

ENVIRONMENT

ID Manchester Limited
Renold Building, ID Manchester
Altrincham Street, Manchester
Waste Management Plan

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EXECUTIVE SUMMARY

BWB Consulting Limited was instructed by ID Manchester Limited to carry out a Waste Management Plan (WMP) to support a change of use application for the re-development of the Renold Building off Altrincham Street, Manchester into commercial and office space.

To address the principal components of both construction and operation, this WMP is divided into two distinct sections to identify how waste should be managed:

- i. Site Waste Management Plans (SWMP) aim to reduce the amount of waste produced on construction Sites by setting out how building materials, and any resulting waste, will be managed during a project. It sets out the key responsibilities involved in the management of Site waste, as well as the people responsible for each. Methods of determining types and amounts of waste are discussed and a template has been provided for the Principal Contractor to fill out information. The appropriate storage and disposal of on-Site waste has also been discussed. Mitigation measures to prevent and reduce waste have also been provided; and
- ii. The Operational Waste Management Plan (OWMP) sets out the basis upon which waste should be managed during the operational phase. An estimate of the quantity and type of waste likely to be generated by residents of the Proposed Development has been provided. Recommendations for the collection, storage and disposal of waste have been considered. A Swept Path Analysis undertaken for the Proposed Development indicates how waste would be collected by refuse vehicles in line with best practice. Guidance produced by the British Standards Institute (BS 5906:2005) was considered throughout this OWMP.

For both phases, the waste hierarchy would be adhered to in order to minimise waste production and maximise the re-use and recycling of materials. It is intended that both plans are to be updated accordingly to record and confirm how materials are reused, recycled or disposed of.

During the operational phase, the estimated amount of waste for the Proposed Development is 7,100.6 l/w for office space and 7,650 l/w for the proposed event space / café. Therefore, the total amount of waste for the Proposed Development is expected to be 14,750.6 l/w. Given the landfill diversion rate of 98.4% across the Greater Manchester area²⁶, it is considered that any residual waste from the Proposed Development will not cause stress on landfill capacity in the local area.

It is considered that with adherence to the recommendations made within this WMP, the Proposed Development would comply with national, regional and local waste management guidance.

CONTENTS

EXECUTIVE SUMMARY	III
1. INTRODUCTION.....	1
Existing Site	1
The Proposed Development	2
Aim and Objectives	2
2. POLICY AND LEGISLATION	3
Policy	3
National Planning Policy for Waste	3
Waste Hierarchy.....	3
Legislation	5
The Site Waste Management Plans Regulations 2008	5
Waste (England and Wales) Regulations 2011	5
Environmental Damage (Prevention and Remediation) (England) Regulations 2015	5
The Construction (Design and Management) Regulations 2015	5
25-Year Environment Plan.....	5
Environment Act 2021	6
Resources & Waste Strategy for England	6
Regional and Local Policy	6
Greater Manchester Joint Waste Development Plan 2012	6
Greater Manchester Joint Minerals Plan 2013	7
Manchester City Council Core Strategy 2012-2027	7
Guidance	8
British Standard 5906:2005 'Waste Management in Buildings – Code of Practice'	8
GD 04 Waste Storage and Collection Guidance for New Developments	8
Definition of Waste: Code of Practice	8
3. SITE WASTE MANAGEMENT PLAN	10
Introduction	10
Current Construction and Demolition Waste Management in Greater Manchester	10
Site Waste Management Responsibilities	10
Environmental Training	11
Incident Reporting	11
Identifying Waste Streams	12
Determining Waste Quantity	13
Waste Prevention and Minimisation	13
Appropriate Storage of Raw Materials and Waste	14

Re-use and Recycling of Waste.....	15
Waste Collection and Disposal.....	16
Waste Mitigation Measures	17
4. OPERATIONAL WASTE MANAGEMENT PLAN	20
Introduction	20
Current Waste Management in Manchester.....	20
Current Waste Management at the Site	20
Waste Production	21
Identifying Waste Types	21
Estimated Volumes of Waste	22
Waste Storage.....	22
Dimensions of Waste Storage Areas	23
General Waste Storage Guidance	23
Construction of Waste Storage Areas.....	24
Consultation	25
Hygiene.....	26
Hazardous Waste	26
Recycling Waste	26
Waste Disposal	27
Roles and Responsibilities	27
5. INCIDENTS AND REPORTING	29
Introduction	29
Definitions	29
Consideration of Key Risks	30
Development of an Emergency Plan	30
Environmental Incident Response Procedure.....	31
Incident Investigation.....	31
Complaints and Grievance Mechanism	31
Corrective Actions.....	32
6. MONITORING, AUDITS AND INSPECTIONS	34
Monitoring.....	34
Waste Audits.....	34
7. CONCLUSIONS	36

FIGURES

Figure 1.1: Site Location Plan

Figure 2.1: The Waste Hierarchy

Figure 4.1: Current Waste Storage Area at the Site

TABLES

Table 2.1: The Stages of the Waste Hierarchy

Table 3.1: Materials Used During Construction

Table 3.2: Recommendations for Storage of Materials and Waste Management During Construction

Table 3.3: Waste Sites for Construction Waste

Table 3.4: Waste Mitigation Measures During Strip-out and Construction

Table 4.1: Estimated Volumes of Operational Waste

Table 4.2: Roles and Responsibilities

APPENDICES

APPENDIX 1: Layout Plans

APPENDIX 2: Site Waste Management Plan – Pro forma

APPENDIX 3: Swept Path Analysis

1. INTRODUCTION

- 1.1 BWB Consulting Limited was instructed by ID Manchester Limited to carry out a Waste Management Plan (WMP) to support a change of use application for the re-development of the Renold Building off Altrincham Street, Manchester ('the Site') into commercial and office space ('the Proposed Development').
- 1.2 This WMP is considered a framework document intended to guide both the appointed construction contractors and the design of the Proposed Development for occupants during the operational phase. This WMP is designed to be a 'live document' which should be updated throughout the construction phase as it progresses and adapted during the operational phase to reflect future legislation and recycling markets, where applicable.

Existing Site

- 1.3 The Site is located within the administrative area of Manchester City Council (MCC). The location and boundary of the Site is illustrated in **Figure 1.1**.

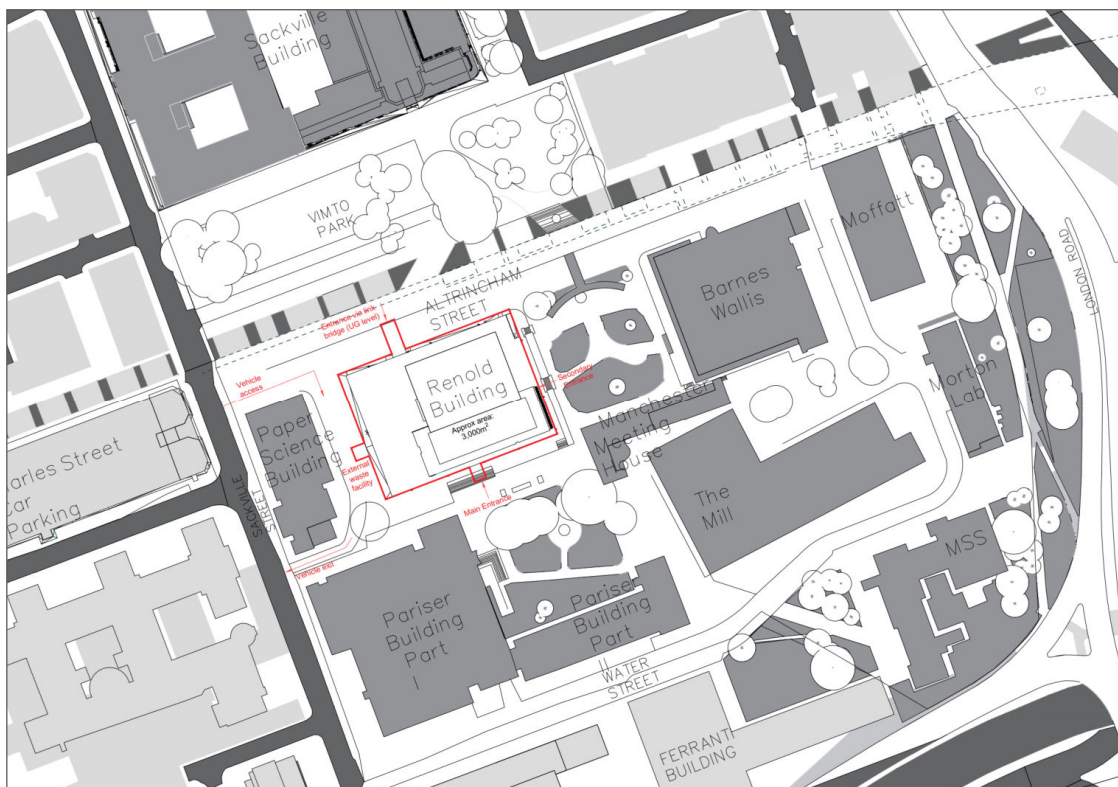


Figure 1.1: Site Location Plan

- 1.4 The Site comprises the existing eight-storey Renold building and associated car parking. The building was used as part of the University of Manchester Institute of Science and Technology.

The Proposed Development

- 1.5 The Proposed Development involves the re-development of the building into commercial and office space, with no change to the gross internal area of the building. The Proposed Development will comprise office space, a gallery, a theatre, co-working and meeting spaces, as well as a space for events which will include a café.
- 1.6 The Layout Plans are included as **Appendix 1**.

Aim and Objectives

- 1.7 Both the construction and operational phases of development will inevitably lead to the production of waste streams. The purpose of this WMP is to ensure that waste is managed sustainably at the Site in accordance with both local and national guidance and best practice during both of these phases of development, in line with local plan policies and the 'waste hierarchy'.
- 1.8 This WMP is divided into a Site Waste Management Plan (SWMP) in **Section 3**, which covers waste management during the construction phase, and an Operational Waste Management Plan (OWMP) in **Section 4**, which covers waste management during the operational phase.
- 1.9 The SWMP creates the basis upon which the construction contractor should utilise materials and undertake methods of construction which adhere to the waste hierarchy and apply the principles of the circular economy to provide resource savings.
- 1.10 The OWMP creates a framework which would maximise the amount of materials that would be re-used, recycled or recovered during the occupation of the Proposed Development.

2. POLICY AND LEGISLATION

Policy

National Planning Policy for Waste

- 2.1 The National Planning Policy for Waste (2014)¹ sets out waste-related stipulations which should be considered when a local planning authority is making a determination on a non-waste planning application. Section 8 of this document states the following:

“When determining planning applications for non-waste development, local planning authorities should, to the extent appropriate to their responsibilities, ensure that:

- the likely impact of proposed, non-waste related development on existing waste management facilities, and on sites and areas allocated for waste management, is acceptable and does not prejudice the implementation of the waste hierarchy and/or the efficient operation of such facilities;*
- new, non-waste development makes sufficient provision for waste management and promotes good design to secure the integration of waste management facilities with the rest of the development and, in less developed areas, with the local landscape. This includes providing adequate storage facilities at residential premises, for example by ensuring that there is sufficient and discrete provision for bins, to facilitate a high quality, comprehensive and frequent household collection service;*
- the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal.”*

Waste Hierarchy

- 2.2 The Waste Hierarchy is set out in Article 4 of the European Union's revised Waste Framework Directive² and guidance on how to apply it is provided by the Department of Environment, Food and Rural Affairs³. Priority should be given to prevention, reusing and recycling on the site before considering off-site re-use or recycling, and then other types of recovery or disposal. The hierarchy is depicted in **Figure 2.1** and is summarised in **Table 2.1**.

¹ UK Government (2014) 'National Planning Policy for Waste'. Available from: <https://www.gov.uk/government/publications/national-planning-policy-for-waste>

² European Parliament and Council 'Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives'. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008L0098>

³ DEFRA (2011) 'Guidance on applying the Waste Hierarchy' Available from: <https://assets.publishing.service.gov.uk/government/uploads/waste-hierarchy-guidance.pdf>

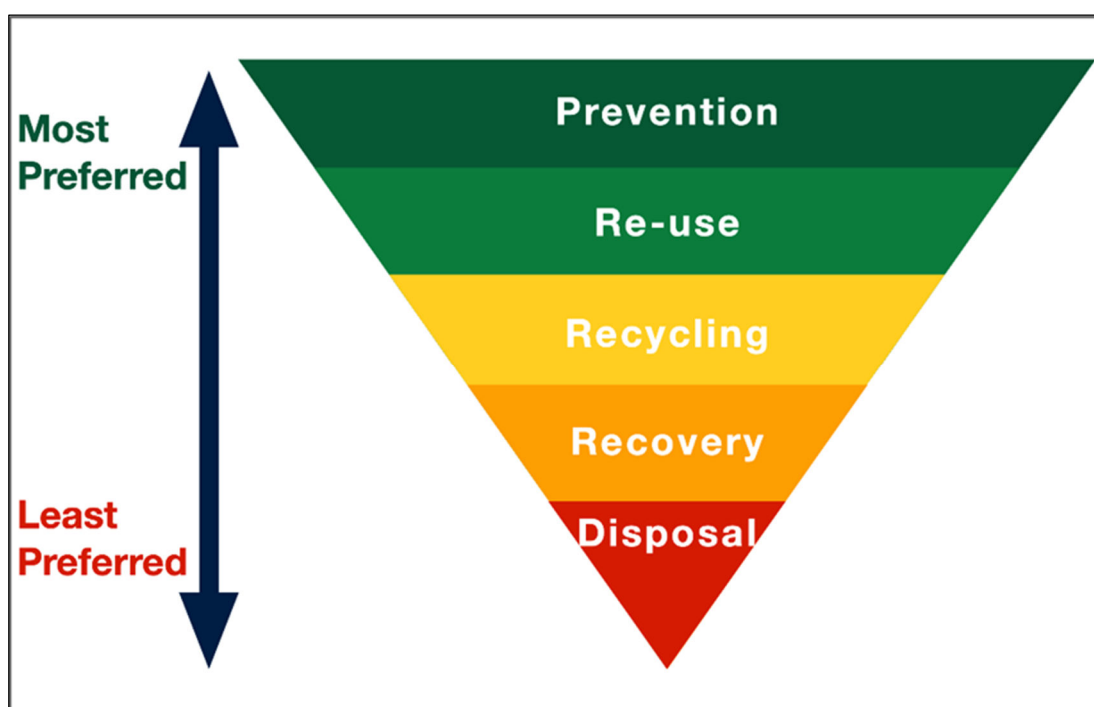


Figure 2.1: The Waste Hierarchy

Table 2.1: The Stages of the Waste Hierarchy

Stages	Examples (as provided by DEFRA)
Prevention	<ul style="list-style-type: none"> Using less material in design and manufacture. Keeping products for longer; re-use. Using less hazardous materials.
Re-using on-site / Preparing for re-use off-site	<ul style="list-style-type: none"> Checking, cleaning, repairing, refurbishing, whole items or spare parts.
Recycling	<ul style="list-style-type: none"> Turning waste into a new substance or product. Includes composting if it meets quality protocols.
Other Recovery	<ul style="list-style-type: none"> Includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis.
Disposal	<ul style="list-style-type: none"> Landfill and incineration without energy recovery.

