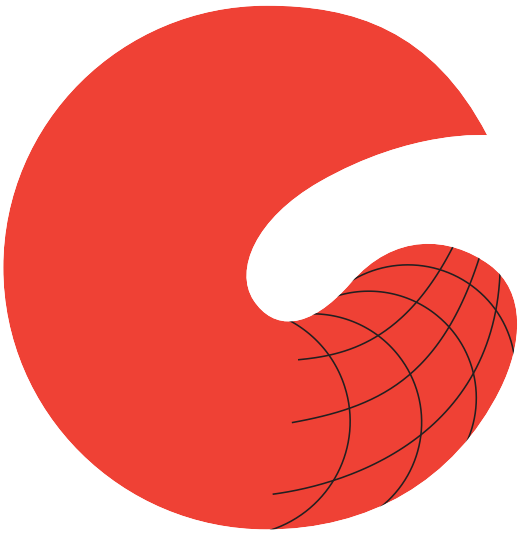

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25 OLD GLOUCESTER STREET, CAMDEN

Air Quality Dust Management Plan

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Air Quality Dust Management Plan

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Air Quality Dust Management Plan

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Reference: TR/VL/P24-3161/03

Date: May 2024

25 OLD GLOUCESTER STREET, CAMDEN
Air Quality Dust Management Plan

Contents

Appendices

Registration of Amendments

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By

1.0 INTRODUCTION

1.1 Create Consulting Engineers Limited (CCE) have been commissioned by Nilkanth Estates Ltd to produce an Air Quality Dust Management Plan (AQDMP) for the demolition and construction phases of the development at 25 Old Gloucester Street, Camden WC1N 3AX.

1.2 The development is anticipated to open in 2025 and will involve the following:

"Extension of basement to accommodate additional cultural centre accommodation (use class F1 and F2), replacement of second floor at rear to accommodate offices (class E1) and conversion of front part of building at second and third floor levels to create 2 x studio dwellings."

1.3 The red line boundary of the site is illustrated in Figure 1.1. The development lies within the jurisdiction of the London Borough of Camden (LBoC).

1.4 This AQDMP has been undertaken to detail the dust risk in relation to the draft conditions supplied by LBoC for planning applications 2023/4384/P and 023/4299/P. The condition is as follows:

"No demolition or development shall commence until all of the following have been complied with:

a) prior to installing monitors, full details of the air quality monitors have been submitted to and approved in writing by the local planning authority. Such details shall include the location, number and specification of the monitors, including evidence of the fact that they will be installed in line with guidance outlined in the GLA's Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance; and

b) A confirmation email should be sent to airquality@camden.gov.uk no later than one day after the monitors have been installed with photographic evidence in line with the approved details; and

c) Prior to commencement, a baseline monitoring report including evidence that the monitors have been in place and recording valid air quality data for at least 3 months prior to the proposed implementation date shall be submitted to the Local Planning Authority and approved in writing.

The monitors shall be retained and maintained on site in the locations agreed with the local planning authority for the duration of the development works, monthly summary reports and automatic notification of any exceedances provided in accordance with the details thus approved. Any changes to the monitoring arrangements must be submitted to the Local Planning Authority and approved in writing."

1.5 This report sets out an AQDMP to assess the risk of dust and particulate matter (PM_{10} and $PM_{2.5}$) due to demolition and construction practices, and provide mitigation measures, where necessary, to reduce these risks.

Assessment Scope

1.6 Demolition and construction activities have the potential to cause dust nuisance and health impacts if appropriate mitigation measures are not applied. The MOL SPG's guidance on '*The Control Of Dust And Emissions During Construction and Demolition'* outlines a risk assessment approach for dust assessments and helps determine the mitigation measures that will need to be applied.

1.7 This report describes the potential risk of dust impacts associated with demolition and construction activities, required as part of the proposed development. It additionally includes details of any mitigation measures and monitoring, if required.

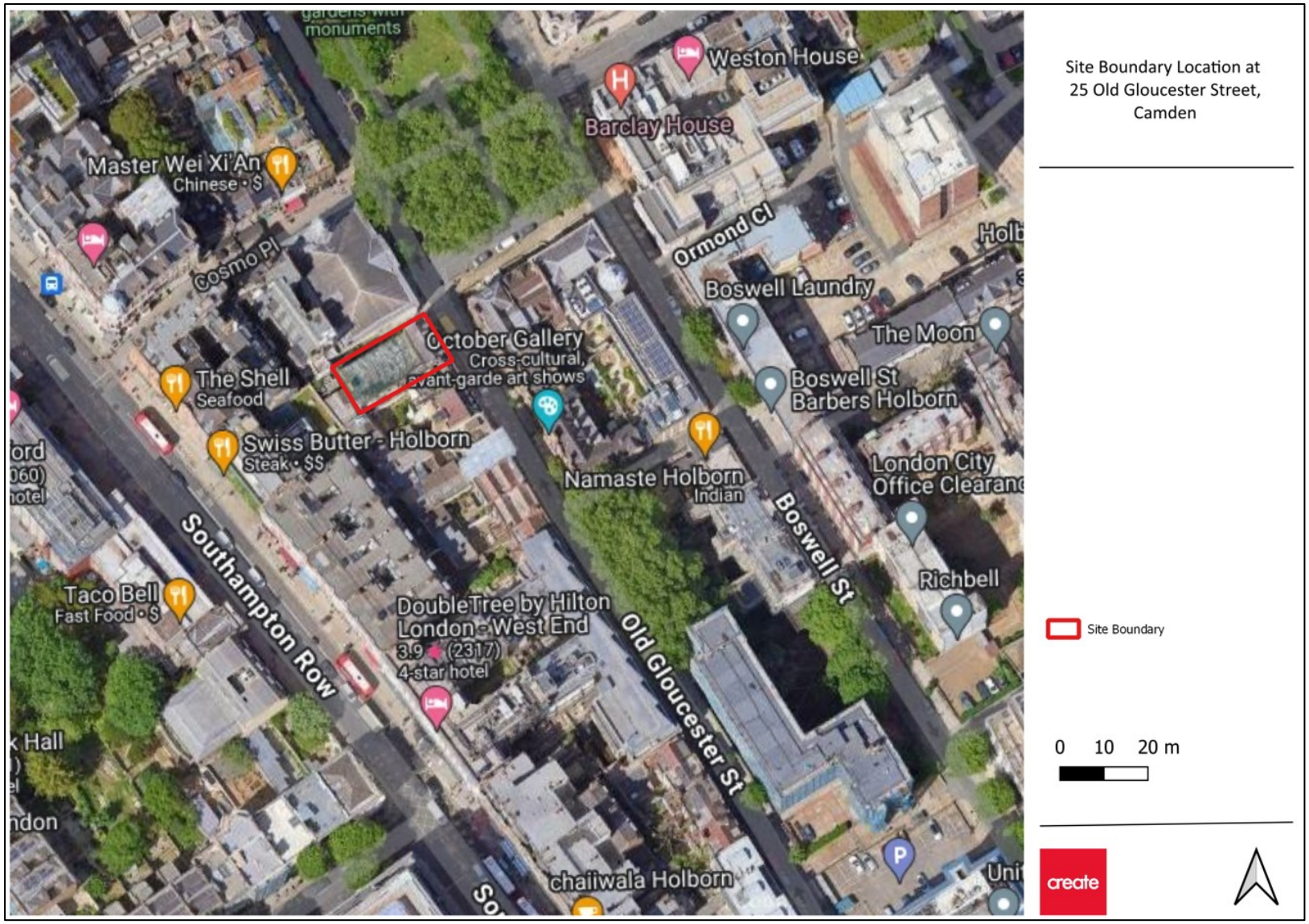

Figure 1.1: Red Line Boundary

2.0 LEGISLATION AND POLICY CONTEXT

The Environment Act 1995

2.1 The Environment Act 1995 placed a responsibility on the UK Government to prepare an Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland. The most recent version of the strategy sets out the current UK framework for air quality management and includes a number of Air Quality Objectives (AQOs) for specific pollutants.

2.2 The 1995 Act also requires that Local Authorities "review and assess" air quality in their areas, following a prescribed timetable. The Review and Assessment process is intended to locate and spatially define areas where the UK AQOs are not being met. In such instances, the Local Authority is required to declare an AQMA, carry out a Further Assessment of air quality, and develop an Air Quality Action Plan (AQAP), which should include measures to improve air quality so that the objectives may be achieved in the future. The timetables and methodologies for carrying out Review and Assessment studies are prescribed in DEFRA Technical Guidance – Local Air Quality Management Technical Guidance (LAQM.TG22).

