Waterside Academy (Formerly Hackney New School)

of London

Free Schools Programme

Feasibility Study Addendum

7 September 2021

Document Control

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Mace Quality Control

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Contents

1. Executive Summary

Waterside Academy is a recently built school, located between Kingsland Road and Downham Road, in Hackney, inner northeast of London. The school is comprised of 3 blocks, built approximately 5 years ago and it houses 900 secondary pupils.

A new trust has taken over the school management and they require several alterations to suit their curriculum. It should be noted that the previous trust had not maintained key operational areas like the plant room boilers, which has subsequently caused significant heating and ventilation issues but these are being resolved as part of a separate piece of works and are excluded from the refit works.

The confirmed scope for the refit project was as follows:

1. To meet the curricular needs of the school, existing teaching and office spaces are to be converted to provide a Food Tech and Resistant Materials teaching space respectively inc. provision of FF&E.
2. Conversion of existing music practice rooms to new office spaces.
3. Resolution of acoustic issues between the dining hall and the new office spaces.

The initial feasibility study for the scheme was concluded in November 2020 and thereafter local procurement began in January 2021. Following the tender and evaluation period a Contractor was appointed under PCSA to begin developing the schools' requirements with a view to these being within the budgetary envelope available for the project.

Following the conclusion of this PCSA, the appointed Contractor chose not to progress with the construction phase of the project, owing to that works were required to be undertaken during term time due to various project delays.

This report has been produced to summarise the development of the design during this PCSA, discuss the confirmed school requirements, discuss the budgetary position, update the programme and discuss next steps.

It should be noted that The Trust have previously undertook some emergency works to the plant room which accounted for replacement of 5no heat exchanges while a gas governor was recently replaced. Similarly, the plantrooms pumps are being replaced, boilers services and BMS system repaired as a separate piece of works by a Mechanical Contractor.

Any future Contractor should liaise with the estate management team to ensure any M&E works are coordinated; however it is understood no further works are scheduled to be undertaken by the school.

Timescales

The initial programme was aimed at completing the building works by September 2020, but due to a number of issues this programme has been shifted to the Summer of 2022.

Mace propose the building works to be delivered by September 2022 with the main works undertaken over the summer holidays of 2022. However, the DfE should look to undertake some enabling works over the summer half term week if there is a Contractor in place and the main contract can be entered into before this date. This could include works to the

plantroom and/or strip out works. This would help de-risk the project delivery time. This is subject to school approval, however it is understood demolition works would be permissible within the new RM space and offices, while the food tech teaching spaces are required for exams during the summer term.

2. Proposals

2.1 Project Background

There are no particular site constraints other than the area is very condensed and dictates very little or no room for extensions, as the external areas are very small and used for PE and recreational purposes. The site analysis hasn't identified any site abnormals.

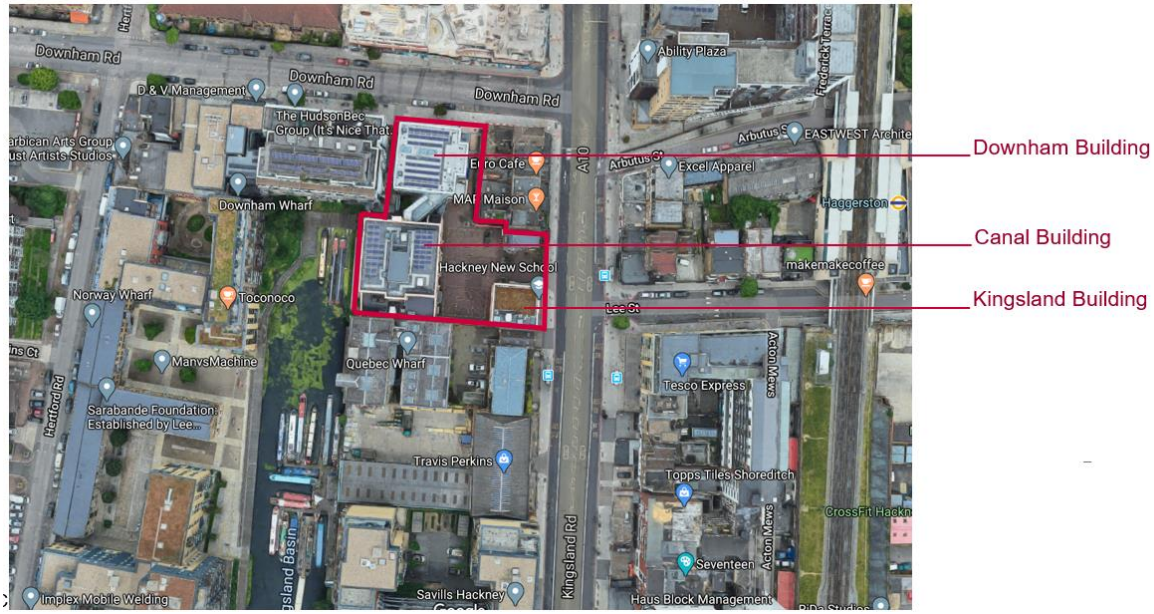

Figure 1 - Site Aerial Photograph

The largest building to the Southwest of the site, adjacent to Kingsland Basin, is the Canal block, a six-storey building that houses the main hall and kitchen facilities, music and science departments and three floors of general teaching classrooms. The Library is also located in this building.

