# 2. Lighting Strategy Principles

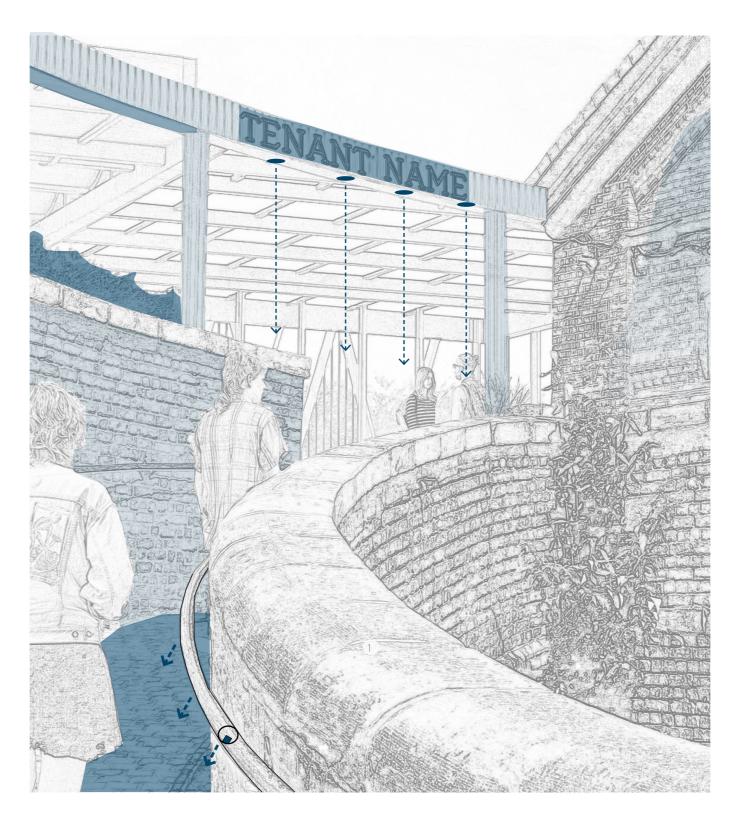
2.5 North Yard Ramp

#### Lighting Design Approach

Amenity lighting to the heritage ramp will be provided by miniature modular light sources recessed on one side of the new handrail profile. Luminaires, cables and connectors are fully integrated within the handrail.

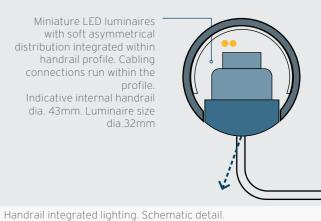
The asymmetrical light sources would illuminate the ramp surface and provide a gentle reflected light effect onto the opposite brick wall.

The entrance to the bar at the top of the ramp would receive a similar treatment to the main entrance at Maker's Alley - with discreet downlights recessed in the datum and self-illuminated signage indicating the name of the bar.









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# 2. Lighting Strategy Principles

2.6 Entrance at Access Road to Juniper Crescent

#### **Lighting Design Approach**

In order to improve the legibility of the entrance, the lighting strategy suggests replacing the high output floodlights with a self-illuminated signage.

The lighting effect would be more subtle, considerate with the pedestrians, and would be perceived as a consistent approach to the current branding strategy.

Lighting inside the vaulted entrance can be improved by replacing the existing floodlights with shielded wall mounted lanterns that would softly highlight the brick walls and provide comfortable and low glare amenity lighting creating a safe an attractive experience for visitors.



