BUILDING REGULATIONS SPECIFICATION NOTES FOR BUILDING STRUCTURE

SUBSTRUCTURE
Foundations in accordance with SE details.
Blockwork used below DPC to be frost resistant with a minimum compressive strength of 7N/mm².
Structural Engineer to clarify all strengths in design.
All blockwork to be properly bonded with 1:3 cement : sand mortar. Leaves to be tied together with stainless steel wall ties, horizontal spacing to be max. 900mm, vertical spacing max. 450mm.
Cavity to be filled with lean mix concrete up to 225mm below lowest DPC.
Facing brick to external leaf (Class 'B' Semi-Engineering grade) to BS EN 771-1: 2011+A1: 2015 – Category F2, from DPC to 3 courses below finished ground level(s) and where exposed by finished levels will match those approved by the Local Authority for the facing brickwork.
Pre-stressed pre-cast concrete lintels (or similar) to be provided over openings through walls above drainage pipes and service ducts - but must not be visible above finished ground levels. Rigid board to be provided to prevent vermin entry.

STRUCTURAL FRAME
Steel portal frame in accordance with SE details.
To be confirmed.

GROUND FLOOR - BEAM & BLOCK
To comply with BS EN 15037-5: 2013 and BS EN 1992-1-1:2004+A1:2014.
Minimum 75mm thick mesh or fibre reinforced sand and cement screed at mid-span (allowing for camber in floor beams), to comply with BS 8204-2: 2003+A2:2011.
Min. 500 gauge membrane separating layer (if insulation has no pre-laminated membrane) beneath min. 80mm thick PIR insulation with minimum thermal conductivity of 0.022W/mK and a minimum 25mm thick up-turn to full depth of screed at perimeters.
1200 gauge Damp-Proof Membrane (DPM) in accordance with BS EN 13984: 2013 on nominal 5mm thick sand blinding, fully installed, lapped and sealed in accordance with manufacturer's instructions and recommendations and fully lapped and sealed with all DPCs.
Damp Proof Course to BS EN 14909: 2012 and BS 8215: 1991
Where penetrations in DPM are un-avoidable, ensure that such penetrations are made fully water-tight with an approved liquid DPM.
U-Value = 0.18W/m²K (TBC)

SLEEPER WALLS
Sleeper walls, where required, (generally 215mm wide) to support floor beams. See SE details.
Masonry walls to comply fully with the relevant sections of BS EN 1996-1-1:2005 + BS EN 1996-2: 2006.
Width of wall to suit bearing dimension as specified by the Specialist Manufacturer.
Where cross-ventilation passes through wall, build brickwork in "Honeycomb" bond (or airbricks to match opposite in external walls) within 450mm of internal corners.
Provide DPC to BS EN 14909: 2012 + BS 8215: 1991, where floor system bears onto external / sleeper walls, in accordance with BS 8102: 2009.

SUB-FLOOR VENTILATION
Provide min.150mm ventilated void beneath floor with telescopic vents (including vertical adaptors as required) at 2.0m centres at a rate of 1500mm² per metre run, with air bricks to BS 493: 1995+A1: 2010. Vents not to be sited under doors or directly below floor beams. Cavity trays to be provided over telescopic vents with DPC in accordance with Manufacturer's recommendations.
Ground beneath to have a surface free of vegetable matter.

