IGE consulting

Whitworth Street West, Manchester

Remedial Strategy Report

Client:
Glenbrook WWS Limited,
Maizelands Limited and
Arringford Limited

GLENBROOK

Structural Engineer:
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renaissance
STRUCTURAL + CIVIL ENGINEERING

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1.0 INTRODUCTION

This Remedial Strategy Report has been prepared at the request of Glenbrook WWS Limited, Maizelands Limited and Arringford Limited. This report primarily follows the findings and recommendations of the IGE Consulting *Ground Investigation Report* (4201-02A, Dated February 2026). This report should be read in conjunction with the Renaissance Associates Ltd *Demolition Specification* (WSW-REN-XX-XX-SP-S-00030, Dated April 2026) and associated drawings, prepared by the Engineer for the project.

This report pertains to a c. 0.24 Ha site located at 2-4 Whitworth Street West, Manchester, c. 70m east of Deansgate Station, at the approximate post code M1 5WY. The National Ordnance Survey Grid Reference for the centre of the site is 383516E 397517N.

The site currently comprises 2 No. vacant 2-storey and 3-storey buildings separated by Rowendale Street running north to south through the centre of the site. The site is bound by Whitworth Street West to the north, Cameron Street and a vacant site of the planning permission for 10-12 Whitworth Street West to the east, Network Rail railway tracks and associated Deansgate Station platform to the south and Bugle Street and the Rebellion Club to the west. Access to both sections of the site is off Whitworth Street West and Rowendale Street. An aerial photo of the site is included below, and a Site Location Plan is contained in Appendix 2.



Figure 1: Aerial image of the site dated October 2022. The approximate site boundary is highlighted in red.

1.1 Scope

This Remedial Strategy Report has been undertaken prior to planning approval to outline remedial requirements at the site based upon the existing ground investigation works. It is the client's intention to demolish the existing vacant buildings and develop the site into a 43-storey residential tower. The construction process will involve the demolition of the existing structures, a site turnover and the placement of engineered fill to the required level to facilitate development.

This report is subject to the approval of the regulators. No remediation works should commence before all pre-commencement conditions have been discharged following liaison with the relevant regulatory authorities.

It should be noted that aspects of environmental permitting and waste regulation cannot be registered until planning permission has been granted.

1.2 Brief

This report has been undertaken following the findings and recommendations of the IGE Consulting *Ground Investigation Report* (4201-02A, Dated February 2026). Based on the ground investigation findings, this report will outline the remedial

strategy with regard to human health, controlled waters and ground gas risk on site. Following the issue of Renaissance Associates Ltd *Demolition Specification* (WSW-REN-XX-XX-SP-S-00030, Dated April 2026), this report also outlines requirements regarding enabling works and earthworks.

The limitations of the report are contained in Appendix 1.

1.3 Summary of Previous Ground Investigation Findings

The ground investigation works were undertaken between 28th October and 11th November 2025 and comprised the following:

- 3 No. rotary boreholes (RBH01 to RBH03, inclusive) were drilled using water flush to depths of between 26.10m and 34.90m bgl (7.49m and -1.35m AOD).
- 5 No. dynamic sampling boreholes (WS01 to WS05, inclusive) were constructed spatially across the site to depths of between 3.15m and 3.71 bgl (30.81m and 29.84m AOD).
- 17 No. vacuum excavated inspection pits (TP01, TP01b and TP04 to TP10, inclusive and ST01 to ST08, inclusive), excavated to depths of between 0.90m and 3.20m bgl (32.60m and 30.02m AOD). Some inspection pits were combined into a single excavation, e.g., ST01/TP05 to obtain information from both underground services and existing foundations in a single excavation.

Subsequent laboratory testing was undertaken between 3rd and 24th November 2025.

13 No. samples from across site have been submitted for environmental analysis, with a further 4 No. submitted for ‘full’ (10:1 2 stage) Waste Acceptance Criteria analysis.

No visual or olfactory evidence of contamination was encountered during the ground investigation.

No asbestos was recorded in any of the samples sent for laboratory analysis.

Concentrations of TPH compounds were recorded in excess of laboratory detection limits across site, however no GAC exceedances were recorded in any samples submitted for environmental laboratory analysis.

Made Ground was encountered in all exploratory holes constructed during the investigation to depths of between 0.30m to 1.98m bgl. Within the Made Ground at 3 No. locations across the site, concentrations of up to 5 No. PAH compounds were recorded in excess of relevant generic assessment criteria (GAC) with regards the

residential without home grown produce scenario. The PAH compounds recorded with elevated concentrations were naphthalene, benzo(a) anthracene, benzo(b)fluoranthene, dibenz(a,h)anthracene and benzo(a)pyrene. The concentrations of naphthalene are in excess of the S4UL threshold (2.30mg/kg) but are below the C4SL threshold of 15.00mg/kg. It was assessed that there is no risk from naphthalene at the site.

The Ground Investigation Report concluded that given the concentrations of naphthalene were below the C4SL threshold, no risk from naphthalene was present at the site. Upon consideration of the lack of private gardens or soft landscaping, the limited use of the lower floors for residential purposes and a double ratio plot indicating that inhalation risk of the PAH compounds was reduced, it was assessed that there was a low risk to the human health of site occupants. Any increased risk to construction workers should be mitigated through best practice regarding health and safety including the use of appropriate PPE.

Following issue of the Ground Investigation Report, plans including soft landscaping areas at the eastern and western edges of the site were made available to IGE Consulting. When the chemical laboratory results of the Made Ground are re-screened against the GAC for *Public Open Space*, there are exceedances of the GAC for PAH compounds benzo(b)fluoranthene, benzo(a)pyrene and dibenz(a,h)anthracene noted within 2 No. Made Ground samples, WS01 at 0.50m bgl and ST03 at 0.30m bgl. Consequently, the Made Ground is both chemically and physically unsuitable for use within areas of soft landscaping. Therefore, remedial measures will be required in areas of soft landscaping comprising the installation of a clean cover system, as detailed in Section 2.5. This will likely be achieved as part of development works due to the anticipated site build up. Consequently, it is considered unlikely that the Made Ground will remain at shallow depth (less than 0.50m bgl) in areas of soft landscaping. No topsoil is present on site. This will need to be imported and validated as detailed in Section 2.5.

The risk to controlled waters was deemed to be very low following a lack of groundwater strikes within the Made Ground and Superficial Deposits, the lack of any elevated concentrations of contaminants within the Made Ground and the lack of credible contaminant pathways.

Following a ground gas monitoring programme, the ground gas risk at the site was assessed to be very low based on a lack of credible sources and no elevated measured concentrations.

As a result of the ground investigation, no remedial measures were deemed necessary with regards controlled waters or ground gases. Due to human health GAC exceedances recorded in the Made Ground, remedial measures will be required in areas of soft landscaping as detailed in Section 2.5.

2.0 ENABLING WORKS & EARTHWORKS

A demolition specification has been prepared by Renaissance Associates Ltd, the Engineer for the project. This document, *Demolition Specification* (WSW-REN-XX-XX-SP-S-00030, Dated April 2026), includes an earthworks and filling specification and should be referred to during the enabling works and earthworks. These documents are included as Appendix 4. It is noted that the specification requires all works to 'maintain stability of neighbouring assets' including those operated by Network Rail. It is not known at this stage if there is a preference for site-won or imported material for use in the earthworks and filling operation.

2.1 Enabling Works

Enabling works will be required prior to development to physically prepare the site for the development. These works include those detailed in §5.5 of the Demolition Specification and the below:

- Demolition of the existing buildings and structures, including basements and buried structures;
- 'Churn' of site materials to a general depth of 3m bgl (33.00 to 30.95m AOD);
- Proof dig of proposed pile locations to natural, undisturbed strata or bedrock, whichever is shallower;
- Decommissioning of existing ground gas and groundwater monitoring wells (further detailed in Section 2.2 below);
- Removal of demolition materials from site, unless these can be processed into an aggregate, to suitably licensed tips/waste transfer stations, including any previously unencountered organic or deleterious material;
- Chemical Testing of any site won and general fill (i.e. civils arisings) in-line with the general fill criteria outlined below. If imported material is to be the primary source of upfill, testing of these imported soils in-line with the below strategy is recommended;
- If imported soils are required and CL:AIRE DoW:CoP applies to these imported soils, a materials management plan (MMP) will be required for the site. It should be noted that this cannot be undertaken until approval of the remediation strategy;

- Installation of a temporary working platform in line with BRE470 with appropriate in-situ testing undertaken to validate the installation. The access of the piling rig onto site and its movement across the site should be considered within the design. It is recommended that plate incremental tests at appropriate pressures are completed following installation of the temporary working platforms to ensure that they have been installed correctly.

2.2 Decommissioning of Wells

It is imperative that all boreholes drilled into the site are located and appropriately grouted to negate any possible preferential ground gas pathways. Those boreholes that were not installed with monitoring wells were backfilled with low permeability backfill during the ground investigation; the below recommendations apply to those boreholes not installed with monitoring wells. Utilising guidance provided in the Environment Agency's '*Good practice for decommissioning redundant boreholes and wells*' (October 2012), it is prudent to secure redundant borehole to ensure that no groundwater pollution can occur. The Environment Agency (EA) offer advice on the methods of sealing wells to ensure that the preferential pathway is removed. The following diagram taken from the EA guidance shows a monitoring well (A) and 3 No. options for decommissioning (B, C and D):

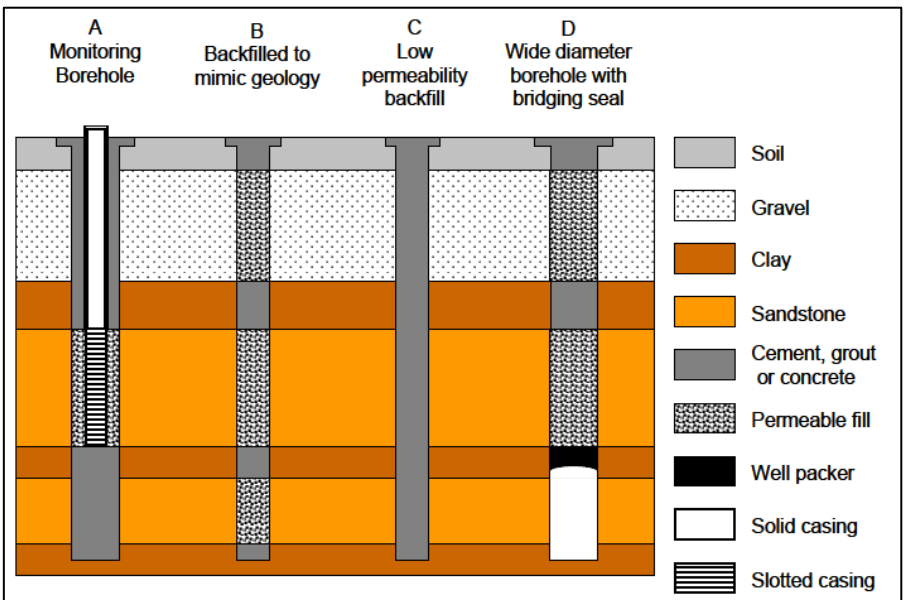


Figure 1: Schematic options (B–D) for decommissioning wells and boreholes

It is considered prudent to utilise Option C – low permeability backfill, shown in the diagram above, to adequately seal the borehole. The guidance recommends that 'the backfill materials must be clean, inert and non-polluting', e.g. bentonite. It is recommended to remove the standpipe and seal with bentonite to ground level. This will be sufficient to prevent contaminant transport.

2.3 Earthworks

Following the enabling works, the infilling of the basement areas will necessitate the placement of c. 3m of engineered fill. Based on the demolition specification and associated drawings completed by Renaissance, it is assumed that the fill material will be Class 6F2/6F5 material placed and compacted in layers no greater than 150mm. As such, an earthworks specification will be required for the design of the upfilling.

The earthworks specification should be based on industry guidance such as the Specification for Highway Works, BS EN 16907 'Earthworks', ICE Publishing – 'Earthworks: A Guide 2nd Edition', and previous experience. The specification should be written in conjunction with Renaissance.

During earthworks, best practice regarding site preparation, classification testing, material handling, and supervision of earthworks including protection from deterioration and specification testing should be followed at all times. The earthworks will require verification during and upon completion.

2.4 Imported Material – General Fill

For the infilling of the basement, site won material may satisfy the fill requirements for the site, although it is unknown at this stage if imported material will be required.

Any material imported onto site must be chemically suitable for its intended use. Consequently, a distinction should be made between material intended for use in areas of soft landscaping and any soils intended for use as general fill outside of landscaped areas. Although a cover system is not required for the site, materials

intended for use within 450mm of soft landscaping within proposed gardens must meet the requirements detailed in Section 2.5, below. Materials intended for use as general fill must meet the requirements for general fill detailed below.

The following targets for 'General Fill' are proposed to address any material imported onto site to achieve proposed levels. General Fill is material used primarily to raise levels, specifically not within areas of public open space or soft landscaping i.e. below -450mm finished levels. The following validatory samples must be taken during the enabling works phase:

Soil	Testing Frequency	Testing Suite	Acceptability Criteria
Site-won aggregate	1 per 1000m^3 of crush	A	Asbestos <0.01%. Where placed within -1.0m of finished level, <0.001%
Imported aggregate	1 per 500m^3	A	Asbestos <0.01%. Where placed within -1.0m of finished level, <0.001%
Imported General Fill	1 per 1000m^3	As below Acceptability Criteria for General Fill	General Fill
Sides and base of excavated and removed hotspots (if applicable)	1 sample every 10m^2 from sides and base of excavation, min 1 every face	As below Acceptability Criteria for General Fill plus contaminants of concern based on hotspot removed	General Fill

1) 'General Fill' is material used primarily to raise levels, specifically not within areas of public open space or soft landscaping, e.g. 6F2.
2) Imported aggregate should also contain <1% deleterious anthropogenic materials (by eye).

Testing Suites:

A. Asbestos ID, Asbestos quantification.
B. pH, total and free cyanide, soluble sulfate, organic matter.
C. Arsenic, Beryllium, Boron, Cadmium, Chromium (III and VI) Copper, Lead, Inorganic Mercury, Nickel, Selenium, Vanadium, Zinc.
D. Speciated PAHs: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(ghi)perylene.
E. Total (non-speciated) PAHs.
F. Speciated Total Petroleum Hydrocarbons (TPH): Aliphatic >EC5 - EC6, >EC6 - EC8, >EC8 - EC10, >EC10 - EC12, >EC12 - EC16, >EC16 - EC21, >EC21 - EC35, and > EC35 - EC44, and Aromatic >EC5 - EC7, >EC7 - EC8, >EC8 - EC10, >EC10 - EC12, >EC12 - EC16, >EC16 - EC21, >EC21 - EC35, > EC35 - EC44.
G. Total Petroleum Hydrocarbons (TPH): TPH EC6 – EC40.
H. BTEX: Benzene, Toluene, Ethylbenzene, p- & m-xylene, o-xylene. Methyl tertiary butyl ether (MTBE).

Once tested, the results are to be compared against the following Acceptability Criteria for General Fill:

Suite	Determinand (mg/kg unless stated)	Acceptability Criteria for General Fill
A	Asbestos (%)	See Above
B	pH	>5 - <10[3]
	Total Cyanide	0.5[3]
	Free Cyanide	0.5[3]
	Soluble Sulfate (mg/l)	500[3]
C	Arsenic	640
	Beryllium	12
	Boron	240000
	Cadmium	190
	Chromium (III)	8600
	Chromium (VI)	33
	Copper	68000
	Lead	2330[1]
	Inorganic Mercury	1100
	Nickel	980
	Selenium	12000
	Vanadium	9000
	Zinc	730000
E	Total PAHs	200[4]
G	TPH > EC6 - EC40	1000[4]

LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015) used unless stated:

1) *Category 4 Screening Levels (March 2014)*
2) *CL:AIRE Soil GAC for Human Health Assessment (January 2010)*
3) *In-house screening criteria used as no GAC methodology currently exists*
4) *This limit only applies to imported material, not to in-situ soil.*

Assumed 1% SOM (most conservative) for those values dependent upon SOM.
ND = Not Detected
LOD = Limit of Detection
**Exceeds vapour saturation limit*
***Exceeds solubility saturation limit*

The general fill will also be subject to geotechnical testing as detailed within an Earthworks Specification.

2.5 Imported Material – Soft Landscaping Areas

Layer Studio have produced a Landscape General Arrangement Drawing (XX-ZZ-DWG-L-1001) for the site that shows areas of soft landscaping. This drawing is included in Appendix 2. Due to human health GAC exceedances recorded in the Made Ground, remedial measures will be required in areas of soft landscaping, comprising the installation of a clean cover system as detailed below.

No topsoil is available on site for use within areas of soft landscaping and will therefore require import. Chemical testing of the imported topsoil is required in-line with the below.

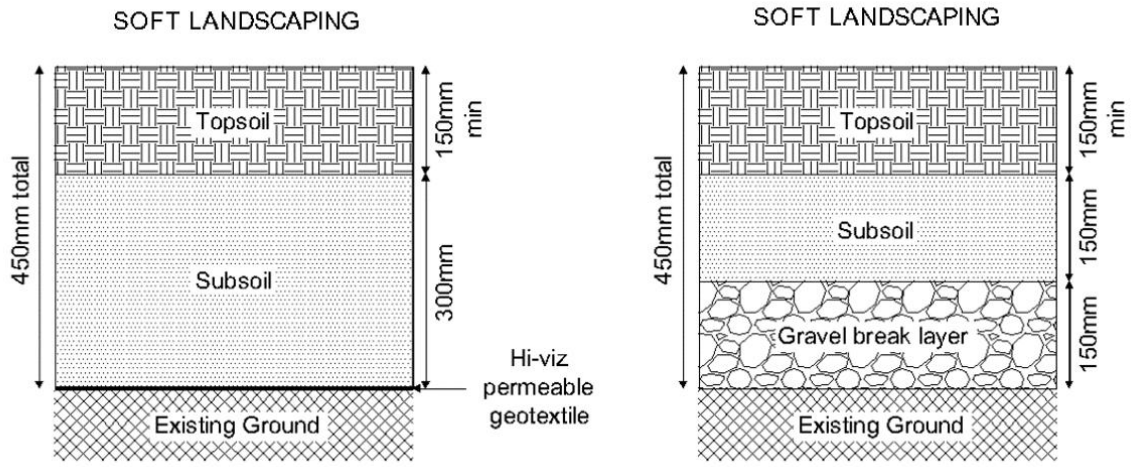
2.5.1 Installation of a Clean Cover System

Made Ground containing elevated PAHs was recorded during the Ground Investigation. Whilst this material is unlikely to be present beneath soft landscaping

areas at finished levels, it is recommended that a cover system for the soft landscaping will be required, in-line with Manchester City Council Planning and Contaminated Land Technical Guidance (dated February 2021). The cover system should be a minimum of 450mm thick and comprise:

- A minimum of 150mm suitable topsoil, underlain by;
- Suitable subsoil, to a total thickness of 450mm.

This is shown diagrammatically below:



Soils for use in the above recommended cover system must be validated as detailed below to ensure their suitability for use.

2.5.2 Validation of Clean Cover System

The installation of the clean cover system must be verified in accordance with Manchester City Council Planning and Contaminated Land Technical Guidance (dated February 2021), Section 6.4.

2.5.3 Soft Landscaping

Once the clean cover system is installed to break contaminative linkages, validation requirements include:

- Details of the source of the cover material;
- Chemical test results to demonstrate that the soil is free from contamination and ‘suitable for use’ in-line with the below chemical testing suites and rates;
- Waste transfer notes to provide evidence of source; and

- Confirmation of cover depth by either measurement tape or topographical survey with photographs.

No topsoil is present on-site therefore all topsoil will need to be imported and this must be validated as detailed below to ensure its suitability for use (i.e., no glass or plastic is to be included and meets chemical testing acceptability criteria). Whilst the Made Ground is not suitable for use as subsoil in areas of soft landscaping, the natural subsoil encountered during the ground investigation would be suitable, provided it is tested at the rates detailed below. If the natural soils are not used as subsoil in areas of soft landscaping, imported subsoil will be required.

All topsoil and subsoil, whether site won or imported, is required to be tested at source prior to import to confirm suitability at the following frequency in line with Manchester City Council guidance.

Source	Material End Use	Sampling Frequency[1]	Testing Suites[3] (see below)
Greenfield Source	Soft Landscaping	1 per 200m^3	A, B, C, D, F
Brownfield Source:	Soft Landscaping	1 per 150m^3	A, B, C, D, F, H
	General Fill[2]	1 per 1000m^3	A, B, C, E, G

1) Minimum 3 samples regardless of volume.
2) 'General Fill' is material used primarily to raise levels, specifically not within areas of public open space or soft landscaping, e.g. 6F2.
3) In addition to the standard suites given, the laboratory testing suite should include any additional contaminants of concern based on the source of the samples.

Testing Suites:

A. Asbestos ID, Asbestos quantification.
B. pH, total and free cyanide, soluble sulfate, organic matter.
C. Arsenic, Beryllium, Boron, Cadmium, Chromium (III and VI) Copper, Lead, Inorganic Mercury, Nickel, Selenium, Vanadium, Zinc.
D. Speciated PAHs: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(ghi)perylene.
E. Total (non-speciated) PAHs.
F. Speciated Total Petroleum Hydrocarbons (TPH): Aliphatic >EC5 - EC6, >EC6 - EC8, >EC8 - EC10, >EC10 - EC12, >EC12 - EC16, >EC16 - EC21, >EC21 - EC35, and > EC35 - EC44, and Aromatic >EC5 - EC7, >EC7 - EC8, >EC8 - EC10, >EC10 - EC12, >EC12 - EC16, >EC16 - EC21, >EC21 - EC35, > EC35 - EC44.
G. Total Petroleum Hydrocarbons (TPH): TPH EC6 – EC40.
H. BTEX: Benzene, Toluene, Ethylbenzene, p- & m-xylene, o-xylene. Methyl tertiary butyl ether (MTBE).

Once tested, the results are to be compared against the following Acceptability Criteria:

Suite	Determinand (mg/kg unless stated)	Acceptability Criteria for:	
		Public Open Space (residential)	Soft Landscaping or Public Open Space (Park)
A	Asbestos (%)	ND	ND
B	pH	>6 - <8[3]	>6 - <8[3]
	Total Cyanide	0.5[3]	0.5[3]
	Free Cyanide	0.5[3]	0.5[3]
	Soluble Sulfate (mg/l)	500[3]	500[3]
C	Arsenic	79	170
	Beryllium	2.2	63
	Boron	21000	46000
	Cadmium	120	560
	Chromium (III)	1500	33000
	Chromium (VI)	7.7	220
	Copper	12000	44000
	Lead	630[1]	1300
	Inorganic Mercury	120	240
	Nickel	230	800
	Selenium	1100	1800
	Vanadium	2000	5000
	Zinc	81000	170000
D	Naphthalene	4900	1200
	Acenaphthylene	15000	29000
	Acenaphthene	15000	29000
	Fluorene	9900	20000
	Phenanthrene	3100	6200
	Anthracene	74000	150000
	Fluoranthene	3100	6300
	Pyrene	7400	15000
	Benzo(a)anthracene	29	49
	Chrysene	57	93
	Benzo(b)fluoranthene	7.1	13
	Benzo(k)fluoranthene	190	370
	Benzo(a)pyrene	5.7	11
	Indeno(1,2,3-cd)pyrene	82	150
	Dibenz(a,h)anthracene	0.57	1.1
	Benzo(ghi)perylene	640	1400
E	Total PAHs		
F	- Aliphatic >EC5 - EC6	570000	95000
	- Aliphatic >EC6 - EC8	600000	150000
	- Aliphatic >EC8 - EC10	13000	14000
	- Aliphatic >EC10 - EC12	13000	21000
	- Aliphatic >EC12 - EC16	13000	25000
	- Aliphatic >EC16 - EC21	250000	450000
	- Aliphatic >EC21 - EC35		
	- Aliphatic > EC35 - EC44	250000	450000
	- Aromatic >EC5 - EC7	56000	76000
	- Aromatic >EC7 - EC8	56000	87000
	- Aromatic >EC8 - EC10	5000	7200
	- Aromatic >EC10 - EC12	5000	9200
	- Aromatic >EC12 - EC16	5100	10000
	- Aromatic >EC16 - EC21	3800	7600
	- Aromatic >EC21 - EC35	3800	7800
	- Aromatic > EC35 - EC44	3800	7800
G	TPH > EC6 - EC40		
H	Benzene	72	90
	Toluene	56000	87000*
	Ethylbenzene	24000	17000*
	p & m-xylene	41000	17000*&**
	o-xylene	41000	17000*
	MTBE (Methyl Tertiary Butyl Ether)	LOD[3]	LOD[3]

LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015) used unless stated:

5) *Category 4 Screening Levels (March 2014)*
6) *CL:AIRE Soil GAC for Human Health Assessment (January 2010)*
7) *In-house screening criteria used as no GAC methodology currently exists*
8) *Hazardous waste thresholds. This limit only applies to imported material, not to in-situ soil.*

Assumed 1% SOM (most conservative) for those values dependent upon SOM.
ND = Not Detected
LOD = Limit of Detection
**Exceeds vapour saturation limit*
***Exceeds solubility saturation limit*

The above acceptability criteria for PAHs for imported topsoil and subsoil are based on the published LQM/CIEH S4ULs (2015) for each individual PAH and not based on the Category 4 Screening Level using benzo(a)pyrene as a surrogate marker. This is as the source of the imported material is unknown therefore using the surrogate marker approach may not be suitable as the distribution of PAHs in the imported material may not be similar to those in the Culp et al. (1998)[1] study. Once chemical testing had been undertaken on imported soil and the distribution of PAHs compared to the distribution in the Culp et al. (1998) study, it may be suitable to use the surrogate marker approach / C4SL.

