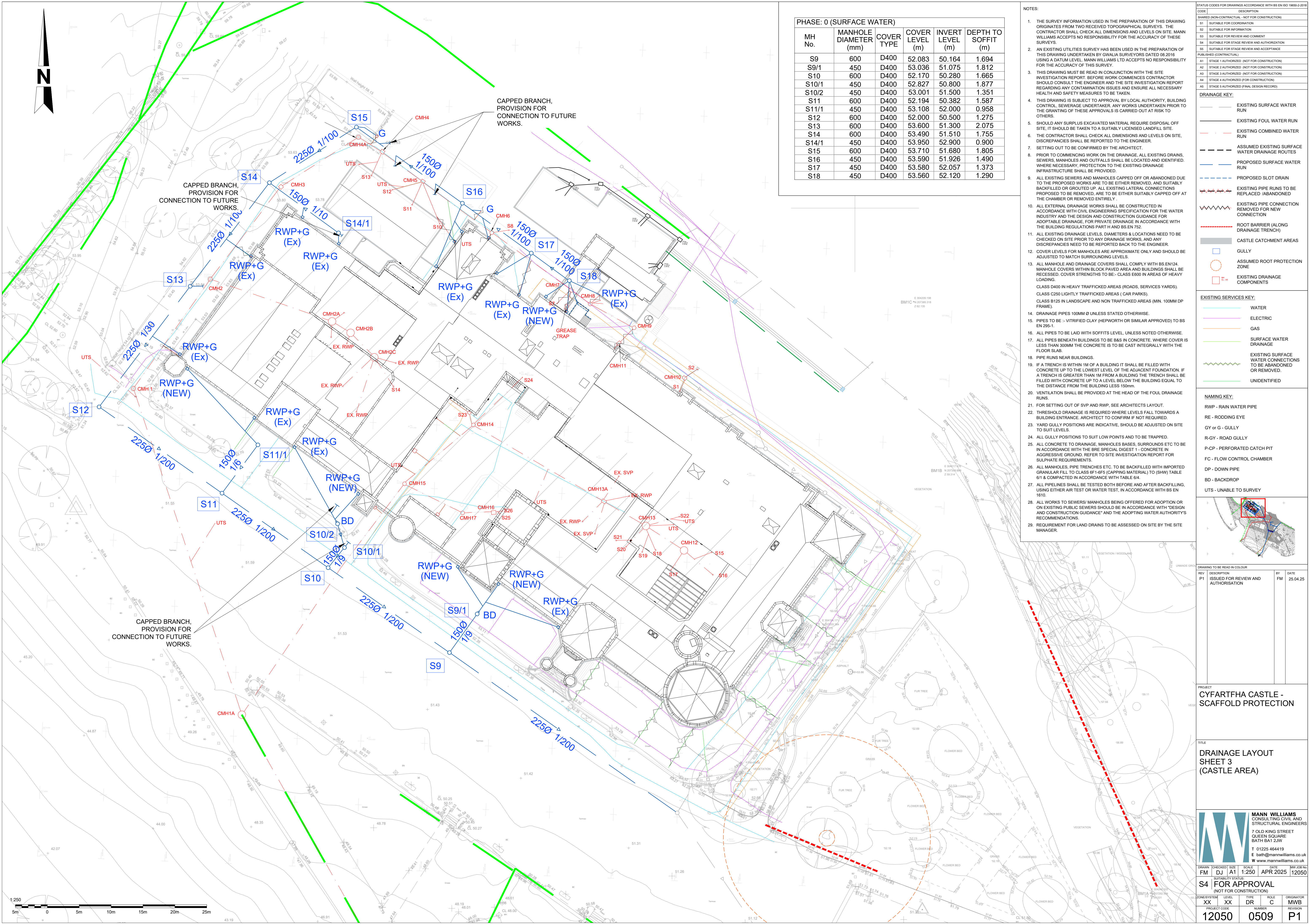




PHASE: 0 (SURFACE WATER)					
MH No.	MANHOLE DIAMETER (mm)	COVER TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)
S9	600	D400	52.083	50.164	1.694
S9/1	450	D400	53.036	51.075	1.812
S10	600	D400	52.170	50.280	1.665
S10/1	450	D400	52.827	50.800	1.877
S10/2	450	D400	53.001	51.500	1.351
S11	600	D400	52.194	50.382	1.587
S11/1	450	D400	53.108	52.000	0.958
S12	600	D400	52.000	50.500	1.275
S13	600	D400	53.600	51.300	2.075
S14	600	D400	53.490	51.510	1.755
S14/1	450	D400	53.950	52.900	0.900
S15	600	D400	53.710	51.680	1.805
S16	450	D400	53.590	51.926	1.490
S17	450	D400	53.580	52.057	1.373
S18	450	D400	53.560	52.120	1.290