Legislation

The Site Waste Management Plans Regulations 2008

- 2.3 The Site Waste Management Plans Regulations 2008⁴ set out how to correctly undertake a SWMP. Although these regulations have been repealed, the provisions within have been considered in the preparation of the SWMP.

Waste (England and Wales) Regulations 2011

- 2.4 The Waste (England and Wales) Regulations 2011⁵ transposes the Waste Framework Directive into English legislation. It sets out the requirements for the collection, transport, recovery and disposal of waste from a development site, including construction and demolition waste.

Environmental Damage (Prevention and Remediation) (England) Regulations 2015

- 2.5 Under the Environmental Damage (Prevention and Remediation) (England) Regulations 2015⁶, businesses are made financially liable for any damage they cause to land, air, water and biodiversity in England. These Regulations places the onus on businesses to reduce potential sources of pollution from waste during the construction and operational phases of development.

The Construction (Design and Management) Regulations 2015

- 2.6 The Construction (Design and Management) Regulations 2015⁷ set out the duties involved and the respective duty holders during the construction phase of a development.

25-Year Environment Plan

- 2.7 The 25 Year Environment Plan sets out the government long term management strategy to improve our environment. The Plan sets out interrelated environment targets relating to clean air, water quality, biodiversity, biosecurity, enhancing the natural environment and heritage and mitigating and adapting to climate change. The effective management of resources is one of the core goals of the Plan and the following targets are set for maximising resource efficiency and minimising waste:

- Using resources more sustainable and efficiently by:
 - Maximising the value and benefits we get from our resources; and
 - Doubling resource productivity by 2050.
- Minimising waste by:
 - Zero avoidable waste by 2050, and no food waste to landfill by 2030;

⁴ HM Government (2008) 'The Site Waste Management Plans Regulations 2008' Available from: <https://www.legislation.gov.uk/uksi/2008/314/contents/made>

⁵ HM Government (2011) 'Waste (England and Wales) Regulations 2011' Available from: <https://www.legislation.gov.uk/uksi/2011/988/contents/made>

⁶ HM Government (2015) 'Environmental Damage (Prevention and Remediation) (England) Regulations' Available from: <https://www.legislation.gov.uk/uksi/2015/810/contents>

⁷ HM Government (2015) 'The Construction (Design and Management) Regulations 2015' Available from: <https://www.legislation.gov.uk/uksi/2015/51/contents/made>

- Target of eliminating avoidable plastic waste by end of 2042;
- Meeting all existing waste targets including those on landfill, reuse and recycling, and developing ambitious new future targets and milestones;
- Eliminate waste crime and illegal waste sites over the lifetime of this Plan, prioritising those of highest risk, including litter; and
- Significantly reducing and where possible preventing all kinds of marine plastic pollution, in particular material that came originally from land.

Environment Act 2021

2.8 Part 3 Section 45A of the Environment Act⁸, which was enacted in 2021, sets out a number of provisions related to household waste including the following:

- “recyclable household waste must be collected separately from other household waste”;
- “recyclable household waste in each recyclable waste stream must be collected separately” unless “it is not technically or economically practicable to collect recyclable household waste in those recyclable waste streams separately, or collecting recyclable household waste in those recyclable waste streams separately has no significant environmental benefit”;
- “glass, metal, plastic, paper and card may not be collected together with food waste and garden waste”; and
- “recyclable household waste which is food waste must be collected at least once a week”.

2.9 Recyclable relevant waste is defined in the Act as any of the following materials: glass; metal; plastic; paper/card; and food waste.

Resources & Waste Strategy for England

2.10 The national Resources & Waste Strategy for England⁹, ‘Our Waste, Our Resources: A Strategy’ focuses on recycling quality and increasing recycling rates from households and businesses. It includes substantial reforms to municipal waste collection and management services, including requiring a common set of materials to be separately collected from households. also includes proposals to mandate the separate collection of food waste for all Local Authorities in England.

Regional and Local Policy

Greater Manchester Joint Waste Development Plan 2012

2.11 The Greater Manchester Joint Waste Development Plan¹⁰ sets out how waste should be managed within the Greater Manchester area.

⁸ HM Government (2021) ‘Environment Act 2021’ Available from: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

⁹ HM Government (2018) ‘Our Waste, Our Resources: A Strategy for England’. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf

¹⁰ Association of Greater Manchester Authorities (2012) ‘Greater Manchester Joint Waste Development Plan’ Available from: https://secure.manchester.gov.uk/downloads/download/4804/greater_manchester_joint_waste_development_plan_documents

2.12 The key objectives of the plan relevant to this WMP include:

- *“Objective 2: To promote the movement of waste up the waste hierarchy, assuming minimisation at source, increasing reuse, recycling and recovery, whilst recognising there may still be a need for additional landfill capacity for residual wastes; and*
- *Objective 8: To reduce waste movements and, where waste needs to be moved, to promote the sustainable movement of waste across the sub-region”.*

Greater Manchester Joint Minerals Plan 2013

2.13 The Greater Manchester Joint Minerals Plan¹¹ provides a guide to minerals operators and the public about:

- *“The locations where mineral extraction may take place;*
- *The safeguarding of sensitive environmental features and of mineral resources with potential for future extraction; and*
- *All aspects of environmental amenity and resource protection including the sustainable transportation of minerals”.*

2.14 The Plan promotes the use of secondary and recycled aggregates as an alternative to primary construction materials.

2.15 According to the Plan, as the quality of primary sand and gravel and crushed rock produced in Greater Manchester is relatively low, construction material must be imported from neighbouring areas where higher quality is required.

2.16 According to Maps 4 and 5 of the Plan, the Site is neither located in a Mineral Safeguarding Area for Glaciofluvial Sand and Gravel, nor for Sandstone.

Manchester City Council Core Strategy 2012-2027

2.17 MCC adopted their Core Strategy in 2012¹². Policy EN 19 ‘Waste’ of the Core Strategy states that MCC will:

- *“Require all developers...to demonstrate the proposal's consistency with the principles of the waste hierarchy (prevention, reduction, re-use, recycling/composting, energy recovery, final disposal);*
- *Require all developers to submit a waste management plan to demonstrate how both construction and demolition waste will be minimised and recycled on site wherever possible and how the sustainable waste management needs of the end user will be met; and*
- *Encourage communities to take responsibility for the waste they create through the provision of accessible facilities”.*

¹¹ Association of Greater Manchester Authorities (2013) ‘Greater Manchester Joint Minerals Plan’ Available from https://secure.manchester.gov.uk/downloads/download/5550/greater_manchester_joint_minerals_development_plan_documents

¹² MCC (2012) ‘Core Strategy 2012 - 2027’ Available from: https://www.manchester.gov.uk/info/200074/planning/6573/core_strategy_2012-2027

2.18 It is also stated that “Given that Manchester does not have any landfill capacity it is even more important that priority is given to preventing, reducing, reusing and recycling waste within the District to limit the volume of waste needing to be transported elsewhere for treatment”.

2.19 Policy EN 20 ‘Minerals’ of the Core Strategy states that MCC will:

- “Encourage the efficient use of minerals and promote the use of secondary/recycled aggregates, wherever possible as an alternative to primary extraction and identify and safeguard sites for its storage, processing and transfer; and
- Ensure that any adverse environmental impacts of storage, processing and transfer on neighbouring uses are minimised”.

Guidance

British Standard 5906:2005 ‘Waste Management in Buildings – Code of Practice’

2.20 The BS 5906:2005 document¹³ has been considered for how waste should be managed during the operational phase of the Proposed Development.

2.21 Pertinent information within this guidance has also been used to make recommendations on the layout and design of the waste storage areas where this information is not available in local guidance.

GD 04 Waste Storage and Collection Guidance for New Developments

2.22 MCC’s GD 04 Waste Storage and Collection Guidance for New Developments¹⁴ has also been considered for how waste should be managed during the operational phase of the Proposed Development.

Definition of Waste: Code of Practice

2.23 Contaminated Land: Applications in Real Environments (CL:AIRE) produced a Definition of Waste: Code of Practice (DoW CoP)¹⁵, which provides a clear, consistent and efficient process which enables the reuse of excavated materials on-site or their movement between sites.

2.24 Use of the DoW CoP supports the sustainable and cost-effective development of land. It can provide an alternative to Environmental Permits or Waste Exemptions.

2.25 The DoW CoP enables:

- The direct transfer and reuse of clean naturally occurring soil materials between sites;

¹³ British Standards Institution ‘Waste management in buildings – Code of practice’. Available from: <https://shop.bsigroup.com/ProductDetail/?pid=000000000030050097>

¹⁴ Manchester City Council (2017) ‘GD 04 Waste Storage and Collection Guidance for New Developments’ Available from: https://www.manchester.gov.uk/downloads/download/6048/waste_management_strategy

¹⁵ CL:AIRE (2011) ‘The Definition of Waste: Development Industry Code of Practice Version 2’ Available from: <https://www.claire.co.uk/component/phocadownload/category/8-initiatives?download=212:definition-of-waste-development-industry-code-of-practice>

- The conditions to support the establishment/operation of fixed soil treatment facilities; and
- The reuse of both contaminated/uncontaminated materials on their site of origin and between sites within defined Cluster projects.

3. SITE WASTE MANAGEMENT PLAN

Introduction

- 3.1 The development of a SWMP is generally an iterative process and requires revision as a development progresses. The SWMP is considered a live document, initially prepared before construction begins and subsequently updated by the construction contractor.
- 3.2 This SWMP describes how materials will be managed efficiently and disposed of legally during the construction of the Proposed Development, explaining how waste will be prevented and how the re-use and recycling of materials will be maximised.

Current Construction and Demolition Waste Management in Greater Manchester

- 3.3 According to the Greater Manchester Joint Waste Development Plan¹⁰ construction, demolition and excavation waste comprises 21% of waste arisings in the area.

Site Waste Management Responsibilities

- 3.4 In accordance with the 2008 SWMP Regulations⁴, this SWMP specifies the accountable party to which any specified measures apply. These duties and duty holders are as follows:
- The Applicant will be responsible for ensuring that the SWMP will be prepared before construction work commences;
 - The Applicant will appoint a Principal Contractor who will be responsible for reviewing, revising and refining the SWMP;
 - The Principal Contractor will be responsible for ensuring that all personnel on-Site are given the appropriate information and/or training needed to meet requirements within the SWMP;
 - The Principal Contractor will ensure that the SWMP is kept up to date and located on-Site at all times. Every contractor must be aware of its location;
 - Waste management tasks in the SWMP will be undertaken by the relevant contractors and sub-contractors within a co-operative environment that encourages the development of effective waste management strategies;
 - The contractors will ensure that, as far as is practically possible, the Waste Hierarchy preferential system is applied to waste management decisions on-Site; and
 - Recovery or disposal of on-Site waste will be undertaken in compliance with the environmental permitting, waste duty of care and waste carrier legislation^{16, 17}.
- 3.5 It is assumed that a Principal Contractor will be appointed by the Applicant through a competitive tender process, and they will ensure compliance with and update this SWMP.

¹⁶ HM Government (2016) 'The Environmental Permitting (England and Wales) Regulations'. Available from: <https://www.legislation.gov.uk/uksi/2016/1154/contents/made>

¹⁷ HM Government (1990) 'Environmental Protection Act'. Available from: <https://www.legislation.gov.uk/ukpga/1990/43/contents>

3.6 It is further assumed that a suitably qualified person will be appointed to fulfil the Site Waste Management role (i.e. Site Manager). This person will be responsible for overall waste management issues which arise during the construction phase such as:

- Implementation and monitoring of waste minimisation, segregation and safe disposal measures; and
- Dissemination of waste reduction and waste management procedures to all relevant personnel on-Site.

3.7 The Principal Contractor will update the SWMP to include a statement on the consideration given to materials resource efficiency in designing and planning the construction. This will include design specifications, choice of materials, consideration of where to source materials from and methods of construction such as pre-fabricated materials.

Environmental Training

3.8 During the construction of the Proposed Development, regular environmental training will take place to ensure that the health and safety of Site staff is maintained but also to prevent and reduce waste being produced. This will be achieved by:

- Conducting Site inductions and regular toolbox training sessions with on-Site workers and sub-contractors;
- Adopting good on-Site working practices; and
- Carrying out spot checks and monitoring staff regularly to make sure they are following procedures.

Incident Reporting

3.9 It is expected that CDM Regulations (2015)⁷ and Hazardous Waste Regulations (2005)¹⁸ will be followed to reduce the likelihood of incidents occurring on-Site.

