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MAYES ROAD, WOOD GREEN

Remediation Method Statement



Prepared for:

Austinger Capital Limited

Report Ref: BEK-22083-2

January 2023

Project Quality Assurance Information Sheet

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Report Title	Remediation Method Statement
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PROJECT NO: 22083
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REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked

GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client.

The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

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1. INTRODUCTION

- 1.1.1 BEK Enviro (BEK) has been commissioned by Austinger Capital Ltd to prepare a method statement for the remediation works required for Phase 1 a parcel of development land located off Mayes Road, Wood Green, London (hereafter referred to as 'the site').
- 1.1.2 The site covers an area of approximately 650 m², which is currently occupied by a paved car parking area.
- 1.1.3 The site is Phase 1 of a larger development area, for which it is proposed to construct a 6 to 9 storey development which will have commercial units at the ground floor and residential apartments above with associated vehicle access/parking.
- 1.1.4 The development works within Phase 1 will consist of construction of a two-storey medical centre with 30 residential flats above. There will be no landscaped areas associated with this new development.
- 1.1.5 A 'Proposed Phasing Strategy' for the whole site is shown on the Bowman Riley Drawing No 8688-BOW-A1-01-DR-A-0001-P3, dated March 2022, a copy of which is presented in Appendix A.
- 1.1.6 BEK has previously carried out site investigation works within Phase 1 and this work and the associated ground assessment is summarised in Section 2.
- 1.1.7 This report has been prepared to satisfy the following planning conditions set by Haringey London Borough Council:

Condition 15 - Part B: If the updated risk assessment and refined Conceptual Model indicate any risk of harm, a Method Statement detailing the remediation requirements, using the information obtained from the site investigation and the potential effects set out in the Environmental Statement dated December 2016, and also detailing any post remedial monitoring shall be submitted to, and approved in writing by, the Local Planning Authority prior to that remediation being carried out on site.

Condition 42 - Part 3: The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measured required and how they are to be undertaken.

2. PREVIOUS SITE INVESTIGATION

2.0.1 The site has been subject to site investigation and assessment to identify potential risks associated with contamination with respect to the redevelopment of the site for commercial use. The following reports have been prepared by BEK for the site:

- BEK 'Site Investigation & Contamination Assessment' - Ref: BEK-22083-1 Rev A - dated July 2022
- BEK 'Ground Gas Risk Assessment' - Ref: BEK-22083-220922 dated September 2022

2.0.2 The above reports form the basis for the remediation works required at the site and should be read in conjunction with this report.

2.1 BEK Summary

2.1.1 The site investigation was designed to provide indicative information of the risks from ground contamination in accessible areas of the site to assess the potential risks to human health in order to carry out indicative quantitative assessment of the risks associated with contamination and ground gas.

2.1.2 The site investigation works comprised the following:

- Five window sample boreholes were drilled using a window sampler drilling rig to a maximum depth of 4.45 m. The borehole locations were set out by an engineer from BEK in order to establish representative conditions at the site. The ground conditions were recorded by an engineer from BEK.
- In-situ testing (SPTs) were carried out in each borehole where possible.
- Gas and groundwater monitoring probes were installed in 3 boreholes (Boreholes WS1, WS2 and WS3).
- Samples were recovered for chemical and geotechnical testing.

2.1.3 The site investigation proved the presence of made ground at the surface of each exploratory location to a maximum depth of 0.8 m. This consisted of paved hardstanding (from 0.1 m to 0.2 m thick) overlying 'light brown/orange/yellow coarse sand with occasional fine to coarse gravels'.

2.1.4 The superficial Boulder Clay underlying the made ground was encountered in all locations to depths in excess of 4.45 m. The clay was generally described as 'stiff brown slightly sandy clay (possibly re-worked in the upper 1 m)'. With 'very stiff grey/brown slightly laminated clay' proven at depth.

