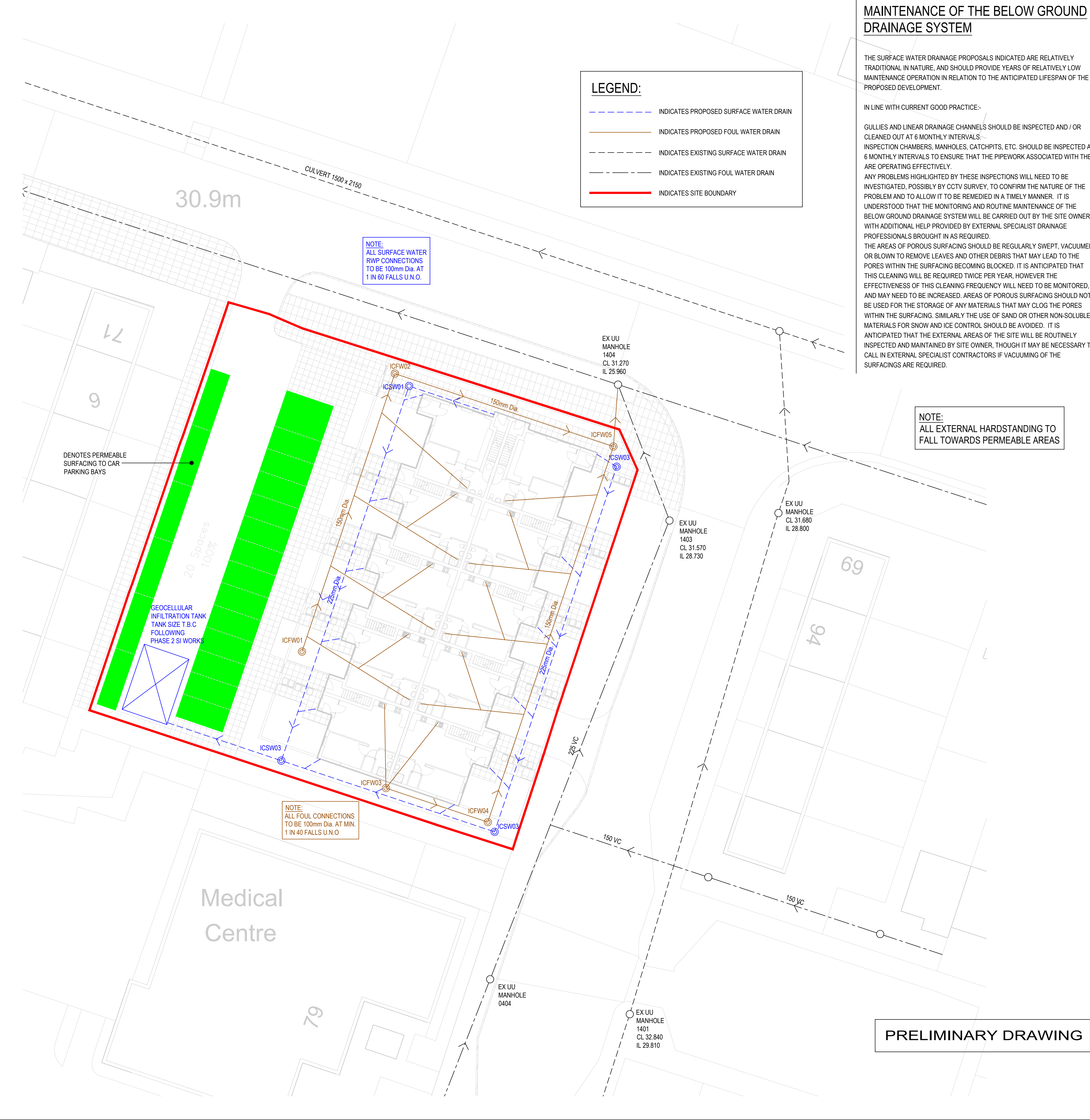




MAINTENANCE OF THE BELOW GROUND DRAINAGE SYSTEM

THE SURFACE WATER DRAINAGE PROPOSALS INDICATED ARE RELATIVELY TRADITIONAL IN NATURE, AND SHOULD PROVIDE YEARS OF RELATIVELY LOW MAINTENANCE OPERATION IN RELATION TO THE ANTICIPATED LIFESPAN OF THE PROPOSED DEVELOPMENT.

