

| EXCAVATION AND FILL |  |
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| 1.                  | All foundations have been designed assuming an allowable ground bearing pressure of 100kN/sq.m.  |
| 2.                  | All formations shall generally be taken down to the levels shown on the drawing. The formation depths shown on the drawing are minimum depths and extra depths may be required on site at the discretion of the Engineer/Local Authority Inspector.                            |
| 3.                  | All excavations shall where necessary be adequately supported to maintain their stability. Excavations shall be kept free from water at all times and are to be inspected by the Local Authority and the Engineer prior to placement of and concrete or fill.                  |
| 4.                  | All excavations are to be blinded with 50 mm. GEN1 concrete if left open for more than 4 hours.  |
| 5.                  | All soft spots in the formations shall be excavated and backfilled with GEN1 concrete to the approval of the Engineer.   |
| 6.                  | Foundation depths indicated take into account presence of vegetation and assume a clay subsoil of medium volume change potential. Contractor is to excavate a trial hole 2 weeks prior to commencement to confirm sub-soil conditions and advise the Engineer.                 |
| 7.                  | Excavations greater than 1.2m deep should not be entered without shoring. Shallower excavations should only be entered with caution after properly assessing the risks. In general the guidance of CIRIA Report 97 - Trenching Practice 2nd Edition (1992) should be followed. |

| MASONRY |   |
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| 1.      | All masonry below DPC level or located within the ground floor suspended floor void shall be constructed in Class B Engineering Brickwork in a Class i) 1:3 OPC:sand mortar.  |
| 2.      | All new facing brickwork where required shall match the existing. All facing brickwork shall be laid in a Class iii) mortar 1:1.5 Cement:Lime:Sand. Colour to match existing.   |
| 3.      | All new DPCs where required are to be formed using Hyload DPC manufactured by Ruberoid. All detailing of joints and method of placing is to be in accordance with the manufacturer's recommended details.                               |
| 4.      | All pointing profiles to the external brickwork are to match the existing to the approval of the Contract Administrator.  |
| 5.      | All inner leaf blockwork to cavity walls above DPC level shall be in concrete aggregate/Hemelite standard locks, minimum 7 N/mm <sup>2</sup> laid in a Class iii) 1:1.5 OPC:lime:sand mortar unless otherwise approved by the Engineer. |
| 6.      | For general details of DPC, cavity tray and DPM work refer to the Architect's Drawings and Specifications.  |
| 7.      | All wall ties for cavity walls shall be manufactured from stainless steel Grade 304.  |
| 8.      | All wall ties are to be spaced at 450 centres vertically and 750 centres horizontally on a staggered pitch. At openings and free edges, the spacing of ties is to be halved.  |
| 9.      | The depth of horizontal and vertical chases in masonry shall respectively not exceed one sixth and one third of the thickness of the leaf. All chases shall be marked on the walls and approved by the Engineer prior to cutting.       |
| 10.     | For cavity wall insulation details refer to the Architect's Drawings and Specifications.  |

