

17-19 Maxilla Bays project**Maxilla City Due Diligence queries: ARK Build response 19.06.21****1.0 Background**

This commentary has been prepared as a response to questions raised by the Maxilla City Group regarding the proposed refurbishment of the 17-19 Maxilla Bays building.

Ark Build has been selected by RBKC's Social Investment and Property Department (SIP) as the preferred contractor for the refurbishment project, following a competitive tender exercise carried out by their Procurement department, during which the submissions were evaluated against pre-set quantitative and qualitative criteria.

The contract has been procured on a two-stage basis under a JCT Design and Build contract with amendments. Following completion of the procurement exercise, SIP and Ark Build have subsequently entered into a Pre-Contract Services Agreement (PCSA) in May 2016, under which Ark Build has:

- Completed the Stage 4 Design and Report.
- Obtained planning consent for the scheme.
- Prepared and procured works packages under an agreed competitive tender process.
- Agreed a contract sum to execute Stage 2 of the contract in August 2017
- Provided and agreed an updated contract sum against BCIS indices.
- Continually engaged with RBKC and their consultants Currie & Brown since being formally instructed.

The project has effectively been ready to commence on site since August 2017 – but as a consequence of the Grenfell tragedy on 14 June 2017, matters have been put on hold since.

2.0 Current Situation

Maxilla City, a Community Interest Company, has been established to partner with RBKC on the redevelopment of the Maxilla Building – focusing on the community requirements for the building space, alongside the existing Adult Social Care (ASC) teams' requirements to enable improved service delivery to its user group, the community and residents. Accordingly, Ark Build is committed to working collaboratively and transparently with both Maxilla City and RBKC to meet the current requirements through design consultation and build implementation to provide a safe, sustainable and best quality environment for the community and other stakeholders.

Ark Build understands that the local community needs re-assurance that the design and construction address the fatal oversights of Grenfell, and are willing to adopt the guidance recommended by the Hackett Report which identified the need for a golden thread that preserves the understanding and details of the initial design assumptions so that a seemingly minor change in the future can be considered against those assumptions. As Principal Designer we will ensure that any decision on the specification of materials is ultimately one that needs to be made by the full design team and with the Maxilla City and RBKC's buy-in as well, as it is they who will bear ultimate responsibility going forward. Any decisions will be clearly documented and run past both our own and our design team's professional indemnity insurers.

3.0 Proposed Sub-Contractors, Designers and Suppliers

Ark Build directly employs most trades and typically we separately subcontract specialist elements only such as mechanical, electrical, joinery, flooring, scaffolding and asbestos removal. Ark MEP, part of the Ark Group, usually execute all related mechanical, electrical and plumbing services.

3.1 We have already conducted a fully compliant procurement process through competitive tendering of sub-contract works packages – but given the requirement for a design review, we list below the designers as the only proposed appointees who are known at this time.

Discipline/Trade	Name of subcontractor / supplier
Architect	Norr Group (Cambridge) Compass House Chivers Way, Histon Cambridge CB24 9AD
Mechanical & Electrical Design Engineers	Cunnington Clark Ltd 35 Priestgate Peterborough PE1 1JL
Structural/Civil Engineer	Scott White and Hookins LLP Fountain House, 26 St John's Street, Bedford, Bedfordshire MK42 0AQ
MEP Contractors	Ark MEP plc Unit 12 Loughton Business Centre Loughton Essex IG10 3FL

3.2 Method of Appointment of Subcontractors, Subcontract Designers and Suppliers

Whilst we accept that Maxilla City and SIP will ultimately sanction the selection and appointment of all sub-contractors, we set out below our usual procedure and governance around sub-contractor, consultant and supplier selection – which we trust will give reassurance that compliance, safety and quality are at the forefront of our disciplined approach.

As a matter of course, we will use our best endeavours to engage and give opportunities to local sub-contractors, designers and suppliers.

We strongly believe that successful management of the supply chain correlates directly with the quality of the procurement process. The more robust and vigilant the procurement process including interface with the contract programme, the less likelihood there is of supplier failure. It also allows to use a consistent set of partners from our approved supply chain, who we have knowledge of, and they accept and adopt Ark Build's policies and procedures when working on our construction sites. This enables us to deliver each project consistently under our quality,

environmental and safety procedures, which are appropriately certificated under ISO9001, ISO14001 and the CHAS schemes, respectively.

