CITY CAMPUS PHASE II





WILLMOTT DIXON
SINCE 1852

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Appendix A – Site Logistics Plan

1. Project Delivery

Our approach to the construction of The Manchester College Phase 2 has been tailored around the proposed design, external works and locality. The site team has a vast amount of experience in the construction of educational facilities within close proximity of local neighbourhoods. The written proposals and logistics plan demonstrate how we plan to manage the project effectively and in a safe manner.

This plan has been drawn up to ensure compliance with Willmott Dixons procedures whilst identifying specific requirements to the scheme.

2. Mobilisation Period

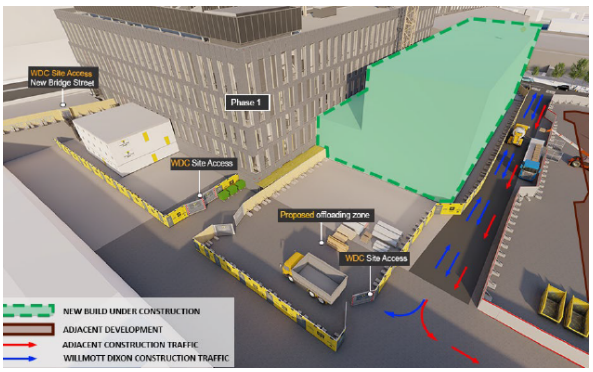
During the mobilisation period our management team will be responsible for the early planning, health, safety and environment plans and the procurement to enable works to commence on site. For this we will allocate site management and quantity surveying resources headed up by an Operations Director. This team will be supported by our health and safety managers, environmental manager, design managers, building services managers and supply chain department.

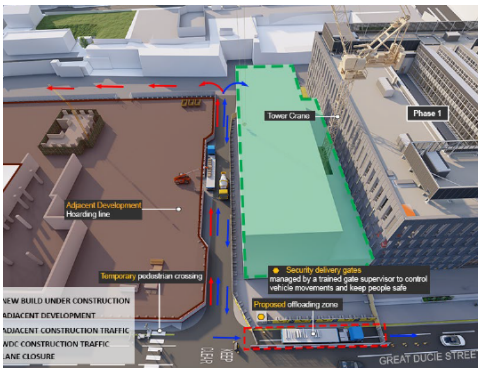
During this period the project will be transferred from our pre-construction department to the Construction project team however the project estimator will support the quantity surveyors for a minimum of a month after the start on site. For this project the Construction Manager and Senior Quantity Surveyor are involved throughout the pre-construction process ensuring that all knowledge is transferred into the construction phase.

3. Site Establishment & Logistics

From the outset the site team will establish the site set up in line with the phasing/logistics plan attached below. The site boundary will remain consistent by utilising a permanent timber hoarding line where possible, with additional lines of hoarding and heras fence to secure the site. (A larger scale plan can be logistic plan contained within Appendix A)

The site hoarding will secure the boundary whilst incorporating WD Corporate Guidelines with signage and branded colours on the external perimeter. There will be an opportunity for the customer to advertise the project by means of signage on the hoarding.





It is our intention to make use of the existing site access from Great Ducie Street for access and egress to the construction area as identified within the logistics plan. The access is also shared with the phase 1 college and adjacent developments construction operations, this will also remain as the main entrance to the college once it is completed. A lane closure will be required on Great Duice Street as shown in the logistics plans.

The site entrance area will include all Willmott Dixon HS&E Information to display to members of the public alongside the emergency contact information. This will also involve information and signage regarding the site operations and latest information.

4. Programme and working hours

Contract start date – 12/06/2023
Contract competition date – 01/04/2025
Working hours – 0730 to 1800 weekdays – 0830 – 1400 Saturdays. No works on Sundays or Bank Holidays

We will comply with the EHO's standard working hours however certain activities including power floating will necessitate out of hours working. Given the location of the site power floating operations do not pose a "noise risk"

5. Construction of The Manchester College

Prior to commencement of the works a comprehensive site services survey will be carried out by a specialist contractor. This will entail identification of services by ground penetrating radar detection and hand digging. All services across proposed access points and key junctions will be exposed and plotted accurately for future reference.

The remediation to the building footprint will commence using tracked excavators and a dumpers taking arising's to stock piles. The stockpiles will be remediated in line with the remediation strategy that will incorporate crushing, screening and re use.

In addition, the phase 1 service area and entrance road from Great Ducie Street will be used for our initial activities. The reason we have used this area early in the programme, is to provide a safe turning area and is key to our routing strategy. existing tarmac is also key to our dust and mud control on site. As part of the enabling works we will divert all service connections to avoid further disruption further down the line. To achieve these early works, we will have temporary welfare units on site powered by means of a generator and effluent tank whilst we provide the foundations and services for the main set up.

On completion of these works, the full site set-up will be constructed and services installed. The cabins will be delivered by ridged wagons and off loaded and erected by crane. Lifting platforms will be allowed for. The cabins are located at the East of phase 1.

Once stoned levels are achieved, kerbs will be laid and access road and car parks reconfigured, including the Existing footpath from Great Ducie Street and will be surfaced in accordance with the structural engineer's design and highway requirements. This will provide our offloading area highlighted on the logistics plans.

During this period, any areas not covered by existing boundary fencing will be fenced off using heras, solid panel fencing and recycled solid plastic hoardings with proprietary gates where necessary. This will ensure that the construction area is fully segregated and inaccessible to unauthorised persons.

The existing access from Great Ducie Street will ultimately be for the vehicular access and the segregated pedestrian access for the site office accommodation will be via new bridge street and parking will be on the arena car park. Routes for emergency vehicles will be kept clear at all times. A specific holding area at the pupil drop off entrance will be created for deliveries loading and unloading. In the event of a vehicle needing to reverse they will do so with the aid of a qualified banksman. The construction entrance and associated traffic will be managed by the designated gateman who also acts as the qualified banksman when required.

The site compound and construction areas will be specifically designated and segregated which will ensure safe access for site operatives, staff and visitors to the site compound with a controlled boundary preventing unauthorised access to the construction area. Access to the

construction area will be via pedestrian turnstile activated by a finger print reader, with access authorised after site induction. Access into the compound will be controlled via an external security gatehouse including a pedestrian finger print reader, activated once enrolled and inducted onto site. Any visitors will be authorized onto site via an intercom system connected directly to site reception.

Within the construction area, a haul road will be used and specifically designated for site vehicles. In addition, segregated pedestrian walkways will be provided from the site compound and welfare with demarked crossing points at interfaces with haul roads to ensure safe pedestrian access and egress to the workface for staff, operatives and escorted visitors.

As the reduced levels are exposed they will be rolled, a geotextile laid and then stoned in accordance with the structural engineer's specification for beneath the slab, car park and access roads.