Once complete, the information gathered should be compiled into a Verification Report for the site, detailing the completion of the remedial and verification measures.

2.5.4 Clean Cover System Verification Report

The verification report shall include, as a minimum, the following:

- Site Name / location, developer name, development use;
- Description of landscaped area and National Grid Reference;
- Inspection visit date;
- Description of remediation (as per agreed Remediation Strategy including depths / thickness checks, topographical readings);
- Plans showing pertinent information relating to remediation (including a plan of remediation areas, stockpile locations, and areas of further investigation, if applicable);
- Pertinent data relating to fill materials/wastes, including volumetric data (i.e. how much was imported to site), source data (i.e. where the material came from) and waste transfer data (where applicable);
- Material tracking information (including way tickets etc.);
- Name of groundwork's remediation contractor;
- Name of supervising environmental consultant;
- Site Specific chemical analysis results (all raw laboratory data, analytical test certificate, and calculations in line with CIEH/CL:AIRE guidance);
- Verification Photographs (inc. remarks);

[1] Culp et al. (1998), *A comparison of the tumors induced by coal tar and benzo[a]pyrene in a 2-year bioassay*, **Carcinogenesis,** vol.19, no.1, pp.117–124.

- Pass/fail and if material fails, how will this be managed i.e. removed, treated;
- Detail any further remedial works and/or inspection; and
- ‘Signed off’.

Following on from the requirements detailed above, the below verification checklist, in line with Manchester City Councils guidance, should be included within the final verification report:

- Details of works carried out and contamination encountered during investigation.
- Details and justification of any changes from the original remediation strategy.
- Demonstration of compliance and description of validation methods.
    - Laboratory and in-situ results.
    - Monitoring results for groundwater and gases.
    - Summary data plots and tables relating to clean up criteria.
    - Plans showing treatment areas and details of any differences from the original remediation strategy.
    - Photographic and other media records.
    - Waste management details and records.
- Ongoing environmental monitoring or works to be carried out.
- Confirmation that remediation objectives have been met.

2.6 Discovery Strategy

In the event of unexpected contamination being discovered, the Discovery Strategy must be followed – this is contained in Appendix 3.

2.7 Design Variation

Following any variation in a finalised proposed development layout and / or detailed design including earthworks design it is recommended that the above conclusions are re-appraised to determine their suitability.

APPENDIX 1

LIMITATIONS OF REPORT

LIMITATIONS OF REPORT

This consultancy report was compiled and carried out by IGE Consulting Limited ('IGE') for the client, as defined in the main report (the 'client'), on the basis of a defined programme and scope of works and the terms of a contract between IGE and the client. IGE undertook this with all reasonable skill and care, taking into account the limits of the scope of works required by the client, the prevailing site conditions, the time scale involved and the resources, including financial and manpower resources, agreed between IGE and the client. IGE cannot accept responsibility to any parties whatsoever, following the issue of this report, for any matters arising which may be considered outwith the agreed scope of works.

Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices. This report may not be relied upon, or transferred to, by any other party without the written agreement of its author. If a third party relies on this report, it does so wholly at its own and sole risk and IGE disclaims any liability to such parties.

It is IGE's understanding that this report is to be used for the purpose described in the 'Brief' section of this report. That purpose was a significant factor in determining the scope and the services to be provided. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without IGE's review and advice shall be at the client's sole and own risk.

The information contained in this report is protected by disclosure under Part 3 of the Environmental Information Regulations 2004 pursuant to the provisions of Regulation 12(5) without the consent in writing of a Director of IGE.

This report is a function of the date it was written and should be read in light of any subsequent changes in legislation, statutory requirements and industry practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of IGE. In the absence of such written advice of IGE, reliance on the report in the future shall be at the client's own and sole risk. Should IGE be requested to review the report in the future, IGE shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between IGE and the client.

The observations and conclusions described in this report are based solely upon the scope of works agreed between the client and IGE. IGE has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report. IGE is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the agreed scope of works. For the avoidance of doubt, this report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species (e.g. Japanese Knotweed). It is recommended that the client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the suspected presence asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace full and proper surveys.

Throughout the report the term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements) and the term 'geo-environmental' is used to describe aspects relating to ground-related environmental issues (such as potential contamination). However, it should be appreciated that this is an integrated investigation and these two main aspects are inter-related. The geo-environmental sections are written in broad agreement with BS 10175:2026

LIMITATIONS OF INVESTIGATION WORK

Desk Study References

This report is based upon IGE's observations of existing physical conditions at the site gained from a walkover survey of the site together with IGE's interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. Reliance has been placed on this publicly available data obtained from the sources identified in the main report. When using the information, it has been assumed that it is correct. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst IGE have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified. No responsibility can be accepted for errors within third party items presented in this report. IGE did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services. IGE is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to IGE and including the doing of any independent investigation of the information provided to IGE except when otherwise provided in the terms of the contract between the client and IGE.

Historical Mapping

Historical Ordnance Survey maps do not provide a comprehensive description of a site history. They provide details of the site from a date prior to the publication of the map (i.e. a snapshot in time). The period between map editions can be substantial (i.e. several decades). Not all map series are available for every date range in many areas of the UK and therefore there will be gaps in this mapped record for some sites. Potentially contaminative land uses could have been present and removed during such periods and may therefore not form a part of this particular record. In addition, there will be potentially contaminative land uses which are not identified on the map records such as small scale storage / use of hazardous materials, illegal / unlicensed waste disposal activities etc. Different map series identify different features utilising different symbols which can result in features that remain on-site being removed from maps. Some features are also not mapped for security reasons (e.g. airfields and other military installations). These areas are mostly shown as blank areas on historical maps.

Site Walkover

During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not be made known or accessible.

Flooding

Flooding in this report is defined as flooding caused by the sea, ditches, rivers, streams, ponds, lakes, reservoirs and the like. It does not extend to flooding caused by surcharged piped drainage systems and investigations into flooding of this nature are excluded from this report.

Extent of Contamination Studies

Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.

The conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the reporting in full. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

Intrusive Investigation

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. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations, the potential exists for ground conditions to be encountered which are different to those considered in this report. The explored extent of the site area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters, based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Exploratory Holes

Where exploratory holes have been carried out as part of this investigation, the spacing has been determined to provide a reasonable indication of the general ground conditions across the site, but the number has ultimately been limited by commercial constraints. The findings of the exploratory holes relate specifically to the exploratory hole locations and are no absolute guarantee of the ground conditions between such locations. Due allowance should be made for the possibility of variation in conditions between exploratory hole locations.

Extent of Contamination Testing

The extent of contaminated land testing carried out on samples obtained from the site has been determined in accordance with the latest legal guidance issued by the government to provide, with reasonable certainty, the probable general levels of contamination present on site that could pose a significant hazard to human health or waters. The extent of site investigation works including chemical testing has also been limited by reasonable commercial constraints. Although extensive testing of samples has been carried out, the volume of samples taken for testing are a minute fraction of the total volume of soils and groundwater present on site. Therefore, there is a residual risk that undetected pockets of contamination may be present on site, situated between testing locations.

When investigating or developing potentially contaminated land it is important to recognise that sub-surface conditions may vary spatially and temporally. The absence of certain ground, ground gas, contamination or groundwater conditions at the positions tested is not a guarantee that such conditions do not exist anywhere across the site. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

Extent of Geo-Environmental Studies

This report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species e.g. Japanese Knotweed. It is recommended that the Client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the identification asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace a full and proper survey. If an Unexploded Ordnance (UXO) report has been obtained within the report, it has been so on the basis of Health and Safety concerns and no assessment has been made other than transcribing the

recommendations of the sub-contractor contained within the report. In terms of a potential contaminative source, unless ordnance has been manufactured / stored on site, UXOs will only be determined as a contaminative source following a positive identification on site.

PLANNING CONTEXT

The National Planning Policy Framework (NPPF, 2025) states that the purpose of the planning system is to contribute to the achievement of sustainable development. In order to do this the planning system has three overarching objectives, one of which directly relates to the potential for pollution and contaminated land:

- *'**environmental objective** - to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy'.*

In accordance with this environmental objective, Paragraph 125 clarifies that 'making effective use of land' includes to:

- *'give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land'.*

In accordance with this environmental objective, Paragraph 187 clarifies that' conserving and enhancing the natural environment includes:

- *'preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability*'; and
- *'remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate'.*

Paragraph 196 of the NPPF states that planning policies and decisions for developments should also ensure that:

- *'a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation)*'; and,
- '*after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990*'; and
- '*adequate site investigation information, prepared by a competent person, is available to inform these assessments'*.

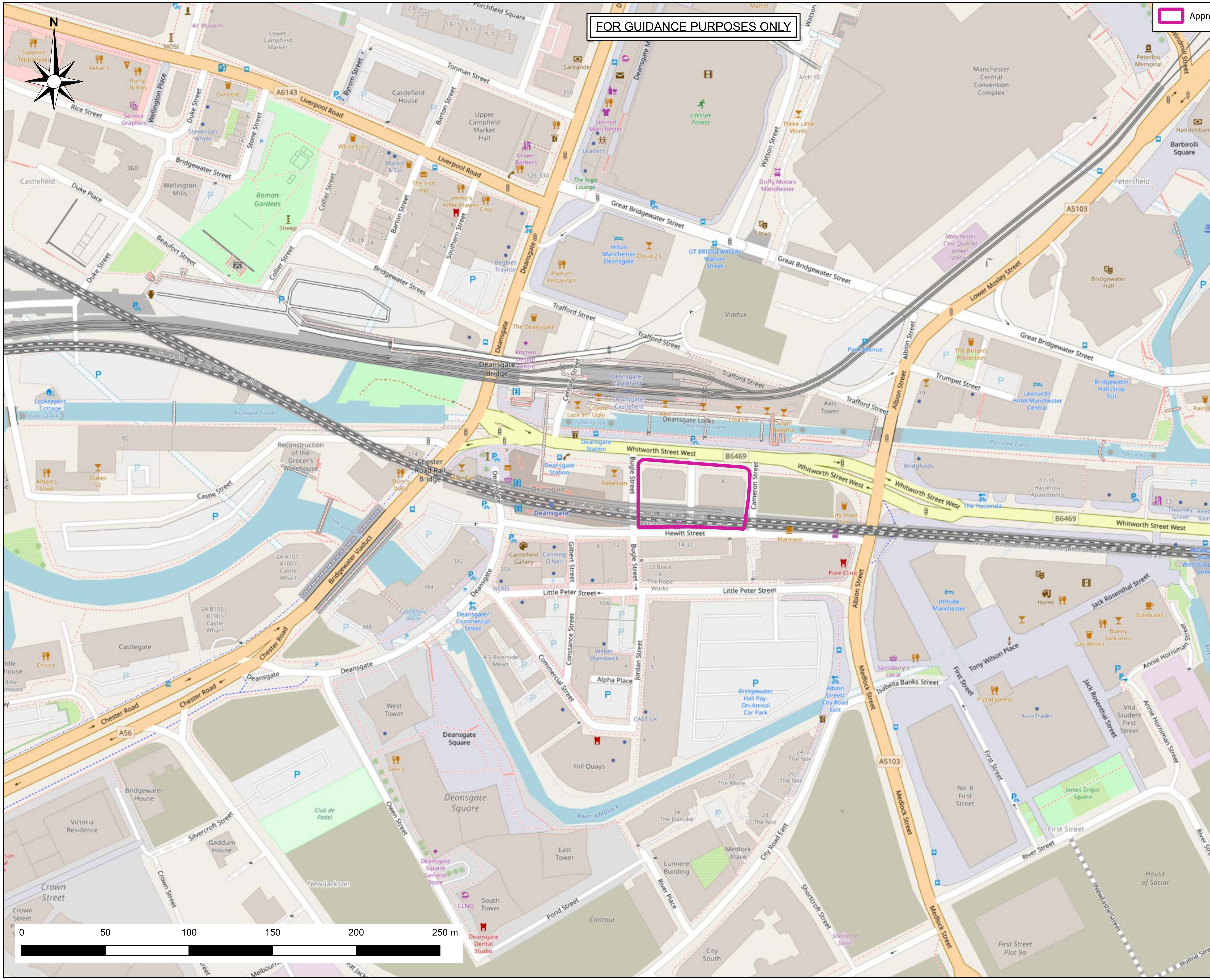
This report has been prepared and authorised by staff that are competent as defined in the NPPF.

APPENDIX 2

FIGURES AND DRAWINGS

FOR GUIDANCE PURPOSES ONLY

Approximate Site Boundary



Rev	Drawn	Date	Description

Drawing Status: Information

Contract:

2-4 Whitworth Street, Manchester

For: Glenbrook Property

Drawing Title:

Site Location Plan

IGE consulting

Office 16, Bartle House, Manchester, M2 3WQ
Email: contact@igeconsulting.co.uk
Web: www.igeconsulting.co.uk
Tel: 0161 914 9170

Scale: 1:2000 @A3	Date: Jun 2024
Drawn: AS	Checked: AE
Contract No. 4201	Drawing No. SI - 01 / P1

FOR GUIDANCE PURPOSES ONLY

N

Approximate Site Boundary

IGE Ground Investigation (Nov 2025)

- Dynamic Sample Boreholes
- Inspection Pits
- Rotary Boreholes

WHITWORTH STREET WEST

ROWENDALE STREET

CAMERON STREET

HEWITT STREET

WS01 WS02 WS03 WS04 WS05

ST02 ST03 ST04 ST05 ST06 ST07 ST08 ST09 ST10

TP01 TP01B TP04 TP05 TP06 TP07 TP08 TP09 TP10

RBH01 RBH02 RBH03

Tarmac Paving Brick Concrete Cobbles RWP GU IC LP CA TM CO BO

Inaccessible Dense Vegetation 2D Detail

Inaccessible Construction Fence (HIZ 50m)

Construction Site Inaccessible

0 5 10 15 20 25 m

Rev	Drawn	Date	Description

Drawing Status: Information

Contract:

Whitworth Street, Manchester

For: Glenbrook Property Ltd

Drawing Title:

Exploratory Hole Location Plan

IGE consulting

1st Floor, 15 Oxford Court, Manchester, M2 3WQ
Email: contact@igeconsulting.co.uk
Web: www.igeconsulting.co.uk
Tel: 0161 914 9170

Scale: 1:200@A3	Date: Dec 2025	
Drawn: LG	Checked: AE	
Contract No. 4201	Drawing No. SI - 07	P1

SOURCES

Sources
1. Made Ground

Secondary Sources
2. Pooling beneath current and / or future foundations
3. Pooling in relative low points above low permeability deposits
4. Pooling within granular lenses within low permeability deposits

Ground Gas Sources
1. Made Ground

PATHWAYS

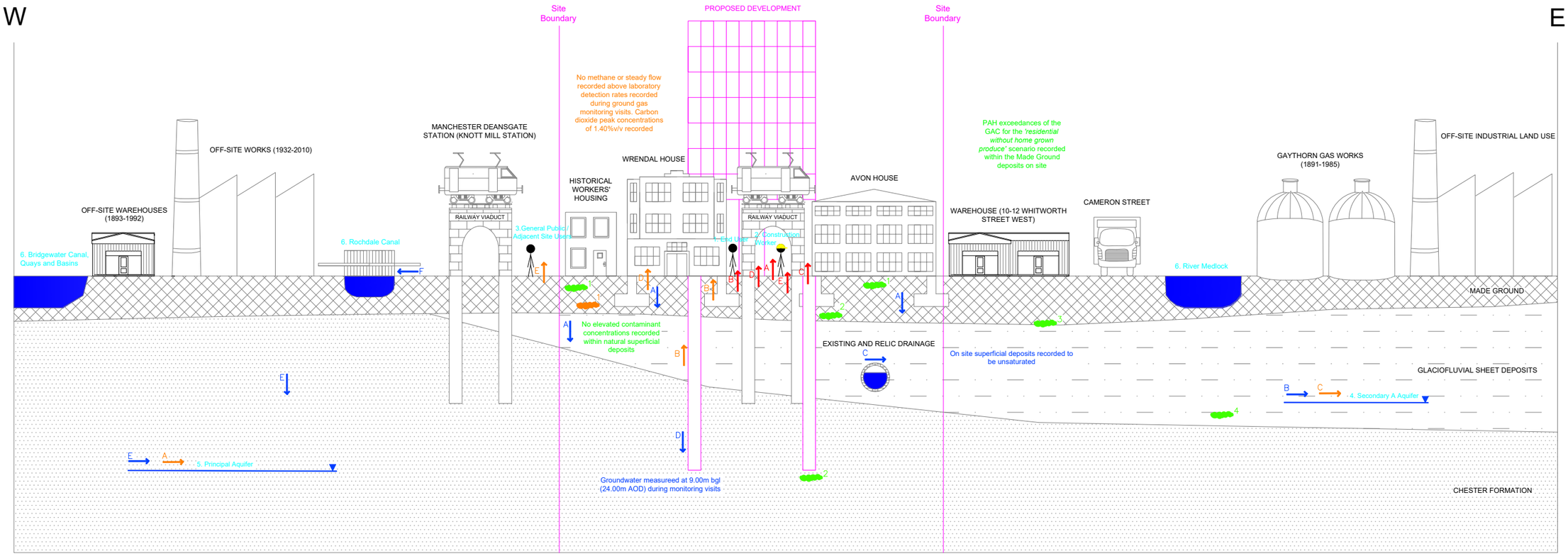
Pathways To Human Health
A. Ingestion of dust and soil
B. Dermal contact with dust and soil
C. Inhalation of dust
D. Inhalation of vapours
E. Inhalation and oral backgrounds

Pathways To Controlled Waters
A. Vertical migration athrough coarse Made Ground and coarse soils.
B. Lateral migration along low permeability natural soils & pooling at relative low points.
C. Lateral migration along historical drainage
D. Vertical migration along future foundations and pooling at base.
E. Migration through porous bedrock.
F. Overland flow.

Ground Gas Pathways
A. Migration through fractures and fissures in bedrock
B. Preferential migration along foundations & service ducts
C. Migration within groundwater
D. Ingress through cavity walls and floors
E. Inhalation of ground gas and vapours

RECEPTORS

Receptors
1. End user
2. Construction workers
3. General public / adjacent site users
4. Secondary A aquifer in superficial deposits
5. Principal aquifer in bedrock
6. Surface water - Rochdale Canal (30m N) and River Medlock (150m S)
7. Buildings and services



Notes

1 This drawings is indicative and not to scale.

2 This drawing is to be read in conjunction with all relevant Architects and Service Engineers drawings.

Key

Made Ground

Glaciofluvial Sheet Deposits

Chester Formation

Rev	Drawn	Date	Description

Drawing Status
INFORMATION

Contract
WHITWORTH STREET, MANCHESTER

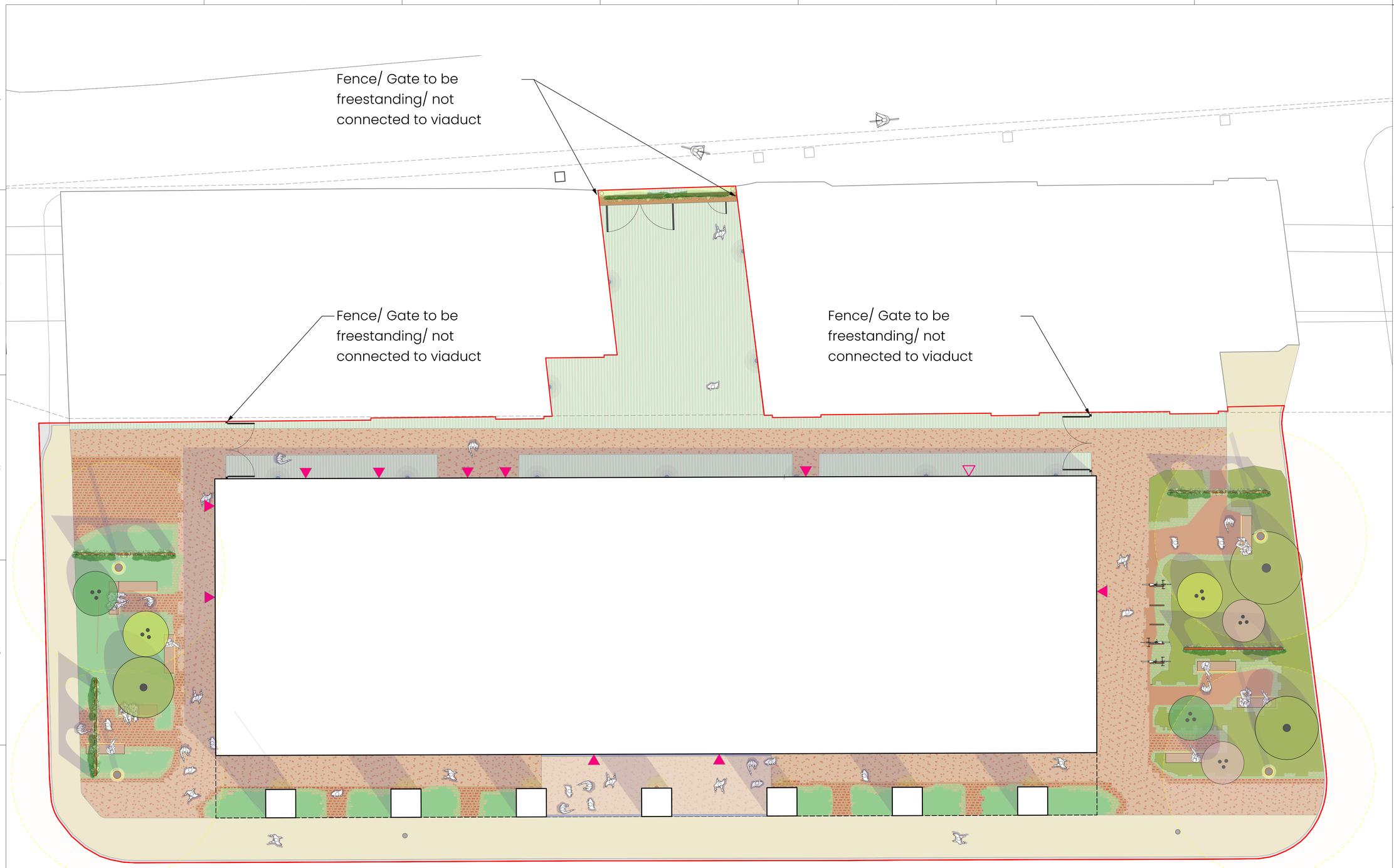
FOR: GLENBROOK PROPERTY

Drawing Title
REVISED CONCEPTUAL SITE MODEL

IGE consulting

1st Floor, 15 Oxford Court, Manchester, M2 3WQ
email: contact@igeconsulting.co.uk
web: www.igeconsulting.co.uk
tel: 0161 914 9170

Scale	Date
NTS	Dec 2025
Drawn LG	**Checked** AE
Contract No. 4201	**Drawing No.** SI-09 P1



NOTES:

1. DO NOT SCALE FROM THIS DRAWING. ALWAYS WORK TO NOTED DIMENSIONS.
2. ALL SETTING OUT, LEVELS AND DIMENSIONS TO BE CHECKED ON SITE PRIOR TO THE INSTALLATION OF MATERIALS AND ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONTRACT ADMINISTRATOR IMMEDIATELY.
3. THIS DRAWING MUST BE READ WITH THE RELEVANT SPECIFICATION DOCUMENTS AND DETAIL DRAWINGS. ANY DISCREPANCIES MUST BROUGHT TO THE ATTENTION OF THE CONTRACT ADMINISTRATOR IMMEDIATELY.
4. THIS DRAWING IS COPYRIGHT PROTECTED AND MAY NOT BE REPRODUCED IN WHOLE OR PART WITHOUT WRITTEN AUTHORITY.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
6. NOTE DRAWING SUITABILITY CODE SHOWN BELOW. DRAWING NOT TO BE USED FOR CONTRACTUAL AGREEMENT WITHOUT AI STATUS.

