



**LEGEND**

- EXISTING SURFACE WATER DRAIN
- PROPOSED SURFACE WATER DRAIN
- PROPOSED POLYPROPYLENE INSPECTION CHAMBER
- PROPOSED PRE-CAST CONCRETE MANHOLE
- PROPOSED GEO-CELLULAR ATTENUATION TANK
- PROPOSED FOUL WATER DRAIN
- PROPOSED ACO-DRAIN
- RETAINING WALL

P4	LEVELS, SIZE OF ATTENUATION AND FOUL NETWORK AMENDED	SHR	SJR	27.10.24
P3	FINISHED FLOOR LEVELS ADDED	SHR	SJR	15.10.24
P2	DRAINAGE AMENDED TO INCLUDE RUNOFF FROM EXISTING BUILDING.	SHR	SJR	20.02.24
P1	ISSUED FOR INFORMATION	SD	SJR	29.10.21
Rev	Details	Drawn By	Checked By	Date

Client:  
**SHACKLETONS GARDEN CENTRE LIMITED**

Project:  
**PROPOSED DEVELOPMENT AT SHACKLETONS GARDEN CENTRE, CHATBURN**

Title:  
**PROPOSED DRAINAGE GENERAL ARRANGEMENT SHEET 2 OF 2**

Issued For:  
**INFORMATION**

**Reid Jones partnership**  
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Scale:	<b>1:250</b>	@	<b>(A1)</b>
Project No:	<b>10301</b>	Drawing No:	<b>102</b>
		Issue:	<b>P4</b>

DO NOT SCALE - USE FIGURED DIMENSIONS ONLY.  
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ISO 9001:2015  
REGISTERED

- GENERAL NOTES**
- UN-ADOPTED FW & SW DRAINAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH CURRENT BUILDING REGULATIONS, INCLUDING APPROVED DOCUMENT H (UPDATED 2015); BS EN 752:2008 AND OTHER RELEVANT STANDARDS AND CERTIFICATES.
  - THE LOCATION AND LEVELS OF EXISTING DRAINAGE PIPES AND CULVERTS MUST BE CHECKED ON-SITE PRIOR TO CONSTRUCTION.
  - ALL EXISTING SERVICES TO BE LOCATED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS, AND WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORKS.
  - DRAINS ARE TO BE CONSTRUCTED USING FLEXIBLY JOINTED VITRIFIED CLAY PIPES TO BS 65 (1991) AND BS EN 295 (2012 / 2013); OR UPVC BUILDING DRAINAGE SYSTEM PIPEWORK TO BS 4660 (2000), BS EN 13589-1 (2010) \* BS EN 1401-1 (2009); BEDDED & BACKFILLED IN ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS.
  - BACKFILLING OF DRAIN TRENCHES ADJACENT TO DWELLINGS OR OTHER STRUCTURES TO BE IN ACCORDANCE WITH BS EN 1610 (1998) AND APPROVED DOCUMENT H.
  - ACCESS FITTINGS & INSPECTION CHAMBERS <1.2m DEEP ARE TO BE CLAYWARE OR PRE-FORMED POLYPROPYLENE AS APPROPRIATE TO THE NUMBER OF CONNECTIONS. POLYPROPYLENE CHAMBERS CAN BE USED UP TO 3m DEEP BUT REQUIRE A MAX 350mm DIAMETER RESTRICTOR RING TO PREVENT MAN ENTRY. INSPECTION CHAMBER SIZES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH BS EN 752 (2008).
  - MANHOLE CHAMBERS ARE TO BE OF PRECAST CONCRETE CONSTRUCTION WITH 150mm INSITU CONCRETE SURROUND WITH A MINIMUM CLEAR OPENING OF 600mm.
  - POLYPROPYLENE INSPECTION CHAMBERS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

- COVER LEVELS INDICATED ON THE DRAWINGS ARE NOMINAL AND MAY BE ADJUSTED TO SUIT FINISHED LEVELS AS NECESSARY. INSPECTION CHAMBER COVERS SHOULD BE GRADE A15 FOR PEDESTRIAN AREAS ONLY, C250 FOR LIGHTLY TRAFFICKED ROADS AND SMALL PRIVATE CAR PARKS, AND D400 WITHIN THE ACCESS ROAD.
- WHERE DRAINS PASS THROUGH FOUNDATIONS OR OTHER RIGID STRUCTURES, A LINTEL, OR SLEEVE IS TO BE USED & PROVISION FOR FLEXIBILITY IS TO BE MADE WITH ROCKER PIPES.
- ANY EXISTING LAND DRAINS SEVERED BY SITE OPERATIONS SHOULD BE DIVERTED AROUND ANY PROPERTIES/BUILDINGS AND RECONNECTED TO THE EXISTING LAND DRAINAGE SYSTEM VIA A SILT TRAP.
- CONCRETE PROTECTION REQUIRED TO PIPES WHERE DEPTH OF PIPE FROM GROUND LEVEL TO BARREL IS <0.6m WITHIN NON-TRAFFICKED AREAS; <0.9m WITHIN DOMESTIC DRIVEWAYS AND LIGHT ROADS; AND <1.2 m WITHIN THE PUBLIC HIGHWAY, OTHERWISE PIPES TO BE LAID IN CLASS S BEDDING (150mm GRANULAR BED & SURROUND).
- WHERE PIPES RUN UNDER BUILDINGS AND WHERE COVER TO UNDERSIDE OF SLAB IS LESS THAN 300mm, PROVIDE A CONCRETE BED AND SURROUND.
- UNLESS NOTED OTHERWISE, ALL FOUL DRAINS ARE 100mm DIA. AND SURFACE WATER DRAINS ARE 150mm DIA. SURFACE WATER CONNECTIONS FROM RWP'S TO BE 100mm DIA.
- MINIMUM GRADIENTS (UNLESS NOTED OTHERWISE):  
FOUL  
100 DIA FROM OUTLETS WITHIN BUILDING TO INSPECTION CHAMBER 1:40, THEREAFTER 1:80  
SURFACE WATER  
100 DIA 1:100, 150 DIA 1:150, 225 DIA 1:225
- ALL REDUNDANT DRAINS AND CHAMBERS TO BE REMOVED AS FAR AS PRACTICABLE OR ELSE GROUTED AND SEALED.
- BEDDING AND BACKFILL TO CONFORM TO THE REQUIREMENT OF THE WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
- THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTORS AND BENDS.
- THE POSITIONS OF SVP'S, STUB-STACKS, WC OUTLETS AND RAINWATER DOWNPIPES ARE TO BE ACCURATELY LOCATED FROM THE ARCHITECT'S DRAWINGS.

**PRELIMINARY DRAWING.  
NOT FOR CONSTRUCTION.**