- 2.1.5 The bedrock was not encountered during the investigation.
- 2.1.6 Groundwater was encountered within Borehole WS5 at 2 m, described as a 'slight water ingress'. All other boreholes remained dry.
- 2.1.7 There was no visual/olfactory evidence for the presence of contamination.
- 2.1.8 Soil samples recovered from site investigation have been tested for a wide range of contaminants. The chemical test results have been compared to relevant generic assessment criteria to identify potential contaminants of concern.
- 2.1.9 Based on the contamination assessment and with respect to the redevelopment of the site for commercial use (with no landscaped areas), the only contaminant of concern identified at the site is asbestos insulation (0.031 %), identified in made ground recovered from 0.3 m from Borehole WS3.
- 2.1.10 Based on the testing carried out, work with the 'Chrysotile - Loose Insulation' should be regarded as licensed works. It may be possible to downgraded the license status of the works if the works can be proven to be of a short duration (i.e <2 hours in a 7 day period for all persons involved (e.g Short Duration Work)).
- 2.1.11 It is recommended that all sub-surface ground works are carried out in accordance with an Asbestos Management Plan (AMP). The groundworkers risk assessment and method statements should reflect the information presented herein and the AMP.
- 2.1.12 The risks to end users are not considered present as the site will be covered within hardstanding which breaks any pathway between asbestos contamination and the end user. However, if landscaped areas are to be present, this assessment should be subjected to revision.
- 2.1.13 The gas monitoring probes were monitored for gas flow rates and gas concentrations on 6 occasions over a 3 month period. An assessment of the monitoring data (as presented in the Ground Gas Risk Assessment) confirm that the site falls within the Characteristic Situation 1 (very low risk) and that no gas mitigation measures are required in the new builds at the site.

3. REMEDIATION STRATEGY

3.0.1 In order to remove potential risks to the development and/or human health specific remediation and mitigation measures need to be carried out.

3.1 Contamination

3.1.1 The only potentially significant risk identified is to human health associated with the presence of asbestos in the made ground sample recovered Borehole WS3. Borehole WS3 is located near the centre of the site and is located within the footprint of the proposed new build. If the ground will remain undisturbed, then the development will effectively cap the asbestos contaminated made ground and there are no risks.

3.1.2 However, if groundworks are required in this area then risks associated with asbestos need to be mitigated.

3.1.3 Considering the nature of the asbestos encountered (Chrysotile - Loose Insulation) the movement of the asbestos impacted soils should be regarded as licensed works. It may be possible to downgraded the license status of the works if the works can be proven to be of a short duration (i.e. <2 hours in a 7 day period for all persons involved (e.g. Short Duration Work).

3.1.4 Risks associated with the asbestos contaminated soils should be dealt with within an Asbestos Management Plan (AMP). The AMP will provide a safe system of work to protect human health and satisfies the requirements of the Control of Asbestos Regulations 2012 and the items listed below:

- Taking reasonable steps to identify where asbestos is present
- Keep a written record of where asbestos has been identified
- Ensure that the risk of anyone being exposed to asbestos is assessed
- Ensure information is provided on the location and condition of asbestos-containing materials for anyone likely to disturb it
- Define who within an organisation is responsible for the above

3.1.5 The contaminated soil will need to be excavated over a minimum 5 x 5 m square area (centered around Borehole WS3) to a minimum depth of 0.5 m, this may need to be extended based on visual evidence during excavations. The excavated soils should be placed directly in a dumper/wagon for immediate removal from site. A minimum of 1 sample should be recovered from each side of the excavation and another from the base. The validation samples will need to be tested for asbestos to ensure removal of the asbestos contamination.

3.1.6 All groundworkers adopt standard PPE when on site and remain vigilant during ground excavations for the presence (or suspected presence) of contamination. Should suspected contamination be identified then work should cease and specialist advice sought.

- 3.1.7 All material removed from site should be disposed of in accordance with appropriate legislation and regulations, including the Duty of Care Regulations.

3.2 Concrete Mix Design

- 3.2.1 Precautions are required with respect to concrete classification. BEK recommends that as a minimum the design sulphate class for the site should comply with DS-2 and the ACEC class AC-2.
- 3.2.2 Confirmation that the correct concrete mix has been used on site is outside the BEK validation remit.

3.3 Off-Site Disposal

- 3.3.1 The chemical testing regime for off-site disposal may be different to the chemical testing required to assess the suitability of the soils for retention on site and the risks to human health. Therefore, additional assessment may be required to classify the soils for off-site disposal with testing criteria to assess whether the soil is hazardous, non-hazardous or inert waste. However, existing laboratory test certificates will help inform the process.
- 3.3.2 The receiving landfill may require additional specialist laboratory testing to further characterise the material proposed for disposal against Waste Acceptance Criteria (WAC). We would recommend early consultation between the Contractor and the receiving landfill to determine any specific laboratory testing requirements.
- 3.3.3 Individuals/companies removing soils from the site are bound by a Duty of Care; as such this should only be undertaken by an authorised person. All waste movements should be accompanied by a waste transfer note.

