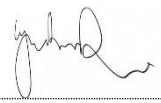
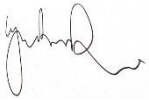
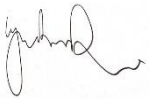
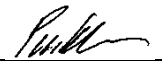
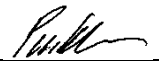

# Lighting Strategy

## Officers' Meadow
## Shenfield

LIGHTING STRATEGY

## Document Issue Sheet

| Version | Project Number | Document Reference | Prepared By | Date | Verified | Date |
|---|---|---|---|---|---|---|
| R0 | WLC654 | WLC654-LSR-001 |  | 22/08/2023 |  | 23/08/2023 |
| R1 | WLC654 | WLC654-LSR-001 |  | September 2023 |  | September 2023 |
| R2 | WLC654 | WLC654-LSR-001 |  | September 2023 |  | September 2023 |
| R3 | WLC654 | WLC654-LSR-001 |  | February 2023 |  | February 2023 |

## Contents

# 1. Introduction

1.1 This Lighting Strategy has been prepared by Williams Lighting Consultants Ltd. for and on behalf of Croudace Homes Ltd. The report describes the exterior lighting works to be provided at the proposed new development at Officers' Meadow, Shenfield (the Proposed Development).

1.2 The strategy details the key principles, the exterior lighting design follows. These principles are in place to ensure adequate illumination of external areas, and that the design meets the criteria of the documents detailed in table 1.

1.3 Accompanying this strategy, lighting calculations (Appendix A) and an indicative lighting design (Appendix B) have been prepared to demonstrate exterior lighting at the proposed development has a minimal impact on the surrounding environment.

1.4 Site Address: Officers' Meadow, Shenfield, Part of allocated Site R03: Land North of Shenfield.

1.5 Site Description: The Site forms part of the Strategic Site R03 allocated in the Brentwood Local Plan (BLP) (March 2022). The Site is the largest parcel of land, at 21.32 hectares (ha), which is being independently brought forward by Croudace Homes Ltd as part of the Development Framework for Site R03 alongside a consortium of developers including Redrow Homes, Countryside Properties and Stonebond Properties. The Site is located to the north of Shenfield, a 20 minute walk and a 10 minute cycle to the Shenfield Town Centre. The Site is bound to the north west by Chelmsford Road, its associated dwellings and their rear residential curtilages. Beyond Chelmsford Road lies the A12 (dual carriageway) and open farmland. The eastern boundary of the site is delineated by Ancient Woodland, an area of undesignated woodland and a railway line, beyond which lies additional areas of woodland, residential development, and further farmland. The Site is constrained by Ancient Woodland, a TPO tree belt and a critical drainage area. To the north of the Site lies a Grade II listed Millstone in the northern verge of Chelmsford Road opposite number 179 Chelmsford Road.

## 2. Lighting Design

### 2.1 Standards and Guidance

2.1.1 An exterior lighting system is required to facilitate safe and secure movement around the Proposed Development for all users. Exterior lighting will be required to light all adoptable highway areas in accordance with the below list of documents and site-specific design criteria:

| Table 1: Standards and Guidance Documents | |
|---|---|
| **Document Reference** | **Document Title** |
| 1 | ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2021 |
| 2 | Essex Highways Adoptable Specifications |
| 3 | BS 5489-1:2020 Code of Practice for the design of road lighting |

### 2.2 Lighting Class Selection

2.2.1 The proposed lighting levels for the site are detailed below (table 2):

| Table 2: Proposed Lighting Levels | | | |
|---|---|---|---|
| **Area** | **Lighting Class** | **Minimum Average Illuminance (lux)** | **Minimum Illuminance (lux)** |
| Spine Road | P3* | 7.50 | 1.50 |
| Side Roads | P4** | 5.00 | 1.00 |
| Private Areas + Cycleway | P5*** | 3.00 | 0.60 |

| | | | |
|---|---|---|---|
| Approach Roundabout | C3**** | 15 | **Min Uniformity (Emin/Eave):** 40% |

*Based on 30mph, E3 environmental zone, busy road usage

**Based on 30mph, E3 environmental zone, normal road usage

***Based on 30mph, E3 environmental zone, low road usage – levels reduced considering ecological impacts, ambient light levels and speed restrictions due to road geometry. Cycleway lit considering usage.

****Based on road classification M4, >7000 vehicles, single carriageway

## 2.3 Luminaire Selection and shielding

2.3.1 The following lighting fixtures were selected to form the proposals for this site. The fixtures have been compared against the lighting standards and applicable guidance notes.

**Table 3: Luminaire Specification and shielding examples**

| Luminaire | Proposed Locations | Characteristics | | Image |
|---|---|---|---|---|
| Philips Luma | Adoptable Highways | **Upward Light:** | 0% |  |
| | | **Colour temperature:** | 3000K (Warm White) | |
| | | **Efficacy:** | Up to 140lm/W | |
| DW Windsor Street | Private Areas | **Upward Light:** | 1% |  |
| | | **Colour temperature:** | 3000K (Warm White) | |
| | | **Efficacy:** | Up to 140lm/W | |

2.3.2 Energy efficiency – the design has considered appropriate optic settings for the development layout, ensuring (as practicable as possible) light is only provided where required.

2.3.3 Light pollution (vertically and horizontally) has been minimized as much as possible through careful luminaire selection and shielding (luminaire mounted). The design follows the principles set out in the ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2021 and conforms with the below:

| Table 4 (Table 3 GN01/20): Maximum values of vertical illuminance on properties. | | | | | | |
|---|---|---|---|---|---|---|
| **Light technical parameter** | **Application conditions** | **Environmental zone** | | | | |
| | | **E0** | **E1** | **E2** | **E3** | **E4** |
| Illuminance on the vertical plane ($E_v$) | Pre-curfew | n/a | 2 lx | 5 lx | 10 lx | 25 lx |
| | Post-curfew | n/a | <0.1 lx | 1 lx | 2 lx | 5 lx |

2.3.4 The proposed site is considered under Environmental Zone E3 (medium district brightness). Refer to lux contour plans.

2.3.5 Upward Light Ratios

| Table 5 (Table 6 GN01/20) Maximum values of upward light ratio (ULR) of luminaires. | | | | | | |
|---|---|---|---|---|---|---|
| **Light technical parameter** | **Environmental zone** | | | | | |
| | **E0** | **E1** | **E2** | **E3** | **E4** |
| Upward Light Ratio (ULR %) | 0 | 0 | 2.5 | 5 | 15 |

2.3.6 The maximum permitted ULR is 5%. All lanterns are mounted on the horizontal – 0-degree tilt and the max upward light specified is 1% - below the maximum recommended.

# 3. Ecology

3.1 After consultations with the Ecology Team, represented by Aspect Ecology, we have developed a set of mitigation measures to reduce the impact on ecological features within our design. These measures are as follows:

- **Colour Temperature Selection:** In line with the Ecology Team's recommendations, we've opted for a 3000K warm white colour temperature, the lowest available for the adoptable specification lantern.
- **Avoidance of Lighting in Private Areas:** We have refrained from proposing any lighting within private areas that are in close proximity to the ancient woodland. This deliberate decision ensures that the natural environment remains undisturbed.
- **Lighting Optics:** Our selection of lighting optics has been careful, with a focus on reducing light spill onto ecological features.
- **Back Light Shields:** Where lighting is necessary in areas adjacent to sensitive ecological features, we propose the installation of backlight shields. These shields serve to redirect light away from these areas, further reducing the ecological impact.

3.2 Refer to Appendix B (WLC937-LS-001-004) for the lighting plans detailing lux contour levels (contour plots do not consider the blocking effect of buildings) and equipment specification, including mitigation methods.

## 4. Environmental Residual Effects

4.1 The proposed lighting will have residual effects on the environment, and these will occur at different phases during the project. The residual effects have been assessed below and consider the permanent and temporary effects.

4.2 **Operational - Landscape and Visual (permanent impact)**

4.2.1 There is a permanent impact on the visual scene. With the use of a design practice the impact can be minimized through good design – reducing the number of columns/lanterns required and their height. With the use of modern lanterns and shielding light is well controlled.

4.2.2 **Recommendation:** Design prepared by a competent designer in consultation with the architect and ecologist and in accordance with BS 5489, ILP Guidance on the Reduction of Obtrusive Light.

4.3 **Operational - Community (permanent impact)**

4.3.1 A well-designed lighting installation will have a positive impact on the local community, providing:

- A reduction in the fear of crime
- Encourage the use of more sustainable modes of transport, such as walking and cycling.
- Encourage the use of shared community spaces.

4.3.2 **Recommendation:** None

4.4 **Construction and Demolition - Noise (temporary impact)**

4.4.1 Noise during construction

4.4.2 **Recommendation:** Employment of a competent contractor with the use of appropriate tools to minimize noise.

4.5 **Construction and Demolition - Dust (temporary impact)**

4.5.1 Dust during construction

4.5.2 **Recommendation:** Employment of competent contractor with use of appropriate tools to minimize dust.

4.6 **Construction and Demolition – Ground Contamination (temporary impact)**

4.6.1 None anticipated

4.6.2 **Recommendation:** None

4.7 **Construction and Demolition – Storage of Materials (temporary impact)**

4.7.1 Storage of materials is anticipated

4.7.2 **Recommendation:** Hazardous materials are to be handled, stored and transported in accordance with COSHH regulations and manufacturer guidelines.

4.8 **Construction and Demolition – Waste**

4.8.1 Waste is anticipated

4.8.2 **Recommendation:** Lamps and lanterns are to be disposed of in accordance with WEEE regulations. Columns to be recycled where possible.

## 5. Summary

5.1 This Lighting Strategy, prepared by Williams Lighting Consultants Ltd., outlines the exterior lighting proposals for the development at Officers' Meadow in Shenfield.

5.2 These proposals are designed considering adoptable specifications and industry guidance, with a particular focus on mitigating light pollution and its potential impact on local wildlife, including bats. The site is situated within an Environmental Zone E3 and meets the maximum recommended levels as per ILP GN01/21 Guidance Notes for the Reduction of Obtrusive Light. Collaboration with site ecologists has been instrumental in developing this strategy.

5.3 The site is illuminated to the appropriate lighting levels for both adoptable and private areas, aligning with the lighting classes specified in BS5489-1:2020, which governs the lighting of roads and public amenity areas. However, it's important to note that we've excluded private streets near ecologically sensitive zones from these proposals as per discussions with the site ecology team.

5.4 Furthermore, our ecological considerations encompass the use of LED warm white light sources, careful shielding, and optic selection to avoid unnecessary light spill on ecologically sensitive areas.

5.5 In summary, this strategy strikes a balance between efficient lighting solutions and a commitment to environmental responsibility.

APPENDIX A: LIGHTING CALCULATION REPORTS

| | |
|---|---|
| **DATE:** | **16 February 2024** |
| **DESIGNER:** | **WLC** |
| **PROJECT No:** | **WLC654** |
| **PROJECT NAME:** | **Officers' Meadow, Shenfield** |

R1: REVISED BASE LAYOUT
R2: REVISED BASE LAYOUT

LIGHTING STRATEGY:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASS(ES): C3, P3, P4 AND P5 IN ACCORDANCE WITH BS 5489:2020

LEVELS ACHIEVED:
REFER TO INDIVIDUAL GRID WITHIN REPORT.