The foundation solution incorporates CFA piles and caps formed on the bedrock layer. The insitu ground beams between foundations will be dug by 360 degree excavators with arising's removed to stock pile by dumper. It is the intention to re-use all generated arising's on site. Once excavations are complete and trimmed, Building Control will be invited to inspect foundations prior to pouring. If mesh or bent steel cages are to be used, the base of the excavations is to be blinded. Excavations are to be made safe at all times and are to be fenced off. Ground support will be used where the risk of collapse exists. Quality procedures will be in place to ensure the correct approved concrete mix is used, sample cubes are taken and the concrete is vibrated correctly.

The concrete frame erection will commence from the South East elevation working into the site. Edge protection will be installed to the roof as the steel erection progresses. ready to be handed over to follow on trades. As the steel frame progresses the large elements of precast namely lift shaft shall be sequenced, lift and landed by the frame contractor. Temporary edge protection will be installed to all upper floors by the erector and upon completion of the frame; the upper floor slabs to be poured insitu, floor by floor ground upwards using pre cast columns.

Following the frame, drainage runs within the building will then be dug, terminated outside the footprint, tested and witnessed prior to construction of the sub-structure brickwork and the ground floor slab. The drainage will be tested and witnessed by Building Control. Manholes will be constructed as pipes are laid.

Following completion of drainage to a specific area, the formation will be trimmed, capped off with type 1 MOT, the perimeter shutter will be installed and any penetrations formed. The slab will then be prepared for pouring including any DPM, insulation, expansion provision and re-enforcement laid ready to receive the in situ ground slab. The ground floor slab will be installed using a truck mounted concrete pump following extensive quality checks and witnessing by building control.

When the ground floor slab has been cast, the frame and super structure corium is then to commence once drainage tails have been brought out of the building. This will be accessed via perimeter mast climbers to complete the elevation works.

Just in time mortar deliveries are to be used to minimise wastage, with mortar tubs used for transport around site by telescopic forklift. Particular attention will be paid to the installation of the associated insulation, vapour barrier, air tightness and reveal detailing along with cleanliness of the cavity. The envelope cladding process towards roof level once the low level brickwork height has been achieved. The upper elevations will be constructed using a helping hand system and cladding rails. Corium panels will then be placed and levelled over the elevations.

The roof system will also commence once, access stairs and edge protection have been installed. The roof consists of a composite top deck panelling system. Any roof lights or penetrations will be boarded over and cut out after the main roof installation under strictest health and safety control prior to the removal of nets local to them. We are proposing to utilise

a crash deck scaffold structure to the underside of the atrium which will provide fall protection with the installation of the roof light system during construction.

We have specified a tower crane to be located externally upon completion of the roof system in order to lift and locate the Roof Plant in the desired positions. These Lifting Operations will be strictly monitored and segregated in line with the WD Lifting Procedures which includes a Permit to Lift.

6. Internal Fit-out and Services

On completion of the roof structure and when it is safe to do so, any non-load bearing internal partitions will be constructed. Window installation will also commence at this point. Materials required internally are to be loaded by forklift onto loading bays and distributed by pump truck internally. There will also be a passenger and goods hoist located in the atrium for distribution of material onto floors. The window installation will work in line with the corium installation and is to be accessed via the perimeter mast climbers.

Mechanical and electrical 1st fix services at both high and low levels can then be installed, particularly any natural or mechanical vent units.

Once windows are in place 1st fix joinery can commence. Due to the weight of the glazed panels, we will install internally with use of a mechanical glazing robot to avoid manual handling of the glass. Final finishes to the frame will be accessed externally via the mast climbers.

During this period, we will progress one specific room as a sample so finishes can be approved.

As the Mechanical & Electrical services and joinery approach second fix, mist coating, sanitary ware, painting & decoration, toilet cubicles, ceramic wall tiling, floor finishes and hand railing works can commence. These will be coordinated around screeding to floors. We will pay particular attention here to air tightness.

Specialist activities like hoisting, sensory room, fixtures, fittings & equipment and kitchen fit out will be programmed and installed to suit.

Snagging of the building will be carried out as works progress in line with our quality management procedures and not left to the end.

7. External Works

On completion of the erection of the superstructure and when it is safe to do so the external works will commence.

Incoming services installations will be carried out by specialist subcontractors and their methods of construction and risks will be evaluated once the utility companies have stipulated what is required.

External drainage and attenuation will be installed as soon as it can be to enable the site to drain. All drainage is to be checked by building control prior to backfilling. CCTV survey of drains will be carried out on completion.

As part of the external drainage design a road crossing is required to connect the new drainage system onto the existing line, located within Great Ducie Street. This is required due to the site's current drainage system being insufficient for the new building. We will liaise with TfGM to proactively plan and manage these works, ensuring minimal disruption to the surrounding area. The majority of the surface water generated on site is dealt with via the attenuation system and existing outfalls.

The external formation will be prepared and leveled in preparation for external finishes. Works will progress from the South of the site around both clockwise and anti-clockwise to the North.

External paving and hard surfacing is to take place as soon as the finishing trades allow.

The soft landscaping (top soiling and planting) is to be programmed with the seasons in mind. The soft landscaping is to commence as soon as the external works are sufficiently progressed.

Once the building is ready for hand over – decant, the site fencing is to be removed and all areas to be made good as necessary. At all times the site is to be secure and safe.

8. Commissioning

A commissioning programme will be compiled to manage the overall commissioning activities with dates constantly reviewed to ensure successful completion and handover of the building services. The projected dates for commissioning are shown on the construction programme and will be updated and target to provide contingency for any unforeseen issues.

Ensuring the building commissioning is thorough and the results interpreted accurately is a vital part of achieving zero defects at handover. Therefore, to ensure the technical commissioning of the Manchester College is of the highest quality, an **Independent Commissioning Manager** will be employed to oversee this phase of the project.

ICT integration and commissioning is a key element of this process. This will be thoroughly planned and reflect the end user requirements. Willmott Dixon's experience in ICT integration together with our specialists will provide a seamless transition from the existing school to the new purpose built facility. Our quality management systems ensure that ICT and Customer Commissioning is featured on every Customer and Design Team Agenda, such is the importance we place on ICT.

Once the ICT decant is complete the respective equipment will be demonstrated to appropriate individuals from the school and the client to sign off and agreed the installation is complete and works to the required standard.

9. Delivery Management

A liaison manager will be appointed from within the Willmott Dixon Site Management Team. The manager will liaise closely with the neighbours and local businesses to ensure restrictions are adhered to and deliveries are well managed. Materials will be ordered on a 'just in time' basis wherever possible to minimise the amount of materials to be stored on site. All deliveries will arrive via Great Ducie Street.

