

Space Studios – Phase 3

External Lighting Statement

0048853

5 November 2021

Revision 01

Revision	Description	Issued by	Date	Checked
00	Issued for Comment	JW	07/07/2021	JS
01	Issued for Comment	JW	05/11/2021	JS

https://burohappold.sharepoint.com/sites/048853/Shared Documents/05_MEP Engineering/05_Reports/SS3-BHE-XX-XX-RP-N-2001 - External Lighting Statement 00.docx

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Glossary

Term	Definition
CIBSE	Chartered Institute of Building Services Engineers
ILP	Institute of Lighting Professionals
U _o	Uniformity of Lighting
ULR	Upward Light Ratio
LED	Light Emitting Diode

1 Executive Summary

This design note serves to outline the design requirements of the external lighting for the new Space Studios - Phase 3 building at West Gorton, Manchester.

The new lighting scheme is to be provided to limit light spill and to reduce the impact on the existing neighbourhood and local ecology. The reduction of glare and limiting of obtrusive light are also driving factors in the design of the external lighting. As a result of utilising LED technology and efficient luminaire optics, the light spill will not exceed the recommendations of the ILP Guidance Note "GN01 – Guidance notes for the reduction of obtrusive light."

With the new proposed lighting controls the lighting levels can be adjusted to accommodate differing lighting levels required for the times of day/night. The luminaires can be turned off when the building is unoccupied. Along with reducing the impact of the lighting on the surrounding area it also allows for a more economical lighting solution.

2 Introduction

This external lighting strategy document is intended to describe the basis of design and outline description of the external lighting system associated with the new Phase 3 development at Space Studios, Manchester. It has been produced as a requirement of the Manchester City Council planning authority.

1.1 Context

BuroHappold Engineering have been appointed by Manchester City Council to undertake design works for the proposed Phase 3 development located at the Space Studios site in West Gorton, Manchester. The development will consist of a 2-storey new build studio housing film production spaces, supporting offices and workshops and ancillary areas.

1.2 Site Description

Space Studios is sited on a former industrial / manufacturing site in West Gorton. The site was acquired by Manchester City Council in 2012. The City's ambition to diversify and grow the creative sector within the region began the initial development works that is now Space Studios. MCC developed a masterplan to undertake a phased re-development of the initial 14 acres of land, formerly a redundant manufacturing facility for Fujitsu to create a purpose-built Film and TV production facility for the North of England which would capture a larger share of the growing national market and build on Manchester's historic strength as a TV and Drama production centre.

The phased masterplan exploited the site's commercial potential and was specifically tailored to allow future phases to be developed in the context of the particular sensitivities of adjoining residents and businesses and to allow drama productions and other tenants to maintain continuity of their businesses during construction work.

The first phase of this re-development comprising part new-build elements and part renewal of existing building stock and provided:

- Five 12,000 sq. ft high-end TV production stages and associated support facilities;
- 10,000 sq. ft of workshop space;
- 40,000 sq. ft of production offices and support spaces such as dressing rooms, hair and make-up studios, green rooms etc;
- Creative office space for companies providing services to the sector;
- Events and communal space to encourage businesses to network; and
- On-site secure parking for productions and for unit base vehicles.

The number of UK and international productions attracted to the first phase of Space Studios demonstrated that the facility provided the type, configuration and specification of space demanded by the sector. Since opening in late 2014 take up of spaces had been excellent and the site had hosted all the major national TV production companies with a high level of repeat business.

Building on this success MCC / MCDA undertook a second phase named 'Outerspace' and completed in late 2017. This was constructed on an adjacent 3.6-acre site, formerly a redundant mill and industrial complex acquired by the City to provide expansion space for Space Studios. This phase comprises:

- A 30,000 sq. ft sound stage with 10,000 sq. ft of bespoke support accommodation including production offices, dressing rooms, workshops etc.;
- 50,000 sq. ft of adaptable workshop units for businesses who support the film and television industry and
- Associated car and unit base parking and associated service access.

The remaining parcel of undeveloped land from the original Fujitsu plant sits at the south west corner of the site. The site is bounded by Phase 1 to the north, Kniveton Road to the west and Wenlock Way to the south and housed the former R&D block and tower building which were demolished in 2017. Following the demolition works a secure boundary was constructed and this plot formed a useful backlot / unit base location within the Space Studios secure site. This area of site will now make way for Space Studios Phase 3.