Vetting and Compliance

i) Subcontractors

Suppliers new to our company must undergo exhaustive procurement vetting procedures before being allowed to work for us, and our procedures comply with the Construction Industry Board 'Code of Practice for the Selection of Subcontractors'

We extensively use Constructionline to vet our subcontractors through the PAS 91 route, which gives us consistency against all the expected and mandatory checks that are required for subcontractor compliance. Ark Build plc are both a Buyers and Supplier within the Constructionline system.

As PAS91 has developed, particularly with the 2013 and 2017 amendments, it has enabled us to use it more effectively as a comprehensive tool, to validate a greater number of the sections of our due diligence process, as it now encompasses and is more closely aligned to The CDM Regulations 2015, which makes it better suited to Contractors within the Construction Industry.

Our well-established processes, which are also compliant with the ISO9001:2015 Standard, includes completing a questionnaire that requires potential subcontractors to provide details of their technical experience, training, employment processes, financial durability, quality, health & safety, and environmental compliance.

All Supply Chain members must demonstrate their Equal Opportunities, Bullying, Harassment and Grievance Policies. Each of these are examined by our senior team managers in HR, Finance, HSQE and Operations, to ensure we drill down into relevant strengths and weaknesses that may exist. All references which are stringently taken up.

Once we are satisfied with the subcontractor's competence they are required to undergo a formal interview and our own checks on the standard of their previous workmanship. Only at this stage will they be accepted onto our approved Supply Chain database, which is regularly reviewed by our Operations Manager and Purchasing Manager on a job-by-job and annual basis.

ii) Designers

In relation to the appointment of designers, they complete a similar approval questionnaire, which focusses upon their design and professional credentials, robustness of PII insurances, and past work experiences of their design teams.

In relation to subcontracted design companies, we will seek companies who mirror our own certifications, (i.e. SSIP/CHAS, ISO9001, ISO14001) and where applicable corporate memberships of relevant Professional Institutions (RIBA, RICS or CIBSE).

Where companies are not able to become professionally accredited, such as for consulting engineers, we will require documented evidence of individuals' chartered memberships of the Institution of Structural Engineers or Institute of Civil Engineers. (e.g. MStructE and MICE)

iii) Materials Suppliers

In a similar way, we also pre-approve, manage and review all suppliers who we use, using a pro-forma questionnaire. This ensures that we apply criteria for the approval and use of all of our approved supply chain members, in compliance with best practice and the ISO9001:2015 Standard.

We validate against legal requirements, sustainability, CE marking of products, timber sourcing, locality to our working areas and equalities.

Within this approval process, and because material suppliers are likely to have turnover exceeding the current threshold of £36m which applies to the Modern Slavery Act

2015, we also ensure they have a visible statement on their website and complete annual reporting, in order to comply with the Act.

