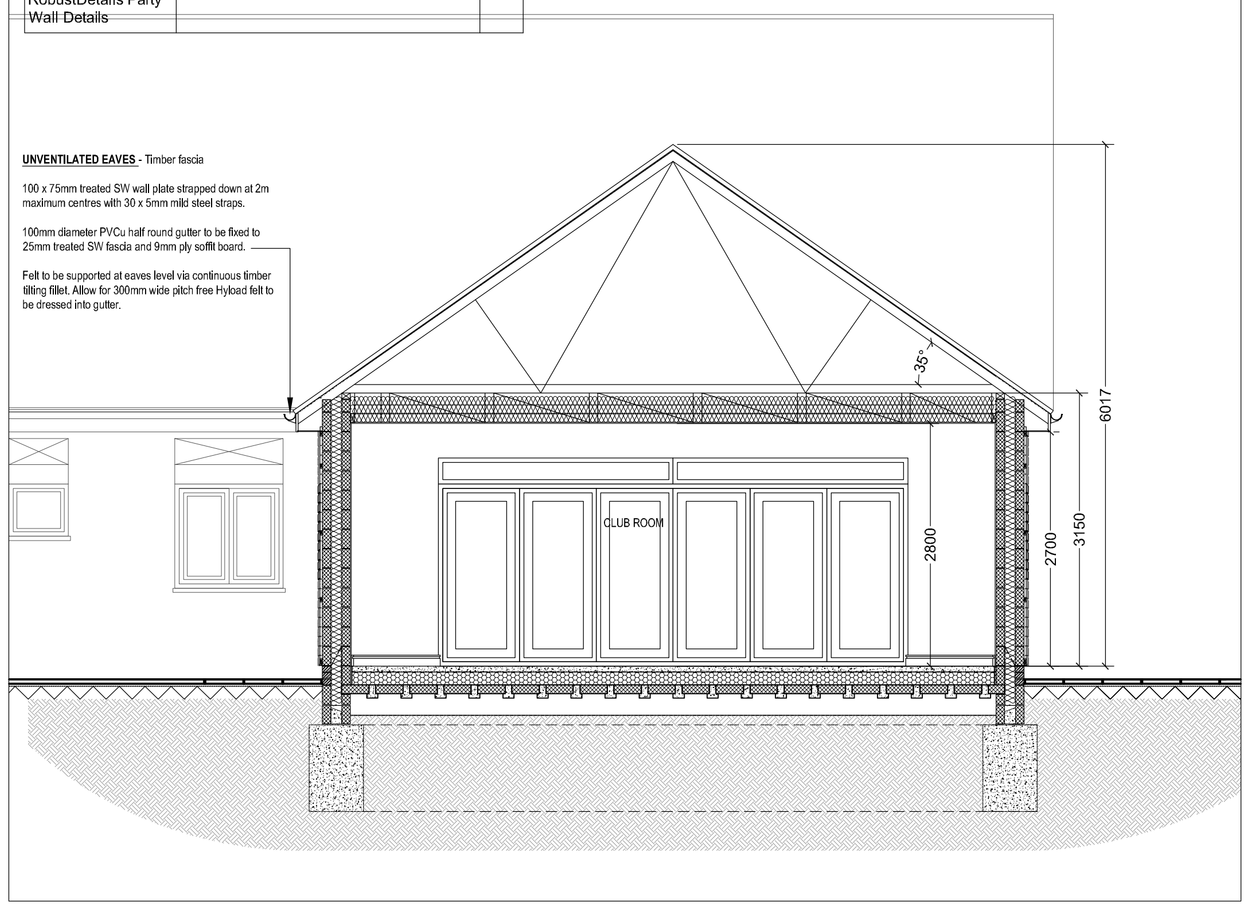
Additional Information Checklist		
The additional information below can be found in the Information package which is to be read in conjunction with this drawing package.		
SAP/SBEM Calculations	Additional Information can be found in the construction information package	
Water Efficiency Calculations.	Additional Information can be found in the construction information package	
Structural Design & Calculations	Additional Information can be found in the construction information package	
CDM Regulation compliance	Additional Information can be found in the construction information package	
Accredited Construction Details	Additional Information can be found in the construction information package	
RobustDetails Party Wall Details		



UNVENTILATED EAVES - Timber fascia

100 x 75mm treated SW wall plate strapped down at 2m maximum centres with 30 x 5mm mild steel straps.