EXTERNAL WALLS
102.5mm facing brickwork (frost-resistant) to BS EN 771-1: 2011+A1: 2015 – minimum Category F1.
External leaf to be properly bonded and solidly put together with gauged mortar, generally a 1:1:6 mix to BS EN 998-2.
50mm clear cavity. Note: facing brickwork extends to first floor of Unit 9.
140mm timber infill framing between portal structure consisting of stud, track and header sections with 12mm marine grade plywood / min. grade OSB 3 sheathing with breathable membrane to outside face extending below DPC by min.150mm and 12mm ply to inside face. Void of frame filled with 140mm thick factory-fitted rigid insulation with Thermal Conductivity ≥0.025W/mK.
Vapour Control Layer (VCL) to inside face.
Internally, 50 x 50mm timber battens over VCL, with 2no. layers of 15mm Fireline board o/e, with staggered joints, to BS EN 520: 2004+A1: 2009 to provide min. 60 minutes fire protection to Timber Frame to BS 476. Use of moisture-resistant grade board to 'wet' areas with nom. 3mm plaster skim coat finish.
Inner leaf blockwork below track of infill framing to be wrapped in DPC on cavity side, fully lapped and sealed with DPM to at least 150mm above external finished ground level/s.
Min U-Value to be achieved = 0.22W/m²K

LINTELS TO EXTERNAL LEAF MASONRY
In accordance with SE detail. Galvanised steel lintel installed with cavity tray DPC with weep vents at max. 450mm c/c (min 2no. per opening).

CAVITY BARRIERS / CLOSERS
Provide 'Rockwool Firepro PWCB' o/e continuous fire resistant cavity barriers between SFS and external leaf masonry, on line of Party walls.
Provide 'Rockwool Firepro TCB' or equal approved continuous fire / sound resistant cavity barriers to BS 476: 1987, installed horizontally, on line of Separating / Compartment Party upper floor.
Continuous cavity tray above horizontal barriers with weepholes at max. 1500mm centres, to BS 6515: 1984 + BS 8215: 1991.
Provide 'Isover Ultimate' o/e fire-rated cavity barrier to BS 476: 1987 around all door and window reveals / openings within external walls.

PRE-CAST CONCRETE STAIRS
Pre-cast concrete stair flight in accordance with Specialist Stair Manufacturer's Design and Specification to comply with BS EN 14843: 2007.
Total rise 3300mm, 20no. risers at 165mm with 250mm goings, pitch 33°.
Nosing colour to contrast with treads to be fitted, with a slip-resistant finish.
Handrails to be between 32mm and 50mm in diameter, and suitably fixed to achieve clearance of 50mm and 75mm between outside edge of handrail and adjacent fixing surface. Handrails to extend at least 300mm beyond top and bottom step at each floor, and be terminated in such as way as to prevent clothing etc. from being caught. Handrail between 900mm and 1000mm above pitch line of steps and 1000mm high at half and full landings. All guardings are to be designed, made and installed to resist the forces as given in BS 6180 and BS-EN 1991. Vertical balusters centred to prevent sphere of 100mm passing between.

PRIVATE TIMBER STAIR
Joinery to BS EN 942: 2007.
Risers at 180mm with 250mm goings, pitch 36°.
100 x 100mm newel posts.
Handrail between 900mm and 1000mm above pitch line of steps and 1000mm high at half and full landings. All guardings are to be designed, made and installed to resist the forces as given in BS 6180 and BS-EN 1991.
Balustrading with 32 x 32mm balusters at max. 125mm c/c.

PARTY WALL
Comprising 2no. leaves of 38 X 89mm open panel timber framing, filled with min. 60mm mineral wool (min. density of 10kg/m3), with 9mm OSB sheathing lined to cavity face, tied together with 'PWT200' by Simpson Strong Tie o/e.
50mm clear cavity between leaves.
2no. layers of gypsum based board, (22kg/m²), to both sides with staggered joints and skim finish.
Board detail/lining requirements as External Walls.Where Party wall meets external wall, cavities to be separated by a flexible cavity stop.
Wall sockets fixed into wall to be acoustic and fire rated to performance levels matching wall.

INTERNAL STUD PARTITION
To comprise of 38mm x 89mm open panel timber studs at max. 600mm c/c filled with 50mm thick 'Isover Acoustic Partition Roll' o/e mineral wool (min. 10kg/m²).
Both sides of stud to be lined with layer of 12.5mm gypsum-based board to BS EN 520: 2004+A1: 2009.

TEA POINT / WC WALL FIXINGS
Provide 12mm plywood to BS EN 636: 2012+A1: 2015 or min. grade OSB3 backing to all studwork walls in WCs and Tea Points, including walls containing doors.