- NOTES:
- THE SURVEY INFORMATION USED IN THE PREPARATION OF THIS DRAWING ORIGINATES FROM TWO RECEIVED TOPOGRAPHICAL SURVEYS. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE. MANN WILLIAMS ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THESE SURVEYS.
 - AN EXISTING UTILITIES SURVEY HAS BEEN USED IN THE PREPARATION OF THIS DRAWING UNDERTAKEN BY GWALIA SURVEYORS DATED 08/2016 USING A DATUM LEVEL. MANN WILLIAMS LTD ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THIS SURVEY.
 - THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE SITE INVESTIGATION REPORT. BEFORE WORK COMMENCES CONTRACTOR SHOULD CONSULT THE ENGINEER AND THE SITE INVESTIGATION REPORT REGARDING ANY CONTAMINATION ISSUES AND ENSURE ALL NECESSARY HEALTH AND SAFETY MEASURES TO BE TAKEN.
 - THIS DRAWING IS SUBJECT TO APPROVAL BY LOCAL AUTHORITY, BUILDING CONTROL, SEWERAGE UNDERTAKER. ANY WORKS UNDERTAKEN PRIOR TO THE GRANTING OF THESE APPROVALS IS CARRIED OUT AT RISK TO OTHERS.
 - SHOULD ANY SURPLUS EXCAVATED MATERIAL REQUIRE DISPOSAL OFF SITE, IT SHOULD BE TAKEN TO A SUITABLY LICENSED LANDFILL SITE.
 - THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE. DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
 - SETTING OUT TO BE CONFIRMED BY THE ARCHITECT.
 - PRIOR TO COMMENCING WORK ON THE DRAINAGE, ALL EXISTING DRAINS, SEWERS, MANHOLES AND OUTFALLS SHALL BE LOCATED AND IDENTIFIED. WHERE NECESSARY, PROTECTION TO THE EXISTING DRAINAGE INFRASTRUCTURE SHALL BE PROVIDED.
 - ALL EXISTING SEWERS AND MANHOLES CAPPED OFF OR ABANDONED DUE TO THE PROPOSED WORKS ARE TO BE EITHER REMOVED, AND SUITABLY BACKFILLED OR GROUTED UP. ALL EXISTING LATERAL CONNECTIONS PROPOSED TO BE REMOVED, ARE TO BE EITHER SUITABLY CAPPED OFF AT THE CHAMBER OR REMOVED ENTIRELY.
 - ALL EXTERNAL DRAINAGE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY AND THE DESIGN AND CONSTRUCTION GUIDANCE FOR ADAPTABLE DRAINAGE, FOR PRIVATE DRAINAGE IN ACCORDANCE WITH THE BUILDING REGULATIONS PART H AND BS EN 752.
 - ALL EXISTING DRAINAGE LEVELS, DIAMETERS & LOCATIONS NEED TO BE CHECKED ON SITE PRIOR TO ANY DRAINAGE WORKS, AND ANY DISCREPANCIES NEED TO BE REPORTED BACK TO THE ENGINEER.
 - COVER LEVELS FOR MANHOLES ARE APPROXIMATE ONLY AND SHOULD BE ADJUSTED TO MATCH SURROUNDING LEVELS.