100mm diameter PVCu half round gutter to be fixed to 25mm treated SW fascia and 9mm ply soffit board.

Felt to be supported at eaves level via continuous timber tilting fillet. Allow for 300mm wide pitch free Hylad felt to be dressed into gutter.

PROPOSED SECTION C - C

EXTERNAL WALL - Timber Boarded - 125mm Cavity

Below ground, use minimum 215mm depth aircrete foundation blockwork (Thermalite Trenchblock or Celcon Standard foundation block).
Wall insulation to be continued at least 215mm min. below the DPC and underside of slab/screed (or 215mm min. below top of beam if suspended beam and block floor) and supported on row of ties if needed. Insulation to extend to the top of the external wall including the gable end.

- 225 deep feather edged timber boarding on 25mm SW Tanalised battens on building paper,
- 100mm 3.6N block with 0.15 W/mK thermal conductivity, Thermalite Shield, Celcon
- 125mm cavity, filled with 125mm Knauf Earthwool DriTherm 32
- 100mm 3.6N block with 0.15 W/mK thermal conductivity, Thermalite Shield, Celcon Standard or equal approved
- 12.5mm British Gypsum Wallboard TEN fixed to manufacturers details with 3mm skim,

to achieve
U-Value of 0.19 W/m²K

Mortar mix above and below DPC to be 1:3 (cement:sand). Where lime or plasticisers are required refer to manufacturers recommendations. Brickwork expansion and blockwork contraction joints in all masonry walls to be as manufacturer's recommendations.

Ancon Staifix RT2 250mm general purpose wall ties are to be fitted at 750 centres horizontally and 450 centres vertically, centres to reduce to 300 vertically within 225 from all openings with unbonded jambs.

STUD PARTITION - British Gypsum Gypwall classic

2 x 12.5 British Gypsum TEN (mass 10kg/m²),
min. 70mm Gypframe 'C' studs @ 600mm centres,
2 x 12.5 British Gypsum TEN (mass 10kg/m²)
All joints to fire stopped to 60 min FR, to be well sealed, with intumescent mastic at connections between blockwork and stud wall .

STUD PARTITION - British Gypsum Gypwall classic

2 x 12.5 British Gypsum TEN (mass 10kg/m²),
min. 70mm Gypframe 'C' studs @ 600mm centres,
2 x 12.5 British Gypsum TEN (mass 10kg/m²)
All joints to fire stopped to 60 min FR, to be well sealed, with intumescent mastic at connections between blockwork and stud wall .

EXTERNAL WALL - Brick Faced - 125mm Cavity/125mm Insulation

Below ground, use minimum 215mm depth aircrete foundation blockwork (Thermalite Trenchblock or Celcon Standard foundation block).

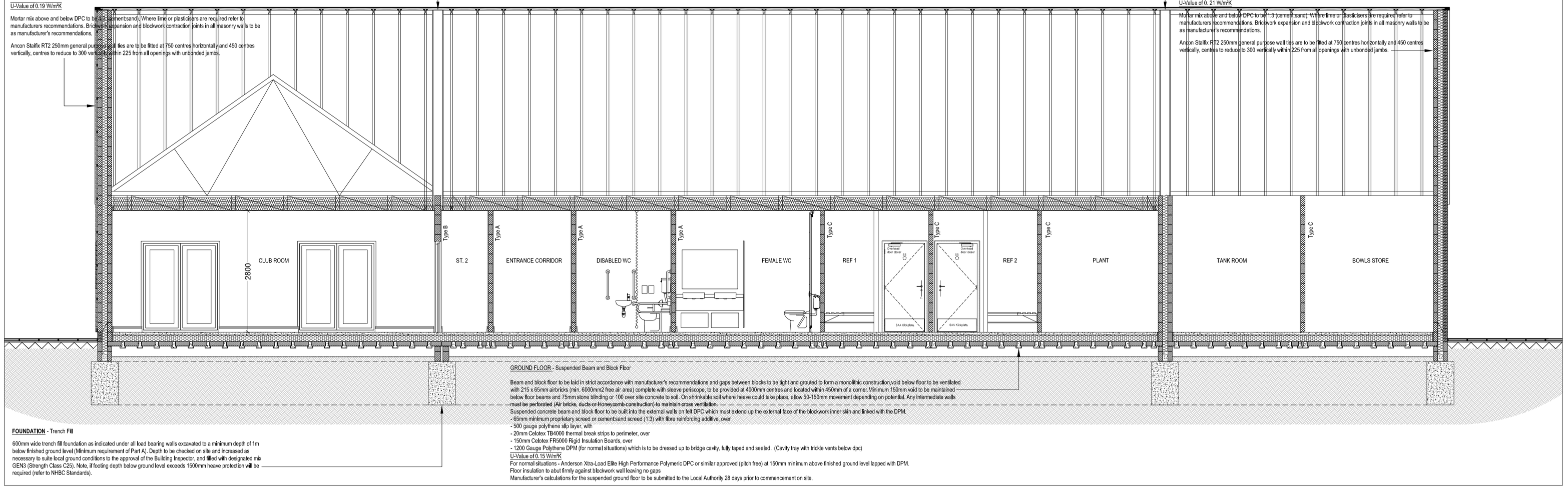
Wall insulation to be continued at least 215mm min. below the DPC and underside of slab/screed (or 215mm min. below top of beam if suspended beam and block floor) and supported on row of ties if needed. Insulation to extend to the top of the external wall including the gable end.