1.3 External Lighting Strategy Description

An external lighting scheme is required to provide both functional and feature lighting to the external spaces immediately adjacent to the building, promoting safe movement and adequate illumination for security. The primary emphasis of the external scheme is to provide lighting to the following areas:

- Perimeter walkways to the building:
- Vehicle access point and car park

The aim of this design note is to outline the strategy and design for the external lighting scheme that provides artificial lighting to the various areas listed. The new lighting scheme will limit light spill to the surrounding areas through the use of appropriate luminaires with good optics and careful positioning, to minimise the impact on the surrounding ecology and neighbouring buildings. Luminaires will utilise the latest LED technology where possible to reduce power consumption and optimise the efficiency of the lighting.

3 Design Criteria

The external lighting scheme will be design in accordance with the SLL Code for Lighting, BS EN:12464-2, CIBSE Lighting Guide 6 "The External Environment" and the ILP Guidance Note GN01 "Guidance Notes for the Reduction of Obtrusive Light".

Relevant areas and lux levels are provided in the table below.

Area	Maintained Illuminance (Lux)	Standard
Roadways and general movement	20	BS EN:12464-2
Walkways, Perimeter Zones	5	BS EN:12464-2

For the purposes of designing the external lighting it is assumed that the new Space Studios – Phase 3 building sits within a classification E3 Environmental Zone – Suburban surroundings and therefore the following design criteria shall be adopted from the ILP Guidance Note GN01:

Obtrusive Light Limitations for Exterior Lighting Installations						
Environmental Zone	Sky Glow ULR [Max %]	Light Intrusion (into windows) E _v [lux]		Luminaire Intensity I [candelas]		Building Luminance Pre-Curfew
		Pre-Curfew	Post-Curfew	Pre-Curfew	Post-Curfew	Average, L [cd/m ²]
E0	0	n/a	n/a	0	0	<0.1
E1	0	2	<0.1	2,500	0	<0.1
E2	2.5	5	1	7,500	500	5
E3	5.0	10	2	10,000	1,000	10
E4	15	25	5	25,000	2,500	25

4 Existing Site Conditions

4.1 Aerial View



4.2 View Along Kniveton Road



4.3 View Along Wenlock Way



5 Proposed Lighting Strategy

5.1 Proposed Lighting Strategy Drawing

Refer to Appendix A.

5.2 Proposed External Lighting Luminaires

Lighting will predominantly be LED energy efficient technology and will comprise several luminaire mounting types including:

- Wall mounted
 - Perimeter of the building
 - Above/ Next to each final exit
 - Recording in progress luminaire above each exit from stage areas, including roller shutters
- Columns installed within the carpark

The lighting design will be developed further during next design stages. Indicative products are indicated in the table below:

Reference	Description	Location	Image of Luminaire
EX1	IP65 rated bracket/ column mounted LED floodlight	Car park and on perimeter of the building on the sides overlooking to car park.	
EX2	IP65 rated linear surface mounted LED luminaire	Above final exits overlooking to car park, excluding final exits of stage areas.	

EX3	IP65 rated linear surface mounted LED luminaire	Above stage areas' final exits, stating 'RECORDING IN PROGRESS' in red.	
EX4	IP66 rated surface mounted bulkhead	Above/ next to final exits leading to exclusively pedestrian areas.	

5.3 External Lighting Control Strategy

Car Park Lighting

External LED lighting is provided at car park to enable safe access for maintenance of vehicles and pedestrians. This lighting will be timeclock and photocell controlled to ensure that lighting is only provided during hours of darkness. Manual override of the timeclock/photocell controls will be provided within the building.