IN LINE WITH CURRENT GOOD PRACTICE:-

GULLIES AND LINEAR DRAINAGE CHANNELS SHOULD BE INSPECTED AND / OR CLEANED OUT AT 6 MONTHLY INTERVALS. INSPECTION CHAMBERS, MANHOLES, CATCHPITS, ETC. SHOULD BE INSPECTED AT 6 MONTHLY INTERVALS TO ENSURE THAT THE PIPEWORK ASSOCIATED WITH THEM ARE OPERATING EFFECTIVELY.

ANY PROBLEMS HIGHLIGHTED BY THESE INSPECTIONS WILL NEED TO BE INVESTIGATED, POSSIBLY BY CCTV SURVEY, TO CONFIRM THE NATURE OF THE PROBLEM AND TO ALLOW IT TO BE REMEDIED IN A TIMELY MANNER. IT IS UNDERSTOOD THAT THE MONITORING AND ROUTINE MAINTENANCE OF THE BELOW GROUND DRAINAGE SYSTEM WILL BE CARRIED OUT BY THE SITE OWNER, WITH ADDITIONAL HELP PROVIDED BY EXTERNAL SPECIALIST DRAINAGE PROFESSIONALS BROUGHT IN AS REQUIRED.

THE AREAS OF POROUS SURFACING SHOULD BE REGULARLY SWEEPED, VACUUMED OR BLOWN TO REMOVE LEAVES AND OTHER DEBRIS THAT MAY LEAD TO THE PORES WITHIN THE SURFACING BECOMING BLOCKED. IT IS ANTICIPATED THAT THIS CLEANING WILL BE REQUIRED TWICE PER YEAR, HOWEVER THE EFFECTIVENESS OF THIS CLEANING FREQUENCY WILL NEED TO BE MONITORED, AND MAY NEED TO BE INCREASED. AREAS OF POROUS SURFACING SHOULD NOT BE USED FOR THE STORAGE OF ANY MATERIALS THAT MAY CLOG THE PORES WITHIN THE SURFACING. SIMILARLY THE USE OF SAND OR OTHER NON-SOLUBLE MATERIALS FOR SNOW AND ICE CONTROL SHOULD BE AVOIDED. IT IS ANTICIPATED THAT THE EXTERNAL AREAS OF THE SITE WILL BE ROUTINELY INSPECTED AND MAINTAINED BY SITE OWNER, THOUGH IT MAY BE NECESSARY TO CALL IN EXTERNAL SPECIALIST CONTRACTORS IF VACUUMING OF THE SURFACINGS ARE REQUIRED.

NOTE:
ALL EXTERNAL HARDSTANDING TO FALL TOWARDS PERMEABLE AREAS

PRELIMINARY DRAWING

FLOOD RISK ASSESSMENT

FROM THE ONLINE GOV.UK FLOOD MAPPING, THE PROPOSED DEVELOPMENT IS LOCATED WITHIN AN AREA THAT IS DESIGNATED AS FLOOD RISK ZONE 1. HENCE IT IS CONSIDERED TO BE AT VERY LOW RISK FROM RIVER AND SEA FLOODING (FLUVIAL FLOODINGS).

THIS ONLINE MAPPING ALSO INDICATES THAT THE DEVELOPMENT IS NOT AT SIGNIFICANT RISK OF SURFACE WATER FLOODING (PLUVIAL FLOODING).

SIMILARLY THIS ONLINE MAPPING INDICATES THAT THE SITE IS NOT AT RISK FROM POTENTIAL RESERVOIR FLOODING.

REGARDING THE FLOOD RISK POSED BY OVERLAND FLOWS OR THE FAILURE OF LOCAL DRAINAGE INFRASTRUCTURE, THE PROPOSED BUILDING IS NOT TO HAVE A BASEMENT AND THE GROUND FLOOR LEVEL WILL BE GENERALLY A MINIMUM OF 150mm ABOVE THE SURROUNDING EXTERNAL LEVELS.

IN ADDITION, THE GROUND FLOOR LEVEL WILL BE SIGNIFICANTLY HIGHER THAN THE EXISTING CARRIAGEWAY LEVELS OF HALL FARM CLOSE. IT SHOULD ALSO BE NOTED THAT THE HALL FARM CLOSE FALLS AWAY FROM THE SITE TO THE EAST AND WOULD THEREFORE PROVIDE A CONDUIT FOR ANY OVERLAND FLOWS IN THAT DIRECTION.

GIVEN THE ABOVE IT IS CONSIDERED THAT THE DEVELOPMENT IS NOT AT SIGNIFICANT FLOOD RISK FROM OVERLAND FLOWS OR THE FAILURE OF LOCAL DRAINAGE INFRASTRUCTURE.