- 102.5mm Approved facing brickwork outer skin,
- 125mm cavity, filled with 125mm Knauf Earthwool DriTherm 32,
- 100mm 3.6N block with 0.15 W/mK thermal conductivity, Thermalite Shield, Celcon Standard or equal approved
- 12.5mm British Gypsum Wallboard TEN fixed to manufacturers details with 3mm skim,

to achieve
U-Value of 0. 21 W/m²K

Mortar mix above and below DPC to be 1:3 (cement:sand). Where lime or plasticisers are required refer to manufacturers recommendations. Brickwork expansion and blockwork contraction joints in all masonry walls to be as manufacturer's recommendations.

Ancon Staifix RT2 250mm general purpose wall ties are to be fitted at 750 centres horizontally and 450 centres vertically, centres to reduce to 300 vertically within 225 from all openings with unbonded jambs.



GROUND FLOOR - Suspended Beam and Block Floor

Beam and block floor to be laid in strict accordance with manufacturer's recommendations and gaps between blocks to be tight and grouted to form a monolithic construction,void below floor to be ventilated with 215 x 65mm airbricks (min. 6000mm2 free air area) complete with sleeve periscope, to be provided at 4000mm centres and located within 450mm of a corner.Minimum 150mm void to be maintained below floor beams and 75mm stone blinding or 100 over site concrete to soil. On shrinkable soil where heave could take place, allow 50-150mm movement depending on potential. Any Intermediate walls must be perforated (Air bricks, ducts or Honeycomb construction) to maintain cross ventilation.
Suspended concrete beam and block floor to be built into the external walls on felt DPC which must extend up the external face of the blockwork inner skin and linked with the DPM.
- 65mm minimum proprietary screed or cement:sand screed (1:3) with fibre reinforcing additive, over
- 500 gauge polythene slip layer, with
- 20mm Celotex TB4000 thermal break strips to perimeter, over
- 150mm Celotex FR5000 Rigid Insulation Boards, over
- 1200 Gauge Polythene DPM (for normal situations) which is to be dressed up to bridge cavity, fully taped and sealed. (Cavity tray with trickle vents below dpc)

U-Value of 0.15 W/m²K
For normal situations - Anderson Xtra-Load Elite High Performance Polymeric DPC or similar approved (pitch free) at 150mm minimum above finished ground level lapped with DPM.
Floor insulation to abut firmly against blockwork wall leaving no gaps
Manufacturer's calculations for the suspended ground floor to be submitted to the Local Authority 28 days prior to commencement on site.

FOUNDATION - Trench Fill

600mm wide trench fill foundation as indicated under all load bearing walls excavated to a minimum depth of 1m below finished ground level (Minimum requirement of Part A). Depth to be checked on site and increased as necessary to suite local ground conditions to the approval of the Building Inspector, and filled with designated mix GEN3 (Strength Class C25). Note, if footing depth below ground level exceeds 1500mm heave protection will be required (refer to NHBC Standards).

PROPOSED SECTION A - A

GENERAL NOTES:

Wall thicknesses shown do not allow for plaster skim finish, All dimensions are for building regulation purposes only, they should not be used for setting out.

All compartment fire walls must be suitably fire stopped at the perimeters, joints and where any penetrations occur.

Dimensions indicated are from finish to finish.

