



# Remediation Method Statement

## New Music Block, Martin Harris Centre for Music & Drama, University of Manchester

### Prepared for University of Manchester

**March 2023**

**10/2084/003 Rev. 00**

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## Document Control Sheet

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| <b>Client</b>       | University of Manchester<br>Oxford Road<br>Manchester<br>M13 9PL                    |                                                                                                                                                                                         |
| <b>Document</b>     | Remediation Method Statement Report                                                 |                                                                                                                                                                                         |
| <b>Project Name</b> | New Music Block, Martin Harris Centre for Music and Drama, University of Manchester |                                                                                                                                                                                         |
| <b>Reference</b>    | 10/2084/003 - Rev 00                                                                |                                                                                                                                                                                         |
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## Document Production Record

| Revision | Date       | Revision Description |          | Name                                                                                                         |
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## 1.0 Introduction

### 1.1 Background

Clancy Consulting Ltd has been instructed by the University of Manchester to prepare a Remediation Method Statement for the site of a proposed two-storey extension to the Martin Harris Centre for Music and Drama located off Bridgeford Street, Manchester M13 9PL. A site location and a proposed development plan are included in Appendix I.

This report follows on from the following Phase 1 Desk Study and Phase 2 Geo-Environmental Appraisal reports undertaken for the site:

- CCL "Phase 1 Preliminary Risk Assessment Report" report ref: 10/2084/001 Rev 00 dated April 2022.
- CCL "Phase 2 Site Investigation Report" report ref: 10/2084/002 Rev 01 dated October 2022.

The above reports should be read in conjunction with this Remediation Method Statement report.

### 1.2 Site Description

The site is located in a courtyard in the north of the Music and Drama Centre and is currently occupied by an area of hardstanding off Bridgeford Street. The site forms part of the University of Manchester campus and is surrounded by buildings associated with the University.

### 1.3 Historical Development

The site comprised vacant land to the rear of residential dwellings in Manchester until the 1940's when the site became part of a depot. This was later removed and replaced with a dental hospital until the 2000's when the site was incorporated into the Drama and Music Centre.

Surrounding land saw extensive residential development in the 1800's and early 1900's, with buildings associated with University of Manchester developed around the site throughout the 1900's. Industrial works were also developed around the site including a stone yard, depot, engineering works and other unidentified industrial type buildings.

### 1.4 Environmental Setting

British Geological Survey mapping indicates the site to be underlain Devensian Till, overlying the Chester Formation. Given the historical development of the site, Made Ground may also be present overlying natural soils.

The Devensian Till is classified by the EA as an Undifferentiated Secondary Aquifer. The underlying Chester Formation is classified as a Principal Aquifer. The site is located within a Zone III (Total Catchment) of a groundwater source protection zone (SPZ) and the nearest groundwater abstraction is indicated to be in excess of 500m from the site.

The nearest surface water feature is the River Medlock located 790m to the north. Given its distance, this watercourse is not considered to be at significant risk from potential contaminants of concern beneath the site.

According to the Flood Map for Planning, available on the gov.uk website, the site is located within Flood Zone 3, whereby there is greater than 1% (1 in 100) chance of flooding from rivers or the sea occurring each year.

The radon guidance on protective measures for new dwellings indicates that the site is in a 'low' probability radon area where less than 1% of homes are estimated to be at or above the Action Level. Radon gas protection measures are therefore not required in the construction of new dwellings or extensions.

## 2.0 Site Investigations & Contamination Assessment

Site investigation works were carried out on 21<sup>st</sup> June 2022 and comprised:

- Four window sample boreholes (WS01 to WS04) to depths of up to approximately 4.40m below ground level (bgl).
- In situ geotechnical testing throughout the depth of each borehole.
- Installation of groundwater and ground gas monitoring wells in boreholes WS02, WS03 and WS04.
- Soil samples were collected at regular intervals from each exploratory hole for chemical and geotechnical laboratory analysis.

Soil samples were collected at regular intervals from each exploratory hole location, sealed in appropriate plastic and glass containers, sent to a UKAS accredited laboratory and scheduled for a suite of chemical analysis which included inorganic and organic contaminants (including metals/metalloids, speciated PAHs, speciated TPH and asbestos screening).

### 2.1 Ground Conditions

Made Ground was present at each borehole location beneath a limited thickness of tarmac hard surfacing. Made Ground was underlain by superficial deposits, comprising Glaciofluvial Sheet Deposits and Devensian Till. The Chester Formation bedrock was encountered at depths ranging from approximately 3.45m to 4.15m bgl.