# WLC654-LC-AC-001 R2

**PREPARED BY:** Williams Lighting Consultants Ltd.
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# Layout Report

## General Data

Dimensions in Metres Angles in Degrees

## Calculation Grids

| ID | Grid Name | X | Y | X' Length | Y' Length | X' Spacing | Y' Spacing |
|---|---|---|---|---|---|---|---|
| 1 | Grid 1 | 561654.89 | 196080.69 | 114.00 | 55.47 | 1.50 | 1.50 |
| 2 | Grid 2 | 561804.83 | 196037.42 | 192.00 | 138.00 | 1.50 | 1.50 |
| 3 | Grid 3 | 561936.82 | 196263.07 | 157.23 | 120.00 | 1.50 | 1.50 |
| 4 | Grid 4 | 561907.97 | 196263.13 | 48.00 | 69.00 | 1.50 | 1.50 |
| 5 | Grid 5 | 561716.72 | 195888.78 | 84.00 | 69.00 | 1.50 | 1.50 |
| 6 | Grid 6 | 561691.29 | 195818.79 | 63.00 | 48.00 | 1.50 | 1.50 |
| 7 | Grid 7 | 562009.68 | 196081.10 | 87.00 | 54.00 | 1.50 | 1.50 |
| 8 | Grid 8 | 561491.76 | 196196.22 | 81.00 | 106.20 | 1.50 | 1.50 |
| 9 | Grid 9 | 561573.76 | 196163.62 | 153.00 | 105.00 | 1.50 | 1.50 |
| 10 | Grid 10 | 561737.64 | 196098.01 | 210.80 | 48.00 | 1.50 | 1.50 |
| 11 | Grid 11 | 561907.01 | 196179.54 | 199.00 | 90.00 | 1.50 | 1.50 |
| 12 | Grid 12 | 561997.95 | 196109.73 | 39.00 | 129.00 | 1.50 | 1.50 |
| 13 | Grid 13 | 561789.41 | 196068.51 | 27.00 | 75.00 | 1.50 | 1.50 |
| 14 | Grid 14 | 561643.54 | 195833.42 | 168.00 | 246.95 | 1.50 | 1.50 |
| 15 | Grid 15 | 561647.84 | 195770.03 | 51.00 | 69.00 | 1.50 | 1.50 |
| 16 | Grid 16 | 561522.16 | 195792.11 | 132.00 | 97.41 | 1.50 | 1.50 |

## Luminaires

### Luminaire B Data

| | |
|---|---|
| Supplier | Philips |
| Type | BGP702 DW52 |
| Lamp(s) | LED-HB 5.2S 730 |
| Lamp Flux (klm) | 5.20 |
| File Name | Luma Gen2 Micro_BGP702_DW52_5200_20LED_5.2S_CLO_L90_730.ies |
| Maintenance Factor | 0.76 |
| Lum. Int. Class | G3 |
| No. in Project | 40 |

### Luminaire C Data

| | |
|---|---|
| Supplier | |
| Type | BGP702 DW50 BL2 |
| Lamp(s) | LED-HB 5.2S 740 |
| Lamp Flux (klm) | 5.20 |
| File Name | Luma Gen2 Micro_BGP702_DW50 BL2_5200_20LED_5.2S_CLO_L90_740.ies |
| Maintenance Factor | 0.76 |
| Lum. Int. Class | G3 |
| No. in Project | 1 |

### Luminaire D Data

| | |
|---|---|
| Supplier | Philips |
| Type | BGP703 DM10 |
| Lamp(s) | LED-HB 5.2S 730 |
| Lamp Flux (klm) | 10.00 |
| File Name | Luma Gen2 Mini_BGP703_DM10_10000_40LED_5.2S_CLO_L90_730.ies |
| Maintenance Factor | 0.83 |
| Lum. Int. Class | G3 |
| No. in Project | 7 |

### Luminaire F Data

| | |
|---|---|
| Supplier | |
| Type | BGP702 DW50 BL1 |
| Lamp(s) | LED-HB 5.2S 730 |
| Lamp Flux (klm) | 13.50 |
| File Name | Luma Gen2 Micro_BGP702_DW50 BL1_6400_20LED_5.2S_CLO_L90_730.ies |
| Maintenance Factor | 1.00 |
| Lum. Int. Class | G3 |
| No. in Project | 5 |

# Luminaires

## Luminaire H Data

| | |
|---|---|
| Supplier | |
| Type | BGP702 DM10 BL1 |
| Lamp(s) | LED-HB 5.2S 730 |
| Lamp Flux (klm) | 2.60 |
| File Name | Luma Gen2 Micro_BGP702_DM10 BL1_2600_20LED_5.2S_CLO_L90_730.ies |
| Maintenance Factor | 1.00 |
| Lum. Int. Class | G3 |
| No. in Project | 5 |

## Luminaire I Data

| | |
|---|---|
| Supplier | |
| Type | BGP702 DN09 BL1 |
| Lamp(s) | LED-HB 5.2S 730 |
| Lamp Flux (klm) | 1.00 |
| File Name | Luma Gen2 Micro_BGP702_DN09 BL1_1000_6LED_5.2S_CLO_L90_730.ies |
| Maintenance Factor | 1.00 |
| Lum. Int. Class | G2 |
| No. in Project | 4 |

## Luminaire J Data

| | |
|---|---|
| Supplier | D W Windsor |
| Type | Windsor Street -LX3- 16LED-3k-A1 200mA UMSUG 42 0012 0000 100 |
| Lamp(s) | 16x 3k LED |
| Lamp Flux (klm) | 1.20 |
| File Name | Windsor Street -LX3- 16LED-3k-A1_200mA UMSUG 42 0012 0000 100.ies |
| Maintenance Factor | 1.00 |
| Lum. Int. Class | None |
| No. in Project | 28 |

## Layout

| ID | Type | X | Y | Height | Angle | Tilt | Cant | Out-reach | Dimmed to | Target X | Target Y | Target Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | B | 561665.38 | 195797.30 | 6.00 | 223.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 2 | B | 561662.62 | 195773.83 | 6.00 | 39.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 3 | I | 561643.12 | 195819.60 | 6.00 | 222.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 6 | J | 561923.49 | 196284.02 | 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 7 | J | 561924.13 | 196304.94 | 5.00 | 359.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 8 | J | 561931.34 | 196319.17 | 5.00 | 282.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 9 | B | 561583.16 | 196167.98 | 6.00 | 49.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 10 | B | 561592.27 | 196181.24 | 6.00 | 222.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 11 | B | 561615.25 | 196156.97 | 6.00 | 223.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 12 | B | 561637.97 | 196138.10 | 6.00 | 267.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 13 | B | 561682.69 | 196130.90 | 6.00 | 72.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 14 | B | 561661.79 | 196138.68 | 6.00 | 106.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 15 | B | 561709.50 | 196121.96 | 6.00 | 76.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 16 | B | 561738.57 | 196125.95 | 6.00 | 272.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 17 | B | 561758.34 | 196123.57 | 6.00 | 117.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 18 | B | 561781.42 | 196133.88 | 6.00 | 123.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 19 | B | 561759.70 | 196147.45 | 6.00 | 29.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 20 | B | 561808.09 | 196133.33 | 6.00 | 207.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 21 | B | 561803.64 | 196153.52 | 6.00 | 298.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 22 | B | 561840.81 | 196160.29 | 6.00 | 114.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 23 | B | 561859.04 | 196178.14 | 6.00 | 291.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 24 | B | 561885.99 | 196180.26 | 6.00 | 116.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 25 | B | 561914.32 | 196193.10 | 6.00 | 117.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 26 | B | 561923.29 | 196216.09 | 6.00 | 332.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 27 | B | 561933.60 | 196242.49 | 6.00 | 180.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 28 | B | 561956.61 | 196255.37 | 6.00 | 270.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 29 | B | 561933.46 | 196259.58 | 6.00 | 177.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 30 | B | 561990.06 | 196246.67 | 6.00 | 91.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 31 | B | 562026.83 | 196251.66 | 6.00 | 250.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 32 | B | 562041.77 | 196239.49 | 6.00 | 79.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 33 | B | 562063.72 | 196243.56 | 6.00 | 260.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 35 | H | 562028.02 | 196225.85 | 6.00 | 168.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 36 | B | 562089.72 | 196237.75 | 6.00 | 254.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 37 | H | 562022.65 | 196195.10 | 6.00 | 175.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 38 | H | 562018.44 | 196166.17 | 6.00 | 174.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 38 | B | 561676.99 | 195849.56 | 6.00 | 324.00 | 0.00 | 0.00 | 0.30 | 100% | | | |

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## Layout Continued

| ID | Type | X | Y | Height | Angle | Tilt | Cant | Out-reach | Dimmed to | Target X | Target Y | Target Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | H | 562020.27 | 196137.21 | 6.00 | 179.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 41 | H | 562006.01 | 196110.13 | 6.00 | 158.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 43 | B | 561798.61 | 196108.97 | 6.00 | 355.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 44 | C | 561812.05 | 196093.76 | 6.00 | 266.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 45 | B | 561790.01 | 196072.99 | 6.00 | 311.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 46 | B | 561764.07 | 196057.25 | 6.00 | 311.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 47 | B | 561741.01 | 196035.20 | 6.00 | 321.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 48 | B | 561739.45 | 196008.40 | 6.00 | 173.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 49 | B | 561739.84 | 195982.07 | 6.00 | 178.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 50 | B | 561730.99 | 195959.02 | 6.00 | 158.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 52 | B | 561707.66 | 195925.82 | 6.00 | 346.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 54 | B | 561708.92 | 195899.68 | 6.00 | 169.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 56 | B | 561691.05 | 195871.87 | 6.00 | 335.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 57 | B | 561663.41 | 195830.28 | 6.00 | 319.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 58 | D | 561543.40 | 196209.60 | 10.00 | 316.00 | 0.00 | 0.00 | 0.50 | 100% | | | |
| 59 | D | 561534.75 | 196186.03 | 10.00 | 316.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 60 | D | 561546.60 | 196169.98 | 10.00 | 123.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 61 | D | 561565.53 | 196173.92 | 10.00 | 91.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 62 | D | 561580.94 | 196203.10 | 10.00 | 194.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 63 | D | 561563.96 | 196224.74 | 10.00 | 316.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 64 | D | 561588.98 | 196225.30 | 10.00 | 137.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 65 | F | 561514.74 | 196173.01 | 10.00 | 305.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 66 | F | 561502.95 | 196142.99 | 10.00 | 139.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 67 | F | 561467.74 | 196132.03 | 10.00 | 325.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 68 | F | 561449.24 | 196110.58 | 10.00 | 316.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 69 | F | 561445.14 | 196079.67 | 10.00 | 149.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 63 | I | 561617.36 | 195847.83 | 6.00 | 225.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 64 | I | 561588.52 | 195863.25 | 6.00 | 249.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 65 | I | 561544.79 | 195876.68 | 6.00 | 254.00 | 0.00 | 0.00 | 0.30 | 100% | | | |
| 66 | J | 561697.79 | 196121.10 | 5.00 | 160.00 | 0.00 | 0.00 | 0.00 | 75% | | | |
| 67 | J | 561710.89 | 196109.48 | 5.00 | 247.00 | 0.00 | 0.00 | 0.00 | 75% | | | |
| 68 | J | 561732.72 | 196097.29 | 5.00 | 85.00 | 0.00 | 0.00 | 0.00 | 75% | | | |
| 69 | J | 561751.23 | 196110.64 | 5.00 | 195.00 | 0.00 | 0.00 | 0.00 | 75% | | | |
| 70 | J | 561686.40 | 196117.59 | 5.00 | 247.00 | 0.00 | 0.00 | 0.00 | 75% | | | |
| 71 | J | 561842.16 | 196101.28 | 5.00 | 303.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 72 | J | 561871.14 | 196116.65 | 5.00 | 299.00 | 0.00 | 0.00 | 0.00 | 100% | | | |