Air Quality Regulations 2016

2.3 Many of the objectives in the AQS have been made statutory in England with the Air Quality (England) Regulations 2000 and the Air Quality (England) (Amendment) Regulations 2002 for the purpose of Local Air Quality Management (LAQM).

2.4 These Regulations require that likely exceedances of the AQS objectives are assessed in relation to:

> *"the quality of air at locations which are situated outside of buildings or other natural or man-made structures, above or below ground, and where members of the public are regularly present"*

2.5 The Air Quality Standards (Amendment) Regulations 2016 amends the Air Quality Standards Regulations 2010 that transpose the European Union Ambient Air Quality Directive (2008/50/EC) into law in England. This Directive sets legally binding limit values for concentrations in outdoor air of major air pollutants that impact public health.

Clean Air Strategy 2019

2.6 The UK government released its Clean Air Strategy as part of its 25 Year Environment Plan. The Strategy sets out the comprehensive action that is considered to be required from across all parts of government and society.

2.7 The primary focus of air quality management has primarily been related to NO_2 and its principal source in the UK, road traffic. The 2019 Strategy aims to broaden the focus to other areas, including actions on clean growth, emissions from domestic wood burning stoves, industry and agriculture.

The Environment Act 2021

2.8 The Environment Act 1995 is being updated to include several changes that aim to improve air quality in England. These changes include a requirement for the Secretary of State to review the National Air Quality Strategy every five years, as well as a requirement for annual reports to be made to Parliament on the progress made towards achieving air quality objectives. Additionally, changes are being made to the way AQMAs are designated and managed.

2.9 The latest air quality objectives relevant to this report are outlined in Table 2.1.

Pollutant	Air Quality Objectives		
	Concentration		Measured as
Particulate Matter (PM_{10})	50 µg/m^3		24-hour mean not to be exceeded more than 35 times per year
	20 µg/m^3		Annual mean
Particulate Matter ($PM_{2.5}$)	Interim target by 2028	12 µg/m^3	Annual mean
	Legally binding target by 2040	10 µg/m^3	

Table 2.1: Air Quality Objectives (England)

National Planning Policy Framework 2023

2.10 The National Planning Policy Framework (NPPF), paragraph 192, states that Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas.

2.11 Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

2.12 The National Planning Practice Guidance (NPPG) (Reference ID: 32-008-20140306), states that air quality assessments and resulting mitigation measures must be location specific and proportionate to the nature/scale of development proposed and the level of concern about air quality.

Environmental Protection Act 1990 – Control of Dust and Particles Associated with Construction

2.13 The main requirements with respect to dust control from industrial or trade premises not regulated under the Environmental Permitting (England and Wales) Regulations (2016) and subsequent amendments, such as construction sites, is that provided in Section 79 of Part III of the Environmental Protection Act (1990). The Act defines nuisance as:

> *"any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance."*

2.14 Enforcement of the Act, in regard to nuisance, is currently under the administration of the local Environmental Health Department, whose officers are deemed to provide an independent evaluation of nuisance. If the LA is satisfied that a statutory nuisance exists, or is likely to occur or happen again, it must serve an Abatement Notice under Part III of the Environmental Protection Act (1990). Enforcement can insist that there be no dust beyond the boundary of the works. The only defense is to show that the process to which the nuisance has been attributed and its operation are being controlled according to best practice measures.

Regional Planning Policy

<u>The London Plan</u>

2.15 Policy SI 1 of the London Plan contains guidance for improving air quality in relation to planning decisions. The following action relates to construction activities:

Action D: *In order to reduce the impact on air quality during the construction and demolition phase development proposals must demonstrate how they plan to comply with the Non-Road Mobile Machinery Low Emission Zone and reduce emissions from the demolition and construction of buildings following best practice guidance.*

Local Planning Policy

<u>Camden Local Plan</u>

2.16 London Borough of Camden (LBoC) Local Plan 2017 covers the period 2016-2031 and sets out the Council's planning policies for the borough.

Policy CC3 - Circular economy and reduction of waste

A. The Council will seek to ensure that developments minimise waste, use resources efficiently, and are designed to facilitate easy maintenance and adaptability of use. The Council will:

I. Require all developments to optimise resource efficiency by:

a. Reducing waste through the application of the waste hierarchy (Prevention, Preparing for reuse, Recycling, Other recovery, Disposal);
b. Reducing energy and water use during demolition and construction, whilst effectively mitigating air quality impacts;
c. Minimising the amount of materials required.

Policy A1 – Protecting Amenity

B. When assessing planning applications, the factors that the Council will consider include:

i. the cumulative impacts of the construction phase, including potential impact on, and damage to, highway assets, and the need for Construction Management Plans;
ii. odour, fumes and dust;"

Policy A3 - Air Quality

The Council will expect development to contribute to improving air quality in Camden to protect public health. The Council will:

ii. Require the following types of development to submit an Air Quality Assessment, where requested by the Council, the Air Quality Assessment must be supported by detailed air quality modelling:

b. Development that involves significant demolition, construction and/or earthworks;
c. Any development that could have a significant impact on air quality, either directly or indirectly; or

iii. Require all development to demonstrate how they plan to meet the GLA emission standards for Non-Road-Mobile-Machinery. We will apply the emission standards for the Central Activities Zone across the whole borough.

Camden Planning Guidance (CPG): Air Quality

Demolition and Construction Dust

Reducing dust and air quality impacts during demolition and construction. The impact of the construction and demolition phases of a development on air quality must be taken into account as part of planning applications and included in AQAs. Exhaust emissions from construction vehicles and machinery such as generators, piling and grinding equipment can result in dust emissions; gases (NO_2); and fine particles.

Controlling dust emissions is important to:

- *prevent disturbance to local residents due to soiling;*
- *minimise damage to vegetation; and*
- *reduce impacts on local air quality, thereby protecting public health.*

Best practice measures should be adopted during construction and demolition work to reduce and mitigate air pollution emissions. Development that involves significant demolition, construction or earthworks will be required to assess the risk of dust and emissions impacts in an AQA and include appropriate mitigation measures to be secured in a Construction Management Plan. Applicants are encouraged to adopt the procedures outlined Mayor's 'Control of Dust and Emissions during Construction and Demolition' SPD. These focus around three principles to control emissions – prevention, suppression and containment. We will expect you to include the following items in Construction Management Plans:

- *Identification of whether demolition/construction represents a low, medium or high risk site in the context of air quality;*
- *Identification of the best practice measure required to control and mitigate plant and vehicles exhaust emissions; and*
- *How this will be monitored.*

The importance of reducing emissions from non-road mobile machinery is recognised in the Mayor's 'Control of Dust and Emissions during Construction and Demolition' SPD.

Monitoring

We may require monitoring, before and during the construction and demolition phases, dependent upon the scale of the proposed development. Medium risk schemes usually require a minimum of two realtime monitors, while high risk schemes usually require four. The choice of locations and positions must clearly be demonstrated on the basis of identified nearby receptors, the prevailing atmospheric conditions, off-site emission sources, local topography, and the relevant dust-generating site activities. Baseline monitoring would normally be required for at least 6 months (ideally 12 months) prior to commencement, and the results

used to inform interpretation of construction phase monitoring and any actions required to be taken to avoid exceedances.

Camden Clean Air Strategy 2019 – 2034

2.17 The Clean Air Strategy sets out Camden's long-term vision for improving air quality and protecting public health from the effects of air pollution.

2.18 Camden has committed to meeting the updated World Health Organization (WHO) air quality guidelines throughout the borough by 2034 at the latest for annual mean pollutant concentrations:

- NO_2: 10 µg/m^3 by 2034
- PM_{10}: 15 µg/m^3 by 2030
- $PM_{2.5}$: 5 µg/m^3 by 2034

2.19 Additionally, LBoC have set interim targets for the pollutants to measure ongoing progress as below with limits representing annual mean pollutant concentrations:

- NO_2: 30 µg/m^3 by 2026 and 20 µg/m^3 by 2030
- PM_{10}: 20 µg/m^3 by 2026
- $PM_{2.5}$: 10 µg/m^3 by 2030

Camden Clean Air Action Plan 2023 - 2026

2.20 Camden's Air Action Plan details the following priorities in relation to demolition and construction:

Priority 1 'Construction and Development'

- *Reducing emissions from non-road mobile machinery (NRMM);*
- *Reduce emissions from construction generators;*
- *Reduce emissions from construction and demolition processes; and*
- *Reduce emissions from road vehicles servicing construction sites.*

Key Guidance Documents

The Control Of Dust And Emissions During Construction and Demolition (MOL SPG, 2014)

2.21 This guidance provides advice, methodology and criteria to assess the dust impacts that arise from construction activities. This assessment evaluates the impact of dust soils, human health impacts and ecological impacts during the demolition, earthworks, construction and trackout activities. The methodology is replicated in Appendix A of this report.

