

BRICKWORK

TRADE SPECIFICATION

GENERAL

- a) This Trade Specification gives information regarding the procurement of materials, installation of materials and on-site working methods to ensure the correct standards and compliance is achieved on site. This trade specification is to be read alongside working drawings, BDW Standard Details, manufacturer's literature and the Barratt Construction Best Practice Guide. Any statutory requirement relating to the Trade Specification takes precedent. If any doubts remain regarding the information given or further clarity is required, these concerns must be communicated to the Commercial Department BEFORE proceeding.

- b) **BDW Trading Limited**
Barratt Homes and David Wilson Homes are all trading names of BDW Trading Limited "the Company".

- c) **Clearing**
As part of this Trade Specification the Contractor is responsible for clearing up and safe removal of waste materials from in and around the house arising from the execution of their Works, ensuring that all waste materials are segregated and disposed of into the relevant tipper skips.

Failure to comply with this requirement resulting in the Company's labour performing this task will result in contra charges being levied against the Contractor.

The Contractors attention is particularly drawn to the sections below which state where waste materials must be removed as work progresses.

- d) **Contract Conditions**
The Contractors attention is drawn to the Company's Conditions of Contract and General Terms.

- e) **Defective Workmanship**
All defects, resulting from poor workmanship by the Contractor or, by the Contractor not carrying out the Works in accordance with this Trade Specification and the Governing Documents listed below, are to be remedied by the Contractor at no extra cost to the Company.

Failure by the Contractor to carry out this contractual obligation, resulting in an alternative Contractor being instructed to carry out such remedial work, will incur the Contractor with the cost thereof.

Should any element of work, undertaken by a preceding trade, be considered deficient and inhibiting progression by this trade, all such defects must be brought to the attention of BDW Site Management for remedy prior to the commencement of the works.

f) **Materials**

It is the Contractors responsibility for unloading and storing all of their own materials.

The Contractor must also ensure that all materials are satisfactory for use and have not been subject to deterioration and conform to the relevant BSS, if applicable and if required CE marked or Agrément Certificates, NHBC and Local Authority requirements. Failure resulting from the Contractor using unsuitable or damaged materials will result in the Contractor being liable for any costs in rectifying the same.

g) **Manufacturers Products**

The Contractor must make themselves aware of Manufacturer's products and fixing instructions at the tendering stage as no claim for want of knowledge will be entertained. All technical issues must be resolved before work commences on site.

h) **Site Condition**

The Contractor is to examine the drawings, visit the site in order to ascertain position of site office, compound, electricity and water supplies.

Accessibility may vary depending on the location, weather conditions and such like. These factors must be taken into consideration at tender stage as no claims will be entertained for additional costs due to adverse site conditions.

i) **Sub-Contractor**

The Contractor must not further sub-contract any part of the Works to another Contractor without the prior knowledge and written approval of the Company.

It is essential that the Contractor liaises with all other trades associated with the Works to ensure the sub-structure is installed correctly and appropriately prior to work being carried out.

Where fire proofing or fire stopping measures are likely to follow this trade, it is essential the preparation work is sufficiently prepared. Please make reference to the Fire Proofing Trade Specification and associated standard details and drawings to ensure knowledge of requirements. If in doubt, please ask for clarification, prior to signing this document.

Manufacturing engineering judgements should be requested for non - standard applications. Please contact Group Design and Technical for assistance.

j) **External Wall Construction**

The Company has a number of specific construction details for external cavity walls of different construction types.. The Contractor is responsible for ensuring that they are aware of the type of wall construction for each plot across site and has priced accordingly. No claim based upon lack of information will be accepted.

1 **BRICKWORK RATES**

1.1 The brickwork rates are deemed to include the following:

1.1.1 Distribution of materials from site compound to work stations at all levels (bricks, blocks and sand will be from closet point of delivery.



- 1.1.2 All setting out, to the satisfaction of the site agent. A gauge rod shall be used to four courses to 300mm height, carried uniformly with true faces to every course with the joint well flushed up with mortar and properly pointed to an approved sample. The internal face of garage brickwork is also to be pointed.
- 1.1.3 Hoist and fix all lintels over all openings, including fixing cavity gutter.
- 1.1.4 Closing all cavities at door and window openings (if required).
- 1.1.5 Lay vertical and horizontal DPC/thermal break where required. Collect from compound, hoist into position and bed set upright door frames, including de-horning if necessary and protection. Build in wooden pads to openings for fixing window boards. Build in P.V.C.U. window formers.
- 1.1.6 Build in porch and bay support brackets. Beam and joist filling, forming or leaving adequate chases for lead or felt flashing. Forming openings for extract ventilation ducts. All necessary fillings and pointing around plumbers outlets and the like and putlog holes upon scaffold dismantling. Fair cutting at gables including hoisting roof truss to roof level to act as guide for gable.
- 1.1.7 All work to chimneys including building in of flue liners, to concrete blocks liners, firebacks, including bedding tiles to corbelled sections and installation of chimney trays as detail.
- 1.1.8 The building in of dummy frames and any subsequent pointing required after fixing of frames by the carpenter/window supplier.
- 1.1.9 Forming the cavity wall as shown on relevant drawings, including wall ties built at appropriate centres. The cavity should be kept clear of droppings and properly sealed at wall plate level, gables and all other openings.
- 1.1.10 For masonry and large format blockwork in low-rise construction: Installation of all ARC Cavity fire barriers and ARC Party Wall DPC barriers in accordance with Group Standard Details.
- 1.1.11 For timber frame construction: Ensuring brickwork is built ensuring ARC cavity barriers are held in compression, or if timber cavity barriers are used the brickwork is tight to the DPC wrapped timber in accordance with Group Standard Details.
- 1.1.12 For timber frame construction: When providing an opening for the boiler flue to pass through the outer masonry leaf, a settlement gap must be left underneath the steel tube that surrounds the flue. As the outer leaf progresses, an ARC TCB Square cavity barrier must be fixed to the timber frame panel and be compressed within the cavity that fully encircles the steel tube that surrounds the boiler flue. Apart from underneath the steel tube that surrounds the boiler flue, the outer masonry leaf must be cut and laid accurately up the steel tube to ensure that when the fire resistant sealant (completed by the Plumbing Contractor) is installed around the boiler flue. This is to ensure that there are not excessive amounts of sealant required to fill the void and risk being visible after the boiler flue surround has been fitted and pushed back to the outer masonry leaf. All in accordance with Group Standard Details.

