

# Milltown Park, Sandford Road, Dublin 6

Design Book 14 - Lighting Report

PTL - 762

December 2025

**Pritchard Themis**

38 Bocking Street  
London E8 3FP

Site Awareness



Example of residential development in parkland - Marga in Senftenberg Brieske Garden City, Brandenburg

The site sits within a very leafy residential area of Dublin and in many ways will remain parkland - part of a green world of trees, lawns and playing fields that define the area. The site is currently closed to the public and will be opened up for the public to utilise.

As we approach the lighting design we have been cognisant of this fact and look for the right balance between the need for freshness and efficiency and the desire to find commonality with the surrounding community.

All lighting has been designed in accordance with the environment zone classifications set out in the Institute of Lighting Professionals Guidance and with the associated illuminance levels from the European Standards EN: 13201-2 where they are relevant.

### Ecology Considerations 1

The ecological impact on the site and its inhabitants has been taken into consideration, with specific reference to the protection of the bats and the impact artificial lighting can have on their habitats. With a residential development comes the need for artificial light but mitigation measures will be taken to minimise the effect lighting will have, the site can be considered with different levels of zoning, including having dark zones to create a corridor for commuting and foraging bats.

Light sources and equipment will be selected to meet specific recommendations from the Institution of Lighting Professionals (ILP) Bats & Lighting in the UK - Bats and the Built Environment series Guidance Note 08/18.

To maximise tolerability to bats, light sources will be UV free LED sources and white light sources will have a colour temperature no higher than 3000K and peak wavelength greater than 550nm.

Lighting equipment specification will have to meet optical requirements to ensure controlled optical control with no upward light spill:

- Street lighting will be flat glass with full cut-off with no upward light component.
- Pedestrian amenity fittings with angled projectors will be fitted with cowls to avoid upward lighting.
- Bollards will all have downward light distribution.
- Feature lighting of buildings and trees will be limited and be set to turn off at an agreed curfew time in the evenings no later than 10:30pm all year round. Lighting in the secret garden area behind the chapel will be set to turn off at this curfew during summer months May to September inclusive.
- All upward light sources will be fitted with baffles or internal louvres to control the unwanted upward light spill.

Timer controls will switch on lighting at the appropriate time during hours of darkness, but ensure adherence to curfews where required.

The lighting designers responsible for the internal lighting will be required to design a sensitive lighting scheme to ensure internal light spill from the interiors of the proposed buildings via windows/entrances along the buffer zone as per Figure 1 will be minimised through selective lighting measures, such as fittings set back into the room as per Figure 3 taken from Internal Lighting Guidance Diagram adapted from ILP (2018).

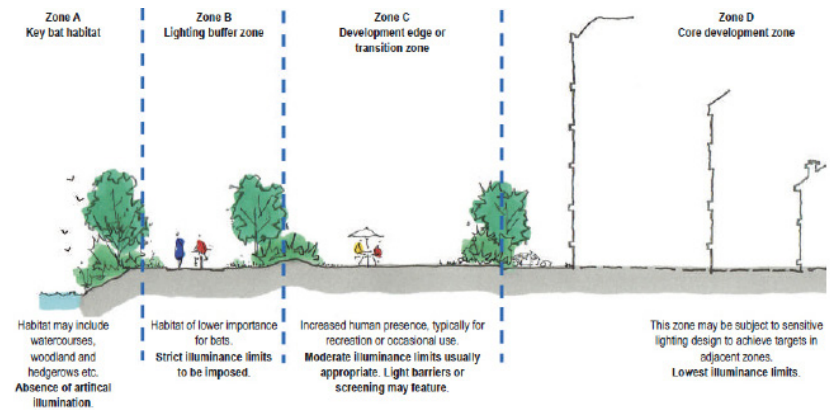


Figure 1. Example of illuminance limit zonation - ILP Guidance note 08/18 Bats and artificial lighting in the UK

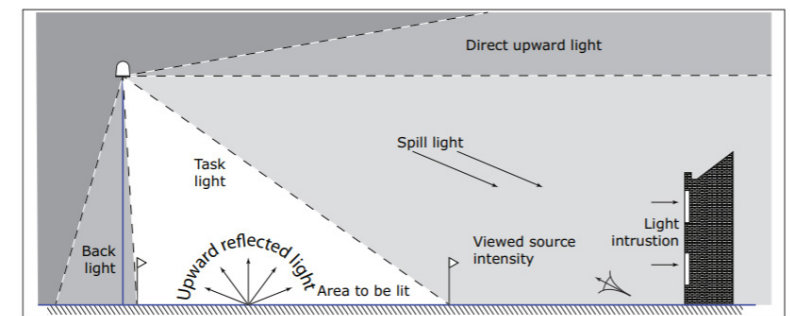


Figure 2. Types of Obtrusive light - ILP Guidance note 01/21 The reduction of obtrusive light

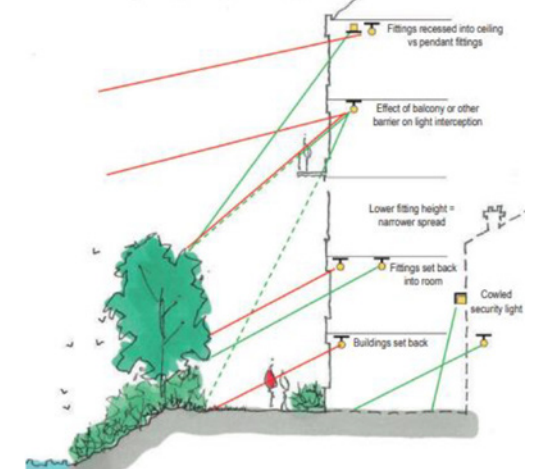


Figure 3. Internal lighting mitigation options - ILP Guidance note 08/18 Bats and artificial lighting in the UK