Walkway Lighting

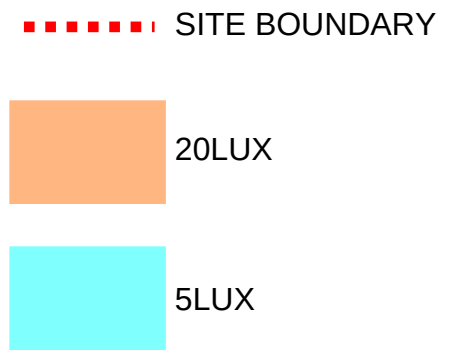
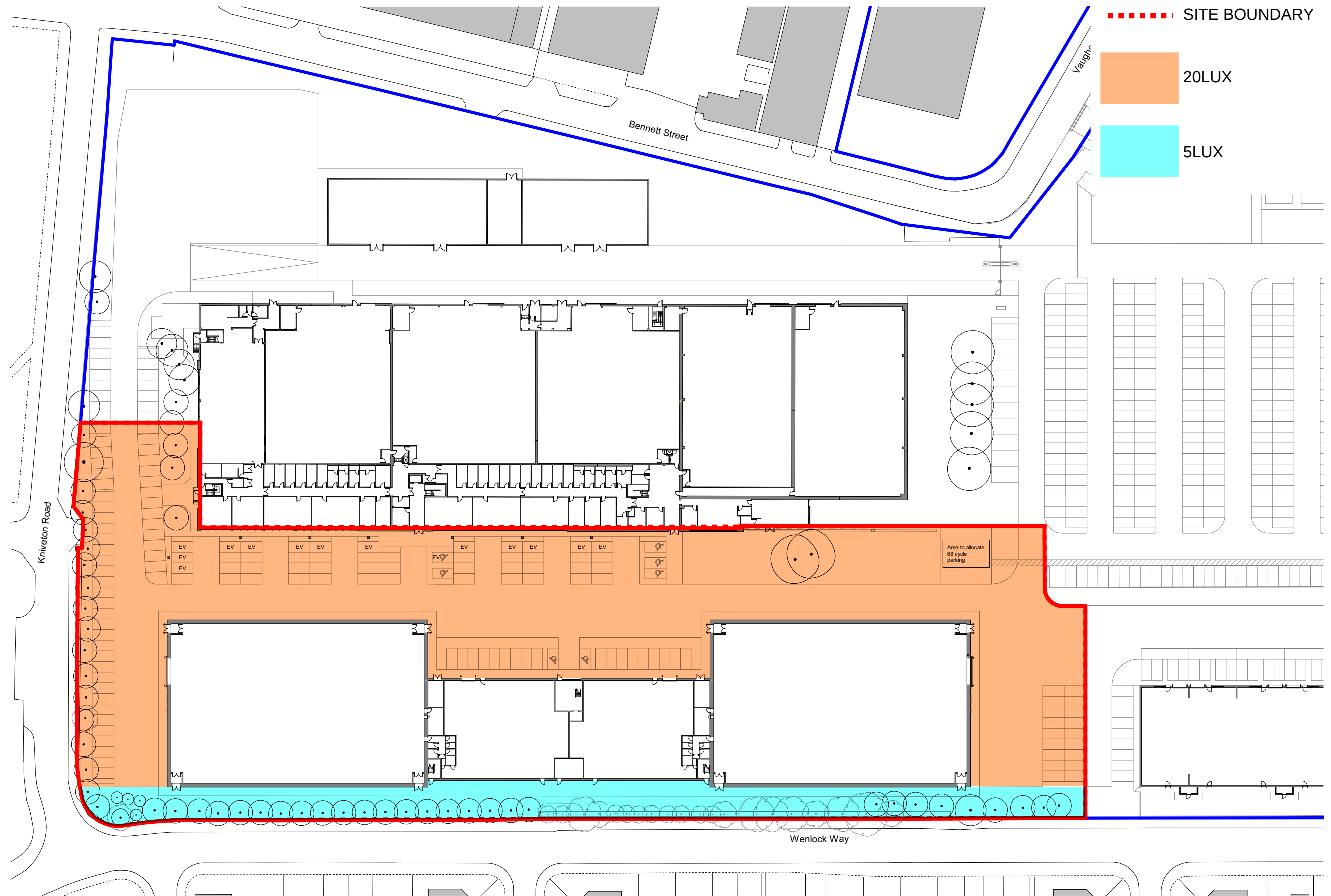
Wall mounted LED lighting is to be installed to illuminate the walkways around the perimeter of the building. These luminaires will provide safe access for building occupants and general members of the public crossing the site. This lighting will be timeclock and photocell controlled to ensure that lighting is only provided during hours of darkness. Manual override of the timeclock/photocell controls will be provided within the building.

5.4 Conclusion and Recommendations

The external lighting strategy/ statement suggests the following:

- By the selection of luminaires with good optics and light sources the amount of light spill and glare can be restricted to well within the site constraints and ensure surrounding areas are not impacted.
- The use of LED lamps, efficient optics and controls will ensure that the external lighting design is energy efficient, have a very good whole life cost and require minimal maintenance.

Appendix A Proposed Lighting Strategy Drawing



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