3.10 The Principal Contractor will be responsible for giving every Site worker a Site induction which will include the accident and incident reporting arrangements. A safety incident reporting flow chart will be created and disseminated to all Site staff so that the chain of responsibility for an incident is made clear. This will be reiterated during toolbox talks to ensure Site staff know how to quickly report any incidents.

3.11 An emergency environmental incident response plan will be formulated by the Site Manager and Environmental Advisor. The Site Supervisor will report any incident to the Site Manager and Environmental Advisor. Any serious incidents will be reported to the Contract Manager and Environmental Advisor.

3.12 The Site Manager and / or Principal Contractor will be responsible for recording any environmental incidents, dangerous occurrences or near misses in an Accident Report form.

3.13 It is the responsibility of the Environmental Advisor to review any incidents and implement actions to be taken to avoid an incident happening again. Site procedures should be

updated based on the review of the incident, and all Site staff should be made aware of any changes made.

Identifying Waste Streams

- 3.14 Given the Proposed Development involves the re-development of the existing Renold building, rather than the construction of a new building, it is assumed that there will be no demolition waste or waste from engineering / excavation material.
- 3.15 It is expected that a soft strip/ demolition document will be produced prior to the main works. The Principal Contractor will be responsible for updating this SWMP to include any relevant waste-related information from the soft strip/ demolition document (e.g. the extent to which stripped out / demolished materials can be reused or recycled either on or off the Site).
- 3.16 The main potential waste streams during the construction phase of the Proposed Development are expected to be the following:
- Strip-out waste – e.g. any materials within the existing building which are to be removed;
 - Construction waste - e.g. cement, concrete, aggregates, pipe work, sand;
 - General waste (produced from temporary accommodation on-Site) - e.g. cardboard, plastic, glass, wood; and
 - Materials packaging.
- 3.17 A list of materials to be used during construction is not available at the time of writing. It is recommended the Principal Contractor should update this SWMP to include this information when this is ascertained and used to determine volume of construction waste. Each type of waste will be identified as inert, non-hazardous or hazardous as per Regulation 6 and 7 of The Hazardous Waste (England and Wales) Regulations 2005¹⁸. Advice on the nature of construction and demolition waste can be found on the following web address¹⁹: <https://www.gov.uk/how-to-classify-different-types-of-waste/construction-and-demolition-waste>.
- 3.18 If any types of waste are classified as hazardous under Regulation 6 of the Hazardous Waste Regulations, the Principal Contractor must notify the Environment Agency (EA) that they are producing hazardous waste prior to removal of any waste from the Site.
- 3.19 Asbestos has been identified as being present within the existing building and an 'Asbestos Remedial Works' (ARW) Plan has been produced; this includes a technical specification, scope and schedule of works for asbestos abatement to relevant areas within the existing building. In accordance with the ARW Plan, a secure lockable waste skip shall be located on the Site. The waste shall be carried from the work area to the waste skip in a sealable "Sulo" type wheelie bin or suitable equivalent for transition. Removal works will be required to be carried out under 'fully controlled conditions' in

¹⁸ GOV.UK (2005) 'The Hazardous Waste (England and Wales) Regulations 2005'. Available from: <https://www.legislation.gov.uk/uksi/2005/894/contents/made>

¹⁹ GOV.UK (no date). 'Classify different types of waste.' Available from: <https://www.gov.uk/how-to-classify-different-types-of-waste/construction-and-demolition-waste>

accordance with The Control of Asbestos Regulations 2012 in accordance with guidance document HSG 247 – Asbestos' Licensed Contractors Guide.

- 3.20 If any other hazardous waste is identified, it should be transported to a licensed disposal site by a licensed waste transporter using permitted routes.

Determining Waste Quantity

- 3.21 An estimate of the types and amounts of construction waste will be made by the Principal Contractor prior to construction. From this, targets will be set as to how much waste would be produced and re-used, recycled or disposed of throughout the construction phase. These targets will be continually re-assessed by the Principal Contractor throughout the construction phase to ensure they are being reached.
- 3.22 Quantities of waste will be reduced by simple decisions early in the design process, such as considering pre-ordering materials to specification or purchasing materials with returnable packaging. Accurate ordering will be used to reduce Site waste as well as reduce costs and space required for storage. Reuse and recycling of existing Site materials will be used to reduce waste and costs during construction. Additionally, understanding cut and fill materials likely to be produced throughout the construction phase will ensure that minimum amounts of material required are used. This will provide cost savings and reduce waste production.
- 3.23 It is understood that the following will be done to minimise waste during construction:
- Materials from the strip out / demolition (e.g. bricks / blocks / hardcore) will be stored and reused in the building;
 - Existing furniture will be upcycled; and
 - Exhibitions will be made from repurposed materials from the existing building.
- 3.24 **Appendix 2** is an example of a pro forma document which must be completed by the Principal Contractor for the Proposed Development. It contains:
- Key details of the Proposed Development;
 - The anticipated streams of each type of waste during construction; and
 - Details of how waste would be managed during construction, including who would transport waste off-site and where this waste would be transported to.

Waste Prevention and Minimisation

- 3.25 Construction will be fully controlled and documented to conform to the waste hierarchy. Full control measures for the safety of workers and the environment will be in place as required by relevant health and safety law.
- 3.26 As shown in **Table 2.1**, the first step on the waste hierarchy is the prevention of waste streams.

- 3.27 The strip-out clearance of the existing building on-Site would produce a small quantity of waste. Materials that cannot be re-used on-Site would need to be recycled off-Site.
- 3.28 Measures detailed within the Construction Industry Research and Information Association (CIRIA) – Environmental Good Practice on Site Guide (C741)²⁰, will be adhered to in the ordering, delivery, storage and handling of materials to avoid waste.
- 3.29 Construction materials will be ordered at appropriate times to ensure there is no overstocking on-Site, which could lead to waste. This would ensure that waste of materials is minimised.

Appropriate Storage of Raw Materials and Waste

- 3.30 The correct storage of raw material and waste on the Site will be a crucial step in preventing the production of waste. Furthermore, the appropriate storage of waste which cannot be re-used will be essential for transporting this waste to recycling or landfill facilities, as appropriate.
- 3.31 All materials imported on-Site will be securely stored as per the manufacturer's instructions. A plan setting out where materials and waste would be stored during construction will be provided by the Principal Contractor once appointed.
- 3.32 Dedicated waste storage areas should be set up for different types of waste to facilitate easy segregation. This is of particular importance for materials that be re-used on or off-Site or can be recycled in order to minimise waste disposal. Containers should be clearly labelled for construction debris, metals, wood, plastics, and hazardous waste to simplify the recycling and disposal process. Bins may be colour-coded to make waste separation clear for Site workers.
- 3.33 The Principal Contractor should carefully plan the provision of waste storage areas and how the Site will be kept tidy to ensure the safety of Site workers and the public and waste is managed securely.
- 3.34 Environment Agency flood risk mapping shows that the entire Site is within Flood Zone 1, the zone least likely to experience flooding. Materials will still need to be stored off the ground to ensure they are not affected by surface water, leading to waste.
- 3.35 The Health Service Executive has provided further guidance on the acceptable storage of materials during construction, as well as recommendations on waste management. The recommendation for the storage of materials and waste management during the construction of the Proposed Development are summarised in **Table 3.1**.

²⁰ CIRIA (2015) 'Environmental Good Practice On Site Guide (C741)' Available from: <https://www.ciria.org/ItemDetail?iProductcode=C741&Category=BOOK>

Table 3.1: Recommendations for Storage of Materials and Waste Management During Construction

Construction Element	Recommendation
Storage of Materials	
Storage Areas	Designate storage areas for plant, materials, waste, flammable substances (e.g. foam plastics, flammable liquids and gases such as propane) and hazardous substances (e.g. pesticides and timber treatment chemicals).
Pedestrian Routes	Do not allow storage to 'spread' in an uncontrolled manner on to footpaths and other walkways. Do not store materials where they obstruct access routes or where they could interfere with emergency escape.
Flammable Materials	Store flammable materials away from other materials and protect them from accidental ignition.
Storage at Height	If materials are stored at height (e.g. on top of a container), ensure necessary guard rails are in place to reduce the risk of people falling when stacking or collecting materials or equipment.
Tidiness	Keep all on-Site storage areas tidy.
Deliveries	Plan deliveries to keep the amount of materials on-Site to a minimum.
Waste Management	
Flammable Materials	Ensure that all flammable waste materials (such as packaging and timber offcuts) are cleared away regularly to reduce fire risks.
Work Areas	Ensure clearing waste is a priority for all trades. Check that everyone is aware of what is required and that it is being done.
Skips	Store waste materials safely before their removal from the Site. Ensure sufficient space for waste skips and bins. Plan where the skips can be positioned and how often they will need to be collected.
Waste Within Buildings	Consider waste generated inside the building and whether wheeled bins or chutes should be provided to enable waste to be brought out of the building safely.

Re-use and Recycling of Waste

- 3.37 The re-use and recycling of waste comprise the second and third steps of the waste hierarchy, respectively. Waste during both the strip-out clearance of the existing building and the construction phase should be re-used on-Site or recycled as much as possible.
- 3.38 The possibility of providing on-Site recycling facilities for materials like concrete, asphalt, and metals, which can be crushed, processed, and reused in construction activities should be explored.
- 3.39 For materials that cannot be re-used on-Site but can be recycled, collaboration with waste management companies that operate Material Recovery Facilities should be undertaken. This will ensure that recyclable materials will be sorted, processed, and recovered, diverting them from landfills.

- 3.40 Any remaining materials which cannot be re-used or recycled should be transferred to waste facilities.
- 3.41 Any materials which cannot be re-used on-Site, but which can be recycled off-Site will be appropriately separated and stored on-Site prior to their transport to a waste recycling facility.
- 3.42 **Table 3.2** lists nearby waste sites within Greater Manchester which are suitable to transfer construction waste.

Table 3.2: Waste Sites for Construction Waste

Site Name and Postcode	Location in Relation to the Site
Hooper Street Depot M11 2NW	1.4 km east
P Mc Guinness & Co Ltd M12 6BF	1.6 km east
Redgate Holdings Limited M12 4RY	2.5 km south-east
Pink Skips Waste Transfer Station M19 3JP	4.9 km south-east
European Metal Recycling Ltd M40 2BP	2.9 km south-east
The Old Railway Station M22 4SS	8.5 km south
South Manchester Resource Recovery Centre M22 4RQ	8.7 km south

Waste Collection and Disposal

- 3.43 Waste produced on-Site will be subject to the Duty of Care provisions under the Environmental Protection Act (1990)¹⁷. In accordance with these provisions, waste will be transported off-Site by carriers registered with the EA and taken to appropriately licensed facilities.
- 3.44 Any waste to be transported off-Site, will be collected by a registered waste carrier with the EA. The following website can be used to confirm whether a waste collector is registered with the EA: <https://environment.data.gov.uk/public-register/view/search-waste-carriers-brokers>.
- 3.45 The SWMP will be updated by the Principal Contractor each time waste is removed from the Site. Prior to leaving the Site, waste will be described in paperwork in accordance with the waste classification codes. Detailed guidance on classification codes for waste has been provided by the EA, the Scottish Environmental Protection Agency (SEPA) and Natural Resources Wales (NRC)²¹.

²¹ EA, SEPA and NRW (2021) 'Guidance on the classification and assessment of waste' Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021051/Waste_classification_technical_guidance_WM3.pdf

- 3.46 A waste transfer note can be downloaded and completed from the following UK Government web address: <https://www.gov.uk/government/publications/duty-of-care-waste-transfer-note-template>²².
- 3.47 Alternatively, a business can be registered online at the following web address²³: <https://portal.edoconline.co.uk/register>. Following registration, a waste transfer note can be filled out for a single load, or a business can pay in advance for a series of loads.
- 3.48 The following EA website²⁴ can be used to determine whether a waste carrier or waste facility is appropriately registered: <https://environment.data.gov.uk/public-register/view/index>.
- 3.49 It is the responsibility of the Principal Contractor to identify the capacity of landfill sites nearby to accept wastes from the construction of the Proposed Development.

Waste Mitigation Measures

- 3.50 Mitigation measures are measures employed to prevent or minimise adverse environmental effects of developments.
- 3.51 It is recommended that the mitigation measures detailed in **Table 3.3** are employed during the strip out and construction phase of the Proposed Development to help prevent and reduce waste, as well as to ensure unavoidable waste can be reused or recycled.

²² GOV.UK (2021). 'Form: Duty of care waste transfer note form.' Available from: <https://www.gov.uk/government/publications/duty-of-care-waste-transfer-note-template>

²³ EDOCONLINE (no date). 'ITSM Free Software'. Available from: <https://portal.edoconline.co.uk/register>

²⁴ Environment Agency (no date). 'Public Registers'. Available from: <https://environment.data.gov.uk/public-register/view/index>

Table 3.3: Waste Mitigation Measures During Strip-out and Construction

Waste Aspect	Mitigation Measures
Strip-out of Existing Building	
Preventing and Reducing Waste	<ul style="list-style-type: none"> • Undertake an audit prior to the strip-out of the existing building of all the types and quantities of materials to be re-used, recycled or disposed of; • Set out waste storage areas prior to strip-out and separate the materials on-Site or at source to reduce the cost and time of handling materials; • Store material types separately (e.g. metal, concrete, timber); and • Ensure safe and dry storage of salvaged items and careful removal from the Site to reduce damage and contamination that could devalue the materials.
Construction	
Preventing and Reducing Waste	<ul style="list-style-type: none"> • Ensure waste storage facilities are provided to appropriate standards; • Ensure adequate security measures are in place for the Site, storage facilities and waste storage facilities; and • Provide appropriate waste disposal routes.
Improving Resource Efficiency	<ul style="list-style-type: none"> • Identify / use recycled materials instead of new materials where applicable; • Store new and recovered materials effectively to minimise deterioration; • Identify materials to be reused / recycled / recovered during the decommissioning phase; • Segregate wastes to improve recovery potential and minimise waste production; and • Consider arranging for suppliers to 'take back' leftovers and/or packaging.
Re-using and Recycling Waste	<ul style="list-style-type: none"> • Reduce waste on-Site by recycling and by the efficient use of materials; • Use materials which can be re-used following decommissioning phase; • Ensure on-Site workers have easy access to waste recycling facilities; and • Ensure waste trucks have easy access to waste storage facilities.
Dust Emanating from Land Clearance, Skip Stations, HGV Movement	<ul style="list-style-type: none"> • Use locally sourced materials to reduce long distance transport where feasible; • Use of enclosed containers to store waste susceptible to spreading by wind or liable to cause litter; • Use water sprays or sprinklers on dusty ground during windy weather to suppress dust disturbance by HGV movement; • Use hybrid technology construction plant where feasible; • Use low sulphur diesel;

Waste Aspect	Mitigation Measures
	<ul style="list-style-type: none">• Use tools which can removes dust as it is being produced where feasible; and• Erect fencing around Site perimeter.
Use of Hazardous Chemicals on-Site including Paints, Glues, Oils, Thinners and Plastics	<ul style="list-style-type: none">• Undertake a Control of Substances Hazardous to Health (COSHH) Assessment;• Correct storage of hazardous materials (e.g. provision of lockable COSHH store, store fuel within bunded areas);• Use of PPE by Site workers;• Identify all potential pathways to sensitive receptors;• Regular cleaning of on-Site drains; and• Install devices within drains which prevent pollution following a spill.