iv) Project Engagement

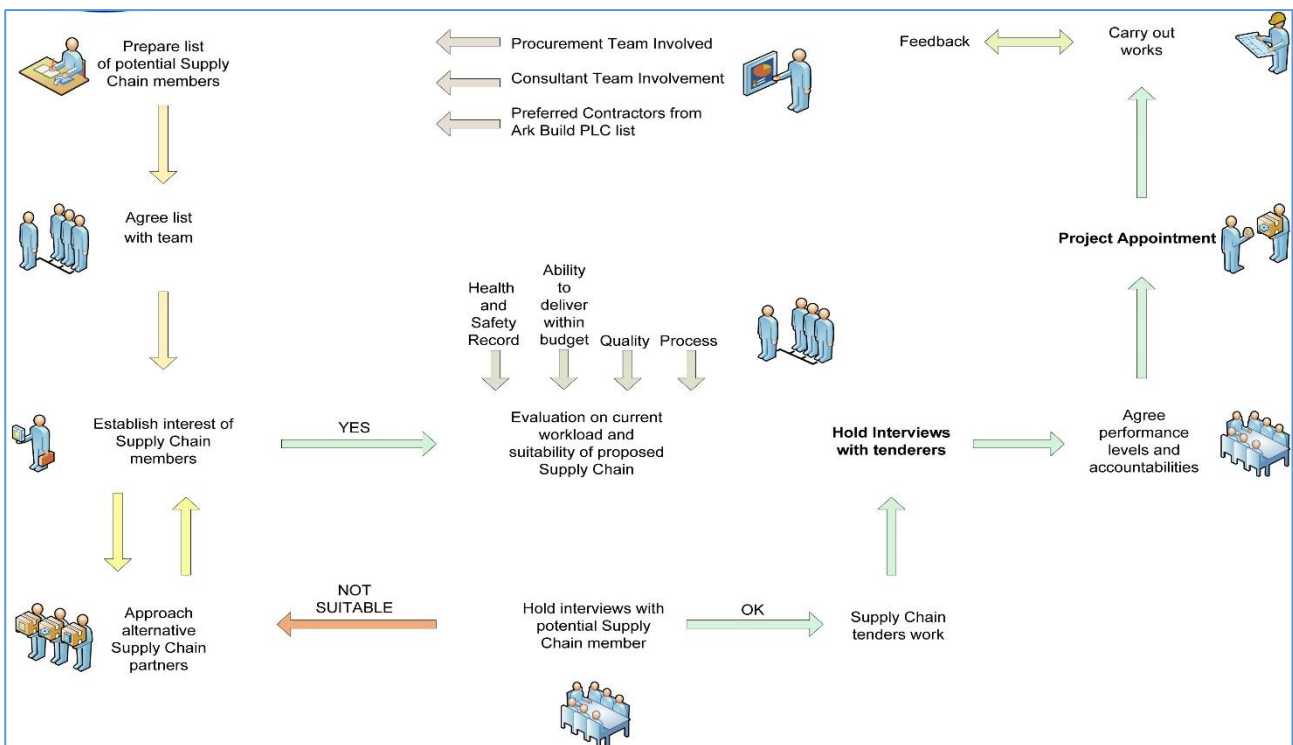
Before commencing on a project, each subcontractor will be engaged on a formal contract which mirrors the main contract's conditions and terms, providing Collateral Warranties to the Employer where applicable.

During the pre-construction and mobilization phase, site specific risk assessments and method statements will be created, both for our own operatives and by subcontractors.

Designers too will be required to provide designers' risk assessments to our Design Manager which will be incorporated into the Health & Safety Plan and Site Safety File for use on site.

Our Site Manager delivers site induction using our template PowerPoint presentation, to ensure that each member of the delivery team is given a thorough induction where safety compliance and site rules are stressed. RAMS are reviewed in person with all operatives, including subcontractors, and each of them will sign their relevant RAMS prior to starting works.

Supply Chain Approval Diagram



3.3 Management of Subcontractors and Subcontract Designers

One of the key factors at an operational level is to ensure the reliability of supply chain partners in committing the necessary resources to undertake the agreed work. Interface Meetings held at design stage and continued at every weekly or monthly progress meeting during the contract (dependent on project length and complexity) are specifically designed to highlight work interfaces, design out conflict and monitor quality and progress.

Prior to commencement on site we will agree key delivery dates and standards with the supplier/subcontractor which will align with our master procurement timetable and the programme. These dates will include commencement, deliveries of equipment, control panels, benchmark standards, elemental completion, testing, commissioning, training and issuing of O&M manuals.

Our supply chain is monitored and each member scored during and after every contract to monitor their performance. During each stage of the design process, execution of the works and at project completion, each consultant, contractor and sub-contractor is scored against ten pre-determined performance criteria.

Each category is marked out of 5 giving a maximum score of 50. Those falling below 75% will be invited to an interview, at any and every stage of the contract to explain the reasons why and be given help to improve. Those below 50% will similarly be interviewed and given help to improve but

will most likely not be used on future projects unless very significant improvement and understanding is exhibited.

A monitoring scorecard, from within our Quality Management System, is used to record each subcontractors' performance during and after each project, which is shown in the diagram below.

SCORE CARD								
Name of Company	Project							
Stage	Assessed by							
Work Element	5	4	3	2	1	Total	Comment	
Health and Safety requirements								
Quality								
Communication and production of information								
Suitable available resources and progress against programme								
Approach to relationship, non-adversarial and proactive								
Problem solving on and off site - disruption								
Value engineering and value creation								
React efficiently and quickly to change								
Environmental appreciation								
Completion and production of information								
Action required								

Under-performance during the duration of the project is dealt with immediately by our Contracts Manager due to the potential adverse impact on quality and time. Dedicated meetings will be held with the subcontractor to highlight and address the areas of under-performance and to put in place a mitigation strategy for improvement.

