

CAMBRIDGE NORTH DEVELOPMENT

MATERIALS MANAGEMENT PLAN

TENDER STAGE

Status: FOR ISSUE AND REVIEW
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This Materials Management Plan (MMP) has been produced to ensure that the development complies with Environmental Agency regulations for excavated ground materials. The plan has been produced based on the Definition of Waste: Development Industry Code of Practice produced by CL:AIRE (Contaminated Land: Applications in Real Environments).

CL:AIRE is an independent body that promotes the sustainable remediation of contaminated land and ground water, its code of practice enables excavated materials to be reused on site without it being classified as waste. This MMP will be reviewed by a 'qualified person' registered with CL:AIRE and a declaration will be made to the Environmental Agency (EA) to confirm that the requirements have been met. This method potentially avoids the requirements for applying for an Environmental Permit from the EA or an exemption from the waste carriers licence, which can both be time consuming and complex.

The reuse of this material can give significant environmental benefits, such as reducing resource consumption, as well as financial benefits, such as lower disposal and purchasing costs.

The object of this OMMP is to provide a framework to ensure that the principles for the use of site-won materials as 'non waste' are met. In order to comply with the CL:AIRE Protocol in this regard, the excavated materials must:

- Not be a risk to human health;
- be suitable for their intended use without further processing (chemically and geotechnically); or
- be suitable for use following treatment under an appropriate Environmental Permit;
- have a certainty of use (specified in planning, remediation strategies); and
- be only the quantity that is absolutely necessary.

This is a tender stage plan and will be reviewed both periodically and if there are any significant changes to the design, programme or sequence of construction.

This development is for

- Construction of three new residential buildings of four to eight storeys, providing flexible Class E and Class F uses on the ground floor, and two commercial buildings of five storeys for Use Classes E(g) i (offices), ii (research and development), providing flexible Class E and Class F uses on the ground floor, with associated car and cycle parking and infrastructure works,
- The construction of three commercial buildings of four and seven storeys for Use Classes E(g) i (offices), ii (research and development), providing flexible Class E and Class F uses on the ground floor, with associated car and cycle parking, a multistorey car and cycle park and associated landscaping and infrastructure works.

The sites is to the north of Cambridge, near to the existing Cambridge to Ely train line and to the south by the Cambridgeshire Guided Busway. This development follows One Cambridge Square, the first of a group of office buildings to be built in this area.

The site is accessed via Cowley Road from the north running east to west. Cowley Road then runs south to join with Milton Road where the site is located adjacent to the new Cambridge North Train station square. Milton Avenue is a new road created to link Cowley Road to Cambridge North Train station and the future Cambridge North Development site. The square will be linked to the guided bus network via a new linking road. Deliveries to the site will be provided from Cowley Road.

Cambridge North station was opened on 21st May 2017 providing a new transport hub to the north of the City centre. The site also benefits from the adjacent Cambridgeshire Guided Busway and recently improved pedestrian and cycle highway links as part of wider infrastructure development of the Chisholm Trial. One Cambridge Square will be located less than a 100m walk from the new Cambridge North Station.

1. Specify the scenario to which this MMP relates, as described in the CoP (1, 2, 3 or 4):

1. Reuse on the Site of Origin

2. Direct Transfer of clean naturally occurring soil and mineral materials

3. Cluster Project

4. Combination of any of the above [Grab your reader's attention with a great quote from the document or use this space to emphasize a key point. To place this text box anywhere on the page, just drag it.]

In the case of a combination of reuse scenarios, please describe it below (e.g. (i) Reuse on Site of Origin and Direct Transfer of clean naturally occurring unpolluted soils, (ii) Reuse on the Site of Origin with Direct Transfer of clean naturally occurring soil to x number of development sites etc:

As listed in the project brief above there is 3 new residential buildings and 3 new commercial buildings, 5 of which have basements, with the duration of the total development from enabling works to completion being 308 weeks. Additionally there is the construction of 2no Temporary Car Parks. It is estimated that a total of 22461.8m³ of spoil that will be removed in the formation of the 6no buildings and 2no temporary car parks.

