

JV TIERNEY & CO

MECHANICAL ELECTRICAL & SUSTAINABLE ENGINEERS



**SITE LIGHTING REPORT (CLARIFICATION OF FURTHER
INFORMATION RESPONSE)**

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

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LIGHTING REPORT
(CLARIFICATION OF FURTHER INFORMATION RESPONSE)

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1. Lighting Design Narrative

Bartra Property Cookstown Limited intend to apply for permission for development at this site of c.1.67ha at Unit 21, First Avenue, Cookstown Industrial Estate, Dublin 24.

The development will consist of the following:

- Demolition of all existing 1-3 storey industrial/commercial structures and small café on site totalling c.5,500sqm in area;
- 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);
- The basement consists of a sprinkler tank and pump rooms, water tank room, plant room and workshop;
- Provision of dining and kitchen areas, sitting/family rooms, activity rooms, coffee dock, hair salon, oratory, lobbies/reception areas, ancillary offices and staff areas, stores, toilets, shower/changing facilities, ESB substation, generator, switchroom, service yard and waste areas serving the facility;
- Lobbies, stair/lifts, photovoltaic panels and green roofs throughout;
- Partial provision of the pocket park identified in the Tallaght LAP (c.1,286sqm);
- New vehicular access from First Avenue and egress onto Cookstown Road via a one-way system through the subject site;
- Entrance signage on the eastern elevation of the proposed facility;
- All associated site development works, services provision, connection to the water supply, foul and surface water networks on First Avenue and Cookstown Road including partial diversion of the foul line to the north east of the site at First Avenue, temporary foul pump station,

attenuation/bioretention systems, vehicular and pedestrian access including internal road and footpaths, interim pedestrian facilities/public realm upgrade works, landscape and boundary treatment works, tree removal, bicycle storage (76 no. total spaces), car parking (32 no. total spaces), set-down parking spaces, 1 no. ambulance set-down space serving the facility and delivery/loading areas to First Avenue.

As a result of CFI Item No. 2b, the lighting plan required minor changes to incorporate the cycle path on the south west of this site.

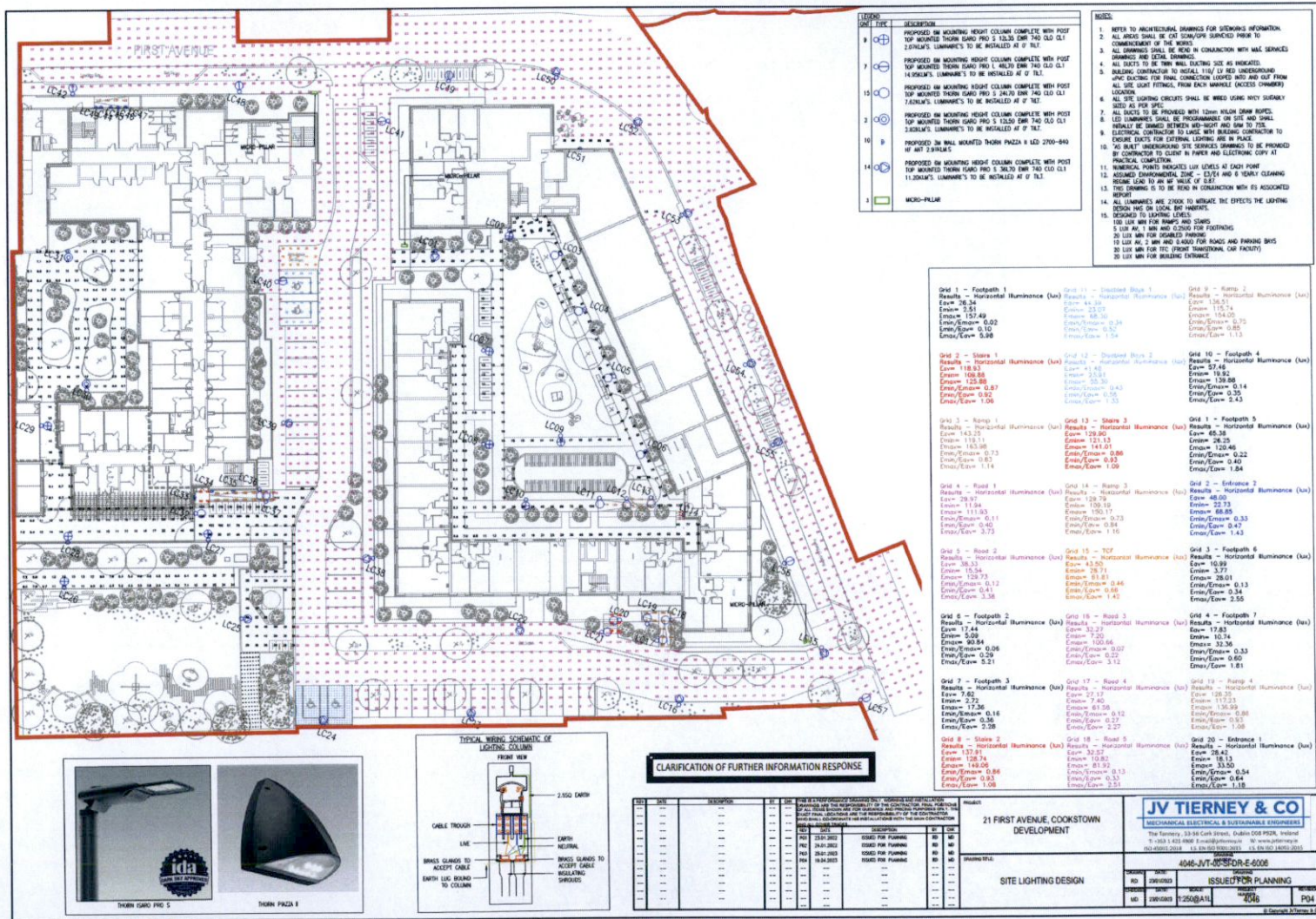
As per SDCC public lighting specification in accordance with I.S. EN 132021-2:2015 & BS 5489-1:2013 pathways and roads should have a minimum light level. Therefore, all walkway areas must be lit to a P4 lighting class and roadways must be lit to a minimum P2 lighting class with the calculation surface 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.

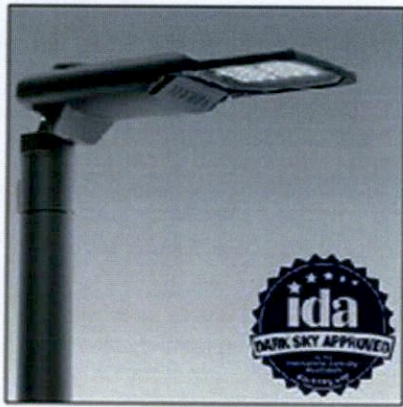
Appendix A



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 long horizontal flourish underneath.

Robert Donnelly, Project Engineer

J.V. Tierney & Co.

Date: 27/04/2023