

SURFACE WATER DRAINAGE STRATEGY

THE PROPOSED DRAINAGE STRATEGY SHOWN ON THIS DRAWING INCORPORATES THE PRINCIPLES OF AND WHERE APPROPRIATE DEMONSTRATES COMPLIANCE WITH THE NPPF AND THE SUDS MANUAL.

THE PROPOSED DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH BS EN 752 AND BUILDING REGULATIONS PART H (2010). APPROVED SOCUMENT H INDICATES THE FOLLOWING HIERARCHY FOR THE DISPOSAL OF SURFACE WATER DRAINAGE FROM NEW DEVELOPMENT SITES, FIRSTLY DISCHARGE VIA INFILTRATION, SECONDLY DISCHARGE VIA WATERCOURSE AND LASTLY DISCHARGE TO SEWER.

THESE OPTIONS ARE DISCUSSED IN FURTHER DETAIL BELOW.

INFILTRATION: A REVIEW OF THE WML PHASE 2 SITE INVESTIGATION REPORT CONFIRMS THAT THE EXISTING SITE IS UNDERLAIN BY A MIXTURE OF GRANULAR MATERIAL INTERSPERSED WITH GLACIAL TILL.

INFILTRATION TESTS WERE UNDERTAKEN AND CONFIRMED THE FOLLOWING INFILTRATION RATES;

- 4x10-4 m/s
- 3x10-5 m/s

THE DRAINAGE SCHEME SHOWN ON THIS DRAWING IS BASED UPON THE DISPOSAL OF ALL SURFACE WATER VIA INFILTRATION USING THE ABOVE RATE OF 3x10-5 m/s,

IT IS PROPOSED TO DRAIN ALL NEW AREAS OF EXTERNAL FOOTPATHS, CAR PARKING & ACCESS ROADS VIA PERMEABLE PAVING (UltiSuDS BY TARMAC OR SIMILAR).

SURFACE WATER RUNOFF WILL BE STORED WITHIN THE SUB BASE MATERIAL PRIOR TO INFILTRATING INTO THE SUB STRATA.

IT IS PROPOSED TO COLLECT ROOF WATER VIA TRADITIONAL DOWNPIPES AND DISPOSE VIA A NEW CRATED SOAKAWAY SYSTEM LOCATED TO THE REAR OF THE NEW BUILDING.

THE PHASE 2 SITE INVESTIGATION REPORT ALSO CONFIRMED THE PRESENCE OF PERCHED WATER AT CIRCA 1.5mbgl.

IN ORDER TO ENSURE THE PERFORMANCE OF THE CRATED SOAKAWAY SYSTEMS IS NOT HINDERED BY THE PRESENCE OF PERCHED WATER, IT IS PROPOSED TO UTILIZE A SINGLE LAYER OF SHALLOW CRATES WITH A MAXIMUM DEPTH OF 1mbgl.

BOTH THE PERMEABLE SUB BASE AND STORAGE CRATE SYSTEM WILL BE DESIGNED TO STORE SURFACE WATER FOR ALL STORM EVENTS UPTO AND INCLUDING THE CRITICAL 100 YEAR EVENT PLUS 40% CLIMATE CHANGE ALLOWANCE.

FOUL WATER DRAINAGE STRATEGY

IT IS PROPOSED TO COLLECT WASTE WATER VIA TRADITIONAL SOIL STACKS AND SVPs AND CONNECT INTO THE NEAREST EXISTING PRIVATE FOUL WATER SEWER.

DESIGN ASSUMPTIONS

THE PROPOSED DRAINAGE DESIGN ON THIS DRAWING IS BASED ON THE FOLLOWING ASSUMPTIONS;

INFORMATION RELATING TO THE EXISTING SITE DRAINAGE INFRASTRUCTURE IS SHOWN INDICATIVE ONLY. THE CONTRACTOR IS TO CONFIRM THE EXACT LOCATIONS AND DEPTHS OF ALL EXISTING DRAINAGE INFRASTRUCTURE AT PROPOSED CONNECTION POINTS PRIOR TO CONSTRUCTION.

ALL DRAINAGE LEVELS SHOWN ARE INDICATIVE ONLY BASED ON AN ASSUMED FINISHED FLOOR LEVEL AND ARE SUBJECT TO FINAL LEVEL DESIGN BY THE ARCHITECT.

