1. CONSTRUCTION METHOD STATEMENT

Willmott Dixon Construction has been invited to submit a Tender for the extension and re-modelling of the existing Blue Block on the BRIT School campus.

The works comprise of the demolition of an existing single storey building, construction of a new two /three storey theatre block with link infill and the refurbishment of existing building, together with associated external works.

Construction of the new block includes pad foundations, steel frame, Concrete Roof Decking decking, External steel Access staircases, built-up roofing systems, coated metal wall cladding and faced brickwork, aluminium windows and curtain walling, internal plasterboard / Fermacell partitions and internal walls and a mixture of ceiling types.

Re-modelling of the existing buildings includes re-modelling the ground floor, new internal mechanical and electrical services, suspended ceilings and decorations.

- Delivering these facilities will involve:-
- Demolition of some existing buildings including asbestos removal.
- Excavation of new pad foundations.
- Use of mobile cranes to construct the new building superstructure.
- Use of mobile elevating platforms for cladding works.
- Ensuring that disruption and disturbance to the BRIT School is minimal.

The scheme will provide a new 300 seat theatre, dance studio, changing rooms and entrance foyer with café together with enhanced teaching facilities on all floors of the existing building.

The challenges for the construction team which are specific to this project are identified as:-

- Maintaining shared construction access with the adjoining Primary School.
- Working safely within a live Academy environment.
- Ensuring the retained existing building is secure and weathertight.
- Achieving the quality of construction and workmanship required to realise the Project’s design concept and to meet the Client’s aspirations.
- Coordinating and liaising with the Client throughout the Project to achieve the completion date.

This method statement sets out to demonstrate our ability to carry out the works in the optimum time, in the most viable and safe manner to achieve a completed project to the satisfaction of all parties involved.
METHOD STATEMENT

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General

This method statement has been prepared on the basis of the tender information as issued and gives an indication of our general approach to the construction and management of the project.

We have included our intentions for managing and supporting the project and the particular approaches that will be taken for certain key aspects.

Certain areas of operation will be the subject of specialist considerations, and more specific and detailed method statements relating to these operations will be provided at a later stage and as the project proceeds. These additional key method statements will comply with the requirements of the relevant regulatory bodies and will be prepared by the specific contractors involved.

Planning & Programme

The Project has been programmed to be completed within the 42 weeks in accordance with information set out in the Tender documents.

The project Construction Programme has been prepared and developed using the computer based Microsoft Project planning and project management software.

This is a critical path network based system which has the capability to produce bar chart programmes that can incorporate design, co-ordinated trade contractor design, design reviews, procurement, equipment/material orders, deliveries and site installation period as part of our standard procedures.

The construction programme will be monitored, tracked and updated on a regular basis and any corrective action applied as necessary.

The Contract Programme will be prepared as an abstract of the construction programme and issued to all parties and used as the reporting document for all site construction progress.

A Procurement Schedule will be prepared from the construction programme that will identify key dates to be achieved within the design, detailing, approval and manufacture/procurement processes for individual trade operations.

This schedule will be utilised for the control of the procurement process of trade contractor packages from final enquiry through to appointment, drawing production, manufacturing and procuring processes, and up to the date of their commencement of site operations. The schedule will be monitored, tracked and updated on a regular basis and any corrective action applied as necessary.

The schedule of Information Required Schedule will also be produced that will identify final design achievement dates for all outstanding design aspects. This schedule will be issued to all parties and monitored, tracked and updated on a regular basis and any corrective action applied as necessary.
Pre-start Investigations

Prior to commencement of site works, an external survey will be carried out to confirm the existing site levels, extent of any existing services and the condition of the existing environs.

These will be plotted on a drawing and a photographic record will be taken, which will be maintained as a record throughout the stages of the contract.

Notification of the project commencement will be issued to all Statutory Authorities, advising them of the construction works and advising them of Willmott Dixon Construction Limited proposed programme of works.

At the commencement of the contract, Willmott Dixon will start the Logistics activities, which are detailed below.

Site Logistics

The way in which the site is established and managed is critical to the success of the project.

In acknowledgement of the proposals in the contract documents we propose to set up the site access arrangements as shown on the accompanying Site Access plan.

It is our intention is to erect the steel frame of the new two storey wing with a mobile crane standing on temporary hardstandings within the footprint of the new building. The lifting of materials for the construction of the upper floor and roofs will also be undertaken by mobile cranes as required.

Loading towers will be erected adjacent to the external elevation for the forklift truck to transfer concrete blocks and roofing materials to the upper floor and roof levels.

