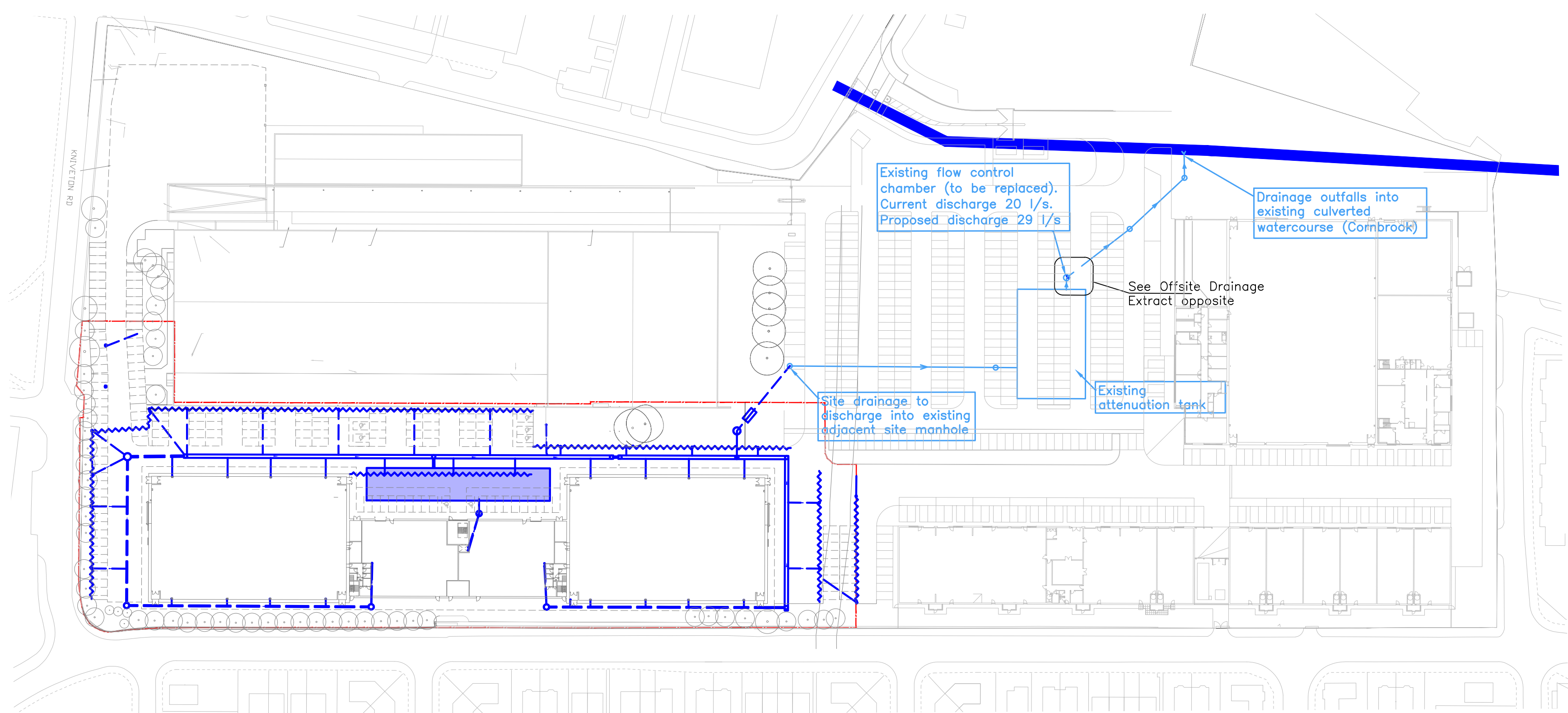