SURFACE WATER DRAINAGE STRATEGY

SURFACE WATER DRAINAGE STRATEGY

THE PROPOSED DEVELOPMENT IS TO BE DRAINED VIA SEPARATE FOUL AND SURFACE WATER DRAINAGE SYSTEMS.

THE SURFACE WATER DRAINAGE PROPOSALS HAVE BEEN DESIGNED IN ACCORDANCE WITH BS EN 752-4 AND THE BUILDING REGULATIONS APPROVED DOCUMENT H (2010), WHICH INDICATES THE FOLLOWING HIERARCHY FOR THE DISPOSAL OF SURFACE WATER DRAINAGE FROM DEVELOPMENT SITES:-

- DISCHARGE VIA INFILTRATION;
- DISCHARGE TO WATERCOURSE;
- DISCHARGE TO SEWER.

THESE OPTIONS ARE DISCUSSED IN FURTHER DETAIL BELOW.

SURFACE WATER DISCHARGE VIA INFILTRATION

THE RECENT PHASE 1 DESK STUDY INDICATES THE POTENTIAL GROUND CONDITIONS TO BE GRANULAR AND THEREFORE MAY BE SUITABLE FOR SOAKAWAYS. THIS WILL BE CONFIRMED DURING THE PHASE 2 SITE INVESTIGATION WORKS.

SURFACE WATER DISCHARGE VIA WATERCOURSE

UNITED UTILITIES PLANS INDICATE A CULVERTED WATERCOURSE RUNNING ALONG BROOK HEY DRIVE THAT FLOWS INTO SIMONSWOOD BROOK. SHOULD THE GROUND CONDITIONS BE FOUND TO BE UNSUITABLE FOR SOAKAWAYS, THE SURFACE WATER WILL DISCHARGE TO THIS WATERCOURSE.

SURFACE DISCHARGE VIA THE PUBLIC SEWERAGE SYSTEM

GIVEN THE ABOVE IT WILL NOT BE NECESSARY TO DISCHARGE THE SURFACE WATER RUNOFF FROM THE PROPOSED DEVELOPMENT TO THE PUBLIC DRAINAGE SYSTEM. THERE ARE A NUMBER OF DEDICATED SURFACE WATER SEWERS IN CLOSE PROXIMITY TO THE SITE, ALL OF WHICH DISCHARGE DIRECTLY TO THE CULVERTED WATERCOURSE.

IN LINE WITH MODERN DESIGN STANDARDS FOR SURFACE WATER DRAINAGE SYSTEMS, THE PROPOSALS WILL BE FORMULATED TO ENSURE THERE WILL BE:-

- NO SURCHARGING OF SEWERS FOR THE CRITICAL 1 IN 1 YEAR STORM EVENT.
- NO SURFACE FLOODING FOR THE CRITICAL 1 IN 30 YEAR EVENT.
- NO SURFACE FLOODING THAT MAY AFFECT BUILDINGS ON OR OFF SITE FOR THE CRITICAL 1 IN 100 YEAR EVENT INCLUDING A 45% CLIMATE CHANGE ALLOWANCE.

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IT IS ANTICIPATED THAT THE EXTERNAL AREAS OF THE SITE WILL BE ROUTINELY INSPECTED AND MAINTAINED BY SITE OWNER, THOUGH IT MAY BE NECESSARY TO CALL IN EXTERNAL SPECIALIST CONTRACTORS IF VACUUMING OF THE SURFACINGS ARE REQUIRED.

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.

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. ALL DRAINAGE GOODS & FITTINGS TO BE:-

UPTO 225 DIA (AND INCLUDING) TO BE SUPERSLEVE VITRIFIED CLAY PIPES OR SIMILAR.

300 DIA AND ABOVE TO BE CONCRETE BY STANTON BONNA 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 150mm 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.

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.

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

MANHOLE COVERS IN VEHICULAR AREAS TO BE EN124 CLASS D400, IN NON - VEHICULAR AREAS TO BE EN124 CLASS C250

P01	FIRST PRELIMINARY ISSUE.	OCT '22	AB	NB
Rev.	Amendment	Date	By	Chkd

Project
BIGDALE DRIVE

CLIENT
PADDOCK JOHNSON

Title

DRAINAGE LAYOUT

WML Job No. 10757	Drawn AB	Checked NB	Date OCT '22	Scale 1:200 @ A1
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Drawing No.	Project	Originator	Volume	Level	Type	Role	Number	Rev
10757	- WML	- 00	- XX	- DR	- C	- 1001	P01	