4. OPERATIONAL WASTE MANAGEMENT PLAN

Introduction

- 4.1 This OWMP has been prepared to outline the waste management strategy that will be adopted by the Proposed Development. The OWMP will identify the types and amounts of waste that are likely to be produced by the occupants of the Proposed Development. Measures will be identified that will be incorporated into the design of the Proposed Development to ensure maximum recycling, reuse and recovery of waste at the Site, in accordance with national, regional and local policy.

Current Waste Management in Manchester

- 4.2 According to the Greater Manchester Joint Waste Development Plan¹⁰, a total amount of 2,669,000 tonnes of waste is forecasted to arise in Greater Manchester in 2027. This Plan also states that *"Planning permission will be granted for energy recovery in accordance with the identified capacity requirements"*. The requirements between 2017 – 2027 were estimated to be 354,000 tonnes per annum.
- 4.3 According to the EA's 2022 Waste Data Interrogator²⁵, a total of 390,000 tonnes of household/industrial/commercial waste was received by waste facilities within the administrative boundary of MCC.
- 4.4 The Greater Manchester Combined Authority (GMCA) website²⁶, confirms recycling rates have risen to over 50% thanks to improvements at household waste recycling centres, making it one of the best performing city-regions in the country. The national average in England is 44%. Furthermore, *"The landfill diversion rate in 2021/22 was 98.4% which means that of all the household waste collected from over 1 million households across the 9 boroughs of Greater Manchester, only 1.6% was sent to landfill. Instead the majority of waste that cannot be recycled goes to energy from waste, where waste is burned to generate electricity"*.

Current Waste Management at the Site

- 4.5 The waste storage area currently being utilised at the Site comprises an open-topped, two-sided structure located to the west of the existing building. This storage area is shown in **Figure 4.1**.

²⁵ Environment Agency (2023) '2022 Waste Data Interrogator'. Available from: <https://www.data.gov.uk/dataset/aa53a313-f719-4e93-a98f-1b2572bd7189/2022-waste-data-interrogator>

²⁶ GMCA (April 2023) 'Greater Manchester's recycling rates rise to over 50%'. Available from: <https://www.greatermanchester-ca.gov.uk/news/greater-manchester-s-recycling-rates-rise-to-over-50/>



Figure 4.1: Current Waste Storage Area at the Site

Waste Production

Identifying Waste Types

- 4.6 It is anticipated that the following waste materials will be generated as a result of the Proposed Development:
- General Non-Recyclable Waste;
 - Dry Mixed Recyclables (such as wastepaper, cardboard and plastic packaging, metal cans, plastic bottles, aluminium cans, tins and Tetra Pak cartons);
 - Glass Waste (any sort of waste that consists entirely of glass e.g. glass bottles and drinking glasses that have smashed and need to be disposed of); and
 - Organic waste (such as food waste).
- 4.7 In addition to the typical waste materials that will be generated on a daily basis, it is anticipated that a small quantify of the following waste will be generated that will need to be managed separately:
- Green/garden waste may be generated from external landscaping;
 - Batteries;
 - Waste electrical and electronic equipment (WEEE);

- Printer cartridges/toners;
- Chemicals (paints, adhesives, resins, detergents, etc.);
- Lightbulbs;
- Textiles; and
- Furniture and other bulky wastes.

Estimated Volumes of Waste

- 4.8 The amount of waste expected to be produced by the Proposed Development has been estimated based on MCC's Waste Storage and Collection Guidance for New Developments¹⁴ and information on the gross internal area (GIA) of office and commercial space within the Proposed Development.
- 4.9 The Proposed Development would comprise 2,731 GIA of office space and 102 customer seating within the proposed event space / café. In accordance with MCC guidance, the below formula was used to calculate the weekly waste arisings for the Proposed Development, with the estimated amount of waste in litres per week (l/w) presented in **Table 4.1**

2,600 litres per 1000m² gross floor space for offices and 1500 litres per 20 dining spaces for the cafe space

Table 4.1: Estimated Volumes of Operational Waste

Waste Type	Total GIA	Litres of Waste per Week
Office Space	2,731	7,100.6
Event Space / Cafe	530 (102 customer seating spaces)	7,650
Total	3,261	19,290

- 4.10 Based on the above figures and formula, the estimated amount of waste for the Proposed Development is 7,100.6 l/w for office space and 7,650 l/w for the proposed event space / café. Therefore, the total amount of waste for the Proposed Development is expected to be 14,750.6 l/w.
- 4.11 Given the landfill diversion rate of 98.4% across the Greater Manchester area²⁶, it is considered that any residual waste from the Proposed Development will not cause stress on landfill capacity in the local authority.

Waste Storage

- 4.12 It is understood that the preference is for waste to be stored within 1,100 l bins in a waste storage area located to the west of the Renold Building, where waste is currently stored.
- 4.13 Based on the total amount of weekly waste arisings set out in **Table 4.1**, a total of 14 No. 1,100l bins will be required to effectively store waste arisings.

- 4.14 MCC guidance advises that 50% of this capacity should be retained for recyclable waste.
- 4.15 The appointed Architect for the Proposed Development confirms that there will be space within the waste storage area for 14 No. 1,100l bins.

Dimensions of Waste Storage Areas

- 4.16 In relation to the dimensions of waste storage areas, the following points for 1,100 l bins should be adhered to in accordance with MCC Guidance¹⁴:
- Bin width: 1,375 mm;
 - Bin depth: 990 mm;
 - Bin height: 1,370 mm;
 - Bin height with bin lid open: 2,370 mm.
- 4.17 The floor space required for each 1,100 l bin is 1,575 x 1,190 mm.
- 4.18 The appointed Architect for the Proposed Development confirms that the above points have been adhered to in the design of the waste storage area.

General Waste Storage Guidance

- 4.19 In accordance with MCC guidance¹⁴, the waste storage area for the Proposed Development will be external to the main building and will be accessible to disabled people. Other design considerations include:
- Doorways should provide at least 1.3 m clearance (including door thickness);
 - Walkway access of at least 1.3 m should be provided within the area to allow access to each individual bin; and
 - Floors and walls of the area must be constructed and finished in impervious materials which are easy to keep clean and a trapped gully and water supply should be provided to facilitate washing down.
- 4.20 The waste storage area will be designed to accord with Secured by Design (SBD) guidance for commercial developments²⁷. Beyond the recommendations provided above from MCC guidance, the key recommendations of the SBD guidance are as follows:
- Bins are lockable;
 - Ideally, bins should be kept inside a secure, externally accessed store in the main building or in a secure, roofed compound located well away from main buildings;
 - Any internal waste facilities should have external access and be accessible to waste collection vehicles;

²⁷ Secured by Design (2023) 'Secured by Design – Commercial Guide'. Available from: <https://www.securedbydesign.com/guidance/design-guides>

- Advice should be sought from the fire authority in relation to safe standoff distances, fire and smoke detection devices and fire sprinkler systems. Smoke detectors should be sited away from heat sources; and
- Combustible materials should not be stored within 10 m of the outside of a building.

4.21 Further to guidance provided by MCC and SBD, guidance set out in BS 5906:2005¹⁴ for commercial recommends the following in relation to waste storage for commercial developments:

- Waste storage areas should provide convenient access for the collection of the bins by the collection agent. All access roads should be clearly marked, signed and controlled to prevent unauthorised parking. The layout of access roads should be such as to ensure reasonable convenience for the waste collection vehicle. Roads should have a minimum width of 5 m and be arranged so that collecting vehicles can continue mainly in a forward direction;
- Access to the waste storage area should be direct, free from obstructions and have a firm, slip resistant surface to allow for easy manoeuvre of a wheelchair;
- Paths between the waste storage area and collecting vehicles should be free from kerbs, steps or inclines with a gradient of more than 1:12. They should also be non-slip and a minimum of 2 m wide. The paths should have foundations and a hardwearing surface that will withstand the loading imposed by wheeled bins;
- As waste office buildings frequently contain up to 80 % paper, the possibility of on-Site compaction or baling should be considered. Storage space for recyclable paper should be dry and vermin-proof and paper should not be stored for longer than three weeks;
- Adequate passive ventilation is particularly important in areas where quantities of biodegradable waste accumulate; mechanical ventilation may be necessary to prevent a build-up of odours;
- Design of the following should be considered to assist people with disabilities:
 - Guidance on illumination and use of contrasting colours to enable safe use of facilities by visually impaired people;
 - The ability to reach and the force required to open the bins;
 - The ease of opening and holding open bins while depositing waste using one hand; and
 - Access to and the operating requirements of doors and locks.

4.22 The appointed Architect for the Proposed Development confirms that each of these design points for the waste storage area will be adhered to where possible.

Construction of Waste Storage Areas

4.23 In accordance with BS 5906:2005¹³, the waste storage areas will be constructed with the following design measures:

- The walls and roofs of the waste storage areas will be formed of non-combustible, robust, secure and impervious material, and have a fire resistance of one hour;
- The door of the area will be made of steel or have a fire resistance of 30 minutes. For robustness, the door frame may be made of metal, hardwood or metal-clad

softwood, situated in the external wall and, except where the doors are located directly with outside air, they should be self-closing. The doorframes will be rebated into the reveals of the opening, and the doors should be provided with a lock.

- The doors should be hung in such a way that their hinges are not subject to damage by leverage if the door is allowed to swing wide; a self-closing latch could be used to reduce this risk would also reduce this risk. For safety reasons, the door will be capable of being opened from both the inside and outside;
- The walls will be constructed of, or lined with, hard impervious material with a smooth finish suitable for washing down. The floor will not be less than 100 mm thick, and formed of hard impervious material with a smooth finish, and there should not be steps and projections at the entrance; and
- Electrical lighting will be provided within waste storage areas by means of sealed bulkhead fittings for the purpose of cleaning down with hoses and inevitable splashing. Luminaires will be low energy light fittings or low energy lamp bulbs should be used. Switching will be either proximity detection or on a time delay button to prevent lights being left on.

4.24 The appointed Architect for the Proposed Development confirms that each of these design points for the waste storage area will be adhered to where possible.

Consultation

4.25 An agreement between the developer and the responsible body is to be reached on the following points during the consenting process:

- The methods of storage, segregation, on-Site treatment and collection of waste, including recyclable material, to be used for the form of layout and building density adopted;
- A designated location for waste including recyclable material storage, segregation and treatment areas to be provided and means of access to them for waste collection staff and vehicles;
- The storage capacity to be provided with allowance for the frequency of collection specified by the collection authority, the volume and nature of waste including recyclable material expected and the size and type of bins to be used;
- The responsibility for cleansing and maintenance of storage facilities;
- Environmental aspects (e.g. air pollution, indoor air quality, noise control, and litter abatement);
- The discharge of waste into sewers (e.g. food waste disposers);
- Means of escape and fire-fighting arrangements in waste and recyclable material storage and collection areas;
- Appropriate arrangements for older persons and persons with disabilities; and
- Arrangements for cleaning of the waste storage area with consideration on the following recommendations:
 - o Drainage should be by means of a trapped gully connected to the foul sewer;
 - o The floor of the area should have a suitable fall towards the drainage point;

- o Gullies should be so positioned as not to be in the track of bin trolley wheels; and;
 - o Rainfall or other surface water should not be allowed to flow into the area.
- 4.26 The Applicant confirms that an agreement on the above points will be reached with MCC during the consenting process.

Hygiene

- 4.27 The decomposition of waste takes place under most climatic conditions experienced in the UK. It is common for sludge to adhere to the inside of waste bins. Good housekeeping will ensure that all bins used for handling waste and waste storage areas in which they are stored and processed are adequately cleaned.
- 4.28 In all new schemes, the local authority should be consulted at the planning stage for all new developments about arrangements for the frequent cleaning of waste bins.
- 4.29 The Applicant sets out responsibilities to ensure that appropriate management, and consultation with key stakeholders, for the cleaning of waste bins and waste storage areas will be agreed in advance of occupancy (see **Section 5**).

Hazardous Waste

- 4.30 There is the potential for hazardous waste, such as waste oil and batteries to be produced on the Site during operation. Details of the storage and collection arrangements of all such waste generated will need to be provided to MCC at the planning stage.
- 4.31 The Applicant confirms that the private contractor will be made aware of any hazardous waste that will be produced on-Site and make arrangements for its collection at appropriate times in order to ensure its safe disposal.