For electrical layouts please refer to full details and design by others,

Above ground foul drainage shown is indicative only.

Building Regulation Notes:

Approved Document A

All elements of structure to be fully detailed and designed by the structural engineers and / or suitable specialist, To be in accordance with approved document A,
All elements of structure to achieve 60mins fire resistance,

Approved Document B

Emergency lighting to be fully detailed and designed by specialist in accordance with BS5266-1:2005, HSSP drawing is indicative only, Please also refer to the room data sheets,

Fire alarm and detection system to be fully detailed and designed by specialist in accordance with BS5839-1, Please also refer to the room data sheets,

Emergency signage to be fully detailed and designed by specialist in accordance with BS5499-1:2002 and 4:2003, Guidance given by the HSE, Safety Signs and Signals Guidance on Regulations, should also be referenced too,

Emergency Voice Communication (EVC) system and associated signage provision to be provided at the refuge point, in accordance with BS5839-9:2003,

A warning system for people with impaired hearing to be provided in accordance with BS5839-1:2002,

Please refer to the detailed specification and room data sheets for the locking and security system design, To be fully detailed and designed by specialist,

All fire doors to comply with AD82, Appendix B and Table B1, Fire doors to have appropriate signage in accordance with BS5499-5:2002 and associated room data sheets, All fire doors to have fire stops and smoke seals, All doors on escape routes should be readily openable without the use of a key, Automatic entrance doors should be linked to the fire alarm to fail safe open on activation of the fire alarm or main failure,

The travel distances do not exceed those set out in AD82: Table 2,

All compartment walls and floors are to be adequately fire stopped with suitable cavity barriers as necessary, Please refer to the specification, Cavity barriers to be included for compliance with AD82, Any openings through compartment walls, floors and other fire resistant elements to be adequately fire stopped in accordance with AD82,

Occupancy levels within this building will be approximately 55 people, therefore the numbers of escape routes, exit widths etc, are all within or better the approved documents,

The building owner / end user is to carry out a continual assessment under the Regulator Reform Order (RRO),

Fire alarm and emergency lighting commissioning certificates are to be provided by client,

Areas of roof coverings that pass over compartment walls must achieve suitable fire resistance to surface spread of flame classification AA, AB or AC and be on a substrate deck of material of limited combustibility, 1500mm either side of the wall,

NOTE: FIRE STRATEGY IS INDICATIVE ONLY AND SHOULD BE FULLY DETAILED AND DESIGNED BY THE CONTRACTOR POST TENDER.

Approved Document F - Ventilation

By others, please refer to the specification, room data sheets and specialist engineers details and design, To be in accordance with approved document F and the relevant CIBSE guides,

Approved Document G & H

To be fully detailed and designed by others in accordance with approved document G,

All sanitary fittings to have 75mm minimum deep seal traps,

Waste pipe diameters :
wash hand basin and bidet 50mm minimum,
sink, bath and shower 40mm minimum,
W.C. 100mm minimum,
Urinals 65mm

Suitable materials for sanitary pipework include;
Copper (to BS 416 & BS EN 877) PVCu (to BS EN 1329), ABS (to BS EN 1455), Galvanised Steel (to BS 3868), others may be appropriate for use, note that not all are appropriate for trade effluents

All waste pipes to connect internally to the Discharge Stack separately, Discharge Stacks should be ventilated and must terminate with a suitable durable cage 900mm minimum above window heads, Discharge Stacks connected to drains liable to surcharge require a 50mm ventilation pipe above the likely level of flood, Discharge bend must be of minimum radius 200mm at centreline of stack,

Workmanship to be accordance with BS 8000 pt 13: *Code of practice for above ground drainage*

For an occupancy level of 55, there is provision for the following sanitaryware:
Male: 2 w/c's, 3 w'sh's & 2 urinals
Female: 2w/c's & 2 w'sh's

Approved Document J

Heating and cooling strategy to be confirmed, Details to follow,

Approved Document K

New glazing in critical locations to be provided in accordance with Guidance in BS 6206 and ADK4,

Manifestation to be provided to any full height glazed screens between 850mm and 1000mm and 1400-1600mm above floor level, Minimum standards in K4 for door manifestation and vision lines to be achieved,

Provision must be made within the building management plan to address the risk to occupants from impact with a vehicle where a vehicle enters the building, To be provided by the client,