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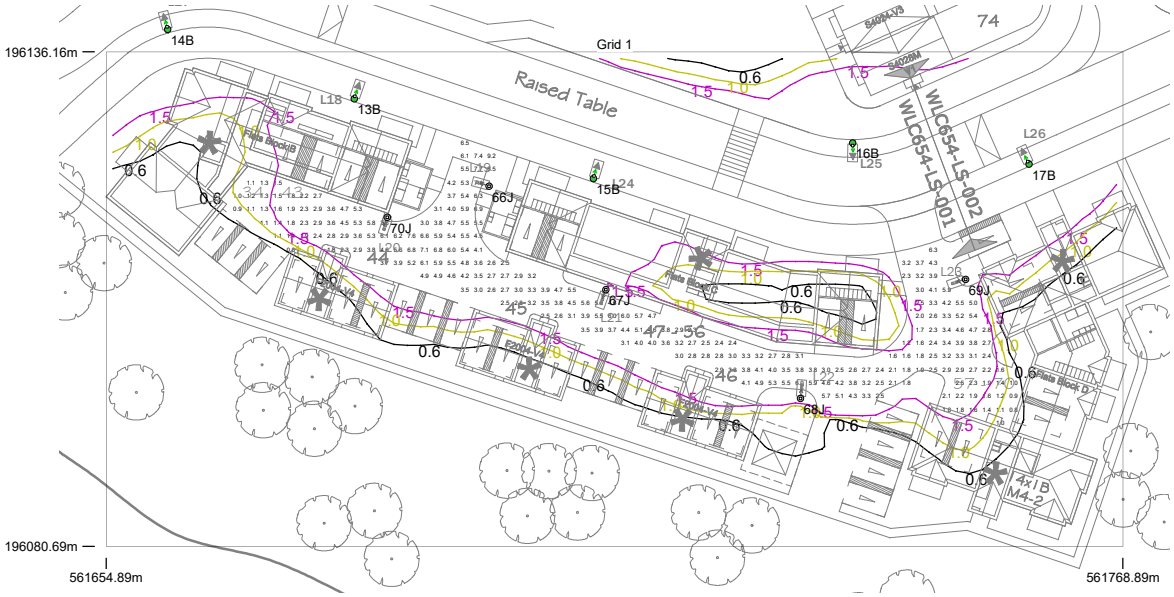
## Layout Continued

| ID | Type | X | Y | Height | Angle | Tilt | Cant | Out-reach | Dimmed to | Target X | Target Y | Target Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 73 | J | 561902.43 | 196119.89 | 5.00 | 121.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 74 | J | 561926.85 | 196132.79 | 5.00 | 108.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 75 | J | 561908.90 | 196096.61 | 5.00 | 205.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 76 | J | 561903.79 | 196073.91 | 5.00 | 324.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 77 | J | 561930.04 | 196084.71 | 5.00 | 280.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 78 | J | 561961.22 | 196148.21 | 5.00 | 107.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 79 | J | 561984.47 | 196150.92 | 5.00 | 176.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 80 | J | 561960.25 | 196316.30 | 5.00 | 94.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 81 | J | 562003.02 | 196321.15 | 5.00 | 101.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 82 | J | 562045.33 | 196326.91 | 5.00 | 98.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 83 | J | 562060.85 | 196311.78 | 5.00 | 187.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 84 | J | 562054.48 | 196282.49 | 5.00 | 164.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 86 | J | 561742.50 | 195928.86 | 5.00 | 65.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 87 | J | 561769.35 | 195914.72 | 5.00 | 43.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 88 | J | 561707.07 | 195856.99 | 5.00 | 237.00 | 0.00 | 0.00 | 0.00 | 75% | | | |
| 89 | J | 561724.21 | 195837.98 | 5.00 | 65.00 | 0.00 | 0.00 | 0.00 | 75% | | | |
| 90 | J | 562029.96 | 196116.78 | 5.00 | 254.00 | 0.00 | 0.00 | 0.00 | 100% | | | |
| 91 | J | 562061.45 | 196111.01 | 5.00 | 269.00 | 0.00 | 0.00 | 0.00 | 100% | | | |

# Horizontal Illuminance (lux)

Grid 1




## Results

| | |
|---|---|
| Eav | 3.57 |
| Emin | 0.79 |
| Emax | 9.25 |
| Emin/Emax | 0.09 |
| Emin/Eav | 0.22 |
| | |

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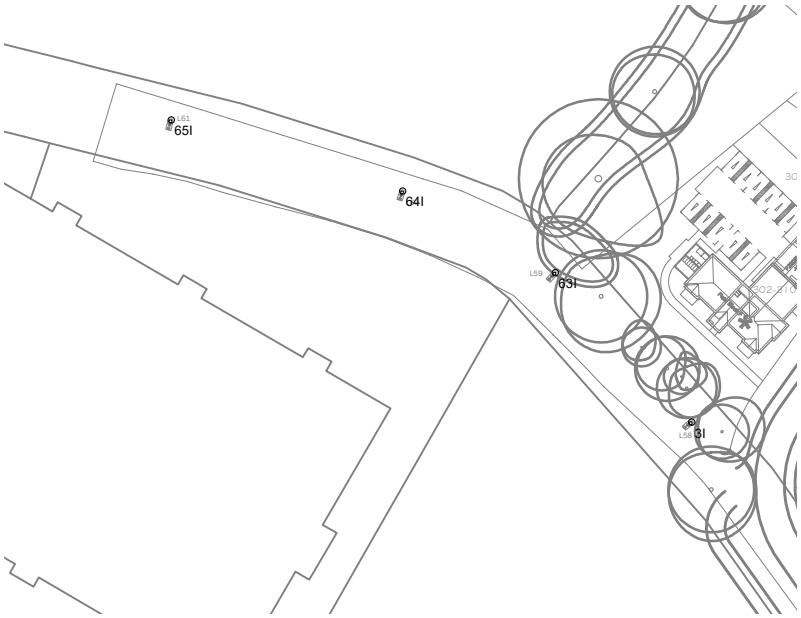
# Horizontal Illuminance (lux)

Grid 2

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# Horizontal Illuminance (lux)

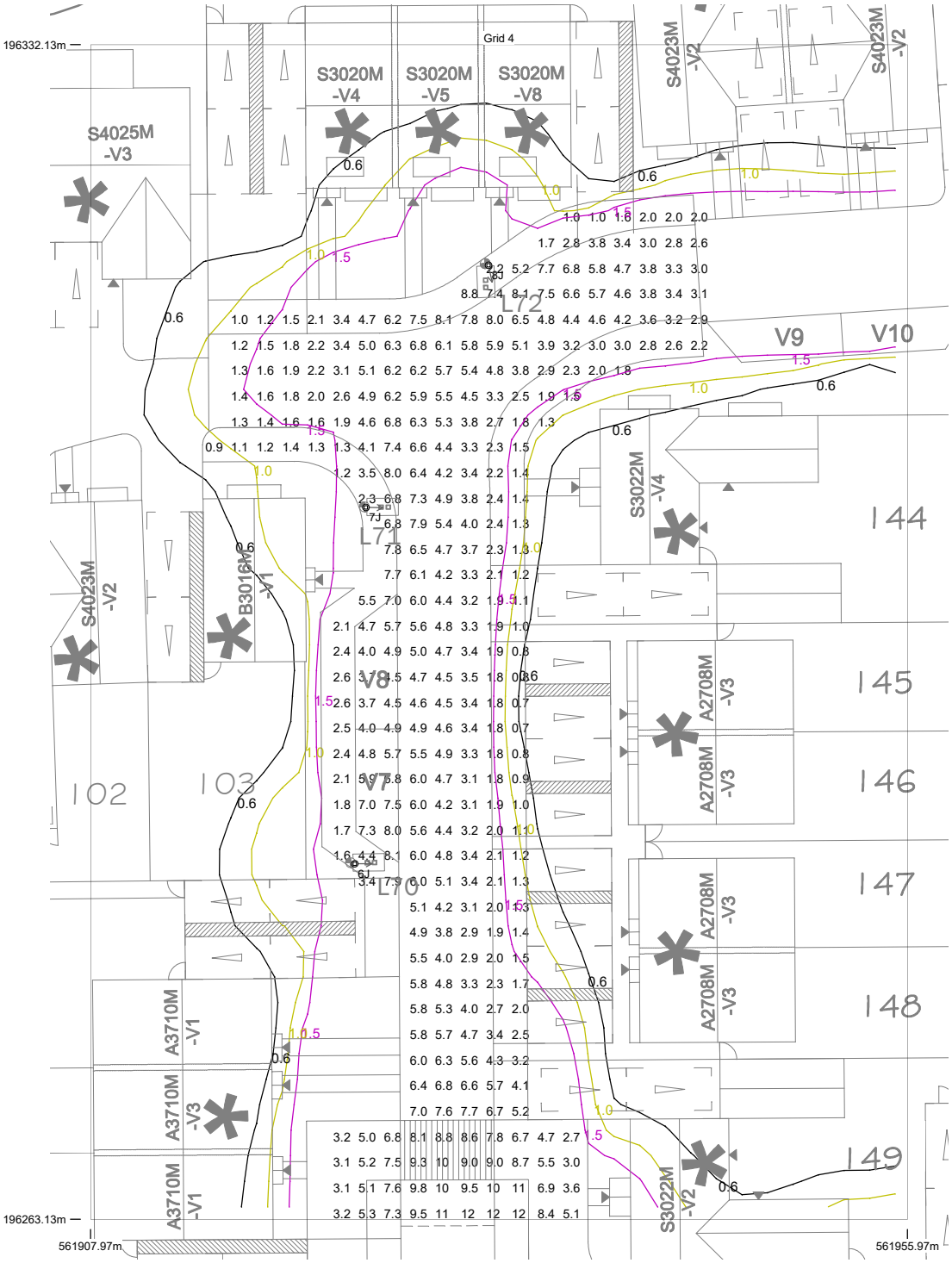
Grid 3


## Results

| | |
|---|---|
| Eav | 3.03 |
| Emin | 0.81 |
| Emax | 7.98 |
| Emin/Emax | 0.10 |
| Emin/Eav | 0.27 |
| | |