Groundwater strikes were not recorded in any of the boreholes during intrusive works. Groundwater levels recorded within wells during subsequent groundwater monitoring visits are summarised in the table below:

**Table 1 – Groundwater Level Data**

| Monitoring Well ID | Well Screen Depth (m bgl) | Strata                                          | Depth to Water (m bgl) |         |         |         |
|--------------------|---------------------------|-------------------------------------------------|------------------------|---------|---------|---------|
|                    |                           |                                                 | 30/6/22                | 08/7/22 | 21/7/22 | 28/7/22 |
| WS02               | 0.60 to 1.60              | Made Ground                                     | Dry                    | Dry     | Dry     | Dry     |
| WS03               | 1.50 to 3.50              | Glaciofluvial Sheet Deposits and Devensian Till | 1.33                   | 1.48    | 1.40    | 1.63    |
| WS04               | 2.00 to 3.50              | Devensian Till                                  | Dry                    | Dry     | Dry     | Dry     |

The results of monitoring appear to be representative of a relatively localised groundwater table within the Glaciofluvial Sheet Deposits and Devensian Till. Groundwater is likely to be restricted to more granular layers of these strata.

### 2.2 Chemical Analysis Results

Contaminants of concern were not recorded in soil samples analysed from beneath the site at concentrations in excess of assessment criteria protective of users of public open spaces.

Although not present at concentrations considered likely to pose a significant risk to human health receptors, recorded concentrations of PAH and diesel range TPH recorded in samples of Made Ground analysed from boreholes WS01 and WS02 may pose a potential risk to groundwater within the underlying Chester Formation Principal Aquifer.

CCL concluded that it is recommended that Made Ground that is visually / olfactorily impacted with hydrocarbon contamination is removed as part of the development process and disposed of appropriately off-site.

## 2.3 Ground Gas Results

As part of the site investigation monitoring wells were installed in boreholes WS02, WS03 and WS04, screened across the Made Ground, Glaciofluvial Sheet Deposits and Devensian Till. A monitoring programme comprising four monitoring visits was carried out in accordance with the guidance within CIRIA Report C665 'Assessing risks posed by hazardous ground gases to buildings.

Four gas monitoring visits have been carried out, from 30<sup>th</sup> June to 28<sup>th</sup> July 2022. Atmospheric pressure ranged from 997mb to 1,008mb during the visits.

Methane was not recorded at concentrations in excess of the instrument limit of detection (<0.1% by volume (v/v)).

Carbon dioxide was recorded at a maximum concentration of 6.0% v/v within monitoring well WS04 on 30<sup>th</sup> June 2022.

Ground gas flow rates were all below the instrument level of detection (<0.1l/hr).

The lowest recorded oxygen concentration was 12.6% v/v within monitoring well WS04 on 30<sup>th</sup> June 2022.

The CIRIA Report C665 outlines indicative guideline concentrations for carbon dioxide and methane in association with gas flow rates for which gas protection measures may be required in new residential or commercial developments. The methodology is based on the Modified Wilson and Card approach that characterises the gas regime into a series of Characteristic Situations (1 to 5), with corresponding indicative gas protection measures.

Based on four rounds of monitoring undertaken at the site, the ground gas regime corresponds to CIRIA CS1. However, carbon dioxide concentrations up to 6% v/v were recorded, the guidance states that consideration should be given to raising to CIRIA CS2 where Carbon Dioxide concentrations exceed 5% v/v. On this basis, allowance should be made for the provision of gas protection measures appropriate to this characterisation within all new structures at the site.

Protective measures should be designed in accordance with guidance provided in BS8485: 2015 "Code of Practice for the Design of Protective Measures for Methane & Carbon Dioxide Ground Gases for New Buildings".

The installation of the gas protective measures will need to be independently verified by an experienced engineer in accordance with guidance provided in CIRIA Report C735 "Good Practice on the Testing and Verification of Protection Systems for Buildings Against Hazardous Ground Gases" to ensure discharge of planning conditions relating to contaminated land.

## 3.0 Site Remediation

### 3.1 Overview

Based on the information obtained during the Site Investigations, summarised above, the necessary ground preparatory and remediation works are set out below:

- Site Setup / H&S Provision.
- Excavation and removal of soils that are visually / olfactory impacted with hydrocarbon contamination and disposed appropriately off-site.
- Supervision and validation of works by a suitable qualified consultant.
- Installation of ground gas protection measures in line with CS2 conditions. Protective measures should be designed in accordance with guidance provided in BS8485: 2015 “Code of Practice for the Design of Protective Measures for Methane & Carbon Dioxide Ground Gases for New Buildings”.
- The installation of the gas protective measures will need to be independently verified by an experienced engineer in accordance with guidance provided in CIRIA Report C735 to ensure discharge of planning conditions relating to contaminated land.
- Provision of verification report documenting the remediation works undertaken to assist with discharge of planning conditions relating to contaminated land.

