

APPLICATION NO: 15/01171/FUL	OFFICER: Mr Ed Baker
DATE REGISTERED: 14th July 2015	DATE OF EXPIRY: 13th October 2015
WARD: Lansdown	PARISH:
APPLICANT:	Cheltenham Ladies' College
AGENT:	Mr David Jones
LOCATION:	Ladies College Swimming Pool Malvern Road Cheltenham
PROPOSAL:	Erection of new sports hall building to provide multi use sport hall, replacement squash courts and ancillary facilities. Erection of floodlighting of external hockey pitch. Demolition of existing squash court building and partial demolition of single storey structure attached to Glenlee House. Alterations to piers to side of access onto Malvern Road.

Update to Officer Report

The neighbour at No. 17 Christ Church Road has submitted the following report on the proposed floodlighting.

"We have been requested on behalf of Hugh Gilbert resident of 17 Christ Church Road to carry out an independent review of the flood lighting that has been proposed as part of the redevelopment of the facilities at Cheltenham Ladies College.

We at Designs for Lighting are one of the leading independent lighting design consultants within the industry with over 15 staff. All Engineering staff are registered with the Engineering Council and the Institution of Lighting Professionals. Our Managing Director, Alistair Scott, is a Chartered Engineer with over twenty years experience in the design of exterior lighting, and a Fellow of the Institution of Lighting Professionals, the foremost professional body for public and exterior lighting in the UK. He also chairs the BSI Committee on Road Lighting, and has reviewed and approved this submission.

After considering the information relating to the exterior lighting of the hockey pitch at Cheltenham Ladies College, our principle concern is the lighting class and levels that have been selected for the task.

A floodlighting design and Lighting Impact Assessment has been provided by Neil Johnson Sports Lighting Consultants Limited. The floodlighting has been designed using the guidance outlined in the literature produced by the FIH, CIBSE and British/European Standards. BS EN 12193 states the minimum maintained illuminance levels required for specific sports in Europe, while the FIH Guide states the minimum requirements worldwide. See below for details:-

FIH – Guide to the Artificial Lighting of Hockey Pitches(Sixth Edition 2011)

Standard - Class II

Eave= 250 Lux

Uniformity(min/ave)=0.70

BS EN 12193 Light and Lighting – Sports(2007)

Standard – Class II

Eave= 250 Lux

Uniformity(min/ave)=0.70

CIBSE – LG4 Sports Lighting

Standard - Class II

Eave= 300 Lux

Uniformity(min/ave)=0.70

When looking at the text highlighted above it can be seen that a Class II level has been selected. These classes are defined as follows in *BS EN 12193 Light and Lighting 2007*.

Lighting Class I = Top Level Competition such as international and national competition which will generally involve large spectator capacities with long potential viewing distances. Top level training can also be included in this class

Lighting Class II = Mid Level Competition such as regional or local club competition which will generally involve medium size spectator capacities with long potential viewing distances. High level training can also be included in this class

Lighting Class III = Low Level Competition such as local or small club competition which generally do not involve spectator. general training, physical education (school Sports) and recreational activities will also come into this category.

As such and based on the draft conditions set out in the "draft conditions report" by Evans Jones, namely condition 17 which states "During the hours when the artificial pitch within the application site is floodlit, the pitch shall be used by Cheltenham Ladies College staff, pupils and/or visiting school teams only." this would indicate that the current class selected for the lighting design of the pitch is incorrect. Condition 17 would suggest the pitch should be deemed as Class III.

In addition, there is further correspondence from Neil Johnson Sports Lighting Consultants LTD responding to some neighbouring objections where they state the design is in accordance to the minimum standards required for *BS EN 12193 Light and Lighting 2007*. However, the proposed levels are way in excess of the minimum requirements. The information in the original report suggests that a Class II pitch should have levels of 250Lux, when in fact this is not the case. The standard states they should be 200Lux, the same as a Class III pitch.

Based on information provided it would suggest that the initial illuminance levels are 430 Lux (after 100hrs of operation) and maintained lighting levels are at 331 Lux (after 4000hrs of operation). The report should be based on initial Lux level readings not taking into account depreciation as the Lighting Impact assessment has to consider the worst case scenario. Also looking at the recommended levels of 200Lux, it can be seen that the pitch is significantly over lit by 131 lux (or 60%).

To further control the depreciation of light output and to better control light spill, we would recommend the use of LED lighting, which is a better light source as it has an instant strike up (as appose to the 10-15 minute wait that can sometimes be seen with Metal Halide technology), and is also much more reliable. Also, with the technology now available we would expect to see the use of Constant Light Output, which would reduce any over lighting at the start of the installation.

Finally, other key elements that appear to be missing for the submission are actual lighting

calculations (both task and Light Spill) that demonstrate all the parameters as part of the scheme. Without this information it is not easy quantifiable what the report is proposing. The table of results do not offer any readable locations as to where the levels were taken.

In order to protect the residents of Christ Church Road, in addition to the draft conditions that have been proposed, we would also suggest the Authority request that post construction light readings should be taken along the rear wind117 St George's Road - partnership scheme decision notice ws of the properties to ensure the levels are within the requirements set out for an E2 Class in the ILP Guidance for the Reduction of Obtrusive Light.

In summary, we do not feel the lighting proposal can be approved without further consideration for the proposed lighting levels and their suitability for the level of sport being played on the pitch. Lighting calculations should also be provided for the proposal with all the draft conditions and the ones proposed above being implemented."

Regards

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Project Engineer

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