

From:

Sent: 04 August 2020 12:39

To: Nick Hirst <Nick.Hirst@kirklees.gov.uk>; Richard Hume <Richard.Hume@kirklees.gov.uk>

Subject: 2020/90441 - Pennine Service Station, Bradley Road, Bradley, Huddersfield HD2 1QD

Nick/ Richard

Further to the comments on the lighting design proposals for the above we have been in consultation with the lighting manufacturers and confirm the following in respect of the outstanding concerns:-

The manufacturer selected for the light fittings is Bever Innovations. They are an international lighting company, with one of their specialities being petrol forecourt lighting. I include below their responses to the points raised in your response of 07 July 2020, and have listed below each point as I believe along with the response.

1. The scheme again uses unacceptable ambiguous references to "perpendicular" Illuminance instead of horizontal and vertical illuminance as required by the condition.

Perpendicular illuminance is automatically output text which is not possible to change from the lighting design program Dialux by German company Dial.de.

This is one of many industry standard programs used for lighting designers by many companies, with all these programs working by the operator positioning a light on a drawing of a site and using the IES files or similar for that luminaire to automatically calculate the effect of the lights. Perpendicular illuminance means for lights that are pointing at the floor, light on the vertical faces specified in the 3D rendition on the drawing.

2. It provided no reference to any recognised UK guidance to demonstrate that the proposed levels of illuminance are appropriate and not excessive.

BS EN 12464-2 is the standard for outdoors lighting, which the lighting is designed to meet. There are various additional guidance produced by bodies like the ILP and in the case of forecourts the APEA IP COP but these all cross reference back directly or indirectly to these relevant standards. The BS gives clear guidance on the acceptable maximum and minimum values for lighting in various applications and compliance with this BS is mandatory in the UK.

Lighting levels have been cut to the minimum that would sensible comply with the lighting requirements. There are only 8 canopy lights and two lamp posts on the right boundary and all fittings are of a modest spec. The canopy lights are a normal midrange version and are governed back to 60 and in some cases 50% of their capability. In addition to the power reduction the occupancy dimming will reduce the light output by more than half again when there is nobody about.

In explanation of the report please see the below;

Page 5;

Vertical (perpendicular) values are quoted at the numbered positions on the plan at the top of the page.

For the pump nozzles the values would need to be at least 150lux to satisfy BP for example (greater than 100 for the whole of the pump face for APEA IP COP). Some are significantly higher but this is only because the adjacent lights are not possible to get further away because the canopy is relatively small. It is not really possible to turn them down more as there is a requirement to maintain enough light as you get away from the pumps to cover the pedestrian hazard.

Page 6 and 7;

Horizontal illuminance average at ground level is 254 lux under the canopy (min required for BP is 250 and for Shell is 300 as a guide). These levels are an average but there is a requirement in BS EN 12464-2 table 5.6 for fuel filling stations that the ***maintained*** level of illumination is 150 lux so this is borderline at the bottom of this with a minimum of 133 lux in one spot.

Horizontal light plot under the canopy at ground level using isolines for more detail is shown on page 7.

Page 9;

Horizontal plot of the forecourt area outside the canopy again using isolines which shows that the majority of the forecourt area meets BS EN 12464-2 table 5.6 where vehicles are expected to drive as well as for mixed pedestrian/vehicle areas as table 5.1. Again the proposed lighting levels are sufficiently low that there is only borderline compliance with the standard at the edges of the site and there may well be a need for any small service point machines to have integral illumination to meet their respective specs.

3. It again fails to provide details of the times that the lighting will be in operation.

Lighting will only operate during the operating times of the site. Given that the operating times of the site are restricted by condition 15 of the planning approval, I would thought that this required no further confirmation. But for the sake of clarity the condition required the operational hours of 0700 to 2200 Monday to Saturdays and 0800 to 2100 on Sundays, therefore lighting will only be operated during these hours. Obviously there will be seasonal variation of the lights, but ultimately they will not fall outside of the permitted operational hours.

4. The plan on page 5 of the report indicates nearby residential properties but way that they are shown on the plan does not accurately represent the real situation.

The plan included in the reports is not to scale and indicative of the arrangement in reality. Given that we have not carried out a full topographical survey of the whole neighbourhood, distances to the adjacent properties have been extracted from Google maps. The report provides the predicted light that will fall on the vertical surfaces of the adjacent properties at the relevant points. The levels at the adjacent properties are at or below 1 lux, which is normally considered moonlight.

I hope that the above explanation, read in conjunction with the report, copy attached for ease of reference satisfies the concerns raised. However I would be grateful if you are able to advise as soon as possible if any points remain unclear.

Regards