### 3.2 Site Setup and Safety

The Principal Contractor should provide all site personnel with a site-specific health and safety induction prior to commencement of work on site.

During the remediation works, all personnel on site will comply with guidance provided in the Health and Safety Executive (HSE) document “Protection of Workers and the General Public during the Redevelopment of Contaminated Land”. In summary, the following shall be provided:

- Protective clothing, footwear, gloves and eyewear (personnel should be instructed in why and how they are to be used).
- Hand-washing facilities.
- Smoking limited to designated areas.

Site-specific precautions will be required as a result of the contaminative status of the site. A full set of site safety requirements will be established by the Principal Contractor as part of their Risk Assessment / Method Statement; however, the following additional issues / recommendations should be included.

During redevelopment it is possible that construction workers may become exposed to elevated ground-gas concentrations and depleted oxygen levels in confined and sub-surface excavations. All works within confined spaces or below ground should therefore be suitably risk assessed and appropriate health & safety measures/site procedures put in place to ensure the safety of workers. This may include but should not be limited to; the checking and monitoring of the atmosphere in any such excavations or spaces prior to entry of personnel, site induction for all staff and visitors on ground-gas risks, training / safety awareness courses and the issue of personal protective equipment/RPE.

### 3.3 Contractor Responsibilities

The appointed Principal Contractor should, where necessary, undertake the following:

- Establish the boundaries of the site and the working areas.
- Liaise with the Local Authority regarding working hours, noise / dust / odour control, and protected trees.
- Liaise with the Local Water Company regarding any proposed discharge to sewer.
- Prepare the necessary COSHH statements and Health & Safety Plan in accordance with CDM regulations.

It will be the responsibility of the appointed Principal Contractor to assess the risk to site personnel from contamination identified at the site in order to determine the level of precautions required.

As a precursor to site construction works investigation, boreholes and monitoring wells located beneath the proposed building structures will be formally decommissioned in accordance with EA publication (2005) 'Decommissioning of Redundant Boreholes and Wells'. Each borehole should be filled and reinstated using a low permeability grout in order to prevent the establishment of a preferential pathway for ground gases and migrating contaminants.

The contractor shall also ensure:

- Good practices relating to personal hygiene are adopted.
- Suitable precautions are taken to prevent the spread of mud and debris on public highways.
- Refuelling of mobile plant is undertaken in a designated area.
- Above ground oil storage tanks comply with current statutory/best practice guidance.

A spill kit shall be kept on site, adjacent to the designated refuelling area.

### 3.4 Excavation and Removal of Contaminated Soils

Visual and olfactory evidence of hydrocarbon contamination was noted during site investigation works, with concentrations of PAH and diesel range TPH recorded in samples of Made Ground in boreholes WS01 and WS02, which are considered to pose a risk to the underlying sensitive groundwater receptors.

During enabling works, the presence of contaminated soils will be determined initially on the basis of visual and olfactory evidence. Impacted material shall be excavated and loaded either directly onto sheeted road-going wagons for disposal at a suitable licenced landfill site, or temporarily stockpiled on site in a designated area.

Temporary stocking areas will be prepared so as to minimise the potential for cross contamination of the underlying and surrounding soils (i.e. by the placement of an impermeable membrane, or use of existing hardstanding areas, and/or the construction of earth bunds).

Excavations should continue to the base of the Made Ground, unless visual/olfactory evidence indicates contamination is confined to a specific horizon and should be extended laterally until no further evidence of contamination is present.

Following excavation of the contaminated soils, a suitably qualified and experienced consultant shall inspect and sample the resultant excavations for the purpose of validation/verification. Validation samples will be recovered from the base and sides of the excavation, sent to a UKAS accredited laboratory and analysis scheduled for appropriate contaminants of concern. Depending on the size of the excavations additional samples will be collected.

The test results will then be compared against the relevant Soil Screening Values (SSVs) for residential end use with plant uptake, which is deemed the most conservative scenario. The SSVs are presented in Appendix II.

In the event that results indicate that contamination remains, the face/base of the excavation will be extended until all impacted material has been removed, and verification testing repeated, until analysis results are received which indicate that residual in-situ materials are below the SSVs and suitable for retention.

Any impacted groundwaters encountered during the works will be pumped to a tanker, or temporary storage, such as an IBC, and sent for disposal at an appropriate facility.