Mobile elevating platforms will be utilized, where conventional scaffolding is unsuitable, to provide access erection of the frame and installation of roof and wall cladding.

The forklift truck will also provide the required off loading and horizontal material movement facilities during the construction period.

Site Management Establishment

The site management for the project will comprise a site based Senior Building Manager who will lead the site team and administer the contract. (See Project Management Chart)

The Senior Building Manager will be assisted and supported by the following site based construction management personnel, responsible for the management and supervision of the site-based operations.

- Assistant Building Manager responsible for specific areas of the construction process
- A Project Surveyor will provide the commercial and procurement resource.

The site team will be supported and assisted by our head office based staff including environmental, planning, temporary works, health and safety managers.

Services installation co-ordination and management will be achieved by the appointment of our Services Manager to the project.
**Security and Site Establishment**

Plywood hoarding or Heras fencing will be erected on the site boundary, shown on the enclosed Site Logistics plan, to secure it during the contract period. These hoardings or fences will be maintained and adapted during the contract to suit the phasing of the works.

Site office and welfare facilities will be established as identified on this plan, utilising the servicing points identified in the documents and shown on the drawings.

Temporary site accommodation and welfare will comprise of the Building Managers office, Surveyor's office, Meeting and Induction room, Canteen and Welfare facilities and will be erected on hardstandings within the contractor’s working area.

Further accommodation for sub-contractors will be sited as required and the meeting room will be available for the Client’s representatives when visiting the site.

**Personnel**

All personnel will be inducted prior to gaining access to the site. They will be informed of the specific site rules required in the preliminaries relating to this project as well as Willmott Dixon’s site rules and their own companies method statements.

**Site Access and Deliveries**

Vehicular and pedestrian access to the site compound will be from the A212 White Horse Road via a temporary roadway across the adjoining Primary School playground which will be in the possession of another contractor. Delivery vehicles will be provided with directions to the site and be required to turn off engines to avoid nuisance upon arrival.

A delivery vehicle lay-by and wash down area will be provided at the entrance of the site compound.

No site access will be permitted during the busy Academy set down and pick up times during the day.

Delivery constraints will be identified to all suppliers and trade contractors.

Deliveries of materials, plant and equipment will be strictly controlled and co-ordinated to prevent congestion and disruption to traffic using White Horse Road.
Signage

Adequate signage will be installed such that vehicle deliveries and access to the site are clearly defined within the general site geographical area.

A main construction signboard will be positioned in agreement with the Client.

Site signage will be provided within the curtilage of the site as necessary to advise operatives/visitors and delivery staff of safety requirements within the confines of the site and where to report on arrival. Such signage will include:

- Accommodation / Access requirements
- Speed Limits
- Overhead / Underground Services
- Safety Helmet and Footwear Requirement
- Noise
- Danger Construction Site, etc.

Movement and Hoisting of Materials

Hoisting provisions will be as described under the logistics section of this method statement.

All vehicle movements and deliveries will be subject to the control of Willmott Dixon.

The storage of materials on site will be kept to an absolute minimum and therefore delivery scheduling will be carried out to ensure supply is on a ‘just in time’ basis only.

All concrete and screed deliveries will be proposed as ‘ready mixed’ and will be delivered to site in appropriate vehicles.

Concrete and screed placement techniques will be changed and adapted to suit the location and suitability of the equipment for its placement.

Storage and Handling

The contractor’s site area will provide the storage area for all plant and materials delivered to site. Materials will be stored within the building, ready for the finishing trades, once remodeling has been completed.

More vulnerable materials/equipment will be stored in the secure containers, shown the site plan, or programmed on to site to be incorporated directly into the construction.

Waste Management

A waste removal strategy will be developed during the pre-commencement period. This strategy will be incorporated within all trade contractor orders.

For tender purposes we propose that rubbish skips will be provided within the contractor’s site area, which will be removed and replaced on a regular basis. All trade contractors will be required to transport and deposit their rubbish within this provision.

Site Waste Management Plans (SWMP’s) are required for all Willmott Dixon Projects.

We are also working towards better understanding waste management so the volume of waste to be disposed is reduced and segregation enables as much as possible to be recycled.
**Scaffolding**

Conventional scaffolding, where required, will be independent with boarded lifts to suit the nature, location and type of the particular operations.

All scaffolding will be securely tied to the structure and will include suitable ladder access. Scaffolding will be provided, erected and maintained in accordance with all current statutory regulations. In addition brick guards will be provided on the ‘live’ lifts.