Please see table below;

	GIA	Basement Size	Estimated Excavation Area (m ²)	Estimated Excavation Depth (m)	Total Spoil (m ³)	Spoil Tonnage (t=0.67m ³)
Enabling Works 228s TCP	6426m ²	n/a	6426m ²	0.2	1285.2	861.084
Enabling Works 200s TCP	4319m ²	n/a	4319m ²	0.2	863.8	578.21
Multi Storey Car Park	27,991m ²	n/a	3500m ²	0.2	700	469
S6 Lab ready Offices	10,962m ²	700m ²	700m ²	2.4	1680	1125.6
S7 Lab ready Offices	14,902m ²	700m ²	700m ²	2.4	1680	1125.6
S4 Offices	15,217m ²	1902m ²	1902m ²	2.4	4564.8	3058.416
S9 Super Labs	24,935m ²	2770m ²	2770m ²	2.4	6648	4454.16
S8 Offices	16,797m ²	2100m ²	2100m ²	2.4	5040	3376.8
					22461.8	15048.87

2. Organisation and name of person preparing this MMP (full address and contact details)

Iain Madden – Environmental and Quality Manager – Accredited BREEAM Advisory Professional
Wates Construction, Blenheim House, Cambridge Innovation Park, Denny End Road, Waterbeach, Cambridge, CB25 9QE
07740541210
iain.madden@wates.co.uk

Document Control

Date Issued	24.05.2022
Revision Date	25.05.2022
Summary of Revision; Sections 9, 13, 14a, 15a, 17, 24 and Section 5 Appendix have been updated to include Desktop Study reviews – Iain Madden	

Site Details

3. Site / Project Name(s)
Land off Milton Road Avenue, Cambridge North Development

Landowners

4a. Name of Landowner(s) (full address and contact details) – Where excavated materials are arising from:
Brookgate = Land of Milton Road Avenue, Cambridge North Development

4b. Name of Landowner(s) (full address and contact details) – Where materials are to be reused:
Brookgate = Land of Milton Road Avenue, Cambridge North Development

Summary and objectives

5a. Provide a brief description of the planned project and how excavated materials are to be reused within it.

Excavated material arising from the temporary carparks and basement works will where possible be used within the existing site cluster for ground level remediations. There is expected to be surplus of materials where there are new basements being formed, where materials are being removed from site there is an commitment that a minimum of 95% of materials will be diverted from Landfill.

General Plans and Schematics

6. Attach a location plan for the site(s) and a plan of the site(s) which identifies where different materials are to be excavated from, stockpile locations (if applicable), where materials are to be treated (if applicable) and where materials are to be reused. Plan References:

Material Storage will be in locations 6 and 7 during the phased development on the plan below.

ENABLING WORKS - INITIAL SET UP (April 2023)

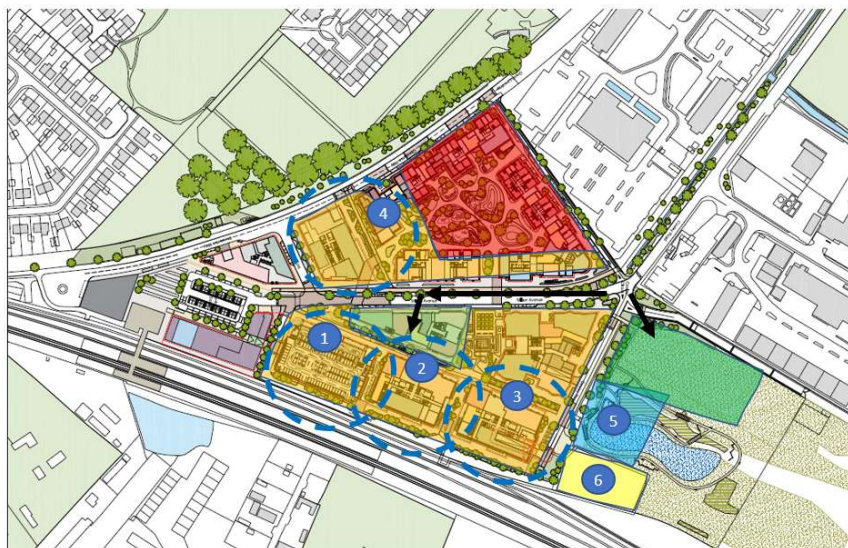


- 1 Existing Network Rail car park retained
- 2 Public Access to Network Rail Car park
- 3 Construction Access Gate
- 4 Construct 200 space temp. Rail car park
- 5 Construct 228 space temp. Rail car park
- 6 Wates Main Site Offices
- 7 Construct Network rail compound but WCL use for assed site storage

7. Attach a schematic of proposed materials movement. Where there is only one source area and one placement area briefly describe it below. For all other projects a schematic is required.