We will have a permanent gateman in place to manage construction vehicles whilst ensuring minimal disruption to the main highway and members of the public.

A CMP co-ordinator will be in place prior to commencement of the development to organise and arrange regular meetings with stakeholders and residents on a weekly basis to discuss the construction schedule and to inform the stakeholders and residents of any known changes to the schedule or works or operations that are reasonably anticipated. Prior to our start on site we will implement a letter drop with the relevant contact details of the CMP on site so that a direct contact link can be made with the site team should residents have any concerns or complaints they wish to discuss.

A 24h all access emergency number will be visible on the site hoarding along with site managers details for out of hour's emergencies 08457335533

Delivered and offloaded materials will be distributed around the site by telescopic forklift onto loading towers positioned around the building envelope. Secure containers will be available

on site to secure small plant and materials. Passenger and Goods hoists will be utilised to assist with the management of materials. Material storage areas will be identified and included in the site management plan.

We will utilise sheeting over construction vehicles to ensure minimal disruption in terms of construction traffic and to reduce any risks in line with our traffic management strategy. Our measures for controlling on-site noise and dust are dealt with in section 12. Our measures for any specific acoustic controls are dealt with in section 13.

10. Health & Welfare Facilities

Good quality health and welfare facilities will be established on site throughout the construction phases. The welfare facilities will be comprised of male, female and disabled toilets, shower, canteen and drying room. All the facilities will be shown on a welfare plan which will be displayed in the site canteen and site offices. A copy of this will also be kept in the Health and Safety file. All welfare facilities will be maintained daily in good order. The First Aid box and accident book will be maintained in the open plan office on the first floor of the site cabins.

The details and locations of the site offices and compound can be found in appendix A logistics plan. The location of our waste recycling area will be placed in the service yard area see pace 19 and 20 showing the skips at the top of the access road.

Recycling of waste will take place at source, the materials will be segregated into individual skips, such as general, plasterboard, inert, metal, aerosols and plastics will also be segregated into individual skips, all waste will be tracked with a full duty of care and rigorous waste transfer system in place and monitored.

11. Health & Safety

The construction of a new College alongside two main roads will present a greater than normal degree of Health and Safety risks to operatives and to others that may be affected by our actions.

We believe that the following proposals will help us to mitigate the risks as the work progresses:

Fire Planning

The site specific fire plan needs to be agreed prior to positioning the site offices and welfare facilities. The plan will take into account the any members of the public that will be using the pedestrian pathway that runs through the site. The plan will be up dated at regular intervals to reflect the stages of construction of the project. Fire points will be positioned in and around the site offices, welfare facilities and on the construction site. The positions will be clearly identified in the Fire Plan and location maps around the site. Fire Extinguishers will be clearly marked and checked once a week as laid down in Willmott Dixon's procedures. A fire drill will be carried out once a month.

Underground Services

All necessary steps will be taken to accurately locate and identify existing underground services prior to any excavation taking place. These steps will include:

- Referral to all relevant statutory authority drawings.
- Communication with the relevant authorities in order to accurately locate services on site.
- Cable Avoidance Tool (CAT) and Genny surveys of all areas prior to excavation work.
- Issue of a Permit to Dig by the site manager following strict WD Service Avoidance Procedures.

- Where necessary a non-intrusive radar survey will be completed
- Vac Excavation works to areas of high risk with lots of services within the vicinity.

Traffic Movement

Wherever practical the layout of the site will include separate routes for vehicular traffic and pedestrians with priority given to safe access and egress to pedestrians. This principle will include for the elimination of reversing vehicles wherever possible. The traffic plan is to be made available to all suppliers and contractors working on site.

The site compound will be set up and with two meter high fencing with anti-climb mesh. We have developed a strategy for traffic movement to ensure minimal disruption to the ongoing activities and adjacent businesses during the construction works. This includes for a turning circle on site which allows smooth flow of construction traffic at all times via the main access gates.

Adequate signage will be displayed directing traffic to/from site and traffic movements into/out of site will be controlled by a trained banksman/ signaler.

Audible warning devices will be fitted to vehicles that need to reverse, and they will be supervised by a banksman at all times.

Construction vehicles, other than vehicles delivering materials and plant, shall be fitted with reversing beepers.

A fixed budded wheel wash will be in place so that all vehicles can be cleaned prior to leaving the site lines.

The routing strategy can be seen on the logistics plan in appendix A

Access to / from site

Access/egress to the site will be directly off Great Ducie Street for vehicles. There will be adequate signage to ensure that minimum disruption is caused to the usual traffic flow of Great Ducie Street by site traffic. Site vehicles will not be allowed to park outside the site compound, unless in emergency situations.

Routes for ambulances and fire engines will be kept clear at all times. Additional access points for emergency vehicles will be installed in the site fencing to facilitate access.

The access gates to the site will be securely locked outside normal working hours.

Parking

Our construction strategy involves forming the new proposed car park, entrance road and service area as one of the initial activities in the programme which will provide. We will mainly utilize the paid adjacent arena car park for staff and supply chain.

There will also be capacity to utilize the existing, adjacent car parking facility in the event the on-site area is full as shown on the logistics plan.

Manual Handling

Designers have a duty under CDM to design out high-risk activities wherever possible, which should include the ‘weight’ implications of materials specified.

Notwithstanding item 5 (a) above, all heavy materials will be mechanically off-loaded and whenever possible transported around site by mechanical means, i.e. fork lift trucks, hoist, pallet trucks, sack trucks, wheelbarrows, etc.

Where risks are identified then contractors will carry out written manual handling assessments, which will be prepared in accordance with Manual Handling Regulations. The assessments must be attached to the method statements.

The manual handling of kerbs and slabs is not permitted and mechanical means will be used wherever practical. If mechanical means are not practical then a detailed risk assessment will be carried out.

Permits to Work

Where necessary, the following permits will be issued by Willmott Dixon:

- Permit to Work
- Permit to Enter (Confined Spaces)
- Hot Works
- Permit to Dig
- Permit to Lift
- Permit to Use Electrical Equipment Greater Than 110v
- Permit to Load

COSHH

Any necessary COSHH Assessments will be made by the relevant contractors and attached to their method statements.

The Building Manager has overall responsibility to ensure that COSHH assessments are completed and to ensure that all relevant parties on site are aware of any operation that may affect other persons.

Personal Protective Equipment

Any necessary Personal Protective Equipment (PPE) will be supplied by the relevant employer and must be worn as, when and where necessary. As a minimum, helmets, safety footwear, Hi-Viz clothing and appropriate safety gloves must be worn by all persons on site including visitors who must report to the site office on arrival.

