

Clearbell UK Strategic Limited Partnership

Freetrade Exchange, Refurbishment

External Lighting Statement

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Document Control

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1.0 Introduction

This statement has been produced on behalf of Clearbell UK in support of the planning submission for the proposed refurbishment of the existing Freetrade Exchange office block at 37 Peter Street, Manchester.

1.1 Design Brief

Artificial lighting will be installed to provide the lighting levels required during the hours of darkness.
Light pollution will be avoided through the careful selection, positioning, and aiming of luminaires.
Lighting will be carefully positioned to enhance final exits from the building, pedestrian walkways and steps and hazards. The below table gives minimum Lux levels that will be achieved.
Consideration will also be given to emergency lighting although EN1838 and BS5489:2016 suggest this is required only within 2m of final exit doors and to a designated final place of safety, often known as a 'muster point'.

1.2 Design Standards

Designs will be to current BS/EN standards with CIBSE/SLL best practice guidance also taken into consideration. Enhanced criteria such as 'Secure by Design' will also be required including planning requirements.
The external lighting will not exceed 600 Cd/m² during daylight hours and 300 Cd/m² during darkness.
ILE Guidance Notes for the Reduction of Obtrusive Light.
The SLL Code for Lighting.
British Standards.
BREEAM Requirements.
Secure by Design.

1.3 External Lighting Levels

Area	Min Average Maintained Illuminance
Building Perimeters	5 Cd/m²
Main Walkways	10 Cd/m²
Building Entrance	20 Cd/m²
Steps / Hazards	50 Cd/m²

1.4 External Luminaire Types

Building mounted LED lighting will be provided to illuminate the façade, carefully positioned to enhance the visual interest and existing structure.
Wall mounted luminaires will be provided to illuminate the building entry and exit points.
Luminaires will include the necessary optics, shields and baffles required to control light distribution.
Energy efficient lamp sources will be used such as LED, metal halide and fluorescent.

1.5 External Lighting Control

The external lighting installation will be controlled by a photocell and time clock arrangement.
Photocell control will ensure external lighting is switched off during daylight hours.
Time clock control will enable selected circuits to be switched off during the night.
A manual override switch will be provided to allow the lighting to be turned on / off.



External wall mounted lighting



External Facade Lighting



Entry & Exit Lighting - Rear

2.0 Existing Lighting installation

The existing external building lighting is provided by wall mounted flood lights mounted high level directed down the building and low level directed upward to enhance the visual aspects of the façade.

Main entry and exit points are illuminated with wall mounted light fittings low level adjacent to doorways.

The external lighting is currently wired in black external grade cabling mounted surface to the façade using cleats drilled and screwed into the stonework; routed along the masonry.

Various joint boxes have been positioned to connect the external lighting to multiple points around the façade.

3.0 Proposed Lighting Installation

During the refurbishment, the existing external lighting installation will be removed in its entirety including all cabling, joint boxes, and sundries.

A new wiring strategy will be adopted to reduce the impact of the external cabling and mounting of fittings to the existing building.

3.1 Cabling Strategy

The visual impact will be reduced by routing of cables internally where possible, reducing the quantity of cable routed on the external façade.

The cable will be of neutral colour to minimise the visual impact, matching its colour to the environment installed in.

Where cables have to be routed externally mounted to the external façade, the existing fixing holes will be re-used to reduce façade penetrations and disturbance of stonework.

New light fittings will be mounted in similar positions to the existing equipment, where possible existing fixing holes will be re-used to reduce façade penetrations and disturbance of stonework.

Joints in cables will be reduced to a minimum to reduce equipment mounted externally to the façade, reducing maintenance requirements.

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