Suitable guard railing will be utilised to prevent falling from unprotected edges of the excavations, upper floors and staircases as applicable.

No person other than certified competent scaffolders will be permitted to erect, alter, adapt or dismantle any conventional scaffolding.

**Temporary Services**

- Power supply will be provided by a generator until the new electric main and sub-station have been commissioned.
- 110v power will be utilised throughout the building.
- Water will be provided direct from the mains system for use in the welfare facilities.
- Temporary drainage will be connected to an underground storage tank until the new pumped foul main has been installed and commissioned.
- Fax, telephone lines and an electronic data transfer line will be provided to the site offices.

**Dust and Debris**

The site will be kept clean and tidy at all times and will accord with any statutory requirements.

Particular attention will be given to preventing the contamination of adjoining roadways and existing water courses.

**Safety**

Full recognition and regard will be taken in the management and execution of the project of the Construction Design and Management Regulations 1994.

All trade contractors are obliged to provide safety policies, plans and method statements and will be interviewed prior to order placement on all aspects of safety, health and welfare.

All sites are subject to independent site safety checks, inspection and reports by our independent site safety inspectors and advisors.

Employer’s direct contractors will be required to accord and be subject to the same Willmott Dixon safety procedures and requirements as our own trade contractors and operatives, as outlined above.

Safety inspections will also include the works of the employer’s direct contractors if appropriate.
**Noise Control**

Management of noise pollution and vibration control will be given a high priority. Where the works are in close proximity of occupied buildings WD will ensure that acceptable levels of noise are adhered to as well as statutory levels imposed by the Environmental Health Officers.

**Construction**

- **General**

  Our tender programme indicates our proposed timing and sequencing of operations necessary to achieve project completion.

- **Initial Work**

  Prior to the commencement of the project works, the preliminary Health and Safety and Fire Safety Plan will be prepared. This plan will be progressively refined and developed as trade package contractors and specialists are appointed, and more specific and detailed methods, techniques and requirements are established. A typical Health and safety plan is appended in this submission.

  The Contractor’s offices and welfare facilities will be set-up within the contractor’s site area as shown on the Site Logistics Plan.

  The temporary hoarding and fencing, as indicated on this plan, will be erected around the site before work commences and maintained throughout the Project. There will be separate site vehicle and pedestrian gates into the contractor’s site compound area.

  Works associated with the provision of a new electrical sub-station have been scheduled early in the programme to ensure an adequate supply for the new facilities.

- **Strip-Out & Demolition**

  Internal services within the existing buildings will be isolated before stripping-out and demolition operations commence. Any existing fixtures or fittings to be retained will be clearly identified and arrangements made to place these in secure storage before work starts.

  All asbestos material in the building, identified by survey before commencement, will be removed by a specialist sub-contractor before the building is demolished.

  Demolition of existing internal partitions and ceilings will be carried out by hand. Operatives will be provided with appropriate personal protective equipment to prevent injury from dust and abrasion. Noise and dust generated by the demolition works will be confined within the contractor’s site area.

  All the demolition works will be undertaken by a specialist subcontractor.

  Where necessary temporary support will be installed before any demolition commences to ensure stability of those existing buildings or structures which are to be retained structures.

  Temporary screens or dust protection at existing door openings will be provided within the existing retained areas prevent the contamination of surrounding areas.

  Weather protection is to be provided to the roof and walls of adjoining structures, to maintain the weather tightness of the existing building envelope.
o **Sub-Structure**

Excavation of the concrete bases and ground beams will be undertaken by tracked excavators with concrete direct placed from ready mix trucks. These will be operated on a stone mat which has been laid over the site, once the demolition is complete and existing tarmac hardstandings removed.

The excavation and installation of underfloor drainage between the foundations will be undertaken once the steel frame has been erected.

The ground floor slab will be cast once the underfloor drainage has been completed and tested.

o **Structure**

The structural steel frame will be erected using a mobile crane. This crane will also place the precast concrete upper roof slabs.

A mobile crane will erect the steel staircases and hoist equipment onto the roof plant area.

o **Envelope**

The roof to the theatre will commence once the steel frame has been erected. External independent scaffolding will be erected where required to provide safe access for the roofing and cladding works. Much of this would be carried out via mobile elevated work platforms.

The roof covering installation will commence once the roof slab has been completed. The roof plant and equipment will be placed in the roof once plinths and flashings have been completed.

The lower link corridor roofing will be undertaken once the upper roof and external cladding above have been completed.

The cavity walls will be built progressively 1.5M lifts to full height, from ground floor slab up to the roof parapet level.