Our project Risk Register always contains an item for subcontractor poor performance and failure, which is managed and mitigated by our Procurement Manager, in real time. To achieve this we consistently ensure that we obtain 5 competitive quotations for all elements and materials, which allows us to have a potential backup from our approved supply chain. In some projects, where it is applicable, we may also split the work across two or more contractors, to spread risk, and shorten the programme.

Examples of split trade elements in recent projects have been for scaffolding, roofing and MEP works, where we have split elements to several subcontractors because the works have been in separate buildings or works have spanned across several floors.

Any slippage will be addressed by the earliest date and the subcontractor will be required to supplement their workforce to recover to the expected programme. We will work with the subcontractor to recover back to expected performance, but our ultimate redress is to disengage them from the site and substitute another supplier. Under no circumstances will we allow the under-performance to have an adverse effect on project delivery.

We achieve quality from day one by creating samples or control panels if appropriate, to establish the standard that will be required and maintained. We will offer to the Maxilla City and RBKC the opportunity to be involved in this quality approval process, to ensure that the project can subsequently proceed efficiently, and meet the programme, to the agreed standards of materials and workmanship hence avoiding the necessity for further interruptions.

Any slippage in compliance or workmanship will be identified by our Site Manager or Trade Supervisor during their daily inspection of works. They will ensure matters are dealt with immediately before significant programme implications.

We use a robust Closing Up Protocol which ensures that all buried or hidden services, equipment and works are inspected and recorded, prior to covering up by subsequent works or trades, which ensures that we can minimise the potential for latent defects arising after handover. These are recorded within our O&M Manuals provided at completion, together with relevant commissioning and/or installation certificates.

We will work with all suppliers and subcontractors to monitor their progress by checking procurement schedules against deliveries and evaluate physical against planned progress.

4.0 Social Value

We have successfully completed and are currently undertaking refurbishment contracts for RBKC and appreciate and comply with their requirement to add social value to each project.

The 4 principal methods which we use to ensure that we can achieve local labour and employment, to satisfy Local Authorities and public bodies' duties under the Social Value Act, and in accordance with our own CSR Policy.

- i) **Direct employment and apprentices** - Ark Build directly employs circa 70 staff currently, across a range of trades. As a result, we can directly offer roles within our company when there is sufficient confidence of longevity of contract or relationships in a geographic area. Our HR manager will set up links to local colleges who provide apprentice and construction courses to take trainees in local areas. We also periodically create assistant Site Manager and Surveyor roles for up-and-coming professional trainees, which we offer as part of our training programme and IIP accreditation.
- ii) **Use of the CITB's Shared Apprentices Scheme (SAS)** – our HR Manager maintains links with the SAS manager, to ensure that as part of our company's CITB membership we are able to periodically use and provide relevant supervised skills. This method is often used when a local authority or client does not have their own local scheme.
- iii) **Use a local authority's own Apprentice/Back To Work scheme** – we are currently engaging with LB Camden and LB Enfield on this basis.

- iv) **Employment offered through our supply chain partners** - often when there is a requirement for local labour, one method to encourage local employment is to use local suppliers. Our Procurement Manager will source materials using local companies and branches of national companies, as they are more likely to offer employment for local people. In our use of subcontractors, our Procurement Manager uses the Constructionline system, as Ark Build are both a "supplier" and "buyer", to locate new supply chain partners, when we do not have any already within our Approved Supply Chain. This enables us to identify supply chain partners already on our own approved register, locate and approve new local companies.
- v) **Work placements - contacting all schools in a 3-mile radius** – to offer work placements for pupils considering construction as an area of employment. Also, to offer curriculum support and safety awareness talks in school assemblies. Local advertisements Advertising all recruitment at the 2 most local Job Centres NEETS Our HR manager will promote opportunities for NEETS and will offer advice and guidance by advertising open workshops for local people every 6 months.

Continuing Training/NVQs

All our staff will have a training plan. All employees will be assessed by our H&S and compliance manager for mandatory and preferred H&S training. These requirements are added to staff's training plans.