Canal is connected by a series of bridges, one on each floor, to the five-storey Downham block, which relates directly to the road of the same name to the north. A student access point is also sited in this location which also acts as a fire exit is sited at the ground floor and opens out into the public realm.

The third building is the Kingsland building, to the east of the site and where the reception and most administrative offices are located, occupying its ground and first floors. The headteacher office is located on the second floor, alongside a general classroom. The art department takes the upper 2 floors (3rd and 4th) with two classrooms and some storage space. All three buildings are served by dedicated staircases and lifts.

There is an additional small "villa" on the north-east side of the site, facing Kingsland Road that is currently out-of-use and is not subject of this study.

During summer periods, it has been confirmed by the school that the Contractor will be able to use the playground area for their storage/compound. Use of the existing facilities

for welfare has also been discussed and approved in principle provided it is returned as it was found and there is no cross circulation of workers and pupils.

2.2 Proposals – Specific Items

Kingsland Building

1st Floor

Waterside Academy require a Resistant Materials and storeroom on first floor to meet their curriculum needs. Currently this floor houses administration rooms which are to be relocated as possible throughout the school (primarily to the first floor of Canal building). Figure 2 shows the existing partitions set to be demolished. Once the walls are removed the room area is adequate for an RM fit-out. The existing storage space will support the RM DT room.

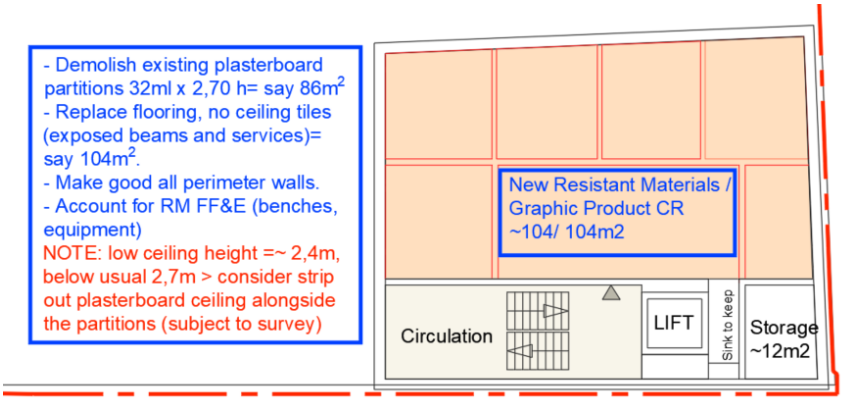

Figure 2 - Initial Proposed RM layout as part of Mace Feasibility Study. Redlines indicated proposed demolished partitions.

As part of the previous PCSA process, the Contractor developed the layouts of the room during stakeholder engagement meeting with the school. Within these, the Contractor developed the architectural, M&E and FF&E requirements and obtained approval from the school for the layouts.

Reference should be made to the updated design deliverables within Appendix A to confirm the M&E principals, however the existing power supplies were confirmed during PCSA to be adequate by the Contractor, while the space's ventilation strategy was to connect to and utilise the existing systems. As part of the next procurement, any newly appointed Contractors are required to satisfy themselves with the content of these deliverables, update as required and develop any revised CP deliverables for approval and construction.

