

LAYSTALL STREET CIRCULAR ECONOMY

Material Efficiency & Functional Adaptability

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1. INTRODUCTION

This document has been developed to support Ancoats Manchester Limited and the wider delivery team, including assured-CMS, to identify options for adhering to the BREEAM Excellent credits for MAT 06 (Material Efficiency) and WST 06 (Functional Adaptability) throughout the planning and design of a new city centre hotel within Manchester. This document provides a range of approaches and options for achieving the necessary credits as well as examples and guidance for adhering with the requirements. The project delivery team should utilise it as a means for selecting approaches best aligned with their skills, knowledge and specific design approach in order to achieve the BREEAM credits. This report has been split into two sections that address each of the BREEAM credits separately for ease of navigation and utilisation. This submission seeks to discharge Condition 3b 'Construction Environmental Management Plan (CEMP) – Circular Economy Statement (Materials)' and for clarity, will sit alongside the CEMP approved within application ref. CDN/24/0986 (approved 10/01/25), which is included within appendix 1.

1.1 MAT 06 – MATERIAL EFFICIENCY

MAT 06: Material Efficiency is a credit within the Materials category of BREEAM UK standards that aims to reduce the environmental impacts associated with the extraction, manufacture, transport and disposal of construction materials. The credit focuses on reducing material demand at source through informed, efficient design decisions made at the earliest stages of a project. Rather than concentrating solely on waste management during construction, MAT 06 encourages developers and design teams to proactively minimise the total quantity of materials required to deliver the building, thereby lowering embodied carbon, resource depletion and construction waste.

For developers, MAT 06 entails embedding material efficiency into the project brief, concept design and technical design stages. This typically involves organising structured design workshops with the project team (including the architect, structural engineer, cost consultant and contractor, where appointed) to identify opportunities to optimise structural systems, reduce over-specification, standardise dimensions, and eliminate unnecessary finishes or redundant elements. The process must be documented, and clear evidence must show how identified opportunities were assessed and incorporated into the final design. Examples include optimising structural grids to reduce steel or concrete volumes, adopting modular or prefabricated components to minimise off-cuts, or rationalising façade systems to avoid excessive material layers.

Developers are expected to demonstrate that material efficiency has been considered systematically rather than incidentally. This requires producing a 'Material Efficiency Strategy'(MES) or report, keeping records of design decisions, and providing drawings or specifications that reflect the agreed improvements. By meeting MAT 06 requirements, the approaches identified not only secure BREEAM credits but often also achieve cost savings, reduced construction waste and lower embodied carbon, in addition to benefits such as promoting easier maintenance and renovation activities throughout the building's lifecycle.

1.2 WST 06 - FUNCTIONAL ADAPTABILITY

WST 06: Functional Adaptability is a credit within the Waste category of BREEAM UK New Construction that encourages buildings to be designed for long-term flexibility and adaptability. Its primary objective is to reduce waste arising from future refurbishment, reconfiguration or change of use by ensuring that buildings can accommodate evolving operational needs with minimal structural alteration or material replacement. Rather than focusing solely on construction-stage waste, WST 06 addresses waste prevention over the building's entire life cycle.

For developers, WST 06 entails considering how the building might need to change over time and embedding adaptability measures into the design from the outset. This typically includes assessing potential future uses of the building and identifying design strategies that enable easy reconfiguration. The credit usually requires a documented functional adaptability assessment or study carried out at an early design stage, demonstrating that future change scenarios have been evaluated and that specific measures have been incorporated into the final design. **Developers must provide evidence that adaptability has been intentionally considered and integrated, rather than assumed.**

1.3 MAT 06 – MATERIAL EFFICIENCY STRATEGY

The project team should utilise this document to determine and develop a 'Material Efficiency Strategy' to minimise material use, waste generation and re-work across the design, specification and construction of the city-centre hotel development.

Given the constrained urban site, limited storage, and logistical challenges typical of city-centre construction, the options identified within this document focus on:

- Reducing material demand at source through efficient design
- Maximising standardisation and repetition inherent to hotel layouts
- Prefabrication and off-site manufacture to minimise waste and damage
- Dimensional coordination to reduce cutting and offcuts
- Minimising the embodied carbon of materials through material selection

Efficient construction logistics aligned delivery and waste management. **The strategy should be reviewed and updated at key project stages and implemented through agreed coordinated actions by the design and construction teams throughout the delivery of the project, with demonstratable evidence to support this approach.**

2. REDUCING MATERIAL DEMAND AT SOURCE THROUGH EFFICIENT DESIGN

In order to maximise the potential for circular considerations to be embedded within a construction project, significant efforts must be undertaken at the design stage to maximise the variety and impact of approaches. Developing a MES early in the design stage helps identify and implement reductions in material use across all RIBA stages and enables the strategic integration of circular opportunities into the design considerations. This MES should be utilised as evidence for achieving the BREEAM Material Efficiency credit. The following sections detail the design considerations and approaches that should be reviewed as part of a workshop, with agreed opportunities advanced and incorporated into the projects MES.

2.1.1 Standardisation and Modular Design

Standardisation involves creating repeatable design elements and modules so that the same parts, dimensions and systems are utilised throughout a building. Modular design goes further by prefabricating building units off-site, such as guest rooms or wet rooms/bathrooms, then assembling them on site. Together these approaches:

- Reduce design complexity and bespoke components, which limits waste and over-ordering.
- Enable factory precision where material cutting and assemblies are controlled, reducing the number of offcuts and mistakes.
- Support faster on-site assembly, lowering labour needs and exposure to weather delays.
- Help projects use fewer unique parts and materials, aligning with MAT 06 aim to reduce material demand at source.

Applicable examples for hotel developments are detailed in the following sections.

2.1.1.1 Standardised Room Designs

This approach requires designing guest rooms and adjacent elements like bathrooms to a common **module size and layout**, so hundreds of identical units are manufactured once and reused repeatedly. In modular hotel construction, common room sizes and layouts are fabricated in factories with all finishes, services and fittings potentially pre-installed. This standardised production dramatically limits on-site material waste and enhances predictability in costs and scheduling for project managers. This approach supports circular economy considerations by simplifying the structures grid and the coordination of mechanical, electrical and plumbing utilities, and helps avoid bespoke fabrication requirements for individual rooms and areas within the structure. This improves material efficiency by reducing the level of bespoke design applied to rooms in addition to minimising waste by enabling predictable forecasting of material needs at the design stage, and minimises excess purchasing of materials.

With consideration to renovation and demolition, standardised room modules also promote material efficiency throughout the building's life cycle as it provides known material quantities and predictable disassembly approaches that allow for easily manageable disassembly sequences. Due to the repetitive nature of the components, they can be salvaged in batches by material type, limiting the potential for contaminants or unwanted materials being collected, as well as enabling them to be more efficiently recycled. Standardised room design also allows for easy like-for-like replacements of furniture and fittings, in addition to promoting easy replacement of components such as flooring, wall panelling, or joinery fittings and bathroom equipment.

Standardised design approaches are also applicable across other areas within a hotel structure, and the design team should consider how to approach this with regards to hallways, service areas and utilities rooms. It is important, however, to ensure that disassembly and recovery is considered at the design stage alongside the standardised design to promote efficient material recovery.

2.1.1.2 Modular Off-site assembly

Standardised off-site assembly of hotel rooms and/or bathroom pods supports circular economy principles and aligns strongly with the requirements of BREEAMs MAT 06 (Material Efficiency) requirements as it promotes reductions in material demand, preventing waste at source and improving lifecycle performance. Repetition and standardisation enable design optimisation and dimensional coordination. When room designs are based on a consistent module, materials can be specified in standard sizes which aids in reducing offcuts and excess ordering of materials. Structural grids, partitions and the necessary service zones for mechanical, electrical and plumbing utilities can be detailed and refined once and then replicated throughout the entire building.

Off-site manufacturing also significantly improves resource efficiency during construction. Factory-controlled environments allow precise cutting, better quality control and segregation of waste streams promoting a reduction in material wastage compared to traditional on-site construction. Bulk procurement and repeatable assembly processes also reduce packaging and damage. For a city-centre hotel site with limited storage and complex logistics this also helps prevent material loss and damage to materials on site. Modularly assembled rooms or bathrooms also support component-level circularity. Bathrooms can be designed as self-contained units with defined service connections, enabling easier replacement, refurbishment or upgrade without a full strip out of the surrounding walls and panelling. This reduces future demolition waste and extends the functional life of the wider building by minimising the impacts of refurbishment activities. Standardised components also improve the potential for remanufacture or reuse at scale, and design considerations must address servicing, refurb and deconstruction activities later in the building lifespan as detailed below, to maximise the recoverability of materials. Standardisation enhances adaptability and long-term building resilience by providing a rationalised structural grid and repetitive layout which aids in making future reconfiguration more feasible and supporting the extension of the asset life which is discussed in part 2 of this report below.

In summary, standardised off-site hotel room and bathroom assemblies reduce material waste at construction stage, improve precision and durability, facilitate future refurbishment with less material loss, and promote long-term adaptability. These outcomes directly support the intent of BREEAM MAT 06 by embedding material efficiency into both design and delivery of the proposed structure.

Topic	Summary
Case Study – Modular Bathrooms for Hospitality	400-bathroom pods designed in line with hospitality required standards for Dublin Airport hotel construction project.
Guidance – Considerations for integrating BREEAM standards with Modular Builds	Details the benefits of modular approaches in addition with key considerations for adapting to BREEAM standards approach.
Case Study – Hilton Garden Inn San Jose Modular Hotel	Case study detailing the standardised wall panelling and modular built approach undertaken in the delivery of Hilton Garden Inn.
Guidance – A practical guide to modular construction	A comprehensive UK-targeted guide explaining modular processes, benefits, steps, applications, and case studies.

2.1.1.3 *Designing for maintenance and access*

A critical aspect of circular hospitality design is ensuring that maintenance, and eventual disassembly/demolition, are planned from the outset/design phase. Circular building design principles require considering maintenance access early to help reduce resource consumption over the building's lifetime by making repair and upgrading easier and faster. Strategies such as designing clear access routes, installing modular façade or service panels, and ensuring that mechanical, electrical, and plumbing systems are reachable without demolition significantly improve the buildings maintenance requirements and limit waste generation. Circular design literature emphasises the importance of building elements that can be easily disassembled, repaired, or adapted for new use, reducing waste and extending lifecycle performance[1].

The importance of making mechanical, electrical, and plumbing systems readily reachable so they can be repaired or upgraded without invasive demolition or unnecessary replacement of intact materials is vital at the design stage. This includes using access panels, organising services in clear routes, and avoiding concealed or fused assemblies that limit repair options. Choosing materials that degrade quickly, cannot be repaired, or require wholesale removal of adjacent components (e.g., finishes glued to structural elements) directly prevent circular maintenance approaches and this should be addressed within the designs. Efficient maintenance depends on ensuring systems are in place where individual parts can be accessed and swapped with minimal disruption to the structure. The following considerations should be considered as such:

- **Prioritise design for access and maintainability** - Ensure all MEP systems are fully accessible without demolition and incorporate dedicated maintenance zones, access panels etc.
- **Use easily replaceable components** - Select façade systems, room modules, and service assemblies that can be removed independently and that utilise standardised dimensions and fixings for ease of replacement while avoiding glues and sealants that prevent disassembly or easy access.
- **Design for disassembly** – Specify mechanical fasteners over adhesives where feasible and ensure clear material 'layers' are present (e.g. structure, services, interior finishes) with feasible, safe access points.
- **Promote resource efficient maintenance** - Enable cleaning, filter replacement, and calibration with minimal disruption while integrating technologies that enable predictive maintenance such as sensors and monitoring systems. By specifying items with lower maintenance cycles and increased durability maintenance requirements can also be reduced.

Inclusion of facilities managers at the design stage or within the workshop for developing the MES can provide the benefit of insight into means to enhancing the circularity by identifying historically problematic systems or approaches as well as highlighting materials or equipment with higher durability[2] and should be considered if advancing the circular maintenance opportunities.

3. MATERIAL SELECTION AND EMBODIED CARBON

By selecting materials that can be easily separated, recycled, or repurposed, the Laystall Street hotel development project strengthens its ability to reduce lifecycle environmental impacts including embodied carbon and waste generation. BREEAM MAT 06 rewards projects that use materials efficiently by reducing waste, optimising quantities, and choosing products that deliver high performance with lower resource input. Selecting durable, materials ensures that fewer replacements are needed over a building's lifetime, cutting both embodied carbon and waste generation[3] while also promoting some of the other opportunities identified above such as standardisation of materials. Choosing materials and systems available in standardised sizes, or those that can be prefabricated offsite, reduces cutting waste and allows for more precise specification. The use of standardised materials and prefabricated assemblies is recommended to minimise offcuts, prevent over-ordering, and streamline installation. Additionally selecting materials

[1] Circular Building Design Principles
[2] Circular Economy in Facility Management
[3] Material Efficiency and BREEAM MAT 06

that support reuse, recycling, and future disassembly is key to demonstrating the proactive, strategic approach required under MAT 06.

The Laystall Street design must show how materials are chosen in line with clear objectives and performance indicators that promote long term resource efficiency. By choosing materials with high recycled content, proven reuse pathways, or ease of disassembly, design teams can evidence that the building supports circularity and end-of-life recovery. Additionally specifying recycled content of materials where feasible within designs can drive a reduction in the associated embodied carbon of the building by driving material efficiency that reduces the quantities of virgin materials required for construction. Materials must be selected with consideration to their environmental performance, durability and appropriateness with considerations to your design approach. The following section will detail key high volume building materials and means to increase material efficiency across the building lifecycle.

