

Specifications

Site Preparation

Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc on or in the ground cover, or to be covered by the building.

New Structure

Beams, Lintels and Fire Protection Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 30 minutes minimum fire resisting construction with staggered joints or painted with intumescent paint. Openings and Wall Returns An opening or recess greater than 0.1m² shall be at least 665mm from the supported wall (measured externally).

Suitability and spacing of wall ties

All walls constructed with stainless steel vertical twist type retaining wall ties built in at max. 900mm centres horizontally, 450mm vertically and 225mm centres at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 1243.

Vertical & Horizontal Restraint

* All structural details and calculations to Structure engineer
All strapping to be in accordance with B.S.5628:1978. 30x5mm galvanized m.s. straps to be fixed to minimum 100x50mm wall plates @ 2000mm ctrs. and minimum 1000mm down wall, all to provide adequate vertical restraint. 30x5mm galvanized m.s. straps to be fixed to last two floor and ceiling and roof joists and rafters that are parallel to wall face @ 2000mm ctrs. and built into end/gable walls. 30x5mm galvanized m.s. straps are to be fixed to floor and ceiling and roof joists that are at right angles to wall @ 2000mm ctrs. all to provide adequate horizontal restraint. Straps to be plugged and screwed to minimum 4no. blocks with minimum 6no. screws. Ceiling/Flat Roof joists as applicable to be skew nailed to wall plates.
Timber
All external timber to be pressure-impregnated with preservative prior to delivery to site in accordance with NHBC Standard 2.3. Structural timber to be to BS5268:Part 2. All softwood timber used within void spaces of the roof, should be treated with a suitable preservative to prevent insect infestation by House Longhorn Beetle.

* **Structural Timber Roof**
Common rafters, hip rafters, ridge and hip timber and ceiling joists (junction and strapping) to be sized and detailed by Structure Engineer's and approved by Building Control Officer

Standard Studs Wall :

75mm x 37.5mm timber frame (studs at 600 mm ctr's) with 1 layer of 12.5mm Gyproc SoundBloc plasterboard plastered each side (additional 1 layer of 12.5mm Gyproc Moisture Resistant to be used in kitchen & Sanitary rooms) with 50mm Rockwool Flexi between studs or 25mm Isover Acoustic Partition Roll (APR 1200) in between studs with total construction to give Minimum 30 minutes fire resistance. Perimeter noggins to be allowed for to receive skirtings, architraves and door linings. Where a wall is constructed between an En-Suite and associated bedroom, or if there is a door in the partition, the Isowool can be omitted.

Lintels, Beams & Steelwork

Lintels in external cavity walls to be Catnic Lintels or similar type, complete with cavity tray DPCs, stop ends and weepholes, (minimum two weepholes per opening or max 450mm c/c). Lintels in internal load bearing walls to be Catnic Lintels or similar. End bearings to all lintels to be minimum 150mm on full mortar beds.
* Refer to Structural Engineer's documentation for steel beam sizing, bearings, padstones and calculated justifications.
** Encase all exposed steel beams in 2 layers 12.5mm Gyproc plasterboard and skim
* All steel beams and waste pipes should be boxed and infilled with 100mm 45kg/m3 mineral wool and encased with 15mm soundbloc plaster board, where possible a 20-25mm air gap should be incorporated

Lead Work

All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped minimum 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

Soil & Vent Pipes/ Stub Stacks/ Services Pipes-E nclosures

Soil and vent/stub stacks/service pipes to be encased for their full height with two layers of 15mm soundbloc plasterboard on minimum 38x38mm treated s/w framing. Pipes and any branches within the ducts to be wrapped with 25mm thick glass fibre as sound insulation. Air admittance valves to be fitted to soil and vent pipes and stub stacks not venting to atmosphere. Stub stacks to be min. 900mm high. All enclosures to be fully accessible for maintenance adjacent floor levels via removeable 12mm WBP ply access panels.

Switches, Sockets etc.

All light switches installed at a maximum height of 1200mm, with TV points, socket outlets, telephone jack points installed at a minimum height of 450mm. Heights to be measured from finished floor level.

Sanitary Pipework

All above ground drainage to be of pvcu soil and vent type with 110mm diameter stacks, fitted, where noted, with air admittance valves or to terminate externally via vent tiles, located at least 900mm above any openings into the building which are within 3000mm of the terminal. All sanitary pipework in accordance with BS.5572:1978 "Code of Practice for Sanitary Pipework" and the Building Regulations, with 110mm diameter wastes to WC's, 40mm diameter wastes to Baths, Showers, Sinks and Washing Machine stand pipes, 32mm diameter to Basins. All fittings to have 75mm deep seal traps. Anti-syphon devices and rodding facilities to be fitted in the case of long runs, i.e. 1700mm for 32mm diameter, 3000mm for 40mm diameter, 4000mm for 50mm diameter and 6000mm for 110mm diameter. No connection to be within 200mm of WC connection.

Areas of glazing between finished floor level and 800mm above that level, or between finished floor level and 1500mm above that level in a door or side panels to be toughened safety glass. Draught proofing strips fitted to the frames of openable windows and doors. To limit thermal bridging around openings etc. the frame should overlap the blockwork by 30mm min. and the internal faces of metal lintels should be covered with 15mm min. of lightweight plaster.

Means of Escape

Windows in habitable rooms at Ground floor, 1st fl levels to have unobstructed openings of 0.33 sq.m and at least 450mm high and 450mm wide. Bottom of window opening to be between 800mm min. & 1100mm max.