Camden's Minimum Requirements

2.22 LBoC has published Camden's Minimum Requirements, that outlines the principles a contractor should follow when undertaking demolition and construction activities. The document has been used to support this report and details are replicated Appendix G.

3.0 BASELINE CONDITIONS

3.1 Existing air quality conditions in the vicinity of the proposed development site were identified in order to provide a baseline for assessment.

3.2 Baseline data were gathered from the following sources:

- LBoC's 2022 Air Quality Annual Status Report; and
- DEFRA's UK AIR website; and

Local Air Quality Management

3.3 As required by the Environment Act (1995), LBoC has undertaken a review and assessment of air quality within their administrative area. This process concluded that there are exceedances of the annual mean NO_2 and 24-hour mean PM_{10} concentrations above AQOs within the borough. As such, an AQMA has been declared as Camden AQMA encompassing "*The whole borough."*

3.4 The site is located within the Camden AQMA and, as a result, there is the potential for the development to contribute to poor air quality if proper management and mitigation measures are not implemented.

Air Quality Monitoring

3.5 Data was taken from LBoC's 2022 Air Quality Annual Status Report. Concentrations measured in 2020 and 2021 should be perceived with caution due to the COVID-19 pandemic where lockdown would have disrupted usual traffic patterns in the UK. These concentrations are likely to be lower than expected in an ordinary year.

3.6 As indicated in Table 3.1, annual PM_{10} concentrations have not exceeded the annual UK AQO of 40 µg/m^3 at all monitoring locations.

3.7 PM_{10} Concentrations at BL0 were below Camden's interim target of 20 µg/m^3 from 2018 to 2022. There were, however, exceedances of Camden targets at CD9 in 2018, 2019, and 2022, and at CD1 in 2018 and 2022.

3.8 All monitoring locations have exceeded the PM_{10} 24-hourly UK AQO objective of 50 µg/m^3 in recent years. However, the figures are below the objective threshold of 35 times per year and therefore do not breach the AQO.

3.9 Annual $PM_{2.5}$ concentrations measured at CD9, show that there have been exceedances of the UK AQO's interim AQO of 12 µg/m^3 and the 2040 AQO, along with Camden's interim target of 10 µg/m^3.

3.10 Annual $PM_{2.5}$ concentrations have exceeded Camden's interim target of 10 µg/m^3 at BL0 in 2019, and at CD1 in 2018, 2019, and 2022.

3.11 BL0 is located approximately 0.28 km from the site and is therefore expected to be the most indicative monitoring location. This station is located in a park, where concentrations may be marginally lower than the site's location on Old Gloucester Street.

Site ID	Site Name	Site Type	NGR		Measurement	Air Pollutants	Annual Mean Concentrations (µg/m³)				
			X	Y			2018	2019	2020	2021	2022
BL0	London Bloomsbury (Russell Square Gardens)	Urban Background	536473	174128	Annual	PM_{10}	17	18	16	16	17
					24-Hour Exceedances		1	9	4	0	5
					Annual	$PM_{2.5}$	10	***11***	9	9	9
CD9	Euston Road	Roadside	529878	182648	Annual	PM_{10}	**21**	**22**	18	19	**21**
					24-Hour Exceedances		2	8	2	2	6
					Annual	$PM_{2.5}$	***15***	***14***	***11***	***11***	***12***
CD1	Swiss Cottage (Finchley Road)	Kerbside	526629	184391	Annual	PM_{10}	**21**	19	16	16	**21**
					24-Hour Exceedances		4	8	3	0	0
					Annual	$PM_{2.5}$	***11***	***11***	10	9	***12***
KGX	Coopers Lane	Roadside	529831	183250	Annual	PM_{10}	15	15	13	13	15
					24-Hour Exceedances		1	5	1	0	5
					Annual	$PM_{2.5}$	-	-	-	-	10

NOTE:

Exceedances of the Camden's interim targets PM_{10} of 20 µg m^{-3} are in **bold.**

Exceedances of the UK interim $PM_{2.5}$ AQO of 12 µg m^{-3} are in **bold** and *italics*.

Exceedances of Camden's interim $PM_{2.5}$ of 10 µg m^{-3} are in **bold**, *italics, and* ***underlined*****.**

Table 3.1: Concentrations for PM_{10} and $PM_{2.5}$

DEFRA Predicted Background Pollutant Concentrations

3.12 Predictions of background pollutant concentrations on a 1km-by-1km grid basis have been produced by DEFRA for the entire of the UK to assist LAs in their Review and Assessment of air quality.

3.13 The development site is located in grid square NGR: 530500, 181500. Data for this location was downloaded from the DEFRA website for the purpose of this assessment and is summarised in Table 3.2.

Pollutant	Predicted Background Concentration (µg/m^3)		
	2022	2024	2025
PM_{10}	18.89	18.45	18.23
$PM_{2.5}$	**12.23**	***11.91***	***11.75***

Note:
Exceedances of the UK interim $PM_{2.5}$ AQO of 12 µg m^{-3} are in **bold**.
Exceedances of Camden's interim $PM_{2.5}$ of 10 µg m^{-3} are in **bold** and *italics.*

Table 3.2: DEFRA Predicted Background Pollutant Concentrations

3.14 As shown in Table 3.2, Predicted annual mean concentrations of PM_{10} are below the UK AQOs of 40 µg/m^3 and Camden's interim target of 20 µg/m^3 in all years.

3.15 Annual $PM_{2.5}$ concentrations are predicted above the UK AQO interim target of 12 µg/m^3 in 2019, and Camden's interim target of 10 µg/m^3 in all years.

Sensitive Receptors

3.16 A sensitive receptor is defined as any location which may be affected by changes in air quality as a result of a development. These have been defined for demolition and construction dust impacts in the following Sections.

3.17 In line with the MOL SPG guidance depicted in Appendix A, the following receptors have been identified surrounding the site boundary:

- **Medium Sensitivity Receptors:** These users would expect to enjoy a reasonable level of amenity but would not reasonably expect to enjoy the same level of amenity as in their home. Within this assessment, this includes commercial units, restaurants, coffee shops, fast food shops, hotels; and
- **High Sensitivity Receptors:** These users can reasonably expect enjoyment of a high level of amenity. Within this assessment, this includes residential units and hospital.

3.18 In line with the MOL SPG guidance depicted in Appendix A, the sensitivity of the receiving environment to potential dust impacts was considered to be medium and high sensitivity receptors. Receptors within 100 m of the site boundary have been detailed in Figure 3.1.

3.19 Ecological receptors were analysed using Magic Maps website which provides authoritative geographic information about the natural environment from across the government. This application is managed by Natural England.

3.20 The site boundary and trackout route are not within 50 m of an ecological receptor. As a result, ecological receptors have been screened out.

Figure 3.1: Sensitive Receptor Locations Within 100 m of the Site Boundary

4.0 AIR QUALITY DUST RISK ASSESSMENT

4.1 There is the potential for air quality impacts as a result of the demolition and construction phases of the proposed development. These are assessed in the following sections following the methodology in Appendix A.

4.2 As discussed in Section 3 the following receptors have been identified and assessed within this section:

- Medium Sensitivity Receptors; and
- High Sensitivity Receptors.

Demolition, Construction and Trackout Dust Impacts

4.3 Receptors sensitive to potential dust impacts during demolition, earthworks and construction works were identified from a desk-top study of the area up to 350 m from the development boundary. These are summarised in Table 4.1.

Distance from Site Boundary (m)	Approximate Number of Medium Sensitivity Receptors	Approximate Number of High Sensitivity Receptors
Less than 20	1-10	1-10
Less than 50	10-100	10-100
Less than 100	10-100	More than 100
Less than 350	More than 100	More than 100

Table 4.1: Demolition and Construction Activities Dust Sensitive Receptors

4.4 Receptors sensitive to potential dust impacts from trackout were identified from a desk-top study of the area up to 200 m from the site access route. These are summarised in Table 4.2. The construction vehicle will access the site via Old Gloucester Street, and egress via Queen Square onto Boswell Street.

