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Rev	Drawn	Comments	Date
1	SS	Record of presentation at client meeting on 22nd September 2020	22/09/2020
2	BPA	Louvre doors to bin store moved to serve just bin store. Single door to Secondary Means of Escape from Kitchen shown to separate escape following discussion with Building Control Officer	09 Oct 2020
3	BSP	Notes adjusted following meeting with Mech Consultant	13 Oct 2020
4	BPA	Tender.	16 Oct 2020

Set aside existing notice board and refit to this wall as soon as this wall is sufficient to take the board. Use to display site notices and A5 explanatory drawings for duration of contract. The Client will use this notice board to display events notices for the future. Fit duct beneath external wall and slab from pay machine. Relocate existing pay meter connections x 250 from ad 88 board 2 to beneath this distribution board. It is a separate isolation switch and a sub meter. Form 60 mm red partition around services just sufficient to cover in width and depth but full height

## INTERNAL WALL KEY

- Wall Type E
- 15mm megadeco plasterboard with taped jointed and painted finish on 25mm dryliner channel to allow service zone
- 100mm blockwork, restrained at head
- 15mm hardwall plaster to corridor side
- Wall Type F
- 12.5mm Mega deco plasterboard both sides of partition
- 25mm thick Isovol acoustic partition roll (1200) insulation quilt
- 70mm metal stud partition (max height 3.4m) Use 90mm stud above this height
- Wall Type G
- 100mm square white ceramic tiles to match existing kitchen
- 12.5mm GTEC Aqua plasterboard
- 6mm tile backer board to kitchen side
- 50mm thick Isovol acoustic partition roll (1200) insulation quilt
- Wall Type H
- 12.5mm Megadeco plasterboard
- 90mm metal stud partition with 90mm thermal insulation



Client

Project

**Proposed Alterations and Extension to Nantwich Civic Hall, 4 Market St, Nantwich CW5 5NF**

**Proposed Brick and Block Set Out Plan**

Package **2 Superstructure**

Dwg Stage **RIBA Stage 4A: Technical Design**

Date **September 2020**

Scale @A1 **1 : 50**

Project No **20-051-BPA-CH-00-DR-** Drawn **SS/BSP** Checked **BSP**

**20-051-BPA-CH-00-DR- A2-001 T 4**

## Ground Floor Setting Out Plan

1 : 50

### 125mm CAVITY WALL - FULLY FILLED (FACING BRICKWORK) MIN 0.26w/m<sup>2</sup>/k

#### External Walls Below Ground

- Fill cavity, and all other loadbearing cavity walls below ground level with a weak mix concrete GEN 1 grade up struck off to the lower leaf.
- Cavity wall insulation is to extend 150mm below the top of the floor insulation to prevent thermal bridging at the perimeter.
- Inner leaf of external cavity wall below DPC level to be constructed of 100mm dense 7N concrete aggregate blockwork
- outer leaf of external cavity wall below DPC level to be constructed in red engineering quality brickwork (colour to match the main facing bricks to the building).

#### External Walls Above Ground

- U Value threshold requirement from April/Oct 2013 is 0.35 W/(m<sup>2</sup>K). Part L2A recommends a notional U-value of 0.26W/(m<sup>2</sup>K). Note this specification should be read in conjunction with the Architects U-Value Calculations, information shown on the U-value schedules are to take precedence over information shown on drawings as these will have been calculated from current regulations to achieve the required thermal values, including any performance factors associated with SAP/SBEM calcs and services requirements, together with discussions with Building Control and Manufacturers or changes made to suit material availability.
- Inner leaf of external cavity wall to be built up from DPC level with a 100mm 7N aerated concrete block.
  - Form a 125mm cavity and fill with 125mm of fully filled insulation to give a u-value no worse than 0.26w/m<sup>2</sup>/k (refer to the U-value Schedule issued separately).
  - Seek approval for any changes to blockwork/insulation specification as this will affect the thermal and structural performance. Different blocks and insulation carry different thermal lambda values.
  - Within the outer leaf cavity install rigid insulation board immediately in front of any steelwork projecting into the cavity and ensure the adjacent insulation is taped so that there are no air or thermal gaps.
  - Outer leaf of cavity wall above DPC to be of a red multi stock brick in a Flemish bond, sample has been agreed with the Planning Department.

### 125mm CAVITY WALL (STUCCO RENDERED) MIN 0.26w/m<sup>2</sup>/k

- Inner leaf of external cavity walls to be built up from top of DPC as shown on detail drawing with a 100mm 7N aerated concrete block.
- Form a 125mm cavity and fill with 125mm of fully filled insulation to give a u-value no worse than 0.26w/m<sup>2</sup>/k (refer to the U-value Schedule issued separately). Seek approval for any changes to blockwork/insulation specification as this will affect the thermal and structural performance. Different blocks and insulation carry different thermal lambda values.
- Outer leaf of cavity wall above DPC to be of 75mm wide dense concrete block 7.3N suitable for direct render applied.
- Apply a 3 coat lime based Ashlar through coloured cur render including forming joints where shown on the elevations.
- Installed to Manufacturers instructions.
- Insulation to cavity and inner blockwork leaf, and requirements for lintols and cavity closers are identical to main walls

### GENERAL NOTES FOR ALL EXTERNAL WALLS

#### Width to Height Ratio

For external walls and compartment walls in cavity construction, the combined thickness of both leaves plus 10mm should NOT be less than Approved Document A, clause 2C and Table 3 for solid walls of the same height and length.