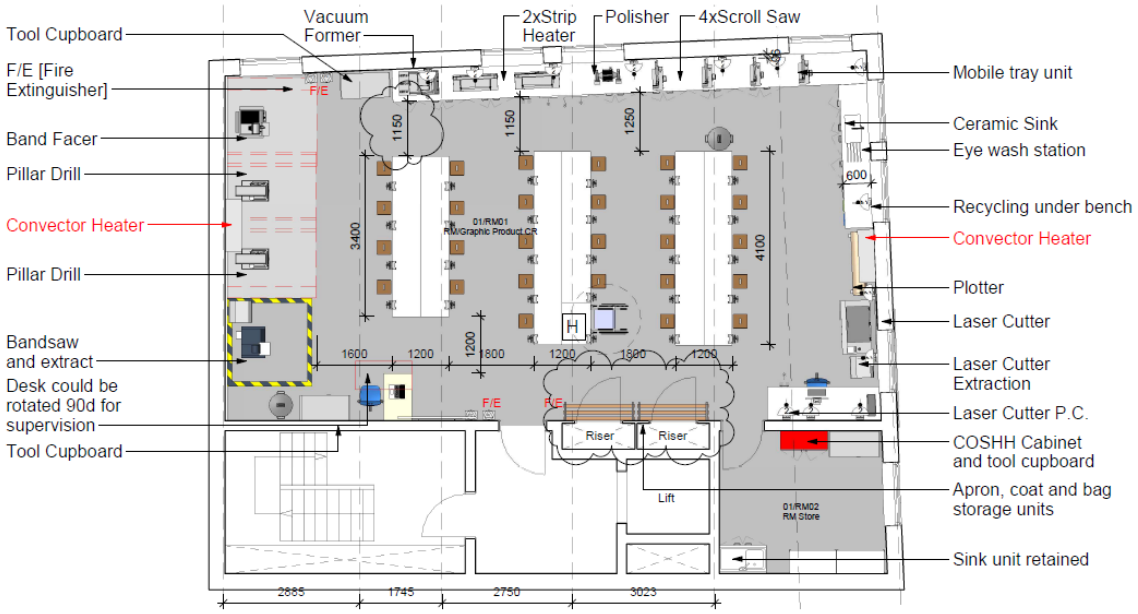

Figure 3 - Developed Layout as part of previous PCSA

Some of the key drivers for this layout were:

1. Ensure all pupils are facing the front of the class.
2. Provision of adequate tooling and storage to meet the curriculum.
3. Enable appropriate pupil supervision.
4. Maximise seating provisions (28no. desired).

Canal Building

Food Tech Room - 4th floor:

It is proposed that two classrooms on the fourth floor of Canal are converted into a 104m2 Food Tech room, taking advantage of the nearby science labs gas supply. Reference can be made to M&E information within the O&Ms for these gas supply layouts.

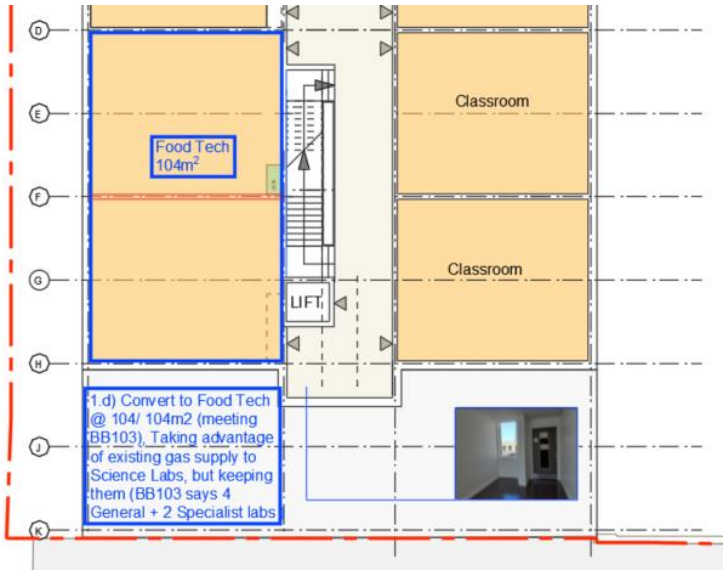

Figure 4 - Initial Proposed Food Tech Information. Redlines indicated proposed demolished partitions.

As part of the previous procurements PCSA process, the Contractor developed the layouts of the room during stakeholder engagement meetings with the school. Within these, the Contractor developed the architectural, M&E and FF&E requirements and obtained approval from the school for the layouts.

Reference should be made to the updated design deliverables within Appendix A to confirm the M&E principals, however the existing power suppliers were confirmed during PCSA to be adequate by the Contractor, while the space's ventilation strategy was to install an extract duct to the roof plant area. As part of the next procurement, any newly appointed Contractors are required to satisfy themselves with the content of these deliverables, update as required and develop any revised CP deliverables for approval and construction.

Some of the key drivers for this layout were:

1. Maximise seating and cooking location provisions (28no. desired).
2. Ensure all pupils are facing the front of the class.
3. Provision of adequate storage as there is no provision for a food storage room.
4. Enable appropriate pupil supervision.
5. Trust requested 50% split of gas vs. electric hob provision though they would consider full electric if limited by budget.

Typically for Food Tech rooms, an additional space would be provided for food prep/storage however this is currently outside the scope of this project and is assumed

that the school will utilise existing storage throughout the rest of the school. Otherwise, the school have requested storage to be maximised within the classroom. Allowance for the additional FF&E associated with the store is considered to have been included within the budget.