Distance from Site Access Route (m)	Approximate Number of Medium Sensitivity Receptors	Approximate Number of High Sensitivity Receptors
Less than 20	1-10	1-10
Less than 50	10-100	10-100

Table 4.2: Trackout Activities Dust Sensitive Receptors

Assessment of Potential Dust Emission Magnitude

4.5 The undertaking of activities such as demolition, cutting, construction, and storage of materials have the potential to result in fugitive dust emissions throughout the construction phase. Vehicle movements both on-site and on the local road network also have the potential to result in the re-suspension of dust from haul road and highway surfaces.

4.6 The potential for impacts at sensitive locations depends significantly on local meteorology during the undertaking of dust generating activities, with the most significant effects likely to occur during dry and windy conditions.

4.7 The wind direction is predominantly southwesterly. As such, properties to the northeast of the site would be most affected by dust emissions.

4.8 The desk-study undertaken to inform the baseline identified a number of sensitive receptors within 350 m of the site boundary. As such, a detailed assessment of potential dust impacts was required.

Demolition

4.9 A number of existing wall structures will be removed from the basement, ground floor, and first floor. The demolition volume will be 552 m^3 at a height of 21.7 m from the basement to the roof level. Construction material with low potential for dust release. Demolition activities will take place during the summer. It should be noted that only interior structures will be demolished. Consequently, there will be minimal impact on sensitive receptors.

4.10 In accordance with the criteria outlined in Table A1, Appendix A, the magnitude of potential dust emissions from demolition is therefore small.

Earthworks

4.11 Earthworks are expected to involve excavation of the basement to the rear of the site. The British Geological Survey website informs that the soil type beneath the site is London Clay Formation consisting of sand, silt and clay. The total area of the site is 430 m^2. It is expected there will be 1 HGVs active at any one time. Material moved will be less than 664 m^3.

4.12 In accordance with the criteria outlined in Table A1, Appendix A, the magnitude of potential dust emissions from earthworks is therefore small.

Construction

4.13 Construction activities will involve basement extension at the rear of the building. The total building volume will be approximately 512.66 m^3 with construction materials including

concrete, bricks, steel, and timber. There will be no concrete batching or sandblasting taking place on site.

4.14 In accordance with the criteria outlined in Table A1, Appendix A, the magnitude of potential dust emissions from construction is therefore small.

Trackout

4.15 Trackout activities will involve delivery and removal of materials. There will be 3 m of unpaved road, and 1 to 2 HGV movements per day. Potentially dusty surface material picked up by trackout movements will consist of sand, clay and silt.

4.16 In accordance with the criteria outlined in Table A1, Appendix A, the magnitude of potential dust emissions from trackout is therefore small.

4.17 Table 4.3 shows the sensitivity of the surrounding area in relation to dust soiling and human health for each of the construction activities.

Sensitive Receptors	Potential Impact	Sensitivity of the Surrounding Area			
		Demolition	Earthworks	Construction	Trackout
Medium	Dust Soiling	Medium	Medium	Medium	Medium
	Human Health	Medium	Medium	Medium	Medium
High	Dust Soiling	Medium	Medium	Medium	Medium
	Human Health	Low	Low	Low	Low

Table 4.3: Sensitivity of the Surrounding Area

Risk of Impacts

4.18 The predicted dust emission magnitude has been combined with the defined sensitivity of the area to determine the risk of impacts during the demolition, earthworks, construction and trackout activities, prior to mitigation. Table 4.4 provides a summary of the risk of impacts for the proposed development.

Receptor	Potential Impact	Risk of Dust Impacts			
		Demolition	Earthworks	Construction	Trackout
Medium	Dust Soiling	Low	Low	Low	Negligible
	Human Health	Low	Low	Low	Negligible

Receptor	Potential Impact	Risk of Dust Impacts			
		Demolition	Earthworks	Construction	Trackout
High	Dust Soiling	Low	Low	Low	Negligible
	Human Health	Negligible	Negligible	Negligible	Negligible

Table 4.4: Summary of Potential Unmitigated Dust Risks

4.19 It should be noted that the potential for impacts depends significantly on the distance between the dust generating activity and receptor location. Risk was predicted based on a worst-case scenario of works being undertaken at the site boundary closest to each sensitive area. Therefore, actual risk is likely to be lower than that predicted during the majority of the demolition and construction phases.

4.20 With mitigation measures in place, illustrated in Table 5.3, the effects of dusty demolition and construction activities on sensitive receptors, will be negligible.

5.0 DUST MITIGATION MEASURES

5.1 The approved details shall be fully implemented and permanently retained and maintained during the entire constructing period of the development. The continuing effectiveness of this AQDMP should be reviewed in consultation with site management. The reviews will take into account the compliance records, complaints history, monitoring records, and any recent sensitive developments on neighbouring land.

5.2 Reviews of the plan will also be undertaken in the event of continued exceedances of the dust risk criteria after mitigation measures have been established. The plan should be amended as necessary, including any changes to the monitoring methods and control measures which may be agreed upon. It is recommended that the AQDMP be reviewed six months from initial implementation. Following an initial review, it is recommended that the AQDMP should also be reviewed and updated where applicable below:

- As instructed by the Project Manager;
- As any additional contractors are appointed; and
- Following any changes to the scope of the site works that have the potential to cause any adverse environmental effects associated with air quality or dust.

5.3 Any updates to the AQDMP should be agreed in writing with LBoC prior to implementation.

Roles and Responsibilities

5.4 The details of the Project Manager with Key roles and responsibilities relating to air quality during the construction works are shown below in Table 5.1.

Name	**Oliver Brennan**
Position	Project Manager
Company	Patterson Construction Ltd
Address	Patterson House, Unit 1-2 Canalside, Trumpers Way, London W7 2BD
Telephone	07918 550984
Email	Oliver.Brennan@pattersonconstruction.co.uk

Table 5.1: Site Manager's Details

5.5 The appropriate resources will be supplied to cover the requirements of this AQDMP and ensure that these are communicated effectively and acted upon in an appropriate manner.

5.6 The name and contact details of the Project Manager and Site Manager will be clearly displayed on the site Hoarding for adjacent residents, or any member of the public should

they wish to contact them. All staff will be responsible for minimising any dust emissions from the site during the site preparation and construction phases.

5.7 Key roles and responsibilities of the project managers and site managers, relating to air quality, are detailed in Table 5.2.

Role	Control Measure
Site Manager	• Ensure that the mitigation and monitoring requirements laid out in the AQDMP are carried out during works on site. • Ensure that staff are aware of the requirements of the AQDMP and have access to the document. Regular training of staff should be implemented. • Undertake and record dust inspections of the site as required by the AQDMP. • Ensure that site documentation (including method statements and risk assessments) includes dust mitigations. • Act on complains and dust alerts as detailed in the AQDMP. • Maintain up-to-date site log of air quality events and complaints. • Investigate the cause of air quality events and complaints, as required. • Act as the key point of contact for queries and complaints regarding air quality emissions from site.
All Site Personnel	• Carry out all works in line with the AQDMP requirements. • Report observations of dust events or deviations from the AQDMP procedures. • Attend environmental management training.

Table 5.2: Key Roles and Responsibilities

Programme of Dust-Generating Activities

5.8 The whole construction period will take approximately 38 weeks, starting on 28th May 2024. Based upon this timescale, the development will be complete in February 2025.

Demolition and Construction Site and Equipment Layout

5.9 Site layout will ensure that dust-causing activities and machinery will be located away as far as practically possible from the off-site receptors within 20 metres of the site.

5.10 The Contractor will provide a final construction plan for the demolition and construction phases, which indicates the following:

- Hoarding on site boundaries;
- Location of NRMM;
- Haul Routes within the site

- Materials and Stockpiling Area;
- Fuel Storage area;
- Wheel wash location; and
- Water supply point; and
- Site drainage to prevent contaminated water leaving the site.

5.11 The vehicular site entrance will be covered with hardstanding material to reduce the likelihood of spoil encroaching on the highway.

5.12 The access gate will be manned by a Traffic Marshal. They will be responsible for coordinating vehicles, ensuring the site is kept secure and monitoring the cleanliness of the roads.

5.13 The control of all vehicles and mobile plant within the site will be appointed to a Traffic Banksman. The Traffic Banksman will work closely alongside the Traffic Marshal to ensure the fluid and safe movement of traffic into, around and off the site.