| BRICKWORK AND BLOCKWORK TIES AND MOVEMENT JOINTS |  |
|--|--|
| 1.   | Cavity ties <ul style="list-style-type: none"> <li>Ancon Staifix type RT2 ties (Type 2) to PD 6697 at 450 x 900 (upto 100mm cavity)</li> <li>Ancon Staifix type 2 ties (Type 2) to PD 6697 at 450 x 750 (&gt;100mm cavity)</li> <li>Ancon Staifix RT2 (Type 2) general purpose cavity wall ties are adequate for residential developments (no higher than 3 stories) or 12m (any buildings outside this remit require Ancon ST1 (Type 1) Staifix at 450 x 900 c/c).</li> <li>Cavity ties should be closed up to 225mm around openings (windows, doors) or adjacent to movement joints.</li> <li>Either side of a movement joint a cavity tie should be provided at 225mm c/c.</li> </ul> |
| 2.   | Movement joints – External Brickwork <ul style="list-style-type: none"> <li>Flat ties (across the joint) - Ancon PPS wall tie (brick to brick MJ) with ½ debonding sleeves – 175mm length at 225 c/c vertically.</li> </ul>  |
| 3.   | Brick/Block to Steel (Frame cramps) <ul style="list-style-type: none"> <li>Ancon PPB wall tie (150mm length) with full debonding sleeve.</li> </ul>  |
| 4.   | Head Restraints to Brick or Blockwork Wall Panels <ul style="list-style-type: none"> <li>Ancon IHR-B (blockwork)*, IHR-C (Concrete)*, IHR-S (steel)* at 450mm c/c.</li> <li>*Fixing substrate.</li> <li>OR if a flat soffit i.e. underside of a slab - Ancon FHR at 450c/c.</li> </ul>   |
| 5.   | Brickwork Ties to SFS Structures <ul style="list-style-type: none"> <li>Ancon 25/14 slotted channel system fixed to vertical studs – typically at 600mm c/c x 450mm (vertically).</li> </ul>   |
| 6.   | Movement Joint Spacing <ul style="list-style-type: none"> <li>Movement joints in brickwork are 12m maximum centres in a linear run</li> <li>Brickwork joints are required at ½ the above spacing when adjacent to windows or doors i.e. 6m centres from a returns or corners</li> <li>The Movement joints typically 12 to 15mm joint filled with grace aerofill (compressible material) with ancon PPS wall ties at 225mm c/c (vertically) and with cavity ties at 225mm either side of the joint.</li> </ul>  |
| 7.   | All joints should be sealed with a 12mm x 12mm or 15mm x 15mm bead with 2 part polysulphide sealant/mastic (colour to architects specification)  |