The following section provides details on means to minimise the embodied carbon associated with the development and construction of the project through targeted material selection. It focuses on high volume construction materials commonly used in similar developments. Additionally it will also explore additional elements of sustainable procurement including waste minimisation strategies.

3.1.1 Steel procurement

Steel remains a significant contributor to global emissions. It is utilised extensively within construction for building frames and for reinforcement and across large infrastructure projects for a variety of purposes. Seeking means to either reduce the quantity of steel utilised where viable or seeking to ensure that steel utilised is certified to a relevant standard to ensure best current practices have been adhered to in its manufacture are recommended. The following options should be considered for incorporation into the MES:

- Requirement for CARES[4] accreditation for appropriate products: CARES is a certification under the UKAS accreditation body with similar variants utilised across other countries. It promotes quality management and robust environmental management systems by requiring certification to ISO 14001 as well as appropriate health and safety controls and traceability within the supply chain. Specifying CARES accredited steel suppliers within tenders should be considered.
- Requirements for Eco-Reinforcement certification: This requires suppliers to conform with the responsible sourcing standard detailed by BRE. Suppliers must have appropriate measuring and monitoring in place of the environmental and social impacts of their products along with seeking to minimise emissions, waste, water use as well as ensuring social sustainability within the product supply chain
- Specification for recycled content: There are a number of steel manufacturers within the UK utilising recycled steel as feedstock or reusing elements. Examples include 7 Steel UK[5] who produce low carbon, circular steel by operating electric arc furnaces that melt down scrap metal to make new steel products. Their reinforcing bars, coils and rods are made from 100% UK sourced recycled scrap metal with very high recycled content. EMR Reusable Steels[6] are another example who specialises in salvaged and reusable steel sections reclaimed from end-of-life buildings, this is particularly strong example for circular economy and MAT 06 documentation where material reuse can be easily demonstrated. Their products can offer very low embodied carbon profiles because the steel is reused rather than newly remelted. It is important to note that product performance standards must be confirmed as fit for use within the Laystall street design approach by qualified professionals when selecting any supplier.

3.1.2 Aluminium procurement

For current best practices, other than seeking means to avoid aluminium use entirely, the primary focus should be on ensuring that aluminium sourced for construction purposes is derived from recycled goods as opposed to virgin materials, in order to reduce the emissions from the manufacturing process. The use of aluminium itself can be an environmental benefit where it can be a substitute for higher impact materials in addition to the high level of recyclability[7] of aluminium ensuring its end-of-life impacts are minimised. There are a number of certifications and additional considerations however

[4] CARES accreditation
[5] 7 Steel UK
[6] EMR reusable steel
[7] 3-aluminium and recyclability

that may be of merit as a means to ensuring any aluminium utilised adheres to best practice manufacturing in the context of environmental performance:

- Aluminium Stewardship Initiative[8]: Certifies that at all points in the supply chain core sustainability issues have been addressed. Prescribing the standard can ensure that aluminium is sourced from lower impact sources including higher recycled content as well as lower carbon manufacturing processes such as those utilising renewable energy for production.

- The most effective means for reducing the embodied carbon and ecological impacts of aluminium use is to maximise the recycled content within any required aluminium for the hotel development. Examples of UK based suppliers include Hydro[9] who produce a low carbon aluminium produced using renewable energy sources (e.g., hydro power) with a significantly reduced carbon footprint, good where high recycled content is also desirable as is the case for the MAT 06 credit requirements.

It is also worth noting that a means to provide suppliers alternative avenues to demonstrate that sourced aluminium supplies have lower environmental impacts is through the review of environmental product declarations (EPDs) where available or life cycle assessment (LCA) however this can be a time-consuming task and requires assessing against the baseline emissions associated with virgin aluminium. EPDs and LCAs are also applicable to the sustainable procurement of steel.

3.1.3 Timber procurement

The potential for timber to be utilised as a substitute material to drive lower embodied carbon emissions has been identified within construction projects, with certain European municipalities now requiring that a certain proportion of new constructions utilise it for frames[10]. Due to its potential for sequestering carbon and as a resource that is renewable and requiring less energy intensive processes, interest in timber as a more sustainable material for construction remains high. However, irresponsible harvesting practices can drive soil erosion, loss of habitat for native and endangered species, negatively influence local water cycles by reduced water retention in the soil and penetration to ground water stores, and can cause negative social impacts through loss of local industry driven by poor harvesting practices. As such the use of timber should be promoted within your project wherever feasible as a substitution for higher impact materials but with controls in place to ensure sustainable sourcing:

- Prescribed adherence to the UK Timber Procurement Policy (TPP[11]): This mandates the requirement for all timber to be sourced from legal and sustainable sources. This is evidence through certification via compliant schemes such as the Forestry Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC). While the TPP does not require all timber be FSC or PEFC certified, these two schemes provide reassurance of the full chain of custody of the timber products from harvesting, through processing, to end user.

The UK is one of the largest timber importers in the world, and the highest proportion of the embodied carbon associated with the industry is imported emissions due to the significant transportation requirements[12]. As such it is recommended that your procurement of any timber consider means to promote UK sourced timber products. This could be an informative mechanism where suppliers can provide additional detail, such as Grown in Britain certification and that this is incorporated into your MES with appropriate evidence to confirm. Importantly, **early engagement with structural engineers and architects should also be undertaken to identify means to substitute higher impact materials such as metals for sustainably sourced timber wherever feasible**.

[8] Aluminium Stewardship Initiative
[9] Hydro Aluminium
[10] Växjö Municipality timber targets
[11] TPP
[12] Net Zero Roadmap Summary

3.1.4 Cement & concrete procurement

Increasing focus has been given to the environmental impacts associated with concrete production and use within the construction industry, with some sources estimating that concrete production accounts for up to 8% of global emissions, or 1.6 billion tonnes of CO2 per annum[13]. Strategies should focus on means to reduce the embodied carbon of the cement products as well as addressing additional impacts, where feasible, such as the substantial water of use in the manufacturing process. As such it is recommended that the following are considered for incorporation into the MES:

- Substitution of materials utilised in concrete with lower impact materials. This could include specification for a % of concrete to not be CEM I Portland cement. CEM I (Portland cement) has a high environmental impact primarily because of the way it is manufactured, particularly the production of clinker, the main constituent of CEM I. That very high clinker content is what drives large elements of the environmental impact associated with its production. It is recommended that engineering and design solutions assess means to incorporate lower impact variants such as CEM II or CEM VI low clinker cement where possible.

- Specify a minimum quantity of cement content is replaced with Supplementary Cementitious Materials (SCMs) like fly ash, slag, or natural pozzolans[14]. This helps to reduce the clinker content of the cement in use and as such the associated embodied carbon of the product.

- Specification for minimum certifications from suppliers such as BES 6001[15] ensures responsible sourcing policies are in place in addition to material traceability, ensuring supply chains are compliant with ISO 14001, and policies covering effective use of resources. Widely adopted within the concrete industry, most suppliers should be capable of ensuring concrete suppliers are in adherence with the standard.

It is important to note that while in many construction projects CEM I (100% Portland cement) can be partially or fully substituted with alternative cements or blended cements, it is important that they are assessed against the structural and durability requirements and not simply swapped. While adherence with standards as noted above can help provide a lower impact product, it is recommended means to substitute higher impact cement types is examined first due to the increased environmental benefits and closer adherence to the MAT 06 Material Efficiency evidence requirements. When considering the appropriate cement types for concrete production it is advised that all potential lower impact variants are assessed against the structural and design requirements and only if all are deemed unsuitable are higher impact variants then incorporated into the hotel designs.

3.1.5 Aggregate procurement

Aggregates have been noted for significant environmental impacts, both in terms of related emissions from processing as well as the ecological impacts from the extraction and dredging processes required when harvesting as virgin materials. The primary focus to reduce the associated impacts should initially ascertain means to source recycled or reused aggregates followed by identifying locally sourced aggregates to minimise the impacts associated with the transportation:

- In the UK, recycled aggregates can be incorporated in compliance with BS EN 12620 and the UK Quality Protocol for Aggregates[16] which ensures materials meeting end of waste criteria can be used safely in construction. Typical applications include sub-base for roads and car parks, capping layers, pipe bedding, drainage blankets, and in some cases as recycled concrete aggregate (RCA) within new structural concrete when designed in accordance

[13] Cement is a big problem for the environment
[14] Binding materials that react with calcium to form cementitious compounds
[15] Responsibly sourced concrete and BES 6001
[16] UK Quality protocol: aggregates from inert waste

with BS 8500[17]. To incorporate them effectively, project teams should engage suppliers early and specify recycled content where design requirements allow.

- Promoting locally sourced aggregates to minimise transport related emissions. Where recycled aggregates cannot be sourced it is recommended that you look for means to support local sourcing of aggregates. This can supplement the recycled content targets by reducing impacts arising where non-recycled aggregates are required to be utilised. Additionally, where feasible sourcing locally sourced recycled aggregates provides enhanced benefits over either approach.

- Informative approaches could also serve to supplement any recycled content targets. Utilising EPDs or LCAs as a means to provide reassurance of the improved environmental performance of products. However this may require the time and necessary skills to assess a range of product sustainability performance and as such is more time consuming and depends on access to product data.

Structural and civil engineers should verify suitability for the intended application of any recycled aggregates identified for potential use, particularly in relation to strength, frost resistance and durability. Consistency and contamination risk (e.g. presence of materials such as wood, plaster or metals) must be managed through certified suppliers and testing regimes. Early engagement with contractors and suppliers as such is important to confirm availability, grading, and any implications for aggregate and cement mixes intended for use within the Laystall Street development.

3.1.6 Supplier engagement

Construction companies can significantly reduce waste by building strong, collaborative relationships with their suppliers from the very start of a project. This begins with early engagement: involving suppliers during design, planning, and specification phases ensures that materials are selected with efficiency, durability, and lifecycle impacts in mind. Suppliers can often advise on optimal material dimensions, packaging formats, or alternative products that reduce off-cuts and excess. Providing suppliers with accurate forecasting, realistic delivery schedules, and detailed material requirements helps avoid over ordering and reduces the risk of materials becoming obsolete due to design changes while minimising the likelihood of damage caused by improper storage or rushed handling when on site.

Additionally, when we consider waste reduction strategies, ensuring suppliers are demonstrably aligned with your waste reduction goals provides additional evidence against the MAT 06 material efficiency requirements. Packaging take-back schemes in construction typically involve suppliers reclaiming packaging materials such as pallets, crates, cardboard, plastic wraps, and bulk containers so they can be reused, refurbished, or recycled. Many schemes operate on a closed-loop model where suppliers provide durable, standardised packaging designed for multiple return cycles. Examples include reusable pallets or crates that are collected on scheduled routes, collapsible bulk containers returned after product use, or protective materials that are recovered, repaired, and put back into circulation. These systems reduce single-use packaging, lower disposal costs, and minimise the carbon footprint associated with manufacturing new packaging.

It is also recommended exploring the potential to work with suppliers on deposit based or collection service schemes. In these models, contractors can either pay a small refundable deposit for each reusable packaging unit or simply segregate packaging on site for supplier pick-up[18]. Suppliers then handle sorting, recycling, or reuse, ensuring materials stay in circulation rather than becoming waste. By identifying suppliers or specifying take back requirements in procurement activities, this provides an avenue to reduce waste volumes generated while supporting a more circular supply chain.

4. WST 06 FUNCTIONAL ADAPTABILITY

The following section provides examples of functional adaptability and design for disassembly measures that a BREEAM WST 06 study should consider and has been tailored where applicable to an urban hotel development. It is important to

[17] BS8500
[18] The pallet loop

note that the measures detailed in section 2.0 are relevant to both WST 06 and MAT 06 measures and some have been covered again within this section to highlight their applicability.

4.1 ADAPTABILITY STRATEGIES AND APPROACHES

To demonstrate compliance with BREEAM WST 06, you will be required to **provide a comprehensive, project specific adaptation strategy study** that includes justification for any constraints, evidence of early-stage integration, and records showing how functional adaptability and design for disassembly principles were explored and adopted during design stages[19]. Collectively, these documents prove that the building has been thoughtfully designed to accommodate future change while minimising waste.

4.1.1 Accessibility of maintenance and plant

Hotels have high servicing demands (HVAC, lifts, hot water, kitchens). The study should consider measures that allow easy access, replacement, or re-routing of major services without major disruption. Examples include[20]:

- Service routes accessible behind suspended ceilings, enabling re-routing or replacement of electrical, HVAC, and plumbing systems with minimal intrusive works.
- Plant sized so it can be manoeuvred out through permanent openings, ensuring boilers, air handling units, chillers, or laundry equipment can be replaced without major demolition.
- Provision of lifting beams/hoists in plant rooms and lift motor rooms to facilitate equipment removal in constrained urban sites.

4.1.2 Use of non-destructive reversible connections and binding agents

Hotels undergo periodic refurbishments of guest rooms, amenity spaces, and front-of-house areas. Reversible connections make these refurbishments less wasteful by minimising the need to disassemble whole components or damage layers when attempting to access specific building elements. Examples include:

- Bolted/screwed connections instead of welded joints for internal structural elements or demountable partitions to enable future reconfiguration of guestroom layouts or lobby spaces.
- Modular furniture and fixture installations (wardrobes, headboards, beds, bathroom goods) designed to be removed without damaging floors or walls, aligning with principles of exposed and reversible connections.
- If we consider function spaces movable wall systems can be utilised to adapt the space for varying purposes[21]. This provides both commercial flexibility with regards to functionality as well as demonstrating the necessary actions to align with the WST 06 requirements. This can also be extended to rooms within certain sections of the construct to enable expansion of rooms for purposes such as family suites.

