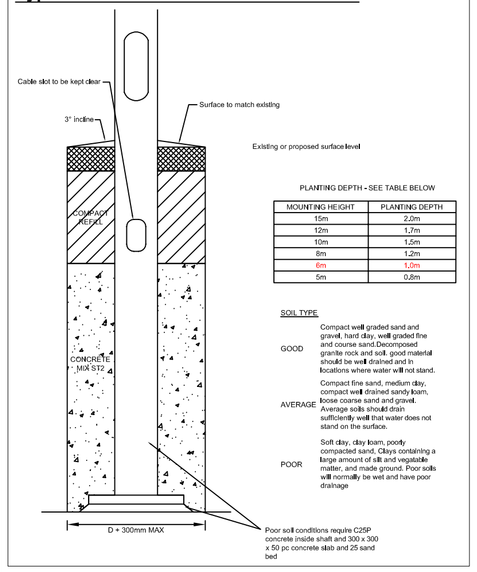
**Site overview showing equipment positions, Scale 1:1000 at A1**




**Typical column installation details N.T.S**




PLANTING DEPTH = SEE TABLE BELOW

| MOUNTING HEIGHT | PLANTING DEPTH |
|---|---|
| 15m | 2,0m |
| 12m | 1,7m |
| 10m | 1,5m |
| 8m | 1,2m |
| 6m | 1,0m |
| 5m | 0,8m |

SOIL TYPE

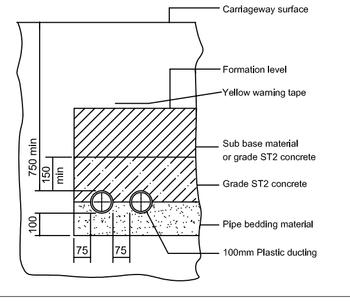
GOOD — Compact well graded sand and gravel, hard clay, well graded fine and course sand.Decomposed granite rock and soil, good material should be well drained and in locations where water will not stand.

AVERAGE — Compact fine sand, medium clay, compact well drained sandy loam, loose course sand and gravel, Average soils should drain sufficiently so that water does not stand on the surface.

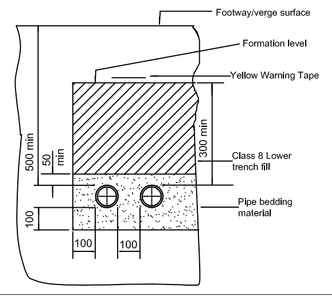
POOR — Soft clay, clay loam, poorly compacted sand, Clays containing a large amount of silt and vegetable matter, and made ground. Poor soils will normally be wet and have poor drainage

**N.T.S**

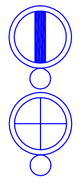
Type A
Ducts Laid Under Carriageway




Type B
Ducts Laid Under Footway and Verges




**BoQ**



AMPERA MINI 5068 Flat glass 24 OSLON SQUARE GIANT@350mA NW 740 230V 404502
lamp(s): 24 OSLON SQUARE GIANT@350mA NW 740 230V
candela file 'AMPERA MINI 5068 24 OSLON SQUARE GIANT 350mA NW 740 26W 404502 Flat glass 230V TF.ldt'
1 lamp(s) per luminaire, 3516 initial lumens per lamp
Maintenance Factor = 0.820, watts per luminaire = 26
Outreach (from mounting axis to photometric center)= 300 mm
tilt angle= 5 deg
mounting height= 6 m
number locations= 28, number luminaires= 28
kw all locations= 0.7

# Notes

1. Column foundations to be as per Local Authority Standard Detail drawing.

2. All columns to be provided with Distribution Network Operator Services to Local Authority Standard Detail drawing, unless otherwise stated.

3. Column positions to be agreed on site with the Local Authority Street Lighting Engineer. All columns to be sited within the adoptable highway and generally in compliance with the current Local Authority Design Guide for Residential areas. Columns shall not be installed within dropped kerb areas.

4. Column numbering to be agreed with the Local Authority Street Lighting Engineer.

5. The Contractor is to provide Local Authority with as-built drawings, test certificates and column and lantern data sheets.

6. All Street Lighting works to be carried out by Local Authority approved contractors.

7. A list of proposed equipment is to be rendered by the contractor for approval by the Local Authority Street Lighting Engineer prior to the installation.

8. Adoptable ducting to be installed to satisfy the requirements of Distribution Network Operator.

9. The contractor to liaise with Distribution Network Operator with regard to connections and disconnections of columns and illuminated signs.

10. Minimum distance for a column to be erected in a service strip is 1m back from the front face of the column to kerb edge.

11. This lighting scheme comply's with North Wales Authorities Lighting Design Guide and Specification (ref: ENV/PP/DC-1075).

12. All wiring including component labelling to be in accordance with BS7671.

13. Prior to excavation works the installation contractor must be aware of underground services or hazards which may be encountered in the installation of the lighting system. Advice should be sought from the developers engineering representative.

14. The installation contractor must be aware of any overhead obstructions. Advice should be sought from the developers engineering representative.