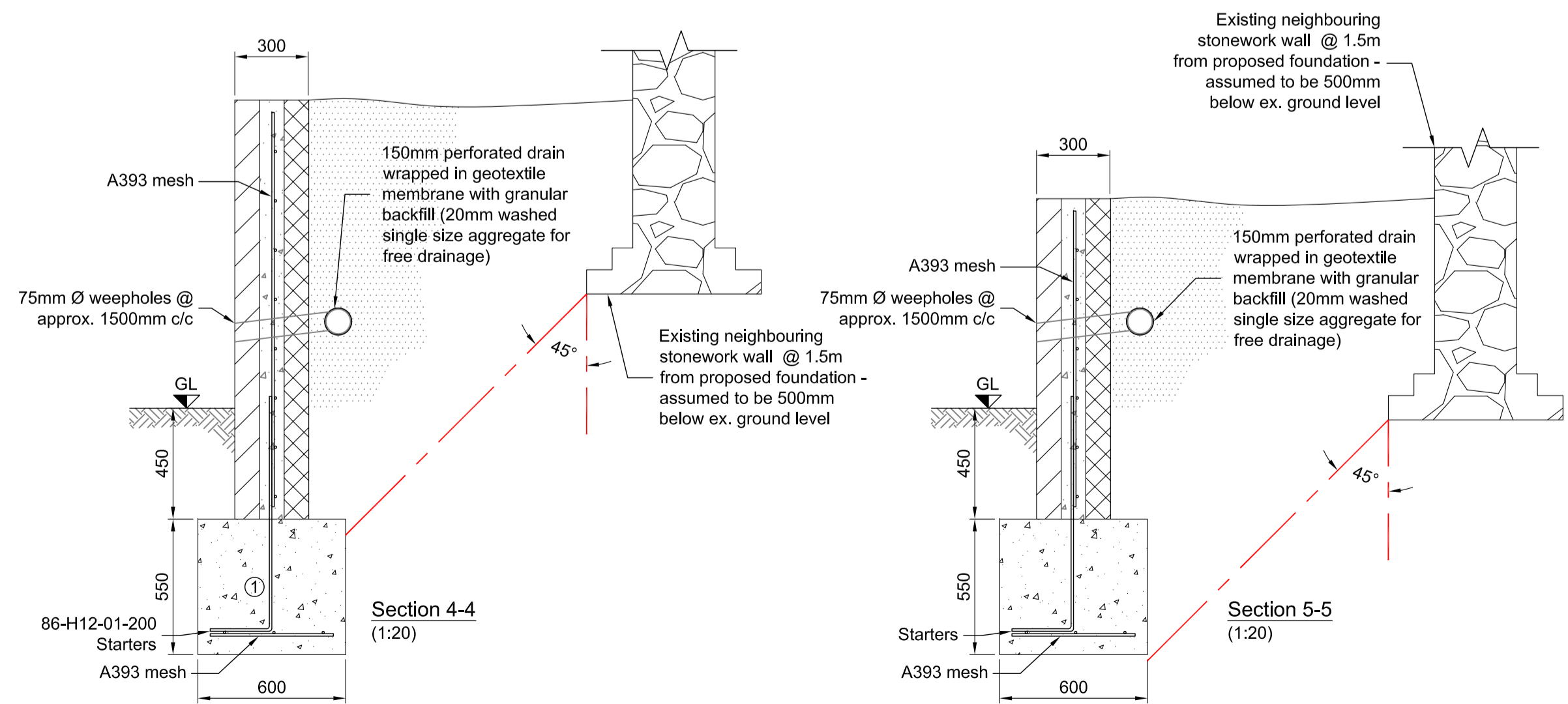
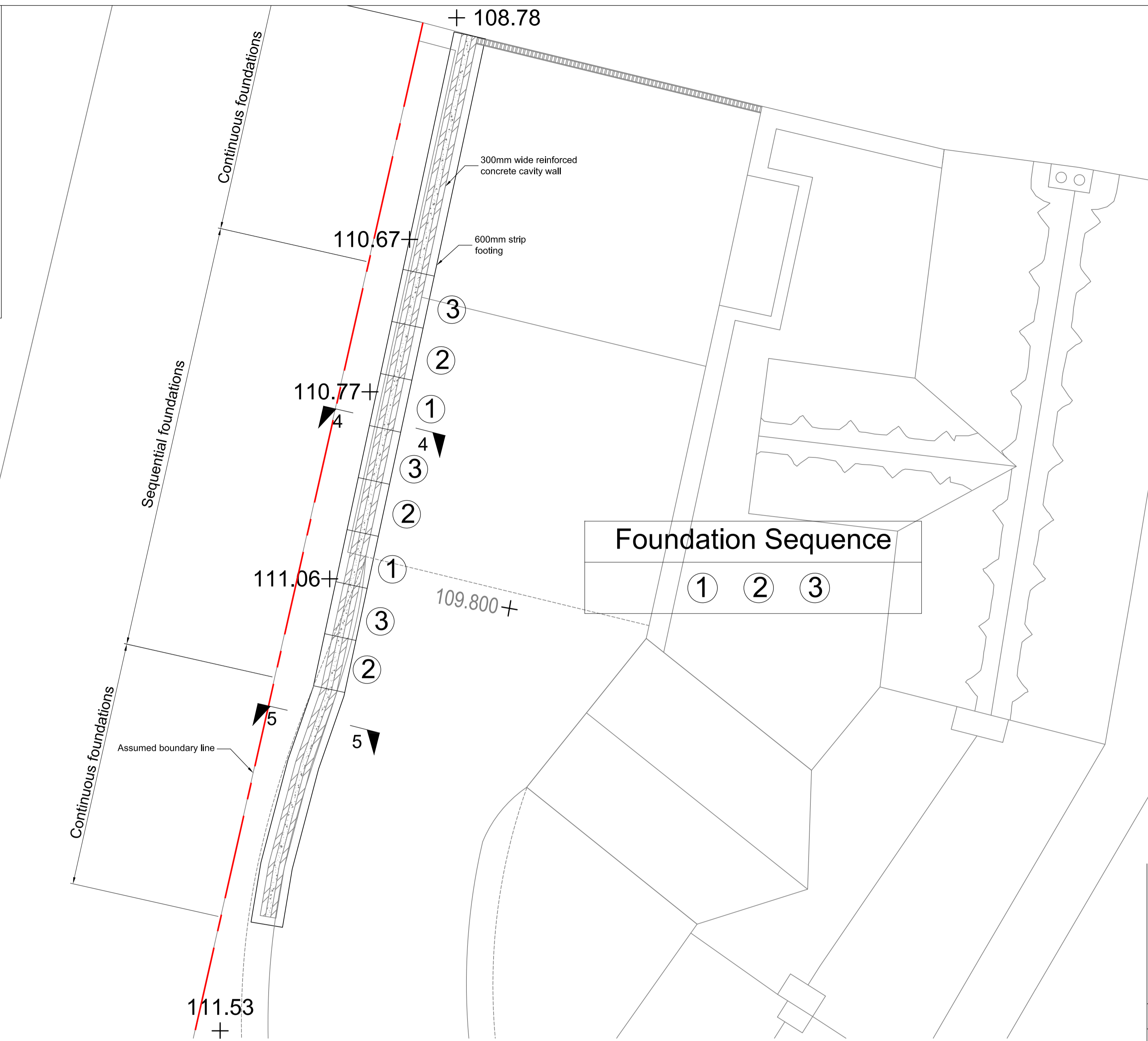
**Low lift grouted cavity wall**

