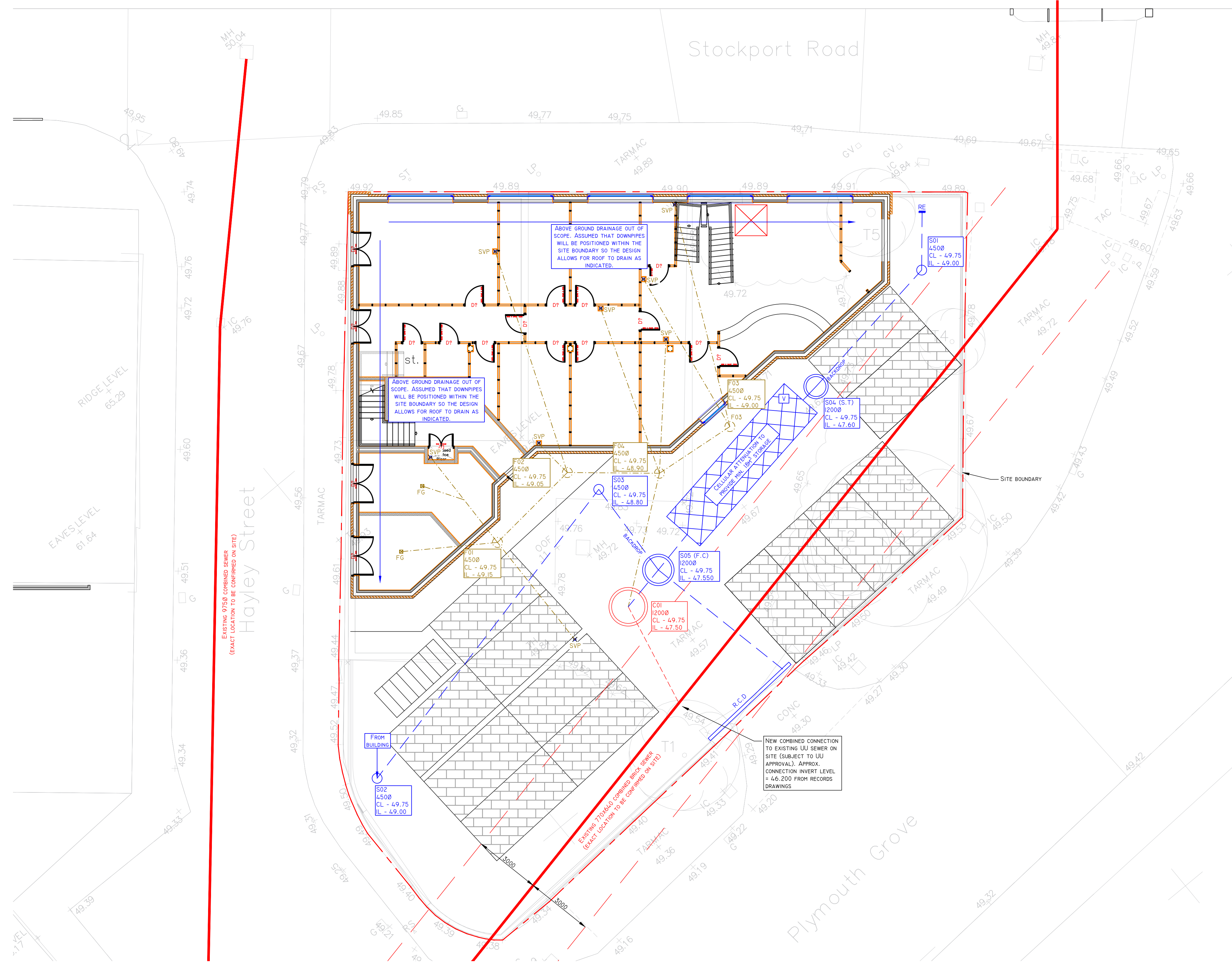




F.C	MANHOLE TO CONTAIN FLOW CONTROL DEVICE
S.T	MANHOLE TO CONTAIN SILT TRAP
FG	FLOOR GULLY (TYPE BY ARCHITECT)
R.C.D	ROAD GRADE CHANNEL DRAIN
T.D	THRESHOLD DRAIN (TYPE BY ARCHITECT)
V	ATTENUATION VENT TO WAVIN DETAILS
---	DENOTES NEW FOUL WATER DRAIN
---	DENOTES NEW SURFACE WATER DRAIN
○	DENOTES NEW PRECAST CONCRETE MANHOLE
○	DENOTES NEW PPIC MANHOLE