5.14 Wheel wash facilities will be in place to clean vehicle wheels before leaving the site. All vehicles will be checked for cleanliness before leaving the site. Vehicles shall always be sheeted when leaving the site. The use of our on-site road sweeper will be deployed if there is any mud or debris within the vicinity of site.

5.15 According to Patterson Construction Ltd, the area outside the vehicle gates will be continuously swept and washed down in the early stages of the project when ground work is being carried out. The vehicles will remain on the public highway, and the road will be cleaned if necessary with jet washers or sweeping brushes.

Site Hoarding

5.16 There will be a 2.4 m height fixed solid hoarding installed to enclose the existing site. The current gates will be removed, stored, and a pedestrian gate will be erected to the side facing.

Water Supply

5.17 Water supply to site will remain live for the purpose of dust suppression and hydrants will be utilised and licences obtained. The project and site manager will liaise with the Water company to ensure that the supply is metered.

Stockpiling and Material Management

5.18 There will be no stockpiling of materials taking place outside the building. There will be wait and load vehicles for muck away and skips for other waste.

5.19 Oxygen and Propane gas cylinders or packs will be stored safely within a secure, well-ventilated area fitted with a lock. Propane will be stored separate from oxygen with a distance of at least three metres between them. Empty gas bottles will be stored separately.

5.20 All flammable materials or substances held on site will be kept to minimum quantities and stored at least five metres away from any buildings; the location will be designated and clearly identified as a no smoking area.

Fuel on Site

5.21 Diesel or oil stored on site will be stored within a bund or specific bunded container to prevent spillages from entering any water courses. This will be managed to ISO14001 requirements. All flammable materials/substances held on site will be kept to minimum quantities and stored at least five metres away from any buildings; the location will be designated and clearly identified as a no smoking area.

Complaints Management

5.22 The management of complaints will be the responsibility of the contractor's Site Manager. Any complaints relating to dust or air quality issues will be reported and filed alongside any mitigation taken to rectify the issue.

5.23 A record of all environmental incidents as a result of dust will be recorded through the forms included in Appendices B, C and D. These forms will made available for inspection, as necessary.

5.24 Records of all complaints and checks undertaken will be held at the site for the duration of the works and will be investigated by the Site Manager. Information to be recorded and actioned includes:

- Time, date, identity and contact details of the complainant;
- The wind direction, strength and weather conditions;
- If the complainant has been referred by the local authority;
- Complainant description of the dust emission;
- Length of dusty emissions;
- Cause of dusty emissions;
- A site inspection will be carried out immediately and its findings recorded;
- Dust mitigation methods will be employed immediately;
- A visit to the site of complaint will be carried out as soon as possible to identify any ongoing problems;
- The complainant will be contacted and advised of mitigation and response; and
- The Local Authority will be notified that a complaint has been received.

On-road Vehicles

5.25 All on-road vehicles will comply with the ULEZ vehicle emission standards e.g. Petrol/Diesel Euro 6 and Euro VI as a minimum. Evidence that contractors and suppliers have been contacted and their responses to the applicant in respect to the use of ULEZ compliant vehicle can be found in Appendix B.

5.26 A ULEZ vehicle compliance Form for the duration of the works will be issued to the council prior to demolition works commencing and then on a monthly basis by e-mail to airquality@camden.gov.uk.

5.27 The use of Ultra-Low Emission Vehicles (ULEV) (e.g. Electric, Hybrid (Electric-Petrol) where possible will be encouraged at the procurement stage of the tender for these services. The Applicant will actively work with suppliers that can provide electric or hybrid vehicles where practicable and details included in the ULEZ compliance Form.

5.28 Construction site workers will use sustainable means of travel (public transport, walking and car-sharing). Information on public transport access to the site will be provided in the form of noticeboards and toolbox talks. Car-sharing for contractors will be encouraged on-site by putting in place a notice board, in order for to people to register and request lifts.

Non-Road Mobile Machinery

5.29 All NRMM used on the site shall include CESAR ECV identification. The client will ensure Old Gloucester Street and Queen Square are NRMM compliant prior to demolition works commencing.

5.30 All NRMM will comply with Stage IV NO_X and PM_{10} Emission Standards as stated in The NRMM (Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018 and its subsequent amendments as a minimum if equal to or over 37 kW.

5.31 Where compliance with Stage IV requirements is not achievable or practical, an exemption will be sought from the GLA prior to arrival of the equipment on site and the details recorded in the monthly NRMM compliance Form. A copy of the NRMM Compliance Form is detailed in Appendix C, Figure C1.

5.32 Use of NRMM will be minimised as much as possible and electric or battery powered alternatives will be used as a preference. If NRMM under 37 kW is to be used, use of the equipment will be minimised and kept as far away from sensitive receptors as is practicable. For NRMM under 37kW, the contractor will equipment fitted with after treatment devices where practicable.

5.33 NRMM where the power output is less than 37 kW will be fitted with an after-treatment device, stated on the approved list managed by the Energy Saving Trust; the ongoing conformity of plant retrofitted with suitable after treatment devices, to a defined performance standard, should be ensured through a programme of on-site checks.

5.34 All NRMM for engines of 37 kW – 560 kW for the works will be registered on the NRMM online register prior to the commencement of any demolition and/or construction works. A NRMM compliance form will be issued to the council on a monthly basis by e-mail to airquality@camden.gov.uk.

5.35 All relevant machinery emissions information and documentation will be stored and summarised within our electronic filing system. The project will record the plant details on a spreadsheet, or similar, and the NRMM online register will be completed and maintained by the project administrative support and overseen by the site manager. The project team will co-operate with local authority inspections and provide the requisite information as required.

Demolition and Construction Dust Mitigation Measures

5.36 The mitigation measures to be implemented to ensure that Dust and PM_{10} emissions from the site are kept to a minimum during the demolition and construction phases are set out below in Table 5.3. These measures have been generated based on MOL SPG's guidance on '*The Control Of Dust And Emissions During Construction and Demolition'* and the outcome of the construction risks are as follows:

- Demolition: low risk;
- Earthworks: low risk;
- Construction: low risk; and
- Trackout: negligible.

5.37 The overall dust risk level is classed as a low risk for all non-specified activities.

5.38 With mitigation measures in place, identified in Table 5.3, the effects of all dusty demolition and construction activities on sensitive receptors, will be negligible.

Issue	Control Measure
Site Management	• Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. • Display the head or regional office contact information. • Record and respond to all dust and air quality pollutant emissions complaints. • Make the complaints log available to the local authority when asked. • Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the local authority when asked. • Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. • Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.
Preparing and Maintaining the Site	• Plan site layout: machinery and dust causing activities are located away from receptors. • Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. • Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period. • Avoid site runoff of water or mud. • Keep site fencing, barriers and scaffolding clean using wet methods. • Remove materials from site as soon as possible.
Operating Vehicle/ Machinery and Sustainable Travel	• Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone. • Ensure all non-road mobile machinery (NRMM) comply with the standards set within this guidance. • Ensure all vehicles switch off engines when stationary - no idling vehicles. • Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where possible. • Impose and signpost a maximum-speed-limit of 10 mph on surfaced haul routes and work areas. • Implement a Travel Plan that supports and encourages sustainable travel.

Issue	Control Measure
Operations	• Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems. • Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation (using recycled water where possible). • Use enclosed chutes and conveyors and covered skips. • Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
Waste Management	• Reuse and recycle waste to reduce dust from waste materials. • Avoid bonfires and burning of waste materials.
Demolition	• Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust). • Ensure water suppression is used during demolition operations. • Avoid explosive blasting, using appropriate manual or mechanical alternatives. • Bag and remove any biological debris or damp down such material before demolition.
Construction	• Avoid scabbling (roughening of concrete surfaces) if possible. • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

Table 5.3: Dust Mitigation Measures

6.0 DUST MONITORING DURING DEMOLITION AND CONSTRUCTION WORKS

6.1 If significant dust is identified beyond the site boundary, a Dust, Exceedance, Trigger, Incident and Complaint (DETIC) Form should be completed with immediate investigation via cross checking of site activities. This will result in the remedial action should be undertaken and noted on the DETIC Form. A copy of the form is detailed in Appendix D.

6.2 The Site Manager will review DETIC Forms regularly to ensure that any necessary actions have been implemented, and to identify problem areas where additional mitigation against further dust emissions may be required. LBoC will be issued the Dust Event Form by email to airquality@camden.gov.uk within 24 hours or the next working day if it occurs at a weekend or bank holiday.