4.1.3 Independent layering

Ensuring distinct separation of layers can be particularly relevant to a hotel construct where the finishing layers may be altered or renovated frequently but where service and building operational requirements remain consistent. When undertaking the adaptation strategy study the following elements should be considered:

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[19] BREEAM functional adaptability study requirements
[20] Design for Disassembly and Adaptability
[21] Example case studies movable walls

- Independent layers[22] for structure, services, and finishes, ensuring carpets, wall coverings, and lighting can be replaced on short cycles without disturbing service runs or structural elements thus preventing waste generation and ensuring ease of configuration when necessary.

- Bathroom pods designed with accessible service panels, enabling replacement of plumbing components without dismantling walls.

The design approach should consider the distinct layers present within the building and ensure that maintenance and disassembly can be undertaken in a manner that minimises disruption to non-relevant elements of the structure. This approach across both the buildings operational life span as well as its deconstruction can assist in the recovery and recycling of materials by promoting easier segregation of materials as well as minimising disruption and damage caused by access.

4.1.4 Durability of materials

Urban hotels can experience high footfall from the combination of guests, social activities and events that they play host to as durable and repairable materials reduce waste and the impacts associated with undertaking retrofit activities. When considering interior designs the following should be considered:

- Durable finishes in corridors and lobbies that resist damage, reducing the frequency of replacement and refurbishment cycles (e.g., high-wear flooring, robust wall protection).

- Avoidance of finishes that contaminate substrates, such as certain bonded finishes, enabling reuse or recycling of underlying materials during refurbishment. Glues and adhesives should be avoided where possible to prevent damage to the materials they are bonding however where unavoidable removable adhesives should be explored[23].

It is important to note that for both BREEAM standards, any evidence of substitution for more durable materials should be captured for both evidence requirements due to its alignment with both requirements.

5. EVIDENCE REQUIREMENTS FOR MAT 06 AND WST 06

The following section details core reporting and evidential requirements associated with both BREEAM accreditations. This should be reviewed and the identified measures above incorporated into the final agreed strategy and relevant associated documentation.

5.1 BREEAM MAT 06 – MATERIAL EFFICIENCY

The following details the necessary documentation that must be assembled in support of the Laystall Street developments MAT 06 accreditation.

1. Initially a workshop should be held with the project team including those involved in design decisions and procurement activities. This should utilise the opportunities identified within this report to determine and confirm the approaches taken to improve material efficiency across the design, specification and construction stages. This must

[22] Adaptability in the Building Process
[23] Removable Adhesives for Sustainable Construction

be evidenced through the minutes alongside any additional supplementary documentation such as this report to demonstrate how the feedback from the workshop have been incorporated into the building design.

2. Develop a material efficiency strategy[24]: You must ensure the strategy details the aims, objectives and any targets across all project stages alongside performance indicators for the tracking of progress once they have been confirmed within the workshop. This should detail the opportunities being incorporated in addition to any constraints or barriers identified to justify measures exclusion and detail the key individuals responsible for implementation.

3. Evidence of material efficiency measures: You must ensure that design documentation is provided that is robust enough to demonstrate that the material efficiency measures have been actively considered and included. This can be evidence of standardisation or modularisation, optimised designs to reduce material use, strategies employed for reducing off cuts and over ordering such as supplier engagement activities as well as any measures incorporated to support future reuse and disassembly of materials.

4. Progress tracking: Evidence should be provided that shows the measures incorporation into the designs such as progress against agreed targets and performance indicators as well as supplementary evidence such as minutes demonstrating regular review of the measures being incorporated into the designs. This should also evidence how efficiency of materials was considered in the design, construction and operational stages for the building (e.g. % of reused or recycled content, Level of modularity or % of assembled elements off site etc.). This evidence should show that the measures have been considered and incorporated at the correct design stage.

5.2 BREEAM WST 06 – FUNCTIONAL ADAPTABILITY

The following details the necessary documentation that must be assembled in support of the Laystall Street developments WST 06 accreditation.

1. Functional Adaptation Strategy Study: You must provide a building specific functional adaptation strategy study that addresses all items listed in the BREEAM compliance note “Functional adaptation strategy study”. This must provide a written justification for any omitted items, where site specific constraints prevent full compliance.

2. Evidence of Timing (Integration in Early Design Stages): You must demonstrate that the strategy was developed early enough to influence the design (normally RIBA Stage 2, or early RIBA Stage 3 if justified). Evidence must show the strategy was not completed too late to influence outcomes (e.g., meeting minutes, dated documents etc.). Where later than RIBA Stage 2 then you must also provide assurance and evidence that later submission did not reduce its value or impact on the project.

3. Evidence the Strategy Influenced the Design: You must prove the strategy had a real impact on the building’s design through a functional adaptation implementation plan. This can be undertaken through the provision of drawings or layouts demonstrating incorporation of adaptability measures (e.g., accessible service routes, modular elements etc) as well as providing extracts from design reports or specifications referencing adaptability requirements. It is also recommended that minutes or records from design meetings showing early consideration and decision making linked to the strategy are also retained.

The final submission package should include the functional adaptation strategy study, the supporting design evidence and document control logs that demonstrate design stage considerations were met and any supporting additional supplementary evidence.

[24] BREEAM and RIBA stages

For both BREEAM assessments it is important that any documentation such as recycled content declarations, EPDs or LCAs relevant to supporting your documentation are retained as supplementary evidence. These can be utilised to support your applications where necessary as supplementary evidence.

6. APPENDIX 1 – CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Assured CMS Ltd Laystall Street Manchester . Framework Construction Environment Management Plan.

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APPROVAL			
Version	**Name**	**Date**	**Modifications**
1	Chris Metcalfe FIIRSM MAPM	26/10/2022	Draft for review
2	Chris Metcalfe FIIRSM MAPM	12/11/2022	Ammendents following comments from Sarah Hall. Deloitte
3	Chris Metcalfe FIIRSM MAPM	23/11/2022	Revised red line boundry in Appendix 3
4	Chris Metcalfe FIIRSM MAPM	23/01/2023	Revised working hours as per EHO comments
5	Chris Metcalfe FIIRSM MAPM	22/03/2023	Logistic startgery Page 10 & Plan added to Appedix 5
6	Chris Metcalfe FIIRSM MAPM	22/03/2023	Revised traffic route
7	Chris Metcalfe FIIRSM MAPM	23/08/2024	Revised Welfare and Site Compound area
8	Chris Metcalfe FIIRSM MAPM	04/10/2024	Note added on Emergncy Contact Numbers.Method satemetn on Wheel washing. Waste management Location of Welfare facilites off site Local community engagement

7. INTRODUCTION

General

ASSURED-CMS Ltd has been commissioned by Great Ancoates Ltd (the Client) to provide construction management consultancy services in support of a planning application for the redevelopment of Land ajoining Laystall Street, Manchester, M1 2JP

The Local Planning Authority is Planning, Manchester City Council, PO Box 532, Town Hall, Manchester M60 2LA or email planning@manchester.gov.uk

8. PROPOSED DEVELOPMENT

The development proposals incorporate land remediation of brown field site and construction of a phased, mixed-use development comprising 154 bed room hotel, erection of 20 storey hotel building with ancillary internal facilities such as cafe/bar etc as well as landscaping works,Please see Deloitte standard description of development for proposals

9. CEMP OBJECTIVES

The aim of this Construction Environmental Management Plan (CEMP) is to set out the principles of construction of the Proposed Development. It has been prepared to allow Manchester City Council to assess the impact and suitability of construction of the Proposed Development from a transport and highways perspective.The objectives of this CEMP are to:

- Set out the principles of construction of the Proposed Development.
- Ensure that all construction works at the Site are organised and delivered in a manner that minimises impact on Laystall Street and the local highway network, community considerations detailed in **Section 2**, pedestrians, cyclists, local residents and local businesses; and
- Ensure that safety is maintained throughout construction, both on-site and for other users in the vicinity, including pedestrians and cyclists on Laystall St and Lomax St.

The CEMP aims to ensure that all construction works at the Site are organised and delivered in a manner that minimises impact on the local highway network, pedestrians and local businesses and residents, ensuring safety is maintained.

It sets out the proposed construction vehicle routing strategy, indicative details concerning the type of construction vehicles required to serve the Site daily, and operating procedures to be employed at the Site to help mitigate the impact of development on the local highway network. Clear routes and procedures are outlined that will be adhered to at all times as a means of limiting the effect of construction. It addresses the practical considerations of construction, including the proposed construction methodology and anticipated timescales, and more importantly assesses the impact of construction on the local community considering issues such as traffic congestion, air quality impacts associated with dust and vehicle emissions, noise, hours of operation and site security.

10. PRINCIPAL CONTRACTOR

Assured-CMS Ltd as Principal Contractor have been appointed Principal contractor as such, this Framework CEMP has been produced for submission as part of the planning application, to provide MCC with an overview of the expected logistics activity during the construction programme.

11. CEMP STRUCTURE

Following this introductory section, the remainder of this CEMP is structured as follows:

- **Section 2: Context, Considerations & Challenges** – Sets out information concerning transport conditions prevailing at the Site and in the immediate surrounding area, and identifies community considerations.
- **Section 3: Construction Programme & Logistics** – Sets out details concerning the logistics of construction, including the anticipated construction programme, methodology, and site set up information.
- **Section 4: Vehicle Routing & Site Access** – Details the proposed vehicle access and routing strategy for the duration of the construction programme.
- **Section 5: Estimated Vehicle Movements** – Provides an overview of estimated vehicle movements and sizes for the construction programme.
- **Section 6: Strategies to Reduce Impacts** – Sets out the mitigation measures that will be employed during construction to minimise impact on local residents, businesses, the surrounding highway network, and all road users, including pedestrians and cyclists.
- **Section 7: Implementing, Monitoring & Updating** – Outlines the monitoring strategy for the CEMP.

2. CONTEXT, CONSIDERATIONS & CHALLENGES GENERAL

This section describes the existing transport conditions in the area surrounding the Site, and is informed by desk-based research undertaken by Assured-CMS Ltd. Transport baseline conditions are identified so that the context of construction of the Proposed Development and its potential impact on the local highway and transport network can be fully

understood.

A Human Impact Management Plan and Risk assemsnt will be proecdued if required by MCC under a separate condition

The project will be overseen by Billy Britanll Senior Project Manager: Email

Billy.Britnell@assured-cms.com

Conatct Number *+ 44 7852 494196*

12. SITE LOCATION

The Site is located on Great Ancoats Street Manchester, bound by Laystall Street to the north, Great Ancoats Street to east and Lomax Street to the south,. The site is located on the corner of Laystall St and Great Ancoats Street, Manchester. The site is a vacant plot of land currently being used as a compound the abuts an existing Serviced Apartments which is being redeveloped into a Apart-

The site is approximately 5 metres to the West of Great Ancoats St (A665), to the south of Urban Exchange, a retail area, with a light industrial area to the south. The A665 is a busy main road, with road traffic determining the noise climate**.**

Theres is an indicative site location plan showning the location of the Site in the context of the surrounding area shown in **Appendix 3**

13. LOCAL HIGHWAY NETWORK

13.1 LAYSTALL ST

Laystall St run to the North of the Site and is adopted by MCC as the Local Highway Authority. and connects to Great Ancote St at its Northern end and Brock St / Pigeon St at its Southern end

13.2 LOMAX ST

Lomax St is located to the South of the Site and is also adopted by MCC as the Local Highway Authority and is subject to a 30mph speed restriction. It connects to Laystall at its southern end and Great Ancote St at its northern end. Lomax St provides access to the Northern Quarters serviced apartment's which forms part of the Site boundary's.

13.3 GREAT ANCOTE ST (A665)

Great Ancote St is located to the north of the Site and is also adopted by MCC. The A665 is a strategic route that runs through Manchester, the majority is two lanes of traffic with traffic light controls at junctions

14. PUBLIC TRANSPORT ACCESSIBILITY & SERVICES

14.1 BUS SERVICES

The Site is currently served by a total of 22 daytime bus services. An accessible bus service is defined as being reached within a maximum walk distance of 640m (an eight minute walk at 4.8kph).The closest bus stop to the Site is located on Great Ancoats St (Opposite Laystall St) and approximately 150m to the east of the centre of the Site.

14.2 NATIONAL RAIL SERVICES

The Site is located approximately 0.4 miles to the east of Manchester Piccadilly Rail station. The station is served by Cross Country Railway services running to destinations in Birmingham to Manchester, Bristol to Manchester, Stoke-on-Trent to Manchester and Oxford to Manchester

15. PEDESTRIAN & CYCLING FACILITIES

The area in the vicinity of the Site has good pedestrian facilities with footways providing access to a wide range of facilities within the town centre. The majority of the City centre including retail, leisure, employment, health and education facilities, alongside Picadilly station and local bus stops are located within a 10 minute walk of the Site,

The Site is located in close proximity to a number of cycle routes. In the vicinity of the Site, marked cycle routes are provided on Great Ancoats St and through the town centre.

16. PARKING

Streets in the vicinity of the Site, including Laystall St and Lomax St are located within the Controlled Parking Zone (CPZ) Manchester Areas with parking restrictions controlled via double yellow lines

There are several on-street Pay & Display / Voucher parking bays in the vicinity of the Site, including a MCCP car park on 61 Ducie Stand Urban Exchange Car Park

17. COMMUNITY CONSIDERATIONS

During construction, ACMS will ensure that signs are posted on the site hoarding and main gates, displaying a 24-hour emergency telephone number: 07852 494196. Calls will be handled by our Senior Project Managers, and the appropriate ACMS Ltd staff member will be notified. A response will be provided to the complainant within 12 hours. All calls will be logged in our internal incident reporting system, reviewed by Senior Management, and appropriate actions will be agreed upon. Continuous engagement with the complainant will ensure the issue is resolved satisfactorily. These incidents are reviewed in our monthly Directors Project Meeting to capture lessons learned and share insights across projects

Local residents will be engaged initially through a mail drop outlining the development, early works, and upcoming site logistics, along with our plan to establish a neighbors' forum. The forum will be set up at the start of the project, with participation from Laystall Street as a minimum. Regular presentations and meetings will be held throughout the project, providing updates via the forum and through regular newsletters.