Following completion of the works a Validation Report will be prepared which will include details of the works carried out, copies of the laboratory testing along with a detailed photographic record

### 3.5 Ground Gas

The ground gas monitoring results undertaken at this site has been assessed as corresponding to the Modified Wilson and Card CIRIA Characteristic Situation 2 (CS2).

The implementation of ground gas protection measures is based on a 'gas protection score' which is assigned to each classification. Each proposed protection measure is also assigned a protection score. In order to provide design flexibility, providing the gas protection score is met or exceeded, there is a degree of freedom regarding which measures are implemented to achieve this score. A list of acceptable protection options/combinations are included in Tables 5, 6 and 7 of BS 8485:2015.

Details provided by the client about the proposed development suggest the building type as per Table 3 of the BS8485:2015 + A1 2019 may be 'Type B or Type C', as it would comprise small to large size rooms with relatively small room sizes within a larger complex with overarching management.

Based on the assumption that development will have central building management control and with the information available to date, the gas protection score for the site would be '3.5' or '2.5', in accordance with Table 4 of BS8485:2015 + A1 2019, subject to clarification from the designer team regarding the proposed buildings ventilation.

We have not been instructed to undertake the detailed design of the gas protective measures. We understand they will likely comprise a ventilated sub-floor void and installation of a proprietary gas resistant membrane. As part of the verification report, the client will provide drawings clearly detailing the sub-floor design and gas protection measures and the membrane specifications. These drawings and membrane specifications should be reviewed and agreed with the Local Planning Authority (LPA) prior to placement of the membrane.

It is the responsibility of the designer to ensure that the proposed protection measures comply with the guidance set out above.

The installation of the gas protective measures will be independently verified by a suitably competent professional who has demonstrable experience with gas protection measure installation and verification, in accordance with guidance provided in CIRIA Report C735 "Good Practice on the Testing and Verification of Protection Systems for Buildings Against Hazardous Ground Gases" to ensure discharge of planning conditions relating to contaminated land.

The verification works will comprise site inspections to check the presence of clear sub-floor void, the number of vents and placement of the gas membrane. On satisfactory completion of the prescribed protective measures, a third party verification report would be required as certification of the suitability for use.

### 3.6 Unexpected Contamination

It must be noted that whilst the investigations undertaken have aimed to characterise the general ground conditions beneath the proposed development site, the variable nature of Made Ground means that small pockets of contamination may be present at the site which have previously been unidentified.

Should previously unidentified contaminated soils be encountered during demolition and / or groundworks at the site, then suspected contamination shall be brought to the attention of the supervising geo-environmental consultant. Contaminated soils excavated should be stockpiled in a designated area prior to disposal. The stockpile will be placed on impermeable hard surfacing or plastic sheeting to prevent leaching of contamination into shallow soils. Alternatively, the contaminated soils could be loaded directly onto appropriately sheeted wagons for immediate disposal to landfill.

Should significant unexpected contamination be encountered then a new or amended remediation strategy may be required. In such instances the LPA shall be notified and the new or amended remediation strategy should be agreed with them.

### 3.7 Export to Landfill

Any materials deemed unsuitable for retention on site may be excavated directly onto a suitable vehicle or be placed in temporary stockpiles. Materials exported to landfill should be hauled by a registered waste carrier in accordance with the requirements of the Duty of Care Regulations, 1991 and the Landfill Regulations (England and Wales) 2002.

A transfer note should be completed, signed and retained by the parties involved. The transfer note should include the volume and nature of the waste material, details of the source, disposal site and the haulier.

### 3.8 Site Screening Values (SSVs)

A site-specific quantitative risk assessment has not been carried out for this site. As such, it is proposed that all materials which are to be imported or re-used on-site be tested and assessed against generic assessment criteria appropriate to the determinands and proposed end use scenario.

The adopted Site Screening Values (SSVs) include Environment Agency Soil Guideline Values (SGVs) LQM/CIEH Suitable for Use Levels (S4ULs) for Human Health Risk assessment, and DEFRA Category 4 Screening Levels (C4SLs).

It is proposed that site won or imported materials to be reused will be screened against SSVs appropriate to a 'Residential use with plant uptake' end use scenario, which is the most conservative scenario.

A copy of the proposed site screening values is presented in Appendix II.

### 3.9 Re-use of Material - Waste Management

Should site won material be intended for re-use on site, a Materials Management Plan will be produced by a suitably qualified environmental consultant in accordance with the CL:AIRE Definition of Waste Code of Practice (DoWCoP).

## 4.0 Site Certification

A suitably qualified consultant should be engaged to provide validation of the works outlined in this Remediation Strategy. On completion of remedial works, a verification report should be provided to the Local Planning Authority as evidence that the works have taken place in accordance with this remediation strategy document.