15. Column door orientation as per current Wrexham County Borough Council's policy is for the operative maintaining the column to be facing the oncoming traffic.

North

Table A.5 **Lighting classes for subsidiary roads with a typical speed of main user $v \leq 30$ mph**

| Traffic flow | Lighting class | | | |
|---|---|---|---|---|
| | Ambient luminance: very low (E1) | Ambient luminance: low (E2) | Ambient luminance: moderate (E3) | Ambient luminance: high (E4) |
| Busy [A] | S3 or P3 | S3 or P3 | S2 or P2 | S2 or P2 |
| Normal [B] | S4 or P4 | S4 or P4 | S3 or P3 | S3 or P3 |
| Quiet [C] | S5 or P5 | S5 or P5 | S4 or P4 | S4 or P4 |

*NOTE 1 Table A.5 assumes no parked vehicles – see risk assessment in **A.3.3.2.***

*NOTE 2 If facial recognition is important then an ES lighting class from BS EN 13201-2:2003, Table 5, or an ESC lighting class from CIE 115:2010 [N1], Table 7, can be selected as an additional criterion. Good colour rendering contributes to better facial recognition. (The ES lighting class in BS EN 13201-2:2003 is expected to be replaced by SC upon publication of the revised edition.)*

*NOTE 3 To ensure adequate uniformity, the actual value of the maintained average illuminance is not to exceed 1.5 times the value indicated for the class.*

*NOTE 4 It is recommended that the actual overall uniformity of illuminance Uo be as high as reasonably practicable.*

*NOTE 5 Grey highlighting indicates situations that would not usually occur in the UK.*

*NOTE 6 The ambient luminance descriptions E1 to E4 refer to the environmental zone as defined in ILP GN01 [N5].*

[A] Busy traffic flow refers to areas where the traffic usage is high and can be associated with local amenities such as clubs, shopping facilities, public houses, etc.
[B] Normal traffic flow refers to areas where the traffic usage is of a level equivalent to a housing estate access road.
[C] Quiet traffic flow refers to areas where the traffic usage is of a level equivalent to a residential road and mainly associated with the adjacent properties or properties on other equivalent roads accessed from this road.

# Key

23 **Proposed**
**Column:**
**Manufacturer:** CU Phosco
**Material:** Galvanised Steel
**Type:** Tubular
**Height:** 6m
**Lantern:**
**Manufacturer:** Urbis
**Model:** Ampera Mini
**Optic:** 5068
**LED:** 24
**Mounting:** post top
**Tilt:** 5°
**Wattage:** 26W
**Photometry file:**
'AMPERA MINI 5068 24 OSLON SQUARE GIANT 350mA NW 740 26W 404502 Flat glass 230V TF.ldt'
**Driver:** DALI enabled
**PECU:** factory fitted miniture cell, switching at 55lux 1:0.5 ratio

05 **Proposed**
**Column:**
**Manufacturer:** CU Phosco
**Material:** Galvanised Steel
**Type:** Tubular
**Height:** 6m
**Lantern:**
**Manufacturer:** Urbis
**Model:** Ampera Mini
**Optic:** 5068
**LED:** 24
**Mounting:** post top
**Tilt:** 5°
**Wattage:** 26W
**Photometry file:**
'AMPERA MINI 5068 24 OSLON SQUARE GIANT 350mA NW 740 26W 404502 Flat glass 230V TF.ldt'
**Driver:** DALI enabled
**PECU:** factory fitted miniture cell, switching at 55lux 1:0.5 ratio
**Attachments:** Fitted with back shield to the rear

*(All of the above to Wrexham County Council Specification)*

Proposed column scheme number
01 = Proposed S38 Column Number
EB = Proposed Electical Board connection

**Note**

Until technical approval has been obtained from the relevant adopting authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to approval being given, it is entirely at his own risk.

Additional Notes

Double pole isolation device with a 6A BS88 fuse to be utilised above the DNO cut out. Tofco model to be used.

- 1.5mm Flex for the downleads.
- BS 951 'safety electrical connection' lable in base.
- Copper grease on door hinge & door retaining bolt
- 6A discrimination DNO to private cut out.
- Conductors doubled over in the terminals

| REV | DESCRIPTION | DATE | DRN | APP |
|---|---|---|---|---|
| B | Xref updated | 27/07/21 | SS | PDL |
| A | Changed Columns F02, F03, F04, E03, C03, to have back shields | 02/03/21 | JL | JH |

DRAWING NO: 21900-D-01
REV: B

DRAWING STATUS: DESIGN

CLIENT: Castle Green

PROJECT: Rossett Road, Rossett Adoptable Lighting

TITLE: Proposed Lighting and Installation Design Layout

SCALE: AS INDICATED
DESIGNED BY: TL 11/01/21
SHEET NO: Sheet 1 of 1
APPROVED BY: PDL 12/01/21


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PROJECT: F:\Projects\Castle Green Homes (MacBryde Homes)\Rossett Road, Rossett\S38\Drawings\Rev_B

XREF DRAWINGS: --------

Date Plotted: --------

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