CONSILIUM ACADEMIES

Scope of Services

For the Appointment of a

Mechanical, Electrical & Plumbing (MEP) Engineer

Project: Armthorpe Academy – Demolition of Youth Block and Roof Repairs to the South Block

PARTNERSHIPS | OPPORTUNITY | INTEGRITY | EQUITY | EXCELLENCE | PEOPLE-CENTRED

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1. Introduction

For ease of reference, the Services have been divided into various stages (in line with the RIBA Plan of Work 2020) but such division is not intended to and shall not limit or affect the Consultants obligation generally to provide the Services appropriate for the proper and timely completion of the Project.

There is no requirement for a BREEAM assessment to be undertaken.

2. General Duties for all Stages

2.1 Ensure that all project information drawings, schedules, specifications, schedules of work etc. are fully co-ordinated and quality checked. Ensure that the designs are fully integrated and are tested throughout the design phases against costs targets and planning or other controls and take any action necessary to rectify deficiencies.

2.2 Attend Client meetings with other members of the team, contractors, stakeholders, and the client during the project including value management and programme workshops and meetings were required.

2.3 Understand the Consilium Academies requirements, priorities and budget for the project delivery and ensure that the costs are managed to these expectations and if this is not possible, then ensure that issues are reported as soon as they become apparent. Support the Quantity Surveyor (QS) with any Value Engineering and Cost Management processes as required, ensuring that schedules and sign off are recorded.

2.4 Liaise as necessary with all team, contractors, and sub-contractors throughout all the stages to coordinate and carry out the services in a timely and complaint manner.

2.5 Assist in settling disputes or differences relating to projects works and/or design, which may arise between any member of design/delivery team (but not relating to mediation, adjudication, arbitration, litigation, or any other formal dispute resolution procedure).

2.6 Keep full and proper records of all project documentation, disseminating information as required.

2.7 Generally, undertake the design so that proven products and solutions are used, with a view to eliminating risks in the construction and use of the Project.

2.8 Assist the Client in any public / stakeholder consultation through meetings, exhibitions, newsletters etc.

2.9 Assist with the discharge of conditions attached to any Planning Consents.

2.10 Performing such other duties as may reasonably be required by the Client to secure the completion of the Project.

2.10 Comply with the management of change control procedures throughout the lifecycle of the project in conjunction with the Client Project Manager.

2.11 Where changes incur additional fee, discuss with the Project Manager as soon as this is known.

2.12 Fully support and assist in settling disputes or differences relating to the project works and/or design which may arise (but not relating to mediation, adjudication, litigation or any other formal dispute resolution procedure).

2.13 Fully support the project team on the development and maintenance of the project risk, issues and opportunities register, identify potential risks, issues and opportunities and support in the determination of probability and cost consequences. Undertake timely management actions allocated to the MEP Engineer.

2.14 Fully support the project team with the value engineering process by attending value engineering workshops. Make any necessary amendments to the design proposals, carry out research into alternative design solutions and deliver revised proposals that make certain the project is delivered to budget. Undertake timely actions allocated.

2.15 Ensure Environmental considerations are taken into account and sustainable solutions are evaluated at each stage of the design.

2.16 Comply with the CDM Regulations insofar as they relate to this Service and liaise with the project team to advise the Client of the obligations under the CDM Regulations. The MEP Engineer will undertake the role of Designer under the CDM Regulations. The Principal Designer role will be by others. Cooperate at all times with the Principal Designer and Health & Safety Adviser and provide design information and Designer's Risk Assessments.

2.19 Assist the Lead Consultant and Project Manager in inputting into the gateway process and each RIBA stage review. Prepare relevant reports for the reviews.

2.20 Comply with cost control procedures in order that designs are strictly monitored against the agreed cost plan and that any difficulties are rectified, and the approved cost limit is maintained.

2.21 Comply with management procedures to monitor the production of design information. Address highlighted issues.

2.22 Assist the QS with the preparation of a cost analysis of the works as developed at any stage.

2.23 Liaise with the professional team, contractor and sub-contractors throughout the following stages so as to coordinate and carry out services properly and timeously.

2.24 Give the Project Manager sufficient notice of all approvals, decisions or other matters which require action by the Employer and, where appropriate assist the Project Manager by providing information and making recommendations.

2.25 Ensure that the specifications prepared for the Works specifically exclude the use of materials being deleterious and subsequently ensure that such materials are not used in connection with the Works.

2.26 Undertake regular site inspections to ensure that construction delivery is in adherence with the contract specification. Witness all relevant tests and commissioning as appropriate, and in compliance with regulatory requirements.

2.27 Where some duties are stated in a particular stage these maybe required throughout the project or at different stage to that stated.

2.28 Participate in the operation of an early warning system whereby the MEP Engineer shall notify the Client, Project Lead, other consultants and contractor as soon as the MEP Engineer is aware of a matter that may adversely affect the project or its performance.