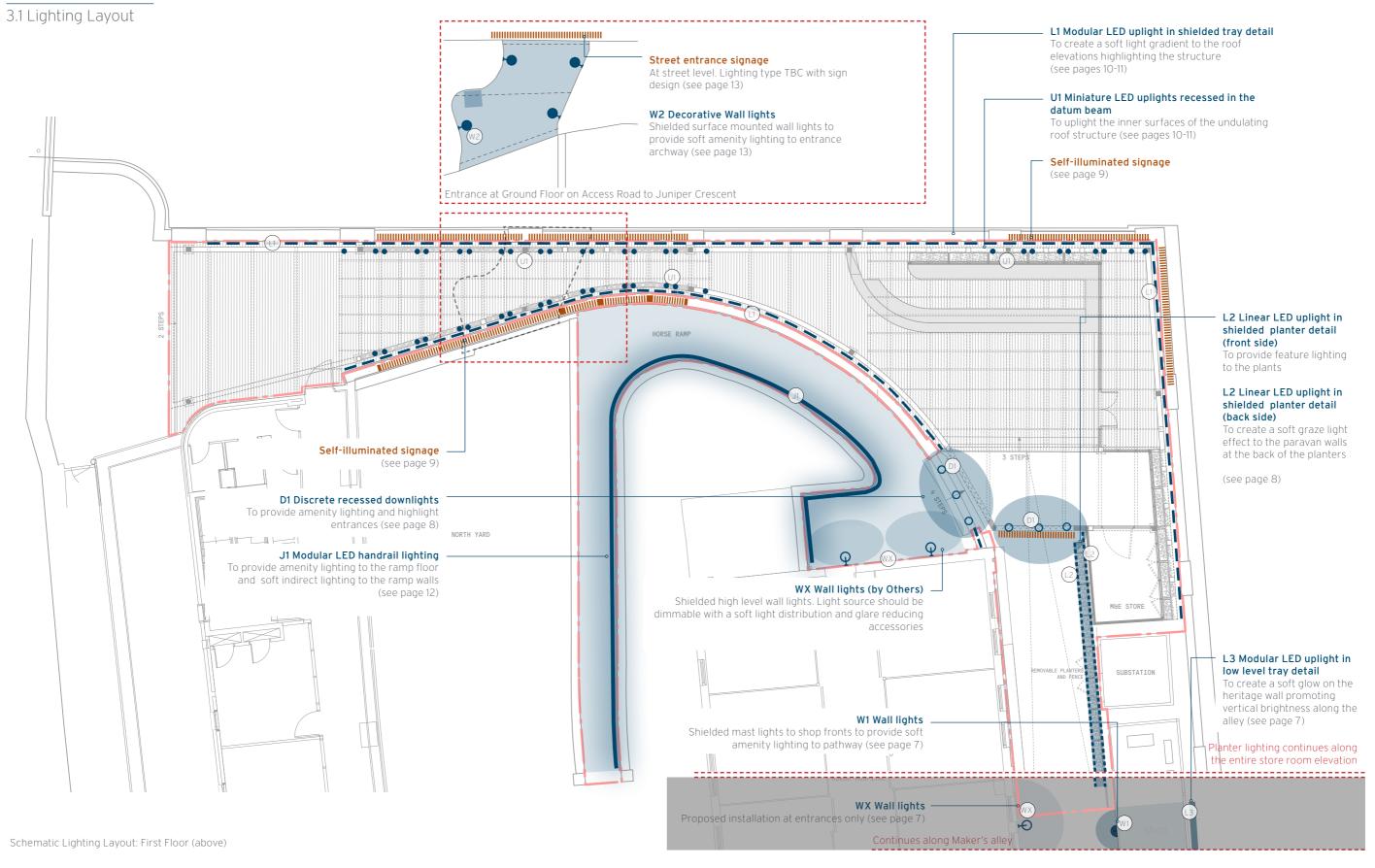


Shielded wall mounted luminaires to reduce glare and provide amenity lighting to the passage way. Decorative shade and bracket design to be designed with the architectural team.



Illuminated signage above the entrance. Potential for a soft back glow lettering. Existing lighting to the sign from above to be removed, in order to reduce harsh shadows.

## 3. Lighting Design



## 3. Lighting Design

#### 3.2 Lighting Equipment



Location: New roof structure perimeter

Manufacturer/Product: Osram/BoxLED XS Plus G3

Specification: Warm colour temperature, oval beam distribution luminaire consisting of chained modules.

Installed in metal housing channel between new roof structure and heritage wall; 4W/m, 420lm/m



Location: Maker's Alley shop fronts
Manufacturer/Product: Astro/Mast light
Specification: Shielded discrete wall light for surface installation with a soft wide light distribution. Supplied with warm colour LED light source; 6W, >450lm, wide beam.