In low lift grouted cavity construction the concrete infill should be placed as part of the process of laying the units at maximum vertical intervals of 450mm. Any excess mortar in the cavity should be removed before placing concrete, the infill concrete should be placed in layers to within 50mm of the level of the last course laid. It is important that the concrete infill should be compacted immediately after infill. Wall ties should be spaced at 450mm vertical ctrs. and 750mm horizontal ctrs. The wall ties used in low lift grouted cavity walls should be 300mm long type 1 ties conforming to BS EN 845-1:2003.

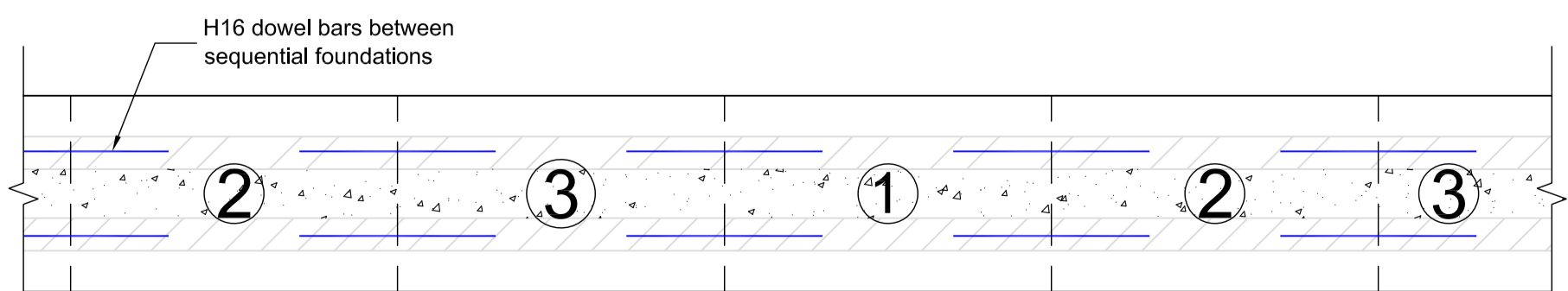
**High lift grouted cavity wall**

High lift grouted cavity walls should be built up to a maximum of 3.0 metres high and clean out holes left along the base of the front leaf. These holes should be of a minimum size 150mm x 25mm and be spaced at approximately 500mm ctrs. Prior to in-filling with concrete and soon after laying, debris should be removed from the cavity and the clean out holes blocked up. The concrete infill should be placed not sooner than 3 days after the building of the blockwork. Wall ties should be used to hold the leaves together against the lateral pressure exerted by the concrete infill. The infill should be placed and compacted usually in two lifts. Re- compaction of the concrete in each lift may be necessary after initial settlement due to water absorption by the masonry. In high lift grouted cavity walls the wall ties should be spaced at not greater than 750mm ctrs. Horizontally and 300mm vertically with each layer staggered by 450mm. The wall ties used in high lift grouted cavity walls should be of 6mm diameter galvanized low carbon steel bent to shape and size to suit.