RIBA 1 and 2 – Preparation and Briefing, and Concept Design

3.1 Undertake MEP Engineering services for RIBA stage 1 and 2 and provide all necessary outputs in accordance with the agreed output schedule and to the agreed design programme. Undertake the development of the concept design including outline specifications in collaboration with the Design

Team and any other Consultants. The concept design should include initial integrated services proposals. Provide information for the RIBA Stage 2 gateway report, presentations and review.

3.2 Visit the site and study data and information relating to the project and relevant to the works which are reasonably accessible to the consultant. Consider reports relating to the works which have either been prepared by the consultant or have been prepared by others and made available to the consultant by the client.

3.3 Obtain such information as is reasonably available from documents, site investigations and other reports which relate to MEP Engineering requirements and comment to the client on any effect that these may have on the works, both during construction of the works and on completion.

3.4 Advise on necessary surveys, investigations, and risk assessments. Review and incorporate the implications of the findings into the design.

3.5 Working with the Principal Designer and other consultants, develop the Handover Strategy, Risk Assessments, Design Responsibility Matrix, and Information Exchange Strategies.

3.6 Provide information for the preparation of the cost estimates; to include but not limited to sketches, drawings, outline specifications, and/or calculations.

3.7 Coordinate the preparation of such information and material as necessary to gain confidence that the design will comply with Building Regulations, including an outline fire defence strategy (not for submission at this stage) for Building Regulations approval.

3.8 Coordinate and undertake the necessary consultation with Statutory Authorities.

3.9 Develop the client's brief into a full brief for the works in consultation with the Project Manager, the Lead Consultant and any other consultants. Such brief shall describe the client's requirements in respect of the MEP elements and both the client, and the consultant shall work to the brief. Discuss and agree with the Project Manager any changes to the arrangements for payments to be made to the consultant which may have become necessary as a result of changes to the brief. Comment to the Lead Consultant on any restrictions the brief may impose on any future use of the works suggested by the client.

3.10 Provide input and support to the Lead Consultant and the Project Manager on the recommended scope of the Works including reviewing alternative design and construction solutions. Support the Quantity Surveyor with information to provide estimates of the costs of those options as required and assist the Project Manager in reporting these matters to the Employer.

3.11 Provide sufficient preliminary information in relation to the works in the form of advice, sketches, reports, outline specifications or statutory compliance requirements to enable the professional team to prepare their outline proposals.

3.12 Make initial recommendations to the client on the economic and financial viability of the works.

3.13 In co-operation with other construction consultants provide input to a detailed programme for the production of design information leading up to obtaining tenders.

3.14 Agree outline material and construction specifications with other construction consultants and keep the Project Manager fully informed.

3.15 Ensure that all life cycle costing and environmental assessment techniques are applied to the development of construction consultants designs and adopt solutions giving the best overall value for

money and, where this may result in the cost limit for the project being exceeded, make recommendations to the Project Manager and obtain instructions.

3.16 Obtain the Project Manager's approval to proceed to RIBA Stage 3.

3. RIBA 3 – Spatial Coordination

4.1 Undertake MEP design for RIBA Stage 3. Provide all necessary outputs in accordance with the agreed output schedule and to the agreed design programme. Provide information for the RIBA Stage 3 gateway report, presentations and review. This shall include all required materials, printed or digital, and attendance at governance meetings as required.

4.2 In conjunction with the Lead Consultant consult with Planning Authorities and other Authorities as necessary to ensure that all necessary permits and approvals are obtained for the completion of the scheme.

4.3 Consult with Building Control authorities on proposed design proposals.

4.4 In coordination with other members of professional team, develop and agree the design programme.

4.5 Integrate into the design any requirements of specialist consultants, contractors and sub-contractors.

4.6 Input and assist the Project Manager in developing all key performance indicators for the project and for the contractor.

4.7 Make recommendations and discuss with the Quantity Surveyor/Lead Consultant the preferred method of procuring the construction and completion of the Works in order that the Project Manager can obtain internal approval of the recommendations.

4.8 Obtain the Project Manager’s approval to proceed to RIBA Stage 4.

4. RIBA 4 – Technical Design & Procurement

5.1 Undertake MEP Engineering design for RIBA stage 4 Technical Design and provide all necessary outputs in accordance with the agreed output schedule and to the agreed design programme. Develop integrated MEP services principles and coordinate with the relevant designer consultants within the design team and develop the design to provide an energy efficient solution. Provide information for the RIBA Stage 4 gateway report, presentations and review. This shall include all required materials, printed or digital, and attendance at governance meetings as required.

5.2 Assist the Quantity Surveyor in agreeing an updated cost plan.

5.3 Assist the Project Manager to update the master programme.

5.4 Report to the Lead Consultant and Project Manager at regular intervals and obtain the client's approval of the type of construction, quality of materials and standard of workmanship proposed for the detailed design, ensuring that the master cost plan and master programme are not compromised.