6.3 Should any complaints be received relating to dust soiling the results of these inspections will be recorded in the DETIC Form and issued to LBoC by email to airquality@camden.gov.uk within 24 hours or within the next working day if it occurs at a weekend or bank holiday.

6.4 A daily visual inspection of the site will be carried out by the Site Manager, or an appropriately trained operator for a minimum of two times per day at the Visual Dust Monitoring locations, illustrated in Figure 6.1. Each visual dust monitoring location should be inspected at ground level during the demolition and construction phases. Visual dust monitoring will also be undertaken at each monitoring location at available/accessible floor levels during the demolition and construction phases.

6.5 The frequency of visual inspections will be increased to four times per day when activities with a high potential to produce dust are carried out on site. The frequency of inspections should also be increased to four times per day during periods of adverse weather, i.e. during periods of dry weather with high wind speeds.

6.6 The results of these inspections will be recorded in the Daily Dust Monitoring Form, detailed in Appendix E, and issued to LBoC by email to airquality@camden.gov.uk upon request.

6.7 A weekly off-site inspection will consist of a walk around the perimeter of site and making observations about dust emissions and dust soiling, particularly focusing of locations upwind of on-site activities.

6.8 Observations will include regular dust soiling checks of surfaces such as street furniture, cars and windowsills at the sensitive on-site and off-site receptors within 100 m of the site boundary with cleaning to be provided if necessary. The weekly Dust Monitoring Form is shown in Appendix D.

6.9 As a minimum, the following areas will be inspected for deposition of dust:

- Site access and egress, and all haul routes in the immediate vicinity of the site;
- All locally parked cars within 100 metres of the site boundary;
- The adjacent section of Imperial Road and the pavement at the site boundaries; and
- Adjacent commercial and residential properties, including windows, doors and frames.

6.10 Inspection results will be recorded in a Weekly Dust Monitoring Form and any specific notes relating to dust soiling or dust generating activities will be recorded. The Weekly Dust Monitoring Forms will be issued to LBoC by email upon request.

6.11 The dust impact risk has been assessed as a low risk for demolition, earthworks, construction, and trackout prior to mitigation measures are implemented. With mitigation measures in place, the impact is negligible. As such, according to MOL's SPG guideline and Camden Planning Guidance (Air Quality), it is not necessary to install automatic dust monitors and/or frisbee gauges. However, a visual dust assessment should be performed.

6.12 If complaints from the neighbouring community are made, site practices should be investigated and the AQDMP mitigation strategies, highlighted in Table 5.3, should be updated in accordance with any significant changes. Monitoring may be required and with LBoC in this event.

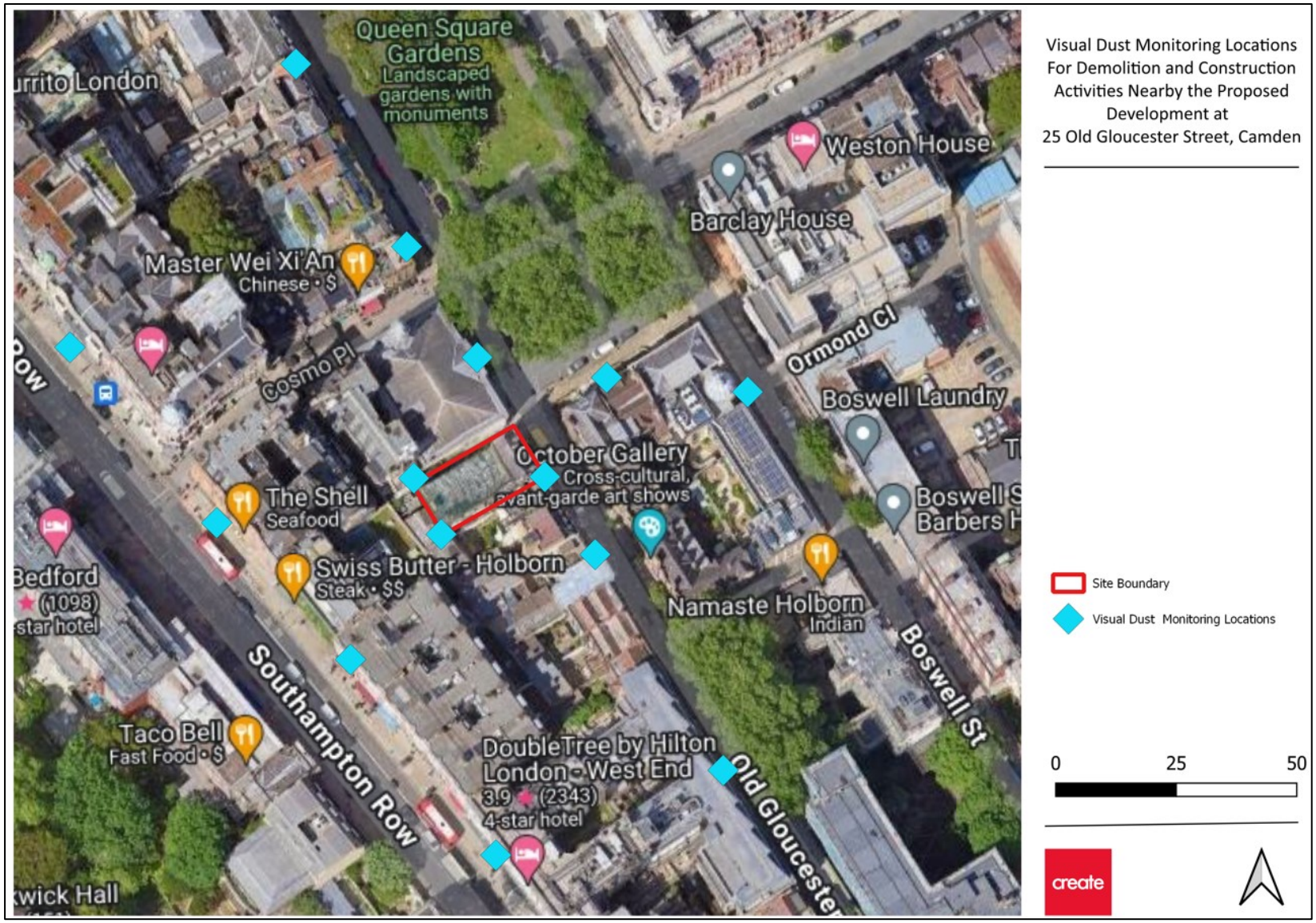

Figure 6.1: Visual Dust Monitoring Locations

7.0 ADDITIONAL INFORMATION

7.1 The Contractor should supply the following to council prior to any construction works commencing by e-mail to airquality@camden.gov.uk.

- A final Demolition Site and Equipment Layout;
- A final Construction Site and Equipment Layout;
- All contractors and suppliers (e-mails, letters) during the construction phase that they will be using ULEZ compliant vehicles (e.g. Euro 6 – Cars, Vans, LGV and Euro VI – HGV) and fully registered;
- Evidence of ULEZ Compliant Vehicles and ULEZ Vehicle Compliance Form; and
- NRMM Site Registration and Compliance Form.

8.0 DISCLAIMER

8.1 Create Consulting Engineers Limited disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report.

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9.0 REFERENCES

9.1 *Camden Clean Air Action Plan 2023-2026.* London Borough of Camden (2022)

9.2 *Camden Clean Air Strategy 2019-2034.* London Borough of Camden (2022)

9.3 *Camden Local Plan.* London Borough of Camden (2017)

9.4 *Camden Minimum Requirements.* London Borough of Camden (2019)

9.5 *Camden Planning Guidance: Air Quality.* London Borough of Camden (2021)

9.6 *Clean Air Strategy 2019.* Department for Environment, Food and Rural Affairs (2019)

9.7 *Environmental Protection Act 1990*. Sectary of State (1990)

9.8 *Environment Act 1995.* Secretary of State (1995)

9.9 *Environment Act 2021.* Secretary of State, The Welsh Ministers (2021)

9.10 *London Borough of Camden Air Quality Annual Status Report for 2022*. London Borough of Camden (2023)

9.11 *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government (2023)

9.12 *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volume 1)*. Department for Environment, Food and Rural Affairs in partnership with the Scottish Executive, Welsh Assembly Government and Department of the Environment Northern Ireland (2007)

9.13 *The Air Quality Standards (Amendment) Regulations 2016.* Parliamentary Under Secretary of State, Department for Environment, Food and Rural Affairs (2016)

9.14 *The Control of Dust and Emissions from Construction and Demolition: Supplementary Planning Guidance*. Mayor of London, Greater London Authority (2014)

9.15 *The Environmental Target (Fine Particulate Matter) (England) Regulations 2023)*. Secretary of State, Department for Environment, Food and Rural Affairs (2023)

9.16 *The London Plan*. Mayor of London, Greater London Authority (2021)

APPENDICES

APPENDIX A

Air Quality Dust Risk Assessment Methodology

There is the potential for fugitive dust emissions to occur as a result of demolition phase activities. These have been assessed in accordance with the methodology outlined within Mayor of London's Supplementary Guidance (MOL SPG), 2014, The Control of Dust and Emissions from Construction and Demolition; Supplementary Planning Guidance."