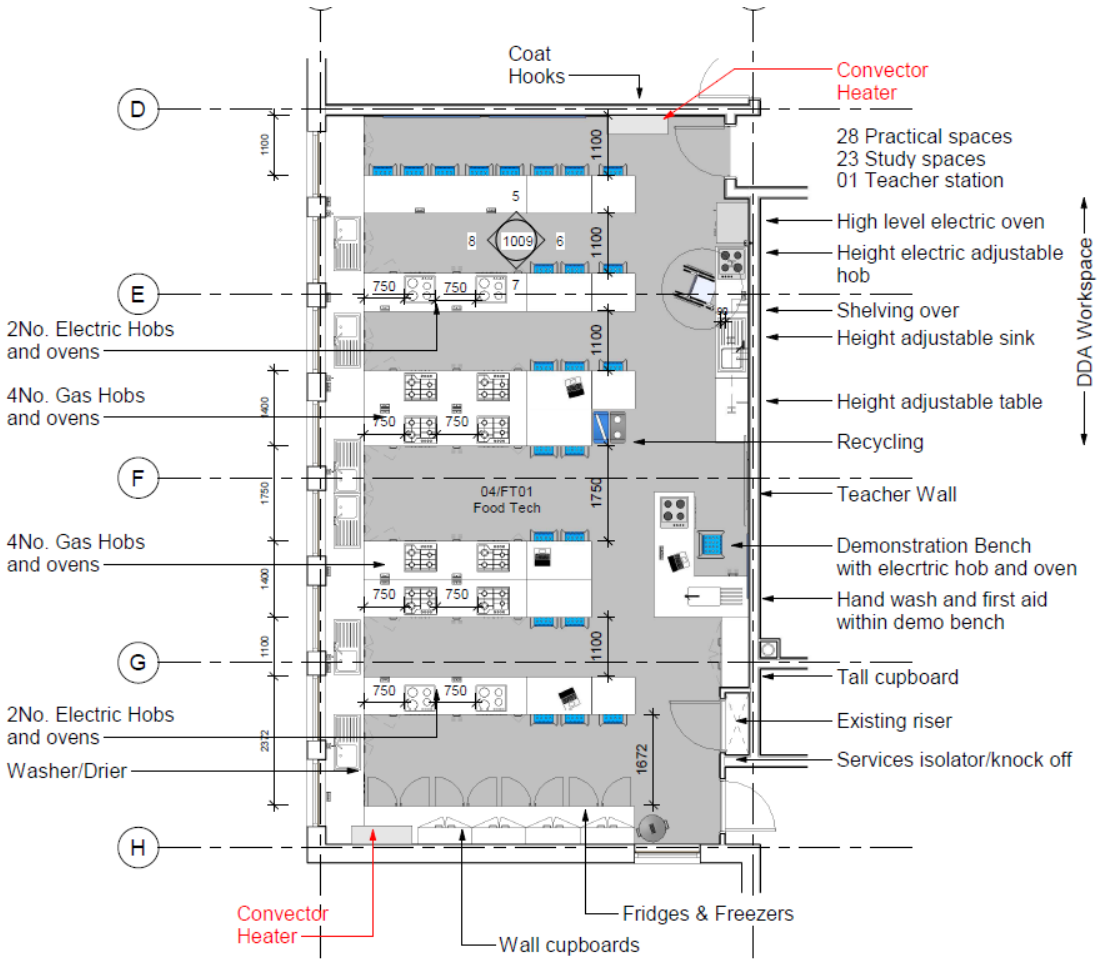

Figure 5 - Developed Food Tech Room Requirements

Note: For this layout a derogation is required away from the DfE Output Specification with regards to distances between workstations and sinks. It was agreed during the previous PCSA that this would be managed as part of the schools Risk Assessment processed for teaching classes and agreed with the DfE FF&E advisor on that basis.

Additional office space - 1st floor:

To replace the offices lost by the creation of the Resistant Materials room, first floor music practice rooms are proposed to be converted to offices and a reprographics room.

The proposal requires the introduction of new partitions with some glazing to close corridor into main hall. This will reduce the noise pollution between the music practise rooms and the hall space.

HNS have a preference for a glass partition to allow light into the right-hand side corridor, nearest the playground (east side). The other side is to be blocked-up with an opaque partition and convert the Music practice Rooms into offices. Should this create budgetary issues, a solid partition was also acceptable to the school but not preferable.

Due to the proximity of the glazing to the floor below, the glazing and partition along with associated fittings is required to be suitably robust to prevent any risk of injury to building occupants below.

It should be noted that some of these rooms don't offer the most efficient layout, as ventilation plant kit is located in within these rooms. This ventilation equipment is required to remain insitu and room layouts organised to suit.