Method Statements & Risk Assessments

All necessary Method Statements and Risk Assessments will be prepared and kept in separate method statement files, which are held on site.

We work on the principle of ‘He who creates the risk - creates the necessary Method Statement/Risk Assessment’.

The requirement for a Method Statement will be highlighted to the sub-contractor by the Construction/Operations/Projects Manager, at the pre-order meeting and the requirement thereof forms part of the contract documents.

All such Method Statements/Risk Assessments must be available on site prior to that operation commencing. These will comply with the requirement of the Health and Safety Policy to ensure that they are sufficient in detail and, if acceptable, will be signed on site by all operatives who will agree to comply with the Method statement/Risk assessment at all times. If at any stage of the work the Statement requires revision then work will not be permitted to continue until the revision is in writing and again all concerned have signed it.

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12. Environment

Environmental Management Plan

Willmott Dixon's Environmental Management Plan details the environmental management system that is to be used on this project and thus control our environmental impact to the area; this is to achieve continual environmental improvement and to ensure compliance with relevant environmental legislation, standards and codes of practice. The system is designed to be compliant with all the clauses of the International Environmental Management System Standard ISO 14001:2004. The Environmental Management System (EMS) also aims to provide a framework so that there is linkage and connection between the legal requirements on the business and the Environmental Policy, the scope of our operations and also our environmental aspects. The EMS takes the significant aspects of our operations and applies objectives, controls and targets to achieve continual environmental improvement.

All EMS documentation will be amended as and when deemed necessary by the Company and controlled by the Company's Environmental Director. The Environmental Manager for the North West region in conjunction with the site will produce the site specific Environmental Management Plan, (EMP) and a dedicated champion, based on site will be responsible for the day to day management of the plan which will be audited by the Environmental Manager. Copies of Willmott Dixon's Environmental Plan is referenced in Appendix 3 and attached.

Tree felling and scrub clearance shall be undertaken outside of the bird breeding season (March-August) unless a checking survey by a suitably qualified ecologist has deemed active nests to be vacant and appropriate notice of such provided to the Local Planning Authority prior to any such works commencing. It is not anticipated that any are required on this project.

Any trenches left uncovered/open overnight shall provide a means of escape for mammals including badgers through the provision of a ramp at least 30cm wide and at an angle of no greater than 45 degrees.

Site Waste Management Plan

Construction projects generate many environmental matters that require control measures. To ensure that these matters are controlled the Environmental Tool box talks as listed below will be considered as 'Activities with Risk to Health and Safety' and will be part of the H&S Managers and Safety Inspectors inspections regime. Toolbox Talks are the responsibility of the Willmott Dixon Environmental Manager. The site will have a site specific Site Waste Management Plan (SWMP) on site

- Spill Controls
- Water Pollution Prevention (Fuel and Oils)
- Dust and Air Quality
- Noise and Vibration
- Water Pollution –SILT
- Water Pollution- Cement and Concrete
- Tree Protection
- Storage of Waste
- Storage and use of Petroleum, Diesel and Oils
- Pumping and Over Pumping
- Washing down Plant and Machinery
- Be a Good Neighbour

A separate Project Environmental Plan has been developed by the site management team alongside our Environmental Manager and identifies the procedures in place for environmental considerations throughout the project duration. This can be found under Appendices 3 below.

Dust, Noise & Waste

A number of building operations are inherently noisy and/or dusty. We will keep dust to a minimum by the use of damping down sprays where applicable and noise by ensuring that all plant used on site has the appropriate silencer and baffles. We will have a segregated cutting zone which will enable us to exercise greater control over the noise and dust pollution created during cutting exercises this will be position at the furthest point away from sensitive receptors in the area.

Dust suppression equipment will be used wherever necessary and this will be monitored on a task basis and is to be included in each Method Statement in line with the Risk Assessments produced to minimize dust.

We have allowed for wheel washing throughout the groundwork's phase to ensure all vehicles that leave the site will not soil the surrounding roads. This will be achieved via a wheel wash station inbound of the main site gates, this station will have a temporary drainage system (silt trap) that will contain the spoil on site so it can be disposed of in line with our Environmental management plan.

The wheel washing strategy will also make use of the Banksman who is stationed at the main site gates, this banksman will check in and out the construction vehicles, during this check the banksman will wash off any debris collected on site via a jet wash station. Further to this road sweepers will be utilized throughout the day as a capture all clean down of the roads leading to and from site.

Surplus materials will be placed in segregated skips for removal from site to a registered waste processing centre and will be recycled where possible. Willmott Dixon's site specific Environmental Management Plan will identify these items as risks and will identify the necessary control measures.

We will not allow any fires on site for the burning of materials.

The river Medlock will be protected from spillages by ensuring that all plant is bunded and silt traps are installed at all drainage point on site. Dust mitigation such ad dampening down will be utilized on site and debris netting preventing materials leaving the site lines will be in place.

Fugitive Dust Mitigation Measures

Willmott Dixon will implement the below in line with the Air Quality Report

Communications

- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary.
- Develop and implement a stakeholder communications plan that includes community engagement
- Display the head or regional office contact information
- Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the LA

Site Management

- Record all dusty and air quality complaints
- Make the complaints log available to the LA when asked
- Record any exceptional incidents that cause dust/or air emissions, and the action taken to resolve the situation
- Hold regular liaison meeting with other high-risk construction sites within 500m of the site boundary (if applicable). Ensure plans are coordinated and dust and particulate matter emissions are minimized

Monitoring

- Undertake daily on-site and off-site inspection where receptors are nearby to monitor dust. This is to be picked up in line with the Willmott Dixon Weekly Inspections procedure.
- Carry out regular site inspections to monitor compliance with the DMP
- Increase frequency of site inspections when activities with a high potential to produce dust are being carried out.

Preparing and Maintaining the Site

- Plan Site layout so that machinery and dust causing activities are located away from receptors.
- In the event of high potential for dust production, adequate measures are to be put in place such as dust suppression equipment to be utilized when operations last an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods
- Remove materials that have a potential to produce dust from site as soon as possible. In the event this is the case dust suppression methods are to be utilized at all times to minimize the risk.
- Cover, seed or fence stockpiles to prevent wind whipping
- Use water as dust suppressant where applicable

Operating Vehicle/ Machinery and Sustainable Travel

- All vehicles to switch off engines - no idling vehicles. All vehicles to comply in line with the FORS procedure and being responsible within the community in line with Considerate Contractors scheme.
- Avoid the use of diesel or petrol-powered generators where Practical.
- Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph in unsurfaced haul roads
- Produce a Construction Logistics Plan to manage sustainable deliveries. This is to be discussed at each pre-start meeting with the supply chain.
- Implement a Travel Plan that supports and encourages sustainable Travel.