- 1.1.13 All feature brickwork as shown on working drawings i.e. soldier, dentil and oversailing courses etc. and corbel, herringbone features and architectural stone etc. which may entail fixing dowels/cramps/straps etc and drilling for same as well as cutting units to length as required.
- 1.1.14 The building in of air bricks, cavity liners, joist ends, tie straps, electric and gas meter boxes where necessary as work proceeds.
- 1.1.15 All work in lifting, positioning, leveling all structural steelwork to be as drawing, including bedding in padstones, work around ends.
- 1.1.16 All chasing out as necessary of mortar joints and preparation for lead work.
- 1.1.17 Installation of all cavity insulation as indicated in Walls and Partitions above.
- 1.1.18 Installation of Expansion Joints where applicable, in accordance with working drawings. NHBC Standards state, the spacing of movement joints in clay brickwork should be 12m (15m maximum). Where brickwork is in large panels with no significant openings movement joints may be provided at 15m maximum spacing. Where brickwork is lightly restrained and/or contains a number of window and door openings movement joints should be provided at 12m maximum spacing. Additional movement joints may be required where the aspect ratio of the wall (length : height) is high e.g. more than 3:1

2 TOOLS

- 2.1 The Contractor should provide all small tools necessary for the execution of the work.
- 2.2 Where required the Contractor should include, within the tender, for the collection, erection and dismantling of internal proprietary fall protection.
- 2.3 Where any scaffold or fall protection is required as part of the works, the BDW Trading Ltd Scaffolding trade specification must be complied with, including the provision of appropriate training for those to erect or dismantle the structures.
- 2.4 Scaffolding shall be kept reasonably clean at all times. The Contractor must not interfere with, adapt or alter any scaffolding provided by a third party.
- 2.5 Repair or replacement costs of excessively damaged scaffolding, boards and fittings will be contra-charged to the Contractor responsible.

3 STORAGE AND PREAMBLE

- 3.1 Sand must be kept clean.
- 3.2 Cement must be kept dry, different types of cement must not be mixed.
- 3.3 Facing bricks are to be handled so as to minimise chipping and damage.

- 3.4 The Contractor is to ensure that the correct blocks are used in accordance with the working drawings, details and blockwork selection guide (i.e. correct strength, density, thermal performance and dimension for their intended location).
- 3.5 Bricks stacked on working platforms or at build locations must be protected from adverse weather by being covered by appropriate protection i.e. high visibility brick jackets. Blocks should be covered if recommended by the manufacturer.
- 3.6 Brickwork and blockwork must not be built when the air temperature is below 3°C and falling. Work can resume when the temperature is 1°C and rising with the expectation the temperature will exceed 3°C. Walls must be protected from frost until the mortar has set sufficiently to resist frost damage.
- 3.7 Materials are to be stored so as not to overload scaffold, reinforced concrete, floor joists and the like, all in accordance with relevant Health and Safety Recommendations and as instructed by the Site Manager.
- 3.8 The Contractor is responsible for loading out all materials applicable to his work from the point of delivery.

4 MORTAR FOR BRICKWORK AND BLOCKWORK

- 4.1 Mortar mixes are to or mix proportions necessary to achieve adequate strength and durability in accordance with current building regulations and NHBC standards.
- 4.2 Mortars must be freshly mixed. Samples will be taken at random for testing.
- 4.3 Where mortar is provided through 'Ready Mix' or 'Silos' the Contractor is responsible for maintaining storage bins and keeping them clean from deleterious material and lined with polythene (where provided) before fresh mortar is delivered. The 'topping up' of tubs is not permitted.

Wet ready-to-use mortars should be stored on level, dry areas at a safe distance from other trades and site traffic. When not in use the material should be kept in covered tubs to prevent:

- Saturation caused by rain
- Excessive drying out during warm weather
- Freezing during frosty weather.

Retarded ready-to-use mortars should not be stored for longer than the manufacturer's quoted period of retardation.

- 4.4 The Contractor shall ensure that the mortar used is the correct mix to B.S.5628 part 11978. Mortar mixes are generally as follows:

1 part masonry cement: 5 parts sand (as site specification) above D.P.C.
1 part O.P. cement : 4 parts sand (as site specification) below D.P.C.
1 part limebond : 3.5 parts sand (as site specification).

- 4.5 All mixes to be in accordance with manufacturers recommendations. These proportions will vary only if brick type, weather conditions or strength requirements dictate. Any mix variations will be advised only by a representative of the Company.
- 4.6 The Contractor is to ensure water used for mixing mortar (provided by the Company) is of potable quality.
- 4.7 Proprietary mortars and additives are not to be used without the Company's written consent. Where consent is given, this is to be used strictly in accordance with the manufacturer's recommendations.
- 4.8 No plasticiser is to be used unless specifically instructed in writing by a representative of the Company and shall be used strictly in accordance with manufacturer's recommendations.
- 4.9 The Company will hold the Contractor liable for any costs arising from the mortar mix.

5 DAMP PROOF COURSES

- 5.1 All damp proof courses must:-
- 5.1.1 Be a minimum 150mm above adjacent ground level and to be 500 microns, black polythene (2000g) to BS6515, unless DPC is to be installed to prevent downward water movement where a non polyethylene DPC such as 'Hyload DPC' or equivalent compliant with BS6515 must be installed.
- 5.1.2 DPC's must be installed on an even bed of wet mortar.
- 5.1.3 Be stepped up as necessary to maintain 150mm clearance above entrance ramp or level platform to principle entrance door.
- 5.1.4 Be continuous or be lapped or welded and be imperforate.
- 5.1.5 Not be unduly recessed from the wall face or bridge cavities unless designed to do so.
- 5.2 DPC's must be provided as follows, and elsewhere, where necessary to prevent moisture rising or entering the building or adversely affecting timber:-
- 5.2.1 Base of walls, piers, etc. must be 150mm above adjoining surfaces and units with floor membrane in solid floor.
- 5.2.2 Base of partitions built off width of partition oversite where there is no integral damp proof membrane.
- 5.2.3 Base of wall built on beam, must be so detailed as to prevent entry slab, etc. prevent entry of damp by driving rain.
- 5.2.4 Parapet (1) Beneath coping; and (2) 150mm above adjoining roof surface to meet the upstand.