3. CONSTRUCTION PROGRAMME & METHODOLOGY

18. GENERAL

Local transport and traffic impacts are primary issues and concerns for all construction projects. As such, managing the potential transport impacts of construction is a key priority. Potential impacts of construction include on-street congestion resulting in traffic delays, increased road hazards, noise associated with vehicles and construction works, and air quality impacts related to vehicle emissions and dust generation.

The following sections provide an overview of the logistics of construction Laystall St. Details are set out concerning the anticipated construction programme and

timescales, construction vehicle access routes, the location for access and egress to the Site, and anticipated construction vehicle sizes and frequencies.

19. CONSTRUCTION STAGES & PROGRAMME

It is anticipated that, construction works will commence in October 2024 and complete in January 2027. As with the majority of construction projects, it is noted that there may be periods of overlap between elements of construction contained within the programme

A preliminary project programme and construction logistics plans have been prepared by Assured - CMS Ltd and are contained at Appendix 1 for information. A detailed project programme will be prepared and contained within the Final CEMP.

It is noted that, whilst the duration of the construction programme (number of weeks per construction stage) is not anticipated to significantly change, the start date and month is subject to change depending on timescales for approvals.

20. WORKING HOURS

All construction works will be carried out between the hours of 07:30 and 18:00, Monday to Friday, and between the hours of 08:30 and 14:00 on Saturdays. No construction works will be undertaken at the Site on Sundays or bank holidays..

Any noisy works required on-site will not commence until 09:00, Monday to Friday, with such works not permitted to be undertaken on Saturdays. For any noisy works where there is a direct impact upon surrounding properties within the specified times, the Site Manager(s) will make contact with the neighbours to consult on the duration, extent and

impact of the works to see if an informal agreement can be reached to minimise the impact of these works.

21. SITE OFFICE & WELFARE FACILITIES

Welfare facilities for construction personnel will be available throughout all phases of the project, located off-site in the former Eternal Life Building and compound on Lomax Street, adjacent to the construction area. These facilities will be securely restricted to prevent access by the general public. Additionally, a green accommodation policy will be adopted for all site cabins and welfare facilities, ensuring environmentally conscious operations.

22. SITE SET UP & PREPARATION

Site setup will be crucial to mitigating the impact of construction on surrounding residents, businesses and road users.

Throughout the construction programme the frontage of the Site will be kept tidy and presentable. Hoarding will be erected up to a height of 2.44m along the length of the Site frontage on Laystall Street, Lomax Street and Great Ancoats St throughout construction, as

identified in the logistics plans contained at **Appendix 2** . The purpose of such hoarding is to provide security and prevent unauthorised personnel from accessing the Site. Hoarding also provides suitable segregation between pedestrians and construction works being undertaken.

Access for construction personnel will be provided via a controlled entry point, anticipated to be managed via a biometrically operated turnstile.

4. VEHICLE ROUTING & SITE ACCESS

23. CONSTRUCTION VEHICLE ROUTING

The proposed vehicle routing strategy to be employed for the duration of the construction programme is shown in **Appendix 4.** The routing strategy has been developed taking into consideration highway routes in the vicinity of the Site, sensitive receptors, community considerations identified in **Section 2** and key pedestrian and cycle routes.

It is proposed that construction vehicles will travel to the Site via the A 665 (Great Ancoats St) and the strategic highway network.

The proposed routing strategy ensures that, as far as reasonably practicable, construction vehicles travel to and from the Site on strategic routes that are suitable for use by construction vehicles, avoids vehicles reversing or turning directly outside the Site and minimising travelling on local roads of a residential nature that are subject to low vehicles speeds and potential high pedestrian footfall.

Where possible, the Contractor will source local construction material suppliers and labour as a means of minimising journey lengths.

24. ROUTE COMPLIANCE

During the construction programme, all traffic associated with the Site will be advised of the appropriate transport routes that should be used, with all regular visitors provided with written notification of the agreed access and routing strategy.

A requirement to use the agreed construction vehicle route as set out in **Appendix 4** will be included as a contractual requirement of all sub-contractors travelling to and from the Site. It is envisaged that this information will be communicated in the form of a leaflet or email and will include information with regard to times of operation, delivery routes, the call up procedure and delivery slot information. Any repeated non-compliance with the construction routing strategy could result in disciplinary procedures or the termination of the contract of workers and/or suppliers.

All construction workers and suppliers will be advised to use the

www.routeplanner.co.uk website, which is designed to help freight operators plan a route for a specified size of vehicle, and identify where it is possible to stop or wait legally.

An appointed Site Manager will keep up-to-date with regards to scheduled roadworks, events and incidents in the area. Where feasible, any required changes to the routing strategy due to significant roadworks or events taking place on the proposed construction

vehicle route will be agreed with MCC in advance.

25. SITE LOGISTICS

Loading locations, laydown areas welfare facilities, tower crane postion and mast climbers are identified onthe logistics plan contained at **Appendix 5**.

Additional laydown areas,Site office and welfare will be located in th existing Eternal Life buiding off Lomax St.

The logistics and access strategy has been developed with consideration given to access, egress and material unloading points. Specific pull-in zones for off-loading will be provided within on-site throughout the construction programme.

During working hours, the vehicular access and egress gates on Laystall St will be manned by trained traffic marshals who will be responsible for ensuring that only authorised vehicles and construction personnel are provided with access to the Site. All vehicles will be checked by the traffic marshal at the main vehicular access point prior to being allowed to proceed to the designated on-site unloading area. On exiting, the traffic marshal will guide vehicles onto the highway safely and will record their departure.

Due to the nature of the site, we have endeavoured to research a traffic and Logistics route that provides as little disruption as practicable to the projects neighbouring residents and businesses. Given the traffic management constraints associated with Laystall Street being a one-way system we would propose the following measures to minimise disruption.

All site traffic will approach the site delivery loading and hoarding area by suspending parking and a lane at the junction on Laystall St with Great Ancoats Street. Vehicles will approach from Great Ancoats St, turning onto Newton St then onto Hilton St then on to Tariff St finally onto Laystall St. Traffic Marshalls from the Assured-CMS team will then guide the site traffic into the relevant loading

/ unloading area.

Site traffic emerging from the site, will do so under the supervision of Assured-CMS Traffic Marshalls, before re-joining Great Ancoats St obeying the traffic signals at the junction. Further to this strategy and to further mitigate our impact upon the area our team will carry out the following:

- Assured-CMS Traffic Marshalls to guide Site Traffic to and from site entrance.
- Construction Logistics Manager to coordinate deliveries to avoid peak traffic times & Coordinate deliveries between subcontractors and suppliers to avoid increased traffic.
- Deliveries based on Just in Time requirements.
- Off-loading and on-loading of materials & plant to be undertaken within the site boundary in unless agreed otherwise with the local authority.
- Ensure site entrance and surrounding areas are clean and debris free.
- Site boundaries fully secured with solid hoarding in a neutral colour.
- Site boundaries kept clean with professional appearance.
- For the erecting of the tower crane a temporary half road closure will be applied for on Laystall St

In terms of Parking, we acknowledge that the site is constrained in providing the required number of car parking spaces required for the site work force. Off-site parking for constructions teams will be utilised. We have noted a number in the general vicinity of the site that staff, Visitors, and sub- contractors will be directed to, such as MCCP Car Parking at Lomax St & Pidgeon Street. Details will be communicated to all construction operatives and Visitors before arriving to site and reinforced again during their site inductions. The use of public transport will also be strongly encouraged as the site is located near to Manchester Piccadilly Station a major transportation hub.

Delivery scheduling

A site-based delivery management system will be used to control the volume of deliveries to site.

Sub-contractors and hauliers must be booked in a minimum of 48-hours in advance to allow the request to be reviewed and subsequently approved/declined by the site-based Construction Project Manager.

Re-timing for out of peak deliveries

Re-timing out of peak time will aid the operational efficiency of the construction site and the neighbouring area. We, Assured-CMS, as contractor, commit to attempting to re-time as many

deliveries as possible out of the morning peak (07.00-10.30). Deliveries will be arranged as standard between the hours of 10.30-12.30 and 14.00-16.00 to avoid peak travel periods given the proximity of the loading bay on Laystall St .

Design for Manufacture and Assembly and off-site manufacture

Reducing delivery numbers and effective delivery management is a core value of this project. We have identified many new elements that can be manufactured off-site reducing the number of deliveries associated with manufacturing onsite, namely reduction in plant and material deliveries. Items to be manufactured off-site will include:

- Door-Sets.
- Reception Desk.
- Landscape Planters.
- Stair Balustrades.
- Stair Handrails.
- Integrated Panel Systems.
- Masonry Support.
- Louvres.
- Electrical Switch Gear.
- Air Handling Units.
- Pipe-work Manifolds.
- Smart procurement

Assured-CMS will source materials from local suppliers to contribute to the local economy. We will also explore opportunities to source materials from the same supplier(s) as other developers with sites underway near this site.

There will be no on-site parking provided for construction worker's vehicles. Restrictions are also in place at present to prevent on-street parking. As there are excellent transport links nearby at Manchester Piccadilly Station, together with available bus routes, travel by public transport will be strongly encouraged.

Additional banksmen will be present throughout construction hours to ensure pedestrian safety and the safe arrival and departure of vehicles, and to minimise conflict with pedestrians, cyclists and other road users.

It is noted that some construction activities may require continuous access for a number for delivery and construction vehicles, for example concrete pours. This may impact upon working times and incorporate a requirement for vehicles to wait in the vicinity of the Site.

All materials and plant associated with the construction process will be stored within the footprint of the building.

The Principal Contractor and/or Site Manager(s) will apply for any suspension sin advance, giving the required notice period to MCC, and will pay any associated fees. The Site Manager(s) will consult with MCC officers regarding the timescales for suspension. The Site Manager(s) will also inform neighbouring properties and businesses of the proposed loading arrangements and suspensions prior to commencement.

5. ESTIMATED VEHICLE MOVEMENTS

26. CONSTRUCTION VEHICLES

It is noted that construction vehicle frequencies are likely to vary between different periods of construction, with a range of vehicles anticipated to require access to the Site during the construction programme. Vehicles requiring access to the Site are anticipated to include excavators, crushers, fork lift trucks, tipper lorries, flatbed articulated lorries, rigid lorries (various sizes), concrete lorries, tower cranes, and passenger hoists. It is anticipated that a large proportion of construction vehicles accessing the Site will be less than 10m in length.

The location and type of cranes required will be detailed in a site specifc crane lift plan, as Manchester airport boundry is more than 6KM from the site its not invisged any heght restctictions will be applaicable howere this will be confirmed by the crane operators

A breakdown of forecast weekly construction vehicle movements, split by construction stage, has been developed by Assured – CMS Ltd Ltd and is summarised in **Table 2**.

Across the whole construction programme, an average of 65 construction vehicle movements per week are anticipated; this equates to 13 per day. At peak periods, this rises to approximately 36 vehicles per day.

Table 2

Stage	Construction Vehicles (weekly)	
	Average	Peak
Stage 1	85	180
Stage 2	112	144
Stage 3	89	106
Stage 4	63	80

The weekly vehicle profile set out in Table 2 is intended to provide MCC with a suitable level of detail to assess the potential impact that vehicular activity associated with construction of the Proposed Development may have on the local and strategic highway network

6. STRATEGIES TO REDUCE IMPACTS

This section of the CEMP sets out the mitigation measures that will be employed to minimise the impact of construction of the Proposed Development on local residents, businesses, the highway network in the vicinity of the Site and all road users, including pedestrians and cyclists.

This section ensures that the CEMP is effective in achieving aims of reducing road risk, environmental impact, cost and congestion.

27. MEASURES CHECKLIST AND PLANNED MEASURES

A planned measures checklist is detailed in Table 3, with measures identified as committed, planned or considered. Further information on relevant measures is provided within this section of the CEMP.

Table 3 Planned Measures Checklist

Measure	Committed	Proposed	Considered
Safety & Environmental Standards / Programmes	X		
Adherence to Designated Routes	X		
Delivery Scheduling	X		
Re-Timing of Deliveries (Out of Hours/ Peaks)	X		
Use of Holding Areas		X	
Use of Consolidation Centres		X	
Freight by Water / Rail			X
Off-Site Manufacture			X
Re-use of Materials on-site		X	
Smart Procurement		X	
Collaboration with other Developemtns	X		
Staff Travel Plan	X		

28. CONSTRUCTION SITE MANAGER(S)

It is proposed that a designated Site Manager(s) will be appointed for the duration of the construction period to deal with any enquiries, comments and complaints from local residents,

the general public and any other parties. Contact details for the Site Manager(s) (including a 24 hour phone number) will be provided to MCC prior to construction

works commencing.

Contact details of the Site Manager(s) will also be displayed outside the Site on hoarding and will be provided to adjacent residents, ensuring that any questions or queries raised concerning construction are appropriately dealt with in a timely manner.

The Site Manager(s) will be responsible for undertaking the transport co-ordination role or the duration of construction. Their main responsibilities are anticipated to include, but not be limited to:

- Managing the implementation of the CEMP;
- Construction and delivery vehicle scheduling and booking;
- Informing local residents, businesses, MCC about the commencement of construction works and anticipated construction programme;
- Checking for scheduled road works, special events and incidents on the One Network Roadworks website;
- Handling any complaints and responding to questions or concerns from MCC ,local residents, businesses and the general public; and
- Acting as a point of contact for employees, contractors, MCC and the general public.