Operations

- Cutting equipment to use water as dust suppressant or suitable local extract ventilation
- Ensure adequate water supply on the site for effective dust/particulate matter suppression/mitigation
- Use enclosed chutes and covered skips where possible.
- Minimize drop heights
- Ensure equipment is readily available on site to clean any spillages. Spill kits to be adopted in line with WD Environmental Procedures and fuel storage equipment to be double bunded and padlocked to avoid issues.

Waste Management

- No bonfires

Earthworks and Construction

- Re-vegetate earthworks and exposed areas
- Use Hessian, mulches or trackifiers where it is not possible to re-vegetate
- Only remove the cover in small areas during work and not all at once
- Avoid scabbling where possible and if so adequate dust suppression equipment is to be used.

- Ensure sand and other aggregates are stored and not able to dry out, unless it is required for a specific process
- Ensure bulk cement and other fine powder materials are delivered and stored to prevent escape
- For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust

Trackout

- Use water-assisted dust sweeper on the access and local roads
- No dry sweeping is to be utilized and dust collection / suppression is to be adopted on site.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials. Refer to the sheeting section above as listed.
- Inspect on-site haul routes for integrity, instigate necessary repairs and record in site log book
- Install hard surfaced haul routes which are regularly damped down.
- Implement a wheel washing system at a suitable location near site exit
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits
- Access gates to be located at least 10m from receptors, where possible

12. Acoustic Requirements/Management

Meetings / discussions have been undertaken with local stakeholders in order to define the impact of noise generated from various construction activities may have on the local community and the wider community in advance of works commencing on site.

We will actively monitor site noise levels and vibration levels during the noisier activities and this will be recorded on a daily basis. Relevant equipment will be utilised to measure these activities and if in the event these are over the recommended figure, adequate protection measures will be utilised to minimise disruption.

Given the sites location adjacent to two major highways and being located in a non-residential area the construction activities are not likely to cause a nuisance.

All cutting operations shall take place within the defined area and screened locally. These areas will be constructed with a tube and fit scaffold frame and covered with Monarflex Monarsound Acoustic Insulating Scaffold Sheeting. This material will also be used to provide acoustic screening to the main building access scaffolding. The full design specifications of this system can be viewed via the link below.

http://www.monarflex.co.uk/~/media/IcopalUK/Download/Datasheets/Scaffold_Sheeting/TDS1443-Monarflex-MonarSound-Fence-FlameSafe-Datasheet.pdf

The Code of practice for noise and vibration control on construction and open sites BS 5228-1 2009, refers to the need to reduce noise levels, By introducing a noise barrier as we have proposed the general noise level is cut in half.

We will work closely with our supply chain and select the most suitable plant available taking in to account noise generation from plant and equipment.

The operation of site equipment and/or plant and machinery generating noise that exceeds 65 dB (A) Laeq (over a 1 hour period) at the facade of any noise sensitive receptor including Campus Manor shall only be carried out between the hours of 0900 and 17.00 Monday - Fridays and 0900 and 1300 hours on Saturdays and at no time on Sundays or Bank Holidays.

Deliveries, servicing and collections, including waste collections, shall not take place outside the following hours:
07:30 to 20:00 Monday to Saturday with no deliveries on Sundays and Bank Holidays

The Construction working hours will be strictly adhered to as below:
Monday to Friday 07:30 to 18:00 Saturday 08:30 to 14:00 with no working on Sundays or Bank Holidays.

Temporary generators will be used in the first instance until a temporary supply is available from the existing or new substation. Generators of this nature shall be screened by the site accommodation block and housed in an acoustic container. All generators to be used on site shall be classed as "quiet" (i.e max 70dB at 7 m from source) this will be housed in an acoustic container that will not allow the noise emitted.

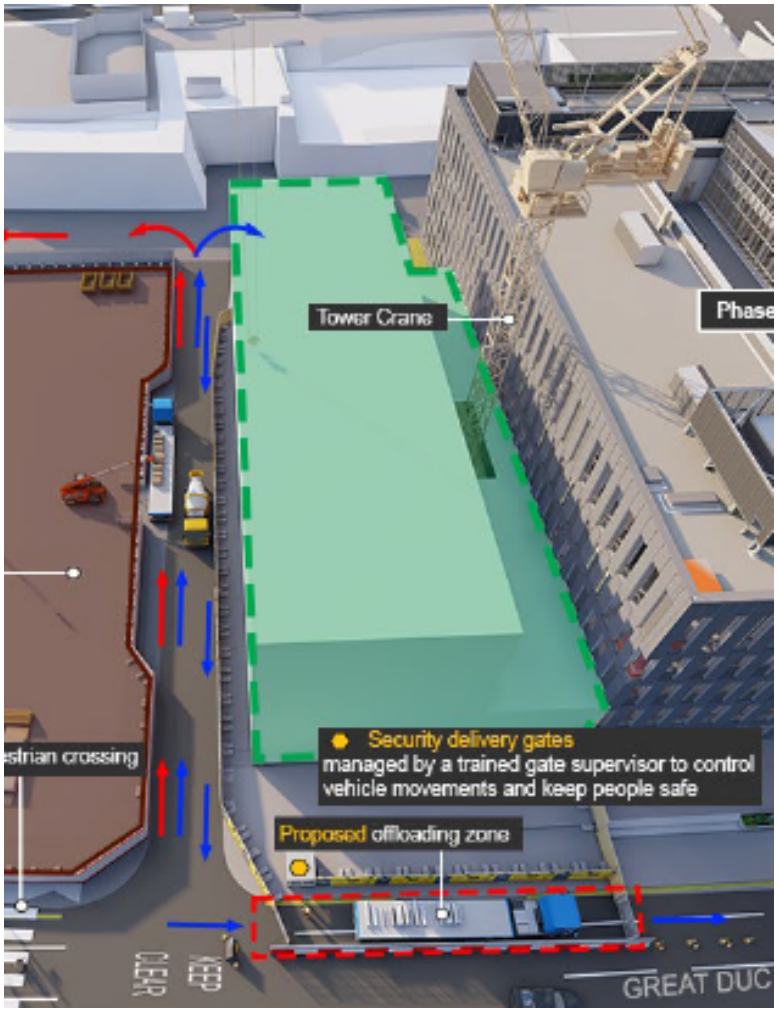
Willmott Dixon will to continue to work openly with all stakeholders in order to manage the impact of construction activities on local business operations. A CMP co-ordinator (liaison manager) will be in place post prior to commencement of the development to organise and arrange regular meetings with stakeholders on not less than a weekly basis to discuss the construction schedule and to inform stakeholders of any known changes to the schedule or works or operations that are reasonably anticipated.