- 5.3 Chimney - between 150mm and 300mm above highest point of intersection of roof. In the case of steeply pitched roofs, a second DPC must be provided between 150mm and 300mm above the lowest point of inter-section.
- 5.4 In cavity walls – DPC cover must project at least 150mm beyond each openings, airbricks and lintel at each end and have an upstand of not the like less than 150mm from the external to the internal leaf.
- 5.5 At abutment of garage a cavity tray 150mm above the adjoining roofs and the like to surface, in sectional steps in necessary cavity walls.
- 5.6 Doorstops - a DPC is to be provided behind a doorstep where it is higher than a wall DPC.
- 5.7 Sills - where precast concrete or similar sills incorporate joints or are of a permeable material, a DPC must be provided beneath them for the full length and turned up at the back and each end of.
- 5.8 Jambs in cavity walls - where a frame is built into the external skin, the DPC must be 225mm wide and must be tacked to the frame.

6 WALLS AND PARTITIONS;

6.1 IN GENERAL

6.1.1 External Walls

Care must be taken to ensure a uniform appearance, which is reasonably plain and true with courses level.

Facing bricks must be free from excessive chips and damage, bond must be true with perpends in alignment.

Brick packs must be split to ensure no banding of colours.

Reveal widths must be even and all joints must be filled solid.

Work is to be raised uniformly; no part of the work is to be raised more than half a storey height above adjoining work.

Storey height and headroom must be in accordance with Building Regulation requirements and Working drawings.

Making-good is to be complete and ensure that face surfaces, are reasonably free of mortar splashed and the like, even if a return visit to the property is required. Failure to comply with this requirement may result in the Company contra charging the Contractor for additional cleaning works.

Regulating courses of Common bricks must not be used on internal walls, either cut blocks or thermal bricks, as supplied, should be used. Recently completed work must, if necessary, be protected against damage by the weather, including turning back of inside boards at night.

When brickwork is being cleaned, a suitable safe working area should be established. No brick cleaning shall be undertaken when persons are working on a plot. Take care to protect cast stone dressings when using brick cleaning acids.

Inner leaf blockwork walls are to be constructed around all of the building to a height of 6-blocks or (for installation on to brickwork) 18-bricks if possible with wall-ties at centres as noted in the Cavities section below. **Note: In windy conditions a maximum height of 3-blocks or 9-bricks are to be built.**

6.1.2 Partitions

Partitions must either be fully bonded to main walls or shall be tied with expanded metal or equivalent at centres not exceeding 300mm vertically, unless otherwise shown on working drawings.

6.1.3 Ties

All ties are to be staggered and not slope inwards.

The maximum spacing of wall ties must be as follows: -

<u>Situation</u>	<u>Spacing</u>
External wall (100mm brickwork, 100mm Cavity, 100mm blockwork)	900mm horizontally and 450mm vertically or equivalent.
At joints, jambs or openings.	225mm to each side of the joint at 225mm vertical centres.

Where required for thermal insulation purposes, cavities are to be closed at the head.

Airbricks and the like are to be cased through cavities.

Weep holes to be incorporated in accordance with Group Standard Technical details..

Cavities are to be kept clear of concrete fill for a minimum of four courses below DPC.

Cavities at window openings are to be closed with a proprietary cavity closer.

Sound testing is required when using aerated block to Cavity Party Walls where no Robust Standard Detail is available. **Note: excludes 300 mm wide Cavity Party Walls constructed using 100 mm wide Superglass Party Wall Roll insulation which follows Robust Standard Detail E-WM-22 or E-WM-23.**

Special care must be taken to ensure that blockwork is fully pointed on party wall and tied together with Party wall type A wall ties to DD140-2. The external cavity at vertical junctions and sloping sections from eaves to ridge, both sides of party-wall, is to be fully-filled with cavity sock edge sealing.

Walls are to be constructed up to underside of roof covering with the external cavity being fire-stopped at vertical junctions and sloping sections from eaves to ridge both sides of party-wall, fully-filled with Cavity Sock Edge Sealing.

Where party wall is built off a raft foundation construction as above (RSD E-WM-20) in conjunction with Icopal-MONARFLOOR BRIDGESTOP system. Refer to Appendix A2 – Propriety Flanking Conditions in Robust Details Handbook Edition 3.

6.1.4 Mortar Bed Reinforcement

Two courses stainless-steel bed-joint reinforcement to be installed in the external leaf of cast stone or blockwork behind render above doorways, above and below windows, extending either side of openings, in accordance with block manufacturer's and cast stone manufacturers recommendations.

Additional bed-joint reinforcement to be installed in locations indicated on elevations.

6.1.5 Cavity Barriers

All Contractors installing Cavity Barriers on High Rise Structures (5 storeys and above) must be accredited to one of the following; FIRAS, BM Trada, IFC, LPCB.

i) FIRE PROOFING TO STRUCTURE AND CAVITY WALLS

Applicable to Multi Storey Apartments (5 Storey and above) – RC Frame Only.

Contractors must install Siderise Cavity Barriers in all Multi Storey Apartments (5 storeys and above) – RC Frame only.