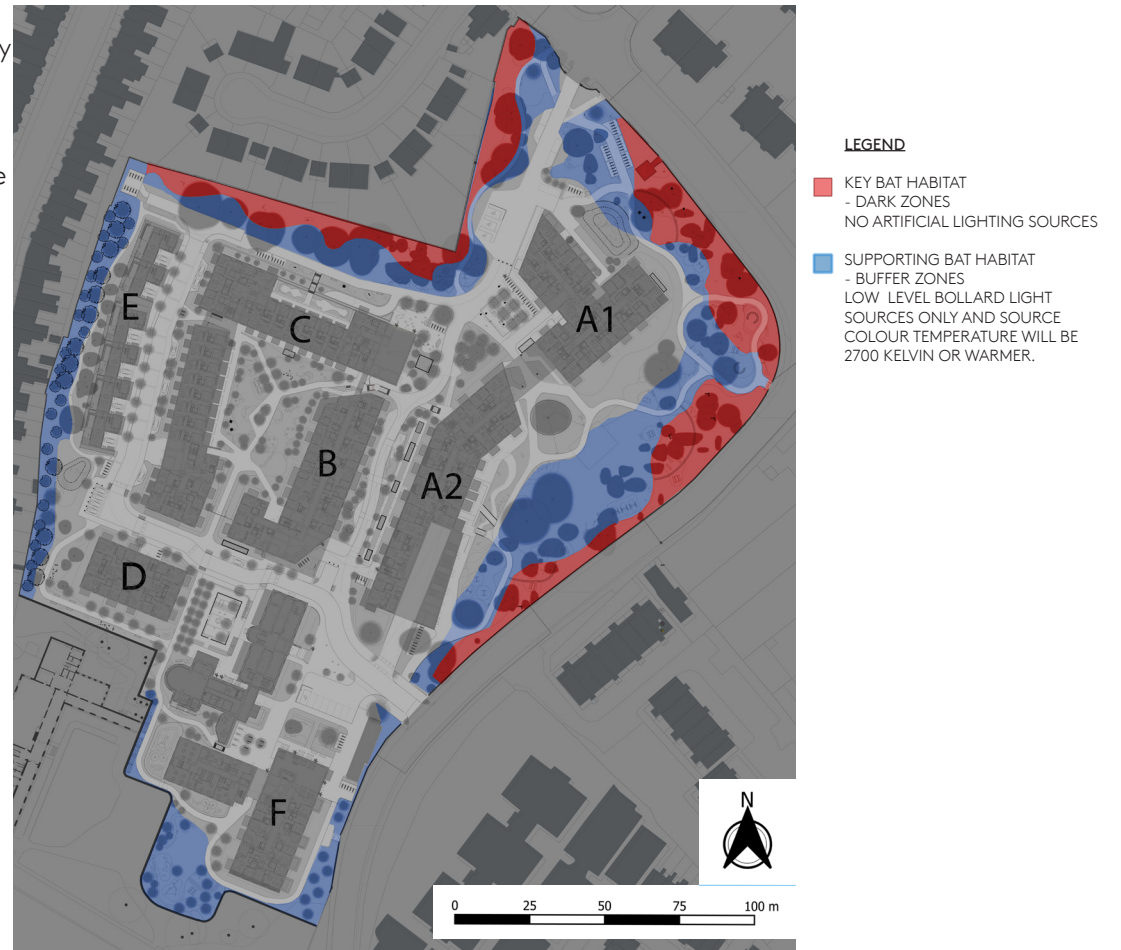
## Ecology Considerations 2

Working closely with DNV, the environmental consultants for the project, we have designed the exterior lighting to acknowledge and support the bat ecology zoning that is defined, in the chapter on Biodiversity of EIAR, completed by the project ecologist.

The design avoids putting any lighting sources in the key bat habitat Dark Zone areas and has limited any lighting within buffer zones to amenity lighting only with no upward glow component.

Light fittings in the buffer zones will have lower output levels pre-set within the drivers to ensure levels comply with the lower lux levels required. These levels shall still be acceptable for any road or pathway that they light and still in compliance with the levels and band of performance defined for such areas in standard EN: 13201-2.

Any light sources in these buffer zones will also be 2700k colour temperature or warmer with a registering peak spectral wavelength of 550nm or higher.



Plan agreed with environmental consultants outlining dark zones and buffer zones across the site. The Pritchard Themis lighting design adheres to this survey with Dark Zone areas kept dark at night and buffer zones operating with a lower level of lighting than other vehicular and pedestrian routes.

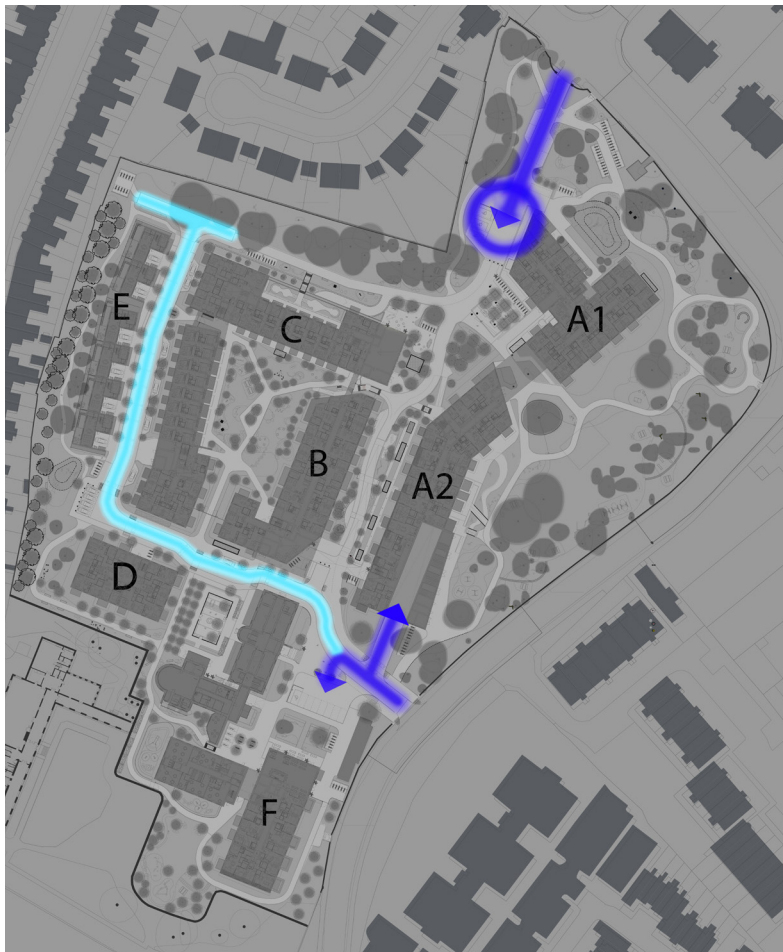
Colour Temperature - New and Existing



Current street lighting surrounding the site is warm and suburban in scale. It is mostly still a sodium solution but also a scattering of some metal halide, all set at a height of 6-8 metres. The Council intent is to replace all of these sources over time with LED lights, likely to be 3000 kelvin warm white. It is most likely that over the next five years all the surrounding streets will be LED, mostly 3000 kelvin warm white. In gentle contrast the Milltown Park site will use high efficiency, high colour rendering LED sources but in a warmer, 2700 kelvin tone; for the light quality to be warmer and more welcoming to residents; to be more sympathetic ecologically but also to help set a specific unifying lit identity to the site.