# Horizontal Illuminance (lux)

Grid 4

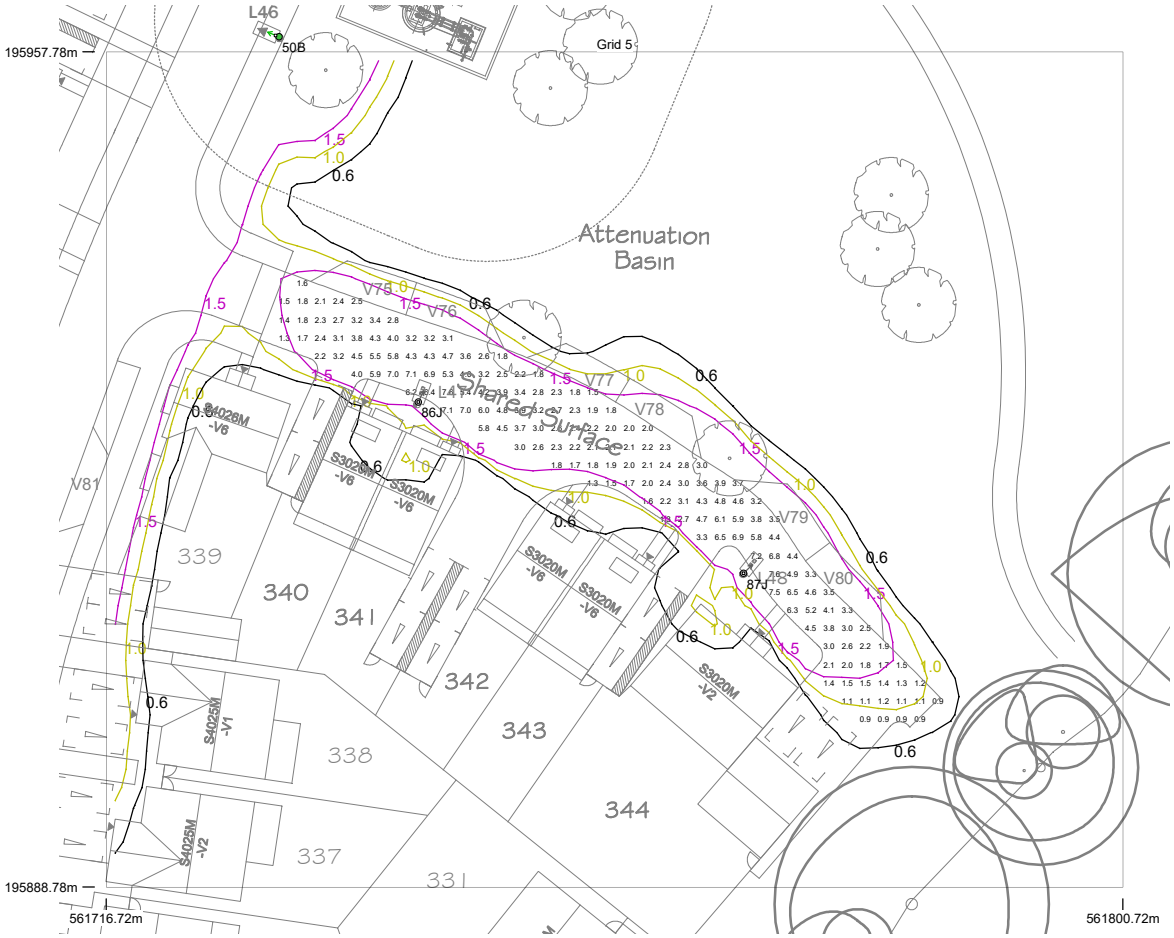



## Results

| | |
|---|---|
| Eav | 4.29 |
| Emin | 0.70 |
| Emax | 12.04 |
| Emin/Emax | 0.06 |
| Emin/Eav | 0.16 |
| | |

# Horizontal Illuminance (lux)

Grid 5




## Results

| | |
|---|---|
| Eav | 3.25 |
| Emin | 0.89 |
| Emax | 7.59 |
| Emin/Emax | 0.12 |
| Emin/Eav | 0.27 |
| | |

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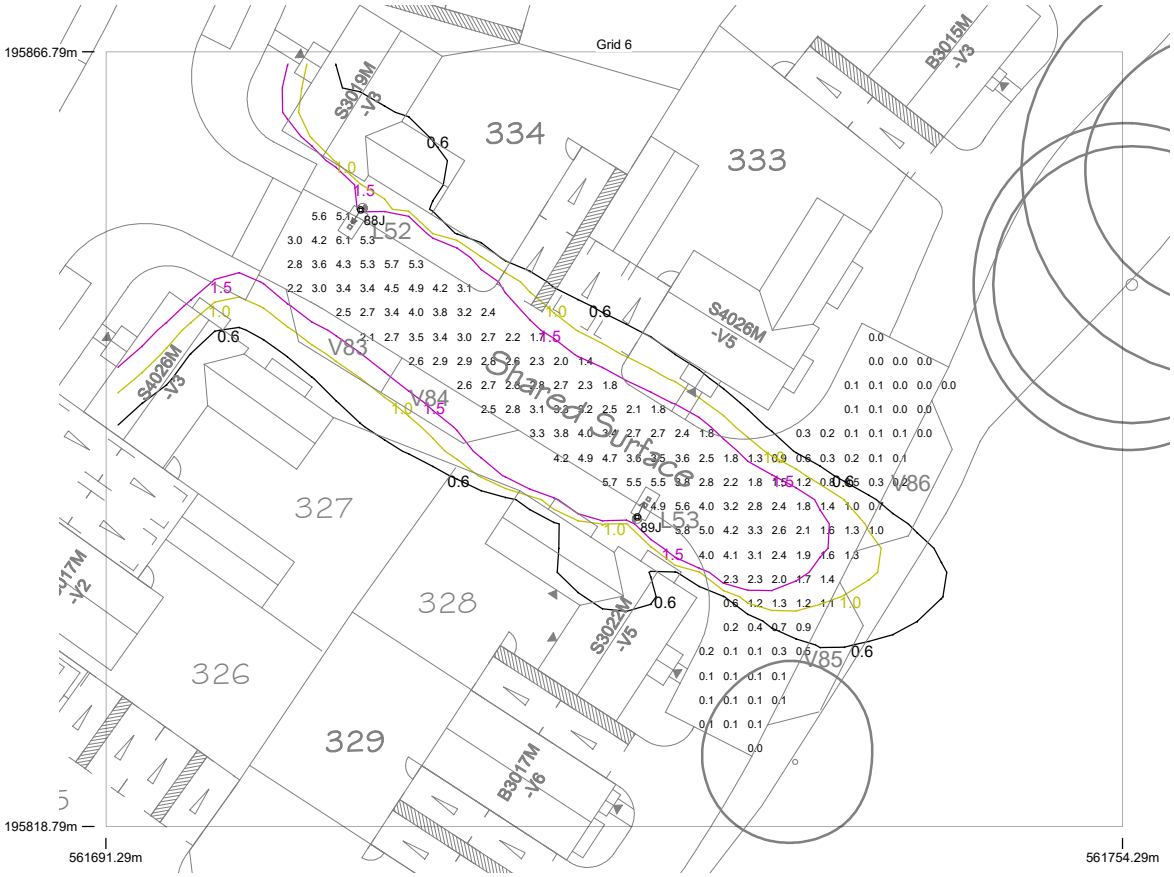
# Horizontal Illuminance (lux)

Grid 6

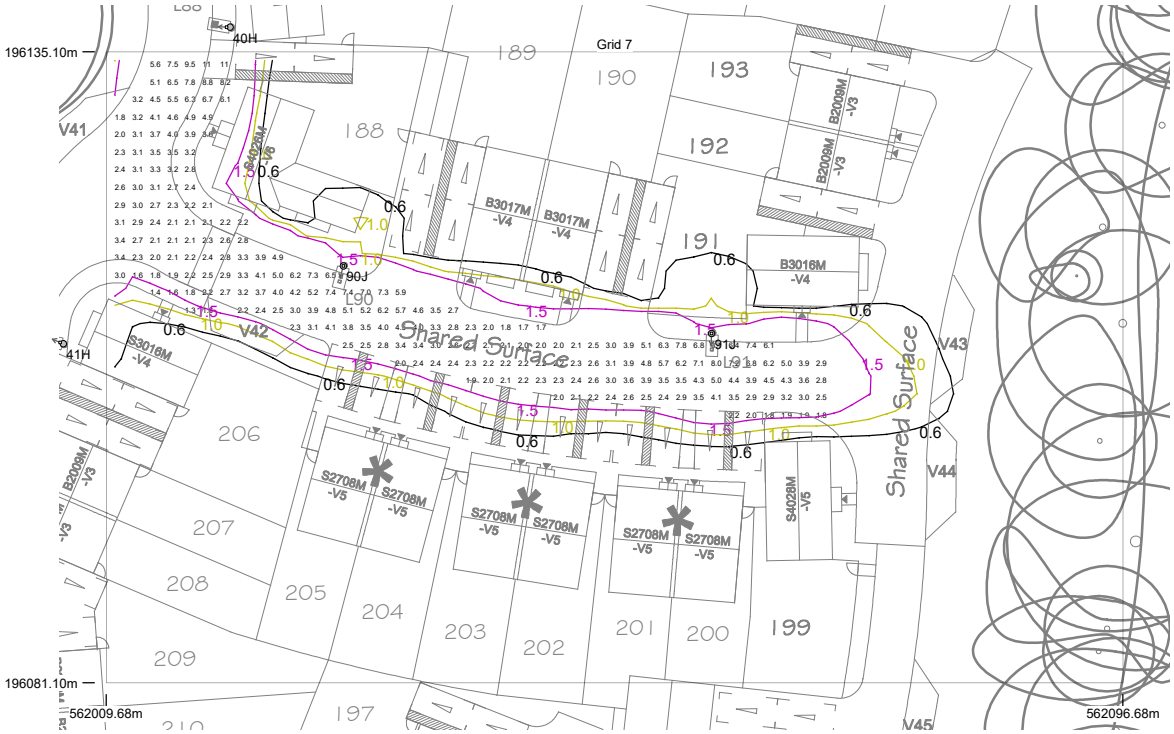



## Results

| | |
|---|---|
| Eav | 2.17 |
| Emin | 0.03 |
| Emax | 6.08 |
| Emin/Emax | 0.00 |
| Emin/Eav | 0.01 |
| | |

# Horizontal Illuminance (lux)

Grid 7




## Results

| | |
|---|---|
| Eav | 3.60 |
| Emin | 1.33 |
| Emax | 10.95 |
| Emin/Emax | 0.12 |
| Emin/Eav | 0.37 |
| | |