THE DRAINAGE DESIGN / INFORMATION SHOWN ON THIS DRAWING IS INDICATIVE ONLY AND IS SUBJECT TO CONFIRMATION OF THE EXISTING SITE DRAINAGE NETWORK DEPTHS AS NOTED ABOVE.

RAIN WATER PIPES AND SLAB PENETRATIONS ARE SHOWN INDICATIVE ONLY. ARCHITECT IS TO CONFIRM FINAL POSITIONS PRIOR TO DETAILED DESIGN.

LEGEND

- EXISTING PRIVATE SURFACE WATER SEWER
- EXISTING PRIVATE FOUL WATER SEWER
- EXISTING DRAINAGE TO BE ABANDONED/REMOVED
- PROPOSED PRIVATE SURFACE WATER SEWER
- (CP) DENOTES CATCH PIT WITH 500mm DEEP SUMP
- (BD) DENOTES EXTERNAL BACKDROP
- PROPOSED PRIVATE FOUL WATER SEWER
- PROPOSED CHANNEL DRAIN
- PROPOSED ATTENUATION TANK/SOAKAWAY

SUBJECT TO APPROVAL FROM LOCAL PLANNING AUTHORITY AND WELSH WATER

GENERAL NOTES

DO NOT SCALE FROM THIS DRAWING WORK TO FIGURED DIMENSIONS ONLY.

NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS ALLOWED WITHOUT PRIOR PERMISSION IN WRITING.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS AND THE SPECIFICATION.

THE CONTRACTOR SHALL INCORPORATE ALL THE REQUIREMENTS OF THE PRE-TENDER STAGE HEALTH AND SAFETY PLAN.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH WML DRAINAGE DETAIL DRAWINGS FOR DETAILS OF MATERIALS AND WORKMANSHIP REFER TO THE SPECIFICATION.

THE CONTRACTOR IS RESPONSIBLE FOR CHECKING INVERT LEVELS AND POSITIONS OF ALL EXISTING DRAINS, SEWERS, INSPECTION CHAMBERS AND MANHOLES SHOWN ON THIS DRAWING IMMEDIATELY ON SITE ESTABLISHMENT. ANY DISCREPANCIES MUST BE REPORTED TO WML CONSULTING IMMEDIATELY.

WHERE THE NEW SITE DRAINAGE CONNECTS IN TO EXISTING MANHOLES IN CARRIAGEWAYS AND/OR EXISTING ADOPTED SEWERS, THE CONTRACTOR IS RESPONSIBLE FOR ALL LIAISON WITH THE RELEVANT STATUTORY UNDERTAKER AND LOCAL AUTHORITY WITH REGARD TO ROAD CLOSURES, TRAFFIC MANAGEMENT, PERMITS TO WORK, SUBMISSION OF CONTRACTORS METHOD STATEMENTS AND RISK ASSESSMENTS AND OTHER DOCUMENTATION AND CORRESPONDENCE ASSOCIATED WITH THE SITE STAGE (PART 2) ELEMENT OF THE WORKS.

ROCKER PIPES TO BE PROVIDED AT ALL CONCRETE CASED INTERFACES.

PROVIDE ADEQUATE PROTECTION TO MAINTAIN MINIMUM COVER TO DRAINS DURING THE CONSTRUCTION PERIOD.

COVER LEVELS ON THIS DRAWING ARE APPROXIMATE AND INDICATIVE ONLY ARCHITECT TO CONFIRM COVER LEVELS TO ALL MANHOLES AND GULLIES PRIOR TO CONSTRUCTION.

THE LAYOUT OF DRAINAGE ON THIS DRAWING IS INDICATIVE ONLY ARCHITECT TO CONFIRM EXACT LOCATION OF MANHOLES AND GULLIES.

U.N.O SURFACE WATER DRAINAGE PIPES OVER Ø100mm TO BE TWIN WALLED STRUCTURED PLASTIC APPROVED BY THE ENGINEER.

U.N.O FOUL WATER DRAINAGE PIPES TO BE SUPERSLEVE VITRIFIED CLAY PIPES OR SIMILAR.

ALL COVERS AND RODDING ACCESS POINTS TO BE SEALED AND SCREWED TIGHT.