THIS DRAWING WAS PLOTTED ON:
21/03/2025

REVISION HISTORY

DATE	REV	ZONE	DESCRIPTION	CHK
10/10/2024	P04		Update with Planners and Highways Comments	
13/12/2024	P05		Label added	OK
20/02/2025	P06		Highways update	OK

KEY

GENERAL INFORMATION

APPLICATION SITE BOUNDARY

HARDWORKS

SURFACE TYPE A
To Adopted footways
Subject to S278 Agreement

SURFACE TYPE B
Using recycled 'site won' materials
Subject to Future Detail

SURFACE TYPE C
Using recycled 'site won' materials
Subject to Future Detail

SURFACE TYPE D
Using recycled 'site won' materials
Subject to Future Detail

FURNITURE

FEATURE SEAT
Subject to Future Detail

FEATURE ARCHWAY
Subject to Future Detail

CYCLE STAND
To Courtyard
Subject to Future Detail

SOFTWORKS

CLEAR-STEM TREE PLANTING
Refer to Planting Schedule

MULTI-STEM TREE PLANTING
Refer to Planting Schedule

RAIN GARDEN PLANTING
Refer to Planting Schedule

BIODIVERSITY PLANTING
Refer to Planting Schedule

RECLAIMED BRICK & GROUND PLANTING
Refer to Planting Schedule / Hardworks

GREENGAP PAVING
Refer to Planting Schedule / Hardworks

CLIMBER PLANTING
Refer to Planting Schedule

ORIGINATOR

Layer.studio

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Wilmslow
Cheshire
SK9 1DR

NEWCASTLE
Floe, Maybrook House
27 Grainger Street
Newcastle-upon-Tyne
NE1 5JE

Client
Glenbrook WWS Ltd

Project
2-4 Whitworth Street
Manchester

Drawing Title
Landscape General Arrangement

Created By	Checked By	Scale	Sheet Size
OK	ST	1:100	A1

Project Number	Originator	Volume	Level	File Type	Discipline	Number
389	LYR	XX	ZZ	DWG	L	1001

Work Stage	Status	Revision
Stage 2	S2 Review & comment	P06

APPENDIX 3

DISCOVERY STRATGEY

DISCOVERY STRATEGY

1st Floor
15
Oxford Court
Manchester
M2 3WQ

Tel: 0161 914 9171
Email: contact@igeconsulting.co.uk
Web: www.igeconsulting.co.uk

What to Look Out For

Potentially contaminative material can be identified as follows:

- Appears oily / has an iridescent sheen
- Hydrocarbon odour e.g., oily or petroleum odour
- Solvent odour e.g., sharp or sweet odour
- Waste materials e.g., metals, plastic etc.
- Asbestos e.g., fibrous sheeting / roofing / board / lagging etc.
- 'Landfill' odour e.g., rotten / putrefying / leachate odour

Or any other material that looks man-made or does not match its surroundings – if in doubt, check.

Procedure for Discovery of Unexpected Contamination

If any of the above material is discovered, the following procedure must be carried out:

a) Stop works in the area of the contamination discovery.
b) Inform the Site Manager.
c) Record the visual and olfactory evidence of contamination.
d) Suitably qualified geo-environmental engineer to investigate the contamination; take samples, photographs and in-situ tests and discover the extents of the contamination, and to identify potential contaminants and specify chemical testing, if necessary.
e) Either dig out the contaminated material and stockpile, on an impermeable membrane if necessary, or leave in-situ whilst awaiting chemical test results, if needed – whichever presents the least risk.

f) Suitably qualified geo-environmental engineer to re-visit the site's risk assessment, taking into account the newly discovered contamination and recommend remediation, if necessary, or other next steps.
g) If the risk assessment and remediation strategy is changed as a result, the Local Authority and/or the Environment Agency should be informed and/or consulted.
h) Lastly, undertake remediation of the affected area if this has been deemed appropriate.

Procedure for Discovery of an Unexpected Tank

Former industrial sites may contain unrecorded underground storage tanks (USTs). Follow the below steps if a UST is found:

a) Stop works in the area of the UST discovery.
b) Inform the Site Manager.
c) Suitably qualified geo-environmental engineer to investigate the tank, including measuring the size, contents, condition, and visual and olfactory evidence of contamination. Geo-environmental engineer to record the location of the tank on a site plan, take photographs, and sample the contents to send for chemical testing to determine the contents.
d) Suitably qualified contractor to empty the tank and dispose of contents at a suitably licensed disposal facility.
e) Suitably qualified contractor to undertake integrity testing in line with the 'Blue Book' method (APEA / EI '*Design, Construction, Modification, Maintenance and Decommissioning of Petrol Filling Stations*' 4th ed. (April 2018)), to determine whether the tank is intact or has been compromised.
f) Suitably qualified geo-environmental engineer to undertake a risk assessment based on the contents of the tank and the results of the integrity testing, to determine whether to decommission the tank and leave in-situ or to remove the tank.
g) Suitably qualified contractor to clean and 'inert' the tank, and provide a gas safe certificate, in line with the 'Blue Book' method.

h) Suitably qualified contractor to either decommission the tank in-situ in line with the ‘Blue Book’ method or remove the tank and dispose of at an appropriate facility.
i) If excavated and removed, suitably qualified geo-environmental engineer to investigate the base and the sides of the resultant excavations and if any contamination is found, undertake the Procedure for Discovery of Unexpected Contamination above.

APPENDIX 4

DEMOLITION SPECIFICATION & DRAWINGS

2-4 WHITWORTH STREET WEST, MANCHESTER

DEMOLITION SPECIFICATION

Project No 2506-18

April 2026

Rev: P01

WSW-REN-XX-XX-SP-S-00030

This report has been prepared for the sole benefit, use and information of Glenbrook Property for the purposes set out in the report or instructions commissioning it. The liability of **renaissance** in respect of the information contained in the report will not extend to any third party. This document should not be used in whole or part by any third parties without the express written permission of **renaissance**. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and **renaissance** do not owe them any Duty of Care.

Author **Andy Mclaughlin**

Date **09.04.2026**

Approved **-**

Date **--.--.----**

DRAFT

Contact Details:

2nd Tribeca House, 21-27 Dale Street

Manchester, M1 1EY

t: 0161 393 6509

Rev.	Description	Author	Checked	Date
DRAFT	DRAFT ISSUE	A. Mclaughlin	-	09.04.26

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APPENDIX A – SITE LOCATION PLAN
APPENDIX B – DEMOLITION PLANS
APPENDIX C – TOPOGRAPHICAL SURVEY
APPENDIX D – UTILITY SURVEY
APPENDIX E – SITE CONSTRAINTS DRAWINGS

DRAFT

1. INTRODUCTION

The development is located in Manchester City Centre, Whitworth West Street, bounded by Whitworth Street West to the north, Cameron Street to the east, Bugle Street to the west and railway viaduct and Deansgate Station Platform to the south. The railway viaduct is a Network Rail asset and is located approximately 3.0m south of the proposed development façade.

The existing site is split into two plots, No.2 and No.4 Whitworth Street West, with 4 and 3 storey vacant red brick buildings occupying the site.

The proposed development consists of a tower with 43 storeys above ground level. The development is predominantly a residential building, with amenity space located at the lower levels.

Prior to the submission of the tender documentation the demolition sub-contractor shall have visited the site to examine the conditions present including the apparent ground conditions, relationship of existing buildings on and adjacent to the site, the site boundaries, means of access and accommodation required.

Within the tender return, the contractor shall be deemed to consider the above conditions in relation to risks, contingencies and all other circumstances influencing or affecting their tender.

Therefore, the context of the requirements for, but not exclusive to, Site preparatory works, Surveys, Health and Safety, site management, treatment of hazardous materials and the finished condition of the site as defined on renaissance and the Architect's drawings and in the Definitions section of this specification.

This document shall be read in conjunction with the general conditions of contract and all associated tender documentation, specifications and drawings and shall not preclude the Contractor from any of their responsibilities defined therein. Reference should be made to the relevant Documents that form the "Building Contract".

These documents contain information specific to the Demolition works and shall be considered to accompany the performance criteria defined in the architectural and building services engineering specifications and drawings included within the tender documentation. The design shall also comply with all relevant Health & Safety requirements.

Preamble

The drawings and this Specification shall be regarded as the "Project Specification" for the defined extent of the demolition works.

This specification forms part of the tender and contract documents for the Project as defined in Definitions below.

It is deemed that the Contractor has inspected this specification, is able to comply with it, and has allowed for all its requirements particularly in terms of cost, site constraints and programme.

DRAFT

1.1 Definitions

The Contractor has responsibility for the demolition works and that of any Sub-Contractor's employed as part of the works. As sole contractor acting on a site they will be considered as "Principal Contractor" engaged directly by the client.

'Contractor' The term "Contractor" shall refer to the company/firm responsible for the demolition and site clearance of the works described on the drawings and in the letter of invitation to tender (if appropriate). In some instances, the situation may arise that they may be deemed to be the Principal Contractor with the associated Health and Safety obligations.

'Design Drawings' renaissance's, Architect and other designers' (where appropriate) drawings are the 'Design Drawings'. General dimensions, setting-out requirements, and any specific requirements will be defined on these drawings, sufficient to define the extent of the proposed works.

'Subcontractors' Other subcontractors responsible for design, detailing and construction of elements of the project. In particular, other subcontractors with whom the Demolition Contractor must co-ordinate and liaise in terms of delivering the scope of works.

'**Other Designers'** Design team members other than the Engineer and Architect. Includes specialist sub-contractors, MEP consultants, UXO specialist, Intrusive SI contractor etc.

DRAFT

2. CONTRACT PARTICULARS

Section 2.2 outlines the information to be provided by the consultant team. The list is not exhaustive, and reference should be made to the Drawings or information in the Project Specification.

Precedence

Where there is a conflict in specified requirements the Project Specification takes precedence over other documents. However, all conflicts should bring this to the attention of the CA and advice sought.

2.1 Consultant Team Information

The following tables define the principal responsibilities and information to be provided by the Temporary Works Engineer, Architect and client associated with the demolition works.

Project Information

Project name	2-4 Whitworth Street West, Manchester
Project ref	2506-18
Address	2-4 Whitworth Street West, Manchester

Employer

Name	Glenbrook Property Ltd		
Address	Union 2, 10 Albert Square, Manchester M2 6LW		
Contact name	Jamie Sutton		
Telephone	[redacted]	E-mail	[redacted]

Principal Contractor

Name	Domis Property Group Ltd		
Address	845 Birchwood Boulevard, Birchwood, Warrington, WA3 7QZ		
Contact name	Joel Wildgoose		
Telephone	[redacted]	E-mail	[redacted]

Engineer

Name	Renaissance Associates Ltd		
Address	2/F, Tribeca House, 21-27 Dale Street, Manchester, M1 1EY		
Contact name	Andy Mclaughlin		
Telephone	[redacted]	E-mail	[redacted]

Contract Administrator (CA)

Name	*As Employer*		
Address			
Contact name			
Telephone		E-mail	

Architect

Name	*Sheppard Robson Architects*		
Address	City Tower, Piccadilly Plaza, Manchester M1 4BT		
Contact name	Paul Crowther		
Telephone	[redacted]	E-mail	[redacted]

Building Services Engineer

Name	Futureserv Consulting Engineers		
Address	10 Oxford Ct, Bishopsgate, Manchester M2 3WQ		
Contact name	Tony Hood		
Telephone	[redacted]	E-mail	[redacted]

Landscape Architect

Name	Layer Studio		
Address	8b Grove St, Wilmslow SK9 1DR		
Contact name	Oliver Kingshott		
Telephone	[redacted]	E-mail	[redacted]

2.2 Design Responsibility Matrix

Activity	Temporary Works Engineer	Architect	Client
Site Location Plan		L	A
Planning boundary		L	
Site Access and Egress Strategy	L	A	
Existing Building Plans	A	A	L
Existing Site Information	A	A	L
Existing Services Information	A	A	L
Proposed site plan showing final demolition levels	L	A	
Demolition plans incl. extent of demolition		L	A

L = Lead (coordinate), D = Design and A = Advise

The contractor must refer to both the Engineer's and the Architect's drawings and report any conflicts.

The contractor must co-ordinate dimensional and detail information from both the Architect's, Engineer's and specialist subcontractor drawings.

Overall setting-out is shown on the Architect's drawings. Other, detailed, setting-out should be shown on the Temporary Works Engineer's drawings.

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2.3 General Requirements

The Contractor shall take full responsibility for the specified works, and ensure they comply with the provisions outlined in this specification. The Contractor shall identify any conflicting information and bring this to the attention of the CA and advice sought. Notwithstanding the above, the Contractor will be required to complete the following: -

- Submission of RAMS for works to be undertaken.
- Installation of a temporary /permanent site hoarding line including liaison with local council to erect hoarding in public footpath/highway
- Cap all existing drainage runs (including those in the basements) at the site boundary.
- Demolition extent of existing structure as indicated on the architects' drawings.
- Maintain stability of neighbouring assets whilst removing the existing basement & foundations.
- Churn site to a depth of 3m to remove all site obstructions including remnant foundations.
- Liaise with Main Contractor and their Geo-environmental engineer regarding remediation and all fill/site won material.
- All works to take account of the proximity to Network Rail assets with Demolition Contractor obtaining all necessary approvals prior to commencing works.

2.4 Compliance with drawings and specification

The whole of the works encompassed by the Invitation to Tender including the buildings to be demolished together with all the related site clearance, protection of adjacent buildings and services both during the works and upon completion and site fencing shall be carried out strictly in accordance with the drawings provided by the Contract Administrator and with this Specification. All work shall be carried out in compliance with the British Standard Code of Practice BS6187 "Code of Practice for Demolition, (and where appropriate BS5609 "Safe Use of Explosives.)

2.5 Site start

The Contractor shall state in their tender the period of time they require between receipt of order and commencement of demolition works together with the length of time the Contract shall take from commencement to completion. If so required by the CA, the Contractor shall submit for approval a detailed programme of the demolition works and date of commencement.

2.6 Inspection

Before submitting their tender the Contractor shall visit the site to ascertain the nature and extent of the work involved. The tender shall include information enabling the costs incidental to the demolition of the work to be accurately assessed. Examples of such items to be included are: -

- Work involved in gaining access to and adequately securing the site.
- Proximity and protection of adjacent Network Rail Asset from risks such as impact, falling debris and vibration.
- Protection of any underground services which must remain in place and live during the demolition works.

Any points not noted in the tender shall be deemed to be included in the Contractor's own tender figure.

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Tendering contractors will be expected to visit the site to inspect site conditions and understand the works prior to returning a completed tender. They must also submit a detailed programme of demolition works identifying all key activities within the tender return, and all demolition is to be in accordance with BS6187:2011, Code Of Practice For Full and Partial Demolition.

2.7 Variations

The CA may, without invalidating the Contract, vary the works by increasing or decreasing the amount as they consider necessary for the completion of the Work. Such variations shall be measured and valued by the CA.

2.8 Mud, water supply and dust

Before leaving the site, all vehicles shall be hosed down and all mud removed from the tyres of vehicles. The Contractor will be responsible for ensuring that the surface to adjoining roads remain clean at all times during the Contract.

The Contractor is to arrange with the Local Water Authority for the provision of temporary standpipes near the areas being cleared and is to pay all charges for temporary water supplies and hoses.

Lorry loads of demolition material and rubbish are to be sprayed with water to keep down dust and each loading and pulling down operation is to be sprayed continuously.

2.9 Insurances

The Contractor shall, during the continuance of the Contract, effect and maintain in terms to be approved by the CA (and shall cause any sub-contractor to effect and maintain) all insurances required as specified in the Standard Form of Building Contract.

2.10 CDM

The appointed contractor must submit detailed method statements and satisfy the Principal Designer on all Health and Safety aspects.

Nothing in this specification should be taken as an instruction to adopt working methods which contravene the CDM Regulations, and all Contractors/Sub-contractors etc are responsible for ensuring safe procedures which comply with the Regulations.

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3. DESIGN STANDARDS AND BYE-LAWS

The Contractor shall comply in all respects with local bye-laws and statutory requirements with all current legislation and should seek the appropriate approvals for demolition, either as part of a general building contract or as a separate, direct contract. The list is relevant to general approvals and does not include local byelaws and legislation applicable to particular site conditions (e.g. party wall rights), hazards and processes. The list not exhaustive and the contractor should complete further enquiries to discharge any planning conditions or restrictions.

- Planning (Listed Buildings and Conservation Areas) Act 1990. Extends to England and Wales.
  - Section 7: Control of works in respect of listed building.
  - Section 74: Control of demolition in conservation areas.
- Planning and Compensation Act 1991. Extends to England, Wales and Scotland.
  - Section 13: Demolition of buildings.
- Building Act 1984. Extends to England and Wales.
  - Section 80: Notice to local authority of intended demolition.
- Control of Pollution Act 1974. Extends to England, Wales and Scotland.
  - Section 61: Prior consent for work on construction sites (Noise and Vibration).
- Highways Act 1980. Extends to England and Wales.
  - Section 165: Dangerous land adjoining street.
  - Section 167: Powers relating to retaining walls near streets.
  - Section 169: Control of scaffolding on highways.
  - Section 172: Hoardings to be set up during building.
- See also full list in rear of BS 6187:2011.
- Codes of Practice.
- British Standards Institution.
- BS 1722: 2006 – Fences.
- BS 6187:2011 - Code of practice for full and partial demolition.
- Health and Safety Executive Control of Asbestos Regulations 2012.
- Approved Code of Practice L143: The control of asbestos at work.
- Construction (Design and Management) Regulations 2015 (CDM 2015).

Any other standard code or specification mentioned in the body or preface of the above to be considered as part of this specification.

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4. PROPOSED WORKS

4.1 Overview

The proposed development is located at 2-4 Whitworth Street West, Manchester. The proposed development consists of a tower with 43 storeys above ground level. The development is predominantly a residential development, with areas of public amenity located at lower levels.

To facilitate construction of the proposed development the existing buildings on site are to be demolished and the site churned, in accordance with the specification and associated drawings/documents.

4.2 Site Description

The site is located off Whitworth Street West, Manchester M1 5WY. It is situated approximately 1000m southwest of Manchester City Centre, centred on National Grid Reference 383519, 397523. Two multistorey buildings, 2 & 4 Whitworth Street West, are present in the footprint of the proposed development. A public highway, Rowendale Street, crosses the site and separates the two existing buildings proposed for demolition. Rowendale Street is proposed to be stopped up prior to demolition works commencing on site.

The site is bound by:

- Whitworth Street West to the North of the proposed plot
- Cameron Street to the East
- Network Rail Asset to the South
- Bugle Street to the West

The Network Rail asset is located approximately 3.0m south of the proposed development façade. The structure consists of a series of masonry arches supported by solid masonry buttresses, constructed in the mid-19th century. The viaduct is founded directly on sandstone and carries two live railway lines between Deansgate Station and Oxford Road Station. The segment of the viaduct adjacent to the site has been previously extended to support the platform at track level, and this extension forms a larger enclosed unit.

4.3 Existing Building Description

4.3.1 2 Whitworth Street West

Existing Building Description for 2 Whitworth Street West TBC following site inspection.

4.3.2 4 Whitworth Street West

- 4 Whitworth Street West is a four-storey masonry clad structure with a full footprint basement.
- The basement level lies approximately two meters below existing pavement level and the ground floor level is elevated.
- The perimeter load bearing masonry façade appears to be of substantial construction.
- The entrance lift and stair cores is of loadbearing masonry construction with reinforced concrete stairs and landings

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- The rear stair and WC core to Rowendale Street is also of loadbearing masonry construction with reinforced concrete stairs and landings. The WC are formed as intermediate floors off the half landings and appear to also be of concrete construction
- Internal framing for the floors typically comprises timber joist floors supported on steel beams
- Columns are at a relatively close grid and appear to be of cast iron construction
- The roof appears to be formed as reinforced, or filler joist floor construction supported on steel beams
- Stability against lateral loads appears to be provided by the load-bearing masonry perimeter and core walls, with the floors acting as diaphragms



Figure 4.3 - Site Location Map with Indicative Site Development Boundary

5. DEMOLITION SCOPE

This document should be read in conjunction with the prelim documents and all other applicable contract documents with any discrepancies to be brought to the attention of the CA.

General responsibilities of the demolition contractor are noted within the Renaissance Demolition Specification contained in Section 2, 6 and 7.

All earthworks and filling where required will be undertaken in accordance with the Earthworks and Filling Specification contained in Section 8 and 9. This is to be carried out by the contractor as part of the contract.

5.1 Site Management

The contractor must be mindful and account for the following:

- Prevention of nuisance to the public and neighbouring properties and businesses.
- Working hours in accordance with Local Authority requirements.
- Dust suppression. The Contractor's proposal for dust suppression to be submitted to the design team for approval at least 1 week prior to start on site.
- Vibration.
- Noise.
- Safe and co coordinated stockpiling of materials.
- Noxious odours.
- Licensed waste disposal.
- Fire prevention.

The contractor must also note the position of the site relative to the surrounding buildings and the complexities of the site layout.

The contractor must liaise with the relevant authorities for access prior to commencement of any demolition works.

5.2 Access and Egress

A traffic management plan must be submitted, clearly identifying how the works will be accessed for the demolition contract duration. The contractor will take possession of the area of site within the ownership boundary lines, for the duration of the demolition works and the boundary must be maintained adequately for the whole duration of the works.

The contractor must establish safe access and egress for staff and visitors throughout the site during the entire demolition contract period.

5.3 Drains and Services

Prior to site set up the contractor should complete a drainage survey prior to demolition, to include the drains local to development. The contractor should complete a survey of the same drains upon completion to validate their condition after completion of the demolition works. Any drains that are recorded damaged should be brought to the attention of the CA.

Locate and disconnect all disused drain connections and seal within the site to the approval of the engineer. Refer *to site record and stats drawings and existing topographical survey* for the approximate extent of the existing drainage on site in the areas of proposed demolition.

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Record the location of each service termination at the boundary of the site and include this information within the Health and Safety File.

5.3.1 Drains in use:

Protect drains, manholes, inspection chambers, gullies, vent pipes, and fittings still in use to ensure that they remain free of debris at all times. See topographical drawing in that shows the existing drains surrounding the building.

Make good extent of any damage arising from the demolition works.

Build up chambers as necessary and adjust covers to finished ground levels, leave clean and in working order.

All drains that are to be retained are to have a CCTV survey undertaken post demolition and any damage that occurs during the demolition period is to be repaired at the contractor's expense. The CCTV report/DVD are to be provided to the engineer/client upon completion.

All finishes to the external areas within the site boundary such as yard areas, slabs, paving and roads are to be removed as required in accordance with demolition drawings.

5.3.2 Services

Before starting demolition, the contractor is to ensure that the appropriate disconnections have been completed – Reference should be made to the Pre-Tender Health and Safety Information and if in doubt the CA. The position of each service termination is to be recorded on a drawing to be included in the project Health and Safety File.

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5.4 Notifications

A summary of the key demolition works are described below:

- Notify the CA of the intention to commence demolition and clearance of the site and submit all appropriate notices.
- Liaise with relevant bodies in relation to the access to the surrounding roads to ensure safe access and egress of the site.
- Secure site boundaries and complete all necessary service disconnections.
- Undertake a joint schedule of condition with the contractor prior to site setup. This shall include the wider site area and the properties adjacent to the site before commencement.
- The contractor is to agree the condition of the public highways and associated street furniture.
- Confirm methods of demolition and serve appropriate notices to the HSE for all asbestos related works
- Removal of asbestos containing materials under controlled conditions by licensed specialist. The Contractor is to inspect the buildings and site and ensure that all asbestos containing materials have been removed completely and properly prior to demolition works commencing. Any materials found to be remaining are to be retrospectively removed by the specialist at their own cost prior to demolition commencing.
- The contractor is to liaise with Network Rail regarding any potential infringement on Network Rail assets or easement zones. Any permissions necessary to conduct the works must be sought by the Contractor.