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

- Daily records of the site activities during CCL supervision.
- Variations to the agreed Remediation Strategy.
- Validation sampling and/or chemical test certificates for imported and/or site-derived materials, as well as their origin and location on site
- Validation sampling and chemical test certificates associated with excavated contamination hotspots.
- Volumes of materials exported to landfill.
- Plans showing remediated and validated areas as appropriate.
- Photographic records of gas protection measures.
- Third party validation of gas prevention measures.

**APPENDIX I**  
**DRAWINGS**

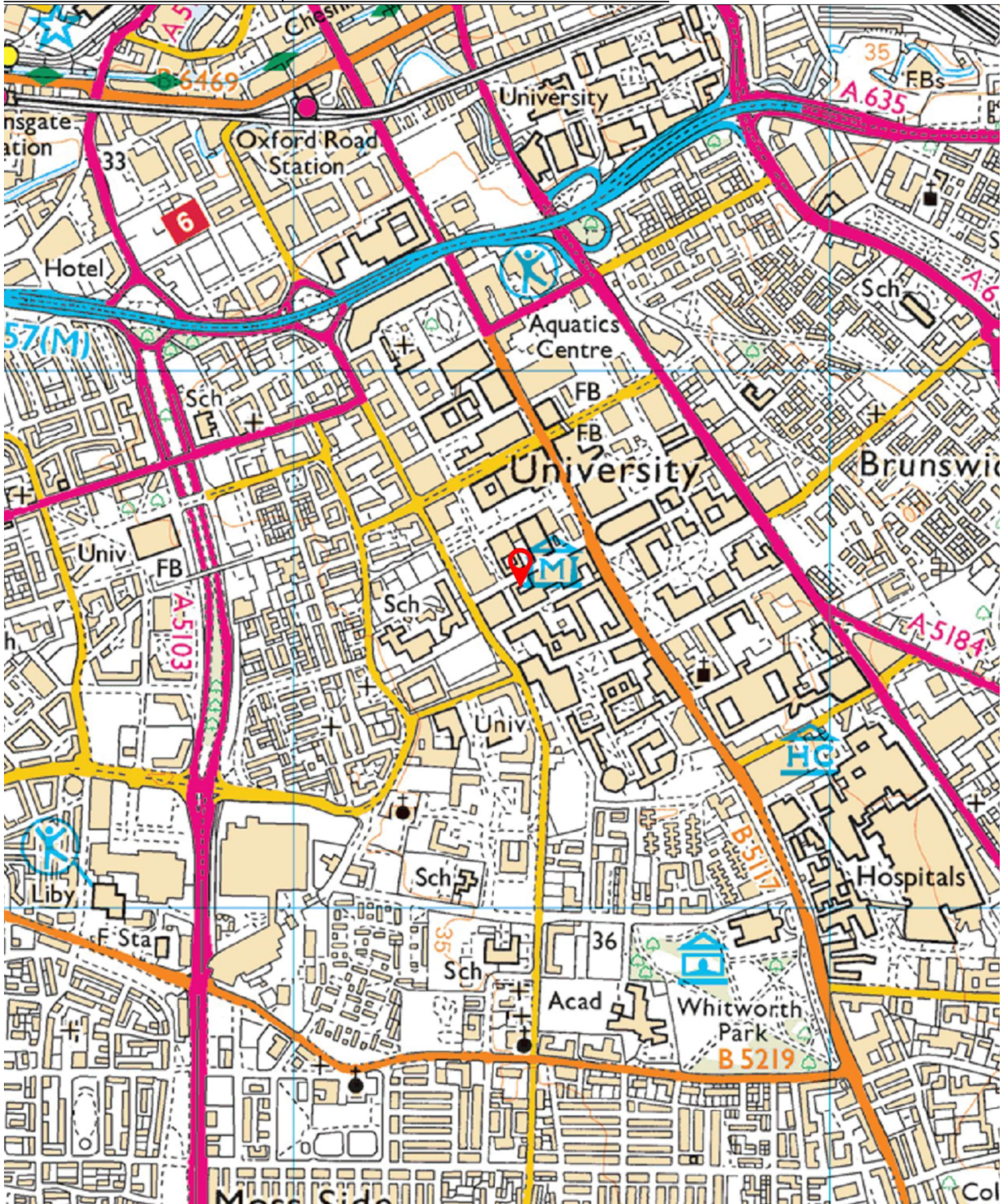
Client **University of Manchester**

Project **Martin Harris Drama and Music Centre**

Title **Site Location Plan**

Office **Altrincham**

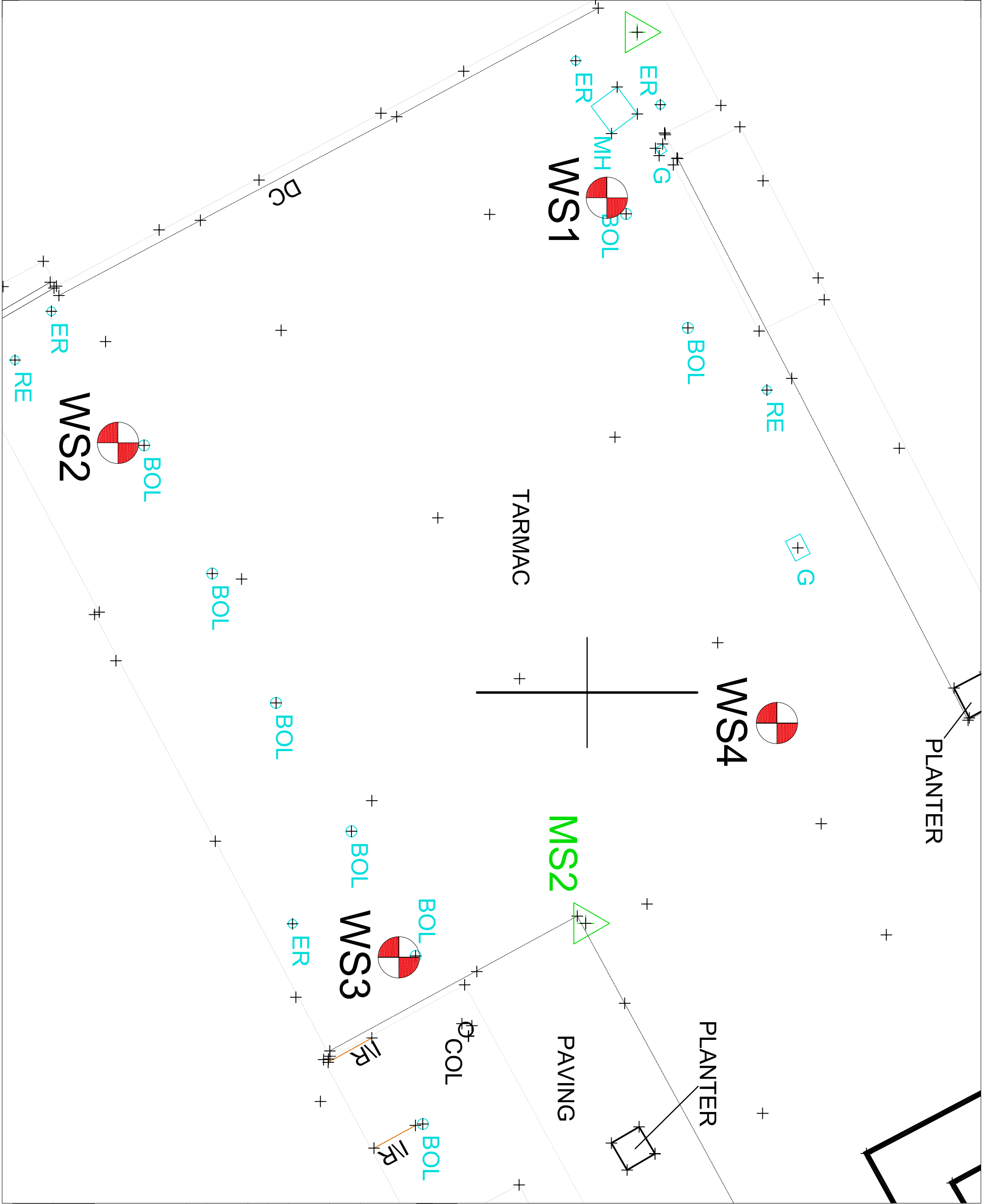
Discipline **Geo-environmental**



|           |                  |                                   |          |             |            |                |                   |                                                                                                                                                                                                                                                                                                                                                                                                         |                              |                             |                       |
|-----------|------------------|-----------------------------------|----------|-------------|------------|----------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|-----------------------|
