

The logo for O'KEEFE, featuring the name in white, bold, sans-serif capital letters on a red rectangular background. Above the red background is a thin black horizontal line.

O'KEEFE

**Air Quality
And
Dust Management Plan**

100 Swiss Cottage

A Project for

ESSENTIAL LIVING



Document Control

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1. Introduction

This document has been prepared to describe the proposed strategy for the monitoring of dust and particulate emission during the demolition works associated with 100 Swiss Cottage. The site has been classified as a high risk project based on the Mayor's best practice guide.

The document covers the following items:-

- Outline description of the demolition works
- Monitoring Strategy
- Mitigation Measures
- Proposed Monitoring Locations

This Air Quality and Dust Management Plan is to meet the requirements of the following;

- Code of Practice for Deconstruction and Construction Sites 6th Edition – FEB 2011;
- GLA and London Councils Best Practice Guide for Controlling Dust and Emissions from Construction and Demolition, November 2006;
- The Air Quality (England) Regulations 2000 (SI 928), The Air Quality (England) (Amendment) Regulations 2002 (SI 3043);
- Environment Agency PPG 6 for working at construction and demolition sites

2. Site Description/Constraint

The site is located at 100 Avenue Road, Swiss Cottage, London, which is busy at all times of the day and night. The location is between the A41, College Crescent and Winchester Road, with the entrance to Swiss Cottage underground Station adjacent to the building in two places. The proposed works are being carried out in a domestic residential, commercial and retail environment which is also busy at all times of day and night with pedestrians and vehicles particularly in peak times. The area is controlled by Camden Council.

The site is to be served primarily from the public highway access on Avenue Road for the erection of scaffolding protection, hoardings and the demolition works. The two entrances to the London underground station must be kept clear at all time with approved (TFL & London Underground) scaffolding protection or similar to ensure safe access and egress at all times.

Special deliveries of heavy plant, machinery and cranes will be carried out during pre-arranged quiet periods (outside of rush hour times). Footpaths are to be adequately protected where required and kept clean at all times.

3. Scope of Works

The scope of works under the Essential Living demolition project is for the controlled demolition of 100 Avenue Road. Following is a brief summary of the scope of works for the project, which outlines the activities which may lead to dust emission.

4. Soft Strip of the Building

The soft strip works includes, but is not limited to, the removal of the following items:-

- Remaining tenant's waste, furniture and fittings
- Internal timber or metal stud partitions and blockwork walls
- Internal doors and frames and associated ironmongery
- Suspended ceilings, including supports and suspension grids
- Floor coverings, carpets, and vinyl
- Raised floors
- Perimeter trunking, radiators, ductwork, pipes, wires, cables, distribution boards and hot and cold water supplies
- Sanitaryware to male and female toilets and shower rooms.

All the above materials will be removed from the existing structures via the existing Internal waste chutes down onto the ground floor using the pre-installed waste chutes where the waste will then be removed from the building to the external waste storage area, it will then be loaded into roll on/off bins ready for carting away from site and taken to a licenced recycling facility. All loading of waste will be sprayed with water to dampen down to prevent dust emissions, all waste will be removed daily and the storage area will be cleared at the end of the working day.

5. Structural Demolition

The Structural Demolition works include the following tasks:-

- Carefully take down the building to the existing ground floor slab utilising a “Floor by Floor” methodology using mini excavators, with all debris arising being removed from the floors using an internal waste chute where it can then be removed from the building at the ground floor level into wait and load tipper trucks.
- During the demolition process water will be continually sprayed over the demolition arising's to prevent dust migration escaping the site boundary's, water will also be sprayed over the demolition waste when it is been loaded into tipper lorries
- The structure is a reinforced concrete construction consisting of a precast concrete floor biscuit, spanning between columns with an insitu RC topping. The foundations of the building are ground bearing beams cast on top of piles and pile caps
- During the demolition works the lower ground floor will be back propped for the follow-on sheet piling works
- The lower ground floor area will be removed during the main excavation works for the installation of the pile mat and piling works. these works will commence after the sheet piling has been installed.

6. Objectives

The objectives of the Air Quality and Dust Management Plan are to:

- As far as is reasonably practicable, seek to control and limit emissions to the atmosphere in terms of gaseous and particulate pollutants from vehicles and plant used on the site and dust from demolition activities.
- Identify potential sources of emissions to the atmosphere and apply appropriate control techniques; and
- Implement measures to reduce the impact of dust in a timely manner.