Hoisting would be via Tele handler, for the wall construction and roofing works, to pre erected scaffold platforms.

The installation of the corridor roof lights will be undertaken by a specialist sub-contractor once the roof and upstands have been completed.
Alterations to Existing Building

Removal of existing internal partitions and ceilings will be carried out by hand. The noise and dust generated by the demolition works will be contained within the work area.

Where new openings are to be formed within the existing building the structural loads will be supported by temporary propping. This will ensure that the stability of the internal walls is maintained during the alteration works.

Internal Work

Internal carcass and first fixing by the finishing trades will commence once a weathertight environment has been achieved within the new building, as indicated on the construction programme. Where necessary temporary weathering will be provided to window openings in prevent the ingress of wind and rain into the working area.

The suspended ceilings to ‘back of house’ and circulation spaces are to be installed once the high level internal service pipework and trunking has been completed and tested.

The wall and ceiling finishes will be completed ready for final fixtures and fittings before the vinyl and carpet floor finishes are laid. The decorations to the theatre will be completed in advance of the other areas to permit floor for the installation of the bleacher seating

Mechanical / Electrical Services

A detailed fabrication, delivery and installation schedule will be prepared by the Mechanical and Electrical contractor, upon instructions to proceed, to ensure compliance with the overall contract programme. Builders work required for the new services will be defined at this stage for inclusion on the structural engineer’s construction drawings.

The high level conduits and pipework above ceiling level will be installed using safe access equipment.

Installation of light fittings, smoke detectors and fire alarm systems will be co-ordinated with the suspended ceiling works. Where necessary some ceiling tiles will be omitted at this stage to permit access for testing and commissioning purposes. Key dates for power and water supplies to be available within the building will be identified on the programme.

Testing and commissioning of specialist systems will be carried out by the specialist system supplier/installer and all test certificates will be issued.

On completion of the commissioning activities the complete system will be offered for demonstration and witness testing to the client.
Fitting-Out and Handover

Temporary protection to floor and wall finishes will be removed once the installation of all fixtures and fittings has been completed.

The building will be handed over to the Client during the last two weeks of the construction period. Snagging, cleaning and inspection will be undertaken room by room and once completed each room will be secured in advance of the final handover.

The site offices and compound will be also removed during the last two weeks of the project. Temporary site services will be isolated, equipment cleared, offices and plant removed prior to handover.

External Works

The hard and soft landscaping will be undertaken once the building envelopes have been completed all access scaffolding has been removed.

Handover Documentation and Client Training

In parallel with the construction phases we will put in place procedures for monitoring the progress of information production relating to the handover documentation to ensure it is available for handover.

Post Contract Support

Periodic monitoring by the Willmott Dixon Customer Care Team will enable early attention to unforeseen issues during the warranty period.

Protection of Completed Works

The sub-contractors will adequately protect all materials, equipment and finishes to the satisfaction of Willmott Dixon Ltd. To prevent damage arising from weather conditions, construction activities, or any other cause whatsoever during the progress of the sub-contract works and until the completion of the Project.

The required level of, and type of protection required to protect completed works will be agreed by all parties, in advance of any works commencing.

Contract Administration and Handovers

Throughout the contract, Willmott Dixon Construction will maintain the updated, tracked and monitored Construction Programme for the works. In order to ensure that the programme is adhered to, Willmott Dixon Construction will hold regular on-site progress meetings with Trade-contractors. At these meetings, other issues such as quality and safety will be discussed in detail to ensure that they fully comply with the contract requirements.

Prior to handover of sections of works, Willmott Dixon Construction will carry out their own snagging of the works, with the aim of achieving ‘zero’ defects at practical completion.

As built drawings, commissioning records and operation and maintenance manuals will be prepared and issued to the Contract Administrator, prior to completion of the works.
Reporting Procedures

The following will be tabled for discussion at each internal site meeting;

- The status and progress recorded against the contract programme.
- Current updated Construction Programme with, if necessary, actions for bringing works into line with the Construction programme.
- Weekly labour and plant returns.
- A rolling schedule of approvals of all Design, Detailing and Materials yet to be approved. This schedule will be updated on a weekly basis.
- A schedule of materials and projects manufactured off site, with status of percentage manufactured and anticipated delivery dates.

CONCLUSION

The above method statement has been developed specifically to demonstrate our understanding of the project requirements and the detailed methodology required to carry out a project of this nature.

It is not however all encompassing and prior to the commencement of each stage or phase of the construction works specific method statements will be produced and agreed with the Willmott Dixon Construction Site Management Team.