| 00<br>Rev | March 22<br>Date | Site Location Plan<br>Description | EB<br>By | RP<br>Check | NR<br>App. | Drawn<br>EB    | Date<br>March 22  | <small>COPYRIGHT: THE COPYRIGHT OF THIS DRAWING IS VESTED IN CLANCY CONSULTING. IT SHALL NOT BE USED WITHOUT PERMISSION BY ANYONE FOR ANY PURPOSE. DO NOT SCALE THIS DRAWING ELECTRONICALLY OR MANUALLY. WORK TO FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. DO NOT TURN ON LAYERS THAT HAVE BEEN TURNED OFF. DO NOT THAW LAYERS THAT HAVE BEEN FROZEN.</small> | Job number<br><b>10/2084</b> | Drawing number<br><b>01</b> | Revision<br><b>00</b> |
|           |                  |                                   |          |             |            | Checked<br>DK  | Scale @ A4<br>NTS |                                                                                                                                                                                                                                                                                                                                                                                                         |                              |                             |                       |
|           |                  |                                   |          |             |            | Approved<br>NR | Status<br>FINAL   |                                                                                                                                                                                                                                                                                                                                                                                                         |                              |                             |                       |
|           |                  |                                   |          |             |            |                |                   |                                                                                                                                                                                                                                                                                                                                                                                                         |                              |                             |                       |

Key

Window sample Borehole Location



|             |   |           |                  |    |         |      |
|-------------|---|-----------|------------------|----|---------|------|
| Rev         | A | June 2022 | Original Drawing | SP | CHK     | APP  |
| Date        |   |           |                  | By | Checked | App. |
| Description |   |           |                  |    |         |      |

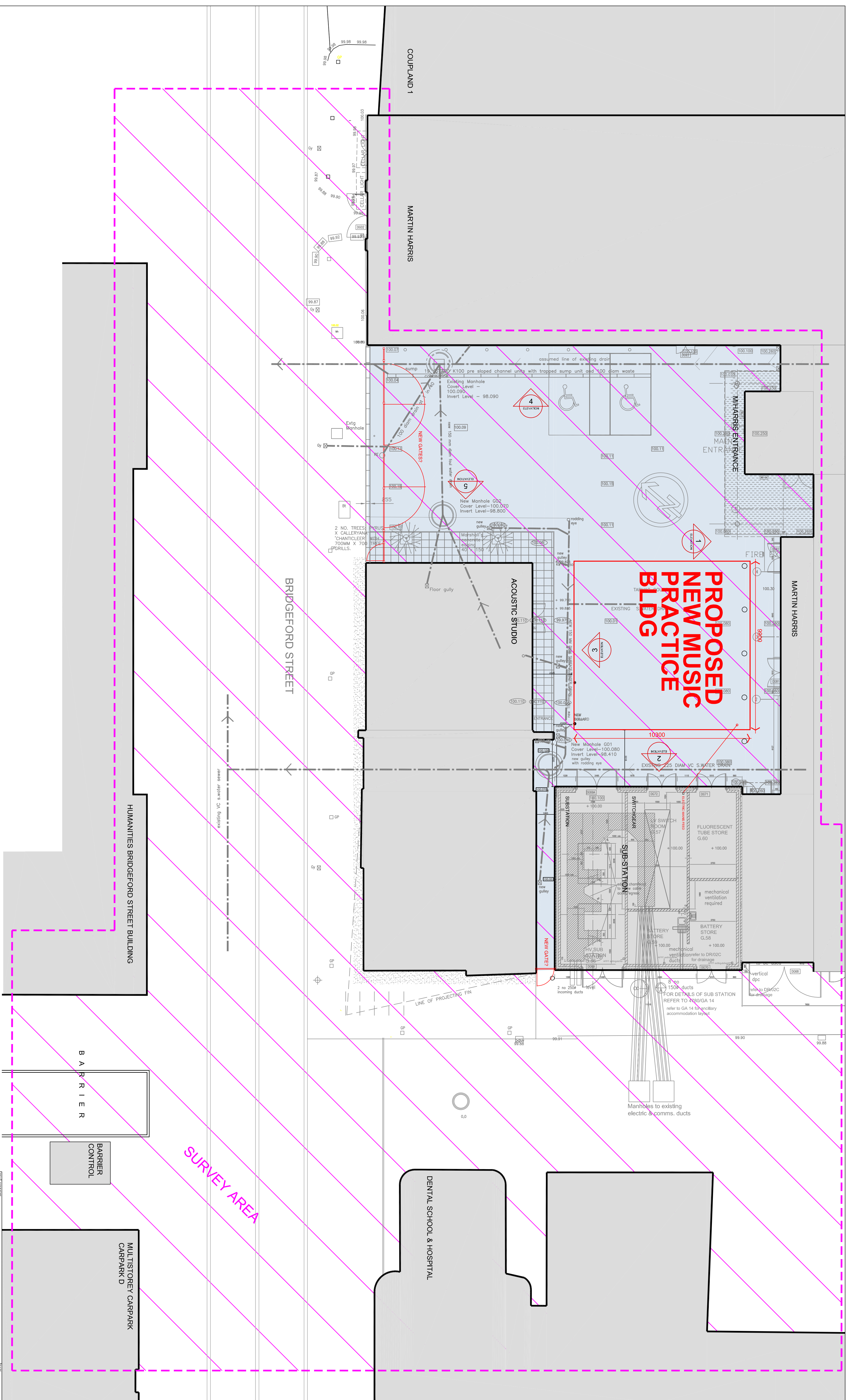
DO NOT SCALE THE DIMENSIONS OF THIS DRAWING AS IT IS NOT TO SCALE. DIMENSIONS SHALL BE TAKEN FROM THE ORIGINAL DRAWING. IT SHALL NOT BE USED WITHOUT PERMISSION BY ANYONE FOR ANY PURPOSE. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. DO NOT DRAW LINES THAT HAVE BEEN FROZEN.

