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O'CONNOR · SUTTON · CRONIN

MULTIDISCIPLINARY CONSULTING ENGINEERS

L333: FORTFIELD ROAD DEVELOPMENT

PUBLIC LIGHTING REPORT

2 August 2024

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P01	S4	Barry O'Brien	Mark Hopkins	Mark Hopkins	16/04/2024
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TABLE OF CONTENTS

APPENDICES

1 INTRODUCTION

The development will comprise a Large-Scale Residential Development (LRD) on a site at Fortfield Road, Terenure of 284 no. units delivering 19 no. houses and 265 no. apartments made up of studios; 1 beds; 2 beds; 3 beds; and 4 beds. The development will also provide community, cultural and arts space and a creche. Communal internal space for residents will also be delivered. Provision of car, cycle and motorbike parking will be provided throughout the development, including at basement and surface level. Vehicular/pedestrian/cyclist access from Fortfield Road. Proposed upgrade works to the surrounding road network is also included. All associated site development works, open space, services provision, ESB substations, plant areas, waste management areas, landscaping (both public and communal) and boundary treatments.

2 THE DESIGN

The lighting design has been developed with the following principal considerations:

- Provide adequate illumination to contribute towards the safe use of the main access/feeder road and adjoining footpaths by both vehicles, cycles and pedestrians.
- Provide adequate illumination to junctions with the development.
- Achieve compliance with Part M of building regulations "Access for People with Disabilities"
- Provide the required illumination with minimum energy use.
- To control the lighting to prevent energy wastage.

2.1 AREAS PROPOSED TO REMAIN UNDER CONTROL OF THE MANAGEMENT COMPANY.

All lighting within the area is to be powered from the metered landlord supply via sub-distribution boards as required and to comply with IS:10101 National Rules for Installation.
All access routes shall comply with BS8300:2018, e.g. 5 lux average for level access & 30 lux average/ 15 lux minimum for steps and ramps.
The luminaires proposed for these areas are combination of column mounted and low level bollard lights. The low level bollards are to be fitted with an emergency backup for safe guidance through the external courtyard area..
All wiring to be to DCC standard specification and to IS:10101 National Rules for Installation.
The desired lighting design may also be achieved by other luminaires and the final lighting installation may use other luminaires, with modified positioning and aiming to achieve the same result. Manufacturers' stated performance characteristics are subject to change.

2.2 LIGHTING ECOLOGY

The lighting scheme has been designed to adhere to the following lighting characteristics:

- The minimum level of appropriate/required lighting level will be provided within the developed/residential areas;
- Light fittings will be fitted with low intensity, horizontal cut-off LED light fittings employing a narrow directional light or cowled light. This will avoid the effect of light spill arising within the residential area;
- No light spill into biodiversity areas. In particular there will be no light spill from the development area onto the woodland/ pond area to the east of the development;
- The lighting includes dimming the 4m poles by 30% post curfew hours;
- Light fittings and associated lighting will be directed away from areas of open space;
- No floodlighting will be used in the development;

The lighting design adheres to the following standard guidance:

- Bats and Lighting – Guidance Notes for Planners, Engineers, Architects and Developers (Bat Conservation Ireland, 2010);
- Bats and Lighting in the UK – Bats and the Built Environment Series (Institute of Lighting Professionals, September 2018).

Also:

- Guidance Notes for the Reduction of Obtrusive Light GN01 (Institute of Lighting Professionals, 2011);

3 VERIFICATION

This report was compiled and verified by:

Barry O'Brien BSc, MIEI

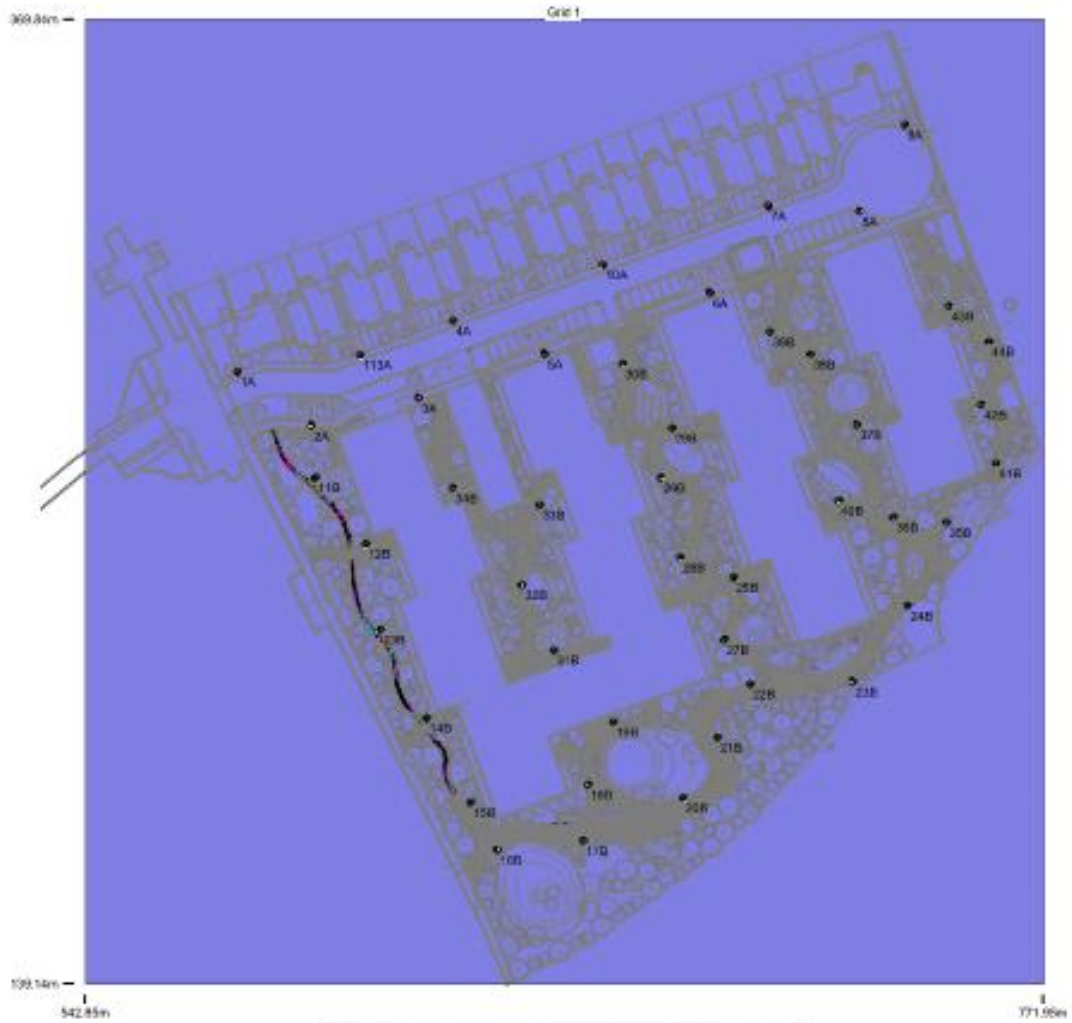
Electrical Engineer

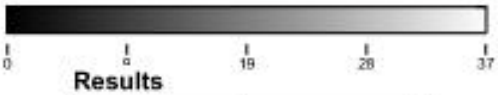
O'Connor Sutton Cronin & Associates

Appendix A CALCULATION RESULTS

Horizontal Illuminance (lux)

Grid 1





Results

Eav	9.90
Emin	1.01
Emax	37.28
Emin/Emax	0.03
Emin/Eav	0.10

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