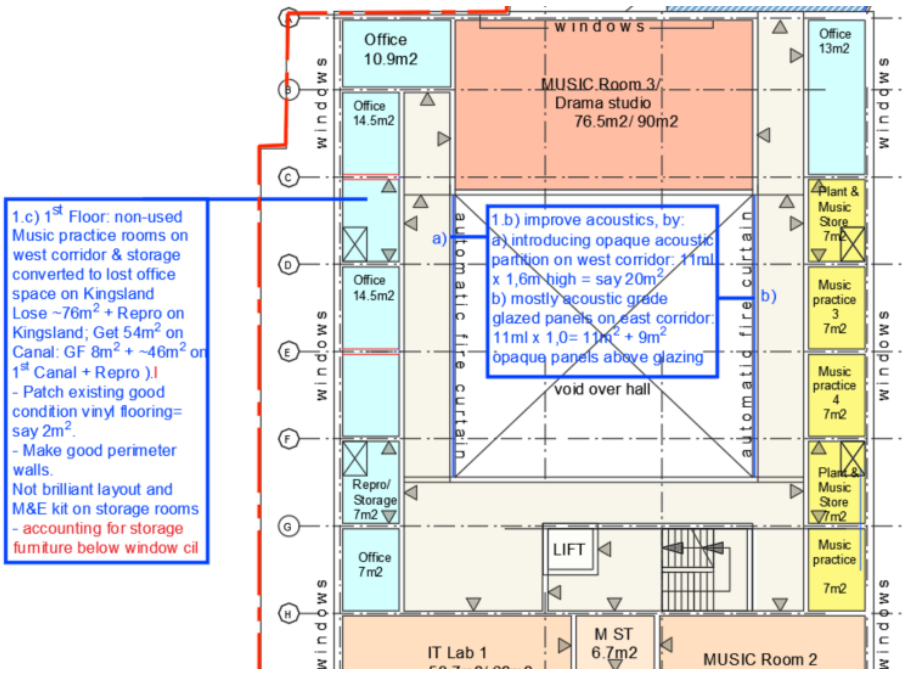

Figure 6 - Initial Proposed Office Layout.

During the previous PCSA phase, due to budgetary issues this area was temporarily removed from scope to try and meet the budget. Following reprocurement being required, this area was subsequently brought back into project scope as part of the retender.

As part of the previous procurements PCSA process, the Contractor developed the layouts of the room during stakeholder engagement meeting with the school. Within these, the Contractor developed the architectural, M&E and FF&E requirements. As these were

removed from scope, further engagement with the school may be required by the Contractor to finalise these layouts as well as addressing previous comments raised by the TA. It is noted that some layouts show doors clashing with desks and therefore it is expected for the Contractor to resolve such existing issues as part of the design process. This area includes some of the existing partitions being removed and some existing openings being blocked with new doors introduced.

FF&E within this area is to be provided by the Trust using existing elements and/or through undertaking their own procurement.

The Contractor will be required to ensure this existing FF&E can be used within these spaces, notably for large items like desks and the existing photocopier/printer.