3.4 Construction Workers

- 3.4.1 Standard personal protection equipment should be adopted and workers should complete a risk assessment and method statement prior to carrying out any works. Safety precautions in accordance with the AMP should be adhered to.

3.5 Dewatering

- 3.5.1 The presence of significant quantities of groundwater is considered unlikely considering that it was absent across much of the site during the site investigation.
- 3.5.2 However, if water entering any of the excavations is visually or olfactory affected by contamination then consideration should be made for dewatering. Any impacted water should be carefully pumped from the excavation directly into a tanker for off-site disposal. Water will be pumped from the near surface of the water and (as much as practicable) away from the sides of the excavation to avoid pumping up soils.

3.5.3 All pumping activities will be carefully monitored by BEK to watch for drawing in contaminated water from elsewhere on the site. Pumping will continue until visual/olfactory evidence of contamination has reduced/gone or as is considered reasonably practicable.

3.6 Unforeseen Circumstances

3.6.1 The ground conditions should be as anticipated during all excavations. Advice should be sought if ground conditions are significantly different or if visual/olfactory evidence of contamination is encountered.

3.6.2 Any areas of previously unidentified potentially contaminated soils encountered during site construction works must be brought to the attention of BEK, to ensure that the recommendations herein apply. Any potentially contaminated soils should be left in-situ and subjected to further assessment, to potentially include further chemical testing and risk assessment.

3.7 Utilities

3.7.1 Prior to redevelopment, BEK would recommend that a copy of this report and the Site Investigation & Contamination Assessment report prepared by BEK are supplied to utility companies, and that their recommendations relating to appropriate supply pipes are adhered to.

3.7.2 It may be necessary to complete the UKWIR Risk Assessment to confirm water pipe specification.

3.8 Re-Use of Waste Soils on Site

3.8.1 The re-use of waste soils generated at the site should be covered through environmental permit exemptions (if applicable) and/or through the preparation of a Materials Management Plan as part of compliance with the Definition of Waste: Code of Practice (DoW:CoP).

3.9 Communication

3.9.1 It is recommended that regular communication is maintained between BEK and the Site Manager throughout the development works.

3.10 Statutory Consultation

3.10.1 We would recommend that a copy of the Remediation Method Statement is issued to the local authority for review/comment and approval.

3.10.2 The NHBC (or other insurer) may also require written approval of the remediation proposals from the regulators in order to satisfy their Land Quality Conditions.

3.11 Closure

- 3.11.1 Following satisfactory completion of remediation works, BEK will produce a Validation Report to demonstrate compliance with this Remediation Method Statement.

4. SUPERVISION & VALIDATION

4.1 Overview

4.1.1 The only risks identified are to human health due to presence of asbestos insulation identified in the made ground. If there are to be groundworks in this area then an Asbestos Management Plan will be required. It is recommended that the asbestos is dealt with as an hotspot and removed to mitigate any issues with further groundworks at the site.

4.1.2 However, as the new building will be piled, it is possible that only minor/limited groundworks are required.

4.1 Supervision of Works

4.1.1 The works will be supervised by BEK who will ensure the following verification procedures are adopted:

- Liaison with the appointed groundwork/remediation contractor
- Inspection and supervision of the removal of the asbestos hotspot (if considered necessary)
- Collection of samples and co-ordination of laboratory testing (if required)

4.2 Unexpected Areas of Ground Contamination

4.2.1 As stated previously within this report the site has been subject to previous site investigation and as such, indicative ground conditions are known.

4.2.2 However if any area of suspect material are encountered during the development of the site (i.e. that do not conform to the anticipated ground conditions) appropriate action will be taken. This will initially include the cessation of work in the area of concern and information BEK, who will attend site and carry out further assessment.

