

2.9 **Roof**

- 2.9.1 The condition of the flat roof was checked on site and the roof covering was found to be in good condition. One roof leak was reported during the survey inspections which will require further investigation.
- 2.9.2 The capping trim to the parapet wall is noted to have rusted in some locations causing staining to the paint finish. The trim will require replacing during the cyclical redecoration works.

2.10 Estate lighting

2.10.1 The extent of the survey comprised a visual inspection of the following areas:

- External estate amenity lighting;
- Under ground car park lighting;
- Sports pitch floodlighting.

Estate Amenity Lighting

2.10.2 The existing external estate amenity lighting varies in its effectiveness and illuminance levels throughout the many different areas of the estate. The majority of the estate has had the original luminaires replaced over the last 10 years. All of the luminaires surveyed were low energy 2D fluorescent or high pressure sodium or mercury vapour discharge type luminaires.

2.10.3 This type of lighting is low in maintenance and energy consumption.

2.10.4 There have been some additional luminaires added in various areas of the estate to improve the illuminance of some walkway areas in order to provide a sense of security for residents at night.

2.10.5 A plan is included in Appendix 5 showing the estate segregated into distinct zones in order to easily identify the particular areas described in detail in this section of the report.

2.10.6 There are large areas of the estate where the lighting levels provided by the existing lighting systems are inadequate. The lighting levels are not in accordance with the 'CIBSE Code for the Outdoor Environment' document and in addition do not provide adequate lighting levels to provide resident safety and security.

Area 1 (Walkway between Block A and Block B/C)

- 2.10.7 The existing lighting to this area is limited to individual Coughtrie CPS16 16 W 2D bulkhead luminaires located by each entrance door way. 2 No mercury Discharge luminaires are located at the top of the staircases of Block A in order to improve the lighting within the inner staircases.
The existing lighting is generally served using flush wiring. The lighting levels throughout the walkway area are below 2 Lux and in the most part below 1 Lux.
- 2.10.8 The night time aspect of this part of the estate is that of a dimly lit unwelcoming area.
- 2.10.9 The lighting levels should be improved to the general walkway areas by the use of low level 70W High Pressure Sodium type bollard luminaires located within the planter areas.

Area 2 (Walkway between Block D/E and Block B/C)

- 2.10.10 The existing lighting to this area is limited to individual Coughtrie CPS16 16 W 2D bulkhead luminaires located by each entrance door way with additional 70W High Pressure Sodium Thorlux Mercian style luminaires mounted at approximately 3m above ffl on blocks D and E. The additional luminaires do create some additional glare for the residents of Blocks B and C however the improvements to the lighting levels and the general improvement in the feeling of security in this area make the improvements successful. There are no improvement works envisaged within this area at this stage.

Area 3 (Walkway behind Block D and E)

- 2.10.11 The existing lighting to this area is limited to one High Pressure Sodium floodlight in the centre area of the pedestrian pathway. The existing lighting is generally served using surface MICC wiring. The lighting levels throughout the pathway are below 1 Lux in all areas except the immediate area around the floodlight.

2.10.12 The night time aspect of this part of the estate is that of a dimly lit intimidating area.

2.10.13 The lighting levels should be improved to the general pathway by the use of wall mounted 16W 2D polycarbonate bulkheads along the full length of the pathway.

Areas 4 and 6 (Walkway between Block F/G/H and Block I/J and walkway between Block I/J and Block N/O)

2.10.14 The existing lighting to this area is limited to individual Coughtrie CPS16 16 W 2D bulkhead luminaires located by each entrance door way. 2 No mercury Discharge luminaires are located at the top of the staircases of Blocks F, G and H in order to improve the lighting within the inner staircases.

The existing lighting is generally served using flush wiring. The lighting levels throughout the walkway area is below 2 Lux and in the most part below 1 Lux.

2.10.15 The night time aspect of this part of the estate is that of a dimly lit unwelcoming area.

2.10.16 The lighting levels should be improved to the general walkway areas by the use of low level 70W High Pressure Sodium type bollard luminaires located within the planter areas.

Area 5 (Sports Pitch and Associated Areas)

2.10.17 The sports pitch area is well illuminated using 3 No 10m lighting columns with 250W SONT area flood type lanterns. The installation appears to be less than 5 years old and is in good condition. This is the only illumination to this area that includes two pedestrian walkways. The floodlighting appears to be on at all times as it was operational at all survey times. The area is reasonably illuminated with the floodlights on however this is not an efficient and long term method of illuminating the area. It is recommended that new medium height lighting columns (4-5metres in height) with 70W SON T type lanterns should be installed

within the landscaped areas to provide illumination at all times during the hours of darkness.

Area 7 (Areas around Blocks K, L and M)

2.10.18 This area is served using individual Coughtrie CPS16 16 W 2D bulkhead luminaires located by each entrance door way and also on the walkways into each 1st floor entrance. These have been enhanced by a system of recently installed 70W High Pressure Sodium Thorlux Mercian style luminaires mounted at approximately 3m above finished floor level along the walkway.

2.10.19 No further works are required to this area of the estate.

Underground Car Park Area No1

2.10.20 This area is served using individual Coughtrie CPS28 28W 2D bulkhead luminaires located along the whole length of the underground car park. The lighting levels vary between 10 and 30Lux in all areas except the end closest to Block A where a number of the luminaires are not functioning.

2.10.21 The general feeling of security, in what is an intimidating underground space, is good. This is evidenced by the number of residents using the space during the survey period.

2.10.22 No works, other than that of general maintenance, are required within this zone.

Underground Car Park Area and Workshops No2

2.10.23 This area is served using a mixture of soffit mounted Coughtrie CPS16 16W 2D, CPS28 28W 2D bulkhead luminaires and a large 70W SONT type luminaire illuminating the walkway adjacent to block I. This area is extremely poorly lit particularly adjacent to blocks F and I and is effectively a no go area after dark. The illuminance levels are below 1 Lux.

2.10.24 Substantial improvements are required to the lighting in this area incorporating ensuring that all existing luminaires are functioning correctly. The area shall be lit to at least 25 Lux using a mixture of 28 and 38W 2D luminaires mounted on the concrete soffit.

Underground Car Park Area No3

2.10.25 This large underground car park area is at this stage closed off to the residents. At the time of the survey it is not apparent whether this area will be brought back into service or has existing suitable lighting systems.

2.10.26 No budget estimates have been included for this area within this report.