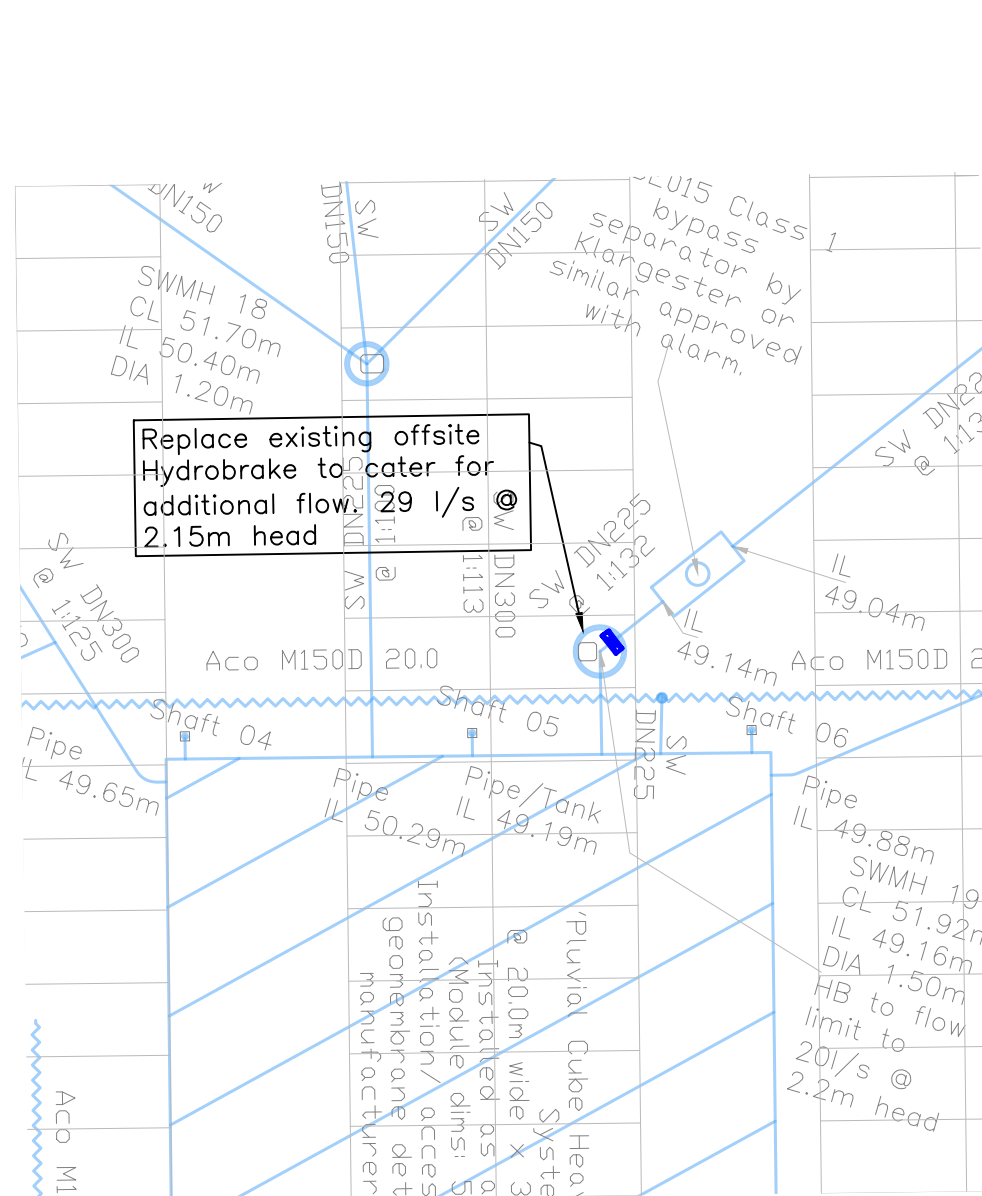