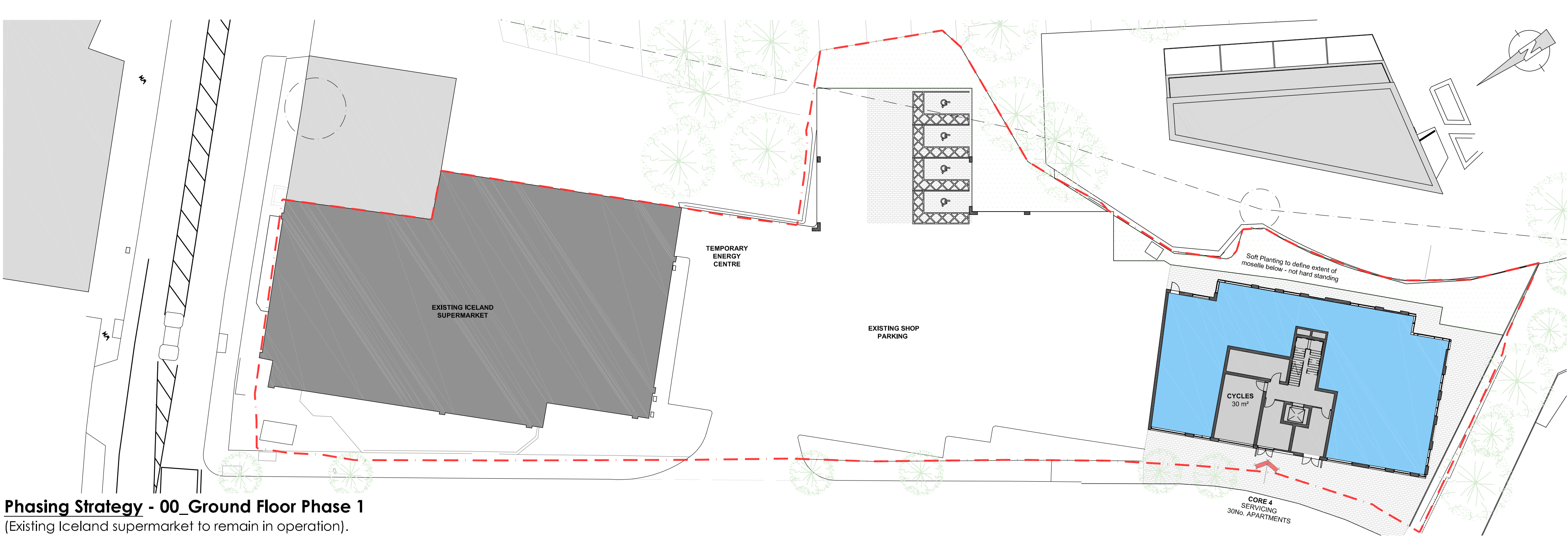
4.2.3 As a minimum BEK will notify the local authority and prevent any additional work in the area pending further assessment which may include sampling, testing and risk assessment.

5. REPORTING

- 5.1 On completion of the remediation and mitigation works, BEK will prepare a Completion Report.
- 5.2 The Completion Report will describe the works undertaken in order to satisfactorily demonstrate that the works have been completed successfully and will include the following:
- (i) A description of works undertaken
 - (ii) Record of movement and disposal of any asbestos impacted soils
 - (iii) Record of any unforeseen contamination encountered during the works
 - (v) Validation samples recovered and tested (if required) and assessment of the laboratory test results
 - (vi) Photographs (if required)

