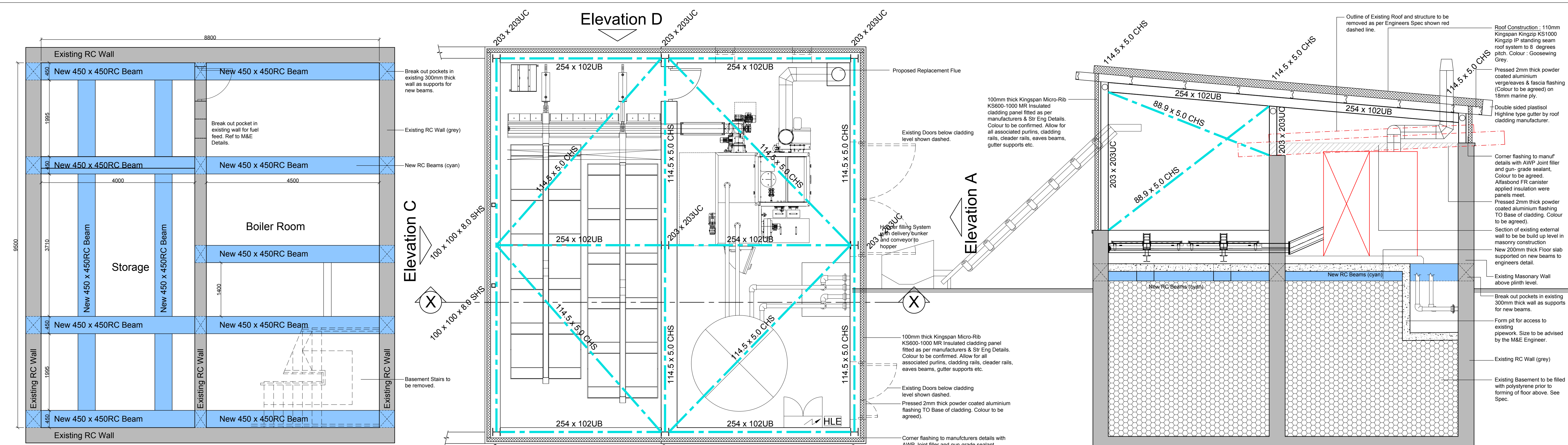




Proposed Floor Slab/Beam Layout

Reinforcement
Beams 230kg/m³
Slabs 120kg/m³

Proposed Ground Floor

Proposed Section X-X

FOUNDATIONS/CONCRETE:
All foundation excavations should be inspected by engineer prior to placing any blinding concrete. All foundation blinding concrete should be C16/20 (20N/mm²). All foundation and reinforced concrete should be C28/35 (35N/mm²) with 50mm cover to all main reinforcement. Minimum lap for A393 fabric mesh to be 400mm. Minimum lap for rebar to be 50 x bar diameter. All reinforcement to be inspected by engineer prior to pouring of concrete. All concrete work shall comply with the requirements of BS8110: parts 1&2. Concrete shall be regularly monitored with concrete tested by an independent company. Compressive test results shall be forwarded directly to the Engineer. Min 1 No. sample shall be tested per day for each grade of concrete. Each sample shall consist of 2No. cubes, one tested at 7 days and the other tested at 28 days. No concreting shall take place when the air temperature falls below 5deg.C. Concrete shall not be placed on frozen ground.
The requirements of the following materials standards shall also apply:
BS EN 197: Cement
BS EN 12620: Aggregates for concrete
BS EN 12390: Testing hardened concrete
BS4449: Steel for the reinforcement of concrete
BS4461: Cold worked steel bar reinforcement