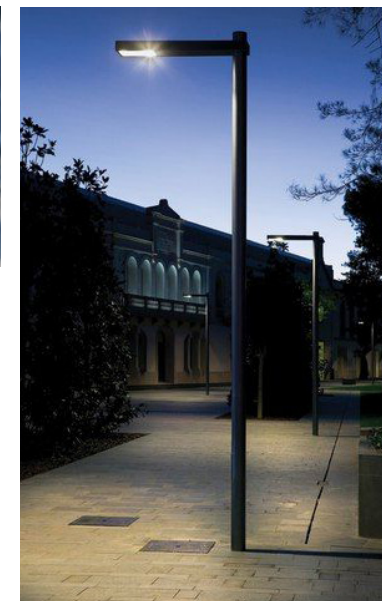


Streets Hierarchy - Vehicular Routes



The main traffic routes in the site will be lit by column mounted luminaires with a good road lighting optic, providing a functional and uniformly lit route into and around the site.

Columns will be 6 metres high, with a 2700 kelvin warm white LED light source. Luminaires will be selected for their efficiency, optics and glare control to ensure road lighting is lit to lux levels suitable for a vehicular road within a residential development. Lighting levels will be higher along the entrance approach roads, marked in dark blue. This will emphasise the higher vehicular numbers in these areas as cars enter the site to access the underground car park and taxi drop off for visitors, for example.

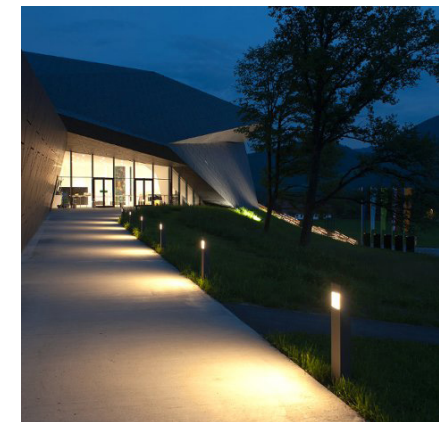
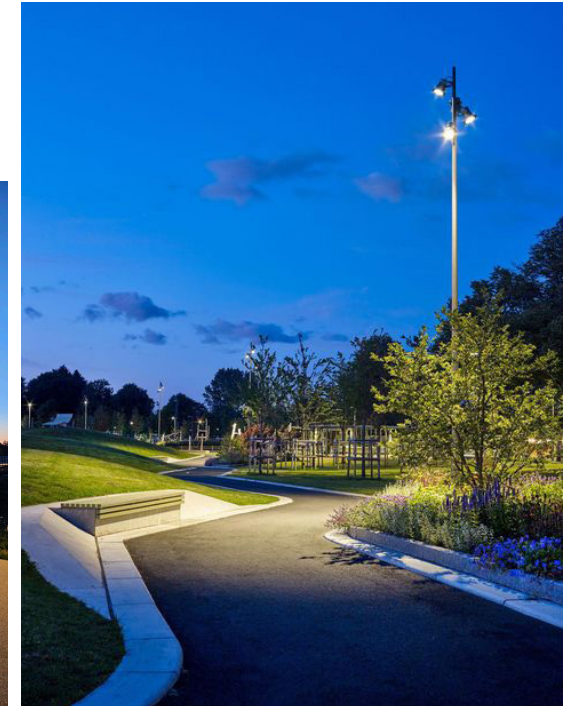


Streets Hierarchy - Primary Pedestrian Route

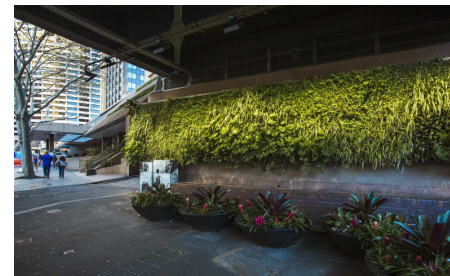
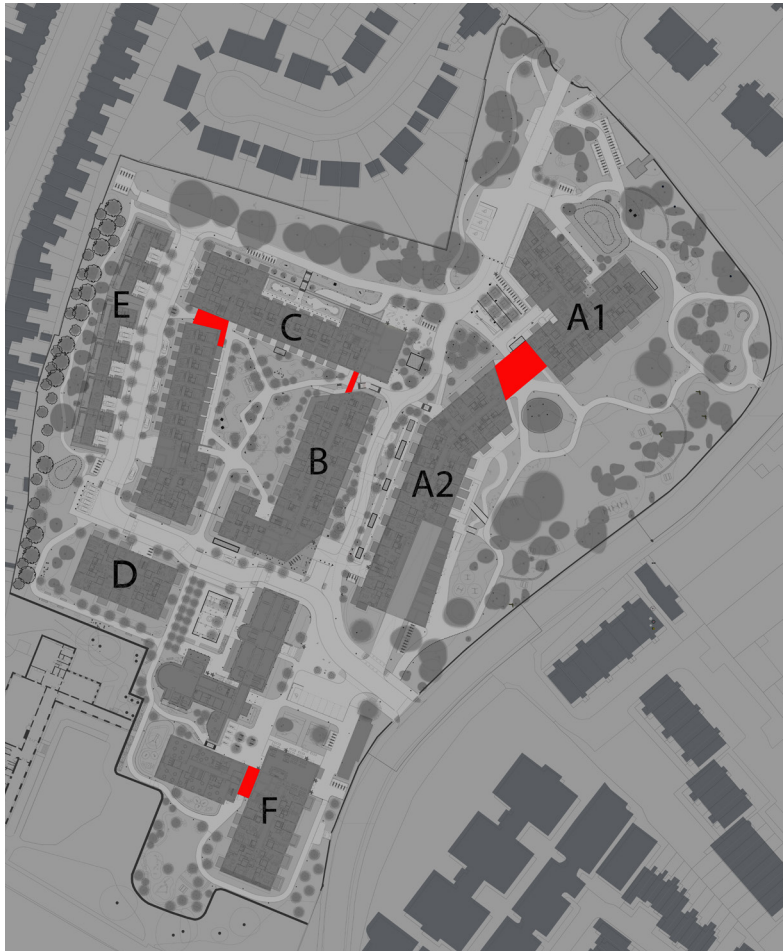


The central pedestrian route, plaza & central courtyard require a focus of light that sets them at the scheme's heart; a celebration route that links the site's recreational centres.

A 6 metre high multi-head column, using controlled and cowled optics, will define the main areas of the route. The quality of light from controlled optics is more specific than the uniform light a roadway would require and the effect is to make the pathway read as a more enhanced route for the pedestrians and to specifically brighten key stopping areas. The use of low level lighting bollards light pathway entrances to houses, creating a hierarchy of lighting. Lighting levels shall comply with requirements set out by DAC consultant from TGD Part M or BS8300.



Undercroft Illumination



The undercrofts of the buildings are lit to provide bright and safe routes for the pedestrians. They also provide a good opportunity as features that can be lit without being distracting to residents within the development.