The second plan shows the proposed works locations of the new buildings. The storage area will remain the same during the phased development but building locations will differ on the same footprint.

Potential Tower Crane Locations (Nov 2023 to April 2025)



- 1 TC 1 Luffer Cranes No network over-sail
- 2 TC 2 Luffer Cranes No network over-sail
- 3 TC 3 Luffer Cranes No network over-sail
- 4 TC 4 Luffer Cranes No network over-sail
- 5 Wates Compound
- 6 Wates Site Offices

Parties Involved and Consultation – if more than one party please provide additional details for them and identify the location that they will be working e.g. where a site is zoned

8a. Main earthworks contractor(s) (full address and contact details) – Where excavated materials are arising from.

Not yet appointed at Tender Stage, to be updated at Procurement Stage

8b. Main earthworks contractor(s) (full address and contact details) - Where materials are to be reused:

As above

9. Treatment contractor(s) (full address and contact details) – for treatment on site of origin, or at a Hub site within a Cluster Project

A desktop Study of historic use and ground conditions of the site has been undertaken and with the risk of contaminates to the existing ground ranging from moderate/low to very low. Additionally, an investigative survey undertaken by SOCOTEC in 2017, to approx. 50% of the proposed site. There were no items that would require onsite treatment based on this report. A Contamination Survey for the whole site will be required but is yet to be undertaken. Based on the desktop survey and the previous intrusive investigation on site treatment works will be deemed unlikely unless the contamination survey highlights greater risks. This section will be updated once surveys have been completed and results have been analysed

10. Where wastes and materials are to be transported between sites provide details of the transport contractor(s) (full address, contact details and waste carriers registration details (if applicable)):

Not Applicable at current scheme scope

11. For each site where materials are excavated and where materials are to be reused provide Local Authority contact details (full address and named contacts):

Cambridge City Council, The Guildhall, Market Square, Cambridge CB2 3QJ

12a. For each site where materials are to be reused and for Hub Site locations provide Environment Agency contact details (full address and named contacts):

For all Cluster Projects:

12b. Attach any relevant documentation from the EA relating to the excavation and reuse of the materials to demonstrate no objection to the proposals (see 3.37 of CoP)

EA references:

If the EA has not been consulted please explain why (see paragraph 3.39 of the CoP).

Lines of Evidence

There is no one single factor that can be used to decide that a substance or object is waste, or when it is waste at what point it ceases to be waste. As complete picture as possible must be created. The following sections require completion to ensure the correct decision is made. If a requested item is not relevant it is important for you to clearly state why this is so (e.g. no planning permission required because permitted development status exists).

Suitable for use criteria

13. Please describe or provide copies of the required specification(s) for the materials to be reused on each site.

Reference: Specification is in development and will not be completed until contamination investigations have been completed. Though based on the desktop studies completed and previous ground investigations on the site produced spoil it is likely to be deemed suitable for use. To be updated as specification has been completed.

Where contamination is suspected or known to be present

14a. Please provide copies or relevant extracts from the risk assessment(s) that has been used to determine the specification for use on the site. This must relate to the place where materials are to be used. This must be in terms of (i) human health (ii) controlled waters and (iii) any other relevant receptors. If a risk assessment is not relevant for a particular receptor given the site setting please explain why below:

Reference: Cambridge North Soils and Groundwater ES App 16.1 Phase 1 Desktop Study – April 2022.

NECAAPED Phase 1 Geo Environmental Desk Study Nov 2021v1.

Area has been risk assessed as Moderate/Low to Very Low with control measure likely to be straightforward.

14b. Please attach any relevant documentation from the LA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)

The project is presently going through a Planning Application process with CBC and implementation of these works is dependent upon the grant of planning permission.

LA references:

If the LA has not been consulted please explain why (see paragraph 3.39 of the CoP).

14c. Please attach any relevant documentation from the EA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 and Table 2 of the CoP)

The project is presently going through a Planning Application process with CBC and implementation of these works is dependent upon the grant of planning permission.

EA references:

If the EA has not been consulted please explain why (see paragraph 3.39 of the CoP).