5.5 Demolition

All extents of buildings on the existing site to be demolished, taking due consideration for the type of construction material used in the existing construction.

- The contractor will consider the need and provide for any temporary works to facilitate the safe execution of the works.
- The contractor is to ensure the site boundary and any adjacent structures outside the boundary are not undermined while demolishing or excavating material on site.
- All raised building slabs, ramps, retaining walls to be removed except those retaining the public highways surrounding the site.
- All tanks above and below ground to be decommissioned, with the appropriate notifications and application to the Contaminated Land Officer (CLO) and removed from site and disposed of.

5.5.1 Existing Foundations

The demolition is to be undertaken down to a level to ensure removal of all foundation elements. In addition, a minimum of 3m depth of ground below the existing external level or below existing ground floor SSL, whichever is the lower, must be turned over.

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- Any buried structures that are uncovered must be excavated, in their entirety, to the base of the buried obstruction, unless written consent is given by the CA for it to remain. If a structure is to remain, it must be surveyed to define the extent on plan and recorded on the site topographical survey plan capturing the level to its base and depth below the existing surface. All relic structures uncovered as part of the excavations will be recorded by the Contractor and a copy of the drawing in DWG format provided as part of the site handover at completion
- All backfill material shall be placed in accordance with the Earthworks and Filling Specification included in this document.
- Changes in ground level are to have 1:2 slopes formed to prevent retaining conditions and ensure that no hazardous steps are left on the site.
- The site must be left in a clean and tidy condition at handover, ensuring that all boundaries are secure and any capping requirements, defined by statutory planning conditions, are in place.
- If not identified or directed, Contractor to leave site at a level matching current external ground level or as directed by the CA.

5.6 Demolition Materials

Demolition material is to be removed from site at the contractor's expense. All waste transfer notes for materials removed from the site must be retained and 1 copy provided to the CA for record purposes.

5.6.1 Contamination

Areas of potentially contaminated arisings must be isolated and stockpiled separately from clean material. Contaminated material is to be tested by the Contractor, as directed by the Engineer. If during the demolition works unusual visual and or olfactory evidence of previously unrecorded contamination or buried structures are observed, the Demolition Contractor shall inform the CA immediately. The CA shall decide upon the chemical testing suite at the time of sampling after having reviewed the materials in question/give instruction as to the treatment/removal of the substructures.

All credit items such as steel frames, fixtures and fittings to go to the contractor.

5.6.2 Demolition Arisings

All demolition material removed from the site must go to suitably licensed tips or for legitimate recycling. All waste transfer notes for materials removed from site must be retained and 1 copy provided to the client for record purposes. The contractor is to undertake a waste acceptance criteria (WAC) test and an asbestos test on all spoil removed from site arising from excavation/demolition at a rate of 1 sample per 500m^3. This does not include building demolition material.

The demolition contractor must remove all unsuitable material from site, including all waste skips, mobile cabins etc. This should be carried out strictly in accordance with all relevant legislation and guidance.

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5.7 Vibration Monitoring

The proposed demolition work will require the contractor to provide a method statement for vibration monitoring. The vibration monitoring performance requirements will be in accordance with the levels set in BS5228 Pt. 1 and 2.

The purpose of the vibration monitoring is to ensure that any levels of vibration do not exceed threshold levels defined in the relevant British Standards that could be considered to be excessive or contribute to structural damage of third-party property. The choice of limits on vibration to be measured at the site boundaries as a consequence of the demolition works should not exceed the threshold of 5mm/sec. The contractor is to liaise with Network Rail to gain their acceptance if the vibration criteria with respect to the neighbouring railway viaduct.

Monitoring must be undertaken on a continuous basis. The vibration monitors will be set up adjacent to all demolition and crushing work areas, and enough should be provided to ensure this, and will record peak particle velocity.

Control limits for vibration is therefore proposed as follows – 5mm/sec during all work activities.

Monitoring works must be undertaken by suitably qualified/accredited persons.

Vibration data/detailed logs need to be kept for the duration of the works and a weekly report prepared confirming the results of the monitoring.

In the event of measurements recorded exceeding the foregoing control limit, the carrying out of work activities on-going at the time shall be suspended pending review.

If the contractor is unclear with any statements made in this specification, clarification should be sought from the engineer.

5.8 Records

At the end of the contract period the Contractor is to provide all relevant documents to complete the Health and Safety file, including but not limited to :-

- Photographic and daily record sheets
- Records of statutory approvals / certificates etc….
- Waste disposal receipts / Tank disposal certification
- WAC testing
- CBR / Plate Bearing or Geo Testing
- As built Topographical survey
- Residual relic structures survey
- Monitoring results

Allowance should be made for two paper copies and two electronic PDF copies of the validation handover document.

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6. DEMOLITION RESPONSIBILITIES

6.1 Method of demolition

Before commencement of the work the Contractor shall submit to the CA their proposals for the method and sequence of demolition including details of temporary works and shoring. Demolition shall not be started on any section of the Contract until the CA's approval has been given to the Contractor's proposals for that section.

6.2 Incidental shoring, scaffolding and screens

The Contractor shall be fully responsible for the cost, design and safety of all shoring and scaffolding incidental to the demolition works and for making good all work disturbed by such shoring and scaffolding which shall be deemed to be included in their tender.

The Contractor shall be fully responsible for the cost, design and safety of all protective screens that may be required to prevent damage, nuisance and disturbance to adjoining properties, public highways, persons or passing traffic.

The Contractor will be held responsible for any damage occurring thereto, however caused, and will be charged for their necessary repair.

6.3 Special shoring

All shoring shown on the drawings shall be designed by the Contractor.

The Contractor is reminded of the Health and Safety CDM Principal Designer's duty to ensure that the temporary works designer complies with Regulations 13(a) and (b). This duty will be limited to those temporary works which are specifically designed and, in particular, impinge on the permanent structure. The information shall include an analysis of the hazards and risks associated with the design and method of construction.

6.4 Insecure work

During the demolition works, no wall, part of the structure or site shall be left in a dangerous or insecure condition at any time.

6.5 Public footpaths and pavement crossings

The Contractor shall keep all public footpaths, rights of access adjoining and through the site available at all times for use by the public and/or statutory third parties and the stacking of materials thereon is forbidden.

No mechanical plant or vehicles shall be permitted to cross a paved public footpath unless there is a permanent footway crossing in existence or unless a temporary footway crossing has been constructed. The footway crossing shall be the only point at which mechanical plant or vehicles shall enter the site. A joint site inspection between the Contractor and CA shall occur to record on photographs the condition of pavements and surrounding areas. These shall be used as a record in assessing the extent of making good by the Contractor upon completion.

6.6 Fires on site

The disposal of materials and rubbish by burning on site will not be permitted under any circumstances whatsoever and no fires will be permitted on site without prior permission from Local Authority.

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6.7 Watching and lighting

The Contractor shall maintain at their own cost all lights, guards, fencing and watching necessitated by the works.

6.8 Avoidance of nuisance and protection of members of the public and vehicular traffic

The demolition of the property is to be carried out in such a manner as to cause as little inconvenience to adjoining property owners and/or the public as possible, and the Contractor will be held responsible for any claim which may arise in respect of nuisance, disruption or inconvenience to adjoining owners and/or the public.

A close-boarded (or similar approved) hoarding at least 2.4m high and of construction to be approved by the CA is to be erected to the site perimeter and retained on site on completion. It is intended for this hoarding to also be used for the main contract works.

It is the responsibility of the Contractor to liaise with the local council and agree to what extent the proposed hoarding may impede the public footpath, or public highway.

Design calculations for the hoarding which confirm compliance with relevant loading, design criteria and intended use are to be submitted to the CA for approval.

As the hoarding is to be retained, The Contractor shall include the cost of this hoarding in their tender. The location of the hoarding is to be agreed with the design team to ensure compliance with tree protection criteria.

Where required, fans of adequate close-boarded construction are to be extended from the property being demolished. Notices of adequate size and construction are to be placed to warn passers-by of any danger.

6.9 Foreman

The Contractor is to allow in their tender for the cost of keeping competent foremen in charge and in attendance throughout the duration of the work.

6.10 Coins and antiquities

Any coins or antiquities found on the site are to become the property of the Client and are to be handed over to the CA.

6.11 Plant

The Contractor is to provide all requisite plant, scaffolding and hoists and any cartage, labour and materials which, although not specifically mentioned, may be necessary for the proper completion of the work described herein.

6.12 Salvaged materials

Should the CA decide that parts of any building are of historic interest or of particular use to the Employer, these parts shall be carefully dismantled and stored on site as directed by the CA for retention by the Client. If the CA deems it to be reasonable an allowance will be made for the value thereof.

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6.13 Electricity, gas, telephone, water supplies, removal of signs

Reference should be made to the **Principal Designer** for specific details. The Contractor shall record and convey to the CA the position and size of services not previously recorded on the drawings and seek further instruction.

In the event that any unrecorded services are not disconnected the contractor must give notice to all authorities responsible for incoming services to remove meters and services and to stop supplies at the point of entry to the site. The Contractor shall carefully remove all signs attached to the works and deposit them with the appropriate authority.

6.14 Temporary roads/Use of existing highways

The Contractor shall provide any necessary temporary roads and clear them away on completion of the works. When using existing highways, the route should be clearly sign-posted for sub-contractor's strict adherence and made as direct as possible.

6.15 Demolition of buildings

Unless shown otherwise on the drawings the Contractor shall demolish all the building(s) described in the Invitation to Tender and shown on the drawings down to ground level. The work shall include the grubbing up and carting away of all existing footings and foundations to a depth of approximately 3000mm (or greater if shown on the contract drawings).

Basements, cellars, inspection pits and the like are to be cleared of rubbish and then back filled with clean gap graded concrete or other approved broken down demolition material. The Contractor shall record on a drawing the size, depth and location of all foundations grubbed out by them during the works, together with the depth, size and location of any foundations of adjoining property uncovered during the works. Duplicate copies of these record drawings shall be issued to the CA on completion of the works.

6.16 Old material

All old materials (except those described in clause 6.23 and 6.25) arising from the demolition are to become the Contractor's property unless otherwise directed by the CA and, together with all rubbish and debris, are to be removed from the site and transported to a suitable tip or infill site. All transportation and tipping charges shall be included in the Contractor's tender sum. Neither the Contractor, nor any Sub-Contractor (where sub-letting is allowed) shall resort to fly tipping for the removal of old materials and any costs arising out of illicit fly tipping shall be borne solely by the Contractor.

6.17 Contaminated material

The Contractor is to allow for all necessary sampling and testing of demolition and other old material to identify any harmful, hazardous or contaminated material. The presence of any such material shall be notified to the CA, in addition to material noted in the Health and Safety Pack.

6.18 Disposal of contaminated material

The Contractor is to allow for the same disposal of any contaminated material including, where necessary, carting to appropriate licenced tips and including all licence and tipping charges of a quantity identified in the Bill of Quantities.

6.19 Old fences and hedges

The Contractor is to pull down all old fences, hedges and garden walls on the demolition site which are specified by the CA.

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Care will be taken to avoid causing damage to the fences and hedges of the adjoining properties and the Contractor will be held responsible for any damage, which shall be made good at their own expense.

6.20 Timber affected by dry rot

The Contractor shall take all timber out of the works affected by dry rot, cart it away in covered wagons to a suitable site and burn it.

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7. ENVIRONMENTAL

7.1 Noise control

The Contractor shall ensure that in addition to any statutory requirements noise from the work is kept to the lowest level practicable and without prejudice to the generality of this requirement they shall:

- Site noisy tools, plant, engines and equipment as far as possible from the adjoining roads and buildings.
- Fit and use efficient silencing devices on all tools, plant, engines and equipment in accordance with BS5228 Parts 1 and 2.
- Ensure that no engines or items of machinery are left running for long periods when not required to be used.
- Ensure that all entrances to the site are at points where the noise from vehicles entering or leaving the site will cause the least nuisance or disturbance.

7.2 Trees

No damage is to be caused to any tree or its root system on the site not scheduled for felling. The Contractor shall provide adequate protection to such trees. An ecologist will provide the necessary advice on how all features will be protected and the contractor will provide and maintain these protections for the duration of the works.

7.3 Welfare and safety measures

The Contractor is to provide and maintain welfare and safety measures and amenities up to a suitable standard in accordance with current legislation. The Contractor is also to ensure site operatives are issued with and use full personal protective equipment.

7.4 Asbestos

The CA must be informed immediately if any asbestos or asbestos containing materials are discovered during the course of the work. These should be left undisturbed, covered up and should not be worked on until a full survey and report is prepared only by an approved Asbestos Specialist.

7.5 Completion

On completion of demolition the whole of the site as indicated on the contract drawings is to be back-bladed, cleared of all timber, reinforcement, rubbish and similar materials and left clean and tidy to the satisfaction of the CA.

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8. EARTHWORKS - EXCAVATIONS

The following describes the minimum requirements for any elements of Earthworks including excavations and filling.

8.1 Line and level

Excavation shall be carried out to the lines and levels described in the Contract.

8.2 Soft spots

Any soft, loose or otherwise unsuitable material below these levels shall be removed and backfilled as directed in the Contract. If in doubt seek instructions.

The Contractor shall dispose of all excavated material to a suitably licensed disposal facility to the satisfaction of the Engineer.

8.3 Water

All excavations shall be kept free of standing water by pumping, temporary drainage, well point dewatering or by whatever means are necessary. It is the Contractor's responsibility to organise and determine a strategy for the discharge of this water.

Any existing land drains, springs and other waterways should be temporarily diverted as necessary and if possible reinstated on completion. If not possible to reinstate, obtain instructions. Environment Agency approval/permissions maybe required.

8.4 Formations generally

The Contractor shall inform the CA when the formation is ready for inspection. The last 150mm of excavation should be carried out just before inspection and filling/concreting. No fill or concrete shall be placed until approval is given.

The Contractor shall avoid damage to the formation from any means whatsoever, and any damage shall be made good by further excavation and filling at no cost to the Contract. Unless otherwise directed such filling shall be:-

- For roads, concrete slabs etc
  - Sub-base material of similar nature and compaction to the sub-base fill above formation.
- For foundation pits and trenches
  - 15 : 1 lean concrete, 75mm slump.

Before placing of sub-base or concrete the formation is to be free from wet material, mud, slurry or otherwise unsuitable material. The surface shall be compacted if required by the Contract.

8.5 Benching

Surfaces of excavations with a gradient greater than 1 in 5 which are to receive filling must have horizontal benches cut to match the depths of compacted layers of filling.

8.6 Existing pits

Any historic pits encountered during excavation shall have all fill material, rubbish etc, removed from them, and broken out.

All pits and tanks, shall then be filled as described later in this Specification.

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The Contractor shall dispose of all excavated material to a suitably licensed disposal facility to the satisfaction of the CA.

8.7 Foundation levels not given

Where no levels for foundations are given, for instance in the case of strip footings or trench fill, excavation shall be extended to the following, whichever is the deeper;-

a) to permit the foundation to bear on ground of type and/or safe bearing capacity as described on the drawings.

b) to comply with minimum depth requirement as stated on the drawing.

Trench bottoms shall be level or stepped as necessary to comply with Building Regulations.

8.8 Blinding concrete

Unless stated otherwise, all reinforced concrete foundations shall be provided with 50mm Grade C10 concrete blinding. The blinding concrete is to be carefully placed to give a firm clean level surface on which to place reinforcement etc.

8.9 Trench fill

Excavations for trench fill type foundations shall be cut as neatly as possible to the minimum width shown on the drawings and concreted as soon as possible after cutting, subject to inspection requirements.

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9. EARTHWORKS - FILLING

9.1 Placing fill generally

Excavations and areas to be filled should be free from loose soil, rubbish and water.

Fill shall not be placed on frozen ground.

All necessary precautions shall be taken to ensure stability of adjacent structures. Fill shall be placed and compacted against structures, membranes or buried services in a sequence and manner which ensure stability and avoid damage.

Plant employed for the transporting, laying and compacting must be suited to the type of material.

Differing materials shall be laid separately so that only one type of material occurs in each layer.

9.2 Benching of fill

Where, during the progress of the work, the difference in level between adjacent areas of filling exceeds 600mm, the Contractor shall cut into the edge of the higher filling to form benches having a minimum width of 600mm and a height equivalent to the depth of a layer of compacted filling. New filling shall be spread and compacted to ensure maximum continuity with the previous filling.

9.3 Types of fill

The fill material to be used is described on the drawings, and will be one of the materials in the schedule below;-

- Acceptable excavated sub-soil material as defined in DoT Specification for Highway Works Clause 601. The largest pieces shall have a maximum dimension not exceeding 100mm.
- Granular filling material which may be excavated material or imported but shall be clean and inert, evenly graded, 75mm to dust, crushed or broken rock such as granite, sandstone or limestone or weathered upper rock, rock overburden or sand/gravel.
- Type 1 or Type 2 sub-base material to DoT Specification. Clauses 803 or 804 `respectively.
- 15:1 lean concrete.

9.4 Unacceptable material

Unacceptable material Class U1 or U2 as defined in the DoT Specification Clause 601 shall not be used in the Permanent Works.

9.5 Spreading and compaction of fill in trenches and pits

Lean concrete shall be supplied with 75mm slump so as to be self compacting. Soil or granular filling materials shall be fully compacted in layers not greater than 150mm thick after compaction. Unless stated otherwise on the drawings compaction shall be with 8 passes of a vibrating roller of mass/metre width of roll not less than 700kg (or equivalent approved compaction method).

9.6 Excavation supports

Excavation supports shall be carefully removed as filling proceeds (except where such support is required to be left in position) but stability of the trench sides and adjacent ground must be

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maintained. The space left by the withdrawal of support shall be filled in the manner of the main fill.

9.7 Acceptability of fill in trenches and pits

The compacted fill should have a bearing capacity and stability at least equal to that of the adjacent undisturbed sub-grade. Where settlement, deterioration, inspection or test results indicate that the fill is not equal to the adjacent sub-grade such additional work necessary to produce a final reinstatement equal in capacity, performance and condition to that which existed before disturbance shall be carried out to the satisfaction of the CA at no extra cost to the Contract.

9.8 Granular sub-base material below rafts, slabs, roads, etc.

Unless stated otherwise on the drawings, granular sub-base material shall be DoT Type 1 or Type 2 material in accordance with clauses 803 and 804 of the DoT Specification for Highway Work.

Compaction of the sub-base material shall be as stated in the Contract. Other equivalent methods of compaction may be used, subject to the written agreement of the CA.

Where the formation is wet or where directed by the CA, the first 150mm layer of granular sub-base material should be 75mm single size material.

9.9 Sand blinding

The top of the compacted sub-base should be blinded with a thin layer of sand or fine gravel, sufficient only to fill the irregularities in the surface of the fill.

9.10 Fill to old cellars, pits, etc

Unless stated otherwise on the drawings, or directed by the CA, existing cellars, pits etc, shall be filled with granular sub-base material, compacted in 150mm layer by 8 passes of a vibrating roller of mass/metre width of roll not less than 700kg. (or other equivalent method approved by the CA).

9.11 Testing

The CA may at any time order comparative field density tests determined in accordance with BS1377 Test No. 15 on material which they considered has been inadequately compacted. If the test results, when compared with the results of similar tests made on adjacent approved work in similar materials compacted to specification show the state of compaction to be inadequate, the Contractor shall carry out at their expense such further work as the CA may decide is required to comply with the terms of the Contract.

9.12 Filling of excavations adjacent to existing foundations

Unless directed otherwise, any excavation within a line drawn at 45º from the nearest point of the underside of an existing foundation (new or old) shall be backfilled with 15:1 lean concrete 75mm slump. In these circumstances excavation, should be kept to a reasonable minimum. No payment will be due for concrete fill to excess excavation.

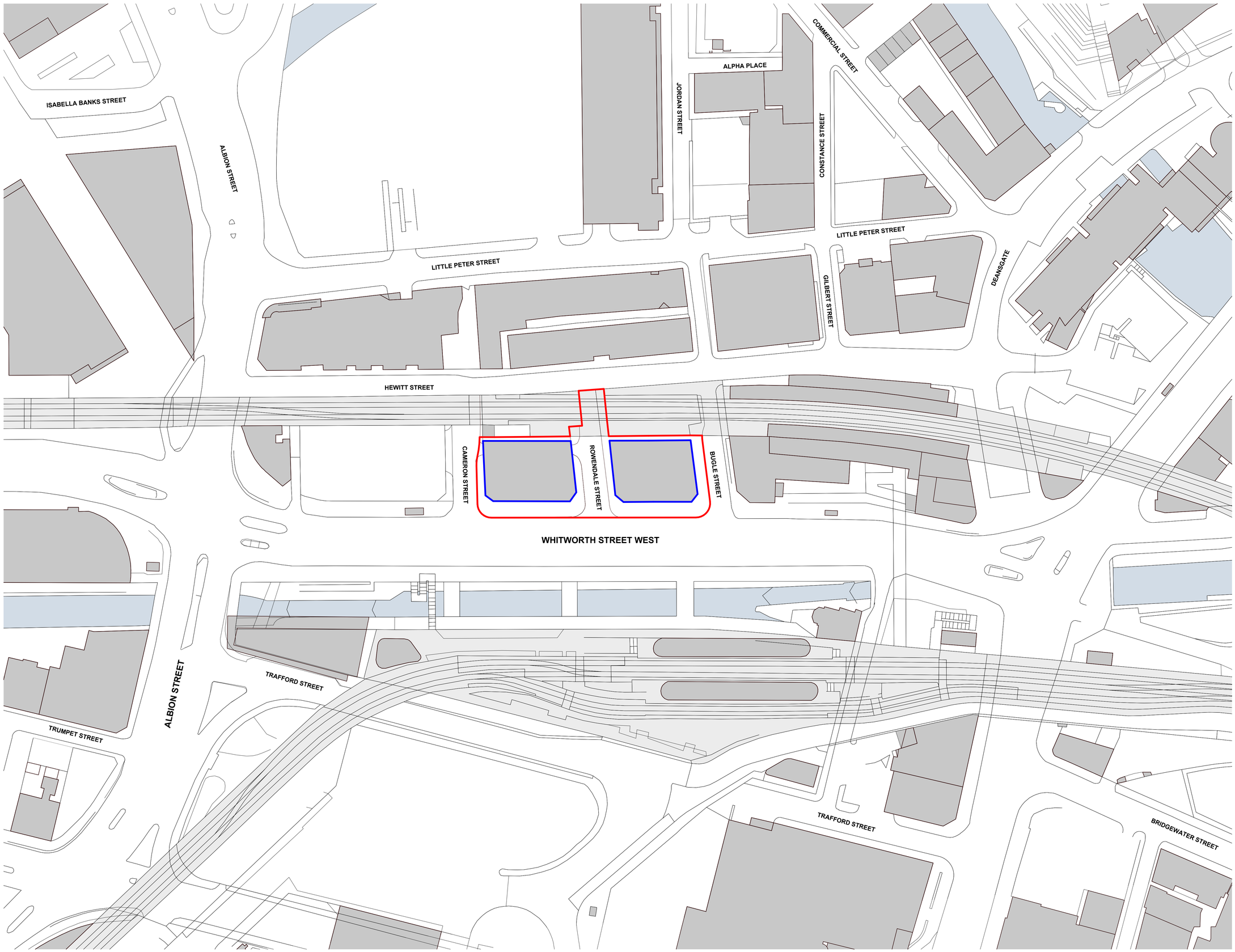
9.13 Soluble sulphate content (SO3)

The soluble sulphate content (SO_3) of imported materials for filling under concrete slabs or within 1m of substructures must not exceed 1.0g/litre when tested to BS1377, Test 10, using a 2:1 water extract. If required by the Engineer, the Contractor shall carry out such a test and obtain approval.

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APPENDIX A
SITE LOCATION PLAN

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A1

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DO NOT SCALE FROM THIS DRAWING
The contractor shall check and verify all dimensions on site and report any discrepancies in writing to Sheppard Robson before proceeding work

FOR ELECTRONIC DATA ISSUE
Electronic Data / drawings are issued as "read only" and should not be interrogated for measurement. All dimensions and levels should read, only from those values stated in text on the drawing.

