

## STREET LIGHTING DESIGN RISK ASSESSMENT



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### SHD960-SHD-HLG-ARLE-RA-EO-Lighting Design Risk Assessment-R0

|              |              |           |                                                                                   |            |
|--------------|--------------|-----------|-----------------------------------------------------------------------------------|------------|
|              | Name:        | Position: | Signature:                                                                        | Date:      |
| Prepared by: | Steve Higham | Director  |  | 01/04/2023 |

|               |                        |
|---------------|------------------------|
| Scheme Title: | Arlecdon Road, Cumbria |
|---------------|------------------------|

|                    |                        |
|--------------------|------------------------|
| Brief Description: | Street lighting design |
|--------------------|------------------------|

|                 |                                                                                                                                                                                                                                            |
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| Considerations: | <p>The lighting scheme has been designed in accordance with BS 5489-1:2020 and Cumbria County Council street lighting specification</p> <p>This document must be read in conjunction with SHD960-SHD-HLG-ARLE-DR-EO-Lighting Layout-R0</p> |
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**No information was provided to the location of any existing or proposed low or high voltage underground electricity cables, low or high voltage overhead electricity cables, low, medium or high-pressure gas mains, any water mains pipes, underground or overhead communication cables or equipment or any other associated hazards.**

All services are to be located and identified prior to installing or removing any lighting columns.

All works should be carried out in accordance with HSE GS6, ENA 43-8, HSE HGS47, G39/1 and any relevant HSE regulations

Details of existing statutory undertakers' plant are to be obtained by the client and the contractor may examine these records at the engineer's office.

All works in the vicinity of any overhead cables shall conform to the requirements of HSE guidance note GS6 "avoidance of danger from overhead lines" and all works in the vicinity of underground mains or cables shall conform to the requirements of HSE guidance note HGS47 "avoiding danger from underground services" and any additional requirements specified by the relevant undertaker.

The contractor will be responsible for liaison with the undertakers and for programming the agreed protection and/or diversion works to any statutory undertakers' apparatus into the overall works programme (this is to include adjustment of stabs covers).

Any damage to plant or apparatus shall be repaired at the contractor's expense.

No works shall be constructed until technical approval has been obtained from the local authority or overseeing organisation by the developer. Should works be constructed without approval they will be entirely at the developer's risk.

| DESIGNER'S RISK ASSESSMENT       |                  |                                  |                                                                 |          |                                                                                               |                                                                                                                                                                                                                                                                                  |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
|----------------------------------|------------------|----------------------------------|-----------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|--------------|--------------------------------------------------------------------------------------------------|--|
| HAZARD IDENTIFICATION / ACTIVITY | APPLICABLE (Y/N) | During construction of the works | Installation of highway lighting equipment adjacent to footpath | ACTIVITY | WHAT IS THE HAZARD AND WHO / WHAT IS AT RISK                                                  | INITIAL RISK ASSESSMENT                                                                                                                                                                                                                                                          |                |              | DESIGN CONTROL MEASURES                                                                                                | RESIDUAL RISK ASSESSMENT |                |              | FURTHER CONTROL MEASURES / RECOMMENDATIONS                                                       |  |
|                                  |                  |                                  |                                                                 |          |                                                                                               | SEVERITY (S)                                                                                                                                                                                                                                                                     | LIKELIHOOD (L) | RISK (S x L) |                                                                                                                        | SEVERITY (S)             | LIKELIHOOD (L) | RISK (S x L) |                                                                                                  |  |
|                                  |                  |                                  |                                                                 |          |                                                                                               | 5                                                                                                                                                                                                                                                                                | 3              | 15           |                                                                                                                        | 5                        | 2              | 10           |                                                                                                  |  |
|                                  |                  |                                  |                                                                 |          |                                                                                               | 4                                                                                                                                                                                                                                                                                | 2              | 8            |                                                                                                                        | 4                        | 1              | 4            |                                                                                                  |  |
| 1                                |                  | Y                                |                                                                 |          | Public & Operatives                                                                           | 5                                                                                                                                                                                                                                                                                | 3              | 15           | Install barriers to protect public from works area                                                                     | 2                        | 2              | 4            |                                                                                                  |  |
| 2                                |                  | Y                                |                                                                 |          | Striking underground electricity cable - electrocution/burning. Workforce and site personnel. | 5                                                                                                                                                                                                                                                                                | 4              | 20           | Ensure CAT scans are undertaken to locate services/utilities. No works to be undertaken without a valid permit to dig. | 5                        | 2              | 10           | Principal Contractor must ensure that all excavations are carried out in accordance with HSG 47. |  |
| 3                                |                  | Y                                |                                                                 |          | Striking underground gas main - explosion, gas leak. Workforce and site personnel.            | 5                                                                                                                                                                                                                                                                                | 4              | 20           | Ensure CAT scans are undertaken to locate services/utilities. No works to be undertaken without a valid permit to dig. | 5                        | 2              | 10           | Principal Contractor must ensure that all excavations are carried out in accordance with HSG 47. |  |
| 4                                |                  | Y                                |                                                                 |          | Striking underground water main - flooding hazard. Workforce and site personnel.              | 5                                                                                                                                                                                                                                                                                | 4              | 20           | Ensure CAT scans are undertaken to locate services/utilities. No works to be undertaken without a valid permit to dig. | 5                        | 2              | 10           | Principal Contractor must ensure that all excavations are carried out in accordance with HSG 47. |  |
|                                  |                  |                                  |                                                                 |          |                                                                                               | 5                                                                                                                                                                                                                                                                                |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
|                                  |                  |                                  |                                                                 |          |                                                                                               | Risk Rating (RR=S x L)                                                                                                                                                                                                                                                           |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
|                                  |                  |                                  |                                                                 |          |                                                                                               | Insignificant<br>Acceptable<br>Low<br>Medium<br>Significant<br>High<br>Review urgently required to determine if the risk can be removed or reduced<br>Not acceptable, risks need investigation to consider reasonable practical improvements<br>Risks must be removed or reduced |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
| 1                                | (S)              |                                  |                                                                 |          |                                                                                               |                                                                                                                                                                                                                                                                                  |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
| 2                                |                  |                                  |                                                                 |          |                                                                                               |                                                                                                                                                                                                                                                                                  |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
| 3                                |                  |                                  |                                                                 |          |                                                                                               |                                                                                                                                                                                                                                                                                  |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
| 4                                |                  |                                  |                                                                 |          |                                                                                               |                                                                                                                                                                                                                                                                                  |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |
| 5                                |                  |                                  |                                                                 |          |                                                                                               |                                                                                                                                                                                                                                                                                  |                |              |                                                                                                                        |                          |                |              |                                                                                                  |  |