ROOF CONSTRUCTION - ABOVE UNIT 3
Roof members in accordance with SE details constructed off portal frame.
Inter-locking pantiles to BS 5534: 2014+A1: 2015 and BS 8000-6:2013 fixed in accordance with the Manufacturer's Instructions, nailed every 3rd course and all perimeter tiles. Tiling at verge to oversail fascia in accordance with BS 5534: 2014+A1: 2015.
Wet verge to gable with verge tile clips
Tiles to be nailed to 25 x 50mm tanalised softwood battens fixed with 65mm galvanised nails at 600mm ctrs on 'Tyvek Supro' or equal B.B.A. approved breathable roofing felt.
All roofs to be ventilated in accordance with BS 5250: 2011. Provide 10mm continuous ventilation at eaves.
Insulation between and under rafters to achieve required u-value through element in accordance with SAP calculations, maintaining a clear 50mm gap to u/s of roof membrane.
Provide ventilation at high level with 'Glidevale In-Line' or equal approved tile ventilator (to suit roof tile), installed as close to the ridge as possible, to provide at least 5,000mm2/m run. Alternatively, high-level ventilation may be provided by an approved vented ridge system
All timber elements are to be treated with an approved preservative of the appropriate Use Class
Min U-Value to be achieved = 0.14W/m²K

FLAT ROOF CANOPIES
Single ply roofing membrane to BS 6229: 2003 + BS 8000-4: 1989, installed by approved Specialist Contractor, in accordance with Manufacturer's Recommendations, on 19mm WBP exterior grade plywood deck to BS EN 636: 2012+A1: 2015, on treated softwood timber firings to form a min. 1:80 fall, on supporting structure.
All timber elements are to be Tanalised / treated with an approved preservative of the appropriate Use Class
Minimum flashing upstand of 150mm.
Any flashings, aprons and soakers to be Code 4 Lead installed in accordance with LDA recommendations.