 - ALL MANHOLE AND DRAINAGE COVERS SHALL COMPLY WITH BS EN124. MANHOLE COVERS WITHIN BLOCK PAVED AREA AND BUILDINGS SHALL BE RECESSED. COVER STRENGTHS TO BE - CLASS E60 IN AREAS OF HEAVY LOADING.
CLASS D400 IN HEAVY TRAFFICKED AREAS (ROADS, SERVICES YARDS).
CLASS C250 LIGHTLY TRAFFICKED AREAS (CAR PARKS).
CLASS B125 IN LANDSCAPED AND NON TRAFFICKED AREAS (MIN. 100MM DP FRAME).
 - DRAINAGE PIPES 100MM Ø UNLESS STATED OTHERWISE.
 - PIPES TO BE - VITRIFIED CLAY (HEPWORTH OR SIMILAR APPROVED) TO BS EN 350-1.
 - ALL PIPES TO BE LAID WITH SOFFITS LEVEL, UNLESS NOTED OTHERWISE.
 - ALL PIPES BENEATH BUILDINGS TO BE B4S IN CONCRETE, WHERE COVER IS LESS THAN 300MM THE CONCRETE IS TO BE CAST INTEGRALLY WITH THE FLOOR SLAB.
 - PIPE RUNS NEAR BUILDINGS.
 - IF A TRENCH IS WITHIN 1M OF A BUILDING IT SHALL BE FILLED WITH CONCRETE UP TO THE LOWEST LEVEL OF THE ADJACENT FOUNDATION. IF A TRENCH IS GREATER THAN 1M FROM A BUILDING THE TRENCH SHALL BE FILLED WITH CONCRETE UP TO A LEVEL BELOW THE BUILDING EQUAL TO THE DISTANCE FROM THE BUILDING LESS 150mm.
 - VENTILATION SHALL BE PROVIDED AT THE HEAD OF THE FOUL DRAINAGE RUNS.
 - FOR SETTING OUT OF SVP AND RWP - SEE ARCHITECTS LAYOUT.
 - THRESHOLD DRAINAGE IS REQUIRED WHERE LEVELS FALL TOWARDS A BUILDING ENTRANCE. ARCHITECT TO CONFIRM IF NOT REQUIRED.
 - YARD GULLY POSITIONS ARE INDICATIVE, SHOULD BE ADJUSTED ON SITE TO SUIT LEVELS.
 - ALL GULLY POSITIONS TO SUIT LOW POINTS AND TO BE TRAPPED.
 - ALL CONCRETE TO DRAINAGE, MANHOLES BASES, SURROUNDS ETC TO BE IN ACCORDANCE WITH THE BRE SPECIAL DIGEST 1 - CONCRETE IN AGGRESSIVE GROUND. REFER TO SITE INVESTIGATION REPORT FOR SULPHATE REQUIREMENTS.
 - ALL MANHOLES, PIPE TRENCHES ETC. TO BE BACKFILLED WITH IMPORTED GRANULAR FILL TO CLASS 6F1-6F5 (CAPPING MATERIAL) TO (SHW) TABLE 611 & COMPACTED IN ACCORDANCE WITH TABLE 614.
 - ALL PIPELINES SHALL BE TESTED BOTH BEFORE AND AFTER BACKFILLING, USING EITHER AIR TEST OR WATER TEST, IN ACCORDANCE WITH BS EN 1610.
 - ALL WORKS TO SEWERS/ MANHOLES BEING OFFERED FOR ADOPTION OR ON EXISTING PUBLIC SEWERS SHOULD BE IN ACCORDANCE WITH 'DESIGN AND CONSTRUCTION GUIDANCE' AND THE ADOPTING WATER AUTHORITY'S RECOMMENDATIONS.
 - REQUIREMENT FOR LAND DRAINS TO BE ASSESSED ON SITE BY THE SITE MANAGER.