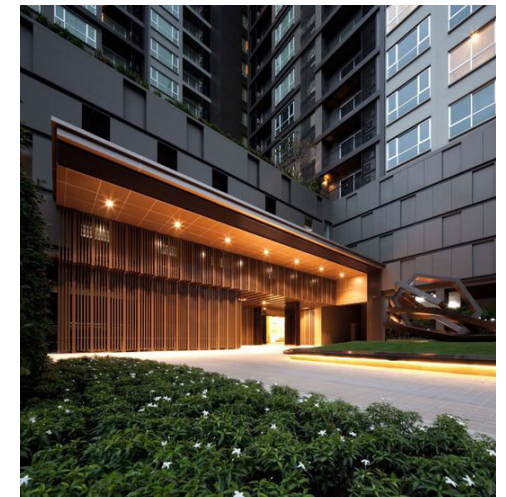
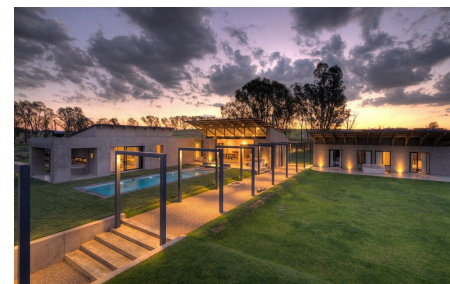
In certain instances key walls and soffits will be highlighted to enhance their distinct elements: In the Block A undercroft it will be the columns that are highlighted with downlights set in close to their surfaces; under Block C the green wall is washlit.

Community/Cultural Outside Areas

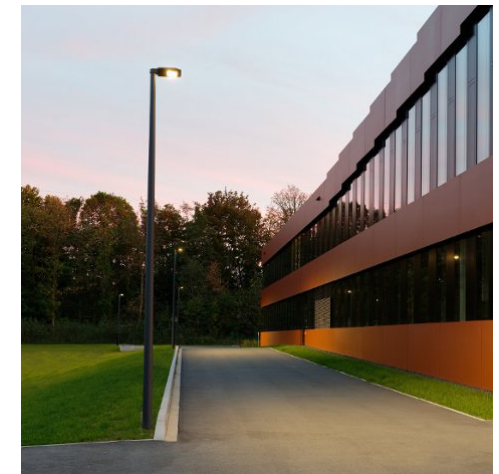
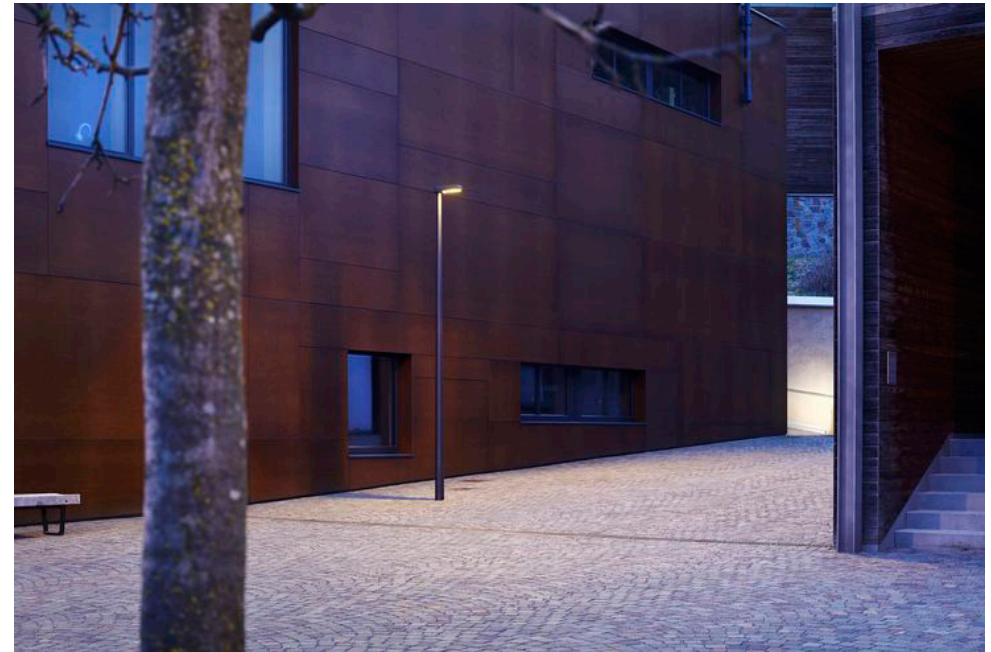


At four key external Community/Cultural areas the lighting works to create increased definition. This will involve both an additional level of light from high quality downlighting sources but also zone specific enhancements such as uplighting of column features seating lighting details.

At Block A1 and outside Block F festoon lighting extends the community/cultural spaces out into the landscape; At the corner of Block B downlights in the overhang and uplights to the columns highlight this gateway to the site; In the secret garden behind Tabor House and the Chapel, downlighting in the lattice canopy provides a low impact, low glare enhancement to this area.



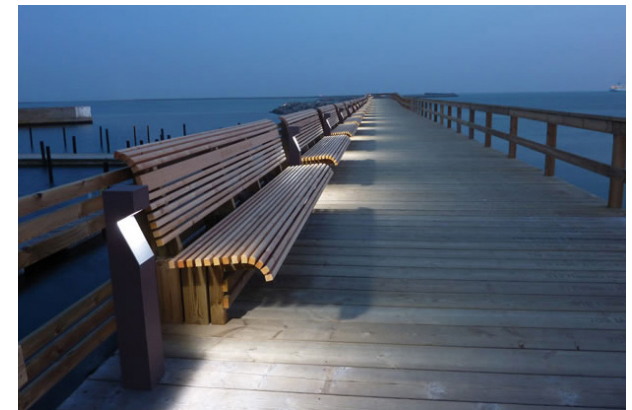
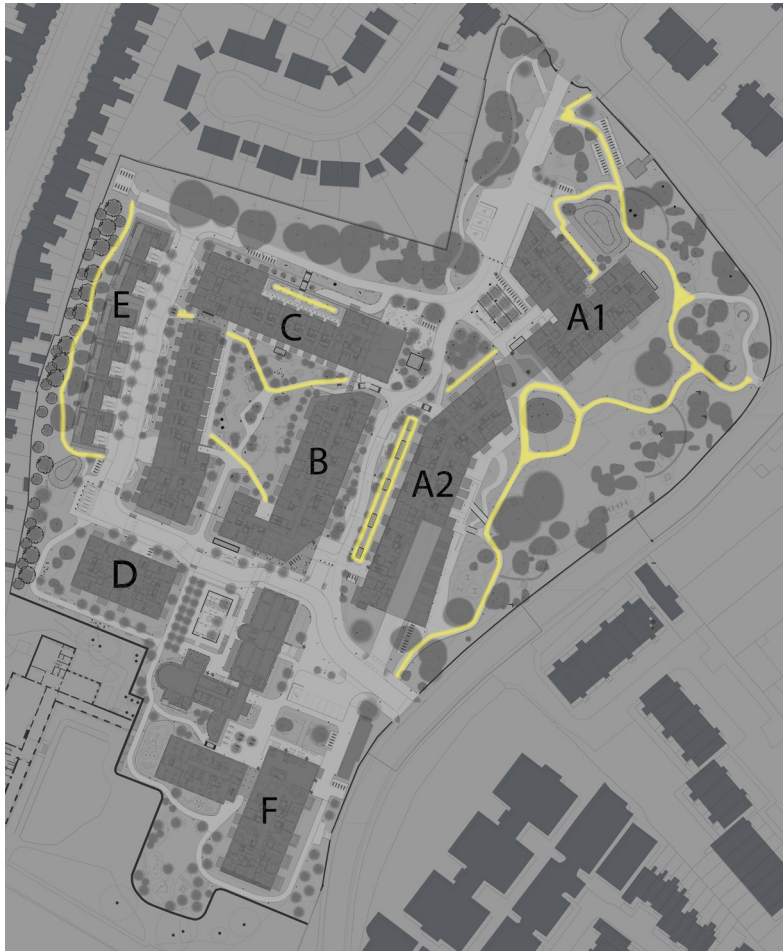
Streets Hierarchy - Secondary Pedestrian Routes - Amenity Columns