Horizontal & Vertical Installation

- The Contractor is to install Siderise EW systems within external wall cavities with facing brick facade.
 - EW-CB30 is for use as a Cavity Barrier in accordance with building regulations and provides a fire resistance rating of EI30 refer to manufacturers information for relevant depths for horizontal and vertical installations.
 - EW-FS120 is for use as a Fire Stop in accordance with building regulations and provides a fire resistance rating of EI120 refer to manufacturers information for relevant depths for horizontal and vertical installations.
- The EW products are generally friction fit with the exception of the EW-CB30 refer to manufacturers information for relevant depths for horizontal and vertical installations.
- Where cavities are above 50mm Siderise steel brackets must be used to install the product. The brackets are supplied in 1mm galvanised mild steel or stainless steel, depending on onsite conditions. The brackets are to be predrilled on site and secured to the internal structural wall using non-combustible steel anchors or screws that are supplied by others. All brackets are to penetrate the depth of the product by 75% of the cavity width. Brackets to be installed at 600mm centres based upon a 1200mm strip. 2 brackets are required for any length of barrier greater than 300mm. For lengths ≤300mm a single bracket must be utilised.
- Joints between the barriers are to be tightly abutted and sealed with Siderise RFT 120/45 aluminium tape.

- Horizontal EW must be installed with the Keyfix non-combustible cavity tray immediately above.
- Vertical EW must be installed with a DPC extending a minimum of 25mm into the cavity either side of the barrier. The DPC is not supplied by Siderise. The vertical Siderise EW systems are to be installed at maximum 20m centres across an elevation, at the edge of voids as well as corners and along side all openings. These are minimum requirements from Building Regulations, user must seek formal approval regarding cavity barrier location requirements on a project specific basis.

High Detailing Areas

- The vertical Siderise EW should always take priority over the horizontal Siderise EW barrier at intersections such as floors, top of wall and openings.
- All junctions between horizontal and vertical products are to be tightly abutted and sealed with Siderise RFT 120/45 aluminium tape.
- Where required, the vertical EW must be cut to accommodate the Keyfix non-combustible cavity tray, the cavity tray installed and the vertical EW reinstated over the cavity tray.
- The EW system can be notched to accommodate masonry support brackets as required, ensuring no gaps when installed.

ii) 2 & 3 Storey Dwellings

EAVES AND VERGE – ARC Cavity Stop Sock:

- To be push fit into the top of the external wall cavity and held in compression between blockwork and brickwork to all external wall cavities at eaves and verge.
- Where corbel details are utilised the barrier should be installed prior to the Corbel, where the cavity is 100mm (125mm Wales).
- Barrier lengths to be butted tightly together, ensuring no gaps remain to provide a continuous barrier.
- Thermal Insulation (Alreflex 2L-2 bubble foil insulation sheet or Thermal Economics Alreflex Platinum board) to be broken by and butt tightly to 'ARC Cavity Stop Sock'.
- Vertical barriers to be installed as required by working drawings.

PARTY/EXTERNAL WALL JUNCTION – ARC Party Wall DPC:

- To be friction fitted as brick and blockwork progresses.
- To be installed with the DPC overlap at the bottom of each barrier, covering the barrier below.
- Barrier lengths to be butted tightly together, ensuring no gaps remain to provide a

continuous barrier.

- Thermal Insulation to be stopped at the vertical barrier and butt tightly to 'Party Wall DPC'. ARC barriers should NOT be fitted in compression against the cavity thermal insulation.
- The ARC Party wall DPC barrier must start at the very bottom of the cavity below DPC level and run vertically, only stopping where it meets the fire barrier in the roof construction.

iii) **TIMBER FRAME CONSTRUCTION:** (to be installed by others)

Ensure brickwork is built ensuring ARC cavity barriers are held in compression, or if timber cavity barriers are used the brickwork is tight to the DPC wrapped timber, and any tolerance is fully filled with mortar (to be kept to a minimum and max 10mm) in accordance with Group Standard Details.

Bricklayer to liaise with Site Manager if any barriers to windows, doors eaves, verge, party walls, compartment floors and service penetrations and intermediate floors (in Scotland) are missing or damaged. **BRICKWORK MUST NOT CONTINUE UNTIL BARRIERS ARE INSTALLED / REMEDIATED.**

6.2 **CONSTRUCTED TO 2010 AND 2013 BUILDING REGULATIONS**

6.2.1 Cavities

Single, 2 & 3 Storey Dwellings overall cavity wall thickness 300mm (excluding external render and internal finish).

External walls to comprise Facing Brick or Rendered Block external leaf (as detailed on the working drawings), 100mm cavity width with 50mm partial fill Thermal Economics Alreflex Platinum insulation secured to internal leaf using dedicated wall ties and clips, 100mm mm aircrete concrete block inner leaf.

2½ & 3 Storey Dwellings may require certain narrow piers to be constructed in 7N blockwork in accordance with structural engineer's recommendations – Refer to individual house types where these will be noted and hatched.

Cavities are to be clean and free from mortar droppings. A cavity barrier is to be used during construction to all cavities, to prevent mortar from dropping onto the top of insulation. The Contractor must also ensure that all mortar is removed from wall ties as work proceeds in order to maintain a clear cavity.

Cavity Barriers to be installed at eaves and verge held in compression between blockwork and brickwork in accordance with Group Standard Details and Section 7.1.5.

6.2.2 Party Walls

100mm Superglass Party Wall Roll insulation is to be installed in the cavity filling the void completely.

External cavity at junction with party-wall is to be fully-filled with 'ARC Party Wall DPC', held in compression between blockwork and brickwork in accordance with Group Standard Details and Section 6.1.5. The 'ARC Party Wall DPC' is to be present from the very bottom of the cavity below DPC level and continue with no gaps to the fire barriers at the party wall in the roof construction. The ARC party wall barrier must be installed so that the DPC element is facing the outside leaf and overlaps the barrier below.

Special care must be taken to ensure that all blockwork is fully pointed in the party wall.

6.2.3 Cavity Party (Separating) Walls

2 & 3 Storey Dwellings

Generally 300mm overall thickness (excluding wall finishes) cavity wall comprising 2No leaves 100mm medium dense block separated by 100mm cavity with the installation of 100mm Superglass Party Wall Roll insulation to be installed in the cavity filling the void completely in accordance with Robust Standard Detail E-WM-22; or,

Generally 300mm overall thickness (excluding wall finishes) cavity wall comprising 2No leaves 100mm aerated block separated by 100mm cavity with the installation of 100mm Superglass Party Wall Roll insulation to be installed in the cavity filling the void completely in accordance with Robust Standard Detail E-WM-23.