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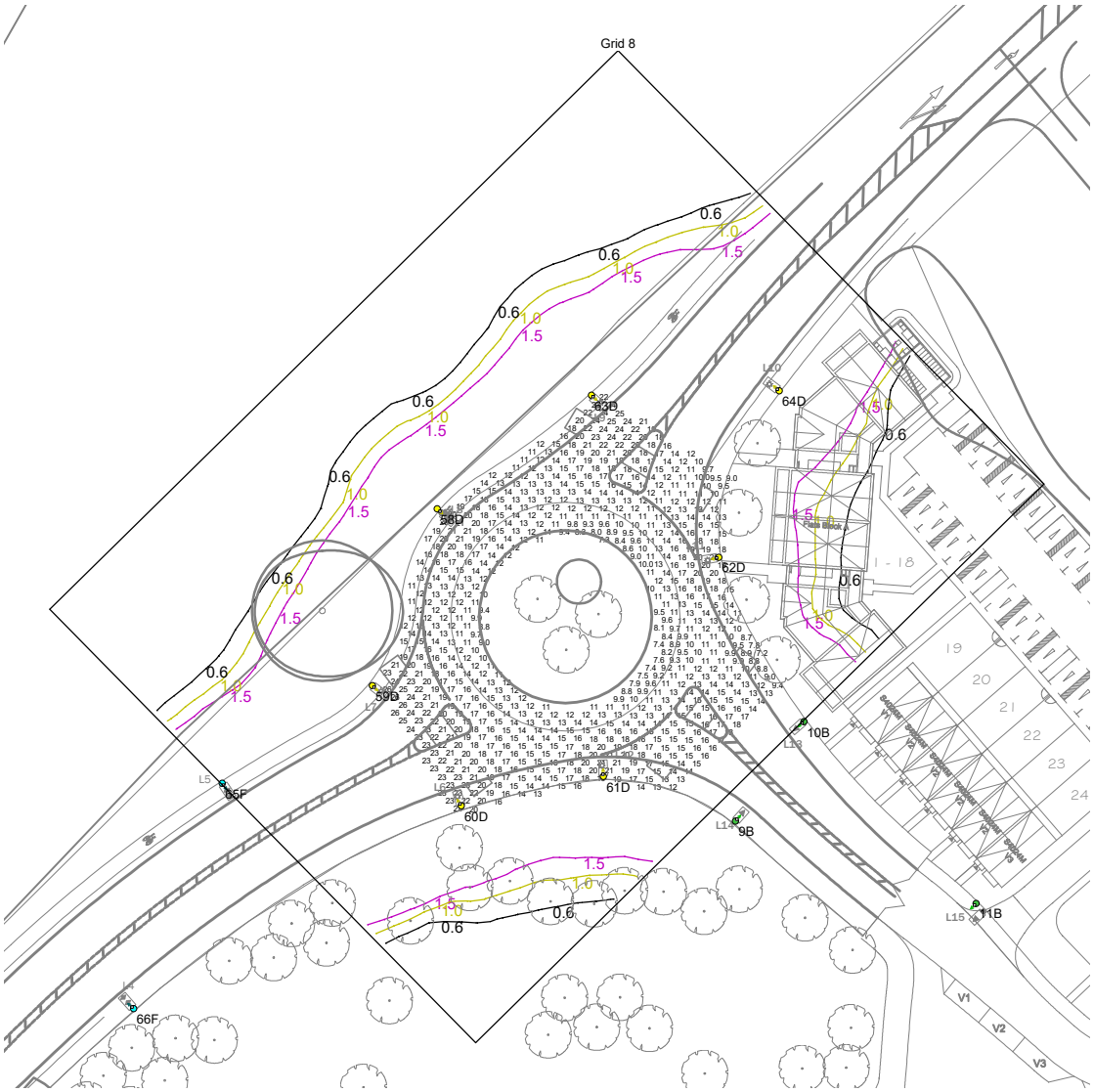
# Horizontal Illuminance (lux)

Grid 8




## Results

| | |
|---|---|
| Eav | 15.04 |
| Emin | 7.23 |
| Emax | 26.35 |
| Emin/Emax | 0.27 |
| Emin/Eav | 0.48 |
| | |

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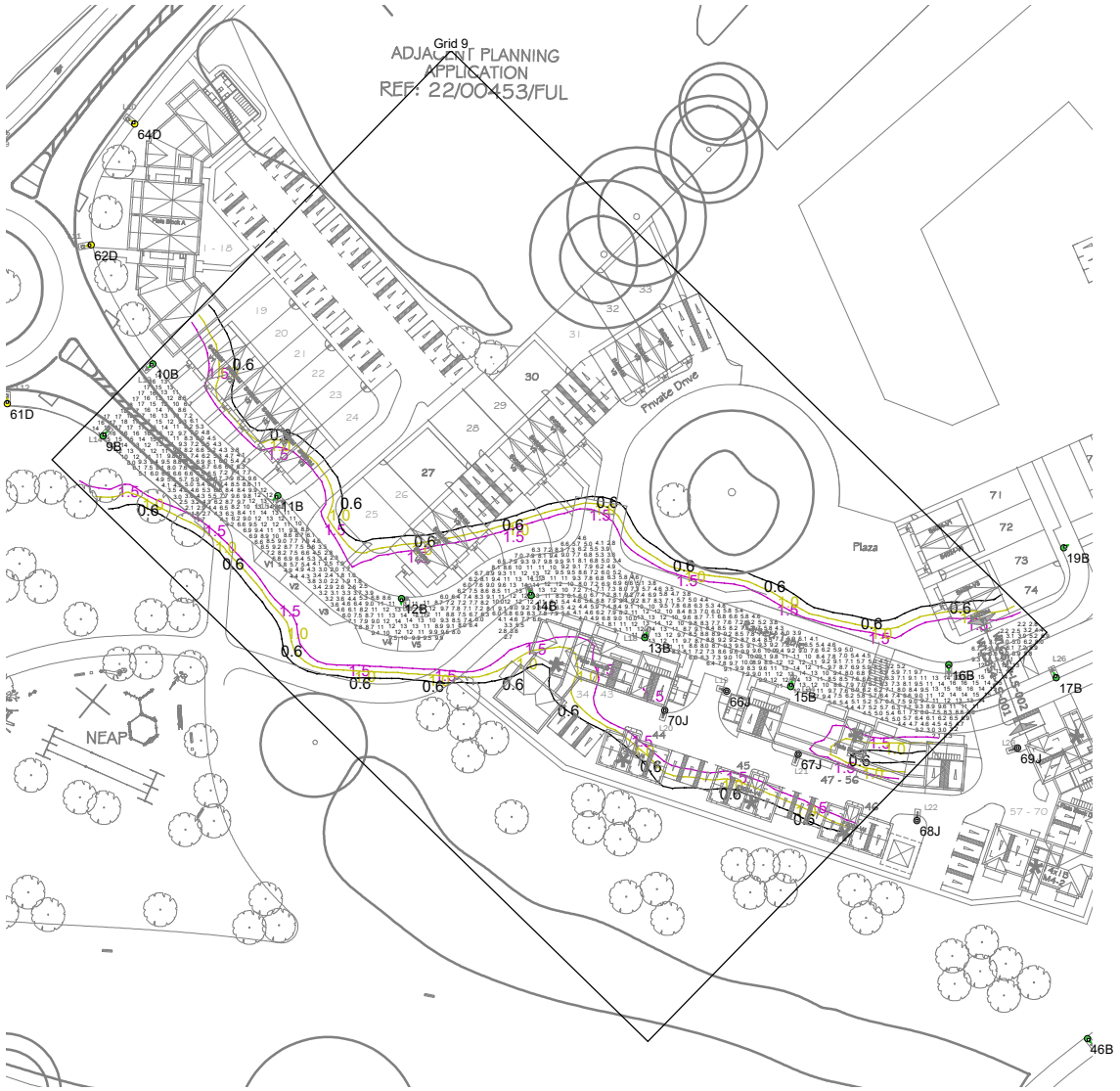
# Horizontal Illuminance (lux)

Grid 9




## Results

| | |
|---|---|
| Eav | 8.55 |
| Emin | 1.58 |
| Emax | 17.96 |
| Emin/Emax | 0.09 |
| Emin/Eav | 0.18 |
| | |

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# Horizontal Illuminance (lux)

Grid 10


## Results

| | |
|---|---|
| Eav | 7.63 |
| Emin | 1.52 |
| Emax | 16.02 |
| Emin/Emax | 0.09 |
| Emin/Eav | 0.20 |
| | |

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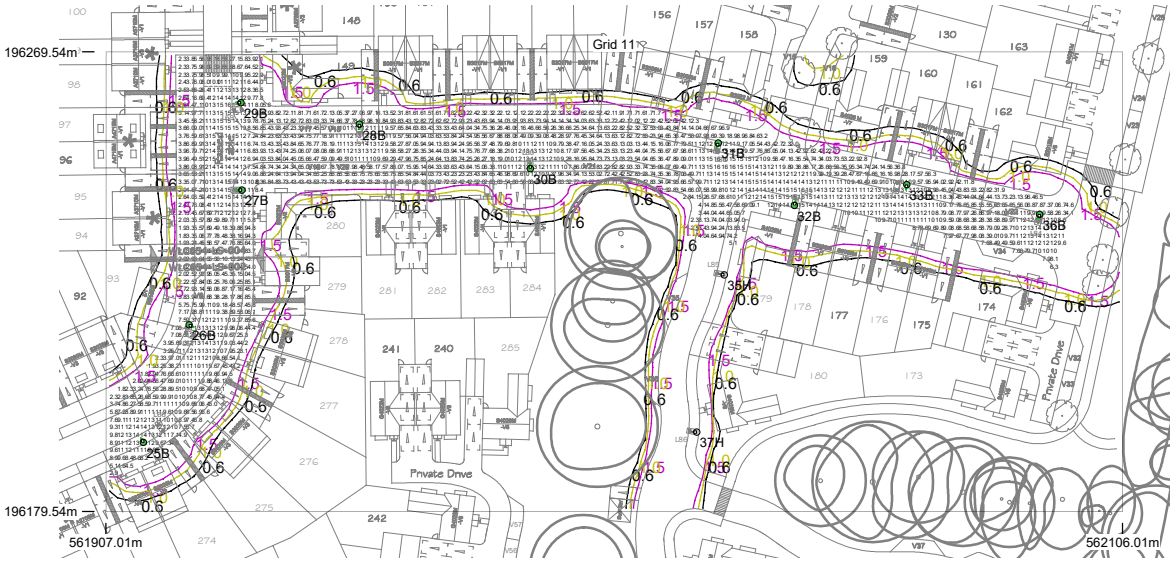
# Horizontal Illuminance (lux)

Grid 11

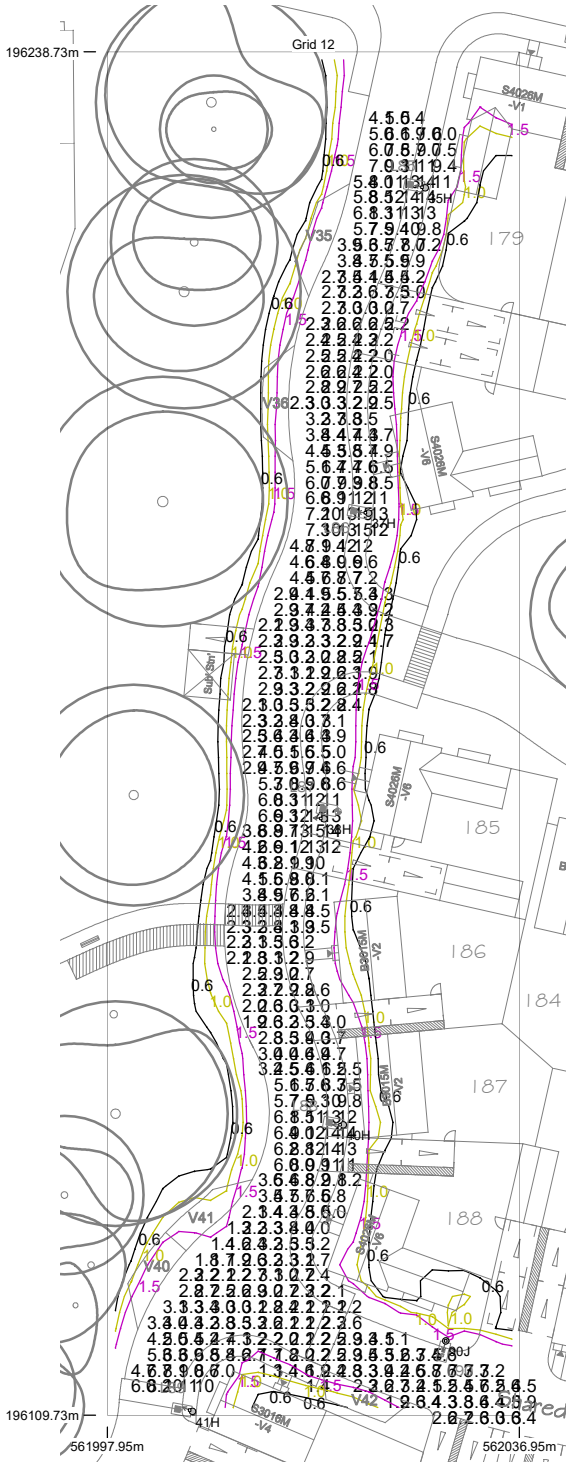



## Results

| | |
|---|---|
| Eav | 7.60 |
| Emin | 1.55 |
| Emax | 15.99 |
| Emin/Emax | 0.10 |
| Emin/Eav | 0.20 |
| | |