Recycling Waste

- 4.32 In accordance with the Environment Act 2021⁸, the following recycling measures will be adhered to:
 - Materials that can be recycled will be extracted by the waste contractor prior to the disposal of residual waste; and
 - Glass, metal, plastic, paper and card will not be collected together with food waste and garden waste.
- 4.33 As stated previously, it is recommended that 50% of the waste bins required to store waste within the Proposed Development should be dedicated recycling waste bins in accordance with MCC guidance.
- 4.34 It is recommended that the usage of recycling waste bins should be monitored and the percentage of recycling waste bins to non-recycling waste bins should be increased if required to ensure there is enough space for effective waste storage.

Waste Disposal

- 4.35 It is understood that a private waste contractor would be employed to collect waste during the operational phase. The frequency with which this waste will be collected will vary over the lifetime of the Proposed Development, with more frequent collection occurring as occupancy of the building increases. The amount of waste should be continuously monitored to ensure that waste collection is done in manner that is commensurate to the amount of waste that is being produced.
- 4.36 The collection point will be from the unnamed road to the west of the existing building. The Swept Path Analysis undertaken by BWB (see **Appendix 3**) illustrates that there will be sufficient space for a waste collection vehicle to access and egress this unnamed road in order to collect waste from the storage area.
- 4.37 The waste collection point would be less than 10 m from the waste storage areas. Furthermore, the appointed Architect for the Proposed Development has confirmed that there would be a smooth passage between waste storage areas and waste collection points.

Roles and Responsibilities

- 4.38 Establishing roles and responsibilities is important to ensure the successful management of waste throughout the operational phase of the Proposed Development.
- 4.39 To ensure that all the waste commitments are met, it is important to ensure that specific roles are clearly set out and there is an awareness of the waste responsibilities that are required to be adhered to.
- 4.40 **Table 4.2** sets out the parties who have responsibilities during the operational phase and identifies the responsibilities for each party.

Table 4.2: Roles and Responsibilities

Responsible Party	Responsibilities
Developer	The developer will be responsible for ensuring that a registered private contractor is employed to collect and dispose of waste.
Developer	<p>The developer will be responsible for agreeing the following points with MCC prior to consent:</p> <ul style="list-style-type: none"> • The methods of storage, segregation, on-Site treatment and collection of waste, including recyclable material, to be used for the form of layout and building density adopted; • A designated location for waste including recyclable material storage, segregation and treatment areas to be provided and means of access to them for waste collection staff and vehicles; • The storage capacity to be provided with allowance for the frequency of collection specified by the private waste contractor, the volume and nature of waste including recyclable material expected and the size and type of bins to be used; • The responsibility for cleansing and maintenance of storage facilities; • Environmental aspects (e.g. air pollution, indoor air quality, noise control, and litter abatement); • The discharge of waste into sewers (e.g. food waste disposers); • Means of escape and fire-fighting arrangements in waste and recyclable material storage and collection areas; • Appropriate arrangements for older persons and persons with disabilities; • Arrangements for cleaning of the waste storage area; and • The developer / owner will also be responsible for ensuring that a suitably qualified Building Manager will be appointed to execute responsibilities as detailed within this WMP and below.
Building Manager	<p>The appointed Building Manager will be responsible for the following:</p> <ul style="list-style-type: none"> • There are sufficient bins to accommodate the weekly waste arisings; • There are separate bins for general and recycling waste, which are clearly labelled; • Make occupants fully aware of what rubbish goes in which external bin; • Ensure that waste is being discarded appropriately, and that it is being separated correctly; • Ensure that the bins are in good working order; • Ensure no bulky waste is being discarded inappropriately; • Ensure the bins are brought back in to the boundary of the property and stored within the designated bin storage area; • Ensure the cleaning of waste bins is done appropriately; and • Organise the appropriate and prompt disposal of any waste discovered after a tenancy agreement ends.

5. INCIDENTS AND REPORTING

Introduction

- 5.1 During the operational phase, it is a legal requirement for the Operator of the Proposed Development to report all environmental incidents and near misses. All staff have a responsibility to notify their superior and appropriate environmental persons who are responsible for completing all reporting requirements. Should it be required, the Operator will immediately notify regulatory agencies who require notification.
- 5.2 Any incident or emergency plans should be in proportion to the level of risk presented by event activities and the potential extent and severity of the incident.

Definitions

- 5.3 A **pollution incident** is when any substance is released to land, air or water that could harm people or the environment.
- 5.4 An **environmental incident** is a specific unplanned event or occurrence that has an environmental impact and may require an immediate response in order to minimise the impact.
- 5.5 An **environmental close call** is an event that, in other circumstances, could have resulted in potential harm to the environment. Examples of environmental close calls include:
- Any breach or potential breach of the legislation, or an approval, or permit condition;
 - Potential contamination of waterways (including groundwater) or land;
 - Accidental or unauthorised intentional starting of fire;
 - Unauthorised dumping of waste; and
 - Spills of fuel, oil chemical or other hazardous material.
- 5.6 **Accidental incidents** include spills or leaks from poorly maintained waste bins, which can enter surface water drainage.
- 5.7 A **minor incident** is considered a small spill (less than 5 litres or less than 1 metre in diameter) that has been contained.
- 5.8 A **harmful substance** is considered a substance either prohibited from being emitted / discharged to a receiving medium (atmosphere, ground or water) or a substance released in sufficient quantities to cause environmental pollution or damage.
- 5.9 A **major incident** is considered an incident requiring the involvement of a regulatory authority due to the volume or toxicity of the harmful substance released.

Consideration of Key Risks

- 5.10 Before deciding on what measures need to be put in place, a Risk Assessment should be carried out to:
- Identify materials stored that may be a hazard;
 - Identify where hazards may impact on receptors; and
 - Assess the likelihood and severity of any potential hazard.
- 5.11 A Risk Assessment should consider:
- The biological, chemical and physical properties of a material that could be spilt;
 - The effects of accidents, flooding and failure of containment;
 - How materials are stored or moved around the Site and the condition of storage;
 - Areas of unsurfaced or porous ground; and
 - The risks posed to people (including neighbours) and the environment and the extent of possible damage.
- 5.12 Emergency procedures should be developed which are to be followed by staff in a significant incident/emergency (e.g. a fire).
- 5.13 Contingencies should be included to deal with incidents and situations that could potentially arise.
- 5.14 A response to more serious emergencies should also be considered, including major incidents that will require help from the emergency services and implementation of their regional emergency plans (which may not be specific to the incident).

Development of an Emergency Plan

- 5.15 An Incident Response Plan should be drafted to outline the actions the Operator should take to reduce risks of an incident or accident at the Site. The level of risk should influence the size, complexity and details of this Plan.
- 5.16 Most event emergency plans should address the same basic requirements to:
- Divert / remove people away from immediate danger;
 - Protect property and sensitive environmental receptors;
 - Handle causation;
 - Handle effect;
 - Liaise with the emergency services and other authorities and, where the situation is serious, hand over responsibility for the incident/emergency; and
 - Protect property.

Environmental Incident Response Procedure

- 5.17 In the event of an environmental incident, the incident must be reported immediately to the appointed Building Manager who will contact the appropriate person or company to deal with the incident.
- 5.18 A spill response process is operated by a known person who can deploy a spill kit to prevent spills spreading or proceeding off-Site, unless the spill is beyond their capacity in which case external support must be brought in.
- 5.19 The appropriate person or company will then deal with the incident and prevents or mitigates adverse environmental damage.
- 5.20 After an incident, the person responsible for dealing with the incident and should fill out an Environmental Incident Report Form.
- 5.21 Completed forms must be sent to the appropriate and designated persons who review, monitor and, if necessary, investigate and identify appropriate action to prevent re-occurrence.
- 5.22 Any corrective actions that are identified are managed via the non-conformity and corrective action procedure which should be detailed in the EMS.

Incident Investigation

- 5.23 Where an incident has occurred, an incident investigation must be undertaken by the Operator, with the following elements to be included as a minimum:
- Identify the extent and cause of the incident;
 - Identify the immediate corrective actions taken to prevent the impact from continuing including the personnel responsible for undertaking these actions;
 - Identify corrective actions to remediate the impacted area including the personnel responsible for undertaking these actions;
 - Undertake a root cause analysis;
 - Assess risk of reoccurrence;
 - Identify procedural deficiencies;
 - Implement investigation recommendations from root cause analysis or procedure deficiencies;
 - Report findings; and
 - Where appropriate, provide any training that may assist staff in preventing reoccurrence of an event of a similar nature in future.

Complaints and Grievance Mechanism

- 5.24 The OWMP must include a procedure for receiving, registering and responding to complaints. Complaints must be managed promptly and effectively. The complaints management system must include:

- A procedure for receiving complaints on a 24-hour, seven days-a-week basis;
- A mechanism for notifying end users of the complaints procedure and how it may be accessed;
- A process for registering and handling complaints received, including a database for tracking of complaints and actions taken in response. The database must include:
 - The time and date each complaint is received;
 - Details of the complainant and the recorder of the complaint;
 - The specific activity causing the complaint including the place, time and date;
 - The entity responsible for addressing the complaint;
 - The action taken to address the complaint, if necessary;
 - Feedback given to the complainant;
 - Time and date on which the complaint was addressed and closed out;
 - Immediate communication of the complaint to the Building Manager; and
 - Details on how the action taken by the Operator was communicated to the complainant and other relevant authorities / persons.
- Any subsequent remedial action required to avoid cause for future complaints if relevant;
- A procedure for escalating and resolving verified complaints consistent with the relevant legislation;
- Regular reporting to end users of complaints and corrective actions maintaining appropriate confidentiality; and
- Monitoring and auditing of the complaint handling system.

Corrective Actions

- 5.25 Corrective actions must be undertaken where monitoring or validated complaints and/or incidents indicate the environmental outcomes are not achieved, either because the performance criteria have not been met, or mitigation measures have not been implemented. Where corrective actions become necessary, the works that do not achieve the environmental outcomes must cease until appropriate corrective actions have been implemented.
- 5.26 Corrective actions to achieve the environmental outcomes must be developed by the Operator in consultation with any persons directly affected where deemed necessary. These corrective actions shall address the underlying causes and not just the presenting of results.
- 5.27 Corrective actions must be initiated by the Building Manager as soon as practicable after it becomes evident, through monitoring, validated complaints or validated incidents, that the environmental outcomes for the relevant works are not being achieved.

- 5.28 The Building Manager must maintain a register of corrective actions and demonstrate that the corrective actions have been implemented and appropriately communicated.

6. MONITORING, AUDITS AND INSPECTIONS

Monitoring

- 6.1 Training should be provided to any persons handling waste on-Site throughout the lifetime of the Proposed Development.
- 6.2 Monitoring should be undertaken to ensure the following:
- An appropriate number of waste bins (including recycling bins) are being provided at all times to store waste;
 - Recyclable waste is being separated appropriately;
 - All waste bins provided conform with necessary requirements (i.e. correct labelling, accessible to disabled tenants etc.) and are free from defects;
 - Bulky waste is not being discarded inappropriately;
 - Travel routes between waste storage areas and waste collection points retain a surface suitable for waste transfer and remain free from obstructions;
 - Waste bins are being presented for collection in accordance with MCC guidance; and
 - Waste bins are being cleaned regularly and an appropriate level of hygiene is being maintained within waste storage areas.
- 6.3 Where any of the above points are not being adhered to, the Building Manager must provide updated training to waste handlers to ensure compliance.

Waste Audits

- 6.4 Waste audits are a form of assessment which help to:
- Establish the quantity and type of waste produced at a property;
 - Determine whether waste management arrangements are being followed and are effective; and
 - Identify opportunities to improve waste management and performance.
- 6.5 Common types of waste audits include:
- A **contamination / composition) audit**: An audit of recyclable materials generated on-site for any waste stream that is not going to landfill. The purpose of this audit is to ensure materials recorded as recycled by a building are being diverted from landfill by the waste contractor, based on their standard procedures;
 - A **density audit**: An audit of materials generated on-site for a specific bin service where weight data for that service does not exist. The purpose of the density audit is to get a better estimate of the weight of every bin collected from the building, including bins going to landfill; and
 - A **composition audit**: An audit of materials generated on-site for a specific bin service for any waste stream that is not going to landfill. The purpose of this audit is to determine the specific material types disposed of at a property.