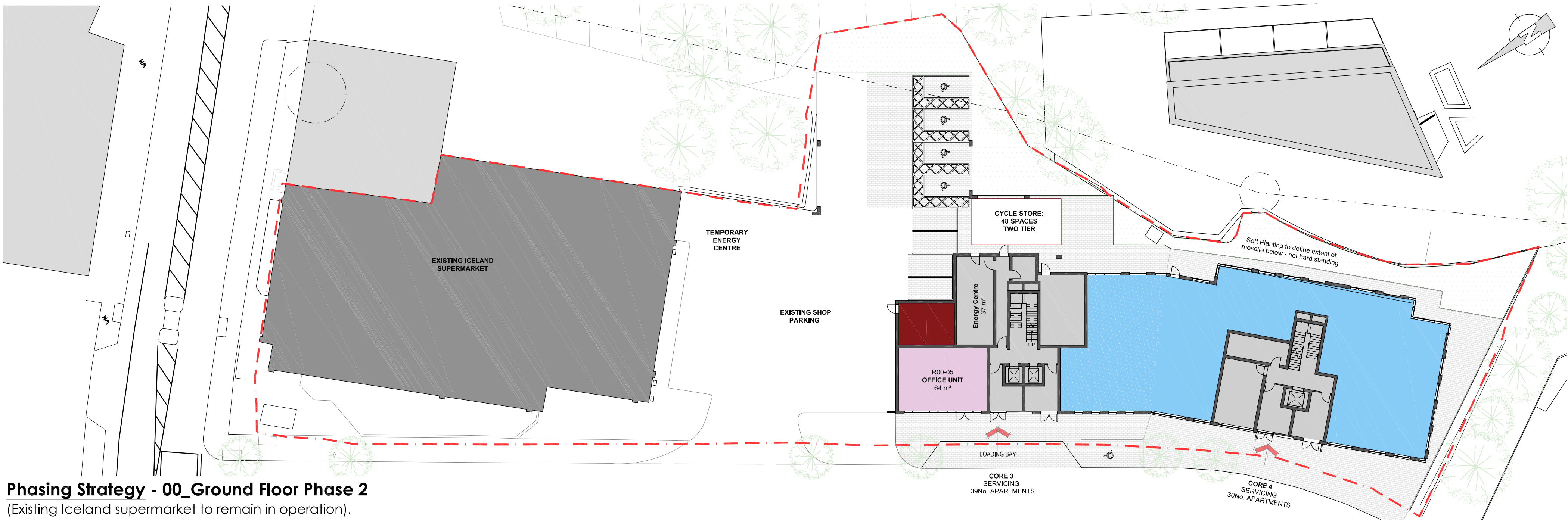
APPENDIX A

Drawings



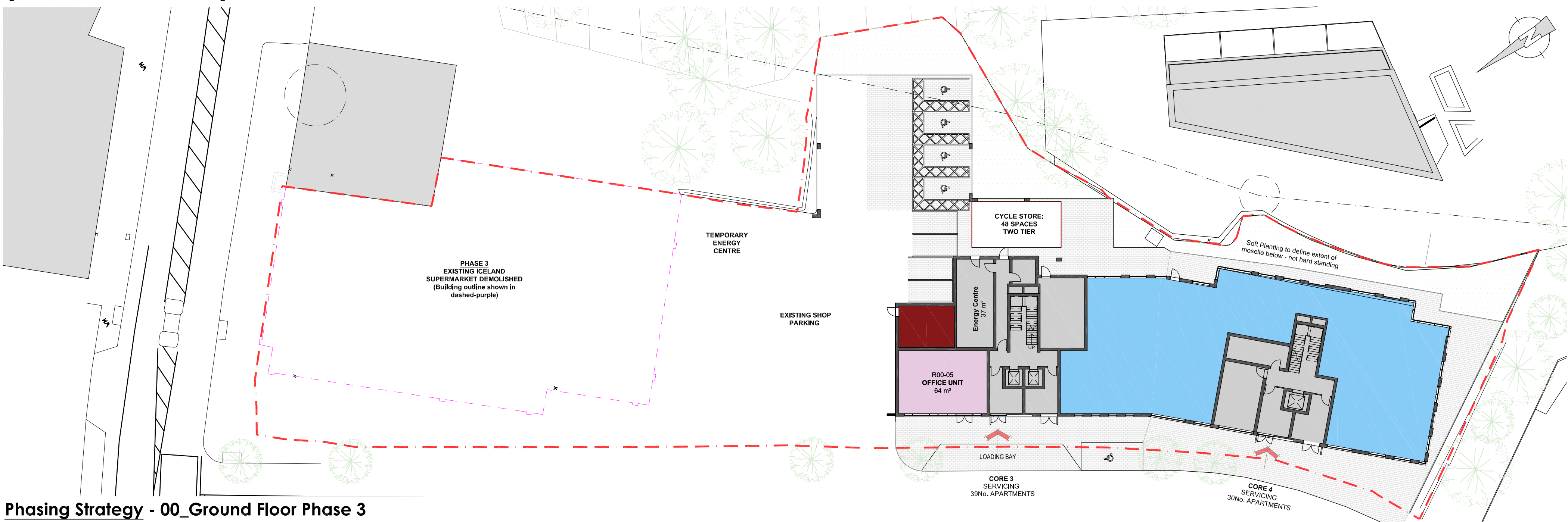
Phasing Strategy - 00_Ground Floor Phase 1

(Existing Iceland supermarket to remain in operation).
Construction of first half of medical centre at ground floor, medical centre at first floor and core 4 servicing medical centre and 30no residential units above.