NOTES

KEY

- Application Boundary
- Ownership Boundary

REVISIONS

REV.	DATE	AMENDMENT
P01	18/11/24	Issued for Planning

KEYPLAN

CLIENT
Glenbrook WWS Limited

SHEPPARD ROBSON

77 Parkway Camden Town London NW1 7PU
T: +44 (0)20 7504 1700 E: enquiries@sheppardrobson.co.uk

PROJECT
2-4 Whitworth Street West

SCALE@A1	DATE	ORIGINATOR	CHECKED	AUTHORISED
1 : 500	18/11/24	MT	PC	TOB

DESCRIPTION
Site Plan
Existing

STAGE
Stage 2

STATUS	PURPOSE FOR ISSUE	SR NO.
S2	Planning	7196

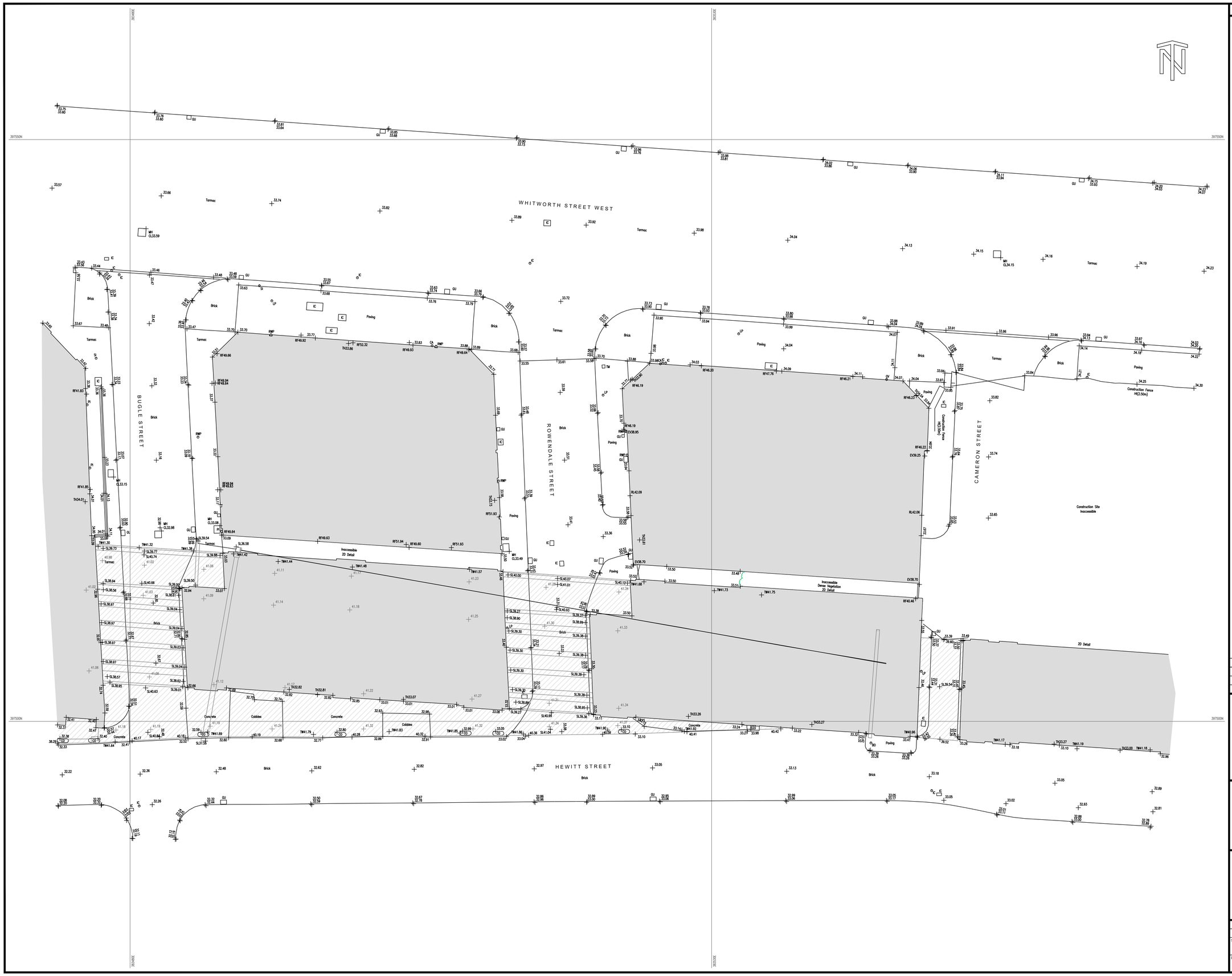
DRAWING NO.	REV.
7196-SRA-XX-XX-DR-A-02010	P01

APPENDIX B
DEMOLITION PLANS

DRAFT

APPENDIX C
TOPOGRAPHICAL SURVEY

DRAFT



NOTES

KEY

Grid & Datum - Local Plane Grid related to OS National Grid & Datum
By GNSS RTK Observations

STANDARD ABBREVIATIONS

STREET FURNITURE

A/C - AIR CONDITIONING
AE - AERIAL
AL - ALARM
AV - AIR VALVE
BA - BIOTHARCY AID
BB - BUILDING BEACON
BD - BUILDING DIVIDE
BH - BOREHOLE
BI - BOLLARD ILLUMINATED
BL - BASEMENT LIGHT
BO - BOLLARD
BP - BOUNDARY POST
BR - BOULDER
BS - BUS STOP
BU - BUSH
CA - CABLE
CB - CONTROL BOX
CC - CLOSE CIRCUIT TV
CIB - CIGARETTE BIN
Col - COLUMN
CT - CLOSE CIRCUIT TV POLE
DP - DOWN PIPE
DR - DRAIN
Dr Ch - DRAINAGE CHANNEL
DU - DUCT
EL - ELECTRIC
EP - ELECTRICITY POLE
ER - EARTH ROD
FA - FENDOR ANCHOR
FB - FLOWER BED
FH - FIRE HYDRANT
FL - FLOODLIGHT
FS - FLAG STAFF
GA - GAS
GM - GAS METER
G - GIRTH
GP - GATE POST
GU - GULLY
GV - GAS VALVE
Hyd - HYDRANT
IC - INSPECTION COVER
IT - TRAFFIC COVER
JB - JUNCTION BOX
KO - KERB OFFLET
LA - LADDER
LB - LITTER BIN
LC - LIGHTING COLUMN
LI - LIGHT
LP - LAMP POST
MBO - MOORING BOLLARD
MA - MAST
MH - MANHOLE
MI - MILE MARKER
MP - MILE POST
MR - MOORING RING
MW - MONITORING WELL
NP - NAME PLATE
OH - OVERHEAD
OSBM - ORDNANCE SURVEY BENCH MARK
PA - PLAY APPARATUS
PB - PILLAR BOX
PH - PUBLIC HOUSE
PI - PIPE
PL - PLANT
PM - PARKING METER
PN - PLANTER
PO - POST
PP - PETROL PUMP
RH - RIDGE HEIGHT
RS - ROAD SIGN
RI - ROAD SIGN ILLUMINATED
RTW - RETAINING WALL
RWP - RAINWATER PIPE
SA - STANCHION
SC - SPEED CAMERA
SD - SATELLITE DISH
SF - SAFETY FENCE
SG - SIGNAL
SI - SIGN
SI - SIGN ILLUMINATED
SMP - SERVICE MARKER POST
SS - SECURITY SENSOR
ST - STOP TAP
SU - STUMP
SV - STOP VALVE
SW - SWITCHGEAR
SY - STAY
TA - TAP
TBM - TEMPORARY BENCH MARK
TCB - TELEPHONE CALL BOX
TE - TELEPHONE
TM - TICKET MACHINE
TS - TRAFFIC SIGNAL
TP - TELEGRAPH POLE
UTL - UNABLE TO LIFT
VDP - VEHICLE DETECTOR PAD
VP - VENT PIPE
WB - WHEELIE BLOW
WM - WATER METER
WO - WASH OUT
WP - WASTE PIPE

FENCE TYPES

B/W - BARBED WIRE
C/B - CLOSE BOARDED
C/I - CORRUGATED IRON
C/P - CONCRETE PANEL
H/R - HANDRAIL
I/R - IRON RAILING
P/C - POST & CHAIN
P/P - POST & PANEL
P/R - POST & RAIL
PSB - PEDESTRIAN SAFETY BARRIER
P/W - POST & WIRE
W/M - WIRE MESH

LEVELS

+BL43.45 - BED LEVEL
+EV43.45 - EAVE LEVEL
+IL43.45 - INVERT LEVEL
+43.45 - SPOT LEVEL
+RF43.45 - ROOF LEVEL
+RL43.45 - RIDGE LEVEL
+SB43.45 - SOFT BED LEVEL
+SL43.45 - SOFFIT LEVEL
+TH43.45 - THRESHOLD LEVEL
+WL43.45 - WATER LEVEL

SYMBOLS

HEDGE
GATE
BUILDING
TREE CANOPY
CONTROL STATION
EMBANKMENT
TREE
BUSH

Rev	Date	Drawn	Description	Ch'k'd	Appr'd
B	29.05.24	TB	Levels Added To Platform	AM	NDO
A	31.10.23	TB	Client Details Changed	AM	NDO

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T: 0161 973 3495 F: 0161 962 6819
E: mail@ndoliver.com www.ndoliver.com

Client

GLENBROOK WWS LIMITED
UNION
2 - 10 ALBERT SQUARE
MANCHESTER
M2 6LW

Title

2 - 4 WHITEWORTH STREET
MANCHESTER

TOPOGRAPHICAL SURVEY
SHEET 1 OF 1

Surveyed	TB	Drawn	TB	Drawn Date: 20/10/2023
Checked	AM	Approved	NDO	
Scale 1:150 @ A1		Project 12624		Status REV
		CAD File P:\12624\DRAWINGS\12624_001B.DWG		
Drawing No 12624 / 001A / 1				Rev B

APPENDIX D
UTILITY SURVEY

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Grid: OS National Grid
Using the OS GPS Network and applying OSTN15 Transformation and then removing the scale factor for true distances with a one-step transformation centred on **[coordinate]**

Datum: OS Level datum
Using the OS GPS Network and applying OSGM15 National Geoid Model to obtain local area corrections

NOTES

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The data presented in this drawing have been collected using a combination of the following: consultation of utility asset information, visual survey & inspection of surface features, and detection using electromagnetic, ground penetrating radar, and, where applicable, trial hole excavations. These techniques have been deployed in accordance with the BSI PAS128 Specification for Underground Utility Detection, Verification & Location using the detection methodologies indicated below and described in the accompanying report. This drawing should be used in conjunction with the accompanying report which details the limitations of these techniques and any hindering factors encountered during this survey.

Unless otherwise stated, all utilities shown on this plan have been surveyed using approved detectors and the connections between inspection chambers, if unable to be confirmed by physical means, are assumed to be straight unless indicated to the contrary. The detection confidence for each utility segment is depicted in line with the PAS128 scheme outlined below. Information depicted as QL=D or QL=O cannot be guaranteed as it is based on historic utility records which can be inaccurate and incomplete.

The utility routes depicted may reflect the routes of multiple cables or pipes. It is not always possible to differentiate between buried construction features, utilities and natural anomalies. Some utilities may be present but not detected and others shown are not utility related, and due to the limitations of electromagnetic techniques identifications should be treated with caution and verified prior to use during design/building works.

If the location or depth of utilities and features is of particular importance to a project then it is recommended that discussions whether with regarding any possible limitations or anomalies.

Please note that not all buried pipes, cables and ducts can be detected and mapped in consideration of their depth, location, material type, geology and proximity to other buried services. Consequently, no guarantee can be given that this survey will be able to achieve a 100% detection rate. Where an area of utilities is likely to affect client project requirements, it is strongly recommended that a PAS128 Quality Level A verification survey is carried out

No utility mapping survey can be considered a 100% accurate depiction of the sub-surface environment, and the use of these drawings does not remove the requirement for the use of safe digging techniques at all times, in line with the requirements of HSG47 and current UKA regulations.

Station Listing

SUB-SURFACE KEY

- COMBINED HEATING AND POWER
- DISTRICT HEATING
- DRAINAGE COMBINED *
- DRAINAGE FOUL*
- DRAINAGE SURFACE*
- DRAINAGE UNIDENTIFIED*

[* FLOW DIRECTION DENOTED BY ARROW (+) or (-) IF KNOWN]

- ELECTRIC
- ELECTRIC LV
- ELECTRIC HV
- ELECTRIC STREET LIGHTING
- GAS
- OIL/FUEL PIPELINE
- STREET FURNITURE CABLES
- TELECOMS
- TELECOMS - FIBRE OPTIC
- TELECOMS - BT
- TELECOMS - VIRGIN MEDIA
- TRAFFIC CONTROL
- WATER
- UNIDENTIFIED UTILITY
- UNIDENTIFIED CABLES
- UNIDENTIFIED EMPTY DUCT
- GPR LINEAR FEATURE
- GPR AREA ANOMALY
- GPR AREA ANOMALY - REBAR
- CHAMBER EXTENTS
- MEASURED DEPTH BGL TO PIPE/CABLE/DUCT — 0.65d
- INVERT LEVEL OF PIPE/DUCT/CABLE (TO OS DATUM) — IL 12.34
- SOFFIT LEVEL OF PIPE/DUCT/CABLE (TO OS DATUM) — SL 45.67
- COVER LEVEL OF INSPECTION CHAMBER (TO OS DATUM) — CL 78.90
- DIAMETER OF PIPE/DUCT IN MILLIMETERS — 150Ø
- [BGL - BELOW GROUND LEVEL]
- AREA UNABLE TO BE SURVEYED DUE TO SURFACE OBSTRUCTIONS, VEGETATION OR LACK OF ACCESS
- TRENCH SCAR / SURFACE SCAR
- EXTENT OF SURVEY - BOUNDARY

SURVEY KEY

UTILITY CONFIDENCE LEVELS (Listed from High to Low)

(A) HORIZONTAL AND VERTICAL POSITION VERIFIED VISUALLY
(Accuracy: Horizontal (±25mm) Vertical(±50mm))

(B1P) HORIZONTAL AND VERTICAL POSITION DETECTED BY MULTIPLE METHODS WITH POST PROCESSING OF GPR DATA
(Estimated Accuracy: ±150mm OR ±15% of detected depth)

(B1) HORIZONTAL AND VERTICAL POSITION DETECTED BY MULTIPLE METHODS
(Estimated Accuracy: ±150mm OR ±15% of detected depth)

(B2P) HORIZONTAL AND VERTICAL POSITION DETECTED VIA POST-PROCESSED GPR
(Estimated Accuracy: ±250mm OR ±40% of detected depth)

(B2) HORIZONTAL AND VERTICAL POSITION DETECTED BY A SINGLE METHOD
(Estimated Accuracy: ±250mm OR ±40% of detected depth)

(B3P) HORIZONTAL POSITION DETECTED VIA POST-PROCESSED GPR
(Estimated Accuracy: ±500mm in the Horizontal - Depth is undefined)

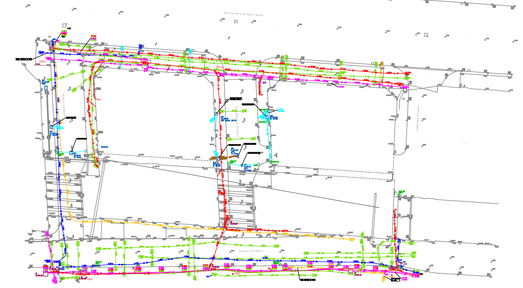
(B3) HORIZONTAL POSITION DETECTED BY A SINGLE METHOD
(Estimated Accuracy: ±500mm in the Horizontal - Depth is undefined)

(C) ROUTE TRANSCRIBED FROM UTILITY ASSET PLANS AND CORRELATED TO VISUAL INDICATORS AND SURFACE FEATURES (Accuracy Undefined)

(D) ROUTE TRANSCRIBED FROM UTILITY ASSET PLANS (Accuracy Undefined)

Rev	Date	Description	Check
-	--/--/----		--

PAS128 SURVEY METHODOLOGY
LOCATION PLAN



GEO
Geographical Engineering Operations

Client
AKT_II
NEO_9_CHARLOTTE_STREET
MANCHESTER_M1_4ET

Site
CAMERON_STREET
FIRST_STREET
CITY_CENTRE_MANCHESTER
M1_5WY

Title
UTILITY_PAS128_SURVEY

Survey by	DH	Drawn by	JAS
Check by	GEO_UK_LTD	Date	JULY_24
Scale	[A0 Sheet] 1:100	DWG Reference/number* G24303	Status FINAL
Project/Job No	G24303		Revision REV_ID

ABBREVIATIONS

AV	AIR VALVE	ELB	ELECTRIC BOX	IL	INVERT LEVEL	SOF	SOFFIT LEVEL
BT	BT INSPECTION COVER	ER	EARTH ROD	KO	KERB OUTLET	SV	STOP VALVE
CB	CONTROL BOX	EP	ELECTRICITY POLE	LP	LAMP POST	TCB	TELEPHONE CALL BOX
CCTV	CCTV CAMERA POST	FFL	FINISHED FLOOR LEVEL	MH	MANHOLE	TL	TRAFFIC LIGHT
COM	COMMS/VIRGIN MEDIA POST	FH	FIRE HYDRANT	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
CP	CAMERA PIT COVER	GI	GULLY	MP	MARKER POST	TLP	TRAFFIC LIGHT POLE
DC	DRAINAGE CHANNEL	GLT	GROUND LIGHT	MTR	WATER METER	WM	WATER METER
DP	DOWN PIPE	GST	GAS TAP	PP	PETROL PUMP	WO	WATER OUTLET
DR	DRAIN	GSV	GAS VALVE	RE	BOLLARD/ EYE	WST	WATER STOP TAP
EIC	ELEC INSPECTION COVER	IC	INSPECTION COVER	RWP	RAINWATER PIPE	WSV	WATER STOP VALVE

EOT	END OF TRACE		
OSA	OUT OF SURVEY AREA		
TBC	TO BE CONFIRMED		
UTS	UNABLE TO SONDE		
UTT	UNABLE TO TRACE		
UTR	UNABLE TO RAISE		
BLK	BLOCKED		
NFH	NO FURTHER GPR CONTACTS		
BD	BACKDROP PIPE		
SD	SURFACE DUCT		
ToP	TOP OF PIPE		
EDT SYMBOL			
SL	SIGNAL LOSS		

FENCE TYPES:

AM	ARMCO	PC	POST & CHAIN
BW	BARBED WIRE	PI	POST & IRON RAIL
CB	CLOSE BOARDED	PR	POST & RAIL
CI	CORRUGATED IRON	PW	POST & WIRE
CL	CHAINLINK	SP	STEEL PALISADE
CS	CHESTNUT PALING	WM	WIRE MESH
IR	IRON RAILING		
IW	INTERWOVEN		

DUCT FORMATION

1W:	1 WAY SINGLE DUCT
2W:	2 WAY FLAT
2W:1/2	2 WAY: 1 WIDE, 2 DEEP
4W:2/2	4 WAY: 2 WIDE, 2 DEEP
6W:3/2	6 WAY: 3 WIDE, 2 DEEP
12W:4/3	12 WAY: 4 WIDE, 3 DEEP

NB: TO BE ADAPTED TO FOR EACH CHAMBER

PAS128 SURVEY METHODOLOGY KEY

THIS SURVEY HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE PAS128 SPECIFICATION FOR UNDERGROUND UTILITY DETECTION, VERIFICATION & LOCATION. THE SPECIFICATION ALLOWS FOR A RANGE OF TECHNIQUES AND METHODS OF VARYING INTENSITY TO BE DEPLOYED. THE COLOUR CODED SCHEME INDICATES WHERE DIFFERENT SURVEY METHODOLOGIES HAVE BEEN USED ON SITE, AND THE LIST BELOW IDENTIFIES EQUIPMENT USED TO OBTAIN THE SURVEY RESULTS.
NB: PLEASE SEE ACCOMPANYING REPORT FOR FULL DETAILS

ELECTROMAGNETIC DETECTION	GROUND PENETRATING RADAR	TOTAL STATION	GPS/GNSS
Equipment name	Equipment name	Equipment name	Equipment name
Equipment name	Equipment name	Equipment name	Equipment name
Equipment name	Equipment name	Equipment name	Equipment name

M4P - EML SEARCH TRANSECT AT 2m INTERVALS - TRACED AT 0.5m INTERVALS. GPR SURVEY GRID AT 0.5m INTERVALS OR HIGH DENSITY ARRAY. POST PROCESSING OF GPR DATA.

M3P - EML SEARCH TRANSECT AT 2m INTERVALS - TRACED AT 1m INTERVALS. GPR SURVEY GRID AT 1m INTERVALS OR HIGH DENSITY ARRAY. POST PROCESSING OF GPR DATA.

M2P - EML SEARCH TRANSECT AT 5m INTERVALS - TRACED AT 2m INTERVALS. GPR SURVEY GRID AT 2m INTERVALS OR HIGH DENSITY ARRAY. POST PROCESSING OF GPR DATA.

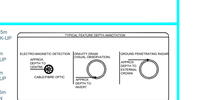
M1P - EML SEARCH TRANSECT AT 10m INTERVALS - TRACED AT 5m INTERVALS. GPR SURVEY AS APPROPRIATE. POST PROCESSING OF GPR DATA.

M4 - EML SEARCH TRANSECT AT 2m INTERVALS - TRACED AT 0.5m INTERVALS. GPR SURVEY GRID AT 0.5m INTERVALS. GPR MARK-UP ON SITE.

M3 - EML SEARCH TRANSECT AT 2m INTERVALS - TRACED AT 1m INTERVALS. GPR SURVEY GRID AT 1m INTERVALS. GPR MARK-UP ON SITE.

M2 - EML SEARCH TRANSECT AT 5m INTERVALS - TRACED AT 2m INTERVALS. GPR SURVEY GRID AT 2m INTERVALS. GPR MARK-UP ON SITE.

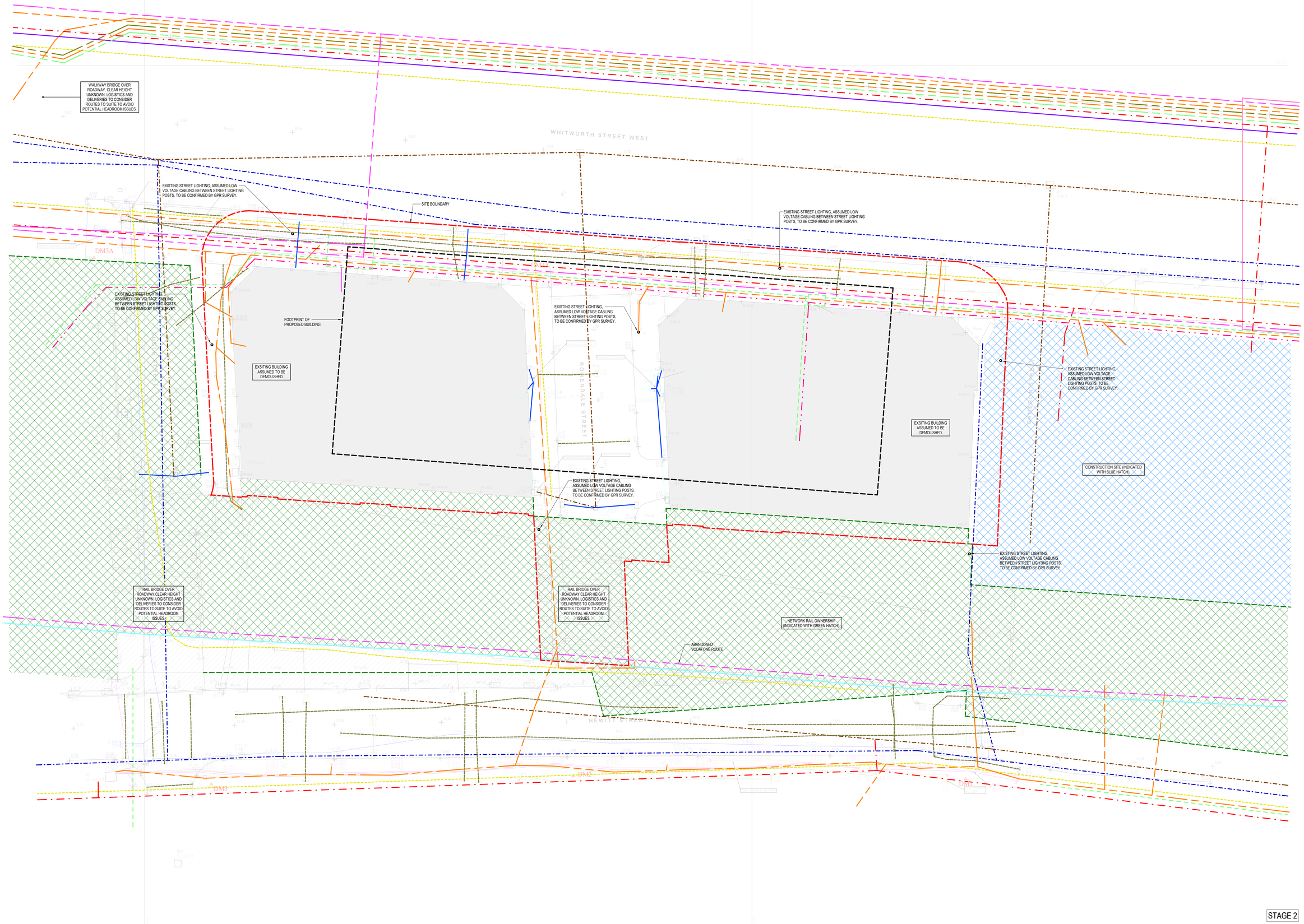
M1 - EML SEARCH TRANSECT AT 10m INTERVALS - TRACED AT 5m INTERVALS. GPR SURVEY AS APPROPRIATE. GPR MARK-UP ON SITE.