14d. Please attach any relevant documentation from any other regulators (if relevant) relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)

Other references: n/a

Where contamination is not suspected

15a. Please attach copies or relevant extracts from the Desk Top Study that demonstrates that there is no suspicion of contamination.

Document(s): Cambridge North Soils and Groundwater ES App 16.1 Phase 1 Desktop Study – April 2022.
NECAAPED Phase 1 Geo Environmental Desk Study Nov 2021v1.

The above two desktop surveys indicate a low risk of contamination outside of what would be normally expected on a brownfields site, however both have asked that additional intrusive contamination studies are to be completed for the site

15b. Please attach copies or relevant extracts from the site investigation/testing reports that adequately characterise the clean materials to be used (if appropriate).

Not yet undertaken

15c. Please attach copies of any other relevant information (if available) confirming that land contamination is not an issue.

Reference(s):

As Above, 15a.

Certainty of use

Various lines of evidence need to be provided to demonstrate that the materials are certain to be used.

This includes:

- The production of this MMP
- An appropriate planning permission (or conditions that link with the reuse of the said materials) • An agreed Remediation Strategy(ies)
- An agreed Design Statement(s)
- Details of the contractual arrangements Please identify in the following sections what lines of evidence relate to the site(s) **where the materials are to be used.**

16a. Planning Permission(s) relating to the site where materials are to be reused

Please provide a copy of the relevant planning permission

Reference: Planning application is currently in progress

16b. Explain how the reuse of the excavated materials fits within the planning permission(s) for each site.

16c. If planning permission is not required for any one site please explain why below e.g. permitted development, clean up of a chemical spill, surrender of an Environmental Permit, re-contouring within the existing permission:

Where contamination is suspected or is known to be present

17. Please provide a copy of any Remediation Strategy(ies) that have been agreed with relevant regulators.

Reference:

At this tender stage the Remediation Strategy(ies) have yet to be formalised. However, based on the desktop studies listed above remediation requirements are likely to be straightforward and aimed at human health. This section will be updated once the Remediation Strategy has been agreed.

Where contamination is not suspected

18. Please provide a copy of any Design Statement(s) that have been agreed (e.g. with the planning authority or in the case of permitted developments the client):

Reference: Section to be updated once contamination surveys have been completed and planning has been agreed.

Quantity of Use

19. Please provide a break down of the excavated materials for each site and how much will be placed at each site or sub area of each site.

Where this is not specific to a single readily identifiable source refer to an annotated plan, schematic or attach a tabulated summary.

Reference(s): Full Breakdown and annotated plan to be completed after remediation report and contamination study have been completed. Currently the below figures have been calculated as spoil to be removed;

	GIA	Basement Size	Estimated Excavation Area (m2)	Estimated Excavation Depth (m)	Total Spoil (m3)	Spoil Tonnage (t=0.67m3)
Enabling Works 228s TCP	6426m2	n/a	6426m2	0.2	1285.2	861.084
Enabling Works 200s TCP	4319m2	n/a	4319m2	0.2	863.8	578.21
Multi Storey Car Park	27,991m2	n/a	3500m2	0.2	700	469
S6 Lab ready Offices	10,962m2	700m2	700m2	2.4	1680	1125.6
S7 Lab ready Offices	14,902m2	700m2	700m2	2.4	1680	1125.6
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S8 Offices	16,797m2	2100m2	2100m2	2.4	5040	3376.8
					22461.8	15048.87

20a. How has consolidation/compaction being considered in the above mass balance calculations?

20b. How has loss due to treatment being considered in the above mass balance calculations (if applicable)?

20c. How has the addition of treatment materials being considered in the above mass balance calculations (if applicable)?

Calculations of the net balance between the disturbance and expansion of materials for the above will be completed as the projects progress through tender and application stages. This section will be updated at that point

Note - An exact figure is not required but one that is reasonable in the circumstances and can be justified if challenged.

Contingency Arrangements

Explain what is to happen in the following situations and identify the appropriate clauses in the contract(s) (Such clauses must be provided to the Qualified Person, preferably as a summary document): or

21a. What is to happen to, and who is to pay for out of specification materials? Contract reference:

21b. What is to happen to, and who is to pay for any excess materials? Contract reference:

21c. What happens if the project programme slips in relation to excavated materials or materials under going treatment? Contract reference:

21d. Other identified risk scenarios for the project (relating to excavated materials)?

