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Client
Ampes Electrical services

Report
Assessment of floodlighting proposals at Sutton Benger Rugby Club.

Rev A

Date 22 October 2024

Background

Sutton Benger Rugby Football Club players have been training during the winter months using portable floodlights in the corner of a large, unlit, playing field. These temporary floodlights are both noisy and expensive to hire.

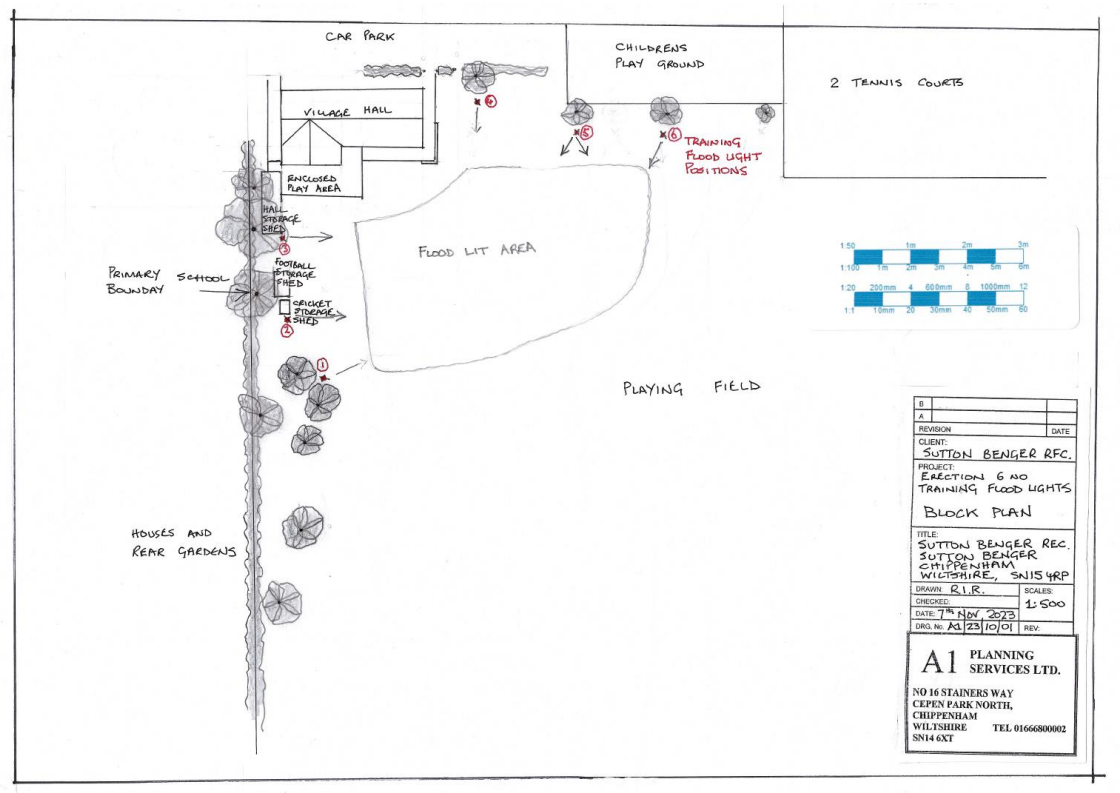
For these reasons, the Club wishes to have a more permanent solution using fixed, 6m high columns. These will be located at right-angles and adjacent to the Village Hall so as not to intrude into the main playing field. *See below*.

Whilst illuminating a sports area in this way is not ideal, it would enable players to train outside of the playing season.

Ampes Electrical Services and Kew Electrical had proposed a floodlighting scheme but Wiltshire Council had asked for more detail about light spill in relation to the ecology. Unfortunately, the original designer of the scheme, Kew Electrical, were unable to provide the lighting information requested by Wilts CC.

This Rev A comments on a revised design from a different floodlight supplier (Inui Ltd).

Since then, Alan Tulla Lighting has been asked to provide an independent report addressing these current proposals.



Alan Tulla, FSLL, FILP, is a Fellow and Past President of the Society of Light and Lighting and has been awarded the CIBSE/SLL Lighting Diploma. He is also a Fellow of the Institution of Lighting Professionals, ILP and lectures for them on the topic of exterior and amenity lighting. He is author of the Society of Light and Lighting "Guide to the Exterior Environment", LG06.

Assessment

This revised assessment is based on the 14-page lighting calculations from Inui/Ledlux dated 18 October 2024 and the A1 Planning Services drawing of November 2023 shown above.

We have not assessed the illumination on the practice area itself since this does not have a defined boundary. Also, conventional rugby practice areas would use 8m or 10m columns on two long opposite sides.

Floodlight used

A datasheet is shown on the Inui lighting calculations on the separate PDF attachment. The floodlight is fitted with a small visor at the back to reduce reward spill.