7 INTEGRAL GARAGES

- 7.1 When built in masonry construction internal walls to garages generally comprise 150mm aircrete concrete block.

8 LOAD BEARING PARTITIONS

- 8.1 Build in 100mm medium-density concrete blocks to BS EN 771-3/771-4 – constructed blockwork must achieve minimum mass of 120kg/m² excluding wall finish or be supported by B.B.A. or other independent Certification acceptable to the N.H.B.C - consult block manufacturer if in doubt about suitability of proposed block.

Note:

Refer to floor plans for localised areas of masonry having special strength requirements in accordance with Structural Engineers design. In full height 3-storey dwellings, including 150mm wall around integral garages, block partitions throughout to have minimum construction strength 3.6N/mm².

Unless otherwise stated, vertical joints to be formed at junctions between all dissimilar masonry materials - except at DPC locations, joints tied at 225mm vertical c/s with 400mm long stainless-steel expanded metal mesh.

DPC is to be located under all ground floor walls and partitions.

Partitions are to be taken down to foundation if shown on Structural Engineer's drawings.

9 INSULATION

9.1 The Contractor is to review the Construction Specification to ensure the correct system of Cavity Wall Insulation is included for within their tender.

- Existing Sites – 100mm full-fill blown EPS bead (by others) or 50mm partial-fill PUR rigid board in 'very severe exposed locations' in accordance with the NHBC Standards Map.
- New Sites (Post 15th June 2022) – 100mm partial fill EPS rigid board (Thermal Economics Platinum Board) or 150mm full-fill blown EPS bead (by others)

9.2 The Contractor is to allow for fixing solid insulation behind bays where full-fill blown fibre cannot reach.

9.3 Insulation is not required on gable ends 300mm past horizontal ceiling line as Standard Detail.

9.4 Thermal Economics Alreflex Platinum insulation board is to be installed as follows:

Only to be installed in cavity walls in accordance with the 2010 Building Regulations specification noted in **CAVITIES** section above.

Platinum insulation board is to be installed on top of a run of wall ties with the lap slit with a knife at the wall-ties to allow the flap to run past the wall-tie and lie flat on the board.

Platinum insulation board is to be secured with Alreflex retaining discs, positioned on the wall tie to take up any possible vertical pressure experienced when installing the boards and discs. Alreflex Foil Tape should be used to cover the edge of the Alreflex Platinum board at corners as shown in the detail below.

Additional ties may be required in areas such as corners or around cut boards.

Please refer to the group standard drawings DBS-SD02-006, DBS-SD02-007 & DBS-SD02-008 for additional information.

9.4.1 Superglass Party Wall Roll insulation board is to be installed as follows:

Superglass Party Wall Roll insulation should be removed from its packaging ensuring that it remains in roll form, but exposing approximately 750mm of length.

This is then positioned between the base of the first block course (at the bottom of the wall) and next row above, with the top edge of the insulation in contact with the wall tie, and with the back of the insulation in full contact with the block faces.

The insulation should then be carefully unrolled along the full length of the wall.

It is essential that both ends of the acoustic insulation roll are positioned so they can be fully butt-jointed with the full fill thermal insulation that will be installed in the external walls.



Where the full length of the acoustic roll is installed and it is shorter than the full length of the wall, a second piece of insulation should continue the run, ensuring that the joining ends form a close butted joint. Where the insulation needs to be cut, use a clean, sharp knife.

- 9.4.2 All party wall to external wall junctions, to have 'ARC Party Wall DPC' barriers, friction fitted as block and brickwork progresses in accordance with Group Standard Details and Section 6.1.5. Thermal insulation must be accurately cut in order to fit the 'ARC Party Wall DPC' barrier to ensure the barrier is in compression between both leafs of the external wall construction and NOT fitted against the thermal insulation.
- 9.4.3 To allow the ARC cavity fire barrier to be installed correctly along the eaves, the thermal insulation board must be accurately cut to provide a horizontal gap wide enough for the ARC fire barrier to be in compression between both leafs of the external wall construction. This is to ensure that the ARC cavity barrier is NOT fitted against the thermal insulation board. Once the ARC barrier is fitted horizontally, the thermal insulation board must be installed ABOVE the barrier and to the top of the cavity as usual. No gaps between the cavity thermal insulation board and the horizontal ARC fire barrier (below or above) should be present.

10 FRAMES (to be collected from the store)

- 10.1 Frames, metal windows, etc., shall not bear loads unless specially designed to do so they should not be used to support the structure above them.
- 10.2 Where Timber windows are installed, horns are to be partly removed and the end of frames built in, ends cut on site must be re-treated against decay, with two flood brush coats of preservative.
- 10.3 Frames shall be plumb and square, fully bedded, including back pointing and secured by door cramps or be plugged at 600mm maximum centres with a fixing no more than 150mm from the bottom and top.
- 10.4 Care must be taken to ensure that vertical DPC's extend to the full length of the frame. DPC's to be tacked or stapled to frame rebates before fitting frame.
- 10.5 Frames are to be so located in opening that throatings in sill members are not obstructed by the wall face.
- 10.6 Bay and bow type windows must be adequately supported.
- 10.7 PVCu formers to be built in as works proceeds (to later receive PVCu DG Windows fitted by others).
- 10.8 Frame/wall joints must be reasonable neat and even.
- 10.9 Dummy frames not to be used. If however, a dummy frame is unavoidable vertical DPC to closure must project 25mm minimum into opening.

11 LINTELS AND BEAMS (collected from site)

- 11.1 All lintels and beams are to be sorted and collected from the stores/compound area.
- 11.2 Lintels and beams must be placed the correct way up and be handled and lifted so that they are not adversely stressed. Temporary props must be provided where required by the lintel manufacturer.
- 11.3 Lintels must extend beyond the opening at each end by at least 150mm or as directed by the Building Inspector, structural engineer or lintel schedule.
- 11.4 Where structurally necessary, padstones are to be provided and the ends of beams, lintels, joists and purlins bedded solid. Any packing pieces must be full size and of incompressible material.
- 11.5 When installing Cast Stone Heads refer to Manufacturers installation guidance. Pay particular attention to the avoidance of lintel flexure which may damage decorative heads.
- 11.6 Thermal movement of the lintel/steel beam can cause cracking of masonry supports where friction prevents differential movement between the lintel and masonry to take place. A slip membrane e.g. double layer of DPC or similar, should be placed between the lintel/steel beam and top of the padstone on any lintel/steel beam which spans an opening of 3m or more.