SETTING OUT OF GULLEYS, FLOOR GULLEYS, SVP AND RWP TO BE TO ARCHITECT'S DETAILS

ALL EXISTING & PROPOSED COVER LEVELS & INVERT LEVELS TO BE CONFIRMED PRIOR TO COMMENCING WORKS

ALL POSITIONS OF PROPOSED DRAINAGE & MANHOLES/RODDING EYES TO BE CONFIRMED AS ACCEPTABLE BY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORKS

GULLY LOCATIONS TO CAR PARK TO BE CONFIRMED UPON RECEIPT OF PROPOSED EXTERNAL LEVELS.

TEMPORARY WORKS MAY BE REQUIRED IN ORDER TO INSTALL THE DRAINAGE. ALLOWANCE SHOULD BE MADE FOR DEWATERING OF EXCAVATIONS DURING THE DRAINAGE INSTALLATION. TEMPORARY WORKS DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE AGREED WITH RELEVANT THIRD PARTIES WHERE NECESSARY.

FLOW CONTROL

HYDROBRAKE REF: MD-SHE-0096-5500-2000-5500
DESIGN FLOW = 5.5L/S
HEAD = 2.0M

CELLULAR ATTENUATION TANK

A MINIMUM OF 18m³ OF STORAGE IS TO BE PROVIDED BY THE CELLULAR TANK (ASSUMED TO BE 8X21.2M DEEP). ALLOWANCE TO BE MADE FOR WAVIN CORE-R UNITS WITH A MINIMUM COVER OF 750MM. A MAX. VEHICLE LOAD OF 9 TONNES IS ALLOWED ASSUMING FULL COVER PROVIDED.

SUDS FEATURES

THE PARKING SPACES ARE TO BE POSITIVELY DRAINED PERMEABLE PAVING IN ORDER TO PROVIDE ONE LEVEL OF FILTRATION PRIOR TO DISCHARGE TO THE SEWER. ALLOWANCE TO BE MADE FOR PROVIDING LAND DRAINAGE AND SILT TRAPS TO PARKING SPACE AREAS.

- GENERAL NOTES:**
- THIS DRAWING IS COPYRIGHT AND THE PROPERTY OF BELL MUNRO CONSULTING LTD. THE DRAWING MUST NOT BE REPRODUCED IN PART OR IN WHOLE WITHOUT PRIOR WRITTEN AUTHORITY.
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 - THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE RELEVANT BMC SPECIFICATIONS TOGETHER WITH THE APPROPRIATE ARCHITECTS AND SERVICES CONSULTANTS DRAWINGS AND SPECIFICATIONS.
 - ALL DIMENSIONS TO BE CHECKED BY CONTRACTOR PRIOR TO FABRICATION.
 - INSTALLATION OF ALL PROPRIETARY BUILDERS METAL WORK TO BE IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 - TEMPORARY STABILITY DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE MAIN CONTRACTOR AND SHOULD BE ASSESSED ACCORDINGLY.