14 Remediation Strategy

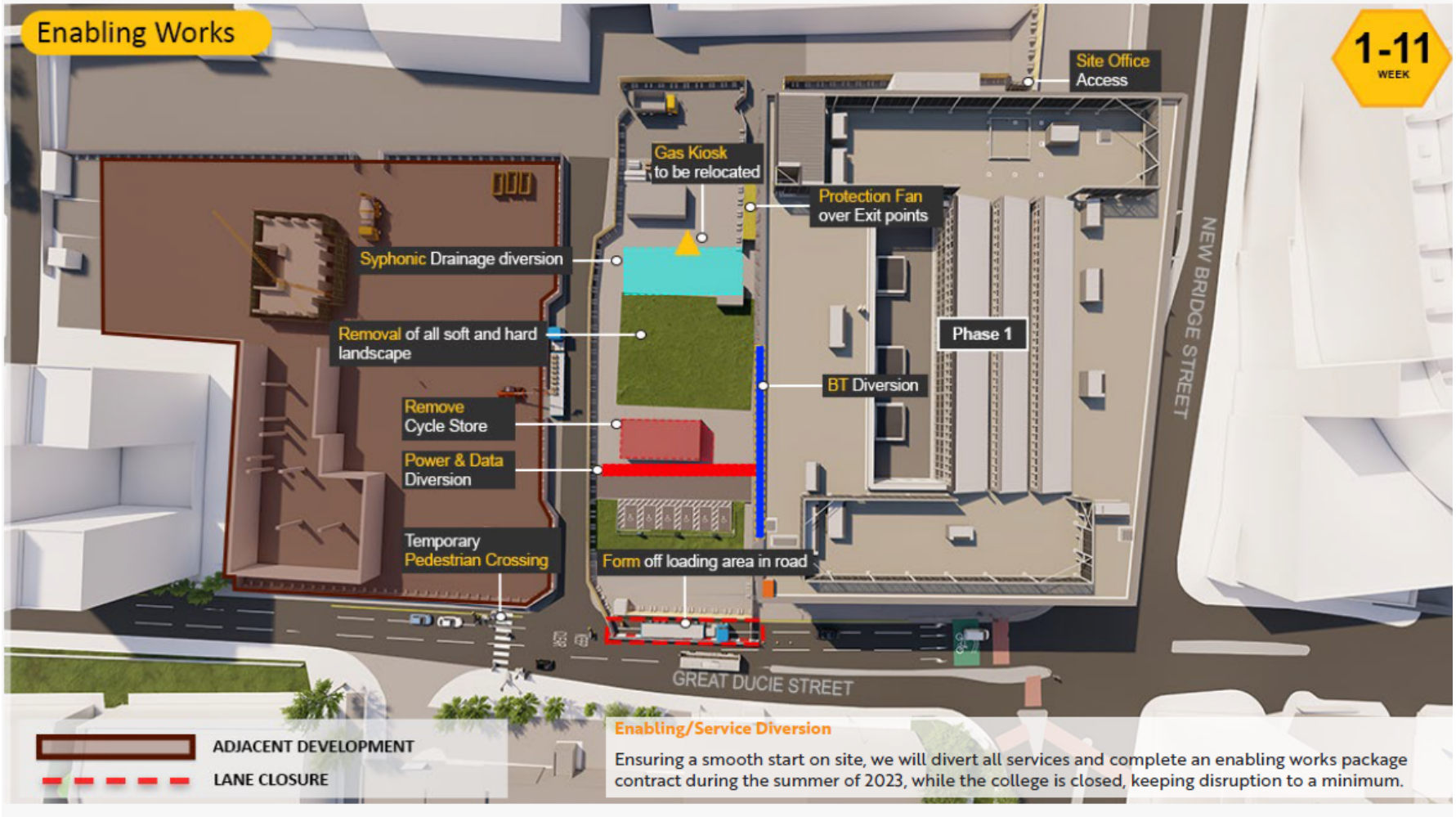
As part of the phase 1 works the site was fully remediated therefore only surface preparation is needed.

Initially, our supply chain partner will commence breaking out of the existing surface structure to the East elevation whilst ensuring the full excavation perimeter is benched in order to provide a safe working environment for following trades. This methodology will continue progressively in line with our standard H&S procedures.