The Site Manager(s) will ensure that there is adequate liaison between key stakeholders throughout the construction period, including the Principal Contractor, any appointed subcontractors, local residents, businesses, MCC, and other local parties.

Regular review meetings and telecommunication will be held between the Site Manager(s) and MCC, if required. It is envisaged that update meetings will be held on an ad-hoc basis, with updates provided to MCC via email or telephone at agreed intervals.

29. SAFETY & ENVIRONMENTAL STANDARDS

The Principal Contractor will implement a number of environmental initiatives for construction of the Proposed Development, including an Environmental Risk Assessment, Environmental Management Plan, Environmental Aspects & Impacts and Materials Management Plan.

A range of Environmental Key Performance Indicators (KPIs) will be introduced for construction, including:

- Diversion of waste from landfill;
- Setting and monitoring of energy, water, and carbon usage targets from on-site activities;
- Use of waste recycling schemes on-site, as far as possible;

30. SAFETY & CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH)

All personnel will be required to wear safety helmets whilst on-site, and safety instructions will be strictly adhered to. All precautions will be taken to ensure the safety of working personnel, visitors and the general public.

All relevant COSHH regulations will also be enforced, and manual handling regulation will also be implemented. Plant operatives will be made fully aware of all potential hazards, including but limited to uneven ground and other construction personnel nearby.

31. DELIVERY SCHEDULING & VEHICLE MOVEMENTS

The Site will operate a delivery booking schedule to control deliveries to ensure, as far as reasonably practicable, that there are no construction vehicles held waiting in the vicinity of the Site, and to ensure the number of deliveries taking place at a time can be accommodated within the on- site loading areas. Such a booking system will enable vehicle movements to be distributed across the week and across working hours. The booking schedule will be strictly enforced and managed by the Site Manager(s).

It is anticipated that all deliveries to the Site will be organised to take place between the hours of 09:30 and 15:00, Monday to Friday, and 09:30 to 13:00 on Saturdays. No deliveries or collections would be permitted on Sundays.

Final delivery hours will be agreed in advance with MCC.

Deliveries will not be accepted outside of their designated timeslot, unless there is capacity to accommodate vehicles within the proposed loading area. Unplanned vehicles will be turned away and advised to return to the Site at a rearranged delivery time, and will not be permitted to wait at any other location on the highway network in the vicinity of the Site.

The Client and Principal Contractor will consider potential methods to reduce the number of vehicle movements to the Site, including investigating the potential for consolidation of deliveries. When planning deliveries, the Contractor will consider the following:

- All deliveries to the Site will be restricted to the timings set out within this CEMP; Deliveries will be permitted only in the specified loading area;
- A delivery booking schedule will be employed to avoid vehicles queuing or waiting on the highway network in the vicinity of the Site; and
- Material storage areas will be prepared on-site in advance of deliveries to minimise loading and unloading times.
- All plant and machinery used in the construction of the development will be contained within the site boundry at all times.

With proper planning and an efficient delivery schedule, unnecessary vehicle trips to the Site will be kept to a minimum.

32. VEHICLE DWELL TIMES

Construction delivery vehicles are not anticipated to be required on-site for a period longer than 60 minutes, depending on materials being delivered or collected. The delivery booking system will allow sufficient times between deliveries to ensure that no vehicles arrive or depart at the same time, to minimise potential disruption to traffic flow on the surrounding local highway network.

33. SUBCONTRACTORS

Individual subcontractors will be required to incorporate the relevant requirements from the Final CEMP into their activities as well as statutory requirements. Any potential subcontractors will be required to demonstrate the ways in which they will comply withthe contents of the CEMP.

34. GOOD NEIGHBOURS POLICY

The Client recognises the importance of communication between the Site and local residents and businesses. The Client and Principal Contractor will strive to be '*Good Neighbours*' throughout and prior to construction, and as such will employ systems to ensure that any local issues and concerns are understood.

A Community Liaison Manager (CLM) will be appointed for the duration of construction of the Proposed Development. In line with best practice guidance, the CLM will undertake letter drops to neighbours in the vicinity of the Site (including Apart-Hotel guests & visitors , businesses to ensure all parties are kept informed on construction activities. This will provide information concerning construction, including timescales, working hours and delivery scheduling, alongside contact details for the Site Manager(s). This will help to minimise the impact construction may have on the surrounding community and ensure that residents and businesses are fully informed at all times.

A regular newsletter will be produced, and will include contact details for both the Site Manager(s) and CLM. Neighbours will be encouraged to report back any comments or concerns to the CLM or Site Manager(s). The CLM will be responsible for meeting with any concerned party regarding construction works and potential impacts.

The Principal Contractor will be signed up to and approved by the Considerate Constructor Scheme (CCS), and will be compliant with all associated elements.

An induction programme specific to Laystall St will be provided to all construction personnel before works commence. This will incorporate health and safety; on-site construction works and issues and sensitivities in the context of the surrounding area and local community. Operatives will be advised on how to behave on-site and whilst interacting with the local area, businesses and residents.

As with all construction projects, there is potential for extenuating circumstances to occur that may require work to extend beyond core working hours, for example, the breakdown of plant machinery or other equipment. Such instances are beyond the usual control of the Principal Contractor.

Whilst considered unlikely, should this situation occur, the Principal Contractor would speak to MCC's Environmental Health Officers in order to obtain their guidance on how best to approach out of works working in extenuating circumstances. Where possible, any work that is anticipated to occur outside of the core working hours will be discussed and agreed in advance with MCC

35. PEDESTRIAN & CYCLIST SAFETY MEASURES

Maintaining pedestrian and cyclist safety throughout the construction programme is of great importance. Traffic marshals and banksmen will be present throughout construction hours to ensure pedestrian and cyclist safety and the safe arrival and departure of vehicles, and to minimise conflict and potential disruption for pedestrians, cyclists and other road users.

Warning signage will be provided in the vicinity of the Site to ensure that vehicles, pedestrian and cyclists are aware that construction activity is taking place. The hoarding of the Site will help to ensure that unauthorised access to the Site is not possible.

Retractable fencing will be used by traffic marshals to temporarily close the footway on Lomax St when construction vehicles are entering and exiting the Site. During the temporary footway

closures pedestrians will be advised to either wait whilst vehicle manoeuvring takes place or cross and walk on the footway on the opposite side of the carriageway.

Any requiremtns for road or pavement clsoues will be via approval by MCC

36. NOISE & VIBRATION CONTROL

The Contractor will endeavour to keep noise levels to a minimum at all times. Best practicable means, as defined in Section 72 of the Control of Pollution Act 1974, will be employed at all times to reduce and control noise and vibration.

The quietest and lowest impact processes that are reasonably practicable will be employed on-site in the undertaking of all construction works. Measures that will be implemented as a means of minimising noise include:

- The quietest vehicles, tools and machinery shall be used as far as is reasonably practicable;
- Use of sound reduced compressors and sealed acoustic covers for noisy works;
- All pneumatic and percussive tools to have shrouding and/or silencers;
- No machinery will be permitted to start up on-site before the designated core working times;
- Include within material and subcontractor requisitions details of permitted vehicle arrivals (i.e. during designated hours);
- Minimal use of radios and other noise-generating devises on-site;
- Use of ear protection where noise levels exceed 85db(A);
- Keep voices and conversation outside of the perimeter of the Site to a minimum and low in volume;
- No engines left running whilst vehicles are stopped on-site;
- Construction personnel to carefully place waste into muck away trucks and skips,where required, to minimise noise; and dust
- Local residents will be advised of the start and finishing dates and times of particularly noisy works (such as site clearance) and these will be timed to minimise the disruption to local residents as far as possible.

In the event that a complaint or concern is raised by a local resident, business, or MCC, an immediate review will be carried out to establish the degree of noise created and to establish how to best develop a solution.

The Principal Contractor will carry out predictions of noise and vibration levels before construction activities commence. Noise monitoring will be undertaken using a combination of semi-permanent (continuous) and attended monitoring methods at the boundaries of the Site.

37. AIR POLLUTION, DUST & DIRT CONTROL

control of dust is a prime concern for all construction projects, particularly during periods of dry and windy weather. Best practice set out within the '*Dust and Air Mitigation Measures*' (July 2014) guidance provided by the Institute for Air Quality Management will be employed to control dust generation.

Dust emissions will be monitored visually throughout working hours. If dust is observed either in the air or deposited on vehicles or other sensitive receptors, works will be immediately suspended and working practice reviewed to determine a method to prevent the issue reoccurring.

During construction, it is anticipated that the primary air pollution emissions will be associated with dust generated and fumes generated by machinery. All spoil and waste materials stored temporarily within skips and muck away trucks on-site will be covered at all times.

Mud and debris on the road is regarded as one of the main environmental nuisances and safety problems arising from construction works. All vehicles removing spoil and debris from the Site will be fully sheeted to minimise the risk of any debris over spilling onto the highway. Manual cleaning will be undertaken if required.

Due to limited space on-site, it is not practicable to install wheel washing facilities. Instead, road sweeping and the use of mats will be implemented as per the procedure below.

37.1 METHOD STATEMENT FOR ROAD SWEEPING DUE TO LACK OF ON-SITE WHEEL WASH FACILITIES

1. Objective

The objective of this method statement is to outline the procedures and responsibilities for implementing regular road sweeping in place of traditional wheel wash facilities due to space constraints on-site. The aim is to maintain the cleanliness of the public roads surrounding the construction site and ensure compliance with environmental regulations.

2. SCOPE OF WORKS

This method statement applies to all vehicles leaving the construction site and all associated road cleaning activities. It is relevant to all site personnel, subcontractors, and suppliers.

3. RESPONSIBILITIES

- **Site Manager**:
    - Ensure this method is implemented on-site.
    - Liaise with local authorities if necessary for road access and any road closures.
    - Schedule regular road sweeping operations.
- SITE PERSONNEL:
    - Ensure vehicles leaving the site are as clean as possible.
    - Assist the road sweeping operator in identifying areas requiring special attention.
- SUBCONTRACTORS AND SUPPLIERS:
    - Follow the designated vehicle exit route.
    - Minimize the tracking of mud or dirt onto public roads by reducing on-site speed and staying on designated haul roads.
- ROAD SWEEPING CONTRACTOR:
    - Perform road sweeping as scheduled or when needed.

- Maintain the road sweeper in optimal working condition to avoid operational delays.

4. ROAD SWEEPING PROCEDURES

1. **Prevention Measures on Site:**

   - Designate a hard-standing area near the exit gate where vehicles can pause for **manual cleaning** (e.g., removal of debris or large clumps of dirt from wheels and undercarriages).
   - Use **geotextile mats or stone-based rumble strips** at exit points to dislodge excess mud and debris from vehicles.
   - Create a **one-way traffic flow system** to control the movement of vehicles, ensuring they exit through designated paths.
   - Ensure vehicles drive slowly through the site to minimize the transfer of mud.

2. ROAD SWEEPING SCHEDULE:

- Road sweeping shall occur at least **once daily** during peak construction activity or as often as required based on weather conditions and site operations.
- **Additional sweeps** shall be conducted in response to adverse weather conditions (e.g., after heavy rainfall) or when significant dirt is detected on the road.
- Regular sweeps should focus on **site access points** and **high-traffic areas** on public roads adjacent to the site.

3. PROCEDURE FOR SWEEPING:

- The **road sweeper** will start from the **site exit** and move outward, covering a radius of **200 meters (or as agreed with local authorities)** around the site.
- Priority should be given to **entrance/exit routes** used by construction vehicles and any areas flagged by site management as problematic.
- The sweeper will use **high-pressure water jets** to suppress dust while cleaning debris from the road surface.
- Ensure proper disposal of all debris and waste collected by the road sweeper in accordance with local waste disposal regulations.

4. POST-SWEEPING INSPECTIONS:

- Conduct **daily inspections** of the public road after road sweeping to ensure all mud and debris have been removed.
- If road conditions remain unsatisfactory, request an **additional sweep** and inform relevant parties (e.g., local authorities if required).

5. EMERGENCY RESPONSE SWEEPING:

- If a significant amount of mud or debris is accidentally tracked onto public roads, **emergency sweeping** must be arranged immediately to prevent hazards such as slippery road conditions or public complaints.

5. EQUIPMENT AND RESOURCES

- **Road Sweeper**:
  A self-contained street sweeper equipped with brushes and water jets for cleaning mud, debris, and dust from road surfaces.

- MANUAL CLEANING TOOLS:
  Shovels, brushes, and high-pressure hoses for removing excess dirt from vehicle wheels before they leave the site.

- GEOTEXTILE MATS / RUMBLE STRIPS:
  Installed at the site exit to assist in the cleaning of vehicles as they leave the site.

- WATER SUPPLY:
  Sufficient water supply for road sweepers to ensure effective dust suppression and cleaning.

6. ENVIRONMENTAL AND SAFETY CONSIDERATIONS

- **Dust and Noise Control**:
  The road sweeper should be fitted with water jets to suppress dust during sweeping. Sweeping should be performed during periods of low traffic to minimize noise disturbances.

- WASTE MANAGEMENT:
  All waste collected from road sweeping must be disposed of according to local authority regulations, ensuring no debris is left in drains or public areas.

- TRAFFIC MANAGEMENT:
  Sweeping operations should be planned to avoid peak traffic hours, and traffic control may be required to ensure safety.

7. MONITORING AND REPORTING

- **Site Manager** to maintain a **road sweeping log** recording the date, time, and areas swept, as well as any issues or complaints.

- Regular monitoring of road conditions should be documented, and any incidents of excessive mud on the roads should be reported to management immediately.

- **Weekly reports** should be reviewed to ensure the road sweeping method remains effective and is adjusted if necessary.