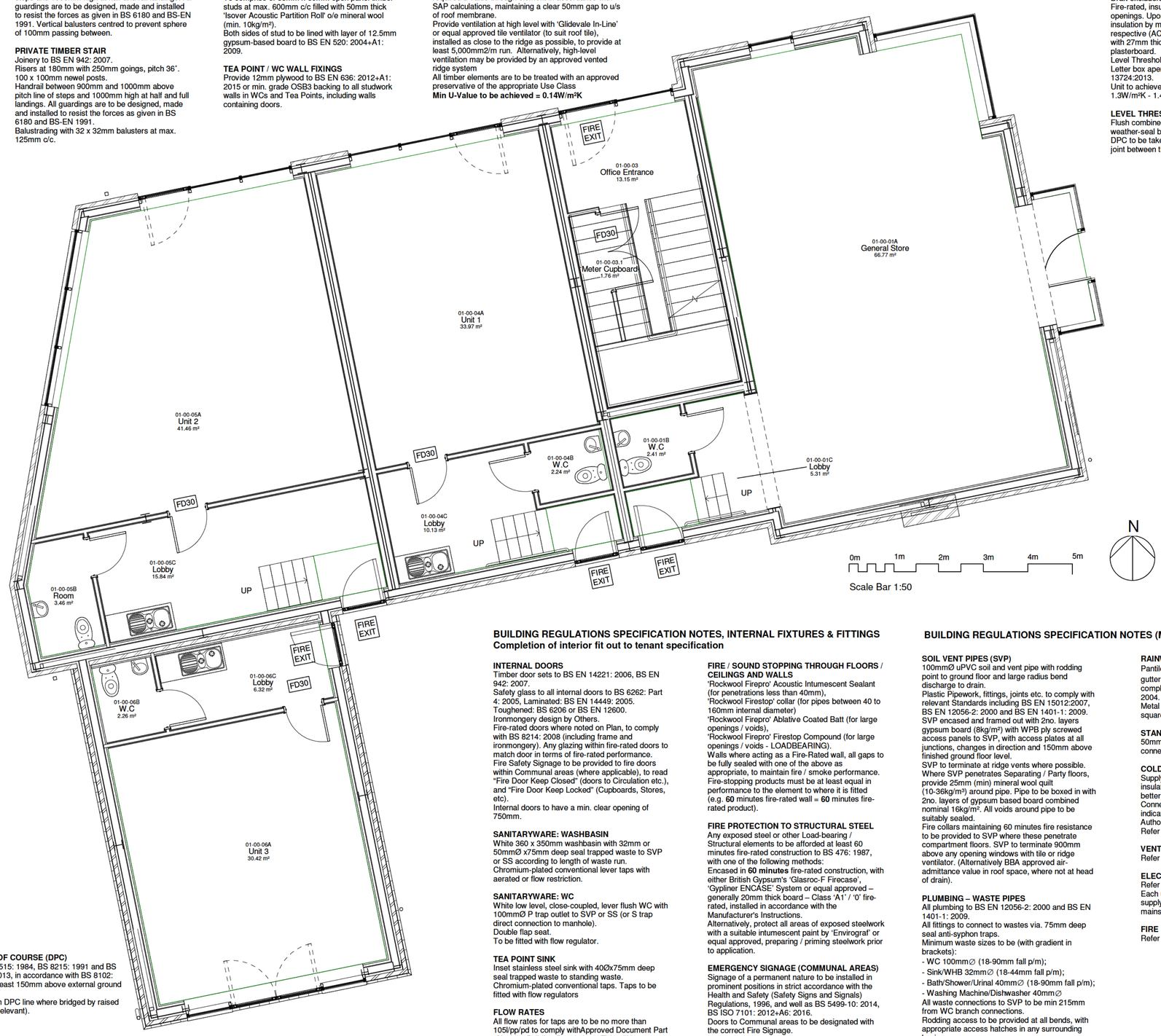
FIRST FLOOR - PROFILED METAL DECK COMPOSITE FLOOR / CEILING
Structural profiled metal composite floor by Tata or similar approved, with concrete deck in accordance with SE details.
Acoustic subfloor over by Cellecta or similar, retaining a minimum clear service void of 70mm to top side of deck with polythene foam flanking strip at perimeter. 18mm T&G floor boarding ready to receive floor finish (by tenant).
Suspended plasterboard ceiling system to underside of floor deck, BG CasoLine MF or similar approved, with minimum 100mm mineral wool insulation above ceiling. Ceiling to comprise of 1no. layer of nominal 10kg/m² gypsum based board.
All voids between deck and SFS to be filled with flexible closer or sealant and all perimeter joints to ceiling board sealed with tape or caulk.

ALUMINIUM CURTAIN WALLING
Aluminium curtain walling with thermally broken frames complete with double glazed units.
Manifestation to be provided in two rows between 850-1000mm and 1400-1600mm comprising of min 50mm dia dots at max 250mm centres. Unit to achieve a weighted average u-value of 1.3W/m²K - 1.4 W/m²K

ALUMINIUM DOORS
To be fully compliant with BS 8213-1: 2004, PAS 24: 2012.
Safety double-glazed panels of 4mm toughened inner / 4mm laminated outer pane, 6mm gap to BS 6206: 1981, BS EN 12600: 2002, BS 6262-3: 2005 and BS 6262-4: 2005.
Draft excluders and mastic seal to all doors.
Fire-rated, insulated cavity closers to door openings. Upon installation, frame to overlap insulation by min 30mm in accordance with respective (ACDs). Line jambs and soffits internally with 27mm thick 'Thermaline PLUS' o/e insulated plasterboard.
Level Thresholds to Project no greater that 15mm.
Letter box apertures and plates to BS EN 13724:2013.
Unit to achieve a weighted average u-value of 1.3W/m²K - 1.4 W/m²K

LEVEL THRESHOLD
Flush combined threshold with max. 15mm upstand weather-seal by 'Sealmaster' or equal approved.
DPC to be taken up the face of the threshold in the joint between threshold and paving.