| SEQUENTIAL FOUNDATION SPECIFICATION |  |
|-------------------------------------|--|
| 1.                                  | <b>SEQUENCE:</b><br>Work is to proceed strictly in accordance with the numbered sequence as shown.   |
| 2.                                  | <b>EXCAVATION</b><br>All excavation to the external walls to take place from the outside the dwelling and hand dug in lengths no greater than 1000mm. Excavations below foundations are to be inspected for tree roots and if necessary further investigations should be undertaken until no fibrous roots are present.  |
| 3.                                  | <b>CONCRETE SPECIFICATION:</b><br>Concrete to be designed mix to BS 8110 <b>C35</b> with OPC TO BS 12. Minimum cement content <b>300 kg/M<sup>3</sup></b> , Maximum water:cement ratio <b>0.6</b> , maximum aggregate size <b>20mm</b> mix. Design certificate to be approved by the engineer. Concrete to be mechanically compacted and the outside face of new foundation to be shuttered. |
| 4.                                  | <b>FOUNDATION SEQUENCE:</b><br>Excavate pad 1 and concrete, leave for <b>24 hours</b> , then install drypack, leave for further <b>24 hours</b> prior to excavating pad 2. Continue sequence in the same manner.   |
| 5.                                  | <b>DRYPACK SPECIFICATION:</b><br>1 part rapid hardening cement: 3 parts well graded aggregate <b>10mm down to fine sand</b> . Max water:cement ratio <b>0.35</b> . Dry pack to be well compacted in small sections, using a square ended tiner of steel ram.   |
| 6.                                  | The contractor shall locate all services in the area and protecting or altering services affected by the excavation.   |
| 7.                                  | The contractor is to allow for backfilling access trenches with properly compacted suitable material and reinstating surfaces to their original condition.   |
| 8.                                  | Granular backfill to be well rounded 20mm nominal size   |
| 9.                                  | <b>TEMPORARY WORKS:</b><br>The contractor is to ensure the stability of the structure and the safety of site staff by providing and securing adequate temporary works.   |



| Member Ref.             | Bar Mark | Type & Size | No. of Mbrs. | No. per Mbr. | Total No. | Total Length | Shape Code | A   | B   | C | D | E/r | Rev |
|-------------------------|----------|-------------|--------------|--------------|-----------|--------------|------------|-----|-----|---|---|-----|-----|
| Retaining Wall Schedule | 01       | H12         | 1            | 86           | 86        | 2375         | 11         | 975 | 250 |   |   |     |     |



- Notes**
- All dimensions shown are in millimetres unless noted otherwise.
  - Dimensions must not be scaled from this drawing.
  - The contractor shall be responsible for the setting out of the works and the accuracy of all dimensions. he shall satisfy himself that the information given is correct and notify the relevant parties immediately of any discrepancies.
  - The building contractor is responsible for the design and coordination of all temporary works required on this project.
  - All services are to be located by the contractor and clearly marked prior to commencing work on site.

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| GR   | SD  |
| 27OCT23  | 27OCT23   |
| Drawn Date   | Checked Date  |
| GR   | SD  |
| OCT 2023   | OCT 2023  |
| Checked By   | Approved By   |
| SD   | SD  |
| OCT 2023   | OCT 2023  |
| Base drawing scale as noted at A1  |   |
| Client   | Hannah Beasley  |
| Project  | 45-47 Main Street<br>Greetham, Oakland<br>Rutland, LE15 7NJ |
| Title  | Retaining Wall Layout                                       |
| <b>arcelle Consulting</b><br>T: 0116 254 5058 E: info@arcelleconsulting.co.uk<br>Leicester Office<br>18 De Montfort Street Leicester LE1 7GL<br>London Office<br>49 Constable House Adelaide Road London NW3 3QA |   |
| Architect  | Status  |
|  | Preliminary ●   |
| Drawing No.  | Tender  |
| 002/8621/16/RJ/SD  | Construction  |
| Revision   | As Built  |