8. REVIEW

This method statement will be reviewed periodically or following significant changes in site activity, weather conditions, or feedback from local authorities

The Site Manager(s) will undertake daily inspections of the Site and surrounding roads to ensure that dust control measures are complied with. All complaints regarding dust and air quality pollutant emissions will be recorded and responded to, with the Site Manager(s) maintaining a log of such complaints and any action taken to resolve them.

38. CONSOLIDATION

Consolidation centres are distribution centres at which loads are consolidated and from which a lower number of consolidated loads are delivered to a site. The most common objectives of consolidation centres relate to reducing congestion, traffic disruption and vehicle emissions within the area served by the centre. Such centres are increasingly promoted as a tool to help achieve improvements in local air quality and greater efficiencyt hrough optimisation of land use, faster deliveries and in the case of the construction

industry reduced material and time wastage.

Objectives of consolidation can include:

- Reduce congestion by decreasing the number of delivery vehicles required;
- Reduce conflicts between delivery vehicles and other road users, including pedestrians;
- Improve the delivery service provided to retailers;
- Reduce costs to retailers, both in terms of transport and staff; and
- Contribute to reductions in traffic pollution / vehicle emissions and improvements in air quality.

Consolidation centres can significantly reduce the volumes of construction traffic generated by up to 70%. However, this benefit needs to be offset against the need to set up parallel logistics facilities at a consolidation centre.

The potential for the use of a construction consolidation centre will be fully investigated by the Principal Contractor.

39. FUEL CONSUMPTION / EMISSIONS

The Contractor will strive to procure local contractors for all elements of construction at the Site, thereby minimising transport costs and impact on the local environment. The use of a booking system for deliveries will also help to ensure that the Site is serviced in an efficient manner, helping to minimise the number of construction vehicle movements generated.

Machinery exhaust emissions will be kept as low as is practicable by using well maintained vehicles and machinery at all times.

No construction-related vehicle engines will be left running when not in use. If a vehicle or piece of equipment is not being used, then it will be turned off to reduce both emissions and on-site noise levels.

40. WASTE MANAGEMENT

Waste will be stored in covered skips or muck away trucks, and will sorted off-site by an external specialist company. Contractors will be required to minimise waste at source and maximise recycling and re-use of site clearance and construction materials wherever possible and practicable.

All waste material that cannot be reused or recycled, including contaminated soils and materials, will be disposed of in accordance with legislation and best practice. All waste materials will be collected and stored in suitable receptacles before they are taken offsite. Waste materials will not be allowed to accumulate on-site.

If required by MCC, a Site Waste Management Plan (SWMP) will be developed prior to the commencement of construction that addresses how spoil and debris associated with demolition of existing buildings will be removed from the Site. This will be based on guidance within the Department of Trade and Industry (DTi) report *Site Waste Management Plans – Guidance* (2004) and will specify policies and procedures for waste management and disposal

.

The Client will follow the ethos of SWMP for construction of the Proposed Development, and will require the Principal Contractor to establish a Materials Management Plan (MMP) in line with the Client's sustainability targets and goals.

Waste skips will be located in the site compound on Lomax St and emptied daily. All construction waste will be managed in line with environmental regulations.

Whenever delivery activity is taking place, banksmen will be used to ensure pedestrian safety and to ensure that no dirt or rubbish is left on the highway.

41. FIRE PRECAUTIONS

A fire marshal will be appointed prior to the commencement of construction. The fire marshal will ensure that a fire escape plan is produced, and the appropriate extinguishers are in place. It is anticipated that the fire marshal will inspect all areas of the Site at least once a day and report and put right any deficiencies.

An assembly point will be designated prior to commencement of each stage of work and will be clearly identified to all construction personnel.

42. CONSTRUCTION PERSONNEL & TRAVEL PATTERNS

42.1 CONSTRUCTION PERSONNEL NUMBERS

It is noted that the final number of construction personnel working on-site by stage will depend on the Principal Contractor's final construction methodology. Details of the average and peak number of construction personnel working on-site at any one time will be set out within the Final CEMP.

All contractors and suppliers employed at the Site will be members of the Fleet Operators Recognition Scheme (FORS). As such all contractors and suppliers working on the Site will be committed to safer and more efficient ways or working.

42.2 TRAVEL PATTERNS

It is anticipated that the majority of construction personnel will travel to and from the Site by public transport. As identified in **Section 2**, the Site is located within an accessible distance of the bus services, with Woking National Rail station located approximately 0.4 Miles from the Site.

Information on public transport services that operate within an accessible distance of the Site will be provided to all construction personnel at the commencement of their contract.

Due to the sustainable location of the Site in terms of its access to public transport services, no car parking will be provided on-site for construction personnel. Furthermore, on-street parking restrictions limit the opportunity for construction personnel to park on-street in the vicinity of the Site. Construction personnel will be discouraged from parking in Pay & Display bays located in the vicinity of the Site.

The Contractor, where feasible, will seek to recruit construction workers from the local area. This will help maximise the potential for construction workers to travel sustainably. to and from the Site. It is considered that, in most instances, construction staff will have the opportunity to arrive at the Site via sustainable modes.

7. IMPLEMENTING, MONITORING & UPADTING

The CEMP will be regularly reviewed and monitored, with feedback provided to MCC where necessary. Further reviews will be discussed with MCC as appropriate.

The CEMP is considered a 'live' document, and as such will be updated throughout the lifespan of construction if any significant changes occur to the scope or programme of construction.

Regular review meetings and telecommunication will be held between the Site Manager(s) and MCC, if required. It is envisaged that update meetings will be held on an ad-hoc basis, with updates provided to MCC via email or telephone at agreed intervals.

43. CEMP IMPLEMENTATION

The Construction Site Manager(s) will be responsible for implementing the CEMP and will ensure information is provided to all contractors, construction personnel and sub- contractors (as set out in **Section 6**) through a Contractor's Site Induction.

44. DATA COLLECTION

It is anticipated that the following information will be collected during the construction programme:

- Vehicle movements (including arrival and departure time, frequency, dwell time, size);
- Details of complaints and concerns;
- Non-compliance with vehicle routing and loading locations;
- Staff travel patterns; and
- Health & Safety concerns and near-misses / close-calls.

45. CONTRACTORS' INFORMATION

The Principal Contractor will prepare a Contractors' information Sheet to distribute information to those undertaking construction works at the Site. This will ensure contractors are aware of the duties and obligations they are required to follow throughout the construction process. It is anticipated that the Handbook will include details of:

- **Vehicle Routing / Delivery Scheduling System**: an explanation of the routing and delivery system in use, and the requirement to utilise these;
- **Driver Training**: Details of any driver training to be provided as part of the contract (if considered applicable); and
- **Construction Specifics**: including site opening times, entry and exit points, vehicle loading locations, anti-idling procedure and road user safety; and
- **Safety & Environmental Standards**.

46. COMPLAINTS PROCEDURE

Although the measures set out within this CEMP are intended to minimise the impacts of construction and ensure that neighbouring residents are informed of the construction programme and timescales, it is possible that complaints may be raised concerning construction.

As previously detailed, contact details and information concerning construction will be provided to local residents and businesses, and the CLM and Site Manager(s) will be available to meet and explore issues with concerned parties directly via appointment. Neighbours will be encouraged to report back any comments or concerns to the CLM or Site Manager(s).

The procedure for logging and recording complaints will be standardised through the use of a proforma complaint record and a complaints log that will be kept on-site for auditing and tracking purposes. This file will also be presented to the Considerate Constructors Scheme Inspectors.

Any complaints received will be taken seriously and addressed immediately by the construction team and designated Site Manager(s). All complaints that are received will be reviewed in regular site meetings to ensure that any required actions are communicated to all employees, as appropriate.