12 SERVICE BOXES

- 12.1 Electricity and gas meter boxes are to be collected from the stores and built in as work proceeds.

13 FLUES

- 13.1 Flues, fireplaces etc., must comply in all respects with Building regulations and other Statutory Safety Requirements are met.
- 13.2 Flues must be vertical where possible and in any case, at an angle to the horizontal or not less than 45 degrees.
- 13.3 The gathering of the base of a flue is to be such as to ensure the efficient passage of smoke.
- 13.4 All flues are to be smoke tested.
- 13.5 Chimney pots or other terminals must be fixed to ensure efficient smoke dispersal.

14 LINERS AND FLUE BLOCKS

- 14.1 Lintels and flue blocks must be fixed in accordance with manufacturer recommendations, socket up and adequately surrounded and caulked. Any surplus materials must be removed from inside the liner.

14.2 Manufactured bends must be used; liners are not to be cut for bends.

14.3 Liners to gas flues must be jointed with proprietary Redbank liner cement.

15 STONE MASONRY (where applicable)

15.1 All stone must be fixed in accordance with manufacturers instructions, where this is not available the Contractor should refer to the approved group supplier's fixing recommendations. Stone is to be laid on its own natural bed unless local practice is otherwise.

15.2 Masonry must, where appropriate, comply with brick and blockwork courses. The stonework, together with any brick or block backing and/or vertical damp proof membranes must give an adequate weather resisting structure. Mortar must be of appropriate strength.

15.3 All work must follow good local recognised practice.

16 SWIFT BRICK (where applicable)

16.1 Swift bricks must only be installed in gable walls that are within a cold roof location, so that there is no possibility of a cold bridge occurring from the outside of the building to the inside.

16.2 All swift bricks must be fixed in accordance with the manufacturer's instructions, where this may not be available the contractor should lay the mortar beds using a thin joint both below and on top, in areas prone to severe weather a horizontal cavity tray should be installed, place the swift brick under eaves high in the gable walls and do take advice if you are un sure.

16.3 Product codes which must be used in conjunction with a swift brick (GSWB) are a GW294/GW295 cavity tray and G951 peep weep.

16.4 You can find the details of the fitting instruction here www.manthorpebuildingproducts.co.uk/product/gswb-swift-nest-brick

17 CAVITY TRAYS

17.1 In order to prevent Water Ingress to the Building, the Contractor is to ensure that all Cavity Trays installed are in accordance with Group Standard Technical Details as well as the Group Supplier Agreement for preformed cavity trays.

17.2 Turn up ends of trays.

17.3 There are to be no joints in trays.

17.4 Trays are to be brought out to the face of brickwork.

17.5 Proprietary weep holes are to be installed at 450mm centres and in accordance with Group Standard Technical details.



- 17.6 Cast Stone Cills - a Cavity Tray/DPC must be provided beneath them for the full length and turned up at the back and each end of.
- 17.7 Cast Stone Decorative and Structural Heads – Insert Cavity Trays in positions indicated on Forticrete installation guides. Follow Forticretes specific installation guidance on placement of DPCs and slip planes.
- 17.8 Keyfix Non-Combustible Cavity Trays must be installed in our multi-storey RCF buildings with a floor level over 18m from external ground level within the scope of Requirement B4, Regulation 7(2) of Approved Document B, 2019 Edition. Note: Regulation 7(3) which states; Paragraph 7(2) does not apply to cavity trays when used between two leaves of masonry.

18 GENERAL

- 18.1 **All labour and cutting must be included within your Quotation.**
- 18.2 Where lead flashings are positioned, allow for raking out brickwork joints in preparation for plumber and pointing on completion.
- 18.3 Bed and level wall plates in cement mortar.
- 18.4 Each unit shall be cleaned and detailed in the requirements of the Site Presentation Sheet including the salvaging of any bricks and blocks stacked neatly on pallets for future use.
- 18.5 Prior to brickwork starting, sample panels, including cast stone where required, will be produced for inspection by the site management and the acceptable standard will be the standard throughout the development.
- 18.6 Any excessive waste or damage to plant or materials due to negligence of bad workmanship will be charged against the Contractor's account.
- 18.7 Where shown on working drawings/elevations, the Contractor will be deemed to have included for all soldier courses, plinth details, and feature brickwork within this price.
- 18.8 When pointing internal brickwork. You must ensure that there is suitable stairwell protection in place. Seek the Site Manager to rectify any shortfalls before commencing work.
- 18.9 All construction works must follow the design detail sections in their entirety. The Contractor will take full responsibility for this and will be liable for any remedial works that may be required to correct any non-compliant workmanship.
- 18.10 Brick packs should be split and mixed, in accordance with manufacturer's instructions, from 3 packs to ensure no banding of colours. This includes splitting amongst lifts.
- 18.11 No brickwork is to be carried out during periods of low temperature, in accordance with N.H.B.C. practice note 15. Particular attention is to be paid to the protection of architectural stonework.
- 18.12 All materials and work are to be protected at all times during the progress of the works.

- 18.13 The Contractor is to ensure that material types comply with the Company's current construction release.
- 18.14 Pointing up internal brickwork shall be carried out from the scaffold provided or when stairwell protection is fitted, at the different floor levels. At no time should pointing up be done without stairwell protection.
- 18.15 The installation of Hedgehog holes in Boundary Walls in accordance with the layouts provided and to the DB-SD11-004 Hedgehog Guidance.
- 18.16 The Contractor **MUST NOT:** -
- 18.16.1 Interfere with, adapt or alter any scaffolding provided. If changes are required, they should be discussed with the Site Manager.
- 18.16.2 Not to overload working platforms and loading bays.
- 18.16.3 All persons working on BDW Trading Limited Sites must report to the Site Manager and have undertaken a health and safety induction.
- 18.16.4 All necessary Personal Protective Equipment must be worn at all times.
- 18.16.5 Tools provided by Contractors shall meet the requirements in the Provision and Use of Work Equipment Regulations 1998. Electrical portable tools must be tested to meet the relevant regulations.
- 18.16.6 Ensure sufficient brickwork is placed above joist hangers at all times.
- 18.16.7 Pointing Putlog holes shall be carried out with someone footing the ladder.