Along secondary pedestrian pathways a shorter, 4 metre high column provides illumination to key access points within the site. In areas to the south of the site, where ecology buffer zones are crossed by these paths, lights will be set with lower outputs to provide for the lower lux levels required. Lighting levels shall comply with requirements set out by DAC consultant from TGD Part M or BS8300.

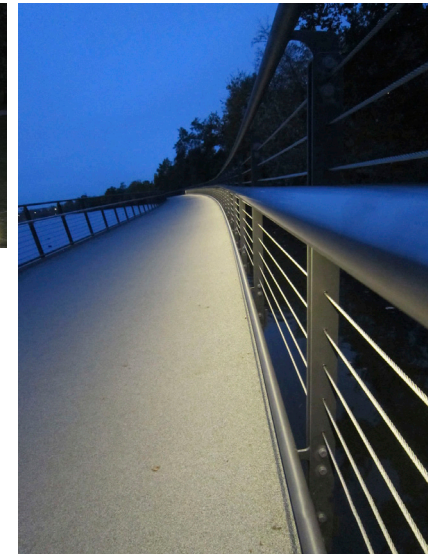
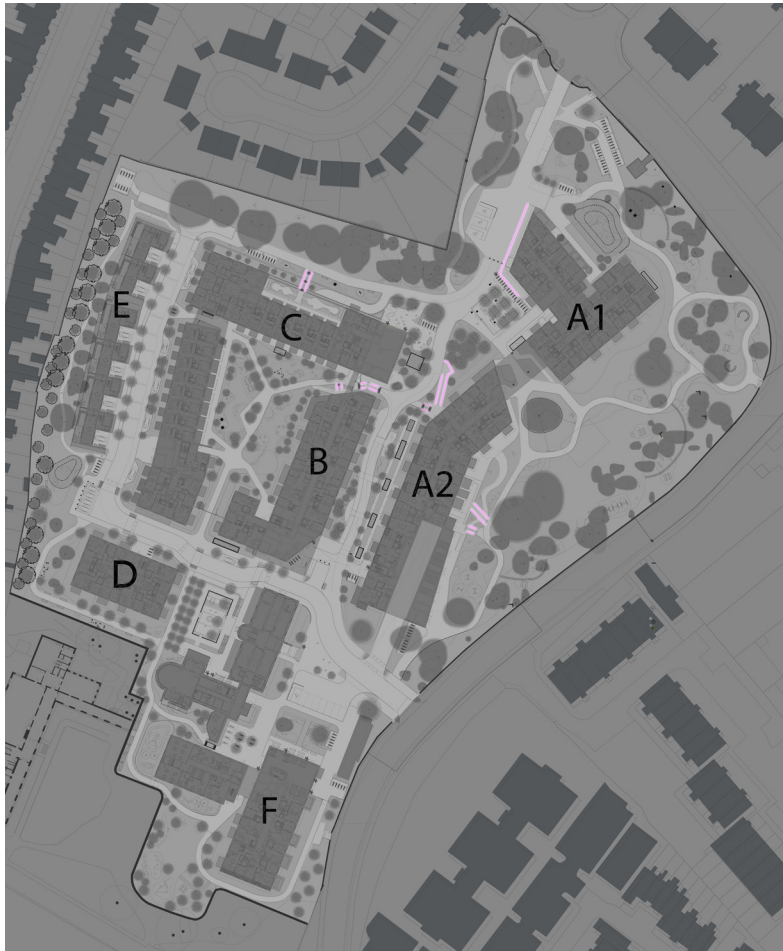
All light sources will be a warm white 2700 kelvin colour temperature.

Streets Hierarchy - Pedestrian Routes - Bollards



Where more informal play areas or quieter routes through the trees need identification at night, without specific sustained light levels, a bollard will be used to set out pools of light around these areas. Any areas where ecology buffer zones are crossed by these paths will have bollards with lower outputs and lower set drivers to provide for the lower lux levels required.

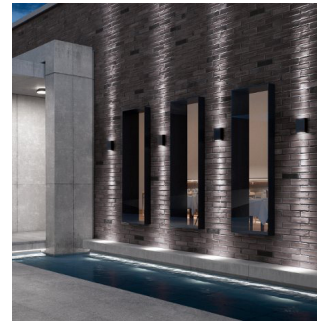
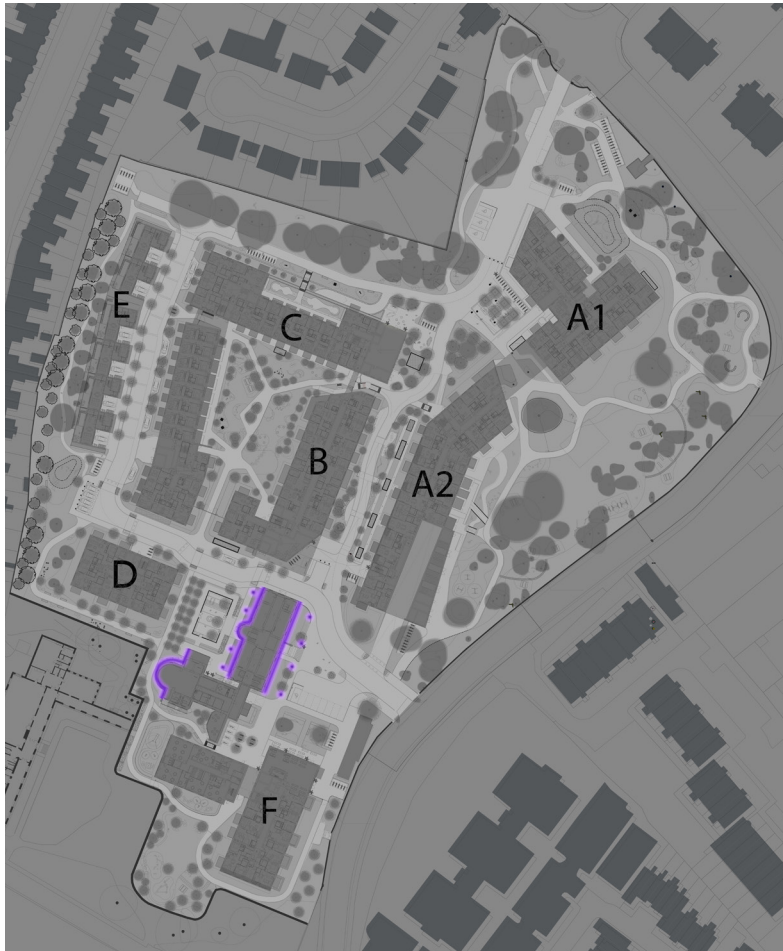
Handrails to Stairs & Ramps