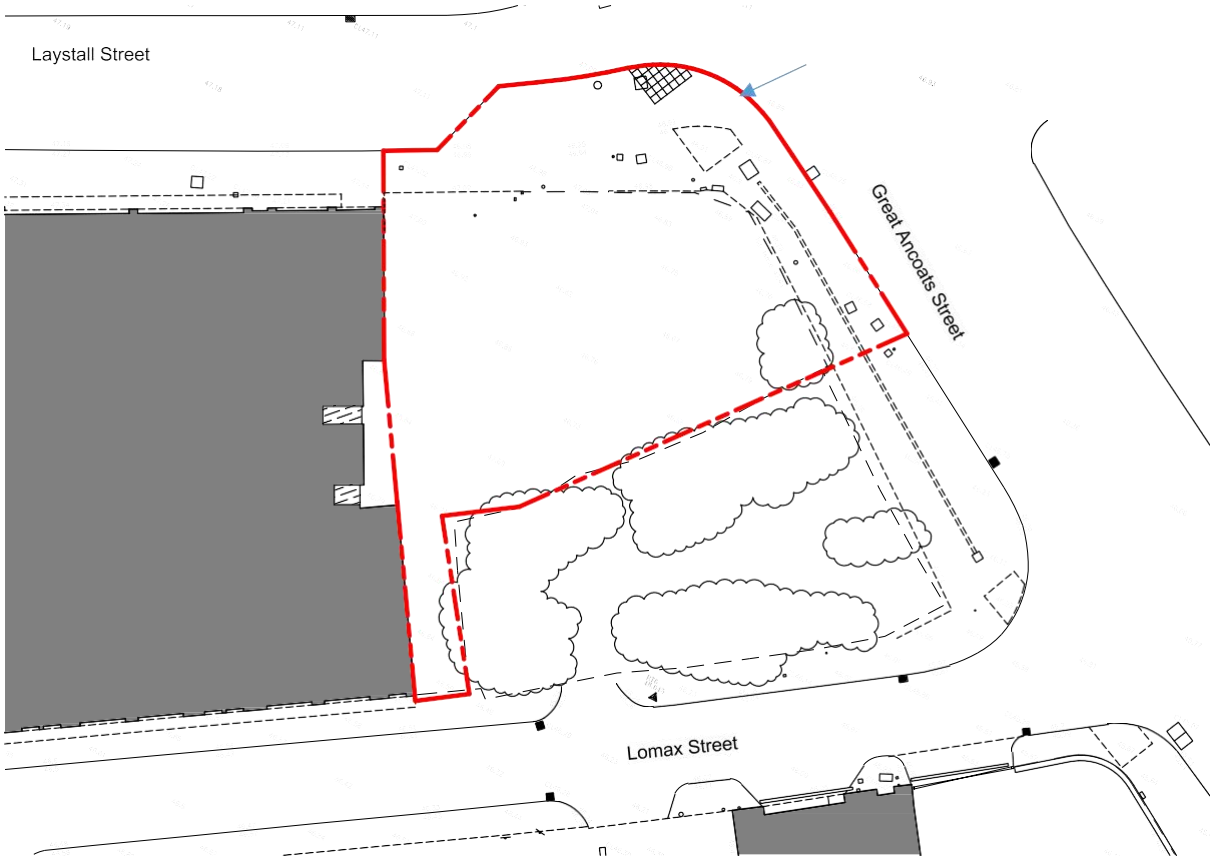
47. APPENDIX 1 PROGRAMME TBA

48. APPENDIX 2 SITE SETUP

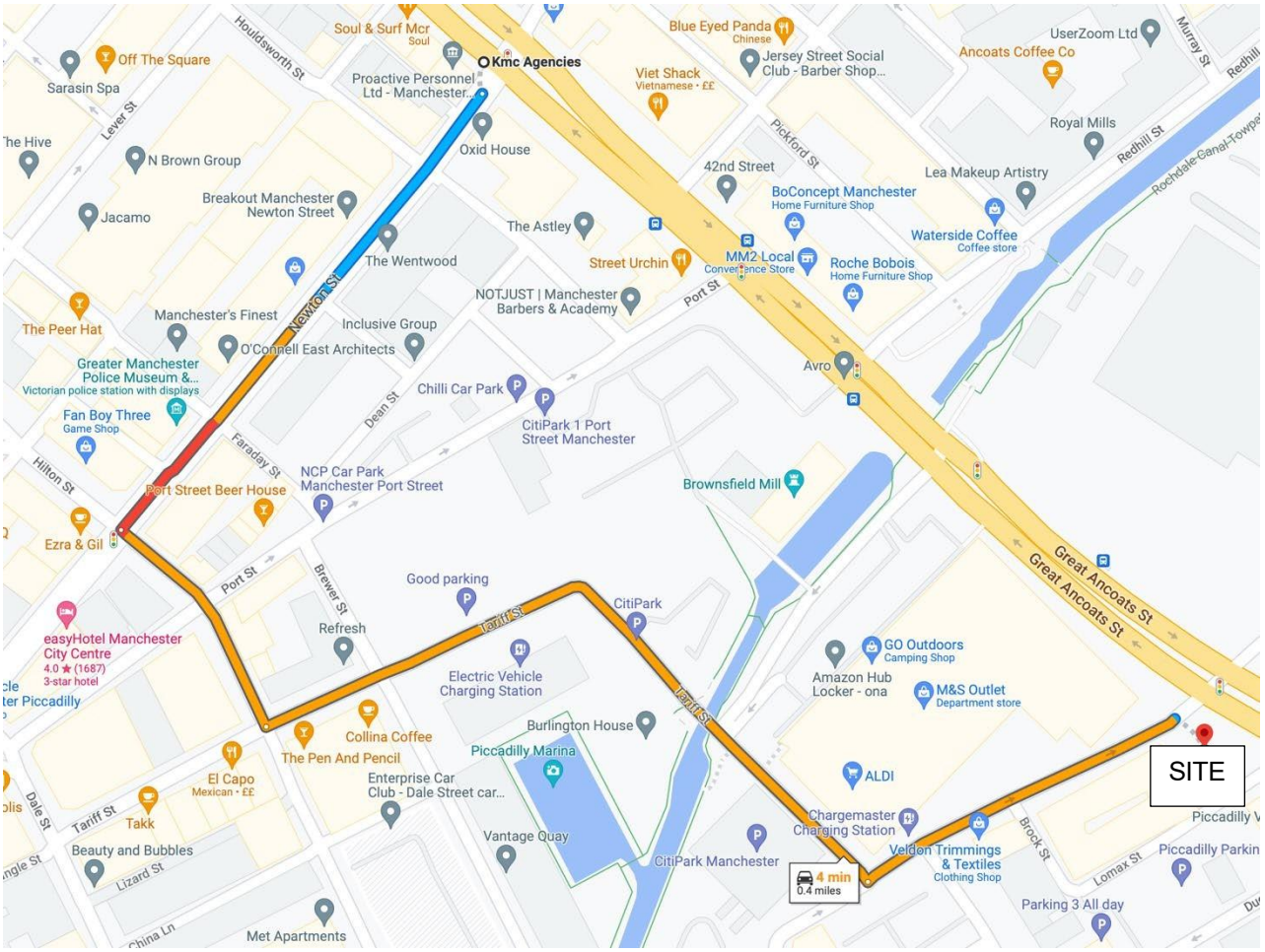


49. APPENDIX 3 SITE LOCATION

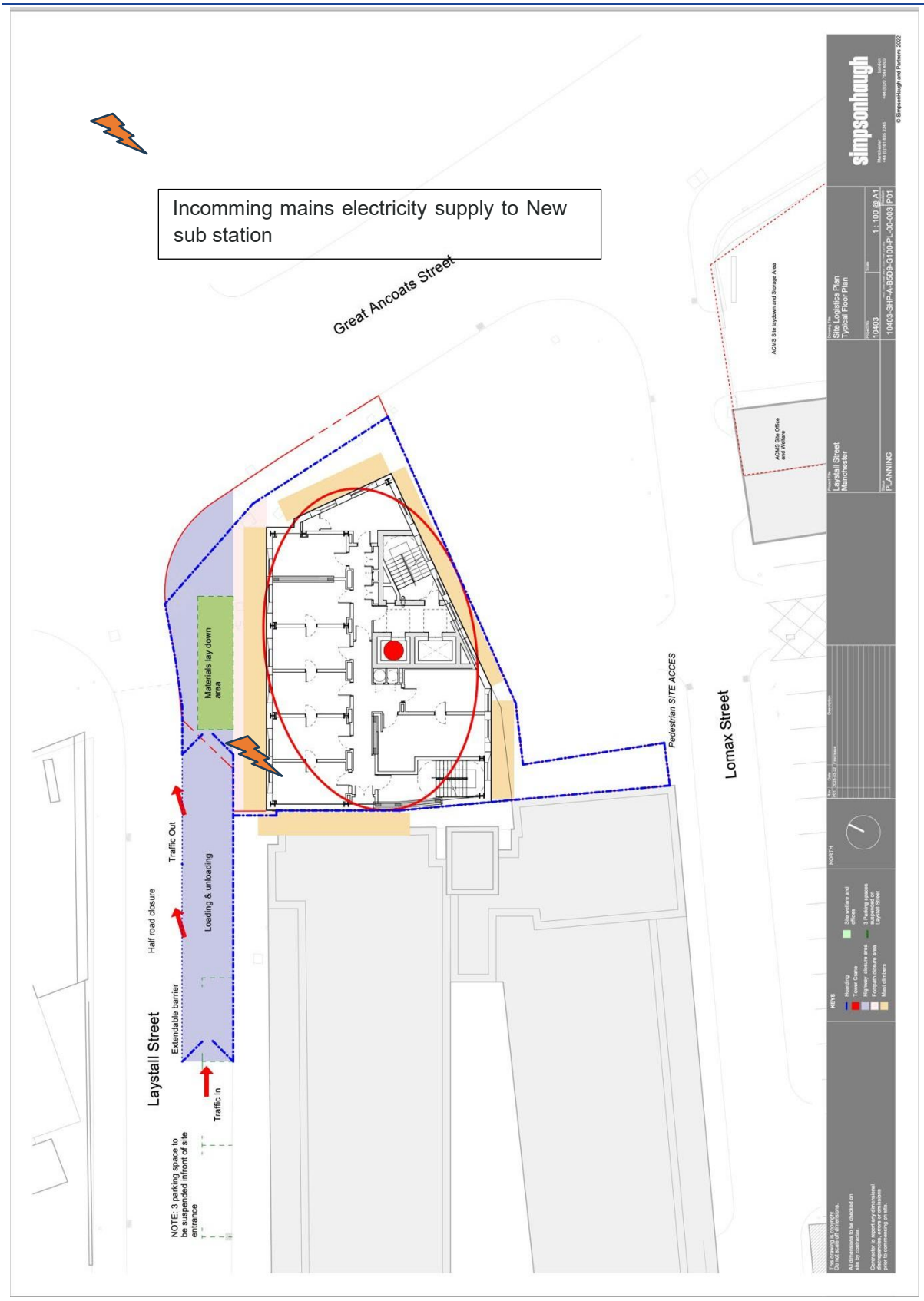
The site is East of Great Ancoats St (A665) site boundry marked in red



50. APENDIX 4 PROPOSSED TRAFFIC ROUTE



51. APENDIX 5 LOGISTIC PLAN



Apendix 6 Code of Construction Practice Introduction

To be issued to all sub-contractors at point pre-tender stage

The ASSURED-CMS Code of Construction Practice has been developed in liaison with the relevant local authorities and covers specific legislative requirements as well as general requirements and compliance with British Standards referred to in Parts C and D of this Code.

The purpose of the Code of Construction Practice is to cover environmental and safety aspects affecting the interests of local residents, businesses, and the general public in the vicinity of the construction works, and it will apply throughout the whole period of the construction works.

The Code will be included in the Contract for the construction of the new development Sub-Contractors, agents and their employees will have an obligation imposed upon them to comply in full with the terms of the Code of Construction Practice. Otherwise the Contract may be liable to determination. The Code may also form part of the Planning Conditions for the scheme. All sub-Contractors will be given a reasonable period of time to rectify any breaches of the Code of Construction Practice, but should these not be rectified within that time the promoter of the scheme, as the Employer under the Contract, may make arrangements for a third party to carry out the necessary works to rectify the breaches.

52. APPLICABLE ACTS OF PARLIAMENT/REGULATIONS

There are currently in existence numerous Acts of Parliament and statutory regulations covering environmental and safety matters and rather than list all of these separately all Contractors involved in constructing the scheme will be required to comply in full with all relevant legislation applicable at the time of construction.

Current examples of relevant legislation are the Health and Safety at Work Etc. Act 1974, Environmental Protection Act 1990, Control of Pollution Act 1974, New Roads and Street Works Act 1991, Construction (Design and Management) Regulations 2015 and Schedule 1 of the Wildlife and Countryside Act 1981

53. GENERAL REQUIREMENTS

Public/Private Highways

For the purposes of this Section of the Code references to work sites is to the designated worksites in the draft Order including site compounds.

Traffic management proposals shall be agreed with the Highway Authority in advance and shall comply with current legislation and codes of practice. The following requirements will at all times apply to the construction works:

Any temporary footways and ramps on the highway must be surfaced in materials to the satisfaction of the Local Planning Authority and must be accessible by wheelchair users and sight impaired people unless otherwise agreed with the Local Planning Authority.

All openings or obstructions on the carriageway or footway will be barricaded with a continuous rail (lit at night) strong enough to offer necessary resistance should a blind person walk into it; a tapping rail will be provided.

All pedestrian routes diverted onto the carriageway will be clearly defined by continuous barriers, constructed to the requirements of the Local

Planning Authority. The minimum standard is the Chapter 8 requirements appropriate for the situation but enhanced facilities may be required in respect of the following:

Existing access for the emergency services shall be maintained through or past the site and to all properties and public areas affected by the works.

There shall be always at least one accredited supervisor contactable by phone on site when works are in progress. Accreditation shall be a certificate from an approved assessment centre demonstrating that the person is competent to sign and guard road works.

Existing pedestrian routes shall be maintained at all times or diverted to a reasonable alternative route.

Existing bus routes and stops shall be maintained so far as reasonably practicable.

So far as reasonably practicable, all parts of the public highway including drainage systems will at all times be kept free from mud and other loose materials arising from the works. To comply with this the Contractor shall obtain the prior written approval of the Local Planning Authority in respect of the following:

Provision of vehicle wheel cleaning facilities, adequate provision for drainage via settlement tanks and regular maintenance of settlement tanks, during the working hours specified in Section 2.3 of this Code.

Provision of a mechanical road sweeper to clean the work sites hoardings and any mud or debris deposited by site vehicles on roads or near work sites, during the working hours specified in this Code.

Provision of facilities and working arrangements to ensure the adequate sheeting and boarding of all materials including spoil either brought onto or taken off the site to prevent material falling off during its journey.

Vehicles entering and leaving each work site will only be allowed to cross footways via a properly constructed crossing, if required the design of which shall be submitted to and approved in writing by the Local Planning Authority prior to construction. Footways must be kept free of mud.

Access, which is deemed to include both the route and entrance to any work sites by vehicles, shall be as agreed in writing by the Local Planning Authority.

All street furniture, trees (unless they are to be removed/lopped) and other features near the construction works shall be carefully protected in accordance with the requirements of the Local Planning Authority. Any damage caused by the Contractor shall be made good within an agreed timetable to the complete satisfaction of the Local Planning Authority.

Any street furniture, trees or other obstructions outside the area to be occupied by the Contractor, which the Contractor requires to remove in order to gain access or for temporary works shall, subject to the prior consent of the owner, be removed by the Contractor and put back if appropriate on completion of the works. This provision also applies to temporary works.

The Contractor shall ascertain and comply with any restrictions in respect of abnormal load routes as they may affect access to work sites.

The Contractor will work in such a way as to minimise, so far as reasonably practicable, disruption of existing road traffic.

Where any Public Rights of Way to be kept open during construction of the works cross any site where work is being carried out, safe crossing points including appropriate signs and signals shall be approved in writing by the Local Planning Authority.

Works shall be carried out so far as reasonably practicable in accordance with the Highway Authority's specification of the number of lanes to be maintained on- and off-peak on each road affected by the works. All works in the carriageway shall, so far as reasonably practicable, be carried out during off-peak hours, namely 09.30-15.30 Monday to Friday.

Traffic management shall, if required by the Highway Authority, be provided by a specialist subcontractor approved by the Highway Authority. The Contractor shall nominate a Traffic Safety and Control Officer who must be on site and available whenever works are taking place.

The Contractor shall liaise with the public utility companies.

The Contractor shall comply with the Local Planning Authority's environmental policies relating to road works and waste management.

The works are subject to the Construction (Design & Management) Regulations.

The Contractor shall agree with the Local Panning Authority arrangements for notifying near neighbours prior to works.

The Contractor shall carry out road safety audits of works affecting the highway in accordance with a timetable agreed with the Highway Authority prior to the commencement of the relevant area of works on the highway.

54. NOISE AND HOURS OF WORKING

The Employer will, where appropriate, prepare predictions of construction noise prior to tenders being invited for the construction works in order to establish achievable noise levels at each specific work site. These predictions will be carried out in accordance with BS 5228 and shall be submitted to the Local Planning Authority together with proposals for the mitigation of impacts for the written approval of the Local Planning Authority prior to the commencement of construction.

Where appropriate, there will be included within the proposed tender documents clearly defined noise criteria which must be complied with by the Contractor. Before construction works start, the Contractor will be required to demonstrate to the Local Planning Authority through appropriate method statements that he will comply with these criteria. If the Contractor fails during the period of the construction works to comply with these criteria the Contractor may face enforcement action from the Local Planning Authority.

To ensure noise mitigation criteria are met, a programme of on-site monitoring by a suitably qualified person will be agreed between the Contractor and the Local Planning Authority. This will include location and frequency of readings and timescales for the submission of results together with any additional mitigation measures proposed to the Local Planning Authority. Any additional measures agreed by the Local Planning Authority shall be implemented by the Contractor. If the Contractor wishes to change his proposed method of working once the construction works have started, then this must be agreed in writing by the Local Planning Authority. Unless otherwise agreed in writing by the Local Planning Authority the hours of working for the construction works shall be limited to between 07.30 and 18.00 Monday to Friday and 08.30 to 14.00 on Saturday. In exceptional cases limited work on Sundays and Bank Holidays may be undertaken by prior written agreement with the Local Planning Authority. The Contractor may propose additional or alternative working hours for construction reasons or the Employer may require the Contractor to undertake certain construction works outside these hours. Any change to these working hours requires the prior agreement of the Local Planning Authority.

Best practical methods of reducing noise from machinery shall be employed at all times. Silencers and mufflers shall be used where applicable, machinery shall be noise reduced models, pumps used at night shall be electric served off the mains, and hydraulic rather than pneumatic equipment shall be used where possible.

55. AIR POLLUTION

The Contractor will take all reasonable measures to avoid creating a dust nuisance and will, prior to commencement of any construction work, submit to the Local Planning Authority a method statement for approval setting out the proposed measures to be taken to prevent dust nuisance, and which shall be approved by the Local Planning Authority prior to the commencement of any construction work. Upon commencement of the construction work the contents of the approved statement shall be implemented and complied with throughout the period of the construction work.

Examples of measures to prevent dust nuisance to be included in the Contractor's statement are:

Damping down of dusty material using water sprays during dry weather.

The hard surfacing of heavily used areas, which will be kept clean by brushing and water spraying regularly.

All cutting and grinding operations shall be carried out using water-based dust suppression.