General note concerning all proposed work which is to be carried out in accordance with current:
- Building Regulations
- CDM Regulations (2015)
- British Standards
- Codes of Practice
- IEE Regulations
- All Manufacturer's details and instructions for installation of materials, systems and elements used in the build.



DAMP-PROOF COURSE (DPC)
DPC to BS 6515: 1984, BS 8215: 1991 and BS EN 13984: 2013, in accordance with BS 8102: 2009, set at least 150mm above external ground level.
Cavity tray on DPC line where bridged by raised path (where relevant).

Building 1 Ground Floor GA Plan

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BUILDING REGULATIONS SPECIFICATION NOTES, INTERNAL FIXTURES & FITTINGS
Completion of interior fit out to tenant specification

INTERNAL DOORS
Timber door sets to BS EN 14221: 2006, BS EN 942: 2007.
Safety glass to all internal doors to BS 6262: Part 4: 2005, Laminated: BS EN 14449: 2005.
Toughened: BS 6206 or BS EN 12600.
Ironmongery design by Others.
Fire-rated doors where noted on Plan, to comply with BS 8214: 2008 (including frame and ironmongery). Any glazing within fire-rated doors to match door in terms of fire-rated performance.
Fire Safety Signage to be provided to fire doors within Communal areas (where applicable), to read "Fire Door Keep Closed" (doors to Circulation etc.), and "Fire Door Keep Locked" (Cupboards, Stores, etc).
Internal doors to have a min. clear opening of 750mm.

SANITARYWARE: WASHBASIN
White 360 x 350mm washbasin with 32mm or 50mmØ x75mm deep seal trapped waste to SVP or SS according to length of waste run.
Chromium-plated conventional lever taps with aerated or flow restriction.

SANITARYWARE: WC
White low level, close-coupled, lever flush WC with 100mmØ P trap outlet to SVP or SS (or S trap direct connection to manhole).
Double flap seat.
To be fitted with flow regulator.

TEA POINT SINK
Inset stainless steel sink with 40Ø x75mm deep seal trapped waste to standing waste.
Chromium-plated conventional taps. Taps to be fitted with flow regulators

FLOW RATES
All flow rates for taps are to be no more than 105l/pp/pd to comply withApproved Document Part 'G' of the Building Regulations. This will be achieved with the following Specification:
- Toilets = 4 / 2.6 L
- Basin Taps= 4 L/min
- Kitchen Taps = 12 L/min

Contractor to provide evidence that the above flow rates have been met, and submitted to Building Control.

FIRE / SOUND STOPPING THROUGH FLOORS / CEILINGS AND WALLS
'Rockwool Firepro' Acoustic Intumescent Sealant (for penetrations less than 40mm),
'Rockwool Firestop' collar (for pipes between 40 to 160mm internal diameter)
'Rockwool Firepro' Ablative Coated Batt (for large openings / voids),
'Rockwool Firepro' Firestop Compound (for large openings / voids - LOADBEARING).
Walls where acting as a Fire-Rated wall, all gaps to be fully sealed with one of the above as appropriate, to maintain fire / smoke performance.
Fire-stopping products must be at least equal in performance to the element to where it is fitted (e.g. **60** minutes fire-rated wall = **60** minutes fire-rated product).

FIRE PROTECTION TO STRUCTURAL STEEL
Any exposed steel or other Load-bearing / Structural elements to be afforded at least 60 minutes fire-rated construction to BS 476: 1987, with one of the following methods:
Encased in **60 minutes** fire-rated construction, with either British Gypsum's 'Glasroc-F Firecase', 'Gypliner ENCASE' System or equal approved – generally 20mm thick board – Class 'A1' / '0' fire-rated, installed in accordance with the Manufacturer's Instructions.
Alternatively, protect all areas of exposed steelwork with a suitable intumescent paint by 'Envirograf' or equal approved, preparing / priming steelwork prior to application.