5.5 Review MEP Engineering services design coordination with the other professional team members' design proposals.

5.6 Continue consultation with all relevant approving authorities as appropriate. With the Design Team, prepare such information and material as necessary to gain confidence that the design will comply with Building Regulations, including an outline fire defence strategy (not for submission at this stage) for Building Regulations approval. Liaise with the Local Authority to the extent necessary to achieve this. Address any concerns they may have and co-ordinate with the design team to ensure that the

designs modified as appropriate. As required, contribute to the provision of information for approvals and agreements necessary for the Project such as those for licences, land dedications, highways agreements and incoming services with ground landlords, adjoining owners, public authorities, public utility companies, licensing authorities, financing bodies and others as appropriate.

5.7 Assist the Lead Consultant with the preparation of applications for approvals under Building Acts and/or Regulations.

5.8 Assist the Lead Consultant in negotiations with the relevant authority over Building Acts and/or Regulations and other statutory requirements and revise documentation.

5.9 Prepare any other information necessary for the client's negotiations with third parties including financing bodies and adjoining site owners

5.10 Advise the Project Manager and Quantity Surveyor on the need for any special conditions of contract relevant to works and on appropriate Form of Contract, invitations to tender/negotiated documents for the works.

5.11 Assist the Project Manager and Quantity Surveyor in advising the client as to the suitability for carrying out the works of persons and firms to be invited to tender/negotiate for any contract involving construction supply and or installation of all or part of the works.

5.12 Ensure that all drawings, specifications, schedules or other design or specification documents necessary for the obtaining of tenders are produced in accordance with the agreed programme and that the works included therein are capable of being constructed within the approved cost limit for the Project.

5.13 Work with the QS to develop cost estimates and the Pre-Tender Estimate.

5.14 Assist the Project Manager to deal with all enquiries from the contractors during the tendering periods

5.15 Attend tender interviews if required. Undertake a technical review of tender submissions relating to MEP Engineering and ensure that any errors are resolved in liaison with the Project Manager, and in accordance with the Employer's procedures.

5.17 Assist the appropriate member of the professional team in the negotiation of a contract sum for MEP elements. If instructed, revise the Technical Design information to meet any required adjustments.

5.18 Seek through the Project Manager the client's consent to proceed to RIBA Stage 5.

5. RIBA 5 & 6 – Manufacturing & Construction and Handover

6.1 Where required, provide the Lead Consultant and QS with drawings or other documents necessary for entering into contract (or alternatively follow the procedure for the appointment of specialist sub-contractors).

6.2 Undertake value management exercises as required.

6.3 Undertake risk assessments as appropriate.

6.4 In collaboration with the other members of the Project Team, assist the Contract Administrator in administering the terms of the Works contract during operations on site and relating to the completion of the Works.

6.5 Attend the regular meetings with the Contractor and other members of the Project Team as necessary in order to monitor the progress of the Works and the Contractors' need for design information.

6.7 Visit the site at regular intervals during the construction of the Works in order to inspect the quality of the work, to monitor progress and to ensure that the Works are executed in accordance with the Works contract and in accordance with good engineering practice.

6.8 Ensure that rigorous safety policies are in place and are implemented by the contractor and that there is adequate protection for the public and others. Ensure that all health and safety statutory requirements or regulations are being observed by all those responsible for either designing or constructing the Works and that adequate monitoring procedures are in place to ensure day to day compliance.

6.9 Ensure that rigorous quality management procedures are in place throughout the construction phase.

6.10 Respond to site queries and provide information as reasonably required for construction in line with the JCT contractual obligations.

6.11 Work with the Project Manager to understand activities on site which may impact operational requirements or other projects happening within the Academy.

6.10 Advise the Lead Consultant on the need for special inspection and tests and, following client approval, arrange for the inspection and tests to be undertaken.

6.11 Inform the Lead Consultant of any contractual difficulties which may arise during the course of the construction contract and obtain the Lead Consultant's instructions.

6.12 Establish post construction contract cost control procedures in order to ensure financial control covering the issue of instructions which vary the Works and the issue of cost reports to the Lead Consultant.

6.13 Work with and assisting the Principal Designer to provide information, where applicable, for the Health and Safety file (CDM) O&M's and for the building log book (Building Regulations Part L2) and ensuring that these are complete ahead of PC being issued.

6.14 Work with the contractor encourage continuous snagging to ensure that all snagging inspections are undertaken in a timely manner giving the contractor time to close anything out ahead of Practical Completion as required.

6.15 Working with the contractor ensure that there is an agreed handover and training schedule for the client to enable ample opportunity for any training and familiarisation ahead of PC. Encourage continuous familiarisation where possible.

6.16 Identify defects, compile a defects rectification list in liaison with the Contract Administrator and make subsequent inspections and revisions to the register of defects. Advise on resolution of defects as required.

6.13 Inform the Project Manager four weeks prior to the anticipated date of practical completion.

RIBA 7 – Close out and end of 12 months Defect Period.

7.1 Ensure that the retention is managed and released at the appropriate time.

7.2 Working with the team, ensure that any snagging and defects are addressed as required.

7.3 Attend a "Lessons Learned Workshop" and report to Consilium Academies thereafter.