Meet the Buyer Events

Our Procurement Manager will create local advertisements and hold community-based meetings with potential SMEs, to identify and approve onto our supply chain register.

London Living Wage

For our own staff and our supply chain partners, we will ensure that the LLW is paid.

Reporting of our Social Value Action Plan

This will be carried out quarterly at project meetings with the Maxilla City and RBKC

Offering Potential Work Opportunities

Work opportunities will be made available on site, directly with Ark Build plc, and through our supply chain partners who participate in our local employment objectives. This will consist of:

- Unskilled labourers employed by us, recruited from the local job centre
- Trainees, for specialist trades subcontractors, such as roofing, scaffolders, brickwork, electricians, plumbers
- Local material supply companies for generic building, electrical and plumbing materials

- Local subcontractors, for specialist trades such as scaffolding, roofing, brickwork, groundworks, decoration and floor coverings.

In order to proactively seek out local people we will:

- Advertise opportunities in the local community, local newspapers and JobCentre Plus
- Liaise with local colleges and nearby secondary school education providers regarding work placement and work experience opportunities.
- Place work opportunities on the job notice board of the CIOB's Shared Apprenticeship Scheme (SAS).

Identifying Local Suppliers

For all suppliers, we aim to use local branches of national companies, or for smaller organisations local companies, as a way of promoting localism. For this project our procurement team have identified several building materials suppliers within a 5-mile radius of the site.

For each contract we will agree with Maxilla City and RBKC the target for demonstrating local labour which is captured by a variety of measurements within our ISO14001 environmental management system:

- Subcontractors offices relative to the site office postcode area
- Operative home location and methods of transport to the site office postcode area
- Employment of trainees and apprentices from the local postcode area
- New jobs created
- Apprentices engaged.

5.0 Moving Forward

Now that there is a will to re-energise the project, there are several matters that we will need to tackle which are listed in order of priority as follows:

- Enact planning as soon as possible by executing a small piece of drainage works. RBKC Instruction required [SIP ND comment 19.06.21: ND has now instructed this and this work has been completed on site in April 2021 by Ark. ND to seek final approval from Head of Planning that the Planning Approval has been complied with via the commencement of drainage works]
- Communicate current proposals to user groups including production of 3D images and user group discussions to explain the scheme recognizing the fact that the Stage 4 drawings are technical in nature and not presentation-style drawings. RBKC instruction required. [SIP ND comment 19.06.21: ND has now instructed this and the production of 3D visuals is ongoing]
- Provide evidence and address any concerns user groups may have regarding the suitability and competency of Ark Build to execute the proposed contract.

- Address any concerns that user groups may have in relation to project control and monitoring. This should include the development of a project procedure to define the approve of the design and how subsequent changes are to be tracked checked and approved.
- SIP to instruct Ark Build to commence re-briefing and a costing exercise.
- Take brief in any relation to the scope of work changes required by user groups.
- Amend and update drawings to reflect changes required to scope and confirm agreement of user groups.
- Advise on whether proposed modifications are likely to impact on the existing planning consent and if Non Material Amendment or Section 73 applications are required. Seek Planning Officer opinion on this.
- Update scheme to reflect current statutory requirements and best practice changes since scheme previously agreed in 2017.
- Contract documents to be agreed.
- Once project proposals are confirmed the contract sum would need to be adjusted to reflect changes in both design and contract procedure.
- Formal approval process by RBKC
- Contract executed.
- Mobilisation period (minimum 4 weeks approx.)
- Construction period (51 weeks approx.).

6.0 Project Control

We will put in place project controls that will ensure the contract is delivered in a safe and compliant manner without risk to the public or adjoining properties to ultimately provide a refurbishment of the highest quality that RBKC and the local community may use in complete safety.

Once Ark Build are re-instructed to carry out the Re-Briefing exercise, we intend to hold a series of meetings with each of the user groups representatives to run through the existing proposals to make sure they are fully understood and then talk through the latest requirements the users may have. Our architect will make notes of the requirements and update the drawings and 3D views to reflect the changes and revised information will be issued for approval and comment.

When the revised drawings are agreed they will form the basis of the contract specification and will be costed as part of the agreement of the contract sum.