Key Plan – Offsite
Drainage Connection
Scale 1:1000



Offsite Drainage
Extract

Key Plan:

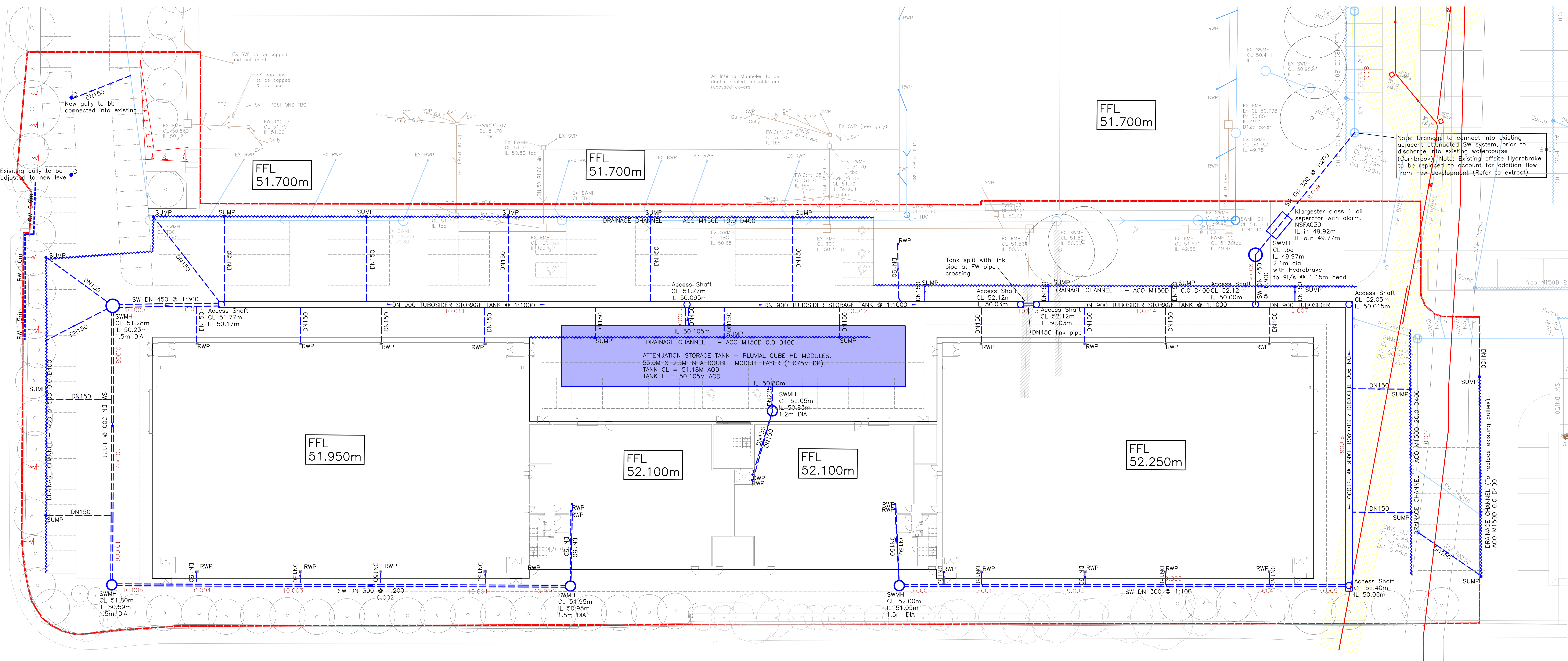
- Existing FW drainage
- Existing SW drainage
- Existing CW drainage
- Existing FW Manhole
- Existing SW Manhole
- Existing CW Manhole
- Existing FW drainage to be grubbed up
- Existing SW drainage to be grubbed up
- New FW drainage
- New SW drainage
- New Drainage Channel / Kerbside
- New FW Manhole
- New SW Manhole
- New Surface Water Gully
- Sump
- New Sump unit to drainage channels
- RWP
- New rainwater pipe connection (indicative, assumed positions)
- FP, FG, SP – new foul connection to Feeder Pillar (FP), Foul Gully (FG), Soil pipe (SP)
- MicroDrainage input pipe number
- Site boundary (tbc by Architect)

Note: Proposed drainage indicated opposite is indicative at this stage. Final drainage scheme is subject to agreement / approval with the LLFA / UU.

