

JV TIERNEY & CO

MECHANICAL ELECTRICAL & SUSTAINABLE ENGINEERS



SITE LIGHTING REPORT

LRD APPLICATION AT UNIT 21, FIRST AVENUE,
COOKSTOWN INDUSTRIAL ESTATE, DUBLIN 24

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UNIT 21, FIRST AVENUE, COOKSTOWN INDUSTRIAL ESTATE, DUBLIN 24
LIGHTING REPORT

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1. Lighting Design Narrative

Bartra Property Cookstown Limited intend to apply for permission for a Large-Scale Residential Development at a site of c.1.67ha at Unit 21, First Avenue, Cookstown Industrial Estate, Dublin 24. The development will consist of the following:

- Construction of a deck-access apartment development comprising 123 residential units arranged in 2 no. blocks (Block A – 7 storeys and Block B – 5 to 6 storeys) with a total floor area of c.9,713sqm excluding deck access (c.901sqm);
- Commercial floorspace located at ground floor level facing Cookstown Road in Residential Block A consisting of three commercial units and café (c. 421 sqm);
- The residential development consists of 58 no. 1 bed/2 person units, 12 no. 2 bed/3 person units and 53 no. 2 bed/4 person units with north, south, east and west facing balconies throughout. Central courtyard (c.1,303sqm) of which 733sqm is designated communal open space.

On this same site, the construction of a 1-5 storey Transitional Care Facility (step-up/step-down) providing 131 no. bedspaces over partial basement (total floor area c.6,743sqm) with central courtyard (c.519sqm) shall take place too.

As per SDCC public lighting specification in accordance with I.S. EN 132021-2:2015 & BS 5489-1:2013 pathways and roads should have a minimum light level. Therefore, all walkway areas must be lit to a P4 lighting class and roadways must be lit to a minimum P2 lighting class with the calculation surface on the ground in these cases. As per Part M, the stairs and ramps on this site must be lit to a minimum of 100 lux. Disabled parking spaces have also been lit to 20 lux minimum as per Part M requirement. These stipulations are achieved throughout as per the site lighting drawing no. 4046-JVT-ZZ-SI-DR-E-6006. Moreover, as per part m all approaches to the buildings have been lit to a minimum of 20 lux. It must be noted that in some areas, the uniformity levels may appear to seem as if they are not achieved, however this is due to the light spill associated with Part M requirements, moreover, all minimum lux levels are achieved with good uniformity levels.

The control of the proposed lighting layout will be operated by presence detection within the courtyards within the apartment complex. Lights will dim down when there are no pedestrians on the paths, once presence is detected the lights will return to their full output. The lights that are on the street/ road areas are controlled by photocell and shall come on during hours of darkness. Moreover, the selection of lights used within the design can be seen in appendix B, all luminaires chosen are LED type. Moreover, due to the presence of bat life, the colour temperature of all the luminaires are 2700K to reduce the impact this lighting has on the

bat habitats within the development as detailed in 'Bats and artificial lighting in the UK Bats and the Built Environment series'. LED luminaires shall be programmable on site and shall initially be dimmed between midnight and 6am to 75%.

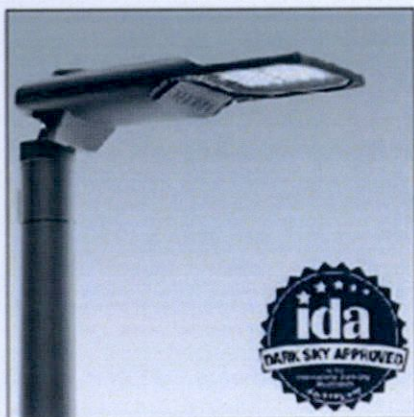
All luminaires have been located as far as possible from trees and bushes to ensure the growth of any trees does not interfere with the light distribution/ lux levels. In some cases, luminaires have been located within 10m proximity of a tree trunk, however there will be a tree maintenance plan in place to mitigate the effects of this.

Considering the amount of lighting fixtures, 3 number of micro lighting pillar are required. Their locations are seen below in appendix A, drawing no. 4046-JVT-ZZ-SI-DR-E-6006.

Appendix B



Piazza II LED

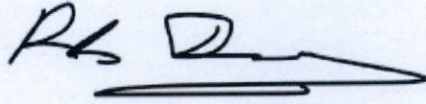


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This Report was prepared by:

Robert Donnelly

Signed:

A handwritten signature in black ink, appearing to read 'R. Donnelly', with a horizontal line drawn underneath it.

Robert Donnelly, Project Engineer

J.V. Tierney & Co.

Date: 23/01/2023