# Horizontal Illuminance (lux)

Grid 12

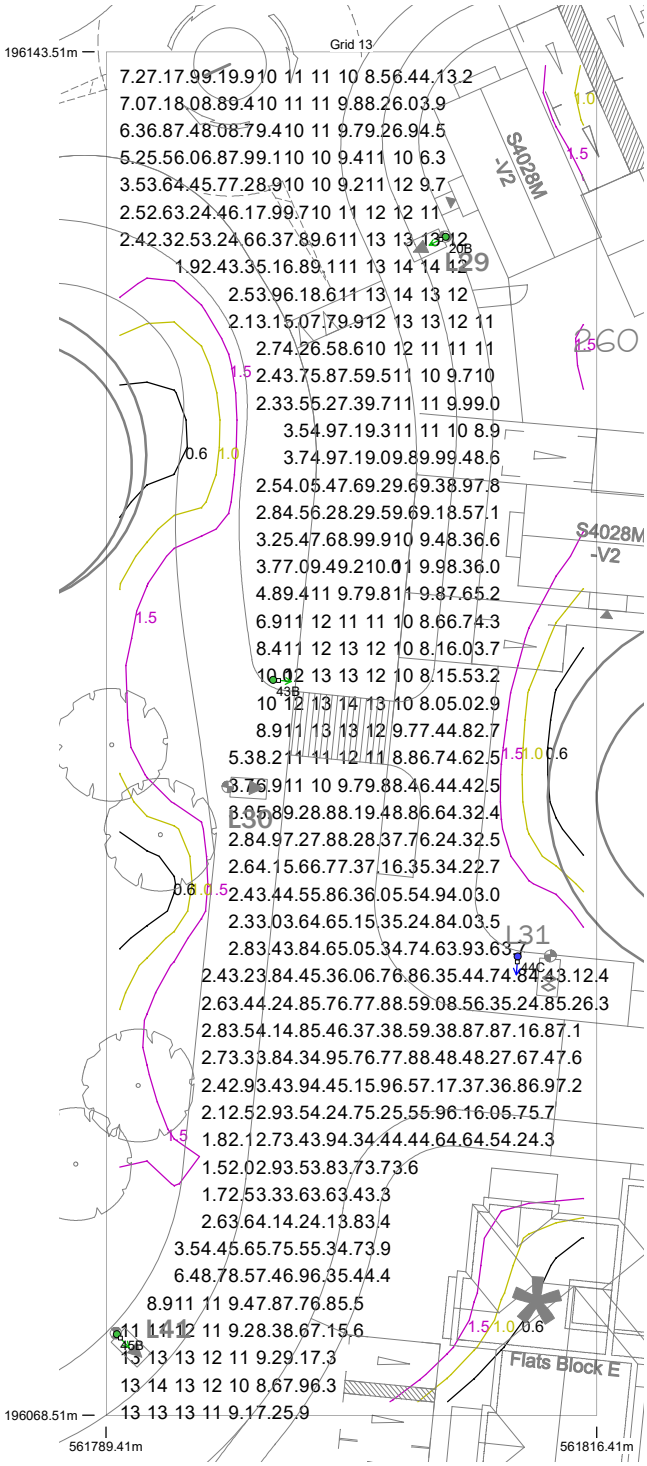



## Results

| | |
|---|---|
| Eav | 5.15 |
| Emin | 1.29 |
| Emax | 14.89 |
| Emin/Emax | 0.09 |
| Emin/Eav | 0.25 |
| | |

# Horizontal Illuminance (lux)

Grid 13




## Results

| | |
|---|---|
| Eav | 7.16 |
| Emin | 1.51 |
| Emax | 14.16 |
| Emin/Emax | 0.11 |
| Emin/Eav | 0.21 |
| | |

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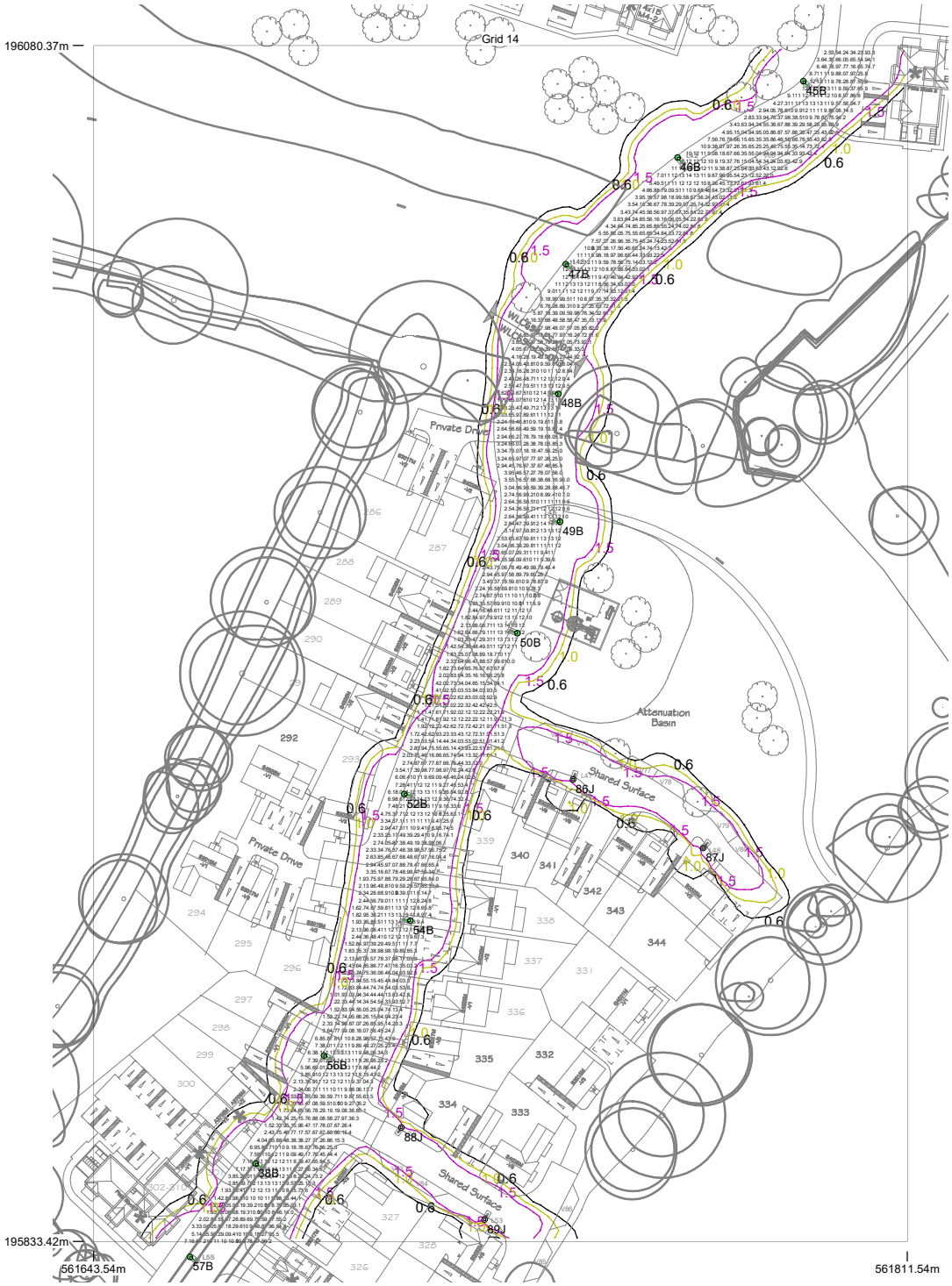
# Horizontal Illuminance (lux)

Grid 14




## Results

| | |
|---|---|
| Eav | 6.89 |
| Emin | 1.03 |
| Emax | 14.26 |
| Emin/Emax | 0.07 |
| Emin/Eav | 0.15 |
| | |

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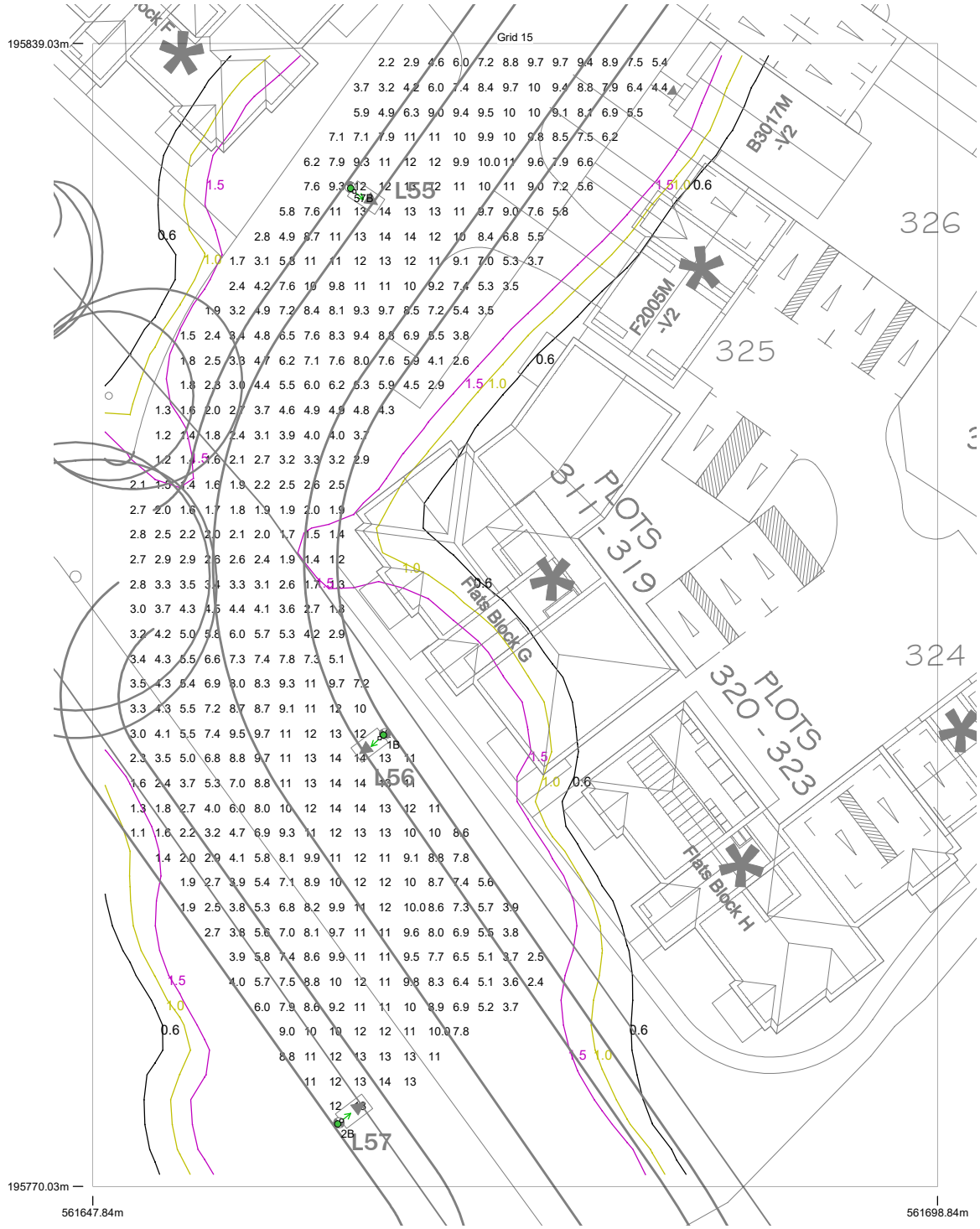
# Horizontal Illuminance (lux)