Certain stairs and ramps for pedestrian use will have an additional handrail lighting detail to provide both increased illumination but also as a way-finding enhancement.

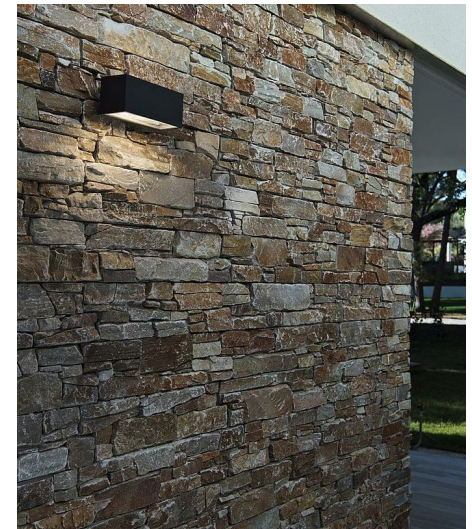
Any light source would be designed to light downwards and would provide a soft and uniform quality of light in a 2700 kelvin warm white. Lighting levels shall comply with requirements set out by DAC consultant from TGD Part M or BS8300.

Heritage Zone



A heritage zone is identified where specific existing buildings will want to be gently highlighted and any amenity lighting close to these sites will want a more historic feel. This lighting, around Tabor House and the Chapel, will be sympathetic to the age and look of the zone with appropriately sourced lanterns and building mounted up/down lighting fittings.

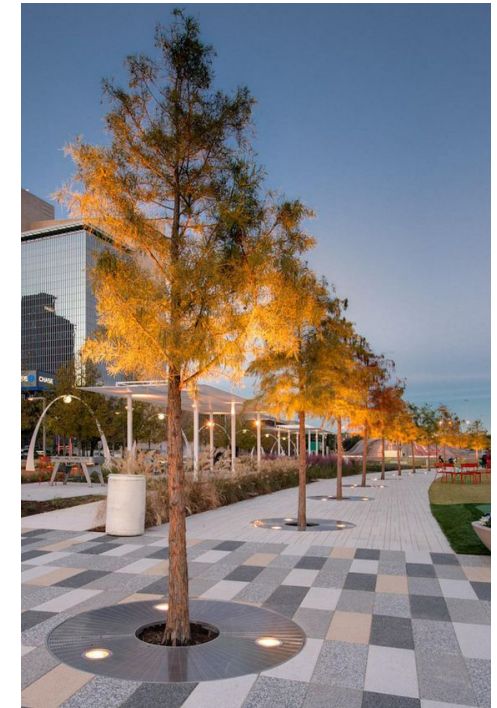
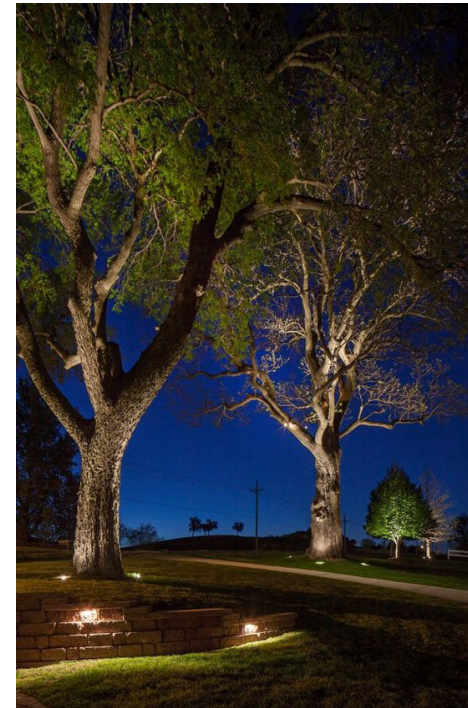
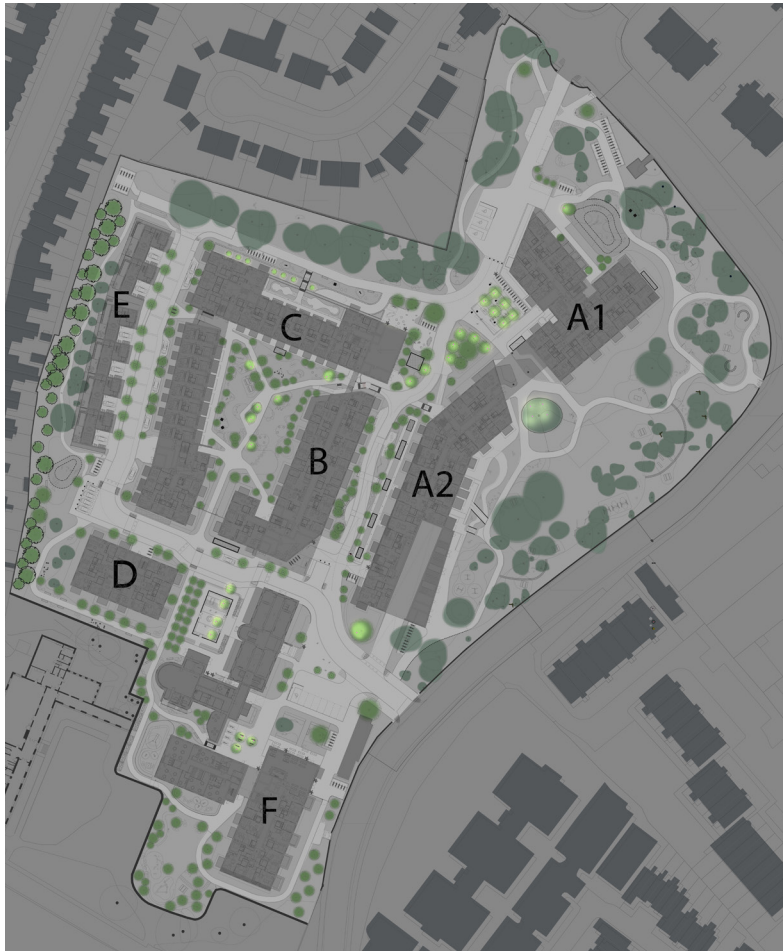
Entrance Gates



The entrances into the site will be lit with downlighting either side of the gateway.