Upon agreement of the contract sum and instruction, we will then procure the subcontract trade packages. At this point we will ensure that any changes agreed with RBKC, Maxilla City and other user groups are fully compliant with health and safety protocols, an approved specification and maintain the golden thread of information. The Packages will be presented to RBKC and Maxilla City for approval before issuing them to the respective trade contractors.

We will produce and issue a Trade Package tracker which will align with the master project programme and supplement this with monthly reporting to facilitate progress and cost control. Each report will state which packages had been signed off and let within the preceding month. In this way the client team would have ongoing input into the procurement of the trade packages and the desired transparency would be achieved. To reinforce this level of governance we recommend that the client implements a second layer of assurance by way of a professional team to monitor and check the process.

7.0 Responses to specific queries that have been raised:

Community

1. What is the extent of involving young local people in the construction work – in regard to apprenticeships and other employment opportunities?

Ark Build believe that it is important to support and provide employment within the local community. This also offers advantages in terms of reduced travel time and is a sustainable solution. We have current projects in Camden and Enfield where we are providing apprenticeships for young and or local people. We already employ several young people who are engaged on vocational training programmes. We will request that our trade subcontractors to employ local labour and apprentices on the Maxilla Building project and will include requirements within the subcontract documentation to ensure compliance. We will produce a monthly labour resource summary which will identify the employment of local labour and apprentices.

2. When could we see an updated design that illustrates community use?

This will be available once we are appointed to carry out the re-briefing meetings with the user groups and our Architect has updated the drawings to reflect user comments. This process may take several iterations of meetings and drawings and 3d visuals to ensure that we have captured the user requirements and that they are fully understood.

3. What is the mechanism for appointing subcontractors and can you prioritise local providers? For example, if there is a local external electrical subcontractor alongside the main contractor which comprised of young people, how might they be put forward for consideration?

As noted under items 4 and 6 above, we will be able to include clauses in our subcontract enquiry documentation that will require the use of a proportion of local labour and where tenderers are able offer to employ trainee's/and apprentices they will be given a higher scoring during the adjudication of bids.

4. Are you open to developing a “Grenfell Charter” to pilot on this scheme, taking forward the learning from our community, the campaigns and the inquiry?

We consider that it is imperative to learn lessons from Grenfell and the subsequent Inquiry and implement project controls that prevent such a tragedy from happening again.

Obviously, the Inquiry has not yet been completed and a report given but we can see there are some overall points emerging. As far as developing a charter is concerned, we are happy to engage with the user group and community representatives to tailor our approach and methodology to this scheme to make sure the process is as transparent as possible in terms of agreement of the design and specification, choice of subcontractors and material suppliers complies with the agreed design and specification. We will maintain the Golden Thread of information throughout the life of the project.

Risk

5. Ark Build PLC proposes "Trespa rainscreen cladding" which is a HLP product that is highly combustible; in light of Grenfell, surely this needs to be revised?

The use of this material was omitted from the project specification back in August 2017, when it was submitted for planning approval and replaced with a masonry external wall with mineral wool-insulated render finish. The planning-approved drawings incorporate a masonry and render solution, so there are no combustible cladding products proposed.

6. What impact will the removal of asbestos have on the residents and how will they be reassured that this will be done safely?

The building has already been fully surveyed and all identified asbestos materials were removed under controlled conditions in February 2019. Our site management and demolition operatives are trained to spot any suspect material – should any suspected further asbestos-based material be discovered during the strip out/ demolition works, an asbestos removal specialist will be called in to carry out tests to identify the material. If results prove positive – depending on the type of asbestos found, the HSE will be notified and a 14-day notice is required before it can be removed under controlled conditions. During that time, method statements and risk assessments are developed to ensure safe removal. Any asbestos material removed is then tracked to a registered disposal site to confirm proper disposal. There will not be any adverse impact on residents other than – depending on the extent of asbestos present and the removal works required – the completion date for the overall contract could conceivably be delayed.

7. What impact will the structural work have on local residents/ businesses – eg. loss of power?

The works as currently proposed will have no impact on local residents or businesses in relation to any infrastructure services and no interruption should be necessary.

8. Has TFL and Westway Trust/ Development signed off these plans and if not, how long would that take and what potential barriers might there be?