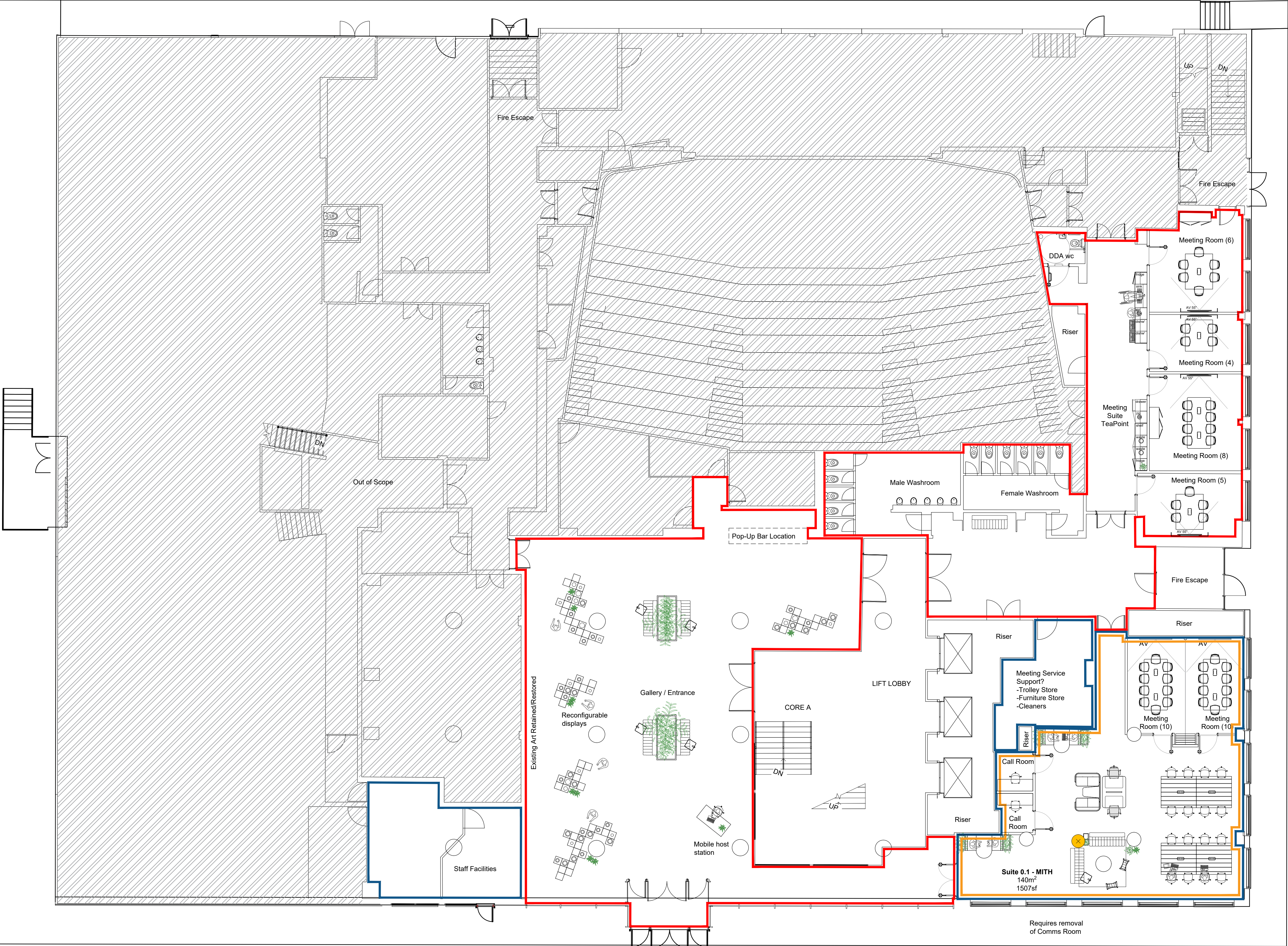
- 6.6 Although there is no specific legislation which requires the undertaking of a waste audit, the outcome from waste audits can contribute towards compliance of waste commitments.
- 6.7 If MCC determine that waste audits should be undertaken during the operational phase, the method of undertaking them should be agreed with the Developer at the consenting stage.

7. CONCLUSIONS

- 7.1 This WMP covers how waste should be managed during both the construction and operational phases of the Proposed Development to accord with the waste hierarchy in order to minimise waste production and maximise the re-use and recycling of materials.
- 7.2 The SWMP sets out the responsibilities of relevant parties during the construction phase. Recommendations have been made on the storage of construction materials and the segregation of waste in order to maximise the re-use and recycling of waste and minimise the amount of residual waste. Recommendations have also been made on the collection and disposal of waste. The Principal Contractor must update the SWMP throughout the lifecycle of the construction phase, including the type and amount of waste expected to be generated.
- 7.3 In relation to the operational phase, it has been concluded that approximately 7,100.6 l/w of office space and approximately 7,650 l/w of waste from the proposed event space / café will be produced during the operational phase, which will result in a combined total of 14,750.6 l/w. Given the landfill diversion rate of 98.4% across the Greater Manchester area, it is considered that any residual waste from the Proposed Development will not cause stress on landfill capacity in the local authority.
- 7.4 14 No. 1,100l bins will be required to store this waste. Best practice guidance within BS 5906:2005 has been followed as much as possible in the design of waste storage areas.
- 7.5 It is considered that with adherence to the recommendations made within this WMP, the Proposed Development would comply with national, regional and local waste management guidance.

APPENDICES

APPENDIX 1: Layout Plans



KEY

- Denotes area in original scope
- Denotes area in addition to original scope
- Denotes area as option locations for Hub

Rev: Details: By: Date:

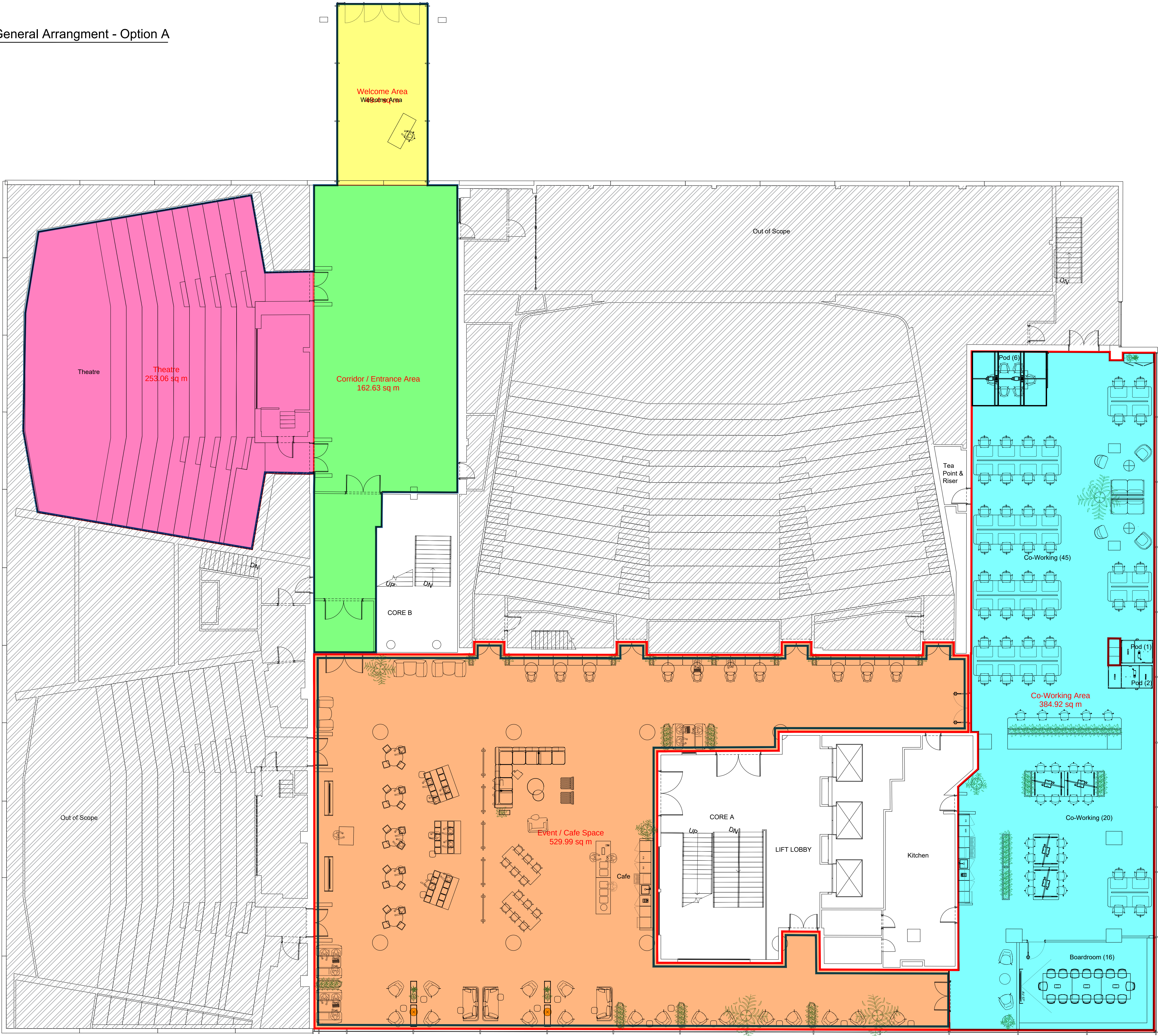
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Project:
IDM Renold
Drawing Title:
LG General Arrangement - Option B
Upload Reference:
IDMB2-SPH-MW-00-DR-A-00102
SID Project Number:
23035
SID Drawing Number:
23035(SK)-000-1-02
Revision:
B
Scale at A1:
1:100
Drawn By:
SKD
Workstage:
Workstage 1

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KEY

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- Denotes area in addition to original scope
- Denotes area as option locations for Hub



Total Co-Working
65nos

Rev: Details: By: Date:

Client: IDM Bruntwood		
Project: IDM Renold		
Drawing Title: UG General Arrangement - Option A		
Upload Reference: IDMB2-SPI-MW-01-DRA-01101		
SID Project Number: 23035	SID Drawing Number: 23035(SK)-001-1-01	Revision: F
Scale at A1: 1:100	Drawn By: SXD	Workstage: Workstage 1

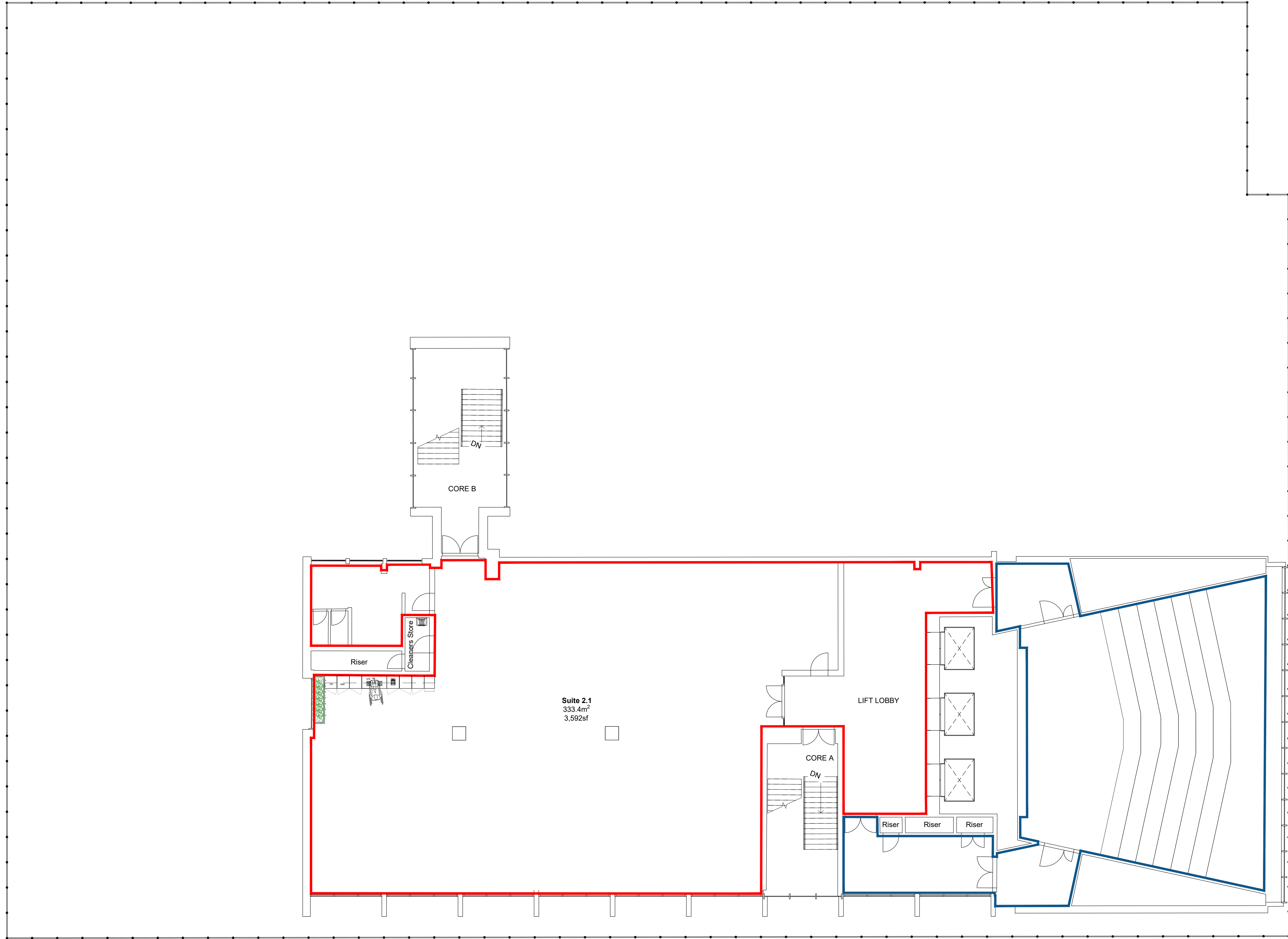
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KEY

- Denotes area in original scope
- Denotes area in addition to original scope
- Denotes area as option locations for Hub

[illegible]

Rev:	Details:	By:	Date:
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Client:
IDM Bruntwood