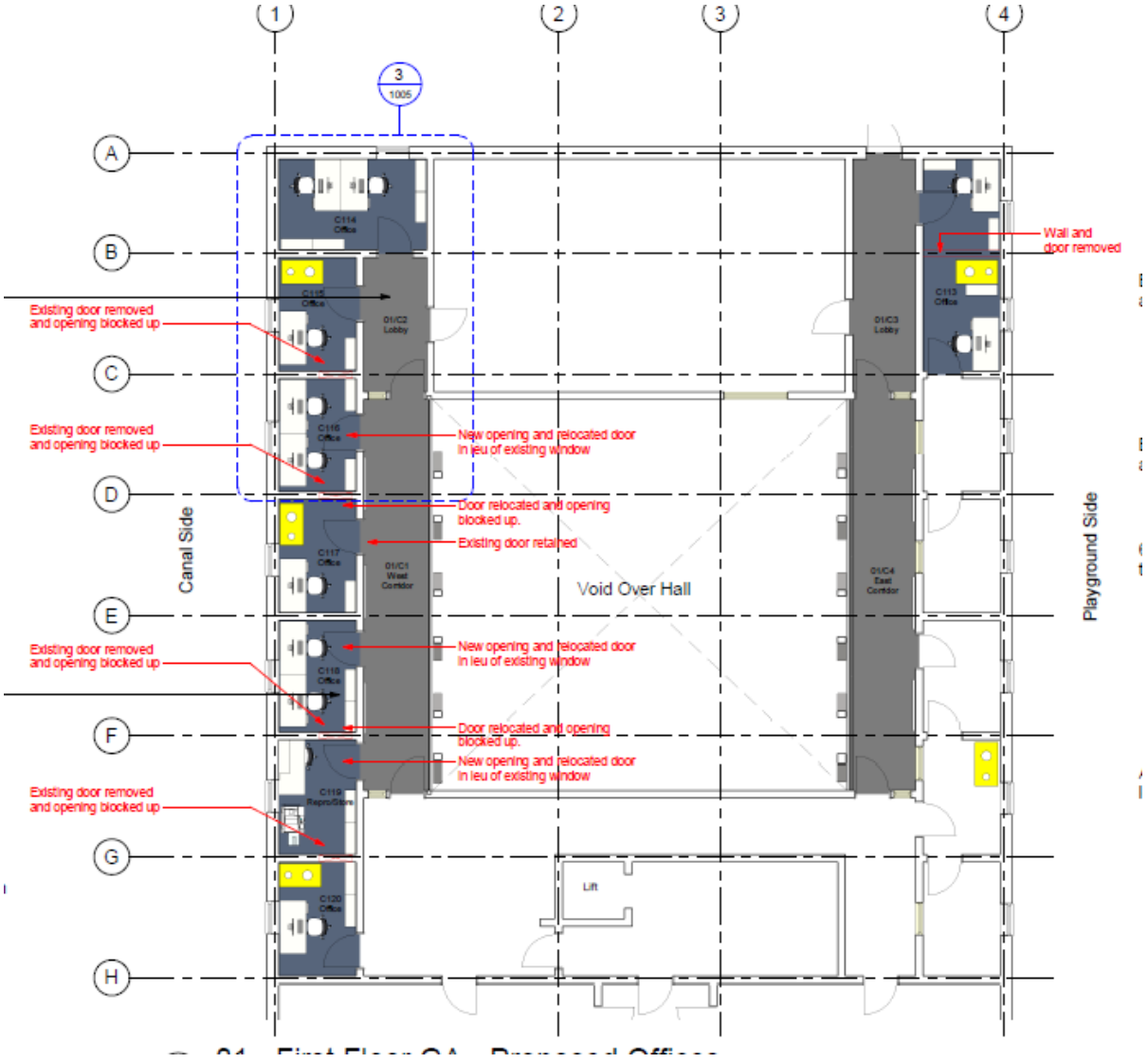

Figure 7 - Latest 1st Floor Office Layouts

3. Furniture, Fittings and Equipment

Reference should be made to Appendix C for the schools FF&E schedule as well as Appendix A Design Deliverables. The project has a **fixed** budget, with no option to increase budget further.

Following issues in obtaining quotations for fixed furniture by the previous Contractor, it is recommended that following appointment, any new Contractors should commence engagement with suppliers to confirm lead times and costs as soon as possible.

It is also recommended that the new Contractor should seek engagement with an FF&E Consultant to ensure the budget is appropriately managed while ensuring it meets the DfE Technical Requirements.

The budget for FF&E has been built upon experience of similar schemes and their respective budgets. A cross comparison exercise has also been undertaken with the DfE's FF&E Calculator which provides guidance on the applicable FF&E budgets for each of these spaces. Comparison of this is presented below while confirming that there is sufficient budget to deliver the FF&E for this scheme.

Table 1 - FF&E Budget Breakdown

Group 1, 2 & 3 FF&E	FF&E Calculator Budget	Mace Feasibility Estimate	Previous Contractor Estimate
Resistant Materials & Store	£59,598.00	£65,000.00	£71,385.99
Food Tech	£26,402.50	£40,000.00	£61,387.74

The FF&E costs submitted by the previous Contractor were found to be in exceedance of this budget, and therefore it is the responsibility of any newly appointed Contractor to meet the budget either by:

1. Specifying cheaper/simpler Education approved alternatives as some elements were deemed to be overpriced or over specified.
2. Descoping FF&E with the agreement of the school and support from the DfE.

Any changes to the FF&E specified will require approval from the school to ensure the curriculum can be delivered. However, it is generally believed following a thorough review of the FF&E costs that cheaper alternatives can be supplied while meeting the curriculum requirements. The Schedule of Accommodation included highlights which equipment is typically supplied by the DfE.

The Contractor will be required to supply Group 1, 2 and 3 FF&E up to the value of the budget.

Any items deemed to be over and above the DfE requirements are to be funded by the school along with Group 4 items.

The school currently assumes all FF&E will be provided; therefore this change is required to be communicated by the DfE and expectations managed during the subsequent design phase by the Client, TA and Contractor.

For the Contractors information:

During PCSA, the Trust confirmed a respectable suppliers of RM equipment was confirmed to be: https://www.technologysupplies.co.uk

During PCSA, the Trust confirmed a respectable suppliers of RM equipment was confirmed to be: https://www.betterequipped.co.uk/food-technology or https://www.glsed.co.uk/products/curricular/design-and-technology/food-technology

It is considered preferable from the school that the number of suppliers of equipment is minimised to make any future maintenance/repair works more easily manageable.

4. Surveys

The following surveys have been undertaken throughout the lifecycle of the project. Reference should be made to ITT pack for their contents.

Survey	Contents
BMS Survey (Preliminary and detailed survey)	Preliminary and detailed BMS survey undertaken by BMSI to ascertain the working condition of the BMS system and recommend repairs.
Gas Survey	Gas survey undertaken by previous Contractors M&E consultant. Confirmed existing systems capacity for the proposed design.
Site Survey (Ventilation)	Site survey undertaken by the Contractor to develop a route for roof penetrations for Food Tech Room.
Mace M&E Inspection Report	Existing M&E systems inspected by Mace for the creation of the feasibility study and estimate.
Asbestos	Asbestos surveys from previous build available. Previous Contractor confirmed during tender that due to the age of the building there was no risk of asbestos.

5. Other Project Requirements

Output Spec: The deliverables until now have been developed to be compliant with the Department for Educations Output Specifications and Technical Annexes. It is expected that as part of any retender, any redesign shall be undertaken so that designs remain compliant.

Fire Safety and Security: The Contractor shall ensure that all remodelled are designed to be safe and secure and that all statutory requirements for fire safety and evacuation are met. The Contractor shall ensure that any means of escape, fire-fighting equipment, automatic detection systems and fire signage provisions comply with Building Regulations 2010 Part B, 'Fire Safety'. Part B will typically be satisfied where the life safety guidance in BB100 is followed. BB100 contains guidance on an accepted way to

meet Building Regulations Functional Requirements for fire safety B1 to B5, but also allows for alternative solutions to meeting Part B, using fire engineering or following BS 9999.