- DRAINAGE NOTES**
- EXACT SVP AND GULLY LOCATIONS TO BE CONFIRMED FROM SERVICES ENGINEERS / ARCHITECTS DRAWINGS AND DETAILS.
 - ALL NEW PIPEWORK TO BE WAVIN OSMADRAIN OR WAVIN ULTRARIB UPVC (OR SIMILAR APPROVED) UNLESS NOTED OTHERWISE.
 - PLASTIC PIPES (PVC-U) TO BE FLEXIBLY JOINTED AND COMPLY WITH THE REQUIREMENTS OF BS EN 1401-1 1998.
 - WHERE COVER TO PIPES IS LESS THAN 750 IN ROADS AND SURROUNDINGS OR 400 MM ELSEWHERE, CONCRETE SURROUND IS TO BE PROVIDED IN ACCORDANCE WITH THE DETAIL (CLASS Z BEDDING).
 - ALL OTHER PIPEWORK TO BE IN CLASS S BEDDING.
 - N.B. UNTIL FINAL SERVICE IS PLACED, HEAVY TRAFFIC IS NOT TO BE ALLOWED OVER PIPE TRENCHES WITHOUT SPECIAL PRECAUTIONS.
 - PIPES AND FITTINGS ARE TO BE LAID IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
 - MANHOLE COVERS IN TRAFFICKED AREAS TO BE LOAD CLASS D400 TO BS EN 124.
 - MANHOLE COVERS IN LANDSCAPED AND PAVED AREAS TO BE LOAD CLASS A14 TO BS EN 124.
 - MANHOLE COVERS IN PAVED AREAS TO BE RECESSED TO ACCEPT PAVING FINISH.
 - ACCESS COVERS FOR GULLIES IN KERBSIDES TO BE LOAD CLASS C250 BS EN 124.
 - ALL INTERNAL POP UPS TO HAVE RODDABLE ACCESS.
 - ANY PPIC MANHOLE DEEPER THAN 1200MM MUST BE FITTED WITH ACCESS RESTRICTOR CAP.
 - ALL EXISTING DRAINAGE/SERVICES TO BE CONFIRMED PRIOR TO CONSTRUCTION COMMENCING.
 - PIPEWORK PASSING THROUGH BUILDING WALLS SHALL BE FITTED WITH ROCKER PIPES AS PER STANDARD DETAIL.
 - ANY UNLABELLED FOUL BRANCH PIPEWORK TO BE 100Ø PIPEWORK AT MINIMUM 1:80 FALL.
 - ANY UNLABELLED STORM WATER BRANCH PIPEWORK TO BE 100Ø AT MINIMUM 1:80 FALL.
 - ALL RWP LOCATIONS AND NUMBERS ARE TO BE CONFIRMED BY ARCHITECT PRIOR TO COMMENCING CONSTRUCTION.
 - ALL INTERNAL MANHOLES TO BE FITTED WITH TRIPLE SEALED COVERS

PLANNING
SUBJECT TO APPROVAL
BY LLFA & UU

REV	INITIAL ISSUE	DATE	BY
	COMMENTS		

BMC

BELL MUNRO
CONSULTING LTD

CONSULTING CIVIL & STRUCTURAL ENGINEERS
TURNING HOUSE
5 ARCHWAY
MANCHESTER
M15 5RL
TEL: 0161 2098032
FAX: 0161 2098033
EMAIL: CONSULTING@BELLMUNRO.CO.UK
WWW.BELLMUNRO.CO.UK

CLIENT:	SHELLCO I48		
PROJECT:	DUCIE ARMS		
TITLE:	DRAINAGE LAYOUT		
DRAWN BY:	CHECKED BY:	SCALE:	DATE:
R.C	S.J.B	1:100	11/24
DRAWING NUMBER:	J8123/D01		REVISION: --/--

DRAINAGE LAYOUT
1:100 @ A1
1:200 @ A3

DRAINAGE DESIGN PHILOSOPHY

SCHEME DESIGNED IN ACCORDANCE WITH PLANNING APPROVED DRAINAGE STRATEGY REF. 3289-RDG-00-ZZ-RP-C-0001 BY RIDGE.

SURFACE WATER DISCHARGE IS TO A COMBINED SEWER ON THE SITE WITH A PROPOSED DISCHARGE RATE OF 5.5L/S.

SURFACE WATER STORAGE IS PROVIDED BY A CELLULAR TANK. PARKING SPACES ARE TO BE A PERMEABLE CONSTRUCTION TO PROVIDE AN ENHANCEMENT TO THE QUALITY OF SURFACE WATER RUNOFF.

FOUL DRAINAGE IS TO THE SAME COMBINED SEWER CONNECTION AS THE SURFACE WATER.

SCHEME HAS BEEN DESIGNED FOR THE FOLLOWING CRITERIA:

1:1 YEAR STORM - NO SURCHARGING
1:2 YEAR STORM - NO SURCHARGING
1:30 YEAR STORM - NO FLOODING
1:100 YEAR + 40% ALLOWANCE FOR CLIMATE CHANGE - NO FLOODING