ALL INTERNAL MANHOLE COVERS TO BE DOUBLE SEALED, LOCKABLE AND RECESSED TO ACCEPT FLOOR FINISHES WHERE APPLICABLE.

SETTING OUT OF ALL INTERNAL GULLY/PLUMBING CONNECTIONS TO BE CO-ORDINATED BETWEEN THE SERVICE ENGINEERS AND THE ARCHITECT.

ALL INTERNAL GULLIES, PLUMBING CONNECTIONS, SOIL STACKS, SVPS AND ALL OTHER CONNECTIONS OF FOUL AND SURFACE WATER DRAINS TO BELOW GROUND TO BE FITTED WITH ACCESSIBLE RODDING POINTS ABOVE SLAB LEVEL.

ALL SURFACE WATER CONNECTIONS TO BE 100mm DIAMETER AT MINIMUM FALLS OF 1:100 UNLESS NOTED OTHERWISE.

ALL FOUL WATER CONNECTIONS TO BE 100mm DIAMETER AT MINIMUM FALLS OF 1:40 UNLESS NOTED OTHERWISE.

ALL CONNECTIONS TO BE MADE IN ACCORDANCE WITH STANDARD DETAIL DRAWINGS.

ALL PIPEWORK TO BE INSTALLED WITH SOFFITS LEVEL (E.G. AT CHANGES IN PIPE SIZE) U.N.O.

FOR DETAILS OF GREASE TRAP/MACERATOR REQUIREMENTS ASSOCIATED WITH KITCHENS REFER TO SERVICE ENGINEER.

ON COMPLETION OF DRAINAGE WORKS, THE NEW DRAINAGE SYSTEM IS TO BE THOROUGHLY CLEANED AND A CCTV SURVEY CARRIED OUT TO CONFIRM NO CONSTRUCTION DEBRIS OR BLOCKAGES REMAIN.

CONNECTIONS TO CARRIER DRAINS ARE TO BE "Y" JUNCTIONS.

ALL PRIVATE DRAINAGE IS TO COMPLY WITH BS EN 752 AND BUILDING REGS. PART H.

PIPE GRADIENTS ARE INDICATIVE MINIMUMS.

SURFACE CHANNEL DRAINS TO BE ACO MULTIDRAIN OR SIMILAR.

MANHOLES:

ALL PROPOSED NEW MANHOLES TO BE PRECAST RING MANHOLES TYPE B UNLESS NOTED OTHERWISE. INTERNAL DIAMETERS OF MANHOLES TO BE 1050mm WHERE DEPTH TO PIPE SOFFIT IS LESS THAN 1.5m, AND 1200mm Ø ELSEWHERE UNLESS NOTED OTHERWISE. IC - DENOTES POLYPROPYLENE INSPECTION CHAMBER BY 'HEPWORTH' OR SIMILAR APPROVED INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

MANHOLE COVERS:

CARRIAGEWAYS GENERAL - EN124 CLASS D400
CARRIAGEWAYS WITHIN 0.5m OF KERB - EN124 CLASS C250
SLOW MOVING HGV [3B] - EN 124 CLASS B125 SLOW MOVING GLV [10] - EN 124 CLASS B125 SLOW MOVING PRIVATE CARS - EN124 CLASS B125.

INTERNAL - JONES OF OSWESTRY - SUPRASTEEL DOUBLE SEALED WITH NEOPRENE GASKET AND COVER GREASE OR SIMILAR APPROVED.

REFER TO ARCHITECTS DRAWINGS FOR DETAILS OF ANY MANHOLE COVERS WHICH REQUIRE INSET PANELS.

TENDER DRAWING

Rev.	Amendment	Date	By	Chkd
T01	TENDER ISSUE.	14.05.21	DB	LM

Project
SPIRE YALE,
CHESNEY COURT

ARCH/CLIENT
SPIRE HEALTHCARE

Title
PROPOSED SURFACE WATER DRAINAGE PLAN

WML Job No.	Drawn	Checked	Date	Scale
9132	DB	LM	DEC 2020	1:100 @ A0

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Drawing No.

Project	Originator	Volume	Level	Type	Role	Number	Rev
9132	- WML	- ZZ	- XX	- DR	- C	- 1001	T01

SCALE IN METRES 0 1 2 3 4 5 6 7 1:100