STATUS CODES FOR DRAWINGS ACCORDANCE WITH BS EN ISO 15926-2:2018	
CODE	DESCRIPTION
SHAWED	NON-CONTRACTUAL - NOT FOR CONSTRUCTION
S1	SUITABLE FOR COORDINATION
S2	SUITABLE FOR INFORMATION
S3	SUITABLE FOR REVIEW AND COMMENT
S4	SUITABLE FOR STAGE REVIEW AND AUTHORIZATION
S5	SUITABLE FOR STAGE REVIEW AND ACCEPTANCE
PUBLISHED (CONTRACTUAL)	
A1	STAGE 1 AUTHORIZED (NOT FOR CONSTRUCTION)
A2	STAGE 2 AUTHORIZED (NOT FOR CONSTRUCTION)
A3	STAGE 3 AUTHORIZED (NOT FOR CONSTRUCTION)
A4	STAGE 4 AUTHORIZED (FOR CONSTRUCTION)
A5	STAGE 5 AUTHORIZED (FINAL DESIGN RECORD)

- DRAINAGE KEY:**
- EXISTING SURFACE WATER RUN
 - EXISTING FOUL WATER RUN
 - EXISTING COMBINED WATER RUN
 - ASSUMED EXISTING SURFACE WATER DRAINAGE ROUTES
 - PROPOSED SURFACE WATER RUN
 - PROPOSED SLOT DRAIN
 - EXISTING PIPE RUNS TO BE REPLACED /ABANDONED
 - EXISTING PIPE CONNECTION REMOVED FOR NEW CONNECTION
 - ROOT BARRIER (ALONG DRAINAGE TRENCH)
 - CASTLE CATCHMENT AREAS
 - GULLY
 - ASSUMED ROOT PROTECTION ZONE
 - EXISTING DRAINAGE COMPONENTS

- EXISTING SERVICES KEY:**
- WATER
 - ELECTRIC
 - GAS
 - SURFACE WATER DRAINAGE
 - EXISTING SURFACE WATER CONNECTIONS TO BE ABANDONED OR REMOVED
 - UNIDENTIFIED

- NAMING KEY:**
- RWP - RAIN WATER PIPE
 - RE - RODDING EYE
 - GY - G - GULLY
 - R-GY - ROAD GULLY
 - P-CP - PERFORATED CATCH PIT
 - FC - FLOW CONTROL CHAMBER
 - DP - DOWN PIPE
 - BD - BACKDROP
 - UTS - UNABLE TO SURVEY



DRAWING TO BE READ IN COLOUR			
REV	DESCRIPTION	BY	DATE
P1	ISSUED FOR REVIEW AND AUTHORISATION	FM	25.04.25

PROJECT
CYFARTFHA CASTLE - SCAFFOLD PROTECTION

TITLE
DRAINAGE LAYOUT
SHEET 3
(CASTLE AREA)



MANN WILLIAMS
CONSULTING CIVIL AND
STRUCTURAL ENGINEERS
7 OLD KING STREET
QUEEN SQUARE
BATH BA1 1JW
T 01225 464419
E bath@mannwilliams.co.uk
W www.mannwilliams.co.uk

DRAWN	CHECKED	SIZE	SCALE	DATE	MW JOB NO.
FM	DJ	A1	1:250	APR 2025	12050
S4 FOR APPROVAL (NOT FOR CONSTRUCTION)					
ZONE/SYSTEM	LEVEL	TYPE	ROLE	ORIGINATOR	
XX	XX	DR	C	MWB	
PROJECT CODE		NUMBER		REVISION	
12050		0509		P1	