Note: Proposed drainage strategy consists of connection into Watercourse, via existing adjacent site drainage infrastructure. It is proposed to limit the site discharge to greenfield runoff rates (9 l/s). Attenuation storage will be provided in below ground attenuation storage tanks up to the 1 in 100 year + 40% climate change event.

Note: All SW & FW pop up positions indicated are assumed at this stage – subject to receipt of final positions

- Notes
- All dimensions are in millimetres unless noted otherwise
 - All levels shown are in metres unless notified otherwise
 - This drawing is to be read in conjunction with all relevant Architectural and Service Engineer drawings
 - Do not scale from this drawing. Figured dimensions to be worked to in all cases. If in doubt contact the Engineer
 - CDM (2015) - This drawing is to be read in conjunction with the Designers Risk Assessment produced for the project
 - All SW drainage pipes to be Polypropylene (PP) or similar approved up to 375mm ϕ and concrete from 450mm ϕ
 - All road gullies to have Grade D400 gratings to B.S.E.N. 124 with 4500 x500 deep Pre-Cast concrete or polyethylene pots
 - Manholes to be precast concrete rings to BS 5911 dia as indicated
 - All Manhole covers to be Grade B125 in footpaths/ soft landscaping or D400 in trafficked areas to B.S.E.N. 124. Areas within landscaping, footpaths or block paved areas to have recessed covers (TBC by Landscape Architect)
 - Manhole minimum clear opening sizes as below:
 - CL to pipe soft <1.5m
 - pipes not larger than 150mm 750x750
 - pipes 225 and larger 1200x675
 - CL to pipe soft >1.5m
 - All pipe sizes 600x600
 - Inspection chambers to be 450mm ϕ 'non-man entry' PPIC's
 - Invert levels quoted are exit inverts. All pipes to run soffits level, except into tanks, storage crates or flow control chambers
 - All RWP's & SVP's / Soil connections to have roddable access covers above ground
 - Installation of manholes, road gullies, pipes, channels etc to be as per the manufacturer's instructions and recommendations
 - Drainage channels to be ACO, or similar approved. Design/ spec/ installation to be in accordance with manufacturers details
 - Pipes with cover of less than 900mm under road/paved and 600mm under landscaped areas to be encased in concrete bedding class S
 - All work to be carried out in accordance with the following documents:
 - (a) - Civil Engineering Specification for the Water Industry 7th Edition, 2011.
 - A minimum pipe velocity of 1.0 m/s to be achieved
 - FW Sewers are to provide 0.75 m/s velocity at one third design flow
 - All drainage is to comply with the requirements of BS EN 1252
 - Note: All SWP's and RWP's which connect to the main drainage run via a branch, must be fitted with above ground rodding access
 - All SW sewers to be 150mm dia UNO
 - All FW sewers to be 100mm dia @ 140 UNO
 - All Inspection chambers within vehicle handstanding areas are to be encased in 250mm concrete surround with a 600x600 D400 manhole cover
 - All internal manholes to have lockable double sealed lids



Scale 1:250

Rev	Drawn	Date	Description

Civil & Structural Engineers

First Floor
Suite 4
14-32 Hewitt Street
Manchester
M15 4GB

Tel: 0161 237 3400
Web: www.integraconsulting.co.uk

Drawing title: EXTERNAL DRAINAGE GA			
Contract: SPACE STUDIOS MANCHESTER			
Drawing status: STAGE 2			
Contract No: 3201			
Drawing No: 0501			
Rev: P02			
Project Origin Vol Lvl Type Role No. SPC - INT - ZZ - 00 - DR - C - 0501			