APPENDIX E

SITE CONSTRAINTS DRAWINGS

DRAFT



NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.

LEGEND

- COMMUNICATIONS
- ELECTRICAL (LOW VOLTAGE)
- ELECTRICAL (33kV)
- ELECTRICAL (6kV - 6.6kV)
- EXISTING OBSTRUCTION
- RAIL CABLE (OVERHEAD)
- CW / FW CABLE
- OPENREACH (BT)
- COMBINED WATER
- SURFACE WATER
- CADENT GAS
- VIRGIN MEDIA
- SKY TV
- NETWORK RAIL
- VODAFONE
- UNIDENTIFIED UTILITY
- SITE BOUNDARY

EXISTING UTILITY INFORMATION SHOWN TAKEN FROM ASSET INFORMATION & GEOGRAPHICAL ENGINEERING OPERATIONS SURVEY INFORMATION (G24303).

STAGE 2

REV	DATE	DESCRIPTION	BY	CHECKED
P02	02.09.24	STAGE 2 ISSUE	RT	JB
P01	15.08.24	STAGE 2 DRAFT ISSUE	RT	JB

WHERE DIGITAL MODELS/FILES ARE ISSUED, THESE ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTUAL DRAWING/INFORMATION PRODUCED BY AKT II UNDER OUR APPOINTMENT ARE LIMITED TO THE 2D PDF DRAWING FILES/PAPER COPIES. WITH RESPECT TO DESIGN COORDINATION AND DIMENSIONAL SETTING OUT.

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E info@akt-uk.com
W www.akt-uk.com

GLENBROOK

CLIENT

2-4 WHITWORTH STREET
MANCHESTER

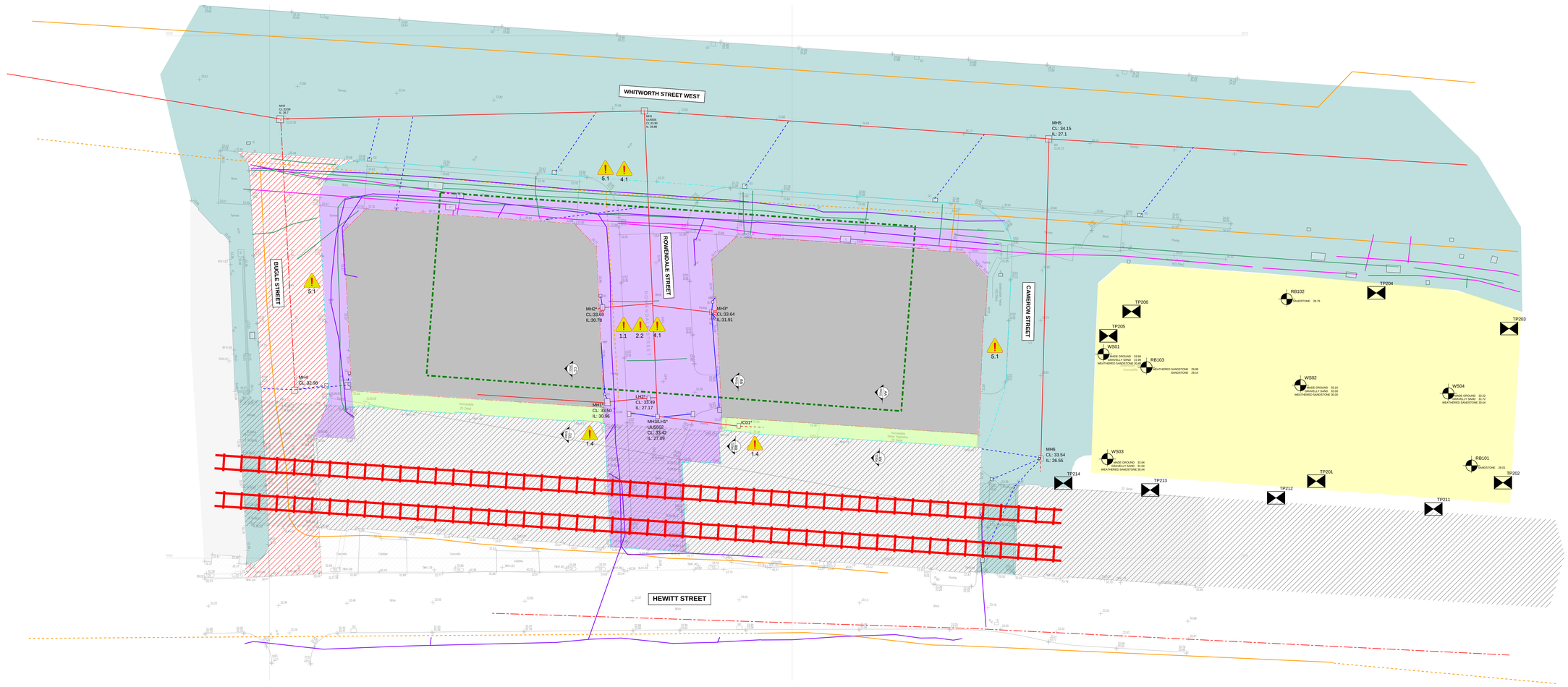
PROJECT

SITE CONSTRAINTS

TITLE

RT	10.05.24	SS	A0
DRAWN BY	DRAWN DATE	CHECKED BY	PAPER SIZE
5822	STAGE 2	S4	1:100
AKT PROJECT No.	PROJECT STAGE	STATUS CODE	SCALE

5822 AKT ZZ ZZ DR S 01000 P02
PROJECT ID | ORIGINATOR | ZONE | LEVEL | TYPE | ROLE | DRAWING No. | REVISION



NOTES:

1. THIS DRAWINGS PROVIDES A SUMMARY OF THE CIVIL AND STRUCTURAL RELATED SITE RISK AND CONSTRAINTS TO BE CONSIDERED WITHIN THE DESIGN AND CONSTRUCTION OF THE PROPOSED DEVELOPMENT. THE INFORMATION SHOWN ON THIS DRAWING IS BASED UPON AVAILABLE SURVEY INFORMATION AVAILABLE AT THE TIME OF PRODUCTION. THE INFORMATION IS HIGH-LEVEL ONLY AND NOT EXHAUSTIVE. WHERE REQUIRED DETAILED SURVEYS AND SPECIALISTS SHOULD BE APPOINTED BY THE CLIENT TO MANAGE THE RISKS.

2. DO NOT SCALE FROM THIS DRAWING. WHERE FEATURES AND LOCATIONS ARE INDICATED THESE ARE APPROXIMATE ONLY AND ARE BASED ON ARCHIVE INFORMATION THAT MAY BE INACCURATE. WHERE EXACT LOCATIONS ARE REQUIRED THE MAIN CONTRACTOR OR THIRD PARTIES ARE TO REFER TO THE TOPOGRAPHICAL SURVEYS ETC. AND UNDERTAKE THEIR OWN SITE CHECKS OR FURTHER INVESTIGATION.

3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE LATEST VERSION OF RELEVANT THIRD PARTY REPORTS AND ASSESSMENTS. THIS SHOULD INCLUDE, BUT IS NOT LIMITED TO:
   - UXO DETAILED RISK ASSESSMENT
   - TOPOGRAPHICAL SURVEY
   - UTILITIES SCAN SURVEY
   - GPR SCAN
   - SITE INVESTIGATION REPORTS
   - SITE REMEDIATION REPORT

   WHERE THIS INFORMATION IS NOT YET AVAILABLE THE RELEVANT SURVEYS AND THIRD PARTIES SHOULD BE COMMISSIONED BY THE CLIENT AND MAIN CONTRACTOR. WHERE SUBCONTRACTORS ARE UNDERTAKING WORKS ON SITE THEY SHOULD REQUEST THIS INFORMATION FROM THE MAIN CONTRACTOR. IF IT HAS NOT BEEN PROVIDED, AND INCORPORATE MITIGATION MEASURES INTO THEIR WORKING METHODOLOGY.

4. ALL BOUNDARIES AND EXTENTS ARE APPROXIMATE ONLY AND REFERENCE SHOULD BE MADE TO DETAILED LEGAL OWNERSHIP PLAN, EASEMENT PLAN, UTILITIES PLANS AND OTHER DOCUMENT WHERE REQUIRED.

KEY

- INDICATES APPROXIMATE OWNERSHIP LINE
- INDICATES APPROXIMATE EXTENT OF NEW TOWER DEVELOPMENT
- INDICATES APPROXIMATE EXTENT OF PLANNING BOUNDARY
- +33.59 INDICATES EXISTING GROUND LEVEL
- INDICATES EXISTING 1900'S BUILDING STRUCTURE. REFER TO ND OLIVER & CO SURVEY DRAWINGS TOPOGRAPHICAL SURVEY DRAWINGS REFERENCE 12624 / 001A / 1 DATED 20 OCTOBER 2023 FOR DETAILS
- INDICATES APPROXIMATE EXTENT OF AREA UNDER MCC OWNERSHIP (HIGHWAYS)
- INDICATES APPROXIMATE EXTENT OF AREA OF ROAD TO BE STOPPED UP. CURRENTLY UNDER MCC OWNERSHIP (HIGHWAYS)
- INDICATES EXTENT OF AREA OF UNKNOWN OWNERSHIP (TBC)
- INDICATES EXTENT OF ADJACENT SITE '10 12 WHITWORTH STREET WEST' PROPOSED FOR DEVELOPMENT
- INDICATES APPROXIMATE LOCATION OF NETWORK RAIL ASSET (EXISTING MASONRY VIADUCT ARCHES).
- INDICATES APPROXIMATE LOCATION OF NETWORK RAIL ASSET (BUGLE STREET).
- RB101 INDICATES APPROXIMATE LOCATION OF EXISTING ROTARY CORED BOREHOLES. REFER TO RoC CONSULTING PHASE 2 GEO-ENVIRONMENTAL REPORT REF: JB/AS/p2t 3056 R1 DATED APRIL 2016
- WS01 INDICATES WINDOW SAMPLING. REFER TO RoC CONSULTING PHASE 2 GEO-ENVIRONMENTAL REPORT REF: JB/AS/p2t 3056 R1 DATED APRIL 2016
- TP200 INDICATES TRIALPITS. REFER TO RoC CONSULTING PHASE 2 GEO-ENVIRONMENTAL REPORT REF: JB/AS/p2t 3056 R1 DATED APRIL 2016
- INDICATES APPROXIMATE LOCATION OF RAILWAY TRACKS. CENTRELINE OF NEAREST TRACK IS 9m FROM PROPOSED TOWER STRUCTURE
- INDICATES APPROXIMATE LOCATION OF BT CABLES. SOLID LINE SURVEYED. DASHED LINE INDICATIVE ONLY
- INDICATES APPROXIMATE LOCATION OF UNIDENTIFIED SERVICE TRACE
- INDICATES EXISTING FOUL WATER DRAWING REFER TO GEO SURVEY DRAWINGS REFERENCE G24303. SOLID LINE SURVEYED. DASHED LINE INDICATIVE ONLY
- INDICATES EXISTING SURFACE WATER DRAWING REFER TO ND OLIVER & CO SURVEY DRAWINGS REFERENCE 12624 / 001A / 1
- INDICATES APPROXIMATE LOCATION OF UNITED UTILITIES COMBINED SEWERS. REFER TO CCTV SURVEY - REPORT REF: LS6042, 22/06/2025SOLID LINE SURVEYED. DASHED LINE INDICATIVE ONLY
- INDICATES APPROXIMATE LOCATION OF LOW PRESSURE GAS MAIN. SOLID LINE SURVEYED. DASHED LINE INDICATIVE ONLY
- INDICATES APPROXIMATE LOCATION OF ELECTRIC CABLES. SOLID LINE SURVEYED. DASHED LINE INDICATIVE ONLY
- MH3/LH1* WHERE SECOND REFERENCE IS SHOWN FOR A MANHOLE OR A LAMPHOLE, THE FIRST REFERENCE IS BASED ON THE INITIAL CCTV SURVEY DATED MAY.25, THE ASTERISK REFERENCE RELATES TO THE SUPPLEMENTARY SURVEY DATED DEC.25.

HEALTH AND SAFETY NOTES:
IN ADDITION TO THE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH WORKS OF THIS NATURE, NOTE THE FOLLOWING ABNORMAL RISKS IDENTIFIED. REFER TO CDM REGISTER WSW-REN-XX-XX-HS-S-00001

1.4 **DAMAGE TO NETWORK RAIL ASSET DUE TO VIBRATION OR GROUND MOVEMENT**
MAIN CONTRACTOR IS TO ADOPT METHODS OF WORKING THAT LIMIT VIBRATIONS TO ACCEPTABLE LIMITS. VIBRATIONS AND MOVEMENTS SHOULD BE MONITORED DURING CONSTRUCTION AGAINST THE VIBRATION LIMITS DEFINED BY THE ACOUSTICIAN AND THE ANTICIPATED GROUND MOVEMENTS CALCULATED BY THE GEOTECHNICAL SPECIALIST.

4.1 **DAMAGE TO EXISTING UU ASSET**
CLIENT TO OBTAIN S185 OR S116 AGREEMENT FOR DIVERSION OR ABANDONMENT OF EXISTING SEWER WITHIN PROPOSED BUILDING FOOTPRINT AND ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AFOREMENTIONED AGREEMENTS.

5.1 **COLLAPSE OF HIGHWAY DURING EXCAVATION TO FORM SUBSTRUCTURE**
WHERE DEEP EXCAVATION IS REQUIRED ADJACENT TO THE HIGHWAY, TEMPORARY WORKS ARE TO BE PROVIDED AND AGREED WITH THE TEMPORARY WORKS COORDINATOR.

1.1 **UNEXPLODED ORDNANCE RISK**
THE ZETICA UXO MAP IDENTIFIES THE SITE AS BEING WITHIN AN AREA OF LOW RISK. A PRELIMINARY UXO RISK ASSESSMENT BY BRIMSTONE SITE INVESTIGATION LTD CONFIRMED THAT THE AREA EXPERIENCED LOW TO MODERATE BOMBING DURING WWII, WITH THE NEAREST RECORDED IMPACT APPROXIMATELY 70M TO THE SOUTH-WEST (LIKELY ASSOCIATED WITH DEANSGATE STATION). HOWEVER, THE POSSIBILITY OF UXO REMAINING ON SITE CANNOT BE COMPLETELY RULED OUT AT DESKTOP STAGE. ALL PERSONNEL ENGAGED IN GROUNDWORKS SHALL BE PROVIDED WITH A UXO SAFETY BRIEFING AS A PRECAUTIONARY MEASURE.

2.2 **REMNANT FOUNDATIONS & DRAINAGE**
THE 1900'S LOADBEARING MASONRY BUILDINGS ON THE SITE WOULD HAVE BEEN SUPPORTED ON MANSONRY STRIP FOOTING WITHIN THE BEDROCK. THE EXTENT OF REMNANT FOUNDATIONS AND FOUNDATIONS LEFT INSITU FOLLOWING THE DEMOLITION OF THE BUILDINGS ON SITE IS TO BE CONFIRMED BY THE CLIENT AND DEMOLITION CONTRACTOR. THE MAIN CONTRACTOR IS TO ALLOW FOR PROOF DIGGING AND REMOVING OBSTRUCTIONS PRIOR TO PILING WORKS. THE MAIN CONTRACTOR IS ALSO TO ALLOW FOR REMOVAL OR CORING THROUGH SUBSTANTIAL OBSTRUCTION IN THE GROUND TO ALLOW FOR THE INSTALLATION OF THE PERMANENT WORKS.

P04	INCORPORATE DRAINAGE SUPPLEMENTARY SURVEY	15.12.25	OG	AED
P03	ADDED SECTION MARKERS	09.12.25	OG	AED
P02	UPDATED HIGHWAY OWNERSHIPS	11.09.25	OG	AED
P01	RIBA STAGE 4	22.08.25	OG	AED
Rev:	Description:	Date:	By:	Chkd:

renaissance
Renaissance Associates Ltd
2nd Floor Tribeca House,
21-27 Dale Street,
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Project:
2-4 WHITWORTH STREET WEST

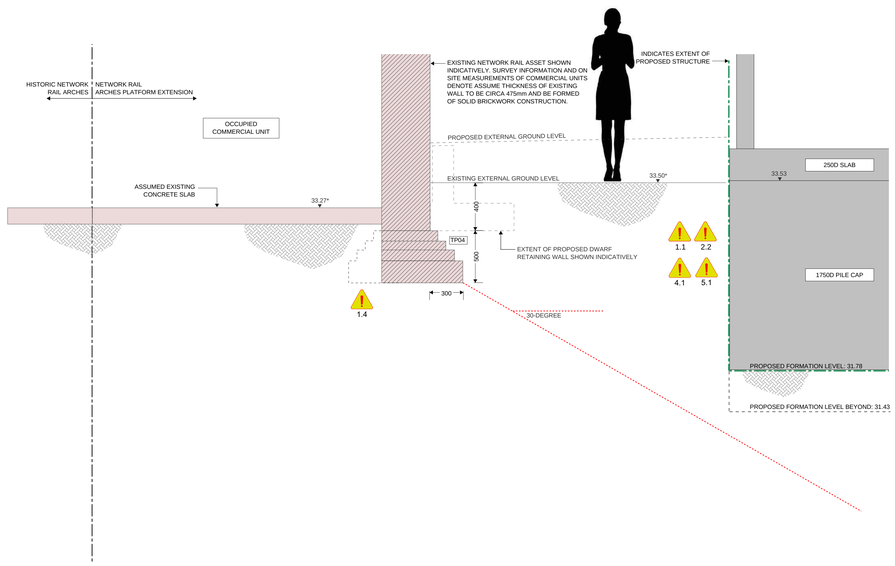
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SITE CONSTRAINTS PLAN

Status:
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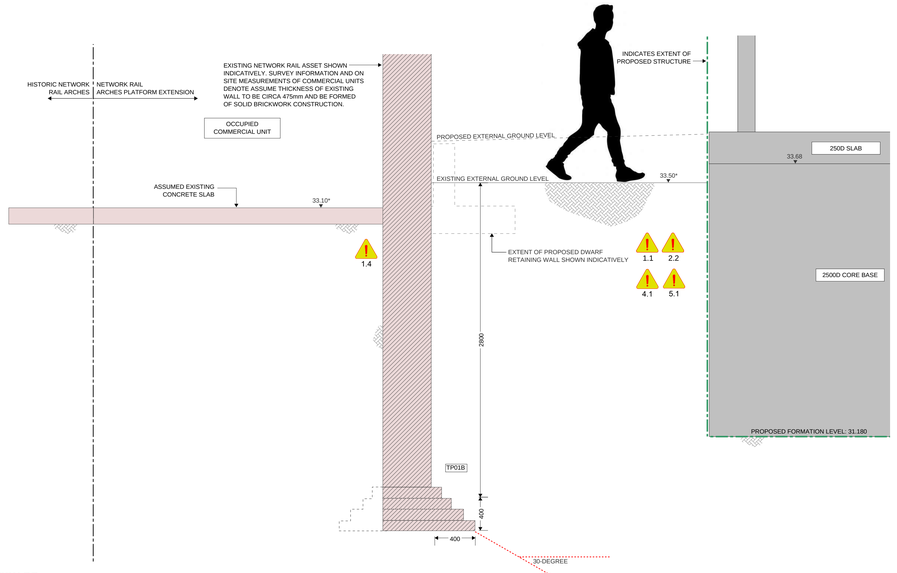
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Scale: 1:150 Project No: 2506-18

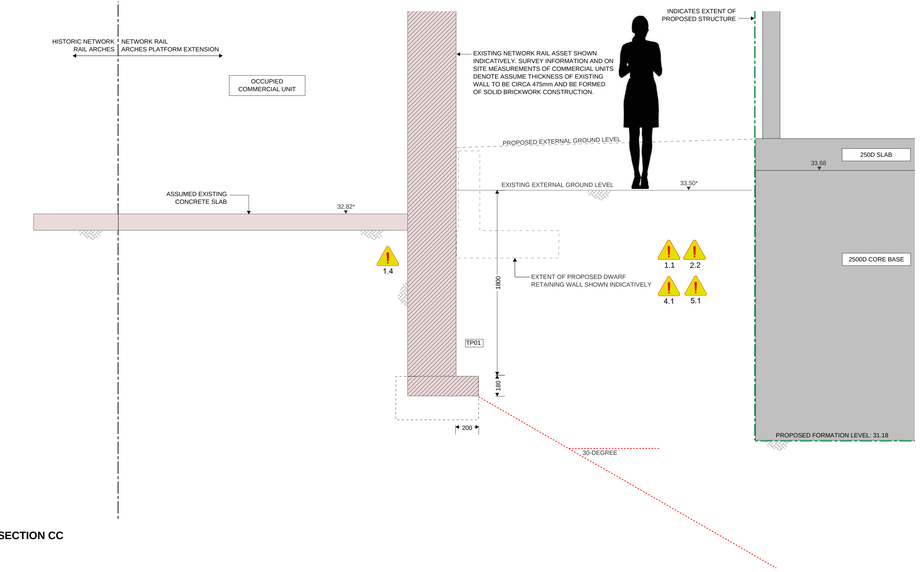
Project:	Originator:	Volume:	Level:	Type:	Role:	Category/Number:	Rev:
WSW	REN	XX	ZZ	DR	C	00020	P04



SECTION AA



SECTION BB



SECTION CC

HEALTH AND SAFETY NOTES:
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4.1 **DAMAGE TO EXISTING UU ASSET**
CLIENT TO OBTAIN S185 OR S116 AGREEMENT FOR DIVERSION OR ABANDONMENT OF EXISTING SEWER WITHIN PROPOSED BUILDING FOOTPRINT AND ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AFOREMENTIONED AGREEMENTS.

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2.2 **REMNANT FOUNDATIONS & DRAINAGE**
THE 1900'S LOADBEARING MASONRY BUILDINGS ON THE SITE WOULD HAVE BEEN SUPPORTED ON MANSONRY STRIP FOOTING WITHIN THE BEDROCK. THE EXTENT OF REMNANT FOUNDATIONS AND FOUNDATIONS LEFT INSITU FOLLOWING THE DEMOLITION OF THE BUILDINGS ON SITE IS TO BE CONFIRMED BY THE CLIENT AND DEMOLITION CONTRACTOR. THE MAIN CONTRACTOR IS TO ALLOW FOR PROOF DIGGING AND REMOVING OBSTRUCTIONS PRIOR TO PILING WORKS. THE MAIN CONTRACTOR IS ALSO TO ALLOW FOR REMOVAL OR CORING THROUGH SUBSTANTIAL OBSTRUCTION IN THE GROUND TO ALLOW FOR THE INSTALLATION OF THE PERMANENT WORKS.

