



Project No	LL1249-001
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Engineer	A. Loveday
Date	16/03/2021
Rev	-

ENVIRONMENTAL DESIGN REPORT

SCHEME	Saltersford Lane, Alton																						
CLIENT	Walton Homes																						
ASPECTS OF SCHEME TO BE DESIGNED	Street lighting for Private Roads																						
ENVIRONMENTAL REPORT	It has been assessed that the lighting levels shall be as per the British Standard BS 5489 2020 and BS EN 13201-2:2015 recommendations: <u>Saltersford Lane, Alton: - Lighting Class – P5</u> Maintained average illuminance (Eav) = 3.00 – 4.50 Lux Maintained minimum illuminance (Emin) = 0.60 Lux The above has been made on the assumption that the proposed street lighting installation will be in a ‘Normal Traffic Flow’ area, where traffic usage is of a level equivalent to a residential road and solely associated with the adjacent properties. The ‘Environmental Zone’ has been selected as an ‘E2’. Table A.5 — Lighting classes for subsidiary roads <table><tr><th rowspan="3">Traffic flow</th><th colspan="3">Lighting class</th></tr><tr><th>E1 to E4^{A)}</th><th>E1 to E2^{A)}</th><th>E3 to E4^{A)}</th></tr><tr><th>Pedestrian and cyclists only</th><th>Speed limit v ≤ 30 mph</th><th>Speed limit v ≤ 30 mph</th></tr><tr><td>Busy ^{B)}</td><td>P5</td><td>P4</td><td>P3</td></tr><tr><td>Normal ^{C)}</td><td>P5</td><td>P5</td><td>P4</td></tr><tr><td>Quiet ^{D)}</td><td>P6</td><td>P5</td><td>P4</td></tr></table> <i>NOTE 1 Table A.5 assumes no parked vehicles; see risk assessment in A.3.3.2.</i> <i>NOTE 2 An EV lighting class using vertical illuminance, from BS EN 13201-2:2015, Table 6, can be specified in addition to the general lighting class when there are particular concerns about crime and personal safety. EV is calculated at the typical height of a human face (1.5 m) and in relevant viewing orientations.</i> <i>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.</i> <i>NOTE 4 The actual overall uniformity of illuminance, U_a, needs to be as high as reasonably practicable (see 7.2.6).</i> <i>NOTE 5 The ambient luminance descriptions E1 to E4 refer to the environmental zone as defined in ILP GN01 [N2].</i> <i>NOTE 6 The illuminance classes are suggested minimum levels. A risk assessment needs to be carried out to ensure that the light levels are adequate, particularly for pedestrians and cyclists.</i> The street lighting proposals for the highway improvements have been submitted using a total of seven TRT Lighting Aspect Eco 12LED GR1 1.20klm 2700k Warm White LED luminaires and one TRT Lighting Aspect Eco 12LED GR1 1.79klm 2700k Warm White LED luminaire. All luminaires to be post top mounted on new 6m standard spec columns. The proposed lighting scheme will ensure that the neighbouring residences do not have a light spillage onto their property as that would be deemed to be unacceptable in line with current guidelines. It is proposed that the lighting impact can be minimised by using accepted methods of lighting control, essentially limiting	Traffic flow	Lighting class			E1 to E4 ^{A)}	E1 to E2 ^{A)}	E3 to E4 ^{A)}	Pedestrian and cyclists only	Speed limit v ≤ 30 mph	Speed limit v ≤ 30 mph	Busy ^{B)}	P5	P4	P3	Normal ^{C)}	P5	P5	P4	Quiet ^{D)}	P6	P5	P4
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	illuminance and controlling light spill. It is proposed the external lighting shall be installed on 6m columns. Generally lighting shall be selected to provide safety and security without polluting the boundary site residents. All luminaires are to have electronic control gear. The light source specified for this lighting scheme is LEDs, this is a low lumen output, high efficiency light source. The electronic drivers and LEDs running together produce a very efficient street lighting system, which reduces overall energy usage and environmental impact on natural resources. Desk top assessments on the proposed street lighting installation indicate that overall surrounding light pollution levels will not be significantly influenced by the proposed street lighting. It is proposed the lighting impact can be minimised using accepted methods of lighting control, essentially limiting illuminance and controlling light spill. These accepted methods have all been adopted within the proposed lighting design to keep the overall impact of the lighting to a minimum. In summary it is our considered opinion that the proposed street lighting installed will not have any significant negative impact on the immediate environment with respect to lighting pollution or energy usage and that all sensible steps have been taken within the design stage of this lighting scheme to keep the impact to the environment to a minimum.
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