Update from SIP's GL 19.06.21: The original plans were shared previously with both Tfl and Westway Trust – both of whom confirmed their approval in principle at the time.

Respective legal teams were at the point of being instructed to draft the respective necessary Licences, then the project was halted.

On the assumption that the design and proposals do not change in any significant manner, it would be our expectation that the previous approvals can easily and quickly be reconfirmed as being approved, and the legal teams can prepare the legal documentation to a point all three parties sign off in a matter of weeks rather than months.

9. How much of the external structural plans are open to change and who would manage the process around reaching an agreement with ASC on the aesthetics of the external?

Anything is of course possible if there is enough desire to change the external appearance, and if there are enough funds available to cover the extra costs. The degree of change may well impact on the validity of the existing planning approval, and the degree of impact will depend on the significance of the changes made. For example, minor changes to colours or the position of a door may be acceptable to the Planners and could be dealt with through a Non-Material Amendment (NMA) application. However, more significant changes or numerous minor changes which have an aggregated large impact may need to be dealt with via a new Planning Application or a Section 73 Application. The NMA process can take up to 8 weeks, and the S73 could be up to 12 weeks to complete – but the latter comes with the added risk of more restrictive conditions being applied, as it is to all extents and purposes a new planning application.

Sustainability and Ecology

10. What part (how much) of the gardens are planned to be included in the external design?

Other than temporary works and reinstatement to accommodate the contractor's site set-up, it was not part of the original brief to undertake any works within the gardens.

11. Please comment on the proposed design energy efficiency & sustainability

As part of the original brief for the project the requirement to obtain a BREEAM rating of Very Good was identified. BREEAM is short for Building Research Establishment Energy Assessment Method and is the world's leading sustainability assessment method for buildings. It recognizes and reflects the value in higher performing assets across the built environment lifecycle, from new construction to in-use and refurbishment. BREEAM does this through certification of the assessment of a buildings environmental, social and economic sustainability performance, using standards developed by the Building Research Establishment (BRE). This means BREEAM rated developments are more sustainable environments that enhance the well-being of the people who live and work in them, help protect natural resources and make for more attractive property investments. BREEAM allocates credits based on a series of criteria. The greater the number of credits gained the higher the BREEAM rating achieved. The headline criteria are as follows:

- *Management*
- *Energy*
- *Health and wellbeing*
- *Transport*
- *Water*
- *Materials*
- *Waste*
- *Land use and ecology*
- *Pollution*

A high level pre assessment was undertaken based on information provided by the client and a BREEAM workshop held with the Design Team on 27/01/2016. The result of the pre assessment was that a score of 56.48 was achieved compared with a Very Good requirement of 55.

In addition to the BREEAM rating the following energy efficiency measures were incorporated in the project to reduce the overall energy use for the development.

- *Building insulation U-values improved beyond the minimum standards imposed by Building Regulations 2013*
2013 minimum standards 2013 improved standards
- *Improved glazing solar performance*
- *Thermal bridge interfaces all constructed to accredited details to prevent cold bridging and reduce heat loss*

- *Building air permeability constructed to a high standard to reduce heat loss*
- *All lighting installed to be based on LED lamps, or low energy compact fluorescent where necessary.*
- *Lighting to corridors, toilet, shower, store and changing areas shall be controlled via occupancy sensors*
- *Lighting to office and meeting areas to have absence detection*
- *Use of highest efficiency best energy rating white goods*
- *High efficiency heating and hot water plant*
- *Mechanical extract ventilation with low Specific fan powers which use less energy*
- *Inverter control to pumps and fan motors controls the fan speed and reduces unnecessary power usages*
- *Enhanced controls for monitoring of systems and meters*

12. What previous projects demonstrate a green approach?

On all design and build projects we make a commitment to adopt a green approach usually to comply with the energy hierarchy required and defined by the London Plan. In this regard, we introduce 'Be Green' technologies such as ground source heat pumps, air source heat pumps and Photovoltaic panels.

An excellent example of this is the extension we built at Nightingale BESD School in Wandsworth where we used a number of green technologies and materials to comply with the strict planning conditions for a development of Metropolitan Green Space. The case study for this project is attached at Appendix A.