Appendix A – Site Logistics Plan



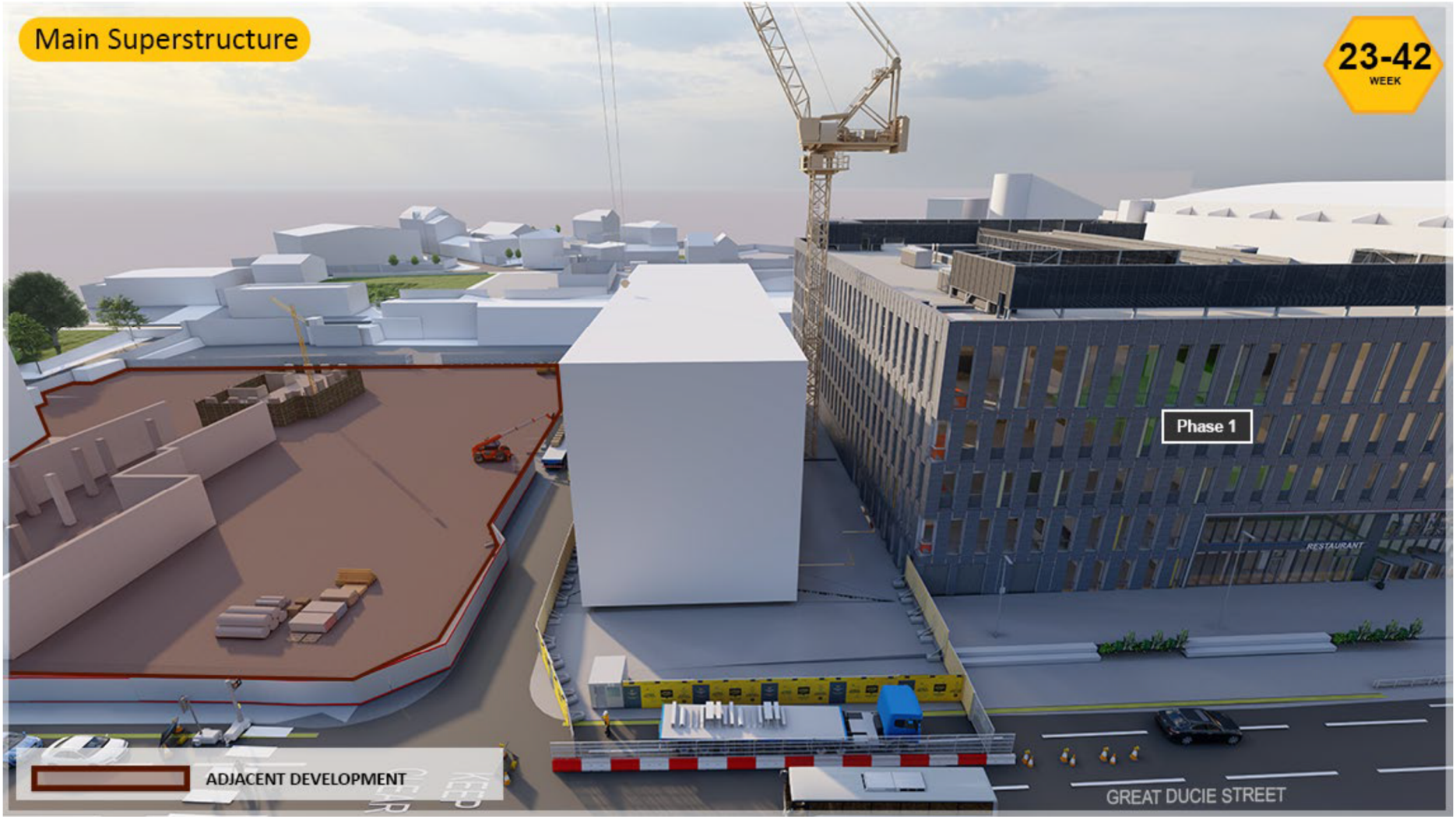
WILLMOTT DIXON
SINCE 1852



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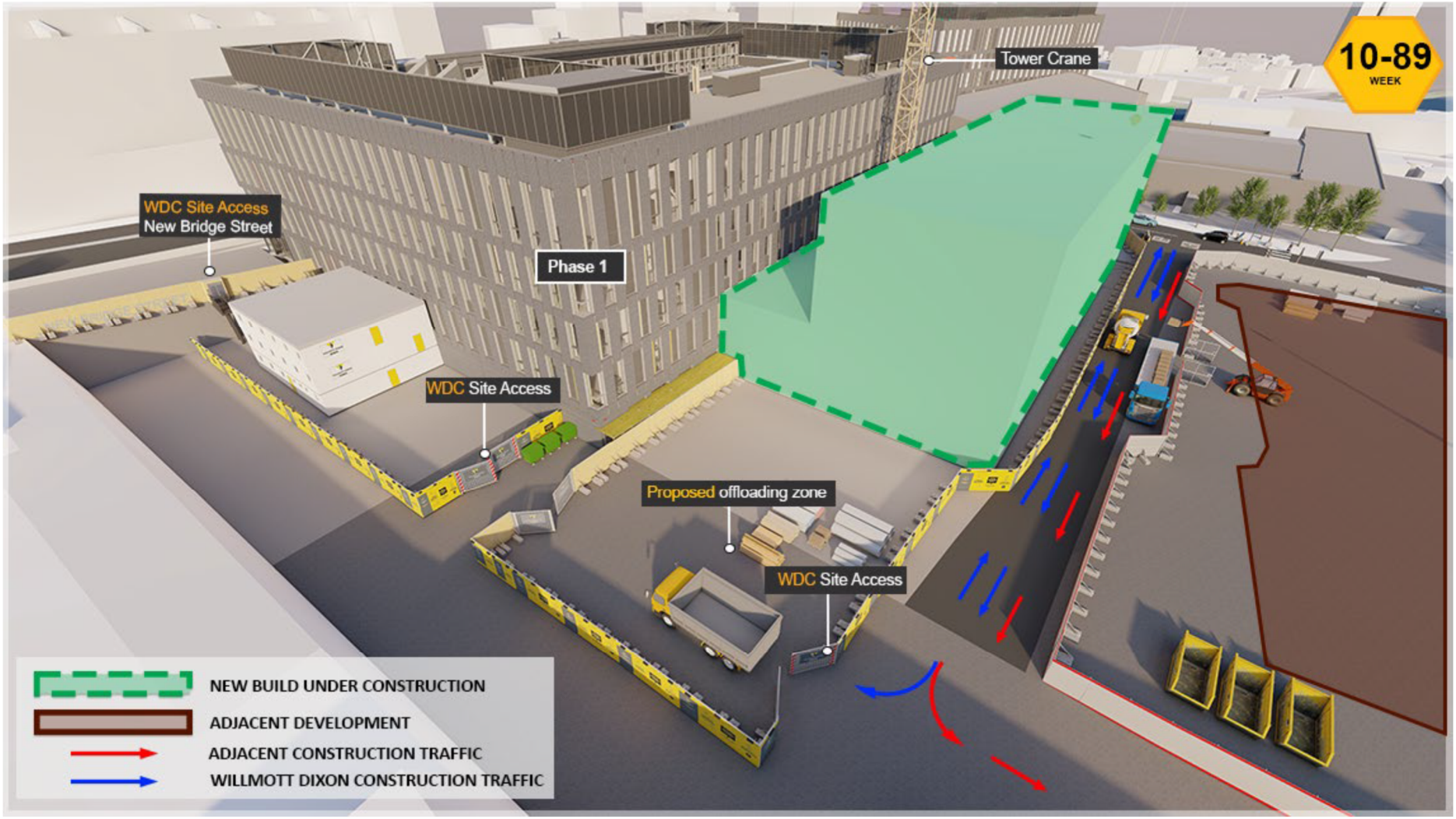
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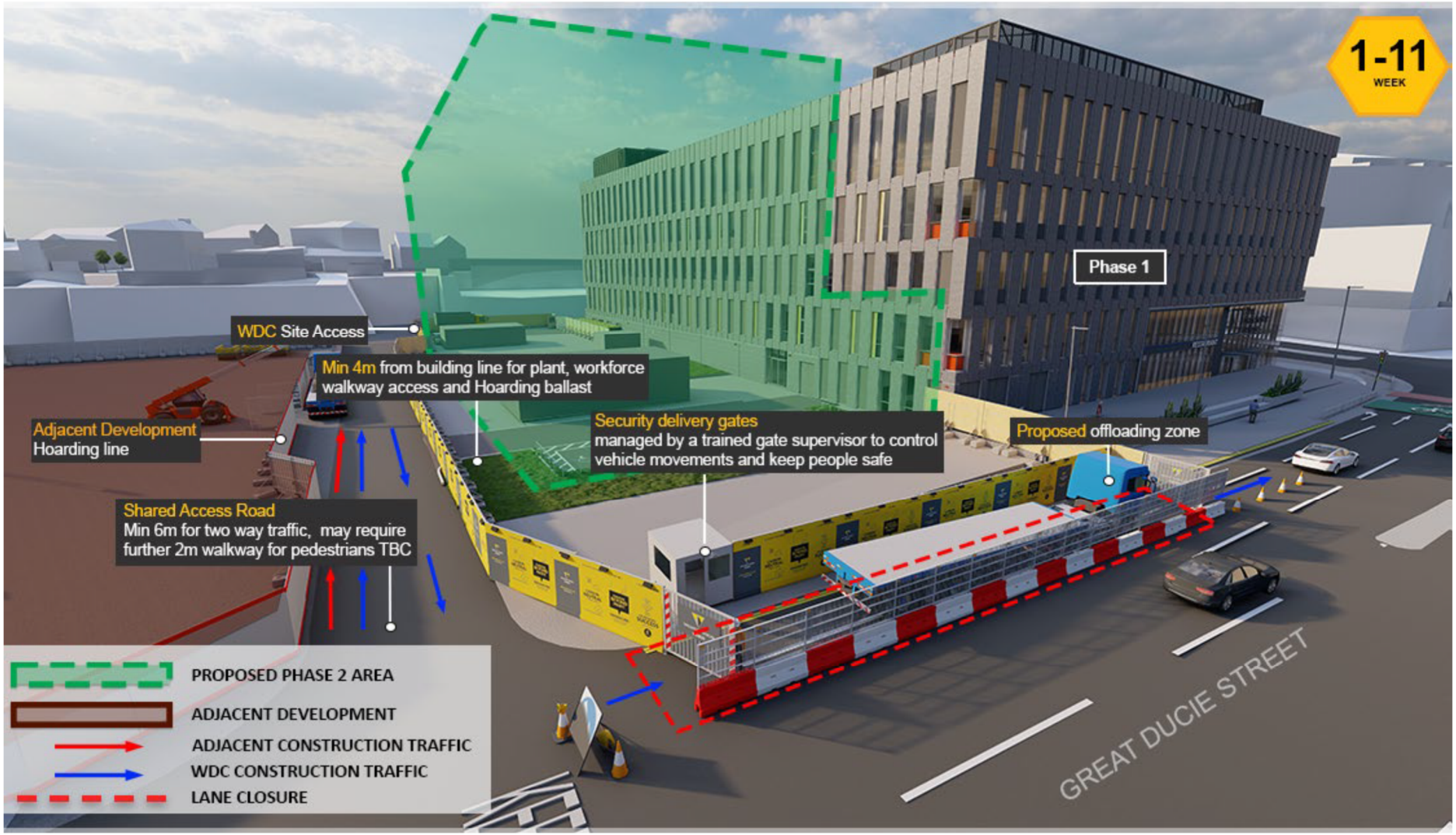
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Appendix 2 – Mona sound sheeting