Location: Terrace planters

Manufacturer/Product: Lightgraphix/ LD38

Specification: Warm colour temperature, oval or narrow beam distribution luminaire fixed at the back and front of key planters to graze the back panels and highlight the feature vegetation. Supplied with cowl



Location: Access Rd to Juniper Crescent entrance
Manufacturer/Product: Astro/TBC
Specification: Shielded decorative wall light for
surface installation with a soft wide light distribution.
Supplied with warm colour LED light source. Design

TBC with Architects; 8W/>800Im





Location: Horse head columns. Top detail
Manufacturer/Product: Lightgraphix/ LD42
Specification: Warm colour temperature, oval beam,
miniature luminaire. Recessed in datum profile;
1.2W, 88Im



Manufacturer/Product: Stoane Lighting/ Indehandrail Module Specification: Warm colour temperature, soft asymmetric distribution luminaires for recessed

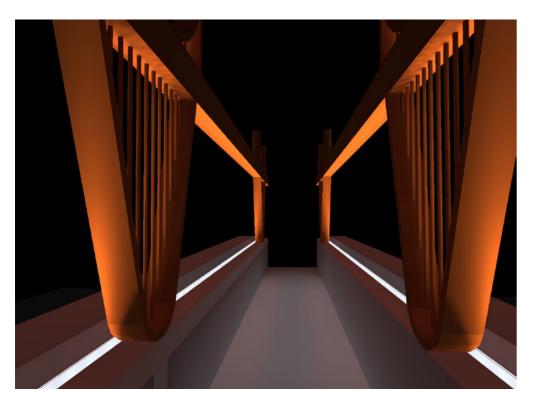
installation in handrail profile; 4W/m, 171.6lm/m

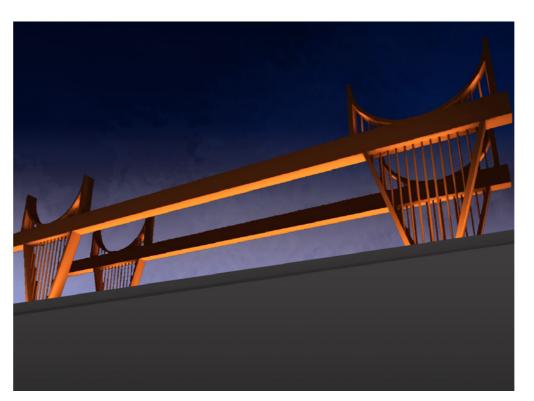
Location: Ramp

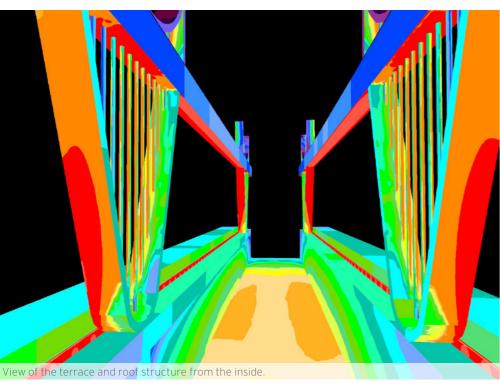


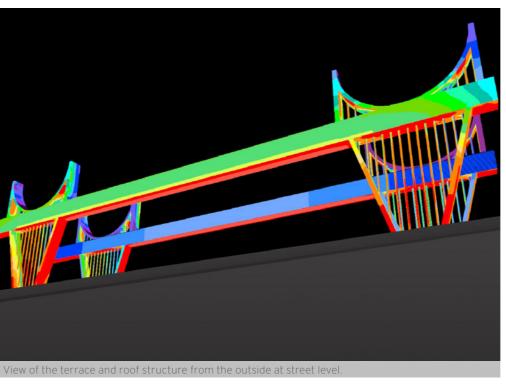
#### 4. Lighting Calculation

#### 4.1 Light Effect









#### Lighting Design Approach

The proposed scheme aims to enhance the roof silhouette while creating a night time image that is balanced against the surroundings.

A simplified lighting simulation shows that light will be picked up by the areas with denser structure (rods) and following the same principle - by the perimeter planters. The light effect will be less pronounced where there are less elements to be emphasized below the datum level. The datum beam underside will be highlighted and the vertical light graze will softly disappear in height.

This effect will be a logical and honest definition of the varying architectural silhouette of the terrace bar roof.

The lighting proposed to the exterior structure will be visible from the terrace as well as enhancing the experience for the bar visitors.

The optical distribution of the luminaires together with the proposed concealing details were carefully tested with lighting calculation software in order to optimise the effect and control excessive glare and light spill.