Grid 15




## Results

| | |
|---|---|
| Eav | 6.91 |
| Emin | 1.10 |
| Emax | 14.33 |
| Emin/Emax | 0.08 |
| Emin/Eav | 0.16 |
| | |

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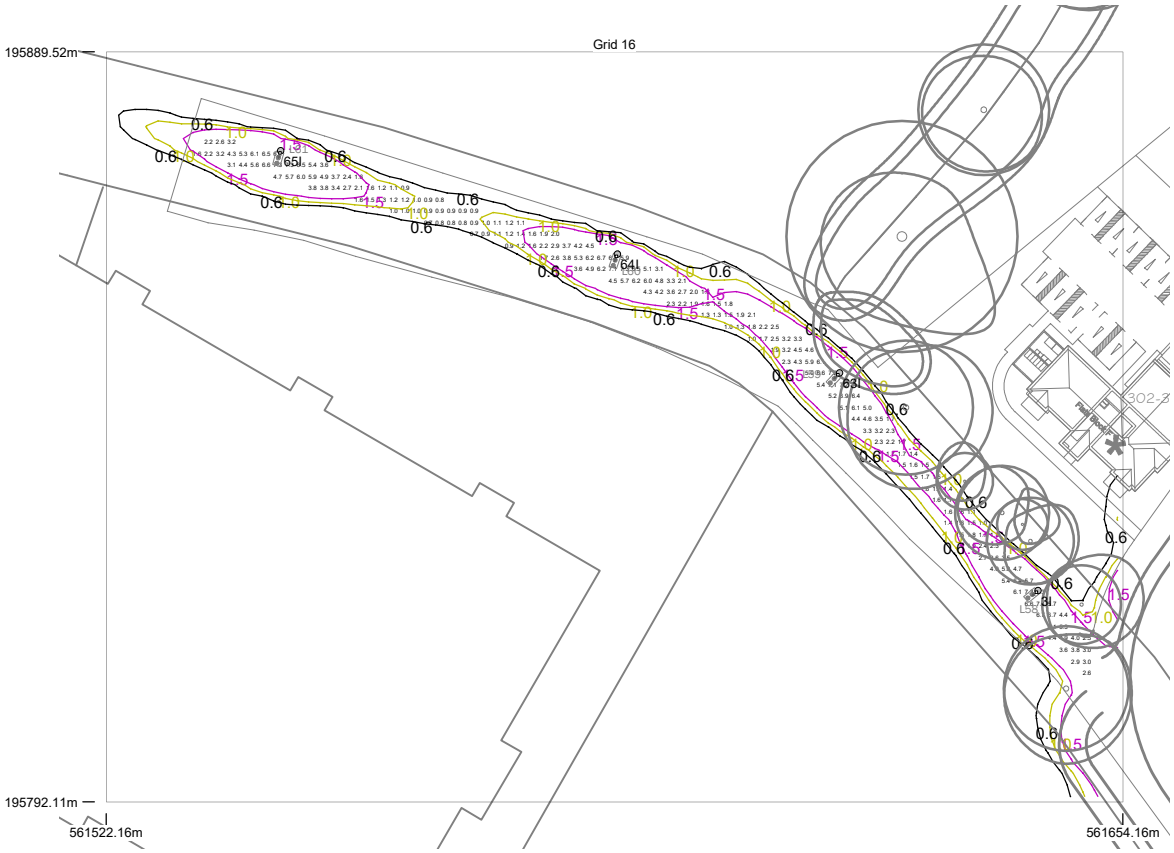
# Horizontal Illuminance (lux)

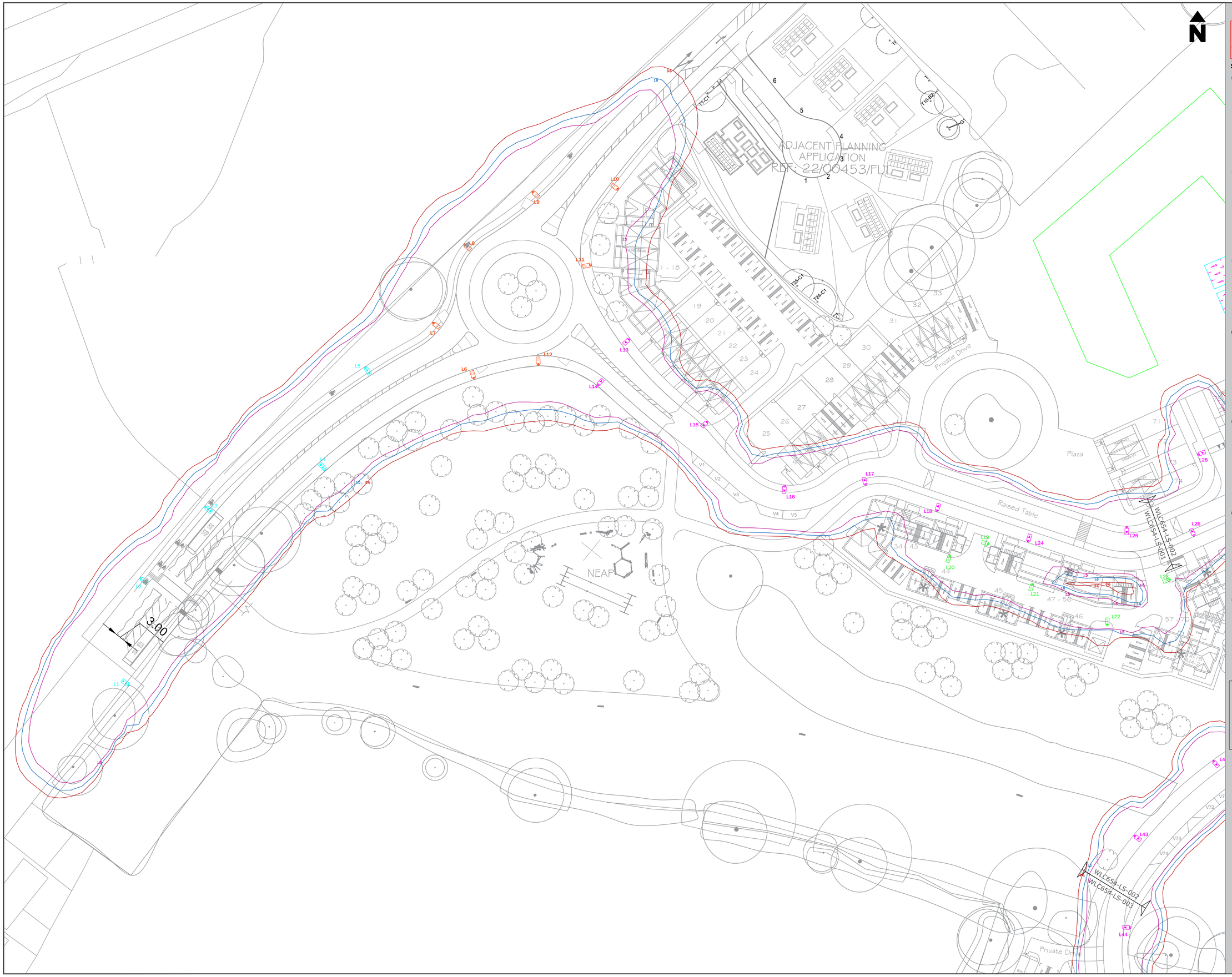
Grid 16




## Results

| | |
|---|---|
| Eav | 3.25 |
| Emin | 0.68 |
| Emax | 7.37 |
| Emin/Emax | 0.09 |
| Emin/Eav | 0.21 |
| | |

APPENDIX B: LIGHTING STRATEGY (PLAN)




# LIGHTING NOTES:

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN RISK ASSESSMENT)

1. NOT FOR CONSTRUCTION - PLANNING PURPOSES ONLY.

**SYMBOL QUANTITY - #S REFER TO ALL PLANS**

L# 7

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 40 LED 3000K WARM WHITE |
| OUTPUT: | 10.00klm |
| OPTIC: | DM10 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 13.50klm |
| OPTIC: | DW50 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 28

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 5m DW WINDSOR CARDIFF COLUMN - FACTORY FINISHED BLACK RAL9005 |
| LANTERN: | DW WINDSOR STREET FACTORY FINISHED BLACK RAL9005 |
| LIGHT SOURCE: | 16 LED 3000K WARM WHITE |
| OUTPUT: | 1.20klm |
| OPTIC: | A1 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR |
| SWITCHING: | MINIATURE PHOTOCELL 35/18 ON/OFF |
| SUPPLY: | TBC |

L# 4

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 6 LED 3000K WARM WHITE |
| OUTPUT: | 1.00klm |
| OPTIC: | DW06 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 40

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) - INACCESSIBLE UNITS TO BE RAISE AND LOWER |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DW52 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DM10 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 1

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 13.50klm |
| OPTIC: | DW50 BL2 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

LIGHTING CALCULATION DETAILS:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASS(ES): C3 (ROUNDABOUT ACCESS), P3 (SPINE ROADS), P4 (ADOPTABLE SIDE STREETS) AND P5 (PRIVATE AREAS) FOLLOWING BS5489-1:2020.

LEVELS ACHIEVED:
REFER TO LIGHTING CALCULATION REPORTS.