This treatment would be at both main traffic route entrances, the pedestrian entrances flanking the Sandford Road vehicular entrance, and on the pedestrian-only entrance to the north and east of the site. Sources are all warm white, 2700 kelvins as per the other external lighting within the site.

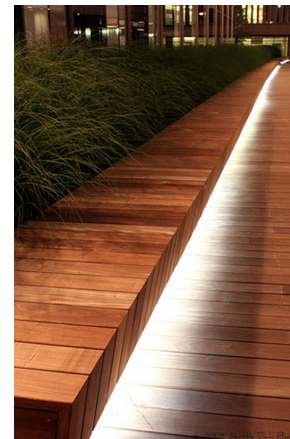
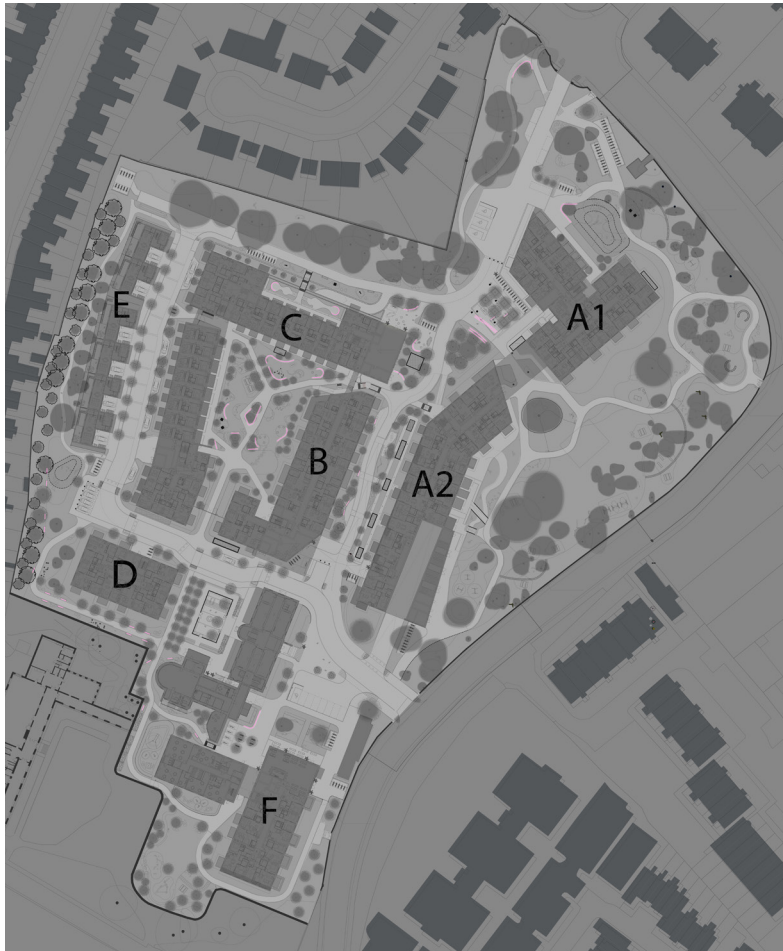
Landscape Lighting Interventions - Trees & Planting



To celebrate the landscaped areas of the site selected trees within the core of the site will be uplit by ground recessed fittings fitted with louvres and glare guards to mitigate light spill.

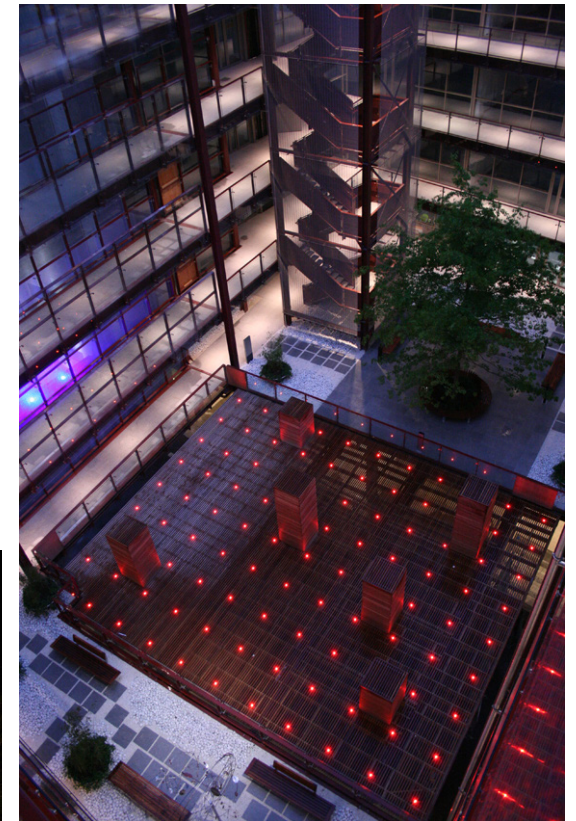
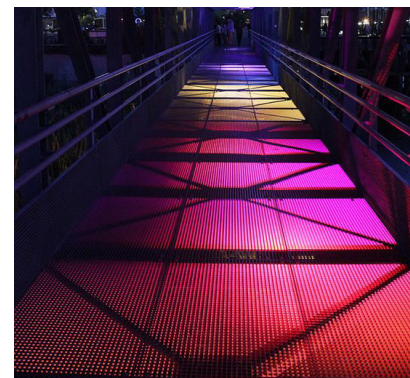
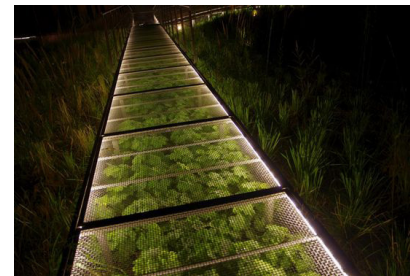
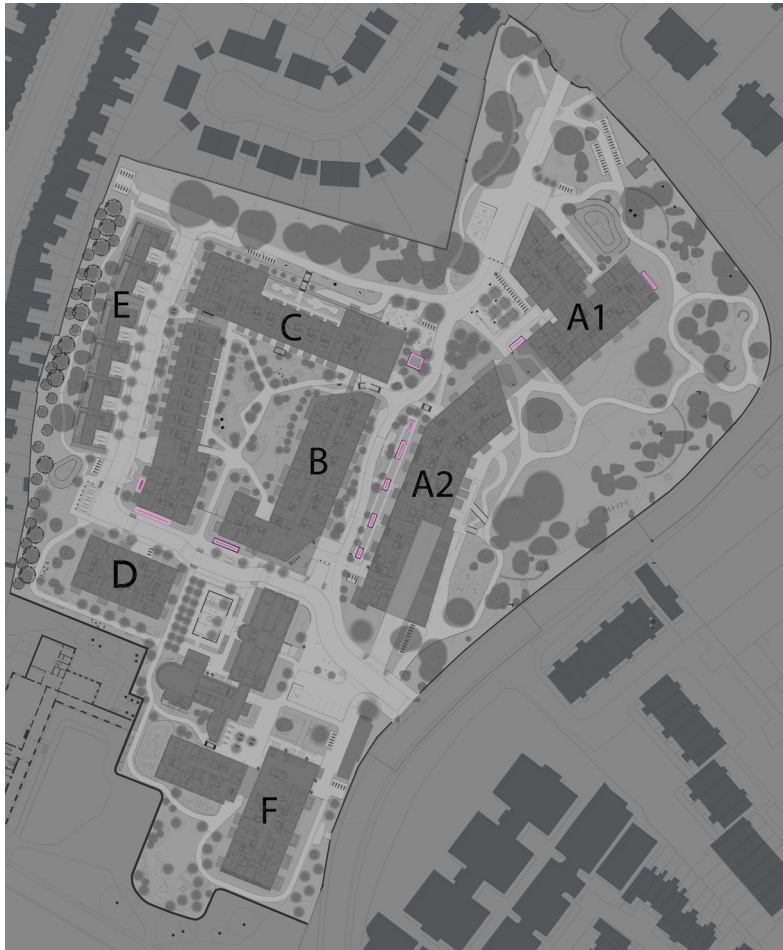
Trees will be picked out at key points on the site, but not in the dark zones or buffer zones prescribed by the project ecologist. Lighting of the trees will be set to switch off at the 10.30pm curfew time. White light sources will be warm white 2700 kelvin.