The Contractor shall ensure that a fire strategy is agreed with the approving authorities, i.e. the Local Authority Building Control or Approved Inspector.

EPC: As there are no fundamental changes to the fabric of the building i.e. walls openings and windows, the EPC should not change therefore there is no requirement for an EPC. The Contractor should ensure that the ventilation penetration for Food Tech is provided with a weatherproof and insulated seal.

Acoustics: The Contractor shall ensure that the design of all refurbished spaces complies with requirements set in DfE Output Specification. The acoustic performance of all new internal elements and finishes should be considered in an integrated way and shall satisfy Building Bulletin 93: 'Acoustic design of schools – performance standards' (BB93).

The Contractor shall ensure that new or replaced partition walls are as a minimum designed to the OS requirements.

Contractors Proposals are required to contain an acoustic specification for new elements and proprietary systems proposed. The Contractor is required to provide a cohesive response/report outlining their acoustic approach and how it would address the DfE's Output Specification. This may require some advice from an acoustician to provide confidence to the client. The Contractor should provide reassurance that repurposed spaces used for teaching will not have excessive background noise.

ICT: As part of the CPs, the Contractor is required to provide a Small Power and Data design for each of the spaces, plus a review of the existing server/hub room(s) whereby the Contractor confirms whether the cabinets have sufficient space for new/replacement data ports. In the event that a new switch is needed (paid for by the Trust), the Contractor is required to confirm that the distribution board dedicated to the server room has the capacity to support any additional power that extra kit would need.

Building Control: As standard, sign off is required by Building Control, including the fire officer as part of CP deliverables. The newly appointed main Contractor will be responsible for obtaining this following design finalisation.

6. Planning Consultation

It was confirmed during the previous PCSA by the DfE Planning Advisor that there were no planning implications with these works as all penetrations are to be non-visible.

Landlord consent is required to be obtained by the DfE for the penetration works, however it is understood the current proposed penetrations have been approved in principal and subject to chargeable legal fees.

7. Procurement

To ensure the school has an operational heating and BMS system before winter, it is recommended that the specific plantroom works identified be undertaken as soon as possible.

These works will be undertaken ahead of the main Contract and are not required to be priced by the refurb Contractor as part of this scope of work. The appointed Contractor should however include an allowance for future connection to the BMS system for the refurbished areas.

For the wider refurbishment works, it is recommended to again undertake a local procurement via Contracts Finder with the works scheduled for summer 2022.

It will be easier to manage a single point of contact who is accountable for a full delivery of services. It is recommended a list is formulated of suitable main contractors who have the capability to manage a design team and understand the DfE processes. We will start to engage with contractors to test their appetite before tendering.

We advise that we start to formulate ITT documents as soon as possible, to enable September 2022 delivery to be achieved. Refer to Appendix D for the programme.

Procurement Considerations

Single Stage D&B: A single stage D&B approach could be considered by the DfE as the majority of the design information is considered to be in advanced state. The primary benefit from this approach would be to have a fixed price for the works at an earlier stage.

This approach could present additional budgetary and programme risks to the client should Contractors not be given sufficient time to interrogate current design information such that an accurate fixed price can be proposed to deliver a OS compliant scheme, however this can be mitigated through allowance for sufficient time during the programme for Contractors to review the tender information.

Reference should be made to the separate technical paper produced by Mace which discusses alternative routes to procurement. It is also advised that Contractors be engaged ahead of deciding on a single-phase D&B procurement route to confirm their appetite for such a contract on this scheme.

Self Delivery: Alternatively, self-delivery could be considered whereby the school manages the procurement and project management of the scheme, subject to their desire to do so.

The main benefits of this approach is that it would most likely mean a quicker routes to procurement as DfE internal processes are avoided and would avoid additional management costs. However, there are risks with this approach including:

- The trust may lack the necessary ability to undertake the project management for the scheme.
- May lead to inappropriate spending of DfE funding
- Would minimise additional management costs

This approach is **not recommended** due to these reasons above and risks this may present.

8. Contractor requirements

As part of the next procurement, the below summarises the key lessons learnt which are to be considered during the evaluation and appointment of any other Contractors.

Design/Project Management: Design and Project management is critical to the success of the project and Mace would recommend thorough evaluation of how this design process is proposed to be lead and managed by the Contractor. Due to the various project delays, it is critical to the client that this project be undertaken and therefore appropriate design and project management is required to be included by the Contractor to ensure its success. This should be included within any evaluation criteria.

Budget: Due to the budget being fixed, the Contractor is required to provide regular cost updates to manage client expectations. It is therefore recommended that the Contractor undertakes market testing to gain quotations for undertaking the works as soon as practicable. It is recommended that Contractors are required to demonstrate as part of any tender how the budget is to be managed throughout the project lifecycle to ensure scope is delivered. It is recommended that the Contractor appoints a Cost Manager to manage these works and ensure budget is achieved.

FF&E: Based on the lessons learnt from the previous tender it is recommended that Contractors be assessed on their FF&E supply chain to ensure value for money is achieved.