The complete sheeting of the bodies of all vehicles carrying spoil and other dusty materials.

During demolition operations, watering at rubble chutes, covering skips and screening of buildings with debris screens/sheets.

No materials shall be burned on site.

The effectiveness of the measures taken will be reviewed at regular intervals by the Employer and Contractor. Any additional measures to be taken shall be approved in writing by the Local Planning Authority prior to implementation.

The Contractor will take all necessary precautions to prevent the occurrence of smoke emissions or fumes from site plant or stored fuel oils for safety reasons and to prevent such emissions or fumes drifting into residential areas, nearby workplaces or areas of public realm. In particular, plant shall be well maintained and measures taken to ensure that it is not left running for long periods when not directly in use.

The Employer will at the request of the Local Planning Authority seek agreements with the Local Planning Authority under the Control of Pollution Act 1974 section 61 on noise limits for work sites and any other relevant issues.

56. PROTECTION OF SURFACE AND GROUNDWATER RESOURCES

The Contractor will obtain the appropriate licences from the Environment Agency (EA) for discharges to watercourses or sewers or groundwater in accordance with relevant statutory provisions.

In planning and carrying out any construction works , precautions must be taken to secure the complete protection of watercourses and water in underground strata against pollution. These should include an investigation of past use of the site to ensure that operations will not disturb contaminated land.

If any pollution occurs, then the Contractor shall advise the EA and the Local Planning Authority immediately and take prompt action to minimise the impact and prevent reoccurrence.

A common cause of pollution from sites is through vandalism. Therefore, the Contractor shall ensure that sites are adequately protected by the provision of secure fences and locked accesses where possible and monitoring by personnel where appropriate.

In order to limit pollution from silt, cement and other potentially polluting materials, the Contractor shall ensure the following measures are followed:

The washout from concrete mixing plant, or the cleaning of ready mixed concrete Lorries must not be allowed to flow into any drain or watercourse. Any residue shall be removed from the site any either recycled or disposed of at a suitably licensed waste management facility.

Site roads must be regularly maintained and kept free from deposits in order to prevent silt, oil or other materials entering any drain or watercourse.

Any lorry wheel cleaning facilities shall be securely constructed with no overflow and effluent shall be contained for proper treatment and disposal.

Before any discharge of water is made from the site, adequate provisions, such as settlement lagoons, must be made to ensure that pollution will not occur. The local EA office shall be consulted in order to obtain approval.

In order to prevent pollution from oil and chemicals:

All fuel and chemical storage must be either in double skinned storage tanks or sited on an impervious base within a bund and secured. The base and bund walls must be impermeable to the material stored and of sufficient capacity to contain 110% of the volume of the largest tank, or 25% of the total capacity of all tanks, whichever is the greater. Filling and refuelling must be strictly controlled and together with any oil storage tanks, should be confined to a location remote from any watercourse or drain. Leaking or empty drums must be removed from the site immediately and taken to an appropriate facility for treatment/disposal.

All valves and trigger guns shall be as resistant to unauthorized interference and vandalism as possible and should be turned off and securely locked when not in use.

The capacity and contents of any tank shall be clearly marked on the tank and a notice displayed requiring that valves and trigger guns be locked when not in use.

Any tanks or drums shall be stored in secure containers or compounds. These must be kept locked when not in use.

Before any tank is removed or perforated, particularly during demolition works, all contents and residues must be emptied by a competent operator for safe disposal. Pipes may contain significant quantities of oil or chemicals, and shall be capped, or valves closed to prevent spillage.

Prior to the commencement of construction the Contractor shall submit for written approval by the Employer and the Local Planning Authority his proposed procedures for minimising the effects of accidental spillage of pollutants and shall maintain the necessary remedial equipment on site throughout the construction period.

57. HANDLING AND DISPOSAL OF CONTAMINATED MATERIALS AND OTHER WASTES

The Contractor shall take all necessary measures to deal with noxious and toxic materials encountered. All contaminated sites and the hazards that they present shall be identified, as far as reasonably practicable, before work starts. If hazardous materials are found during site clearance, the contractor shall stop all work and secure the site from access by any person until methods of safe removal and disposal have been agreed with the client.

The Contractor shall refer to the HSE publication, HSG 66 ‘Protection of Workers and the General Public during the Development of Contaminated Land’, HMSO 1991, for guidance on precautions required during construction on potentially contaminated sites. In particular, the Contractor shall ensure that all necessary precautions are taken to protect workers exposed to any noxious and toxic chemicals such that:

Protective clothing, including protective overalls, hand protection and safety wellingtons to be worn. Contact with fill materials to be avoided.

If skin contact occurs, the affected area shall immediately be washed.

Smoking and eating on site shall be prohibited.

Shoes and boots shall be cleaned off prior to leaving the site.

Entry into confined spaced and trenches shall be minimised where possible. If entry is necessary, then clear procedures shall be developed for entry into trenches, manholes, etc, where there is a possibility of oxygen deficiency of asphyxiation of toxic gases. This shall include monitoring for a range of gases, etc.

If it is necessary to remove contaminated materials and other wastes from site, then open Lorries or skips used for removal shall be securely sheeted before vehicles leave the site. Only authorised carriers of waste shall be used. The written approval of the Local Planning Authority must be obtained of the waste management facilities to be used together with the related volumes and routing of waste delivery vehicles. Detailed records of disposal will be necessary and the Contractor shall agree this with the Environment Agency.

The Contractor shall obtain the prior written approval of the Local Planning Authority before any imported material is brought onto any part of the construction site.

The Contractor shall endeavour to limit the amount of waste created during construction by seeking to minimize the initial use of materials and then recycling materials where appropriate.

If the Contractor wishes to arrange for any recycling of contaminated materials encountered during the construction works, then before undertaking any recycling measures he shall consult with and obtain the prior written approval of the Local Planning Authority to the recycling of the materials.

The Contractor shall maintain written records (including waste transfer documentation) for inspection by the Employer and the Local Planning Authority detailing the disposal off site of all waste materials.

All proposals for the temporary storage of soil and spoil shall receive the prior approval of the Local Planning Authority and include the proposals for the reinstatement of any land used for this purpose.

58. TREES AND VEGETATION

Before any works take place on site, the Employer shall establish, with the Local Planning Authority, a Tree and Vegetation Protection Policy.

The Policy will specify measures for dealing with trees that may be directly or indirectly affected by the works. The policy must be consistent with BS 5837 ‘Guide for Trees in relation to Construction’. In particular:

The Contractor shall ensure that any trees or hedges or ecologically sensitive areas which are not to be removed under the Contract shall be protected by fencing and visible barriers prior to works commencing and these shall be maintained throughout the works. Such fencing shall include protection of the area occupied by the tree roots. The timing of the fencing erection and its removal, and any access into ecologically sensitive areas shall be agreed in advance with the Local Planning Authority.

Where any existing trees or hedges are to be removed, the Contractor shall before commencing, any clearing in the areas concerned, agree with the Local Planning Authority those areas to be

protected, those to be removed and any measures/working methods necessary to safeguard retained trees.

If the Contractor considers it essential to trim branches or to carry out work adjacent to roots, he shall first obtain the permission of the Local Planning Authority. Such permission, if given, may include a requirement to hand dig and may specify the size of roots to be retained and remedial/reinstatement procedures.

59. SITE BOUNDARIES/HOARDINGS/TEMPORARY STRUCTURES ON THE PUBLIC HIGHWAY

The Contractor shall ensure all designated work sites are completely and adequately fenced off from members of the public to prevent any livestock and people entering. Fencing shall be constructed to the reasonable satisfaction of the Local Planning Authority, with solid boarding used near houses to reduce noise. If hoardings are provided bulkhead lights shall be fitted where appropriate.

The provision of gates in the fencing or hoarding shall, as far as practicable, be positioned, constructed and kept shut to minimise noise to nearby properties from the work sites direct or from plant entering or leaving the site.

The Contractor shall ensure that if hoardings are provided. They are painted on the external face in a plain uniform manner and include a project logo agreed with the Local Planning Authority.

The Contractor is expressly prohibited from displaying or allowing to be displayed any advertisement, notice etc (including illicit bill or fly posting) on the hoardings without the prior permission of both the Employer and the relevant local authority. The Contractor shall also ensure that all graffiti or defacements to the hoardings are removed and made good as soon as reasonably possible.

There shall be provided at each operating work site an information board detailing information on the site programme, together with telephone contacts (including an emergency telephone number) for use by members of the public who wish to lodge complaints.

The Contractor in accordance with any appropriate licence granted by the Highway Authority shall maintain any fenced storage areas, scaffolding gantries, loading/unloading bays, skips or other temporary structures on the public highway provided by the Contractor.

The Contractor shall ensure that construction buildings and equipment are sited so as to minimise visual intrusion, consistent with the efficient operation of each work site. The layout of any Contractor's compounds shall be submitted to and approved in writing by the Local Planning Authority prior to commencement of construction.

60. SITE ACTIVITIES

The Contractor shall ensure the following general requirements are met in relation to the construction works:

Smoking areas will be provided, at suitable locations at ground level. Smoking must not be allowed at any location below ground level.

Rubbish will be removed at least weekly and each work site kept clean and tidy. Toilet

facilities will be kept clean at all times.

Food waste will be kept contained and removed at least weekly. Wheel

washing facilities will be brushed clean at monthly intervals.

Detailed daily records will be kept of climatic conditions including rainfall, minimum and maximum temperatures and humidity.

Records of construction plant used on the site shall be maintained at weekly intervals.

The Contractor shall comply with the requirements of the local fire authority and take all necessary measures to minimize fire risks.

A nominated representative(s) from the Employer and the Local Planning Authority and their agents (e.g. a local authority Environmental Health Officer) will inspect each work site at regular intervals. Should the Contractor not be complying in any respect with the Code of Construction Practice he shall have a period of three days or such shorter period as may be deemed necessary by the Employer to rectify the situation. Otherwise the Local Planning Authority may commence enforcement proceedings.

The Contractor will not allow any residential accommodation on site except with the prior consent of the Local Planning Authority. Mess rooms, locker rooms, toilets and showers will be permitted.

Where practicable and suitable the Contractor will arrange for a viewing platform at certain sites, these to be agreed with the Local Planning Authority.

At each work site all vehicles shall enter and exit in a forward direction except where space restriction does not permit this. In that event movement shall be properly controlled by a responsible person(s) observing the rear of the vehicle.

All loading and unloading of vehicles will take place off the public highway unless a temporary Traffic Regulation Order has been deemed necessary to revoke a loading ban or it is absolutely unavoidable in which case the Contractor should seek the approval of the Highway Authority.

The Contractor shall provide suitable lighting to the site boundaries with illumination sufficient for the safety of the passing public including mobility-impaired people. Site lighting must be designed, positioned and directed so as not to unnecessarily intrude on passing drivers on public highways, and having due regard to residential premises neighbouring the site.

If the Contractor provides site security cameras, these must be located in positions that will not cause offence to local residents or businesses.

On completion of the construction works the Contractor will clear away and remove from each work site all plant, surplus materials, rubbish and temporary works of every kind and leave the whole of each work site and works in a clean and tidy condition to the satisfaction of the Employer and the Local Planning Authority.

The Contractor shall agree with the Employer and the Local Planning Authority proposals for the reinstatement of all work sites prior to the commencement of the construction works.

61. LIAISON AND AWARENESS

The contractor will use the Considerate Contractor or similar approved scheme and set out its proposals, to be agreed with the Local Planning Authority for informing local residents, local businesses and users of any public realm affected by the works of the likely duration and impacts of the works.

The Employer will put into place a procedure whereby members of the public can if necessary make contact by telephone direct with a 'hot line' facility, or alternatively provide details of the named contacts for written complaints. The Employer will give consideration to the establishment of a number of local liaison fora during the construction of the works involving representatives from the Employer, Contractor, local councils and the public.

The Contractor will ensure that details of the relevant contacts within the Employer and Local Planning Authority are readily available, and shall ensure all site construction staff are easily identifiable to the public by use of identity cards or an equally effective system.

The Contractor will ensure that all site construction staff have received an induction that includes all the issues contained in this Code of Construction Practice.

The Contractor will introduce a system for the recording and dealing with of all complaints, which shall be collated by them and a copy given to the Local Planning Authority and the Employer on a regular basis

62. RELEVANT BS STANDARDS AND GUIDELINES

In addition to compliance with all relevant legislation applicable at the time of the construction works and compliance with certain BS standards referred to in Section C of this Code of Practice the following additional BS standards and guidelines (including any updates) issued by various statutory bodies must be complied with:—

BS 4142: 1997 Method of rating industrial noise affecting mixed residential and industrial areas

BS 5228:2009 Code of practice for noise and vibration control on construction and open sites- parts 1 and 2

BS 6164:1990 Safety in tunnelling in the construction industry

BS 8005: Part 3 - 1989 Sewerage Part 3 Guide to planning and construction of sewers in tunnels

BS 6031: 1981 Code of Practice for earthworks

BS EN 60651 (1994) Specification for sound level meters

HSE Guidance Notes GS 29/1 to 29/4- Health and safety in demolition work. HSE

Guidance Note EH 40/96 - Occupational Exposure Limits 1996

Relevant EA Guidelines and Regulations

Chapter 8 of the Traffic Signs Manual 1991 Highways

Act 1980 and Amendment Act 1986

HSE Guidance Note HS(G)66 - Protection of Workers and the General Public during Development of Contaminated Land 1991

Safety At Street Works And Road Works Code Of Practice 2002 New

Roads and Streetworks Act 1991

Traffic Signs Regulations and General Directions 1994 NJUG

recommendations

Road Traffic Act 1988 and 1991 Road

Traffic Regulation Act 1987

Construction (Design & Management) Regulations 2015

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