Project:
IDM Renold

Drawing Title:
Second Floor General Arrangement

Upload Reference:
IDMB2-SPI-MW-02-DR-A-02101

SID Project Number: 23035	SID Drawing Number: 23035(SK)-002-1-01	Revision: C
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Scale at A1: 1:100	Drawn By: SXD	Workstage: Workstage 1
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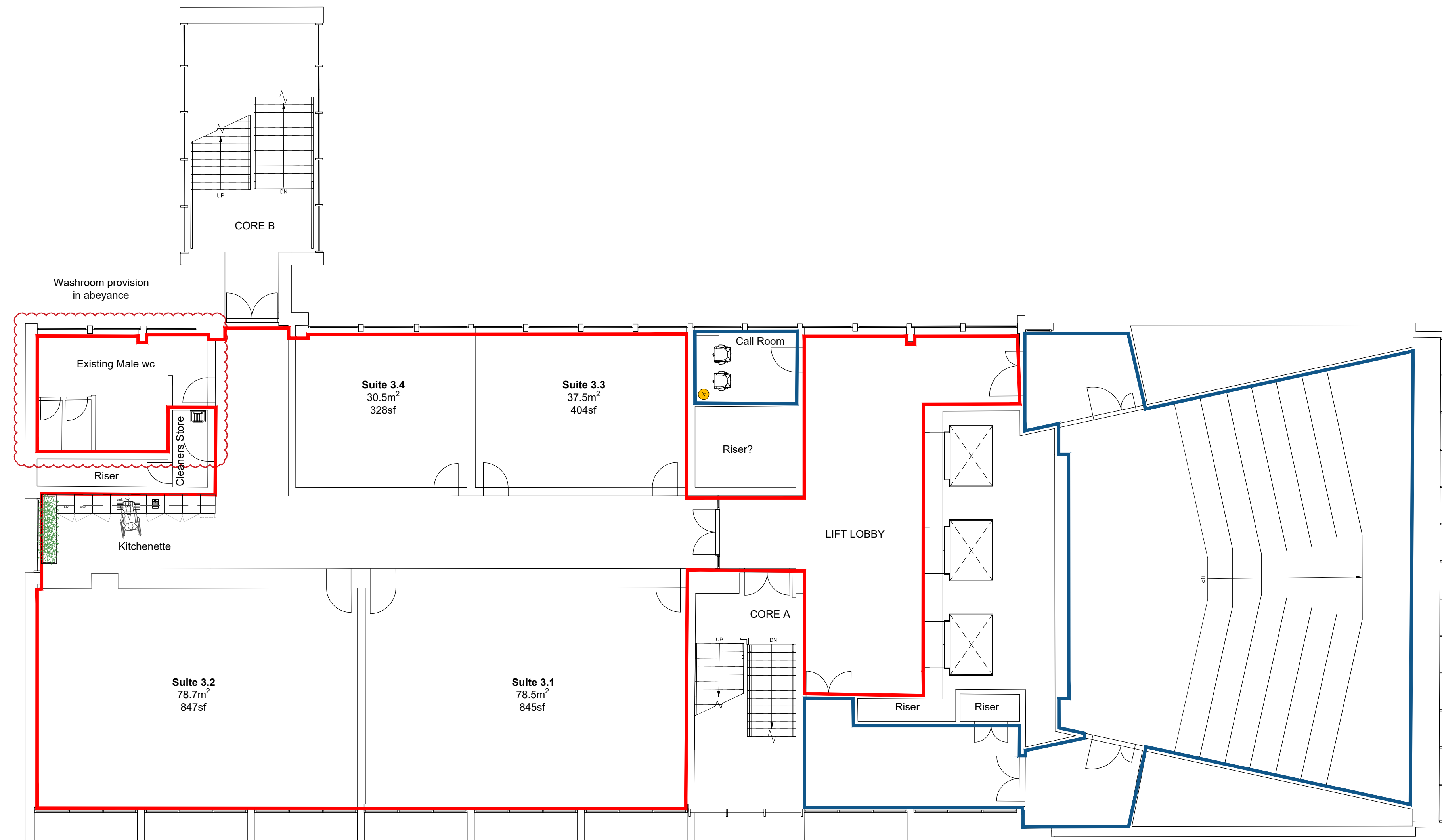
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- Denotes area in addition to original scope
- Denotes area as option locations for Hub

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Rev:	Details:	By:	Date:
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Client:
IDM Bruntwood

Project:
IDM Renold

Drawing Title:
Third Floor General Arrangement

Upload Reference:
IDMB2-SPI-MW-03-DR-A-03101

SID Project Number: 23035	SID Drawing Number: 23035(SK)-003-1-01	Revision: C
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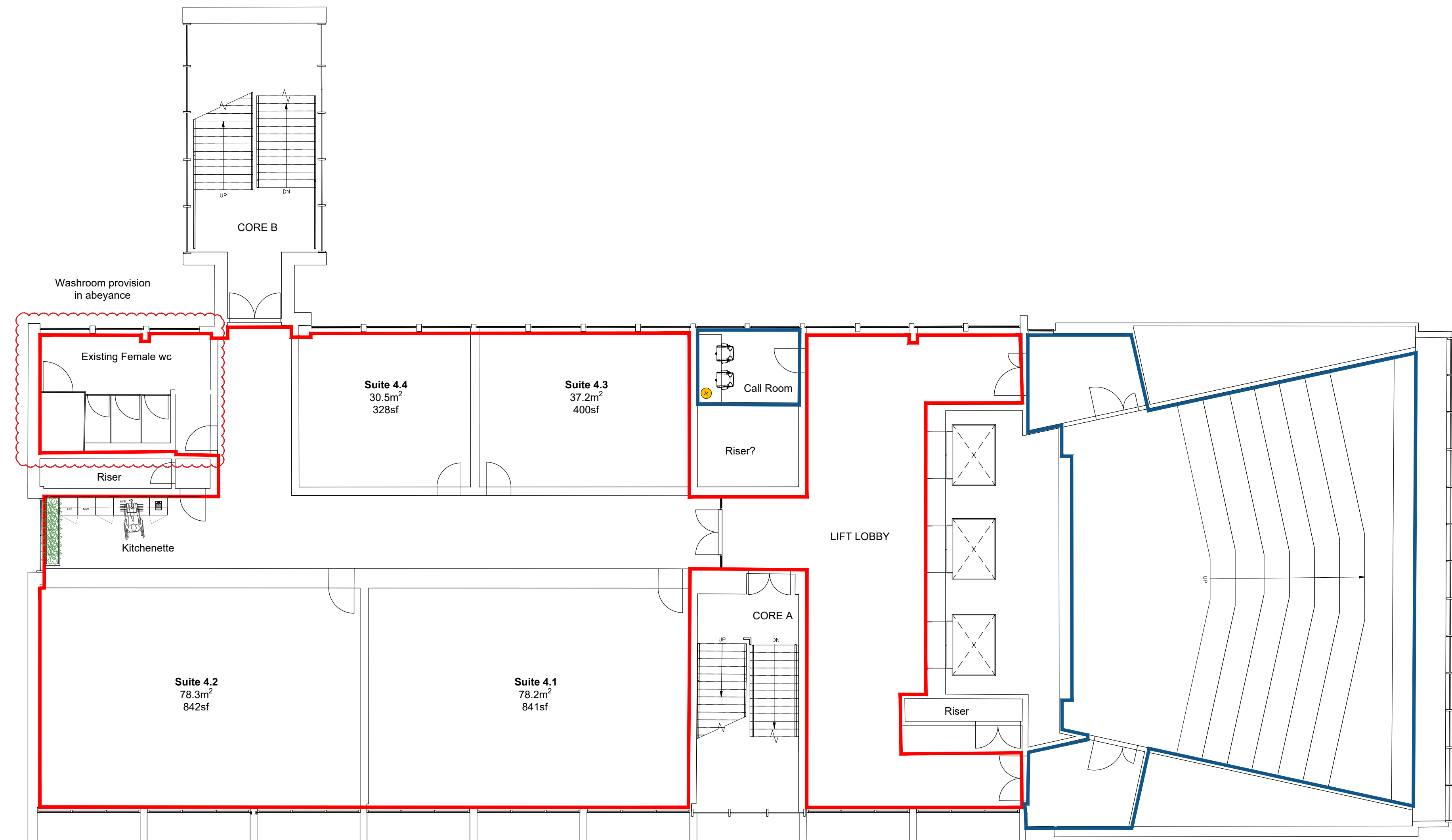
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- Denotes area in addition to original scope
- Denotes area as option locations for Hub

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Rev:	Details:	By:	Date:
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Client:
IDM Bruntwood

Project:
IDM Renold

Drawing Title:
Fourth Floor General Arrangement

Upload Reference:
IDMB2-SPI-MW-04-DR-A-04101

SID Project Number: 23035	SID Drawing Number: 23035(SK)-004-1-01	Revision: B
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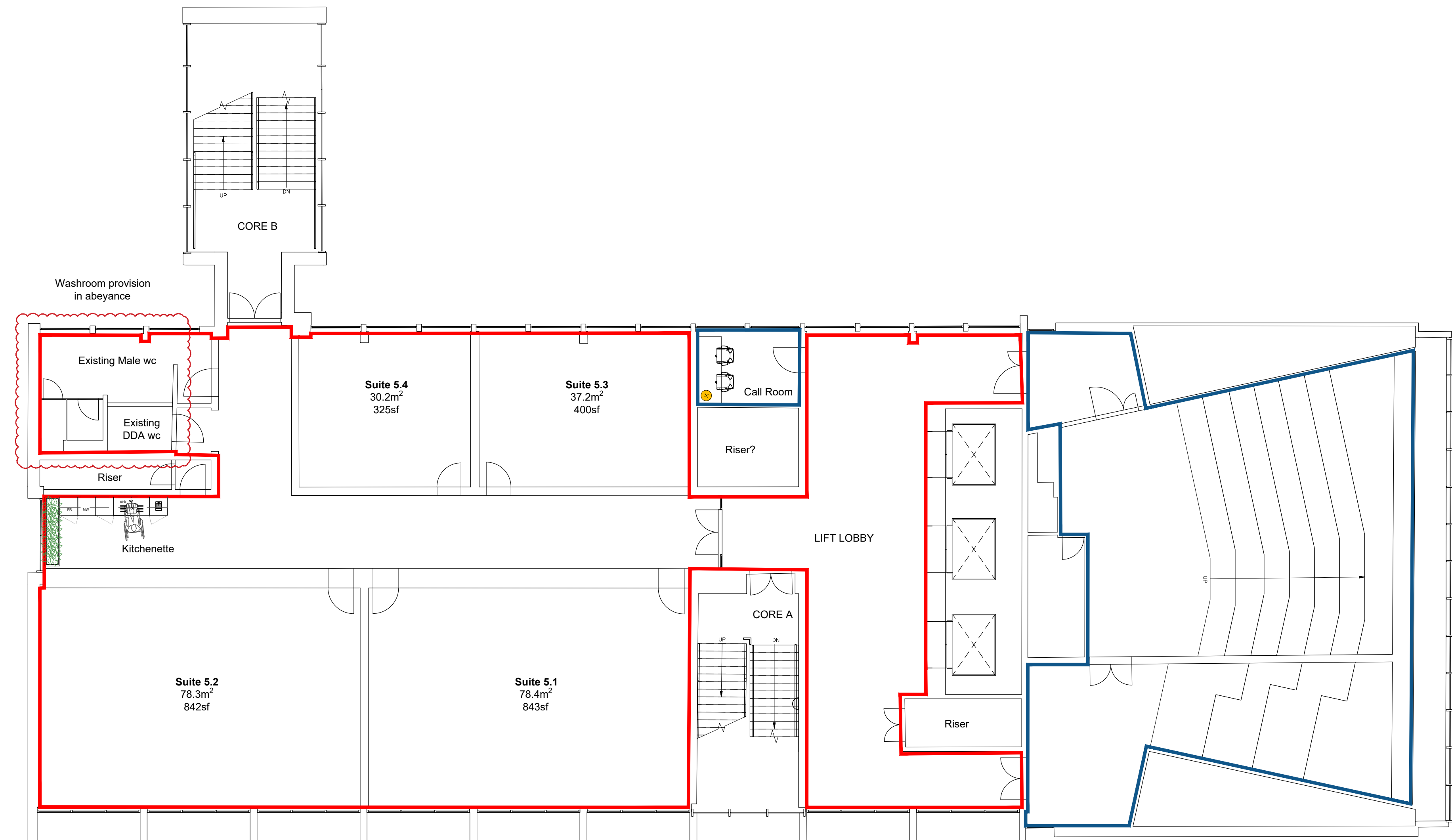
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- Denotes area in addition to original scope
- Denotes area as option locations for Hub

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Rev:	Details:	By:	Date:
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Client:
IDM Bruntwood

Project:
IDM Renold

Drawing Title:
Fifth Floor General Arrangement

Upload Reference:
IDMB2-SPI-MW-05-DR-A-05101

SID Project Number: 23035	SID Drawing Number: 23035(SK)-005-1-01	Revision: B
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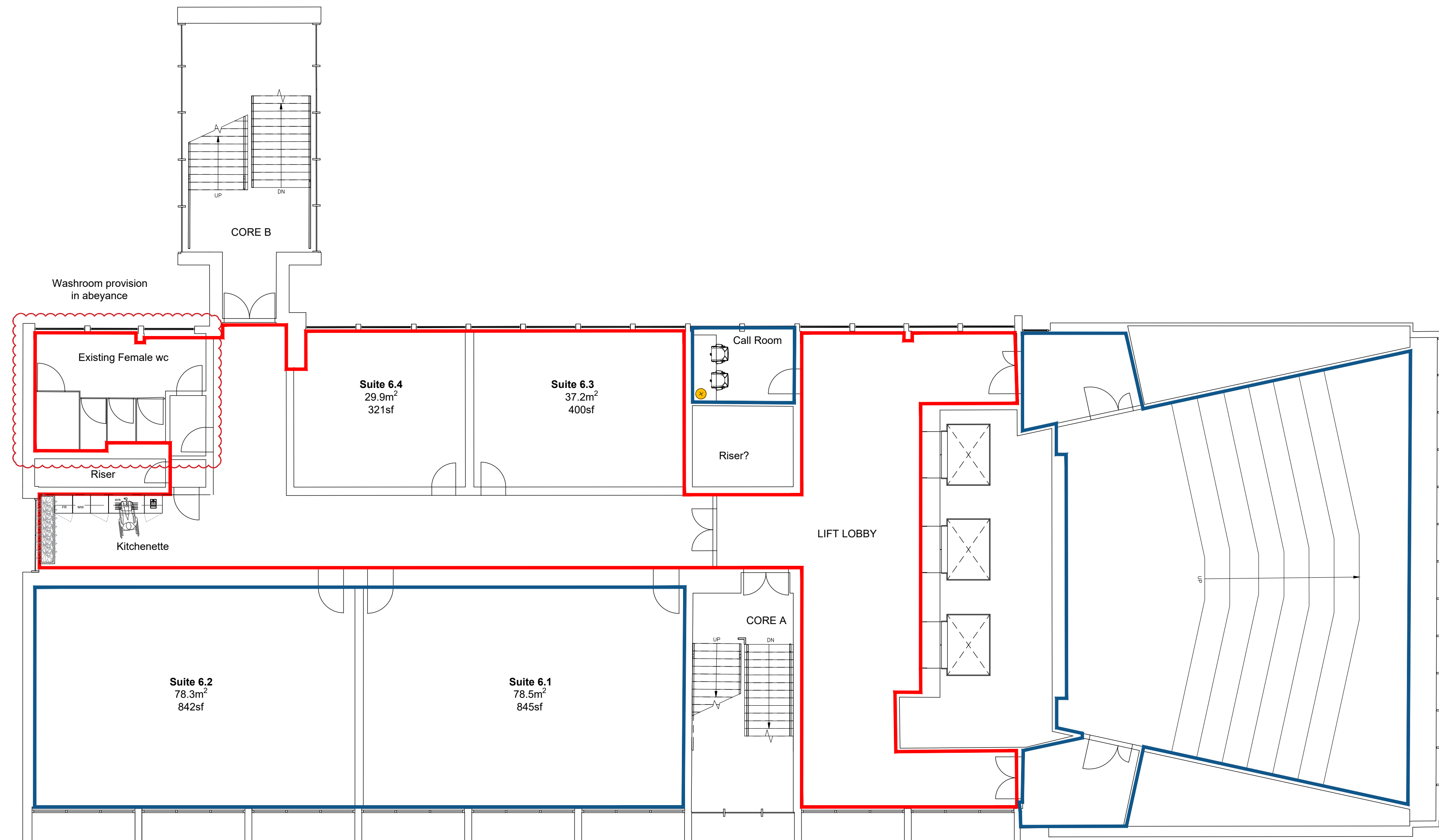
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KEY