13. Has a Carbon Zero approach been taken with Maxilla Bays 17 - 19?

At the time of developing the original design a carbon zero approach was not part of the brief for the project. However, options for renewable technologies and carbon reducing systems were considered and outlined in a report produced as part of the original design. This suggested the inclusion of roof mounted simultaneous heating and cooling outdoor condenser units with heat recovery. The installation of this system can demonstrate the reduction in building carbon dioxide. Since the original design was undertaken technology has moved on and we would consider it worthwhile to undertake a further review of the options available.

14. The community have had growing concerns around the air pollution emitted from The Westway. Has the design incorporated any ways to combat this through green infrastructure?

There are no specific green infrastructure measures currently incorporated into the scheme. The constrained nature of the site including the fact that The Westway is overhead make this difficult. The inclusion of works within the park would increase opportunities for this including trees, vegetation barriers and hedges. It would be possible to explore the possibility of incorporating green or living walls or screens onto the facades of the building (in particular the south façade) although this would have ongoing maintenance implications.

15. Does the design encourage biodiversity, wildlife & ecology of the area? Will it damage any existing wildlife on site?

An ecological survey and assessment report on the ASC Hub site has been prepared by Geosphere Environmental Ltd.

The summary of findings in the report states the following:

An extended Phase I habitat survey has been undertaken of the site, (including a three metre buffer), to provide an indication of the ecological value of the site, and the potential for the site to be used by protected species. The survey was undertaken on 31 March 2016.

No habitats of ecological importance, and no protected species, were noted at the time of the survey.

The site is not considered suitable for protected species.

The report included the following recommendations to enhance the site ecology in the context of the final development:

- *Install House Sparrow (*Passer domesticus*) terrace boxes along the northern wall of the building, facing the adjacent park. Suggested locations are shown on Drawing 1673, EC 002/Rev0 within Appendix 3;*
- *Install planters with insect attracting plants along the northern wall. Species examples are included as Appendix 5 of the full report.*

A landscape and habitat management plan is required covering at least five years after project completion in accordance with BS 42020: 2013.

It should be noted that the design does not allow for planting to the northern wall as this is a predominantly glazed elevation. However, it is proposed to introduce an area of planting to the south of the building next to the drop off area.

If it were desired to undertake works within the gardens this would, naturally, increase the options available to enhance the site ecology.

16. What percentage of the materials incorporated in the design are sustainably sourced?
We do not currently have a specific figure with respect to the percentage of the materials that are sustainably sourced. However, as part of the BREEAM process outlined in response to query 11 we are targeting the following credits under the materials section:

- *BREEAM Hard landscaping and boundary protection*
- *BREEAM Responsible sourcing of materials*
- *BREEAM Insulation*
- *BREEAM Designing for durability and resilience*
- *BREEAM Life cycle impacts*
- *BREEAM Material efficiency*

To achieve these credits we were specifying materials that are sustainably sourced and have a high Green Guide rating. The Green Guide presents information on the environmental impacts of building elements and specifications by ranking them on an A+ to E rating scale. The elements covered are, external walls, internal walls and partitions, roofs, ground floors, upper floors, floor finishes, windows, insulation and landscaping.

17. Residents in North Ken have been through a lot in the last few years. How will the contractor ensure that the build will be done responsibly & with the air pollution, noise pollution & light pollution in mind?

On every project we undertake, we carry out an Environmental Impact Assessment (EIA) prior to undertaking any work, and we then put in place adequate measures that will prevent and mitigate nuisance to the environment and local residents. This assessment is appraised by our HSQE Manager and issued to our client. We would be happy to share this information with the local community via the CiC and seek feedback. We could also publish an email address where residents can easily provide comments and suggestions in relation to the EIA.

We also subscribe each of our projects separately to the national Considerate Constructors Scheme (CCS), and regularly achieve high scores within the scheme.

Under the CCS scheme, our sites are subject to unannounced inspections by trained assessors who rate and score our building operations across a number of disciplines including the local environmental impact. We use the CCS to create a performance table which maintained by our Site Manager and reported to our Operations Director and HSQE Manager, which allows us to gauge how we are acting in our dealing with the

neighbourhood, our staff, safety, workspace and the environment. We also use the Environmental score as one of our Objectives and KPIs within our ISO14001 Environmental Management System.

[SIP ND 08.06.21: Project organogram and CVs have been provided by ARK Build to Maxilla City CiC under separate cover].