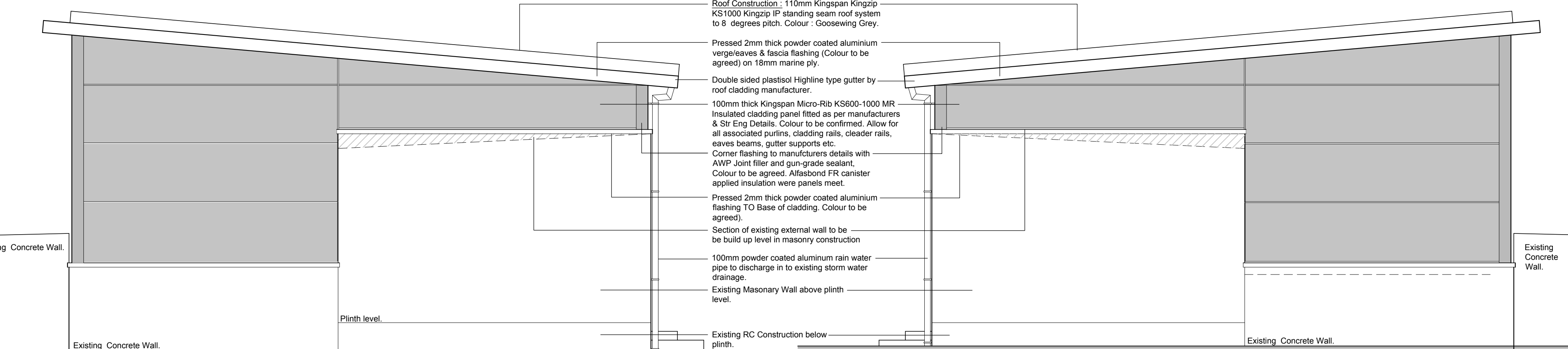
MASONRY WALLING.
Solid concrete blocks should be group 1 masonry units conforming to I.S. EN 772-3. The declared mean compressive strength for group 1 masonry units should be 10.5N/mm² (dry strength to I.S. EN772-1). Blockwork suppliers should confirm that all masonry units are free from deleterious materials and a representative sample of blocks should be tested by chemical analysis to determine mineral content. Blockwork supplier should provide documentary evidence that their products have been tested in accordance with above. Mortar class II should be used for construction of masonry. All precast concrete lintels should be designed and manufactured in accordance with BS8110.
The requirements of the following materials standards shall also apply:
IS EN 772-3 Solid concrete blocks
IS 20: Concrete building blocks
IS 57: Damp proof courses.
BS 5628: Structural use of masonry
BS EN 845-1: Specification for ancillary components for masonry. Ties, straps, hangers etc.
BS EN 845-2: Specification for ancillary components for masonry. Lintels
BS EN 934: Admixtures for concrete, mortar and grout.
BS EN 13139: Aggregates for mortar.
BS EN ISO 1461: Hot dipped galvanised coatings on fabricated iron and steel articles.
Vertical chases only shall be permitted in blockwork. The maximum height of masonry built in one day shall be limited to 1.5 m. Control joints shall be incorporated into masonry walls in locations to be agreed with the architect. Typically, joints should not exceed 6 m centres in concrete blockwork and 12 m centres in clay brickwork.
Cavity ties shall be vertical twist or double triangle. Ties shall be staggered and distributed evenly over the area of the wall with a maximum spacing of 900mm horizontally and 450mm vertically. Additional ties shall be placed at 225mm centres around all opes and along discontinuous edges, such as the roof verge, shall be tied as openings and shall be provided with at least one tie tie for each 300mm of vertical height and within 225mm of edges.
Provide 30mm x 5mm x 1200mm long galvanised metal lateral restraint straps, to blockwork, along slope of roof and at first floor level at centres not exceeding 1800mm. Straps to be anchored to blockwork (built in) and fixed to rafters and floor joists, provide solid timber bridging between rafters, at each restraint position, for length of strap.
In order to provide lateral stability to external cavity blockwork walls, all internal timber stud partitions which abut external cavity walls should be fixed to masonry by use of frame anchors at 450mm centres.

TENDER ISSUE

NOTES.
Main Contractor should allow for examining all as built drawings and health and safety file, to identify all underground services prior to commencement of any works on site.
Main Contractor should allow for identifying all underground services on site prior to commencement of any works on site.
All drawings and construction details should be read in conjunction with the project specification document.
All works should be carried out in accordance with the construction details shown on drawings and in accordance with the project specification document

Proposed Elevation A

Proposed Elevation C



Proposed Elevation B

Proposed Elevation D

STRUCTURAL STEELWORK.
Main contractor and structural steelwork fabricator should allow for checking all site dimensions prior to preparation of fabrication drawings/details. All structural steelwork general arrangement drawings, and fabrication details should be presented to engineer, for approval, prior to fabrication of any steelwork. Please note that all temporary propping arrangements necessary for the erection of steelwork frame should be provided by the fabricator and such propping should remain employed until permanent stability measures are achieved. All external steelwork to be hot dipped galvanised to BS EN ISO 1461.
Stability of structural steelwork, in permanent state, is achieved by connection to braced masonry walling and moment capacity of steelwork connection details and base connection details. N.B. All connection details must be submitted to Structural Engineer for approval prior to fabrication of any steelwork.
Where steel beams span onto blockwork they should bear onto 450mm long x 215mm deep concrete padstones. All beams to be bolted to padstones with 2No. M16 HD bolts. Padstones should be fixed to blockwork with 2 No. galvanised straps.

STRUCTURAL TIMBER
All structural timber shall be C16 and shall conform to the requirements of following:
BS 5628 part 2: Structural use of timber, code of practice for permissible stress design, materials and workmanship.
IS 444: The use of structural timber in buildings.
Refer to Homebond House Building Manual for details of solid bridging and strapping.

SUPERVISION
The Consulting Engineer shall monitor the construction by occasional visits to inspect the works. It is imperative therefore that all work shall be carried out under the continuous supervision of properly qualified personnel responsible to the main contractor.
Construction tolerances and workmanship shall be checked by Main Contractor for compliance with the specification at the completion of each element and before construction continues. Construction which does not comply fully with the specification shall be removed and re-constructed after informing Engineers.
The Engineer shall be informed of any problems in construction which in the opinion of the Contractor would affect the strength, durability, density, compactness, imperviousness or appearance of the works.

contract

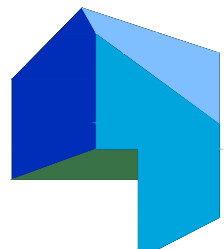
Aura Boiler House

drawing

Proposed Layout, Elevations & Section

architect

n/a



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