Construction Phase Assessment

Activities on the construction site have been divided into four types to reflect their different potential impacts. These are:

- Demolition;
- Earthworks;
- Construction; and
- Trackout.

The potential for dust emissions was assessed for each activity that is likely to take place and considered three separate dust effects:

- Annoyance due to dust soiling;
- Harm to ecological receptors; and
- The risk of health effects due to a significant increase in exposure to PM10.

The assessment steps are detailed below.

Step 1

Step 1 screens the requirement for a more detailed assessment. Should human receptors be identified within 350 m from the site boundary or 50 m from the construction vehicle route up to 500 m from the site entrance, then the assessment should proceed to Step 2. Additionally, should ecological receptors be identified within 50 m of the boundary site or 50 m from the construction vehicle route up to 500 m from the site entrance, then the assessment should also proceed to Step 2.

Should sensitive receptors not be present within the relevant distances then negligible impacts would be expected and further assessment is not necessary

Step 2

Step 2 assesses the risk of potential dust impacts. A site is allocated to a risk category based on two factors:

- The scale and nature of the works, which determines the magnitude of dust arising as: small, medium or large (Step 2A); and

- The sensitivity of the area to dust impacts, which can be defined as low, medium or high sensitivity (Step 2B).

The two factors are combined in Step 2C to determine the risk of dust impacts without mitigation applied.

Step 2A defines the potential magnitude of dust emission through the demolition phase. The relevant criteria are summarised in Table A1.

Magnitude	Activity	Criteria
Large	Demolition	• Total volume of building to be demolished 50,000 m^3, or • Potential dusty construction material (e.g concrete), or • On-site crushing and screening, or • Demolition activities > 20 m above ground level.
	Earthworks	• Total site area > 10,000 m^2, • Potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), or • > 10 heavy earth moving vehicles active at any one time on site, or • Formation of bunds > 8 m in height; • Total material moved > 100,000 tonnes (where known).
	Construction	• Total building volume > 100,000m^3, or • Piling, or • On site concrete batching, or • Sandblasting.
	Trackout	• > 50 (>3.5t) outward movements in any one day, • Potentially dusty surface material (e.g. high clay/silt content), • Unpaved road length > 100 m.
Medium	Demolition	• Total volume of building to be demolished 20,000 m^3 – 50,000 m^3,or • Potential dusty construction material, or • Demolition activities 10-20 m above ground level.
	Earthworks	• Total site area 2,500m^2 – 10,000m^2, • Moderately dusty soil type (e.g. silt), or • 5 – 10 heavy earth moving vehicles active at any one time, or • Formation of bunds 4 m – 8 m in height, or • Total material moved 20,000 tonnes – 100,000 tonnes (where known).
	Construction	• Total building volume 25,000 m^3 – 100,000 m^3, or • Potentially dusty construction material (e.g. concrete), or • On-site concrete batching.

Magnitude	Activity	Criteria
	Trackout	• 10 – 50 (>3.5t) outward movements in any one day, • Moderately dusty surface material (e.g. high clay content) • Unpaved road length 50 m – 100 m.
Small	Demolition	• Total volume of building to be demolished less than 20,000 m^3, or • Construction material with low potential for dust release (e.g metal cladding, or timber), or • Demolition activities < 10 m above ground, • Demolition during wetter months.
	Earthworks	• Total site area < 2,500m^2, or • Soil type with large grain size (e.g. sand), or • < 5 heavy earth moving vehicles active at any one time, formation of bunds < 4 m in height, or • Total material moved < 10,000 tonnes (where known), or • Earthworks during wetter months.
	Construction	• Total building volume < 25,000 m^3, or • Construction material with low potential for dust release (e.g. metal cladding or timber).
	Trackout	• < 10 HDV (>3.5t) trips in any one day, • Surface material with low potential for dust release, • Unpaved road length < 50 m.

Table A1: Demolition Dust Magnitude

Step 2B defines the sensitivity of the area around the development site for demolition and trackout activities. The factors influencing the sensitivity of the area are shown in Table A2.

Sensitivity	Examples	
	Human Receptors	Ecological Receptors
High	• Users expect of high levels of amenity • High aesthetic or value property • People expected to be present continuously for extended periods of time • Locations where members of the public are exposedover a time period relevant to the AQO for PM10 e.g.residential properties, hospitals, schools and • residential care homes	Internationally or nationally designatedsite e.g. Special Area of Conservation

Sensitivity	Examples	
	Human Receptors	Ecological Receptors
Medium	• Users would expect to enjoy a reasonable level of amenity • Aesthetics or value of their property could be diminished by soiling • People or property wouldn't reasonably be expectedto be present here continuously or regularly for extended periods as part of the normal pattern of • use of the land e.g. parks and places of work	Nationally designated site e.g.Sites of Special Scientific Interest
Low	• Enjoyment of amenity would not reasonably be expected • Property would not be expected to be diminished in appearance • Transient exposure, where people would only be expected to be present for limited periods. e.g. publicfootpaths, playing fields, shopping streets, playing fields, farmland, footpaths, short term car park and roads	Locally designatedsite e.g. Local NatureReserve

Table A2: Examples of Factors Defining Sensitivity of an Area

The guidance also provides the following factors to consider when determining the sensitivity of an area to potential dust impacts during the demolition phase:

- Any history of dust generating activities in the area;
- The likelihood of concurrent dust generating activity on nearby sites;
- Any pre-existing screening between the source and the receptors;
- Any conclusions drawn from analysing local meteorological data which accurately represent the area; and if relevant the season during which works will take place;
- Any conclusions drawn from local topography;
- Duration of the potential impact, as a receptor may become more sensitive over time; and,
- Any known specific receptor sensitivities which go beyond the classifications given in the document.

These factors were considered in the undertaking of this assessment.

The sensitivity of the area to dust soiling effects on people and property is shown in Table A3.

Receptor Sensitivity	Number ofReceptors	Distance from the Source (m)			
		Less than 20	Less than 50	Less than 100	Less than 350
High	More than 100	High	High	Medium	Low
	10 - 100	High	Medium	Low	Low
	1 - 10	Medium	Low	Low	Low
Medium	More than 1	Medium	Low	Low	Low
Low	More than 1	Low	Low	Low	Low

Table A3: Area Sensitivity to Dust Soiling Effects on People and Property

Table A4 outlines the sensitivity of the area to human health impacts.

Receptor Sensitivity	Annual MeanPM10 Concentration	Number ofReceptors	Distance from the Source (m)				
			Less than 20	Less than 50	Less than100	Less than200	Less than350
High	Greater than 32µg/m^3	More than 100	High	High	High	Medium	Low
		10 - 100	High	High	Medium	Low	Low
		1 - 10	High	Medium	Low	Low	Low
	28 - 32µg/m^3	More than 100	High	High	Medium	Low	Low
		10 - 100	High	Medium	Low	Low	Low
		1 - 10	High	Medium	Low	Low	Low
	24 - 28µg/m^3	More than 100	High	Medium	Low	Low	Low
		10 - 100	High	Medium	Low	Low	Low
		1 - 10	Medium	Low	Low	Low	Low
	Less than 24µg/m^3	More than 100	Medium	Low	Low	Low	Low
		10 - 100	Low	Low	Low	Low	Low
		1 - 10	Low	Low	Low	Low	Low
Medium	-	More than 10	High	Medium	Low	Low	Low
	-	1 - 10	Medium	Low	Low	Low	Low
Low	-	More than 1	Low	Low	Low	Low	Low

Table A4: Sensitivity of the area to Human Health Impacts

Table A5 outlines the sensitivity of the area to ecological impacts.

Receptor Sensitivity	Distance from the Source (m)	
	Less than 20	Less than 50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Table A5: Area Sensitivity to Ecological Impacts

Step 2C combines the dust emission magnitude with the sensitivity of the area to determine the risk of unmitigated impacts. Table A6 outlines the risk category from demolition activities.