Contract reference:

For all of the above the contact has yet to be agreed at tender stage. Once contract has been agreed this section is to be updated.

The Tracking System

22a. For all sites please describe the tracking system to be employed to monitor materials movements.

Where contamination is suspected or known to be present

State the procedures put in place to:

22b. Prevent contaminants not suitable for the treatment process being accepted

22c. Prevent cross contamination of materials not in need of treatment, wastes awaiting treatment and treated materials

22d. Demonstrate that materials that do not require treatment and successfully treated materials reach their specific destination

22e. Ensure that waste for off site disposal or treatment is properly characterised and goes to the correct facility

All of the above will be formed as part of the Wates Site Waste Management Plan – Cambridge North Development – May 22 – Tender Stage but will also be dependant on the results of the Land Contamination Surveys

23. Please attach a copy of the tracking forms / control sheets that are to be used to monitor materials movements. To include transfer of loads on site into stockpiles prior to treatment (if applicable), stockpiled after treatment (if applicable), stockpiled awaiting use (as appropriate) and final placement.

Reference: To Be Determined in Consultation with Contractor on grant of planning consent.

For Hub Sites within Cluster Projects & where materials need treatment before reuse

24. Please attach a copy of the Environmental Permit covering the treatment process. Or alternatively if the treatment is covered by a Mobile Plant Permit and associated Deployment Form, attach a copy of the EA agreement to the Deployment Form.

Permit reference / EA letter reference: Dependant on the results on the Land Contamination Surveys. Based on Desktop Surveys and previous investigations on site treatment is deemed unlikely.

25. *Where, and in what form, are records to be kept?*

Note – records e.g. transfer notes, delivery tickets, Desk Top Study, Site Investigation, Risk Assessment(s), Verification Report(s) need to be kept for at least 2 years after the completion of the works and production of the Verification Report:

See Document; Wates Site Waste Management Plan – Cambridge North Development – May 22 – Tender Stage

Verification Plan

26. *Provide or explain the Verification Plan which sets out how you will record the placement of materials and prove that excavated materials have been reused in the correct location and in the correct quantities within the development works. Reference:*

Phased development Logistics plan is to be produced showing spoil storage, removal and quantities once design and calculations on reclamation have been completed

Section 4

ENVIRONMENTAL BENEFITS - OPTIONAL

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Environmental Benefits – Optional

To ensure that the Definition of Waste: Development Industry Code of Practice continues to have the support of regulators it is important that CL:AIRE collates the environmental benefits that accrue from the use of the CoP. To this end can you please provide the following information and submit just this information to CL:AIRE (Not the MMP or Declaration).

i) Name of the person completing this questionnaire – Iain Madden

ii) Contact details

E-mail – iain.madden@wates.co.uk

Tel - 07740541210

iii) Project Name – Cambridge North Development

iv) Volume of material intended to be reused / was used (cubic metres) – To be completed as design progresses

v) What was/is the distance to alternative treatment or disposal site that would otherwise have been used (miles)? – To be completed once contamination surveys have been completed

vi) What was/is the total distance that vehicles would otherwise have travelled (miles)? – To be completed at appointment of waste carrier

vii) What is/was the distance to the facility where alternative (non-waste materials) would have been sourced (miles)? – To be completed at appointment of waste carrier

viii) What is/are the total distance that vehicles would have travelled for the purpose of bringing 'clean' material onto site (miles)? – Unlikely to be required but review on completed design.

Please send to:

CL:AIRE, CoP Environmental Benefits, 7th Floor, 1 Great Cumberland Place London W1H 7AL

Codeofpractice@claire.co.uk

- The Definition of Waste: Development Industry Code of Practice – ISBN 978-1-905046-17-1 © CL:AIRE
- Cluster Guide – ISBN 978-1-905046-17-1 © CL:AIRE
- Use of the Definition of Waste: Development Industry Code of Practice (DoW CoP) in London the South East – ISBN 978-1-905046-17-1 © CL:AIRE
- Cambridge North Soils and Groundwater ES App 16.1 Phase 1 Desktop Study – April 2022.
- NECAAPED Phase 1 Geo Environmental Desk Study Nov 2021v1. - <https://consultations.greatercambridgeplanning.org/sites/gcp/files/2021-11/NECAAPEDPhase1Geo-EnvironmentalDeskStudyNov21v1.pdf>