9. Programme

Due to the delays in procurement earlier delivery is to be targeted if possible. With this in mind, two programme were produced to consider its feasibility.

Option 1 – Summer 2022 Delivery - Recommended: A programme has been produced to give the Contractor optimum time to interrogate and finalise the existing designs and costings.

Advantages:

- Minimal impact to the school and ensures delivery of the works by September 2022.
- Allows sufficient time for long lead item procurement.
- Provides sufficient time for Contractors to undertake market testing to ensure best value for money to the DfE.
- Provides opportunity for undertaking enabling works during summer half term, safeguarding programme.

Disadvantages:

- No Resistant Materials or Food Tech curriculum provided until September 2022.

Option 2 – As soon as possible delivery - Not considered feasible – A programme has been produced to fast-track delivery to as soon as possible. The actual construction works associated with the project comprise a small percentage of the programme.

The majority of the programmed time is associated with DfE activities, ITT tender periods and sufficient allowance for CP development. It is not considered feasible to reduce the timescales associated with these.

Advantages:

- Demonstrates to the school that the works are being prioritised.

Disadvantages

- Works likely to be being undertaken at the same time as exam period and therefore are unlikely to be accepted by the school.
- Will incur additional weekend/out of hours working which will lead to increased costs. No out of hours/weekend working allowed for at this stage
- Works will incur additional prelims costs associated with an extended construction programme - Not included at this stage.
- Noisy demolition and intrusive M&E works required during building occupancy. Not considered feasible.
- Means curriculum for these spaces can be delivered by middle of July 2022, however this would likely coincide with the start of the summer holidays and therefore no advantage created by expedited procurement.

Based on the above, it is recommended by the TA that the works be undertaken during the 2022 summer holidays (Option 1), however there may be some works which can be undertaken during the summer half term to safeguard programme (subject to final agreement with the school). The appointed Contractor should consider what works could be undertaken ahead of the summer to safeguard programme.

10. Cost

In order to cost these works Mace have undertaken an RSoW tool to ensure we apply a relatively accurate cost to what a relatively sporadic list of items.

The findings from this Feasibility Study and associated cost plan are proposed to form the basis of the approved construction budget for Waterside Academy. Once the Feasibility Study recommendation is approved by the DfE RTA, the DfE PM will need to prepare a Change Control Form (CCF) for the project based on the agreed construction budget.

The feasibility cost plan is not included within the ITT.

The DfE funding sought through this feasibility study for the execution of the resistant materials, food tech and office refurbishment is **£520,838.58 Excl. VAT.**

11. Risk and Construction Design & Management (CDM)

7.1 Risk Management

Although no PCI was compiled the elaboration of this study had in consideration the CDM Regulations 2015, without prejudice of the measures the Appointed Contractor(s) might deem necessary, as the role of Principal Designer shall lay within the Contractors contractual responsibilities.

7.2 Construction Design & Management

The Procuring Party confirms it is aware of, and will comply with, its obligations as the client under the CDM Regulations 2015. This includes its responsibility to:

- appoint a Principal Designer and Principal Contractor and ensure that they are carrying out their duties;
- notify HSE of the project through an F10 notification and to update the F10 as necessary. The F10 notification should take place when the Principal Contractor is appointed (irrespective of when that is).

11.3 Key Project Risks

Although the works are relatively small scale, there are risks to delivery of the works. This is mainly due to the fact these works are intrusive. Rooms such as RM DT and Food Technology are heavily serviced rooms and thereby it would be prudent to ascertain if we the Contractor could undertake some enabling works prior to the 2022 summer holiday period. These works may include new services routes, demolition of internal walls, undertaking of any further survey works.

Appendix E outlines the updated project risks following conclusion of the initial PCSA period with the key risks summarised as below:

1. Budget:. It is the responsibility for the Contractor work within the budget limitations set within the tender as there is **NO** scope for increases to budget. Following the previous PCSA, a final contract sum could not be agreed which was within budget therefore there remains a risk that some elements of the project may prove to be unaffordable within the overall funding envelope and therefore are required to be removed from scope. There is a known risk that market pricing is extremely volatile at the minute. Should further difficulties occur due to market pricing that add/omit exercises will be undertaken along with removing items from scope as necessary.

2. Long Lead Items: It is understood several items may have long lead times, notably fixed furniture for the RM and Food Tech Room. It is therefore recommended steps be taken to ensure final contract is issued in advance of the summer works to enable early procurement of these elements.

3. Design Change: As the contractor is inherited another's design there is a small risk that there may be some elements requiring alteration. Due to the scope of this project being limited and the designs being well developed, it is considered this risk is small, and that this can be priced for within Contractors Risk under each element of the pricing schedule.

12. Appendices

Note: Any these appendices contain documentation prepared by the previous Contractor and should be validated by the Contractor as part of any future appointment and remain the property of the client.

Appendix A – Design Development

Appendix B – Schedule of Accommodation

Appendix C – FF&E Schedule

Appendix D – Programme

Appendix E – Risk Register

Appendix F – Refurb Scope of Work