Approved Document L2

SBEM calculation is to be provided by others to demonstrate that the conditioned space within the building's BER is better than or equal to the TER, The SBEM calculation must include the actual tested air permeability rate, Only the conditioned space need comply, therefore where the conditioned space floor area is less than 500m² then a default value of 15m³/(hᵐ²) v@ 50 Pa may be used within the calculation,

Lighting, heating, ventilation and air conditioning systems are to be fully detailed and designed by others in accordance with the Non- Domestic Building Services Compliance Guide, Commissioning certificates are to be provided on completion, Further details to be provided by specialist M&E consultants, please also refer to the room data sheets and project specification,

Consideration should be given to the use of energy saving controls to all new installations,

On completion, a notice confirming that the new fixed building services have been commissioned in accordance with CIBSE Commissioning Code M and that the installations are found to operate in reasonable accordance with the design, must be provided,

Approved Document M

A fully accessible and inclusive WC has been provided, This is accessible from the main entrance corridor and has been shown as 1550mm wide therefore not for public use, It will remain locked at all times with access by female staff only, To be detailed and designed, including relevant switches, emergency controls and lighting, in accordance with ADM and BS8300,

All doors to achieve the minimum clear opening width set out in ADM Table 2, They can be operated using a closed fist and do not require a force greater than 30N to open, All doors achieve a minimum of 300mm to the leading edge with suitable visibin panels provided where required (please refer to the door details for further information), Rebates to the doors, architraves and walls to achieve sufficient colour contrast, Colour contrasting finishing schemes are to be provided for approval, All in accordance with ADM and BS8300,

All switches, outlets, controls and aids to communication by others in accordance with ADM and BS8300,

NOTE: It is the responsibility of the user / building owner to ensure they fulfil their obligations under The Equality Act, The Access Strategy is to be provided by the client / end user,

OPENINGS

Window & door frame units to overlap cavity by a min. 30mm
Cathic Cougar or similar approved insulated open backed galvanised steel lintels factory over all external openings fixed to British Standard 5977 and manufacture's recommendations.
Weep Holes to be provided at 450mm centres.
All jambs, cills and lintels to be closed/insulated with Thermabate or similar closers with a min. thermal resistance path of 0.45m²K/W. Full fill insulation to be installed fitting tightly ensuring no gaps including above and below cavity tray.

WINDOWS & DOORS

All windows and doors to be PVCu/timber and double glazed with sealed units having a minimum 20mm argon filled air gap and soft coat Low E glass. All frames are to be sealed around the perimeter both internally and externally.
Windows to achieve U-value 1.6W/m²K
Doors to achieve U-value 1.6W/m²K
All glazed doors, side panels and windows in critical locations as defined under the Building regulations, to have laminated safety glass to BS 6262:part 4 2005 and to BS 6206/ BS EN 12600

SECURITY & SAFETY

Ground floor, basement and other easily accessible windows or rooflights should be secure windows in accordance with PAS24:2012 (alternative similar or better standards outlined in Part Q1 of UK Building Regs). The same windows should also have key-operated locking, except where the window forms an escape route from a first floor bedroom. In this case the outer pane should be 6.4mm laminated glass and no locking handle fitted.
Where opening lights open over pathways, restrictors are to be fitted.
Trickle vents are to be fitted to all windows: 2500mm2 free area to wet rooms and 5000mm2 to habitable rooms. Total area should be 40,000mm2 for 2 bedroom property, 50000mm2 for 3 bedroom and 60000mm2 for 4 bedroom. Air transfer between rooms to be provided by undercutting doors by 10mm clear of floor finish.
Window manufacturer to assess handing and note the sizes given are actual brickwork opening sizes and should allow approx 10mm tolerance to structural opening.
Main entrance door to provide way of seeing callers by either a door viewer or an area of clear glazing within the door or adjacent to the doorset. Doorset to provide door chain or door limiter.
All easily accessible doorsets that provide access into a dwelling or a building containing a dwelling should be secure doorsets in accordance with PAS24:2012 (alternative similar or better standards outlined in Part Q1 of UK Building Regs).

STRUCTURAL STEELWORK

Fabrication of steelwork to be in accordance with BS 5950:Part 2. All steelwork to be to engineers specifications and of grade 43. Steelwork to be shot blasted and treated with suitable primer.
All steelwork to be to engineers specifications
Contractor responsible for the erection of steelwork to ensure the stability of the structure at all times during erection, and for any temporary bracing and struts required.
Appropriate blue brick padstones are to be provided with a minimum beam bearing of 100mm.