Indirect lighting integrated underneath the drinks ledge was identified earlier as a potential solution that should be recommended to the bar operator. It introduces amenity lighting and avoids spill light. It is included in this calculation to demonstrate these principles.

30.0 14.5 17.0 20.0 50.0 16

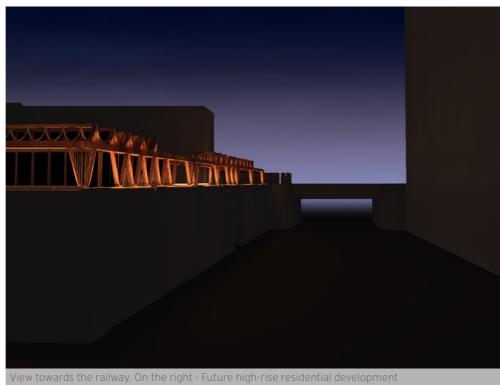
4.2 Obtrusive Light

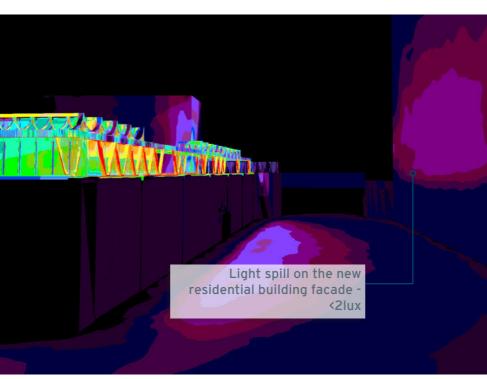
#### **Environmental Zone and Light Restrictions**

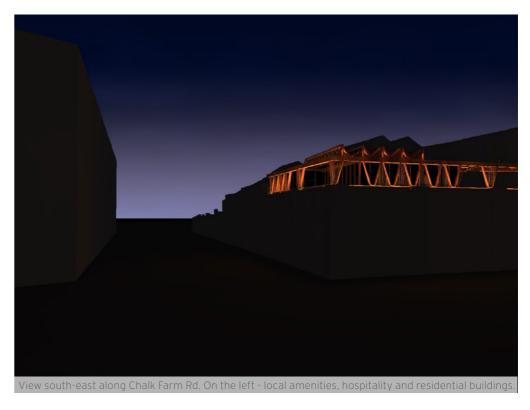
Following "GNO1:2020 Lighting Professionals Guidance Notes for the Reduction of Obstructive Light" we've considered the area of the development as E4 Urban zone characterized by high district brightness typical for "town city centres with high level of night time activity". The following limitations apply:

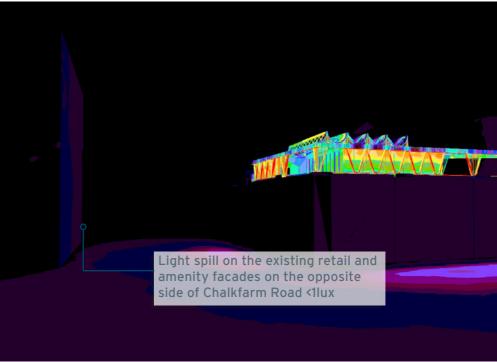
- Minimal light trespass into windows kept below 25 lux pre-curfew. Post-curfew we recommend to reduce the luminaire output using a dimmable lighting control system to achieve vertical illuminance of <5 lux.
- Minimal Upward Light Ratio of the overall installation. The proposed scheme utilizes a deliberate use of roof facade uplighting to reduce potential discomfort and glare to visitors. Special care has been taken to develop details that include light controlling reflector accessories and precise installation in order to reduce direct upward light. Amenity lighting luminaires have shielded sources, directing their light flux down. After working hours for the terrace bar we'd recommend switching off or dimming down decorative lighting and lighting aimed upwards.
- The specified light fittings are equipped with dimmable sources that can be adjusted.
- Luminaires should be connected to an automatic control system, i.e astronomical timeclock ensuring that lighting can be dimmed down or switched off creating different light scenes that fulfil user and authorities requirements.

Additionally, all amenity and accent light sources are directed away from the railway and shielded to prevent direct glare and avoid the risk of being perceived as signal lighting.











LIGHT



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