WILLMOTT DIXON
SINCE 1852

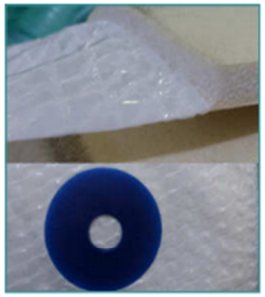
CONSTRUCTION MANAGEMENT PLAN



WILLMOTT DIXON
SINCE 1852

Description

The Monarflex MonarSound is made from a 5 ply composition with the top layers consisting of a weather resistant LDPE fire retardant co-polymer that encapsulates a strong multifilament polyester (PET) grid which forms the weather protection layer. On the underside there is a thick (10mm) PE fire retardant special sound absorbent foam layer that provides the "bounce" effect of the acoustic sheeting. The sheeting is equipped with the unique Monarflex fixing eyelets for superior and long lasting fixing points.



Performance and Properties

Material	FR LDPE & FR PE Foam
Reinforcement	9 x 12mm mesh 1670 dtex PET
Roll Size	2.00 x 10.70m 2.25 x 10.15m
Colour	Opal white
Weight per m²	600g (+/-7%)
Thickness	9.4mm
Tensile strength	>630N/50mm
Pullout strength	>800N
Noise reducing barrier rating	B1
Conforms to	BS 7955 & BS8410:2007
Thermal resistance	0.246 M2K/W
Fire class	DIN 4102. B1
Temperature stability	-40°C to +90°C
Applications	Internal & external use

Durability

Monarflex MonarSound can be used for all types of longterm projects up to 12 months. The combination of high quality components forms a tough and durable sheeting for very extreme working conditions i.e. sandblasting and waterjetting. By using Monarflex MonarSound you can meet deadlines and avoid economical surprises regardless of the weather and be safe in that it fulfils all relevant British Standards like BS7955:1999 and BS 8410:2007 in accordance with HSE requirements to sheeting performance.

Assessment

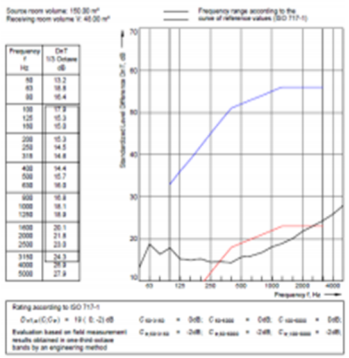
The Code of practice for noise and vibration control on construction and open sites BS 5228-1 2009, refers to the need to reduce noise levels, which local Authorities often requires to be considered as part of planning permission. By introducing a noise barrier that provides a at least 10 dB noise level at low frequency (like at 100 Hz) the general noise level is cut in half. Breakout noise is the biggest concern as this may account for 5-10dB noise level, so correct installation is as crucial as the noise reduction from the sheeting material itself. Breakout noise often comes from gaps or the actual installation fixings, so sealed fixing points or overlaps are crucial and Monarflex MonarSound acoustic sheeting provides these.

Acoustic Control

There are no guidelines for rating the performance of scaffold sheeting. However, BS EN-1793-2: 1998 "Road traffic noise reducing devices - Test method for determining the acoustic performance" allows for the method for categorising the sound reduction performance of barriers that may be used to control road traffic noise.

Application

Take care to overlap the lower sheet externally for weather protection. Fixing the sheeting to the scaffold must be done according to calculations, taking factors such as wind, building season and height of the surrounding buildings into consideration. We recommend the use of x 1 Monarflex Anchor & Strap fixing/m² but any fixing must be placed according to calculations for each project.



Certificate No: Q5556

Delivery And Storage

The Monarflex MonarSound is supplied on pallets with each roll individually wrapped in PE foil with label and name identification. The rolls must be stored lying under cover on a pallet and away from heat and direct sunlight.

Health And Safety

Health and safety data sheets are available for all materials. Please contact Icopal's Technical Services Department for further information.

Quality Assurance

Monarflex MonarSound is manufactured under a Quality Management System approved to ISO 9001: 2000 by BSI Quality Assurance.

Appendix 3 – Project Environmental plan – On request