Landscape Lighting Interventions - Benches



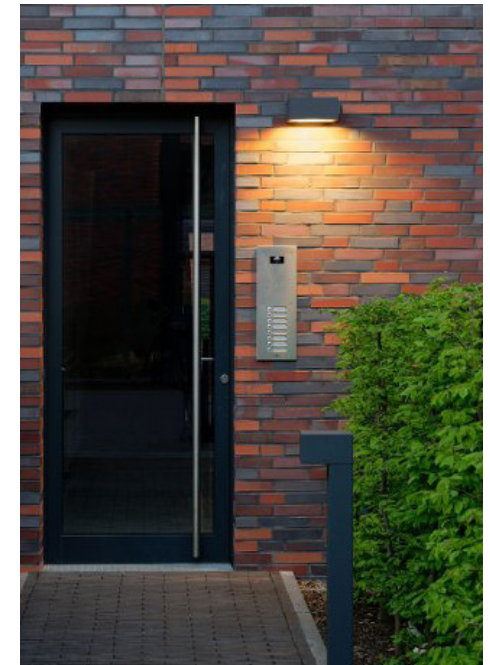
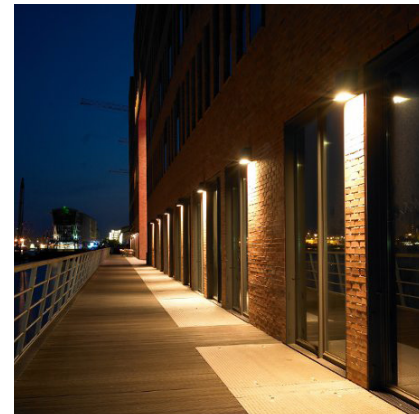
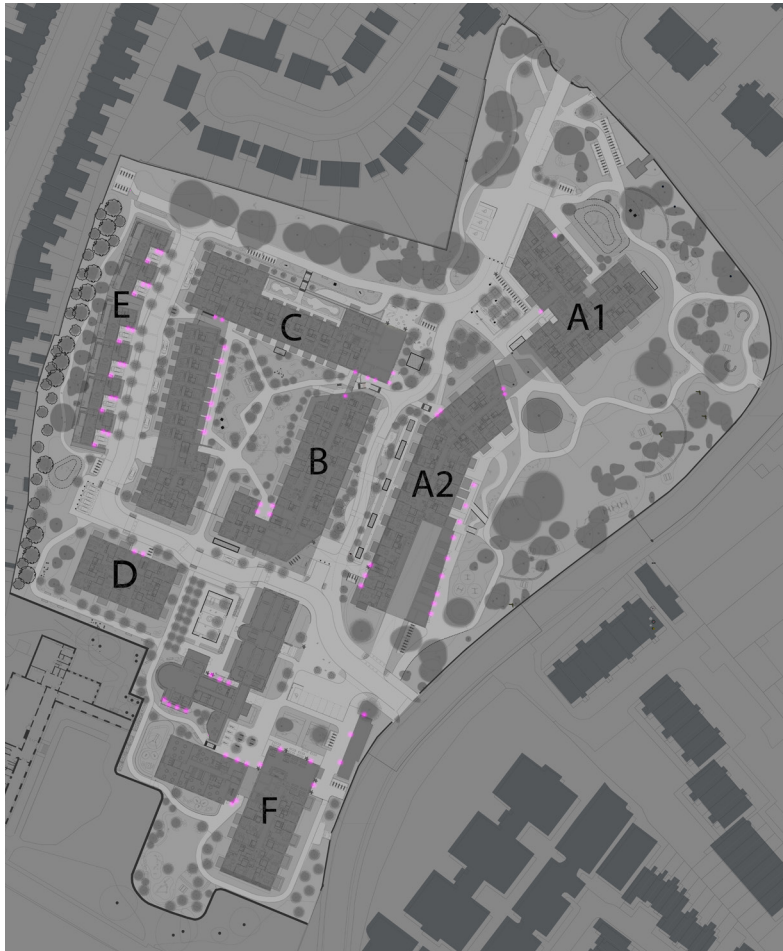
Where appropriate, additional low level details set into seating units help define stopping points in the landscape. Where the bench design allows, these will be continuous linear details hidden under seat edgings. The light from such sources will always be designed to light downwards and not spill directly upwards and will be a warm white, 2700 kelvin colour temperature.

Landscape Lighting Interventions - Natural Ventilation



The natural ventilation grilles from the car park will likely be a source of inadvertent brightness across the site - light from the car park will emanate up through these openings. A linear white light LED source set around the perimeter of each of these openings sets a discreet frame of light which gently illuminates and outlines the visible upper structure of the vents in a warm white light.

Building Entrances



As part of the lighting strategy it is important to consider the entrances to the buildings to ensure sufficient light at and leading up to each entrance. While these are building mounted and form part of the architectural lighting rather than landscape lighting, these have been identified both as private and communal on the plan to complete the lighting strategy of this residential development and will provide emergency lighting. Final locations of emergency escape routes to be coordinated with the Fire Safety consultant taking guidance from requirements set by DCC during detail design stage.

Such sources will always be of a downlight form to ensure there is no direct upward light component from these lights.