#### Wall Ties and Restraint

Provide Staifix HRT4 Tie (Type 4/Type A) to suit 125mm cavity width [250 LENGTH], stainless steel wall ties at 900mm c/c horizontally & 450mm c/c vertically (2.5 ties per m<sup>2</sup>). Wall ties should be spaced not more than 300mm apart vertically, within a distance of 225mm from the vertical edges of all openings, movement joints and roof verges. Provide insulation clips for PIR insulation boards.

Where walls are to be joined onto existing walls use Ancon Staifix Universal Wall Starter System bed wall ties at 225mm centres.

### FITTINGS TO EXTERNAL WALLS

- Close top of all new cavity walls with non-combustable material or cavity closer.
- Provide Thermabate/Manthorpe or similar insulated cavity closers around all openings for doors and windows.
- Fit EPDM expanding tape to perimeter of all window and door openings prior to fixing openings in apertures.
- All openings must be installed with cramps to the inner block so that the face of the aluminium frame projects 30mm over the inner face of the outer leaf - this is to ensure that there is no cold bridge
- 'Keystone' or similar approved galvanized steel lintels over new openings up to 1800mm in width, selected from Manufacturers load/span tables with a minimum end bearings of 150mm, insulated to avoid cold bridging. Refer to Structural Engineers calculations for lintels spanning openings wider than 1800mm.
- Lateral restraints to brick/blockwork to be provided by galvanised mild steel straps, fixed across joists [where roof joists are specified] at ceiling level at 1200mm centres.
- Continuous runs of brickwork in buildings require movement joints at 10/12 meters. The joint width in (mm) should be at least equal to the joint spacing in (m)
- Continuous runs of blockwork in buildings require movement joints at 6/9 meters. The joint width in (mm) should be at least equal to the joint spacing in (m)
- Provide a continuous ribbon of adhesive behind plasterboard and flexible sealant below skirting board for air tightness
- Fit flexible compressible filler /board at the tops of all inner leaf walls where they meet the underside of the roof/floor deck above
- NOTE that the roof to the extension and kitchen is designed as a future floor slab for future first floor extension.
- Foundations and Steels above been sized to allow for future loadings of 4kN/m<sup>2</sup>

Note this specification should be read in conjunction with the Architects U-value calculations, where this value differs from the U-value schedules, then the U-value schedules are to take precedence as they will have been calculated from current regulations to achieve the required thermal values, including any performance factors associated with SAP calcs and services requirements.

### Part D1 Cavity Insulation

If insulating material is inserted into a cavity in a cavity wall, reasonable precautions shall be taken to prevent the subsequent permeation of any toxic fumes from that material into any part of the building occupied by people. Urea Formaldehyde (UF) Foam may be used if there is a continuous barrier which will minimise as far as practical the passage of fumes to the occupiable part by complying with Approved Document D1, clause 1.2.

- Within the outer leaf cavity install Kingspan Kooltherm K106/K108 rigid insulation board immediately in front of any steelwork projecting into the cavity and ensure the adjacent full fill insulation is taped to this so that there are no air or thermal gaps.

#### Wall Accessories

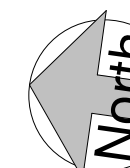
- Cavity tray DPC's with stop ends to be built into walling over all vents, air bricks, lintels, service boxes and anything that crosses the cavity with weep holes every third perpend.
- Provide cavity tray to top of cavity wall insulation in gables.
- Close cavity at eaves with a fire resistant material if using PIR insulation.
- Provide and fix new vertical and horizontal DPC's to all jambs and cill closers. We suggest the use of IsoChemie BlocoOne EPDM when fitting all external windows. This is a proprietary expanding DPC/insulation tape that fills the gap to the perimeter of all external openings ensuring an air and watertight seal.
- Fit Thermabate/Manthorpe proprietary cavity closer [or similar approved] to perimeter of all new openings in external walls to eliminate cold bridging.
- Install Visqueen Brickgrip DPC to BS743 for all walls min 150 mm above ground level.

#### Ties to Steelwork

Tie walls to Steelwork as shown on teh Structural Engineers drawings Fit head restraints to all masonry walls in excess of 2.7m in height

### Loadbearing Block Partitions at Ground Floor

100 mm dense aggregate concrete block generally, dry lined with 12.5mm plasterboard on mechanical dabs both sides or plastered with hardwall plaster. Walls are to be built up to below the structural ceiling and fire stopped with flexible FR filler .



GRAPHIC SCALE: 1:50

## EXTERNAL WALLS KEY

- Wall Type A
- lbstock Etruria Mixture facing bricks to match existing, Flemish bond with flush mortar joints
- 125mm Knauf Dritherm Cavity Slab 37
- 100mm Celcon Standard Grade Aerated Concrete Block or similar approved
- 15mm Megadeco plasterboard with taped and jointed finish on min 25mm dryliner to allow service conduit zone
- Wall Type B
- 3 coat through coloured ashlar cut render - Pearl Grey with joints formed with running board
- 75mm Concrete Block - render quality
- 125mm Knauf Dritherm Cavity Slab 37
- 100mm Celcon Standard Grade Aerated Concrete Block or similar approved
- Wall Type C
- lbstock Etruria Mixture facing bricks to match existing, Flemish bond with flush mortar joints
- 125mm Knauf Dritherm Cavity Slab 37
- White glazed brick finish to bin store
- Wall Type D
- White glazed brick finish to bin store
- 100mm Knauf Dritherm Cavity Slab 37
- 75mm Concrete Block - render quality
- Plaster on dabs

Note the external wall specifications should be read in conjunction with the Architects U-Value Calculations, information shown on the U-value schedules are to take precedence over information shown on drawings as these will have been calculated from current regulations to achieve the required thermal values, including any performance factors associated with SAP/SBEM calcs and services requirements, together with discussions with Building Control and Manufacturers or changes made to suit material availability.

Tender