19 PLANT/CARE OF PLANT

19.1 MIXERS

- 19.1.1 The Contractor shall provide for mixers for his own use and from time to time mixing mortar for other trades including all necessary fuel.
- 19.1.2 All plant used in the construction of dwellings must be cared for and used in a workmanlike manner. Mixers are to be washed out at the end of each day and oil levels are to be checked daily and topped up as necessary.
- 19.1.3 Repair costs brought about by negligence will be contra-charged to the offending Contractor.
- 19.1.4 The bricklaying Contractor shall also be responsible for moving mixer set-up as necessary to new positions as required including moving sand and leaving previous mixer site clean and tidy.
- 19.1.5 The hand mixing area shall be demarcated with a robust physical barrier i.e. pedestrian barriers to provide a physical barrier between plant and the mixing operative.

19.2 DRY READY TO USE MORTAR SILOS

- 19.2.1 The Contractor is to ensure that only fully trained operator(s) are permitted to use dry ready to use mortar silos, the correct procedures covered in the training sessions must be followed by the operator(s). Training on the safe use of dry ready to use mortar silos shall be provided by the silo supplier.
- 19.2.2 The Contractor is to ensure that operator(s) follows the daily start-up procedures, daily cleaning and weekly cleaning procedures as laid out by the silo supplier.
- 19.2.3 At the end of each day the Contractor and his/her operator(s) is responsible for the draining of water pipes with the control panels being removed and stored in site office.

20 BEAM & BLOCK FLOORS, PCC FLOORS & STAIRS

- 20.1 Where Beam and Block floors are used on the development, the Contractor is to provide an accurate bed on all sides of the work for seating of the Beam. Bedding of PCC Floors & stairs are to be completed by the PCC Floor & stair installer.
- 20.2 The Contractor should also allow for all beam filling to perimeters (to inner skin of brickwork) and between joists on load bearing walls inclusive of facing up brickwork on one or both sides.
- 20.3 All necessary airbricks or cranked ventilators (supplied by others) are also deemed inclusive to be fitted by the Contractor as required.
- 20.4 Where PCC Floors & stairs are used on developments, the contractor is to point the internal and external joint after the floors have been fully positioned.

21 PROTECTION AND PRESENTATION POLICY

- 21.1 The Contractors specific attention is drawn to the company's Policy of Site Presentation and Protection and with particular regards to the following.
- 21.2 All oversites shall be covered with at least 5mm sand prior to loading out of first lift brickwork.
- 21.3 All rubbish and waste arising from the bricklaying operation including; banding, packaging materials shall be removed from on, under and around scaffolding and from within the plot and placed in the skips provided on a daily basis for collection to the site waste segregation area or as directed by the Site Manager.
- 21.4 All stonework, cills, frames and projecting areas shall be adequately protected from damage and it is the Contractors responsibility to ensure that this protection remains in place before, during and after the brickwork is completed.

22 TELEHANDLER / FORKLIFT

- 22.1 The Company will provide a Telehandler / Forklift and driver, for the benefit of all trades, but primarily the bricklayer. This should therefore be reflected in your rates, if this is not the case a contribution may be requested.
- 22.2 If the Contractor supplies their own Telehandler / Forklift, it must meet the requirements of the company specification (SHE Form 68) which is available to the Contractor upon request
- 22.3 Where the contractor provides a forklift/telehandler operative, they must hold a current HBF (CPCS, NPORS) approved card to demonstrate competency to operate that item of equipment. The contractor must also ensure the operative is fit to operate said equipment by being subject to a 3 yearly medical and having a resulting “fit to work” certificate.

23 BRICKWORK RATES

- 23.1 The brickwork rates are deemed to include the following:
- 23.1.1 Distribution of materials from site compound to work stations at all levels (bricks, blocks and sand will be from closet point of delivery.
- 23.1.2 All setting out, to the satisfaction of the site agent. A gauge rod shall be used to four courses to 300mm height, carried uniformly with true faces to every course with the joint well flushed up with mortar and properly pointed to an approved sample. The internal face of garage brickwork is also to be pointed.
- 23.1.3 Hoist and fix all lintels over all openings, including fixing cavity gutter.
- 23.1.4 Closing all cavities at door and window openings (if required).
- 23.1.5 Lay vertical and horizontal DPC/thermal break where required. Collect from compound, hoist into position and bed set upright door frames, including de-horning if necessary and protection. Build in wooden pads to openings for fixing window boards. Build in P.V.C.U. window formers.
- 23.1.6 Build in porch and bay support brackets. Beam and joist filling, forming or leaving adequate chases for lead or felt flashing. Forming openings for extract ventilation ducts. All necessary fillings and pointing around plumbers outlets and the like and putlog holes upon scaffold dismantling. Fair cutting at gables including hoisting roof truss to roof level to act as guide for gable.
- 23.1.7 All work to chimneys including building in of flue liners, to concrete blocks liners, firebacks, including bedding tiles to corbelled sections and installation of chimney trays as detail.
- 23.1.8 The building in of dummy frames and any subsequent pointing required after fixing of frames by the carpenter/window supplier.
- 23.1.9 Forming the cavity wall as shown on relevant drawings, including wall ties built at appropriate centres. The cavity should be kept clear of droppings and properly sealed at wall plate level, gables and all other openings.