EMERGENCY SIGNAGE (COMMUNAL AREAS)
Signage of a permanent nature to be installed in prominent positions in strict accordance with the Health and Safety (Safety Signs and Signals) Regulations, 1996, and well as BS 5499-10: 2014, BS ISO 7101: 2012+A6: 2016.
Doors to Communal areas to be designated with the correct Fire Signage.

BUILDING REGULATIONS SPECIFICATION NOTES (MEP)

SOIL VENT PIPES (SVP)
100mmØ uPVC soil and vent pipe with rodding point to ground floor and large radius bend discharge to drain.
Plastic Pipework, fittings, joints etc. to comply with relevant Standards including BS EN 15012:2007, BS EN 12056-2: 2000 and BS EN 1401-1: 2009.
SVP encased and framed out with 2no. layers gypsum board (8kg/m²) with WPB ply screwed access panels to SVP, with access plates at all junctions, changes in direction and 150mm above finished ground floor level.
SVP to terminate at ridge vents where possible.
Where SVP penetrates Separating / Party floors, provide 25mm (min) mineral wool quilt (10-36kg/m³) around pipe. Pipe to be boxed in with 2no. layers of gypsum based board combined nominal 16kg/m². All voids around pipe to be suitably sealed.
Fire collars maintaining 60 minutes fire resistance to be provided to SVP where these penetrate compartment floors. SVP to terminate 900mm above any opening windows with tile or ridge ventilator. (Alternatively BBA approved air-admittance value in roof space, where not at head of drain).

PLUMBING – WASTE PIPES
All plumbing to BS EN 12056-2: 2000 and BS EN 1401-1: 2009.
All fittings to connect to wastes via. 75mm deep seal anti-syphon traps.
Minimum waste sizes to be (with gradient in brackets):
- WC 100mm∅ (18-90mm fall p/m);
- Sink/WHB 32mm∅ (18-44mm fall p/m);
- Bath/Shower/Urinal 40mm∅ (18-90mm fall p/m);
- Washing Machine/Dishwasher 40mm∅

All waste connections to SVP to be min 215mm from WC branch connections.
Rodding access to be provided at all bends, with appropriate access hatches in any surrounding boxing.
The entire internal waste system is to be designed in accordance with AD Part H and be capable of withstanding an Air Test of positive pressure of at least 38mm water gauge for at least 3 minutes.
Every trap should maintain a water seal of at least 25mm.

RAINWATER GOODS
Pantile roofs: ⌀112mm aluminium deep flow gutters with ⌀68mm matching downpipes to comply with BS EN 12200-1: 2000 and BS EN 607: 2004.
Metal roofs: Aluminium box gutters and 100mm square downpipes.

STANDING WASTE
50mmØ uPVC standing waste with rodding point connected to 110mmØ. Easy bend outlet to drain.

COLD WATER SUPPLY (CWS)
Supply pipe run within Ø100mm duct with 38mm insulation (thermal conductivity of 0.035W/mK or better), capped-off at ground end.
Connect to in-the-ground type water meter/s as indicated on the drawings, all to the local Water Authority's requirements.
Refer to MEP design.

VENTILATION REQUIREMENTS
Refer to MEP design.

ELECTRICAL REQUIREMENTS
Refer to MEP design.
Each unit to be provided with 3-phase electrical supply via distribution board off 100A incoming mains.

FIRE DETECTION
Refer to MEP design.

P1	First Issue	09/01/19	
Rev	Comment	Date	Chk Apr
Project No: 304529	Scale @ A1: 1 : 50	Drawn By:	

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Vision, form and function

Project:
Proposed Mixed Use Development
Station Road
Southwold

Client:
Southwold Town Council

Title:
Building 1 Ground Floor GA Plan & Building Regulations Specification

Drawing Number:
304529-IW-01-00-DR-A-3500

Status:	Purpose of Issue:	Revision:
S2	Information	P1