7. Dust Monitoring Strategy/Details

DustScan DS100 will be installed onto street furniture with prior agreement with E/S

The DustScan DS100 is a passive, directional sticky pad dust gauge. It samples fugitive dust in flux from 360° around the sampling head. It does not need a power supply and operates continuously in all weather conditions.

The DS100 gauge comprises a durable and resilient that can be screwed or strapped to existing street furniture and perimeter scaffold.

Two sampling cylinders, pre-fitted with dust collection slides (sticky pads), are supplied with each gauge to allow for continuous directional dust sampling. A sampling cylinder is fitted onto the monitoring head and it is orientated to north by fitting its notch over the alignment peg. The cylinder is held in place by a screw-on rain guard.

Two sample transport flasks are also supplied per instrument. These are used to prevent sample contamination after sampling cylinders have been removed from the gauge. The flask end caps are recessed to locate the cylinder securely and away from the sides of the flask. Sample flasks are returned to DustScan for analysis in purpose-built 4 or 6 section transport boxes

8. Methodology

Four monitors will be setup, one on each site boundary and monitoring will be carried out. Monitoring along a transect (straight line) across the site, set up in the direction of the prevailing wind. This will allow taking into account background levels to determine the relative contribution of air quality and dust emissions from the site. A weekly report will be issued to the client and to the Essential Living environmental department.

9. Site Action Levels

In compliance with the Mayor of London BPG The control of dust and emissions from construction and demolition a minimum site action is recommended to be 250 µg/m³ over 15 minutes (or 200 µg/m³ for TEOM measurement) - especially important for high-risk sites.

Where the site action level is being significantly breached works will stop work whilst ensuring that best practice measures are in place before restarting.

10. Dust Mitigation Measures

Demolition and construction dust, expected to only represent a nuisance to exposed human receptors in immediate proximity to the construction site, will be controlled through the application of a series of best practice measures in accordance with the Mayor of London's guidance for construction sites, including but not necessarily limited to the following elements.

Strip insides of buildings, as far as reasonably practicable, before demolition
Bag and remove biological debris (such as birds' nests and droppings) or damp down such material prior to demolition
Wherever reasonably practicable, retain walls and windows while the rest of the building is demolished to provide a screen against dust
Screen buildings, where dust producing activities are taking place, with debris screens or sheeting
Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction
Consider full enclosure of sites or specific operations where there is a high potential for dust production and the site is active for an extensive period
Where reasonably practicable store materials with the potential to produce dust away from site boundaries
Ensure no burning of waste materials takes place on site
Do not allow dry sweeping of large areas
Ensure regular cleaning of hard standings using wet sweeping methods
Maintain all dust control equipment in good condition and record maintenance activities
Routinely clean public roads and access routes using wet sweeping methods
Ensure all vehicles carrying loose or potentially dusty material to or from the site are fully sheeted
Ensure water suppression is used during demolition operations
Ensure that any crushing or grinding plant used on the site, which falls within the definition in Section 3.5 Chapter 3 of the Pollution Prevention and Control (England and Wales) Regulations 2000 SI 1973, has an appropriate permit issued and is maintained According to the procedures set out in the Pollution, Prevention and Control Act 1999.

11. Vehicle and Plant Emissions

Adverse impacts of vehicle and plant emissions will be controlled by implementing the following measures where appropriate:

- Engines of all vehicles and plant on site are not left running unnecessarily
- Using low emission vehicles and plant fitted with catalysts, diesel particulate filters or similar devices
- Using ultra low sulphur fuels in plant and vehicles
- Plant will be well maintained, with routine servicing of plant and vehicles to be completed in accordance with the manufacturers recommendations and records maintained for the work undertaken
- All project vehicles, including off-road vehicles, will hold current MOT certificates where required due to the age of the vehicle, (or to be tested to an equivalent standard) and that they will comply with exhaust emission regulations for their class
- Avoiding the use of diesel or petrol powered generators and using mains electricity or battery powered equipment
- Maximising energy efficiency (this may include using alternative modes of transport, maximising vehicle utilisation by ensuring full loading and efficient routing).
- All Non-Road Mobile Machinery (NRMM) will be Stage IIIA emission Criteria compliant, If Stage IIIA equipment is not available, NRMM should be fitted with particle traps and/or catalytic exhaust treatment wherever possible. Records will be kept on site detailing proof of emission limits for all equipment.