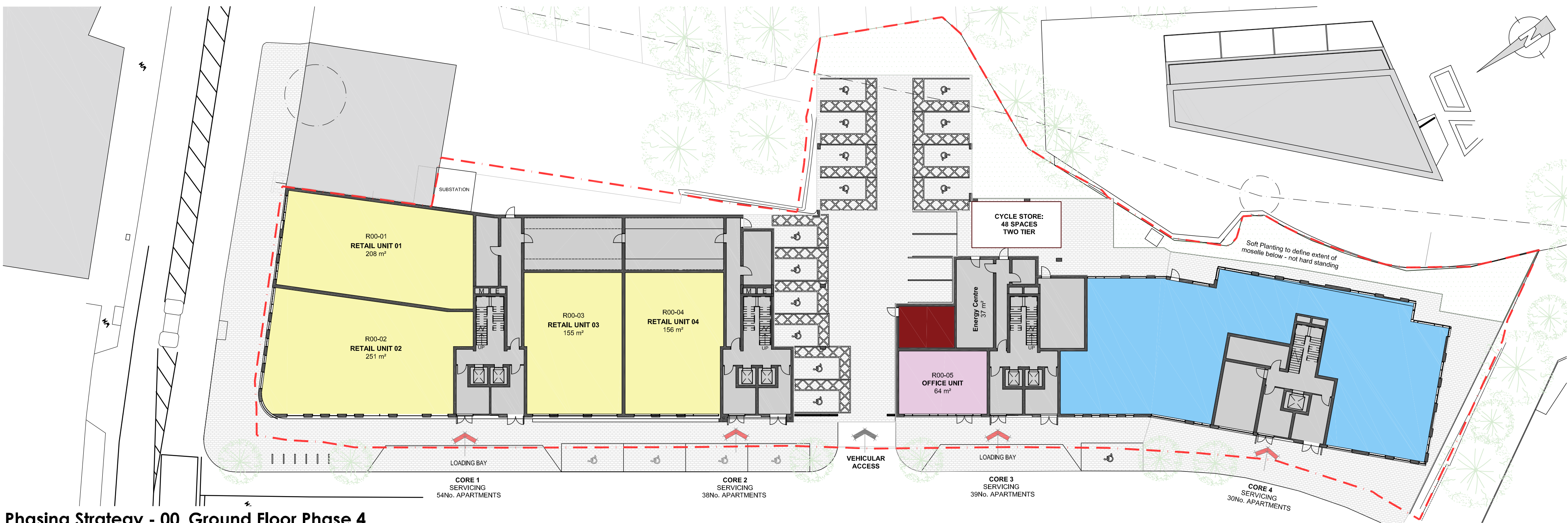
Phasing Strategy - 00_Ground Floor Phase 2

(Existing Iceland supermarket to remain in operation).
Construction of second half of medical centre and office unit at ground floor, and core 3 servicing 39no residential units above.



Phasing Strategy - 00_Ground Floor Phase 3

Demolition of existing Iceland supermarket.



Phasing Strategy - 00_Ground Floor Phase 4

Construction of 4no retail units and core 1 & 2 servicing total of 92 no residential units above.

0m 6m 12m 18m 24m
Drawing Scale 1:300 @ A1

P2	Notes and colours updated.	07/03/22	AT	MJ
P2	Notes and colours updated.	07/03/22	AT	MJ
Revision		Date	By	Chk

Date: 04/03/2022

Checked by: MJ

Sheet Name: PROPOSED PHASING STRATEGY -
(Ground Floor Plan)

Project No: 8688

Revision: P3

Drawn by: AT

Scale @ A1: 1:300

Purpose of Issue: Information

Status: -

Drawing No : 8688-BOW-A1-01-DR-A-0001-P3

All dimensions to be verified on site, and the Architect informed of any discrepancy. All drawings and specifications should be read in conjunction with the Health and Safety Plan; all conflicts should be reported to the appointed Principal Designer.
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Austringer Capital Limited
New Mixed Use Building - Brook
Road / Mayes Road - Wood Green

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