NOTES:

1. THIS DRAWINGS PROVIDES A SUMMARY OF THE CIVIL AND STRUCTURAL RELATED SITE RISK AND CONSTRAINTS TO BE CONSIDERED WITHIN THE DESIGN AND CONSTRUCTION OF THE PROPOSED DEVELOPMENT. THE INFORMATION SHOWN ON THIS DRAWING IS BASED UPON AVAILABLE SURVEY INFORMATION AVAILABLE AT THE TIME OF PRODUCTION. THE INFORMATION IS HIGH-LEVEL ONLY AND NOT EXHAUSTIVE. WHERE REQUIRED DETAILED SURVEYS AND SPECIALISTS SHOULD BE APPOINTED BY THE CLIENT TO MANAGE THE RISKS.
2. DO NOT SCALE FROM THIS DRAWING. WHERE FEATURES AND LOCATIONS ARE INDICATED THESE ARE APPROXIMATE ONLY AND ARE BASED ON ARCHIVE INFORMATION THAT MAY BE INACCURATE. WHERE EXACT LOCATIONS ARE REQUIRED THE MAIN CONTRACTOR OR THIRD PARTIES ARE TO REFER TO THE TOPOGRAPHICAL SURVEYS ETC. AND UNDERTAKE THEIR OWN SITE CHECKS OR FURTHER INVESTIGATION.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE LATEST VERSION OF RELEVANT THIRD PARTY REPORTS AND ASSESSMENTS. THIS SHOULD INCLUDE, BUT IS NOT LIMITED TO:
   - UXO DETAILED RISK ASSESSMENT
   - TOPOGRAPHICAL SURVEY
   - UTILITIES SCAN SURVEY
   - GPR SCAN
   - SITE INVESTIGATION REPORTS
   - SITE REMEDIATION REPORT

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KEY

- INDICATES APPROXIMATE EXTENT OF NEW TOWER DEVELOPMENT
- **+33.59*** INDICATES EXISTING LEVEL REFER TO ND OLIVER & CO SURVEY DRAWINGS 'TOPOGRAPHICAL SURVEY' DRAWINGS REFERENCE 12624 / 001A / 1 DATED 20 OCTOBER 2023
- INDICATES EXISTING NETWORK RAIL ASSET. FOR EXTENT AND FORM OF FOUNDATIONS REFER TO IGE VACUUM EXCAVATION PIT INFORMATION.
- INDICATES PROPOSED SUBSTRUCTURE AND SUPERSTRUCTURE

Rev	Description	Date	By	Chkd
P03	GATEWAY SUBMISSION (COORDINATED LEVELS)	15.01.26	OG	AED
P02	GATEWAY SUBMISSION	06.01.26	OG	AED
P01	RIBA STAGE 4	09.12.25	OG	AED

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Project:
2-4 WHITWORTH STREET WEST

Drawing Title:
SITE CONSTRAINTS SECTIONS

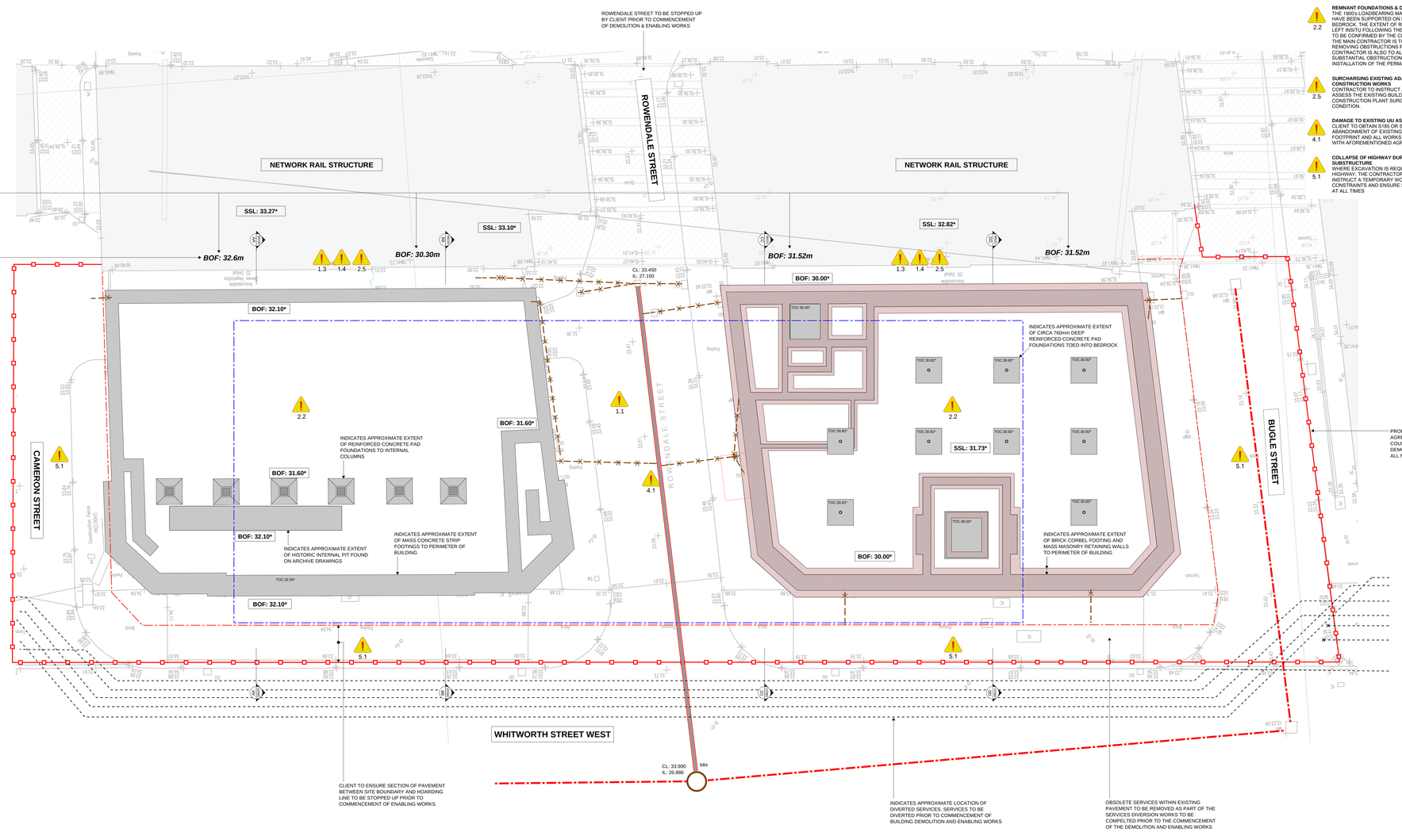
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RIBA STAGE 4

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A0	DEC 25	OG	-	AED

Scale: 1:150 Project No: 2506-18

Project: Originator: Volume: Level: Type: Role: Category/Number: Rev:

WSW-REN-XX-ZZ-DR-C-00021-P03



HEALTH AND SAFETY NOTES:
IN ADDITION TO THE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH WORKS OF THIS NATURE, NOTE THE FOLLOWING ABNORMAL RISKS IDENTIFIED. REFER TO CDM REGISTER WSW-REN-XX-XX-RS-S-00001

1.1 **UNEXPLODED ORDNANCE RISK**
THE ZETICA UXO MAP IDENTIFIES THE SITE AS BEING WITHIN AN AREA OF LOW RISK, A PRELIMINARY UXO RISK ASSESSMENT BY BRIMSTONE SITE INVESTIGATION LTD CONFIRMED THAT THE AREA EXPERIENCED LOW TO MODERATE BOMBING DURING WWII, WITH THE NEAREST RECORDED IMPACT APPROXIMATELY 75M TO THE SOUTH-WEST (LIKELY ASSOCIATED WITH DEANSGATE STATION). HOWEVER, THE POSSIBILITY OF UXO REMAINING ON SITE CANNOT BE COMPLETELY RULED OUT AT DESKTOP STAGE. ALL PERSONNEL ENGAGED IN GROUNDWORKS SHALL BE PROVIDED WITH A UXO SAFETY BRIEFING AS A PRECAUTIONARY MEASURE.

1.3 **DESTABILISING ADJACENT NETWORK RAIL ASSET DURING EXCAVATIONS**
WHERE EXCAVATION IS REQUIRED ADJACENT TO THE NETWORK RAIL ASSET, THE CONTRACTOR / DEMOLITION CONTRACTOR IS TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE BOUNDARY CONSTRAINTS AND ENSURE STABILITY OF THE NETWORK RAIL ASSET IS MAINTAINED AT ALL TIMES

1.4 **DAMAGE TO NETWORK RAIL ASSET DUE TO VIBRATION OR GROUND MOVEMENT**
MAIN CONTRACTOR IS TO ADOPT METHODS OF WORKING THAT LIMIT VIBRATIONS TO ACCEPTABLE LIMITS. VIBRATIONS AND MOVEMENTS SHOULD BE MONITORED DURING CONSTRUCTION AGAINST THE VIBRATION LIMITS DEFINED BY THE ACOUSTICIAN AND THE ANTICIPATED GROUND MOVEMENTS CALCULATED BY THE GEOTECHNICAL SPECIALIST.

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2.5 **SURCHARGING EXISTING ADJACENT STRUCTURES DURING CONSTRUCTION WORKS**
CONTRACTOR TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE EXISTING BUILDINGS AND ADJACENT ASSETS FOR ANY CONSTRUCTION PLANT SURCHARGE IN THE TEMPORARY CONDITION.

4.1 **DAMAGE TO EXISTING UU ASSET**
CLIENT TO OBTAIN S185 OR S116 AGREEMENT FOR DIVERSION OR ABANDONMENT OF EXISTING SEWER WITHIN PROPOSED BUILDING FOOTPRINT AND ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AFOREMENTIONED AGREEMENTS.

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WHERE EXCAVATION IS REQUIRED ADJACENT TO THE HIGHWAY, THE CONTRACTOR / DEMOLITION CONTRACTOR IS TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE BOUNDARY CONSTRAINTS AND ENSURE STABILITY OF THE HIGHWAY IS MAINTAINED AT ALL TIMES

NOTES:

1. THIS DRAWINGS PROVIDES A SUMMARY OF THE CIVIL AND STRUCTURAL RELATED SITE RISK AND CONSTRAINTS TO BE CONSIDERED WITHIN THE DESIGN AND CONSTRUCTION OF THE PROPOSED DEVELOPMENT. THE INFORMATION SHOWN ON THIS DRAWING IS BASED UPON AVAILABLE SURVEY INFORMATION AVAILABLE AT THE TIME OF PRODUCTION. THE INFORMATION IS HIGH-LEVEL ONLY AND NOT EXHAUSTIVE. WHERE REQUIRED DETAILED SURVEYS AND SPECIALISTS SHOULD BE APPOINTED BY THE CLIENT TO MANAGE THE RISKS.
2. DO NOT SCALE FROM THIS DRAWING. WHERE FEATURES AND LOCATIONS ARE INDICATED THESE ARE APPROXIMATE ONLY AND ARE BASED ON ARCHIVE INFORMATION THAT MAY BE INACCURATE. WHERE EXACT LOCATIONS ARE REQUIRED THE MAIN CONTRACTOR OR THIRD PARTIES ARE TO REFER TO THE TOPOGRAPHICAL SURVEYS ETC. AND UNDERTAKE THEIR OWN SITE CHECKS OR FURTHER INVESTIGATION.
3. ALL BOUNDARIES AND EXTENTS ARE APPROXIMATE ONLY AND REFERENCE SHOULD BE MADE TO DETAILED LEGAL OWNERSHIP PLAN, EASEMENT PLAN, UTILITIES PLANS AND OTHER DOCUMENT WHERE REQUIRED.
4. THE EXISTING FOUNDATION INFORMATION INDICATED ON THIS DRAWING IS BASED ON ARCHIVE DRAWINGS OF THE ORIGINAL BUILDINGS, DATED 1909 FOR No. 2 WHITWORTH STREET WEST AND 1914 FOR No. 4 WHITWORTH STREET WEST. THE INFORMATION HAS BEEN EXTRAPOLATED AND HAS NOT BEEN CONFIRMED BY BUILDING SURVEYS AND INTRUSIVE OPENING UP WORKS. THE INFORMATION IS THEREFORE INDICATIVE OF THE AS-BUILT CONSTRUCTION, WHICH MAY VARY ON SITE.
5. THE DEMOLITION AND ENABLING WORKS CONTRACTOR IS TO ALLOW FOR THE RISK OF THE AS-BUILT STRUCTURE VARYING FROM THE INFORMATION SHOWN ON THIS DRAWING AND THE ARCHIVE DRAWINGS AS WELL AS UNFORESEEN BELOW GROUND OBSTRUCTIONS.
6. THE ENABLING WORKS AND DEMOLITION CONTRACTOR IS TO READ THIS DRAWING, IN CONJUNCTION WITH THE FOLLOWING:
   - TOPOGRAPHICAL SURVEY BY NO OLIVER, REF 12624/001A/1, DATED 20.10.2023
   - UTILITY PAS128 SURVEY BY GEO REF. G24303, DATED JULY 24
   - PHASE 1 GEO-ENVIRONMENT ASSESSMENT REPORT BY IGE CONSULTING (REF: 4201-018, DATED AUGUST 2024)
   - GROUND INVESTIGATION REPORT BY IGE CONSULTING (REF: 4201-02, DATED DECEMBER 2025)
   - REMEDIATION STRATEGY BY IGE (DETAILS TBC)
   - SITE CONSTRAINTS PLAN DRAWING, REF. WSM-REN-XX-ZZ-DR-C-00020
   - SITE CONSTRAINTS SECTIONS, REF. WSM-REN-XX-ZZ-DR-C-00021
   - DEMOLITIONS SPECIFICATION, REF. WSM-REN-XX-XX-SP-S-00030
   - EXCAVATION AND FILLING SPECIFICATION, REF WSM-REN-XX-XX-SP-C-00010
   - BELOW GROUND DRAINAGE DRAWING, REF. WSM-REN-XX-00-DR-C-01100
   - DRAINAGE SPECIFICATION, REF. WSM-REN-XX-XX-SP-C-00010
   - PILING PLAN DRAWING, REF. WSM-REN-XX-FN-S-01080
   - FOUNDATION PLAN DRAWING, REF. WSM-REN-XX-FN-S-01080
   - PILING PLATFORM DRAWING, REF. WSM-REN-XX-??-?-07????
   - ARCHIVE DRAWINGS DATED 1909 FOR No. 2 AND 1914 FOR No. 4
   - EXTERNAL SERVICES DIVERSIONS LAYOUT, BY FUTURESERV, REF. WWS-FUT-XX-ZZ-DR-MEP-96002

   WHERE THE CONTRACTOR DOES NOT HAVE THE INFORMATION, THEY ARE TO REQUEST IT FROM THE CONTRACT ADMINISTRATOR.
7. ALL PROPOSED EARTHWORKS AND SITE TURNOVER LEVELS ARE INDICATIVE. ALL EARTHWORKS ARE SUBJECT TO AGREEMENT WITH THE GEO-ENVIRONMENTAL SPECIALISTS PRODUCING THE REMEDIATION STRATEGY. THE ENABLING WORKS AND DEMOLITION CONTRACTOR IS TO APPOINT A QUALIFIED GEO-ENVIRONMENTAL SPECIALIST TO FINALISE THE REMEDIATION STRATEGY, OBTAIN MCC APPROVAL, AND PRODUCE A VALIDATION REPORT. THE ENABLING WORKS AND DEMOLITION CONTRACTOR ARE ALSO RESPONSIBLE FOR DISCHARGING ALL RELEVANT PLANNING CONDITIONS RELATING TO CONTAMINATED LAND.
8. THE ENABLING WORKS ARE TO REMOVE ALL OBSTRUCTIONS, AND PROVIDE A REMEDIATED CLEAN SITE, READY FOR THE MAIN CONTRACTOR AND THEIR SUBCONTRACTORS (I.E. PILING, GROUNDWORKER, CONCRETE FRAME CONTRACTOR ,ETC.) TO CONSTRUCT THE NEW BUILDING UNHINDERED. WHERE ADDITIONAL OBSTRUCTIONS, SERVICES ETC. NOT INDICATED WITH THESE DRAWINGS AND SURVEY INFORMATION PROVIDED, THEN THESE ARE TO BE REMOVED. ANY CONTAMINATED GROUND DISCOVERED IS TO BE REMEDIATED. WHERE ADDITIONAL WORKS ARE REQUIRED THESE ARE TO BE AGREED WITH THE CONTRACT ADMINISTRATOR. THE ENABLING AND DEMOLITION CONTRACTOR IS TO PROVIDE A FULL SET OF RATES TO ALLOW FOR UNFORSEEN INPUT WITHIN THE TENDER RETURN.
9. WHERE WORKS ARE NOT UNDERTAKEN IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THIS CAUSES COSTS AND DELAYS TO FOLLOW ON WORKS (I.E. PILING, FOUNDATIONS, RETAINING WALLS, AND DRAINAGE), THE DEMOLITION AND ENABLING WORKS CONTRACTOR WILL BE RESPONSIBLE FOR
10. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM NETWORK RAIL PRIOR TO UNDERTAKING THE WORKS

KEY:

- DENOTES APPROXIMATE LOCATION OF SITE BOUNDARY
- DENOTES APPROXIMATE EXTENTS OF PROPOSED BUILDING
- INDICATIVE HOARDING LINE TO SITE. FINAL LOCATION AND DETAILS TO BE AGREED WITH CLIENT AND MANCHESTER CITY COUNCIL
- UNITED UTILITIES SEWER
- GROUTED UNITED UTILITIES SEWER. SEWER TO BE CAPPED AT MANHOLE WITHIN WHITWORTH STREET WEST AND FULLY GROUTED WITH LOW STRENGTH GROUT. GROUT SPECIFICATION TO BE PROPOSED BY ENABLING WORKS CONTRACTOR AND AGREED WITH UNITED UTILITIES
- ABANDONED DRAINAGE AND CHAMBERS TO BE GRUBBED UP AND CAPPED AT THE SITE BOUNDARY
- DENOTES APPROXIMATE LOCATION OF DIVERTED SERVICES. REFER TO BUILDING SERVICES ENGINEERS DRAWING FOR FURTHER INFORMATION (REF. WWS-FUT-XX-ZZ-DR-MEP-96002)

Rev:	Description:	Date:	By:	Chkd:
DRAFT	DRAFT FOR COMMENT	07.05.26	AM	-

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Renaissance Developments Ltd
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Manchester
M2 1FY

Project:
2-4 WHITWORTH STREET WEST

Drawing Title:
ENABLING & DEMOLITION WORKS PLAN SHEET 01 - GENERAL GA

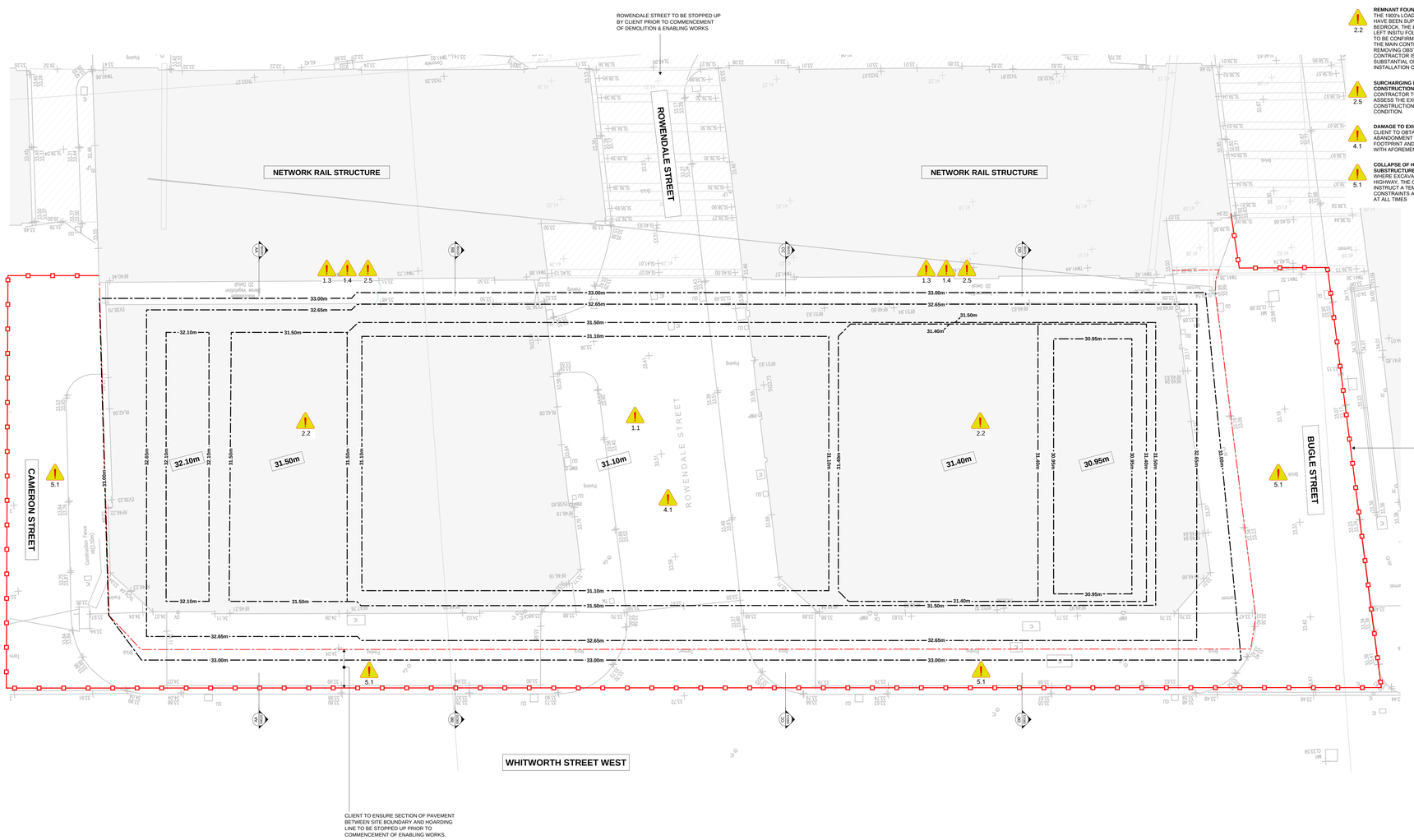
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DRAFT 12.05.26

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Scale: 1:25 | Project No: 2506-18

Project: Originator: Volume: Level: Type: Role: Category/Number: Rev:
WSW-REN-XX-FN-DR-C-06000-



HEALTH AND SAFETY NOTES:
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1.3 **DESTABILISING ADJACENT NETWORK RAIL ASSET DURING EXCAVATIONS**
WHERE EXCAVATION IS REQUIRED ADJACENT TO THE NETWORK RAIL ASSET, THE CONTRACTOR / DEMOLITION CONTRACTOR IS TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE BOUNDARY CONSTRAINTS AND ENSURE STABILITY OF THE NETWORK RAIL ASSET IS MAINTAINED AT ALL TIMES

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CONTRACTOR TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE EXISTING BUILDINGS AND ADJACENT ASSETS FOR ANY CONSTRUCTION PLANT SURCHARGE IN THE TEMPORARY CONDITION.