Ventilation to Kitchen, Utility and Sanitary Accommodations

Kitchens and utility rooms to have mechanical extract capable of extracting at a rate not less than 30 litres per second (incorporated in a cooker hood within Kitchen) which may be operated intermittently.

Bathrooms and En-Suites to have mechanical extract capable of extracting at a rate not less than 15 litres per second controlled by light switch with 15 minute overrun and electrically isolated independently above doorway. Internal rooms with no openable windows to have min. 10mm gap under door. Ducts to terminate externally via air brick or in-line tile vent. Flooring to kitchen and bathrooms to be moisture resistant.

Automatic Smoke Detection

Ceiling mounted mains operated automatic smoke detectors, positioned within Flat hallways, to be installed in accordance with Document B1 of The Building Regs 1992 Edition.

Electrical Safety

All electrical work required to meet the requirements of part P must be designed, installed and tested by a person competent to do so. An appropriate BS 7671 electrical installation certificate to be issued for the work on completion.

Windows & Doors

Windows to be PVC-U, opening casements, double glazed and weatherstripped 1/10th floor area max 25% of external wall area. Ventilation to habitable rooms provided by openable windows at 1/20th floor area. Background ventilation provided by trickle ventilators, with integral flyscreen, incorporated within window frames giving 8000mm² controllable opening per habitable room or 4000mm² per non habitable room. Standard UPVC window and doors to give a U Value of 1.4 W/m²K or better. Catnic lintels to all openings to BS 5977: Part 2 : 1983.

Hot & Cold Water Services - Electrical (to specialist engineer and manufacturer)
Hot water and heating to be electrical with hot water cylinder. Boilers, heating, and water pipework to be installed and distributed internally all in accordance with relevant services regulation authority's requirements, British Standards and manufacturer's recommendations by qualified personnel of a recognised services installations body.

All pipework is to be insulated to comply with the requirements of Building Regulations Approved Document L1 and adequately sealed where it passes through ducts, hollow construction or voids. Overflows or pressure relief pipes must discharge in accordance with system manufacturer's recommendations.

Sanitation, Hot Water safety and Water efficiency

The estimated consumption of wholesome water for each dwelling must not exceed '125 litres/person/day in accordance with Regulation 17K and Requirement G2. A copy of the calculation results produced using the DCLG Water Efficiency Calculator must be submitted to Building Control on completion of works, in accordance with Regulation 20E, to reflect the as built arrangements on site to demonstrate that this requirement has been met. G2
- All new baths are to be fitted with an in line blending valve or other appropriate temperature control device that limits the supply of hot water to a maximum of 48 degrees C. G3
- All new hot water systems are to be commissioned in accordance with the approved procedure in the Domestic Heating Compliance Guide and a copy of the commissioning documentation passed to Building Control on completion. G3

Electrical Services

Electrical layouts are to be in accordance with Specialist Contractor's detail design. Installation must be in accordance with BS 7671, and comply with IEE Regulations. A suitable number of rooms in each dwelling must be fitted with energy efficient light fittings in accordance with Approved Document L1 Section 1, paragraphs 1.54 to 1.56, and Table 4 of the current Building Regulations. Energy efficient light fittings as shown on plans, to be fixed lighting that only take lamps having a luminous efficacy greater than 40 lumens per circuit watt. External lighting to meet the above requirements or are controlled by a P.I.R.

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NOTES:

1. CONTRACTOR MUST CHECK DIMENSIONS ON-SITE PRIOR TO COMMENCEMENT OF WORKS.

2. ANY DISCREPANCIES OR UNCERTAINTIES MUST BE NOTIFIED TO THE PRINCIPAL DESIGNER.

3. BOUNDARIES HAVE BEEN ASSUMED ON SITE, CLARIFICATION AND CONFIRMATION OF BOUNDARY MUST BE TAKEN UP WITH A LEGAL PARTY.

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6. STRUCTURAL ELEMENTS AND SUPPORTS MUST BE DESIGNED BY A CERTIFIED STRUCTURAL ENGINEER, THAT HAS PROVIDED SUPPORTIVE CALCULATIONS TO BE APPROVED BY THE LOCAL AUTHORITY BEFORE INSTALLATION.

7. NON-SPECIFIED MATERIALS MUST BE CONSULTED AND APPROVED BY ALL RELEVANT PARTIES PRIOR TO INSTALLATION.

A	ISSUED FOR APPROVAL	04/08/2025
REV. NO.	DESCRIPTION	Date
CONSULTANT :		
ACE UK ENGINEERING CONSULTANTS ACE UK ENGINEERING CONSULTANTS LTD. www.ace-uk.co M: +447444102024 T: +44118374 9821 214 Western Road Southall UB25JW		
PROJECT NAME :		
20 Springdale		
Address :		
20 Springdale, RG65PR, Reading, UK		
Description of Proposed Works : - Construction of a single story rear extension, for which the maximum height would be [3.57]m and the height of the eaves [3.11]m. - Demolition of existing conservatory in the backyard		
DRAWING TITLE :		
SPECIFICATIONS		
DRAWING NO :	REVISION NO:	
A302	A	
SUBMISSION DATE :	SCALE :	
AUG. /2025	1:100	
REFERENCE:	DRAWING SIZE :	
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OFFICIAL USE ONLY :		