PART G2 MANDATORY WATER EFFICIENCY COMPLIANCE

Part G2 will be satisfied if it can be demonstrated that the estimated consumption of wholesome water (Potable water as described under Water Supply (Water Quality) Regulations 2000 (SI 2000/3184) or Private Water Supplies Regulation 2009 (SI 2009/3101)) in both hot and cold water applications does not exceed **125 litres per person per day**

Primary Approach
Compliance can be demonstrated by an approved calculation methodology as described in Part G (2015) of the Approved Documents, Appendix A, pages 36 - 44

Alternative Approach
Compliance may be demonstrated via the "*fittings approach*". It must be demonstrated and recorded that each fitting is subject to the following limits set out in the table below.

Maximum Fittings Consumption

Water Fitting	Maximum Consumption
WC	6/4 litres dual flush or 4.5 litres single flush
Shower	10 l/min
Basin taps	6 l/min
Sink taps	8 l/min
Dishwasher	1.25 l/place setting
Washing machine	8.17 l/kilogram

ELECTRICAL WORK

All electrical work in notifiable areas to carried out by a competent person registered with a Part P (P1) compliant scheme. Electrical certificate to be submitted to building control on completion of works.

Note:
Electrical cables give off heat when in use and special precautions may be required when they are covered by thermally insulating materials. See BRE BR 262, Thermal Insulation: avoiding risks, section 2.3

ENERGY ASSESSMENTS

Appropriate energy assessment to be undertaken by a qualified Energy Assessor. Design Emission Rate must achieve 25% improvement factor on Target Emission Rate.
Air Pressure testing to be undertaken by appropriate company (eg. Stroma, Ashby Energy etc.) and results forwarded to the Local Authority. Air Permeability of the dwelling is to be max. 5m3/hr at 50Pa
EPC to be produced and displayed in the building prior to occupation. Energy Ratings and the EPC to be inserted into the O&M Manuals

RAINWATER RECOVERY

Grey water recovery tank by Stormsaver to be provided with pump and filtration unit. Details by 3rd party.
Note:
All pipework carrying greywater for reuse must be clearly marked GREY WATER in accordance with advisory note 09-02-05 *Marking and Identification of Pipework for Reclaimed and Grey Water Systems*

PHOTO-VOLTAICS

Photovoltaic cells to be mounted in accordance with manufacturers recommendations on Roof system electrical output to Inverter unit of minimum 90% efficiency.
Electrical current generated to pass through FIT system to export to grid.

Note:
PV cells, Inverter and export systems must be MCS approved systems and be installed by an MCS accredited Installer to qualify for Government Feed-In-Tariff scheme.

HOT WATER SUPPLY AND SYSTEM

The hot water temperature to the bath should be limited to 48 degrees by use of an in-line blending valve or similar, with a maximum temperature stop and a suitable arrangement of pipework.

FIRE STRATEGY FOR COMMERCIAL PREMISES

Detection
Fire Detection and Alarm systems to be designed & installed to meet criteria laid out in BS 5839 Pt1:2013

Signage
All Emergency Escape signage to be designed by specialists and fitted in order to satisfy the criteria laid out in BS 5499 Pt4:2013

Lighting
Emergency Lighting to be supplied and fitted in accordance with requirements laid out in BS 5266 Pt1:2011 and included to all open plan areas over 60m2, all windowless area and to toilet accomodation if greater than 8m2. In addition, the escape route should be illuminated to facilitate safe egress.

Fire Fighting Equipment
Fire Extinguishers to be supplied to meet the requirements laid out in BS EN3 and BS 7863

INTERNAL LIGHTING - 100% Fixed Fittings Energy Saving

In areas affected by building work, 100% of light fittings to be low energy.

Low energy lighting must have a lumens efficiency equal to or greater than 45 lumens per circuit-watts and a total output greater than 400 lamp lumens. eg. fluorescent lamps and LED lamps (tungsten spot lights and halogen lamps are not low energy).

Fittings are to be agreed with Building Inspector.

EXTERNAL LIGHTING

Where fixed external lighting is installed, all lamps to be compact fluorescent and automatically controlled so as to switch off when daylight is sufficient and to have the following characteristics either;

- lamp capacity not greater than 100 lamp-watts per light fitting and all lamps automatically controlled so as to switch off after the area lit by the fitting becomes unoccupied.

or;

- lamp efficacy greater than 45 lumens per circuit-watt and light fittings controllable manually by occupants.