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6. THE ENABLING WORKS AND DEMOLITION CONTRACTOR IS TO READ THIS DRAWING, IN CONJUNCTION WITH THE FOLLOWING:
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   - UTILITY PAS128 SURVEY BY GEO REF. G24303, DATED JULY 24
   - PHASE 1 GEO-ENVIRONMENT ASSESSMENT REPORT BY IGE CONSULTING (REF: 4201-01B, DATED AUGUST 2024)
   - GROUND INVESTIGATION REPORT BY IGE CONSULTING (REF: 4201-02, DATED DECEMBER 2025)
   - REMEDIATION STRATEGY BY IGE (DETAILS TBC)
   - SITE CONSTRAINTS PLAN DRAWING, REF. WSM-REN-XX-ZZ-DR-C-00020
   - SITE CONSTRAINTS SECTIONS, REF. WSM-REN-XX-ZZ-DR-C-00021
   - DEMOLITIONS SPECIFICATION, REF. WSM-REN-XX-XX-SP-S-00030
   - EXCAVATION AND FILLING SPECIFICATION, REF WSM-REN-XX-XX-SP-C-00010
   - BELOW GROUND DRAINAGE DRAWING, REF. WSM-REN-XX-00-DR-C-01100
   - DRAINAGE SPECIFICATION, REF. WSM-REN-XX-XX-SP-C-00010
   - PILING PLAN DRAWING, REF. WSM-REN-XX-FN-S-01080
   - FOUNDATION PLAN DRAWING, REF. WSM-REN-XX-FN-S-01080
   - PILING PLATFORM DRAWING, REF. WSM-REN-XX-??-?-07????
   - ARCHIVE DRAWINGS DATED 1909 FOR No. 2 AND 1914 FOR No. 4
   - EXTERNAL SERVICES DIVERSIONS LAYOUT, BY FUTURESERV, REF. WWS-FUT-XX-ZZ-DR-MEP-96002

   WHERE THE CONTRACTOR DOES NOT HAVE THE INFORMATION, THEY ARE TO REQUEST IT FROM THE CONTRACT ADMINISTRATOR.
7. ALL PROPOSED EARTHWORKS AND SITE TURNOVER LEVELS ARE INDICATIVE. ALL EARTHWORKS ARE SUBJECT TO AGREEMENT WITH THE GEO-ENVIRONMENTAL SPECIALISTS PRODUCING THE REMEDIATION STRATEGY. THE ENABLING WORKS AND DEMOLITION CONTRACTOR IS TO APPOINT A QUALIFIED GEO-ENVIRONMENTAL SPECIALIST TO FINALISE THE REMEDIATION STRATEGY, OBTAIN MCC APPROVAL, AND PRODUCE A VALIDATION REPORT. THE ENABLING WORKS AND DEMOLITION CONTRACTOR ARE ALSO RESPONSIBLE FOR DISCHARGING ALL RELEVANT PLANNING CONDITIONS RELATING TO CONTAMINATED LAND.
8. THE ENABLING WORKS ARE TO REMOVE ALL OBSTRUCTIONS, AND PROVIDE A REMEDIATED CLEAN SITE, READY FOR THE MAIN CONTRACTOR AND THEIR SUBCONTRACTORS (I.E. PILING, GROUNDWORKER, CONCRETE FRAME CONTRACTOR ,ETC.) TO CONSTRUCT THE NEW BUILDING UNHINDERED. WHERE ADDITIONAL OBSTRUCTIONS, SERVICES ETC. NOT INDICATED WITH THESE DRAWINGS AND SURVEY INFORMATION PROVIDED, THEN THESE ARE TO BE REMOVED. ANY CONTAMINATED GROUND DISCOVERED IS TO BE REMEDIATED. WHERE ADDITIONAL WORKS ARE REQUIRED THESE ARE TO BE AGREED WITH THE CONTRACT ADMINISTRATOR. THE ENABLING AND DEMOLITION CONTRACTOR IS TO PROVIDE A FULL SET OF RATES TO ALLOW FOR UNFORSEEN INPUT WITHIN THE TENDER RETURN.
9. WHERE WORKS ARE NOT UNDERTAKEN IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THIS CAUSES COSTS AND DELAYS TO FOLLOW ON WORKS (I.E. PILING, FOUNDATIONS, RETAINING WALLS, AND DRAINAGE), THE DEMOLITION AND ENABLING WORKS CONTRACTOR WILL BE RESPONSIBLE FOR
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KEY:

- DENOTES APPROXIMATE LOCATION OF SITE BOUNDARY
- INDICATIVE HOARDING LINE TO SITE. FINAL LOCATION AND DETAILS TO BE AGREED WITH CLIENT AND MANCHESTER CITY COUNCIL
- XX.Xxm - - - DENOTES CHURN DEPTH CONTOUR LEVEL

Rev:	Description:	Date:	By:	Chkd:
DRAFT	DRAFT FOR COMMENT	--.--.--	AM	-

Renaissance Architectes Ltd
2nd Floor Rocca House,
9 Travis Street,
Manchester
M1 2NY

Project:
2-4 WHITWORTH STREET WEST

Drawing Title:
ENABLING & DEMOLITION WORKS PLAN SHEET 02 - CHURN DEPTHS

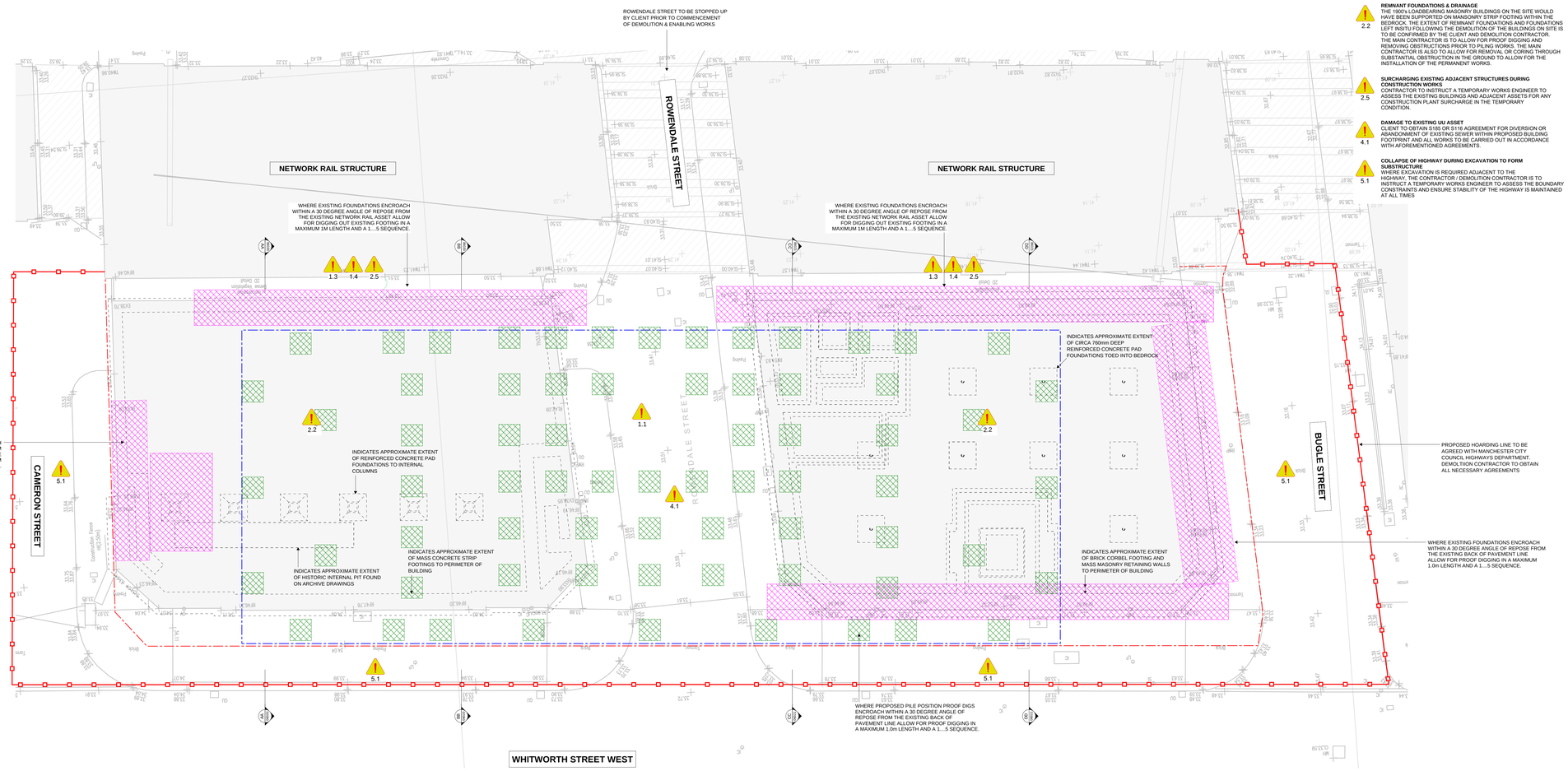
Status:
DRAFT

Size:	Date:	Drawn by:	Designed by:	Checked by:
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Scale: 1:100 Project No: 2506-18

Project:	Originator:	Volume:	Level:	Type:	Role:	Category/Number:	Rev:
WSW	REN	XX	FN	DR	C	06001	-

DRAFT 12.05.26



HEALTH AND SAFETY NOTES:
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KEY:

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- DENOTES APPROXIMATE EXTENTS OF PROPOSED BUILDING
- INDICATIVE HOARDING LINE TO SITE. FINAL LOCATION AND DETAILS TO BE AGREED WITH CLIENT AND MANCHESTER CITY COUNCIL
- DENOTES LOCALISED AREA OF EXCAVATION REQUIRED TO REMOVE EXISTING FOUNDATIONS FROM AREAS OF PROPOSED FOUNDATIONS OR DRAINAGE RUNS
- DENOTES LOCALISED PROOF DIG POSITION TO ALL PILE LOCATIONS. PROOF DIGS TAKEN DOWN TO UNDISTURBED STRATA OR BEDROCK. ANY OBSTRUCTION ENCOUNTERED TO BE FULLY CLEARED READY FOR PILING

Rev:	Description:	Date:	By:	Chkd:
DRAFT	DRAFT FOR COMMENT	--.--.--	AM	-

renaissance

Renaissance Developments Ltd
2nd Floor, Regis House,
34-36 Lloyd Street,
Manchester
M2 5LY

Project:
2-4 WHITWORTH STREET WEST

Drawing Title:
ENABLING & DEMOLITION WORKS PLAN SHEET 03 - LOCALISED DIGS

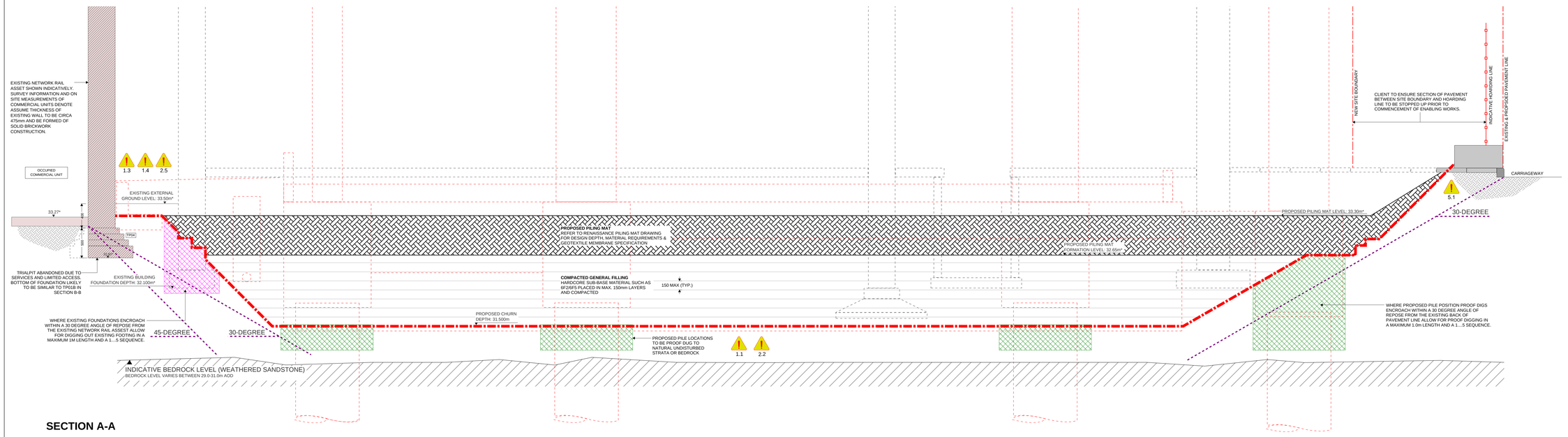
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DRAFT 12.05.26

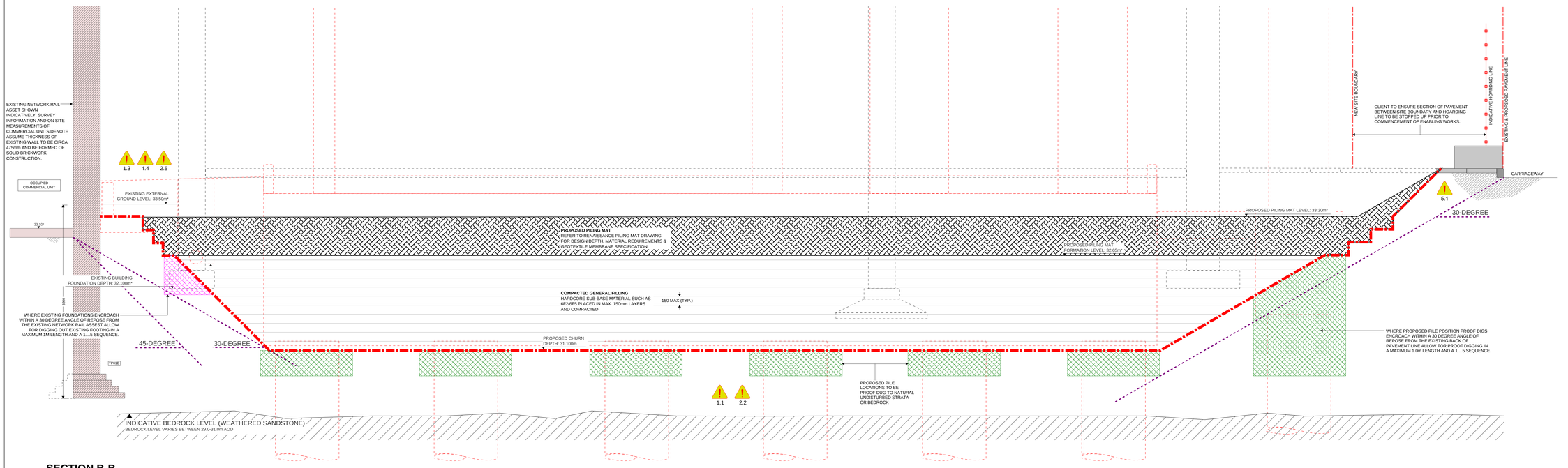
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Scale: 1:25 | Project No: 2506-18

Project: Originator: Volume: Level: Type: Role: Category/Number: Rev:
WSW-REN-XX-FN-DR-C-06002-



SECTION A-A



SECTION B-B

NOTES:

1. REFER TO ENABLING & DEMOLITION WORKS PLAN SHEET 01 (REF. WSW-REN-XX-00-DR-C-06000 FOR NOTES REGARDING ENABLING WORKS DRAWING PACK.

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KEY

- INDICATES APPROXIMATE EXTENT OF PROPOSED STRUCTURE
- INDICATES APPROXIMATE EXTENT OF EXISTING BUILDING STRUCTURE TO BE REMOVED TAKEN FROM ARCHIVE DRAWINGS
- INDICATES PROPOSED CHURN DEPTH
- INDICATES EXISTING NETWORK RAIL ASSET, FOR EXTENT AND FORM OF FOUNDATIONS REFER TO IGE VACUUM EXCAVATION PIT INFORMATION.
- INDICATES EXTENT AND DEPTH OF PROPOSED PILING MAT
- INDICATES EXTENT OF PROOF DIGGING / PROBING AT PROPOSED PILE POSITIONS
- INDICATES EXTENT OF LOCALISED EXCAVATIONS BELOW CHURN DEPTH TO REMOVE REMNANT FOUNDATIONS OF EXISTING BUILDING

Rev:	Description:	Date:	By:	Chkd:
DRAFT	DRAFT FOR COMMENT	-.-.--	AM	-

renaissance
Renaissance Associates Ltd
2nd Floor, Orca House,
2-22 Hale Street,
Manchester
M1 1EY

Project:
2-4 WHITWORTH STREET WEST

Drawing Title:
ENABLING WORKS
SITE SECTIONS SHEET 01

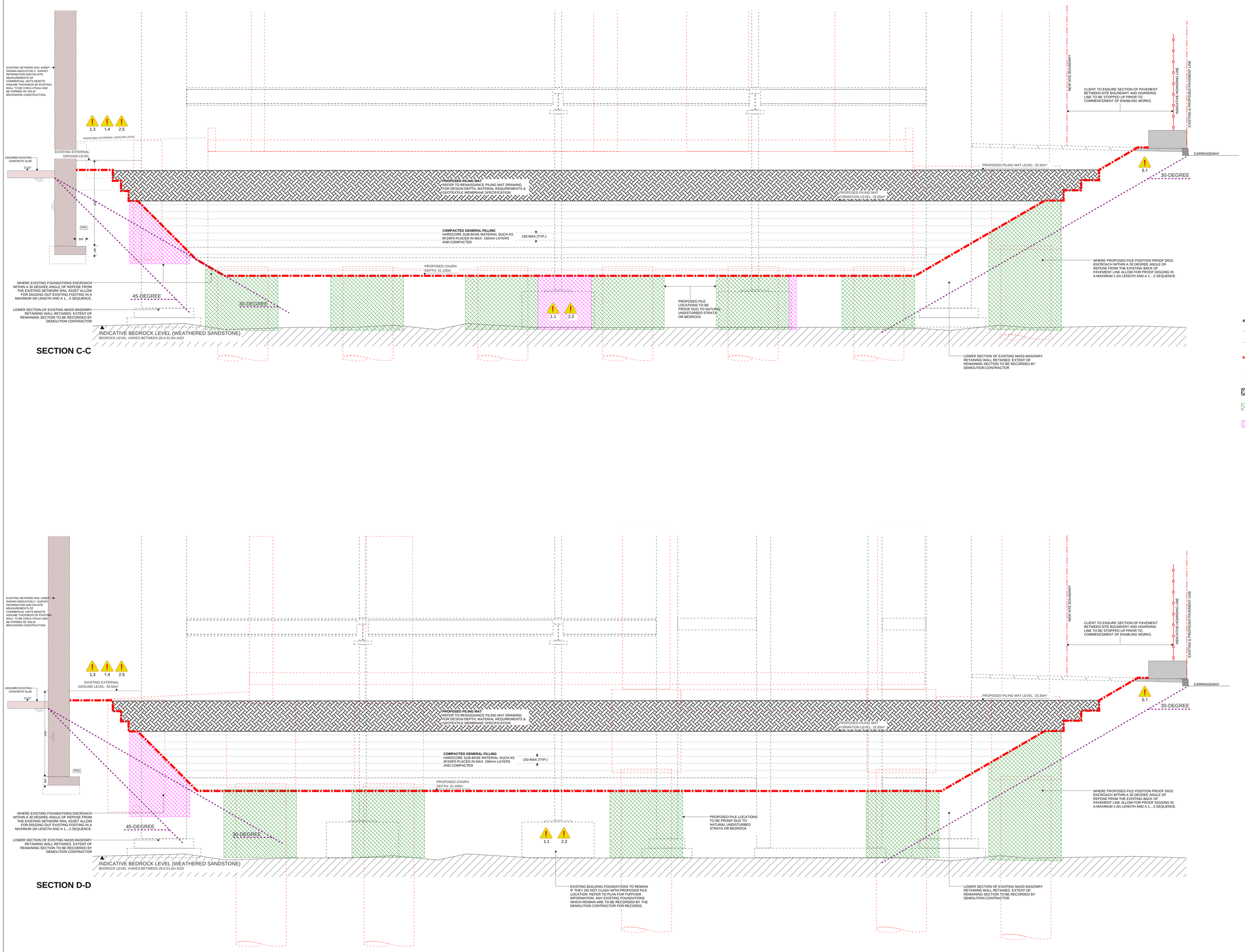
Status:
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DRAFT 12.05.26

Size:	Date:	Drawn by:	Designed by:	Checked by:
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Scale: 1:25 | Project No: 2506-18

Project: | Originator: | Volume: | Level: | Type: | Role: | Category/Number: | Rev:
WSW-REN-XX-ZZ-DR-C-06020-



SECTION C-C

SECTION D-D

NOTES:

1. REFER TO ENABLING & DEMOLITION WORKS PLAN SHEET 01 (REF. WSW-REN-XX-00-DR-C-06000 FOR NOTES REGARDING ENABLING WORKS DRAWING PACK.

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IN ADDITION TO THE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH WORKS OF THIS NATURE, NOTE THE FOLLOWING ABNORMAL RISKS IDENTIFIED. REFER TO CDM REGISTER WSW-REN-XX-XX-RS-S-00001

1.1 **UNEXPLODED ORDNANCE RISK**
THE ZETICA UXO MAP IDENTIFIES THE SITE AS BEING WITHIN AN AREA OF LOW RISK. A PRELIMINARY UXO RISK ASSESSMENT BY BRIMSTONE SITE INVESTIGATION LTD CONFIRMED THAT THE AREA EXPERIENCED LOW TO MODERATE BOMBING DURING WWII, WITH THE NEAREST RECORDED IMPACT APPROXIMATELY 70M TO THE SOUTH-WEST (LIKELY ASSOCIATED WITH DEANSGATE STATION). HOWEVER, THE POSSIBILITY OF UXO REMAINING ON SITE CANNOT BE COMPLETELY RULED OUT AT DESKTOP STAGE. ALL PERSONNEL ENGAGED IN GROUNDWORKS SHALL BE PROVIDED WITH A UXO SAFETY BRIEFING AS A PRECAUTIONARY MEASURE.

1.3 **DESTABILISING ADJACENT NETWORK RAIL ASSET DURING EXCAVATIONS**
WHERE EXCAVATION IS REQUIRED ADJACENT TO THE NETWORK RAIL ASSET, THE CONTRACTOR / DEMOLITION CONTRACTOR IS TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE BOUNDARY CONSTRAINTS AND ENSURE STABILITY OF THE NETWORK RAIL ASSET IS MAINTAINED AT ALL TIMES

1.4 **DAMAGE TO NETWORK RAIL ASSET DUE TO VIBRATION OR GROUND MOVEMENT**
MAIN CONTRACTOR IS TO ADOPT METHODS OF WORKING THAT LIMIT VIBRATIONS TO ACCEPTABLE LIMITS. VIBRATIONS AND MOVEMENTS SHOULD BE MONITORED DURING CONSTRUCTION AGAINST THE VIBRATION LIMITS DEFINED BY THE ACOUSTICIAN AND THE ANTICIPATED GROUND MOVEMENTS CALCULATED BY THE GEOTECHNICAL SPECIALIST.

2.2 **REMNANT FOUNDATIONS & DRAINAGE**
THE 1900's LOADBEARING MASONRY BUILDINGS ON THE SITE WOULD HAVE BEEN SUPPORTED ON MASONRY STRIP FOOTING WITHIN THE BEDROCK. THE EXTENT OF REMNANT FOUNDATIONS AND FOUNDATIONS LEFT INSITU FOLLOWING THE DEMOLITION OF THE BUILDINGS ON SITE IS TO BE CONFIRMED BY THE CLIENT AND DEMOLITION CONTRACTOR. THE MAIN CONTRACTOR IS TO ALLOW FOR PROOF DIGGING AND REMOVING OBSTRUCTIONS PRIOR TO PILING WORKS. THE MAIN CONTRACTOR IS ALSO TO ALLOW FOR REMOVAL OR CORING THROUGH SUBSTANTIAL OBSTRUCTION IN THE GROUND TO ALLOW FOR THE INSTALLATION OF THE PERMANENT WORKS.

2.5 **SURCHARGING EXISTING ADJACENT STRUCTURES DURING CONSTRUCTION WORKS**
CONTRACTOR TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE EXISTING BUILDINGS AND ADJACENT ASSETS FOR ANY CONSTRUCTION PLANT SURCHARGE IN THE TEMPORARY CONDITION.

4.1 **DAMAGE TO EXISTING UU ASSET**
CLIENT TO OBTAIN S185 OR S116 AGREEMENT FOR DIVERSION OR ABANDONMENT OF EXISTING SEWER WITHIN PROPOSED BUILDING FOOTPRINT AND ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AFOREMENTIONED AGREEMENTS

5.1 **COLLAPSE OF HIGHWAY DURING EXCAVATION TO FORM SUBSTRUCTURE**
WHERE EXCAVATION IS REQUIRED ADJACENT TO THE HIGHWAY, THE CONTRACTOR / DEMOLITION CONTRACTOR IS TO INSTRUCT A TEMPORARY WORKS ENGINEER TO ASSESS THE BOUNDARY CONSTRAINTS AND ENSURE STABILITY OF THE HIGHWAY IS MAINTAINED AT ALL TIMES

KEY

- INDICATES APPROXIMATE EXTENT OF PROPOSED STRUCTURE
- INDICATES APPROXIMATE EXTENT OF EXISTING BUILDING STRUCTURE TO BE REMOVED TAKEN FROM ARCHIVE DRAWINGS
- INDICATES PROPOSED CHURN DEPTH
- INDICATES EXISTING NETWORK RAIL ASSET, FOR EXTENT AND FORM OF FOUNDATIONS REFER TO IGE VACUUM EXCAVATION PIT INFORMATION.
- INDICATES EXTENT AND DEPTH OF PROPOSED PILING MAT
- INDICATES EXTENT OF PROOF DIGGING / PROBING AT PROPOSED PILE POSITIONS
- INDICATES EXTENT OF LOCALISED EXCAVATIONS BELOW CHURN DEPTH TO REMOVE REMNANT FOUNDATIONS OF EXISTING BUILDING

Rev	Description	Date	By	Chkd
DRAFT	DRAFT FOR COMMENT	07.05.26	AM	-

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Drawing Title:
ENABLING WORKS
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Status:
DRAFT

DRAFT 12.05.26

Size:	Date:	Drawn by:	Designed by:	Checked by:
A0	MAY 26	AM	AM	-

Scale: 1:25 | Project No: 2506-18

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