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High	Medium	Medium
Medium	High	Medium	Low
Low	Medium	Low	Low

Table A6: Dust Category from Demolition

Table A7 outlines the risk category from earthworks activities.

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High	Medium	Low
Medium	Medium	Medium	Low
Low	Low	Low	Negligible

Table A7: Dust Category from Earthworks

Table A8 outlines the risk category from construction activities.

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High	Medium	Low
Medium	Medium	Medium	Low
Low	Low	Low	Negligible

Table A8: Dust Category from Construction

Table A9 outlines the risk category from Trackout.

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High	Medium	Low
Medium	Medium	Low	Negligible
Low	Low	Low	Negligible

Table A9: Dust Risk Category from Trackout

Step 3

Step 3 requires the identification of site-specific mitigation measures within the IAQM guidance to reduce potential dust impacts based upon the relevant risk categories identified in Step 2. For sites with negligible risk, mitigation measures beyond those required by legislation are not required. However, additional controls may be applied as part of good practice.

Step 4

Once the risk of dust impacts has been determined and the appropriate mitigation measures identified, the final step is to determine the significance of any residual impacts. For almost all demolition activity, the aim should be to control effects through the use of effective mitigation. Experience shows that this is normally possible. Hence the residual effect will normally be 'not significant'. This has been described as negligible within this report to provide continuity between assessment terminologies.

The determination of significance relies on professional judgement and reasoning should be provided as far as practicable. This has been considered throughout the assessment when defining predicted impacts.

APPENDIX B

ULEZ Vehicle Compliance Form

Date/Time	Contractor/Supplier Name	Type of Vehicle (HGV, LGV, Car etc)	Vehicle Registration Number	Make and Model of Vehicle	Fuel Type *Diesel, Petrol, Electric, Hybrid*	ULEZ Compliant (YES/NO)	Name of Assessor	Signature of Assessor

Table B1: ULEZ Vehicle Compliance Form

APPENDIX C

NRMM Compliance Form

Contractor	Machine Type	Plant ID	KW	Engine Manufacturer	Type Approval Number	EU Stage	Retrofit Info	Date Checked	Exemption Applied For	Date of Exemption Application

Table C1: NRMM Compliance Form

APPENDIX D

Dust, Exceedance, Trigger, Incident and Complaint Form

Dust, Trigger Exceedance, Incident and Complaint From									
COMPLAINT NOTIFICATION (YES/NO)									
Contract Project Name:					Contract Project Number:				
Date:		Time:		Received By:					
Complainants Name:									
Telephone Number:									
Address:									
Weather Conditions:									
Type of Complain (Tick Appropriate Box)									
Noise		Vibration		Dust					
Other		Trigger Alert							
Description of complaint/incident:									
Investigation Action Taken:									
Details of BP Mitigation in Place:									
Remedial Action Taken:									
Preventative Measures Implemented to Prevent Further Complaints/Incidents/Exceedances:									
The Complaint is Considered (Please Tick):									
Justified		Unsubstantiated		Unfounded					

Table D1: Dust, Trigger Exceedance, Incident and Complaint From

APPENDIX E

Daily Dust Monitoring Form

Date	Time	Monitoring Location	Weather Conditions	Investigative Action Taken (to include on-and-off-site observations)	Dust Mitigation In Place	Additional Remedial Measures Undertaken to Ensure Compliance with the AQDMP	Preventative Measures Implemented to Prevent Further Dust Exceedances	Name and Position of Assessor	Signed By

Table E1: Daily Dust Monitoring Form

APPENDIX F

Weekly Dust Monitoring Form

Week Commencing:							
Inspected Items	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**
Person Completing the Checklist (Initials)							
Dust Being Controlled Correctly By Personnel							
Visual Inspection of Dust Soiling on Local Streets, Cars and Windowsills							
Visual Observation of Dust Generation From Earthworks and Construction							
Wind Direction							
Wind Speed							
Weather Forecast							

Table F1: Weekly Dust Monitoring Form

APPENDIX G

Camden's Minimum Requirements

Contractors are expected to abide by the following principles of this document – London Borough of Camden expects to receive no valid complaints regarding the proposed works to be carried.

DUST LEVELS

- Referring to visible dust, it is imperative to prevent statutory nuisance arising from the demolition, construction works or dusty activities. Therefore a philosophy of the prevention of dust formation in the first place shall be adopted. Dealing with dust should be in the following fashion:

    1. Prevention
    2. Suppression
    3. Containment

These three principles are well established and are central to the control strategies to control dust. They follow a hierarchy to control the emissions.

- All dusty operations should be identified (and reported in any CMP/DMP) and establish the best available techniques are required to control dust emissions. The identified dusty operations shall be recorded in the Fugitive dust emissions should be prevented whenever practicable. When this is not practicable emissions should be controlled at source. Examples include correct storage of raw materials, organising the process in such a way that spillage is avoided, and maintaining high standards of internal and external housekeeping.

- Consideration should be given to the siting of aggregate stockpiles, based upon such factor as the prevailing winds, proximity of site boundary and proximity of neighbours. Minimisation of drop height is very important in stockpiling to reduce wind whipping of particulates. When designing storage bays, internal walls separating storage bays should be at least ½ meter lower than external walls of the bays.

- Areas where there is vehicular movement should have a consolidated surface which should be kept in good repair.

- The main principles for preventing dust emissions are containment of dusty processes and suppression of dust using water or proprietary suppressants. Suppression techniques need to be properly designed, used and maintained, in order to be effective. For example, where water is used for dust suppression, processes require an adequate supply of water and all water suppression systems need adequate frost protection.

- Where there is evidence of airborne dust from the building construction/demolition activities the site, the contractor should make their own inspection and assessment, and where necessary undertake ambient monitoring with the aim of identifying those process operations

giving rise to the dust. Once the source of the emission is known, corrective action should be taken without delay.

- Effective preventative maintenance should be employed on all aspects of the construction/demolition works including all plant, vehicles, buildings and the equipment concerned with the control of emissions to air.

- Important management techniques for effective control of emissions include; proper management, supervision and training for process operations; proper use of equipment; effective preventative maintenance on all plant and equipment concerned with the control of emissions to the air; and it is good practice to ensure that spares and consumables are available at short notice in order to rectify breakdowns rapidly. This is important with respect to arrestment plant and other necessary environmental controls. It is useful to have an audited list of essential items.

CONSTRUCTION MANAGEMENT PLAN

A Construction/Demolition Management Plan (C/DMP) may be required as part of a planning application, planning condition or Section 106 requirement (please confirm with land owner / developer or contact the Council). All CMPs / DMPs shall be kept on site of the proposed works and made readily available for inspection at the request of an Authorised Officer of the Council.

C/DMPs shall be reviewed as necessary and all revisions shall be signed and dated in an addendum format forming part of the original C/DMP. The C/DMP shall contain the following information:

a) Name and address of the main contractors company.
b) Completion date
c) Address where the main contractors company accept receipt of legal documents. (d) Full contact details of main office and of the site for the proposed works.
d) Full contact details including name and telephone number of the Site and Project Manager.
e) The Contents of the C/DMP shall provide full details on the:

I. How these operations are intended to be carried out and its timescale from starting date to its completion.
II. Mitigation measures to be incorporated during the works to prevent noise and vibration, disturbances, creation of dust nuisance and prevention of rodent spreading out from the site. Evidence regarding staff have been trained on BS 5228:2009.
III. Prediction of noise and vibration levels (including 3D modelling) throughout the proposed works action to be taken in case exceedances over the predicted levels.
IV. Monitoring of noise, vibration and dust levels. (vi) Abatement techniques to prevent noise, vibration and dust nuisances.
V. Pest Control Job receipts

VI. Community liaison.

VII. Complaints Register, this should contain if possible complainant's details, date and time of complaint's made, causes of complaint, action taken to resolve the complaint, date and time of action taken to resolve the complaint, reasons for any unresolved complaint.

VIII. An incident logbook shall be on site and all incidents shall be recorded stating date time and worker/s involved and action taken. (e.g. equipment operations started at 07:30 hours by ….. and the action taken measures incorporated to prevent recurrence of similar event)

N.C. If the main contractor do not keep on site with an up to date C/DMP or fails to meet with the below specifications or as a result of the failure to meet with the minimum requirements valid complaints are made to the Council during these works, then the main contractor could become liable to further legal action under the other various legislation that London Borough of Camden is empowered.