FIRE DETECTION - new build dwellings

Provide Fire detection and alarm system to comply with BS 5839-6:2004 and minimum Grade D Category LD3 compliance
Smoke alarms and Heat Detectors should be mains fed and conform to BS 5446-1:2000 and must have battery backup of charging capacitor. (refer to Clause 15 of BS 5839-6:2004)
Where more than one alarm is provided these must be interlinked.
Detectors/Alarm heads should be positioned so that;
A) there is at least one smoke detector/alarm head per storey
B) Smoke detector/alarm heads are positioned in the circulation space between sleeping spaces and living accommodation
C) All doors to habitable spaces are within 7.5m of a detector/alarm head.
D) They are positioned more than 300mm from any walls or light fittings. (If this is not possible in the case of light fittings, it must be proven that the light fitting will not adversely affect the operation of the detector).
In addition, If there is no separating door between a kitchen and the circulation spaces, then an additional compatible and interlinked Heat Detector must be provided in the kitchen space.

INTERNAL WALL - Type A - Blockwork

Generally:
100mm Concrete blocks of minimum density 120 kg/m³ (excluding finishes),
12.5 British Gypsum TEN and skim or equal approved (mass 10kg/m²)
Wet areas:
100mm 7.3N solid Topblock Hemlite PG blockwork lined with 12mm w&bp sheating ply. Altro to extend to full ceiling height.
All joints to be well sealed.

INTERNAL WALLS - Type B - Blockwork

140mm 7.3N solid Topblock Hemlite PG blockwork painted (refer to Finishes schedule) To be built off Beam and Block floor.

INTERNAL WALLS - Type C - Blockwork

Generally:
100mm 7.3N solid Topblock Hemlite PG blockwork painted (refer to Finishes schedule) To be built off Beam and Block floor.
Wet areas:
100mm 7.3N solid Topblock Hemlite PG blockwork lined with 12mm w&bp sheating ply. Altro to extend to full ceiling height.

PART M - access to and use of buildings

Provide disabled threshold and level access to front door from parking area, gradient not to exceed not to exceed 1:20. Paths to be not less than 900mm wide.

Main entrance door must provide min clear opening width of 800mm between face of open door and face of stop. Depending on type of door to be fitted, contractor must check overall opening dimension required to achieve this. NOTE: timber mobility frames usually require a 932mm overall opening, and PVCu 1023mm. Rear door to be 910mm overall opening, unless used as principal entrance.
Surface to be firm and even and any path to be not less than 900mm wide.

Ground floor internal doors are to be 838mm wide, and first floor doors may be 762mm wide. Ground floor WC must have an unobstructed clearance of 1000mm wide and 750mm deep in front of the WC pan, with an outward opening door.

Electrical sockets/switches and consumer units to be positioned between 450 and 1200mm from the finished floor.

PART R - high speed communications infrastructure

Provide Infrastructure to allow for future connection to High Speed Electronic Communications Networks.
At least one network termination point should be identified within each dwelling or building unit. Suitable ducting should be provided to connect all such network termination points to an appropriate access point most likely on external wall.

Exceptions are:

- Isolated buildings where it is unlikely that physical connection to networks can be made
- Where listed or planning status preclude

NOTE:
DRAWINGS TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS

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Notes
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Prior to any works commencing on site, the engineer is to be contacted regarding the current status, revision or acceptance of these details.
All work to be to the entire satisfaction of the BRBC or Local Authority not withstanding anything shown or indicated on these drawings. All workmanship and materials to be the best of their respective kind and at least equivalent of the appropriate British Standard Code of Practice. All relevant dimensions are/need to be ascertained or checked and verified on site before specific areas of work are commenced.
This drawing is to be read in conjunction with clients specification/employers requirements and structural engineers design.

T1 210218 SG ISSUED FOR TENDER
B2 061217 SG Note removed
B1 270917 SG Issued for approval

Rev.	Date.	Drawn.

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Project.
Proposed New Sports Pavilion
Shakespear Park
Braunstone
For Braunstone Town Council

Title.
TENDER - Proposed Sections

Scale.	Drawn.	Checked.	Date.
1:50	SG	NC	Sept '17

Drawing No. 7209-05-002 Revision. T1

HSSP A1