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- Denotes area in addition to original scope
- Denotes area as option locations for Hub

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Rev:	Details:	By:	Date:
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Client:
IDM Bruntwood

Project:
IDM Renold

Drawing Title:
Sixth Floor General Arrangement - Option B

Upload Reference:
IDMB2-SPI-MW-06-DR-A-06102

SID Project Number: 23035	SID Drawing Number: 23035/(SK)-006-1-02	Revision: B
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Scale at A1: 1:100	Drawn By: SXD	Workstage: Workstage 1
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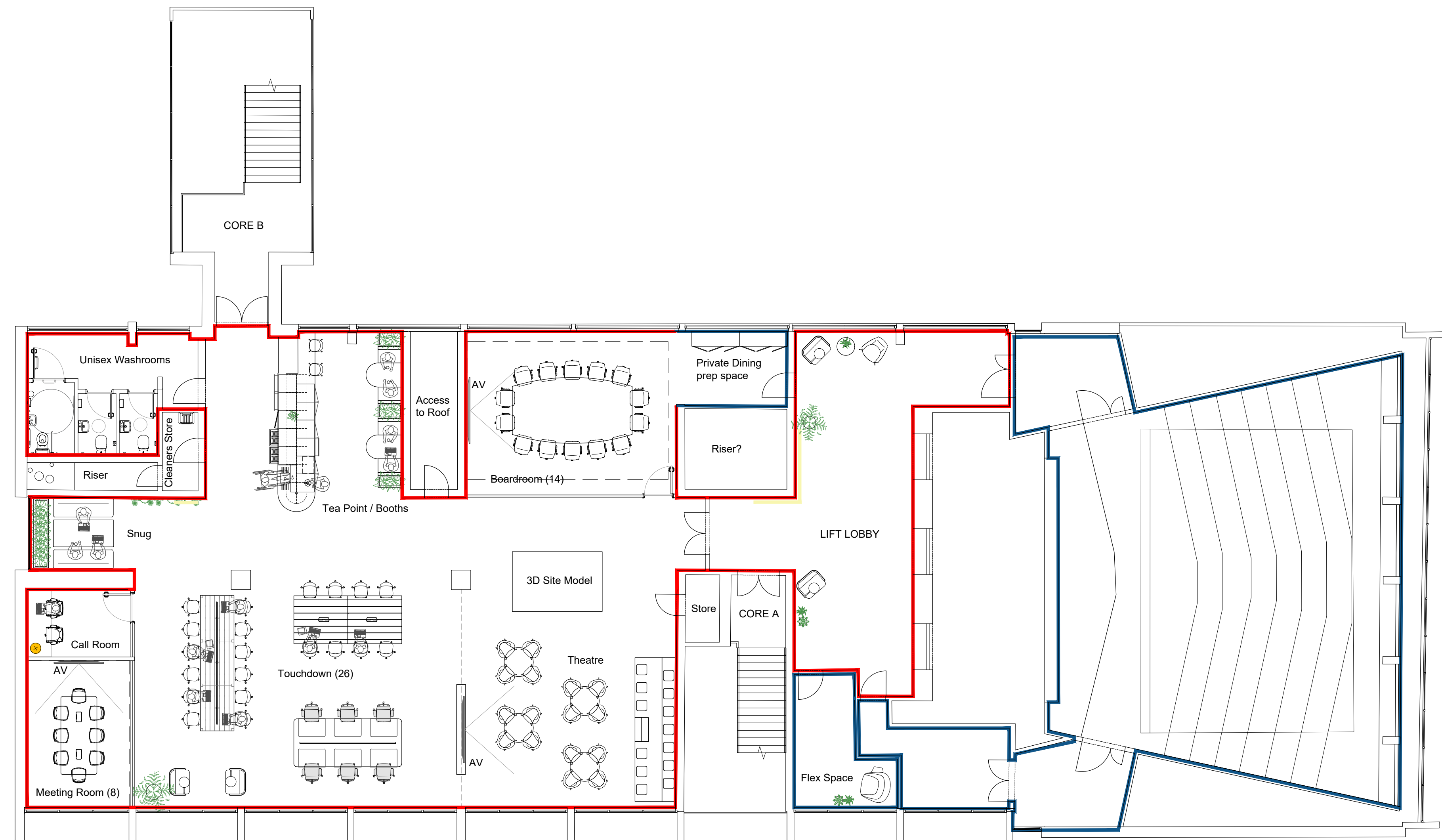
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KEY

- Denotes area in original scope
- Denotes area in addition to original scope
- Denotes area as option locations for Hub

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Rev:	Details:	By:	Date:
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Client:
IDM Bruntwood

Project:
IDM Renold

Drawing Title:
Seventh Floor General Arrangement

Upload Reference:
IDMB2-SPI-MW-07-DR-A-07101

SID Project Number: 23035	SID Drawing Number: 23035(SK)-007-1-01	Revision: C
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Scale at A1: 1:100	Drawn By: SXD	Workstage: Workstage 1
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APPENDIX 2: Site Waste Management Plan – Pro forma

Site Waste Management Plan – Pro forma

(To be completed by Principal Contractor)

The tables below should be completed and updated by the Principal Contractor. Wastes mentioned in the table are examples of potential wastes from the site for the purpose of this SWMP and are not exhaustive. Further site activities such as ground preparation and general construction will produce additional waste streams.

SITE DETAILS		RESPONSIBLE BODIES	CLIENT	PRINCIPLE CONTRACTOR
Site Name		Name		
Site Location		Contact Personnel		
Site Cost		Address		
Site Start Date				
Site Completion Date		Telephone		

Forecast Volumes

SITE ACTIVITY	WASTE	SOURCE	EXPECTED QUANTITY	RECOMMENDED WASTE ACTION
Demolition/Construction	Concrete material	Groundworks		Re-use as hardcore for new development if suitable
	Concrete	Existing Buildings		Recycle on site, crushed as hardcore
	Sub Soils	Groundworks		Re-use on site
	Top Soils	Groundworks		Re-use on site
	Bricks	Existing buildings		Re-use on site
	Ceramic Tiles	Existing Buildings		Segregate for offsite recycling
	Mix of blocks and ceramics	Existing infrastructure		Offsite recycling

SITE ACTIVITY	WASTE	SOURCE	EXPECTED QUANTITY	RECOMMENDED WASTE ACTION
	Copper pipes and fittings	Existing Buildings/Infrastructure		Segregate and recycle offsite
	Iron and Steel	Existing infrastructure		Re-use or recycle
	Concrete Pipes	Existing drainage infrastructure		Re-use on site if suitable condition, or recycle material
	Plastic Pipes	Existing drainage infrastructure		Re-use on site if suitable condition, or recycle material
	Glass	Existing buildings (windows)		Segregate for offsite recycling
	Asbestos materials	Existing buildings (insulation)		Segregate for removal by licensed hazardous waste carrier
Materials Delivery/Supply	Paper and card packaging	New site material packaging		Minimise packaging arriving on site, segregate onsite and recycle offsite
	Plastic packaging	New site material packaging		Minimise packaging arriving on site, segregate onsite and recycle offsite
	Timber packaging	New site material packaging		Minimise packaging arriving on site, segregate onsite and recycle offsite

Waste Management

WASTE CARRIER DETAILS				
Name				
Contact Personnel				
Address				
Telephone				
Waste Carrier Registration no.				
Reference for SWMP	A	B	C	D

[illegible]

Totals																			
SWMP Target %																			
Actual Performance Score as %																			

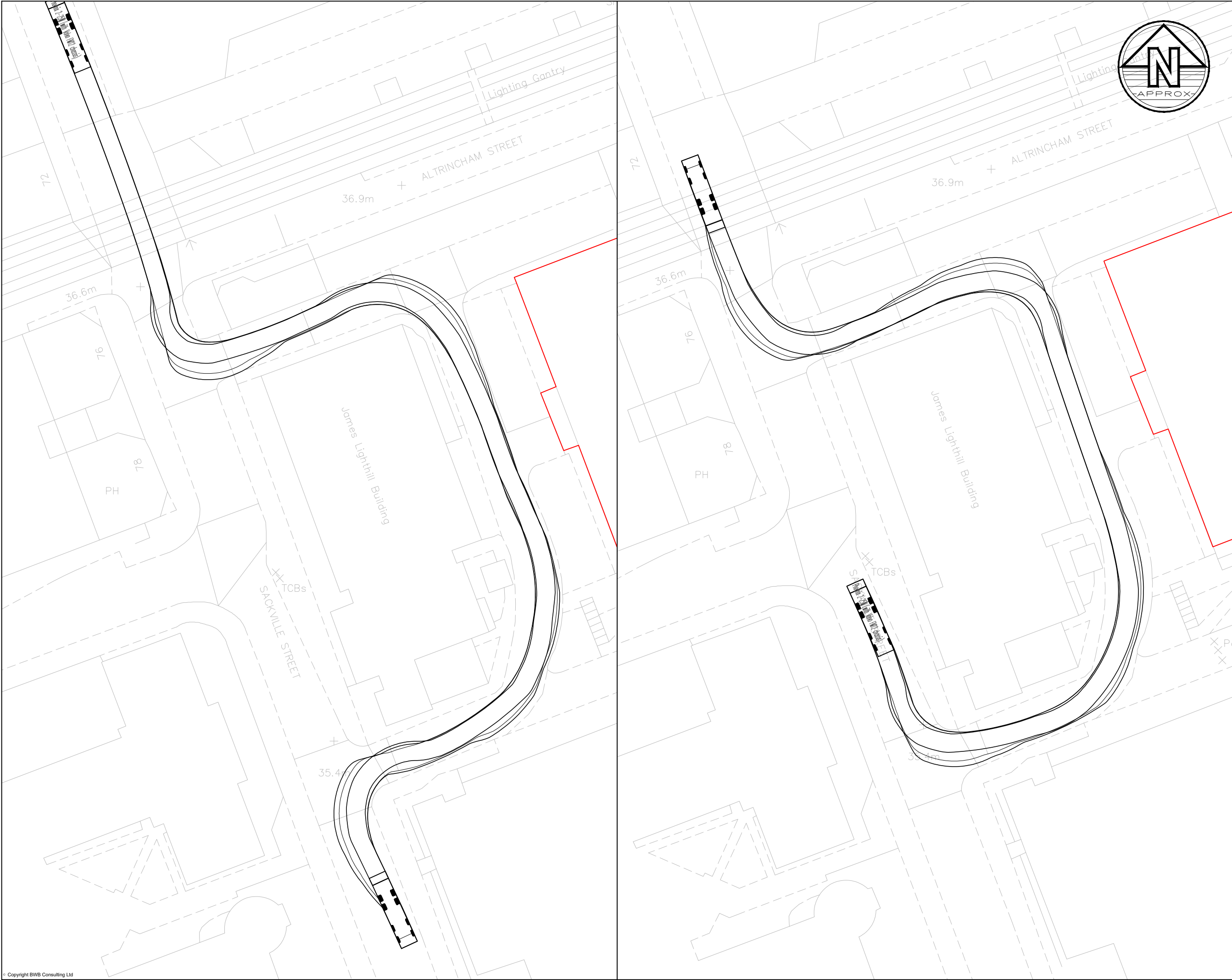
I – Inert, N – Non-hazardous, H – Hazardous, T – Target, A – Achieved

¹ European Waste Catalogue

² Waste Transfer Note, or consignment note for hazardous waste

³ Materials Recycling Facility

APPENDIX 3: Swept Path Analysis



- Notes**
1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
 2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
 3. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
 4. Any discrepancies noted on site are to be reported to the engineer immediately.

Key Plan

Legend

Phoenix 2-25W (with Volvo FM12 chassis)
Overall Length 11.125m
Overall Width 2.530m
Overall Body Height 3.205m
Min Body Ground Clearance 0.410m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.250m

P1	30.11.23	SKETCH		SF	JA
Rev	Date	Details of issue / revision		Drw	Rev

Issues & Revisions



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Client

Project Title
**RENOLD BUILDING,
SACKVILLE STREET,
MANCHESTER**

Drawing Title
**SERVICE ROAD - REFUSE
VEHICLE TRACKING
SKETCH**

Drawn:	S. Franklin		Reviewed:	J. Ashton	
BWB Ref:	232704	Date:	30.11.23	Scale@A3:	1:500
Drawing Status					
PRELIMINARY					
Project - Originator - Zone - Level - Type - Role - Number				Status	Rev
RBM-BWB-GEN-XX-DR-TR-SK1				S2	P1