|            |                                                           |             |               |  |  |  |
|------------|-----------------------------------------------------------|-------------|---------------|--|--|--|
| Client     | University of Manchester                                  |             |               |  |  |  |
| Project    | Martha Harris New Music Block<br>University of Manchester |             |               |  |  |  |
| Office     | Altrincham                                                |             |               |  |  |  |
| Discipline | Geo-Environmental                                         |             |               |  |  |  |
| Title      | Exploratory Hole Location Plan                            |             |               |  |  |  |
| Scale @ A3 | NTS                                                       | Status      | Draft         |  |  |  |
| Originator | Job Number                                                | Discipline  | Building/Zone |  |  |  |
| CCL        | 10/2084                                                   | GEO         | -             |  |  |  |
| Type       | Level                                                     | Drawing No. | Revision      |  |  |  |
| GA         | 00                                                        | 002         | 1             |  |  |  |



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**APPENDIX II**  
**GENERIC ASSESSMENT CRITERIA (ACs)**

## GENERIC ASSESSMENT CRITERIA (ACs)

### RESIDENTIAL END USE WITH PLANT UPTAKE 1% SOM

| CONTAMINANT                | ACs   |
|----------------------------|-------|
| Arsenic                    | 37    |
| Beryllium                  | 1.7   |
| Boron                      | 290   |
| Cadmium                    | 11    |
| Chromium III               | 910   |
| Chromium VI                | 6     |
| Copper                     | 2400  |
| Lead                       | 200   |
| Mercury Elemental          | 1.2   |
| Mercury Inorganic          | 40    |
| Methylmercury              | 11    |
| Nickel                     | 180   |
| Selenium                   | 250   |
| Vanadium                   | 410   |
| Zinc                       | 3700  |
|                            |       |
| Benzene                    | 0.087 |
| Toluene                    | 130   |
| Ethylbenzene               | 47    |
| o-xylene                   | 60    |
| m-xylene                   | 59    |
| p-xylene                   | 56    |
| Aliphatic EC 5-6           | 42    |
| Aliphatic EC >6-8          | 100   |
| Aliphatic EC >8-10         | 27    |
| Aliphatic EC >10-12        | 130   |
| Aliphatic EC >12-16        | 1100  |
| Aliphatic EC >16-35        | 65000 |
| Aliphatic EC >35-44        | 65000 |
| Aromatic EC 5-7 (benzene)  | 70    |
| Aromatic EC >7-8 (toluene) | 130   |
| Aromatic EC >8-10          | 34    |
| Aromatic EC >10-12         | 74    |
| Aromatic EC >12-16         | 140   |
| Aromatic EC >16-21         | 260   |
| Aromatic EC >21-35         | 1100  |
| Aromatic EC >35-44         | 1100  |
|                            |       |
| Acenaphthene               | 210   |
| Acenaphthylene             | 170   |
| Anthracene                 | 2400  |
| Benzo[a]anthracene         | 7.2   |
| Benzo[a]pyrene             | 2.2   |
| Benzo[b]fluoranthene       | 2.6   |
| Benzo[ghi]perylene         | 320   |
| Benzo[k]fluoranthene       | 77    |
| Chrysene                   | 15    |
| Dibenz[ah]anthracene       | 0.24  |
| Flouranthene               | 280   |
| Flourene                   | 170   |
| Indeno[123-cd]pyrene       | 27    |
| Napthalene                 | 2.3   |
| Phenanthrene               | 95    |
| Pyrene                     | 620   |
|                            |       |
| Asbestos In Soil           | <0.01 |

***\*All ACs are based on the LQM/CIEH S4UIs for Human Health Risk Assessment (2015) and CL:AIRE Category 4 Screening Levels (2014)***