| DESIGNER'S RISK ASSESSMENT       |                      |          |                                                                     |                                                                                                             |                                                                                        |              |                          |                                                                                                                        |              |                                            |    |                                                                                                                                            |
|----------------------------------|----------------------|----------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------|--------------------------|------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------|
| HAZARD IDENTIFICATION / ACTIVITY | APPLICABLE (Y/N)     | ACTIVITY | WHAT IS THE HAZARD AND WHO / WHAT IS AT RISK                        | INITIAL RISK ASSESSMENT                                                                                     |                                                                                        |              | RESIDUAL RISK ASSESSMENT |                                                                                                                        |              | FURTHER CONTROL MEASURES / RECOMMENDATIONS | 5  | 8                                                                                                                                          |
|                                  |                      |          |                                                                     | SEVERITY (S)                                                                                                | LIKELIHOOD (L)                                                                         | RISK (S x L) | SEVERITY (S)             | LIKELIHOOD (L)                                                                                                         | RISK (S x L) |                                            |    |                                                                                                                                            |
|                                  |                      |          |                                                                     | Striking underground telecoms or data service cables.                                                       | 5                                                                                      | 4            | 20                       | Ensure CAT scans are undertaken to locate services/utilities. No works to be undertaken without a valid permit to dig. | 5            | 2                                          | 10 | Principal Contractor must ensure that all excavations are carried out in accordance with HSG 47.                                           |
| 6                                | Highway Lighting     | Y        | Below ground works                                                  | Striking underground highway lighting cable - electrocution / burning hazard. Workforce and site personnel. | 5                                                                                      | 4            | 20                       | Ensure CAT scans are undertaken to locate services/utilities. No works to be undertaken without a valid permit to dig. | 5            | 2                                          | 10 | Principal Contractor must ensure that all excavations are carried out in accordance with HSG 47.                                           |
| 7                                | Overhead data lines  | Y        | During lighting column installation or MEWP striking overhead lines | Loss of service / Injury to site personnel.                                                                 | 3                                                                                      | 3            | 9                        | Contractor to be aware of any overhead cables.                                                                         | 2            | 1                                          | 2  | All installations shall be in accordance with G36 and G39 - No work to be undertaken in the vicinity zone                                  |
| 8                                | Overhead power lines | Y        | Installation of lighting columns                                    | Loss of service / Injury to site personnel.                                                                 | 5                                                                                      | 3            | 15                       | Columns to be located outside vicinity zone in accordance with G39.                                                    | 2            | 1                                          | 2  | All installations shall be in accordance with G36 and G39 - No work to be undertaken in the vicinity zone - Consult with DNO for guidance. |
|                                  | (S)                  |          | (L)                                                                 | Risk Rating (RR=S x L)                                                                                      |                                                                                        |              |                          |                                                                                                                        |              |                                            |    |                                                                                                                                            |
|                                  | 1                    |          | 1                                                                   | Insignificant                                                                                               | Acceptable                                                                             |              |                          |                                                                                                                        |              |                                            |    |                                                                                                                                            |
|                                  | 2                    |          | 2                                                                   | Low                                                                                                         | Acceptable with effective control measures                                             |              |                          |                                                                                                                        |              |                                            |    |                                                                                                                                            |
|                                  | 3                    |          | 3                                                                   | Medium                                                                                                      | Not acceptable, risks need investigation to consider reasonable practical improvements |              |                          |                                                                                                                        |              |                                            |    |                                                                                                                                            |
|                                  | 4                    |          | 4                                                                   | Significant                                                                                                 | Review urgently required to determine if the risk can be removed or controls improved  |              |                          |                                                                                                                        |              |                                            |    |                                                                                                                                            |
|                                  | 5                    |          | 5                                                                   | High                                                                                                        | Risks must be removed or reduced                                                       |              |                          |                                                                                                                        |              |                                            |    |                                                                                                                                            |

[illegible]