LUX CONTOUR LINES - SET AT 'DAY 1' VALUES:

| SYMBOL | DESCRIPTION |
|---|---|
| | 0.60 LUX CONTOUR LINE |
| | 1.00 LUX CONTOUR LINE |
| | 1.50 LUX CONTOUR LINE |

**NOTES:**

1. DESIGN IS FOR PLANNING PURPOSES ONLY AND NOT FOR CONSTRUCTION.

| REV: | DESCRIPTION: | BY: | DATE: |
|---|---|---|---|
| R2 | REVISED BASE LAYOUT | PW | 16.09.24 |
| R1 | REVISED BASE LAYOUT | PW | 24.08.23 |
| R0 | FIRST ISSUE | PW | 24.08.23 |

STATUS: **PLANNING**


**Williams Lighting Consultants Ltd.**
info@wlclighting.co.uk
www.wlclighting.co.uk
01608 642530


SITE: **OFFICERS' MEADOW SHENFIELD**

TITLE: **INDICATIVE LIGHTING STRATEGY (PLAN) SHEET 1 OF 1**

| SCALE AT A1: | DATE: | DRAWN: | CHECKED: |
|---|---|---|---|
| 1:500 | 24.08.23 | PW | LD |

| PROJECT NO: | DRAWING NO: | REVISION: |
|---|---|---|
| WLC654 | WLC654-LS-001 | R2 |

School Site

WLC654-LS-004
WLC654-LS-002
WLC654-LS-001
WLC654-LS-003

Private Drive
Raised Table
Plaza
Attenuation Basin
Shared Surface
LEAP
PLOTS 217, 222

# LIGHTING NOTES:

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN RISK ASSESSMENT)

1. NOT FOR CONSTRUCTION - PLANNING PURPOSES ONLY.

**SYMBOL QUANTITY - #S REFER TO ALL PLANS**

L# 7

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 40 LED 3000K WARM WHITE |
| OUTPUT: | 10.00klm |
| OPTIC: | DM10 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 13.50klm |
| OPTIC: | DW50 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 28

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 5m DW WINDSOR CARDIFF COLUMN - FACTORY FINISHED BLACK RAL9005 |
| LANTERN: | DW WINDSOR STREET FACTORY FINISHED BLACK RAL9005 |
| LIGHT SOURCE: | 16 LED 3000K WARM WHITE |
| OUTPUT: | 1.20klm |
| OPTIC: | A1 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR |
| SWITCHING: | MINIATURE PHOTOCELL 35/18 ON/OFF |
| SUPPLY: | TBC |

L# 4

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 6 LED 3000K WARM WHITE |
| OUTPUT: | 1.00klm |
| OPTIC: | DN09 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 40

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) - INACCESSIBLE UNITS TO BE RAISE AND LOWER |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DW52 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 13.50klm |
| OPTIC: | DM10 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# 1

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DW50 BL2 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

LIGHTING CALCULATION DETAILS:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASSES): C3 (ROUNDABOUT ACCESS), P3 (SPINE ROADS), P4 (ADOPTABLE SIDE STREETS) AND P5 (PRIVATE AREAS) FOLLOWING BS5489-1:2020.

LEVELS ACHIEVED:
REFER TO LIGHTING CALCULATION REPORTS.

LUX CONTOUR LINES - SET AT 'DAY 1' VALUES:

| SYMBOL | DESCRIPTION |
|---|---|
| | 0.60 LUX CONTOUR LINE |
| | 1.00 LUX CONTOUR LINE |
| | 1.50 LUX CONTOUR LINE |

**NOTES:**
1. DESIGN IS FOR PLANNING PURPOSES ONLY AND NOT FOR CONSTRUCTION.

| REV: | DESCRIPTION: | BY: | DATE: |
|---|---|---|---|
| R2 | REVISED BASE LAYOUT | PW | 16.02.24 |
| R1 | REVISED BASE LAYOUT | PW | 06.09.23 |
| R0 | FIRST ISSUE | PW | 24.08.23 |

STATUS: **PLANNING**


**Williams Lighting Consultants Ltd.**
info@wlclighting.co.uk
www.wlclighting.co.uk
01608 642530


SITE: **OFFICERS' MEADOW SHENFIELD**

TITLE: **INDICATIVE LIGHTING STRATEGY (PLAN) SHEET 2 OF 2**

| SCALE AT A1: | DATE: | DRAWN: | CHECKED: |
|---|---|---|---|
| 1:500 | 24.08.23 | PW | LD |

| PROJECT NO: | DRAWING NO: | REVISION: |
|---|---|---|
| WLC654 | WLC654-LS-002 | R2 |


# LIGHTING NOTES:

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN RISK ASSESSMENT)

1. NOT FOR CONSTRUCTION - PLANNING PURPOSES ONLY.

**SYMBOL QUANTITY - #S REFER TO ALL PLANS**

L# — 7

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 40 LED 3000K WARM WHITE |
| OUTPUT: | 10.00klm |
| OPTIC: | DM10 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 13.50klm |
| OPTIC: | DW50 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 28

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 5m DW WINDSOR CARDIFF COLUMN - FACTORY FINISHED BLACK RAL9005 |
| LANTERN: | DW WINDSOR STREET FACTORY FINISHED BLACK RAL9005 |
| LIGHT SOURCE: | 16 LED 3000K WARM WHITE |
| OUTPUT: | 1.20klm |
| OPTIC: | A1 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR |
| SWITCHING: | MINIATURE PHOTOCELL 35/18 ON/OFF |
| SUPPLY: | TBC |

L# — 4

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 6 LED 3000K WARM WHITE |
| OUTPUT: | 1.00klm |
| OPTIC: | DN09 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 40

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) - INACCESSIBLE UNITS TO BE RAISE AND LOWER |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DW52 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 6 LED 3000K WARM WHITE |
| OUTPUT: | 1.00klm |
| OPTIC: | DN09 BL2 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 2.60klm |
| OPTIC: | DM10 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 1

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DW50 BL2 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

LIGHTING CALCULATION DETAILS:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASS(ES): C3 (ROUNDABOUT ACCESS), P3 (SPINE ROADS), P4 (ADOPTABLE SIDE STREETS) AND P5 (PRIVATE AREAS) FOLLOWING BS5489-1:2020.

LEVELS ACHIEVED:
REFER TO LIGHTING CALCULATION REPORTS.

LUX CONTOUR LINES - SET AT 'DAY 1' VALUES:

| SYMBOL | DESCRIPTION |
|---|---|
| | 0.60 LUX CONTOUR LINE |
| | 1.00 LUX CONTOUR LINE |
| | 1.50 LUX CONTOUR LINE |

**NOTES:**
1. DESIGN IS FOR PLANNING PURPOSES ONLY AND NOT FOR CONSTRUCTION.

| REV: | DESCRIPTION: | BY: | DATE: |
|---|---|---|---|
| R2 | REVISED BASE LAYOUT | PW | 16.02.24 |
| R1 | REVISED BASE LAYOUT | PW | 06.09.23 |
| R0 | FIRST ISSUE | PW | 24.08.23 |

STATUS: **PLANNING**


**Williams Lighting Consultants Ltd.**
WLC
info@wlclighting.co.uk
www.wlclighting.co.uk
01608 642530


SITE: **OFFICERS' MEADOW SHENFIELD**

TITLE: **INDICATIVE LIGHTING STRATEGY (PLAN) SHEET 3 OF 3**

| SCALE AT A1: | DATE: | DRAWN: | CHECKED: |
|---|---|---|---|
| 1:500 | 24.08.23 | PW | LD |

| PROJECT NO: | DRAWING NO: | REVISION: |
|---|---|---|
| WLC654 | WLC654-LS-003 | R2 |

WLC654-LS-004
WLC654-LS-002

# LIGHTING NOTES:

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN RISK ASSESSMENT).

1. NOT FOR CONSTRUCTION - PLANNING PURPOSES ONLY.

**SYMBOL QUANTITY - #S REFER TO ALL PLANS**

L# — 7

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 40 LED 3000K WARM WHITE |
| OUTPUT: | 10.00klm |
| OPTIC: | DM10 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 10m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 13.50klm |
| OPTIC: | DW50 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 28

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 5m DW WINDSOR CARDIFF COLUMN - FACTORY FINISHED BLACK RAL9005 |
| LANTERN: | DW WINDSOR STREET FACTORY FINISHED BLACK RAL9005 |
| LIGHT SOURCE: | 16 LED 3000K WARM WHITE |
| OUTPUT: | 1.20klm |
| OPTIC: | A1 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR |
| SWITCHING: | MINIATURE PHOTOCELL 35/18 ON/OFF |
| SUPPLY: | TBC |

L# — 4

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 6 LED 3000K WARM WHITE |
| OUTPUT: | 1.00klm |
| OPTIC: | DN09 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 40

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) - INACCESSIBLE UNITS TO BE RAISE AND LOWER |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DW52 |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 5

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 2 LED 3000K WARM WHITE |
| OUTPUT: | 2.60klm |
| OPTIC: | DM10 BL1 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

L# — 1

PROPOSED COLUMN AND LANTERN - SPEC TBC AT DETAILED DESIGN STAGE:

| | |
|---|---|
| COLUMN: | 6m TUBULAR GALVANISED STEEL RAISE AND LOWER LIGHTING COLUMN AS PER BS EN40 AND ECC HIGHWAYS STREET LIGHTING SPECIFICATION (APPENDIX 13/1) |
| LANTERN: | PHILIPS LUMA FINISHED RAL7035 |
| LIGHT SOURCE: | 20 LED 3000K WARM WHITE |
| OUTPUT: | 5.20klm |
| OPTIC: | DW50 BL2 (BACK LIGHT SHIELDING) |
| LANTERN MOUNTING: | POST TOP |
| LANTERN INCLINATION: | 0° |
| CONTROL GEAR REF: | LED DRIVER AS PER ECC SPECIFICATION |
| ISOLATOR: | DOUBLE POLE 25A ISOLATOR AS PER ECC HIGHWAYS STREET LIGHTING SPECIFICATION |
| SWITCHING: | 7 PIN NEMA SOCKET WITH TELENSA 5 PIN TELECELL REF: T21EN-G-3 REFER TO TELENSA NOTES BELOW FOR DETAILS REGARDING TELENSA ID LABELS. |
| SUPPLY: | TBC |

LIGHTING CALCULATION DETAILS:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASS(ES): C3 (ROUNDABOUT ACCESS), P3 (SPINE ROADS), P4 (ADOPTABLE SIDE STREETS) AND P5 (PRIVATE AREAS) FOLLOWING BS5489-1:2020.

LEVELS ACHIEVED:
REFER TO LIGHTING CALCULATION REPORTS.

LUX CONTOUR LINES - SET AT 'DAY 1' VALUES:

| SYMBOL | DESCRIPTION |
|---|---|
| | 0.60 LUX CONTOUR LINE |
| | 1.00 LUX CONTOUR LINE |
| | 1.50 LUX CONTOUR LINE |

**NOTES:**
1. DESIGN IS FOR PLANNING PURPOSES ONLY AND NOT FOR CONSTRUCTION.

| REV: | DESCRIPTION: | BY: | DATE: |
|---|---|---|---|
| R2 | REVISED BASE LAYOUT | PW | 16.02.24 |
| R1 | REVISED BASE LAYOUT | PW | 05.09.23 |
| R0 | FIRST ISSUE | PW | 24.08.23 |

STATUS: **PLANNING**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SITE: **OFFICERS' MEADOW SHENFIELD**

TITLE: **INDICATIVE LIGHTING STRATEGY (PLAN) SHEET 4 OF 4**

| SCALE AT A1: | DATE: | DRAWN: | CHECKED: |
|---|---|---|---|
| 1:500 | 24.08.23 | PW | LD |

| PROJECT NO: | DRAWING NO: | REVISION: |
|---|---|---|
| WLC654 | WLC654-LS-004 | R2 |