- 23.1.10 All feature brickwork as shown on working drawings i.e. soldier, dentil and oversailing courses etc. and corbel, herringbone features and architectural stone etc. which may entail fixing dowels/cramps/straps etc. and drilling for same as well as cutting units to length as required.
- 23.1.11 The building in of air bricks, cavity liners, joist ends, tie straps, electric and gas meter boxes where necessary as work proceeds.
- 23.1.12 All work in lifting, positioning, leveling all structural steelwork to be as drawing, including bedding in padstones, work around ends.
- 23.1.13 All chasing out as necessary of mortar joints and preparation for lead work.
- 23.1.14 Installation of all cavity insulation as indicated in Walls and Partitions above.

24 WASTE REMOVAL (ON SITE) AND CLEANING OUT

- 24.1 All bricklayers waste material and rubbish is to be removed from both in and around the house and deposited tidily and the house left clean and tidy for the following trades.
- 24.2 This item includes the clearing of waste etc, scaffold and depositing the same in the manner previously mentioned. A deduction of £50.00 per dwelling will be made if this work is not carried out. Excessive material wastage will be charged to the bricklaying Contractor.
- 24.3 Materials that can be re-used are to be sorted, collected and moved by the Contractor to the next plot or as necessary.
- 24.4 External brickwork is to be left clean of all mortar splashes and droppings.
- 24.5 The contractor must ensure that waste from their work activities is minimised and materials are reused where practicable.
- 24.6 Waste generated should be segregated and disposed of into the relevant tipper skips, it is the responsibility of the contractor to request appropriate and sufficient tipper skips to be sited in close proximity to their working area. If cross contamination of skips is observed and is as a result of the contractor's inappropriate management of waste, a contra-charge will be applied.
- 24.7 All plots, garages and scaffolds must be cleaned by the contractor upon completion of the works and left free of materials or debris created by the works. Failure to do so will result in contra charges being applied.
- 24.8 Upon completion of the contract (or defined sections thereof), the Contractor will clear from site all stored materials, equipment, site accommodation, etc., no longer required, without delay.
- 24.9 Waste removal and disposal must be in accordance with all current UK legislation.
- 24.10 We reserve the right to contra-charge the Contractor for the cost of **excessive** removal of the Contractors' waste, including waste resulting from damage to materials in their care, plus an

administration fee of 20%.

25 HEALTH & SAFETY

- 25.1 It is the Contractors responsibility to ensure that, whilst cutting bricks and blocks, his workforce and other workers in the vicinity of the brick cutting area are not exposed to silica dust arising from the cutting process. Where grinding tools are used in the cutting process, all operatives must wear a FFP3 disposable mask or half face respirator with at P3 filter. Additionally, all operatives must be face fit tested and records made available to site management.
- 25.2 All Operatives must have a valid CSCS Card relevant to their trade activity.
- 25.3 The weight of all items to be manually lifted is to be established prior to the commencement of the lifting process.
- 25.4 **It is an absolute requirement for mechanical handling solutions to be used for lifting any heavy blocks or heavy corbels.** (Note: the terms 'heavy block' and 'heavy corbel' refers to any item which weighs more than 20kg).
- 25.5 Manual handling of materials such as blocks or corbels that weigh more than 20kg should be eliminated wherever possible. Where lifting aides cannot be used, all workers are to be trained in basic safe manual handling techniques.
- 25.6 All relevant personal protection equipment must be worn at all times without exception. The use of suitable gloves should be considered to protect against Dermatitis and burns to the hands from contact with cement and cement products to be supplied by contractor. All necessary PPE based on your assessment of risk or, where required by statutory provision or, site rules to be supplied by the Contractor.
- 25.7 Labour Only Contractors are not obliged to produce method statements, risk assessments or relevant safety information. However, by following the information below, this will reduce the risk on site and assist Contractors in meeting the Company's and Statutory Obligations.
- 25.7.1 Procedure for the use of Trestles
- A risk assessment must be produced prior to the use of trestles.
 - Trestles must conform to the Working at Height Regulations.
 - Trestles must include handrails and toe boards.
 - Trestles must only be used on firm and level ground
 - Trestles must only be used internally up to a height of 1.0 metre.
 - The use of Trestles externally is **STRICTLY PROHIBITED**.
 - Maximum span between Trestles must NOT exceed 1.5 metres.
 - Maximum overhang of boards must NOT exceed 150 mm.
 - Trestles must be fully boarded out to give maximum working platform.

- Trestles are intended for light work only and must **NOT** be overloaded.
- Trestles and boards are to be inspected for defects before use and any defects reported to the Site Manager.
- Trestles **ARE NOT TO BE USED** on scaffold working platforms for any reason.

25.7.2 Construction of Party Walls

- New blockwork to be limited to 4 courses laid in any one day.
- No work is to be carried out if the weather conditions make it unsafe to do so.
- Exposed locations must be taken into account when planning methods of the construction process.

25.7.3 Bricklayer's Labourer

- Where the Bricklayers Labour is required to move tools and materials particularly on scaffolding, before the work commences, an assessment of the weight of the material must be made prior to the material being lifted.
- The use of mechanical means must be applied when lifting loads over 20kg or where the risk assessment identifies a requirement below that level.
- The use of ladders is not permitted unless three points of contact to the ladder can be maintained at all times whilst ascending / descending.
- Where ladders are used to access scaffolds they must be securely tied and are in good order prior to use.
- Ensure no-one is working below when tools or materials are being placed on scaffolds by mechanical means.
- Ensure scaffold loading bays are closed after the loading of materials/tools.
- All working platforms used by the contractor must be cleared of all of their materials and equipment for that sequence of work so aid safe dismantling and adaptations of scaffolds/working platforms.

25.7.4 Employment of Non-English Nationals require a trained site supervisor who can translate in order to communicate Health & Safety matters.



BRICKWORK

TRADE SPECIFICATION AGREEMENT

This Specification Agreement relates specifically to the Company's development at

I confirm that I have read and understood the foregoing Specification and any necessary associated documentation referenced, such as standard specifications, drawings or quoted details and that my prices include for all items contained therein and will "remain fixed" for a period of: as outlined in the Enquiry letter.

SIGNED:

FOR AND ON BEHALF OF:
.....

DATE:

N.B. The Contractor is to sign this Agreement and return it with his Quotation. Any prices received without this Agreement will be excluded from consideration.

Revision: Rev AA – 1 July 2024