The LEDs used in the floodlights for the calculations are Cool White, 5000K.
We suggest using Warm White LEDs of, say, 3000K which are more "bat friendly".

Spill light calculations

These are attached on the separate PDF and are overlaid on the Google view of the area.

The calculations shown are without any reduction in illumination or spread of light by trees or hedgerows.

As well as the Inui calculations, we ran our own "worst case" calculations to verify the results. These show a little more rearward spill but it is better than the original design and the western treeline is only illuminated along a short length.

Summary

It can be seen that the rearward spill down to 0.5 lux extends to no more than 15m behind the column positions.

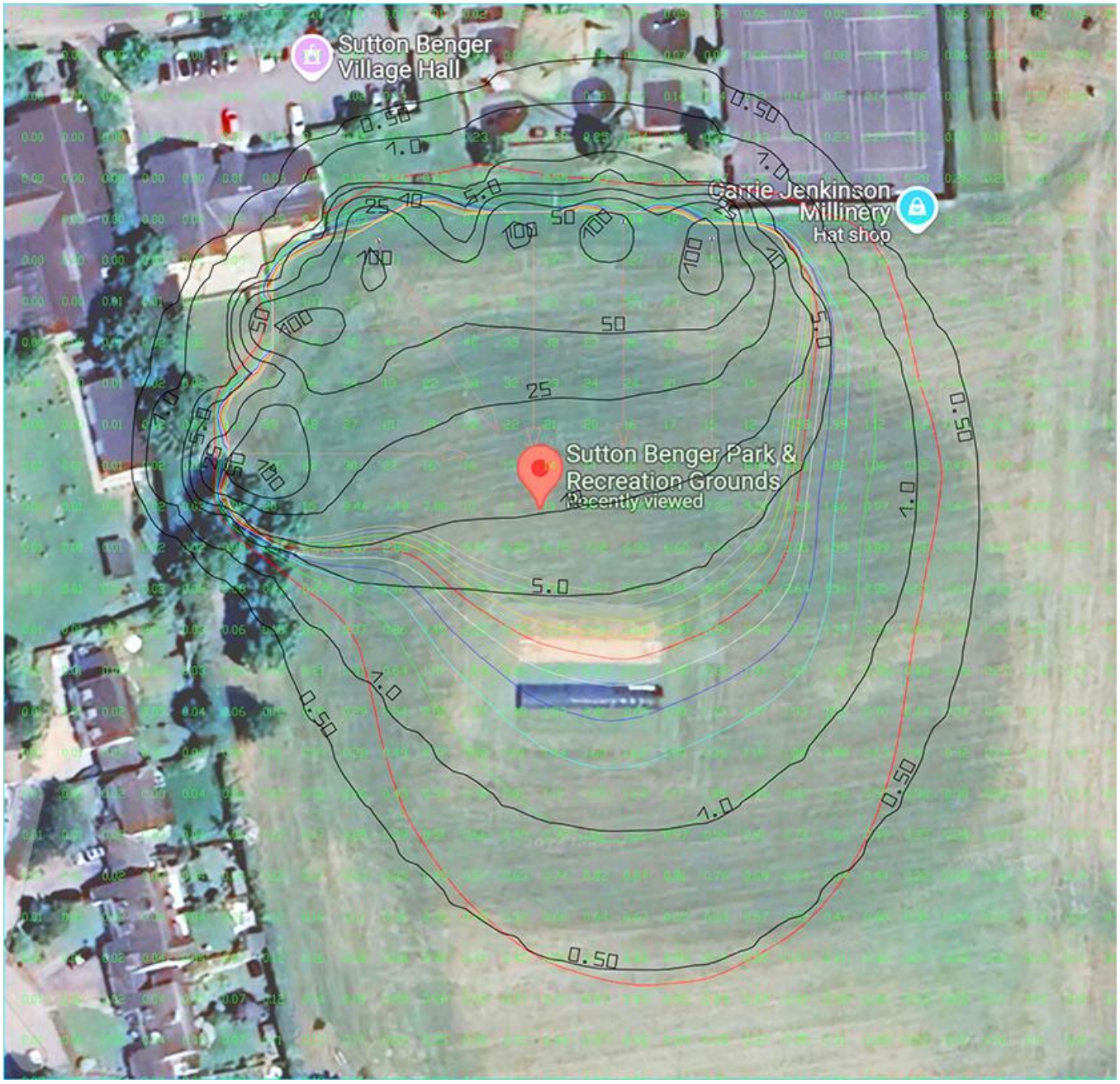
However, it should be borne in mind that the floodlights will not be in constant use; only when the players are practising. I.e. there would be less visual impact than, say, car park or streetlighting which is on for much longer periods.

Alan Tulla Lighting calculated results
"Worst case" calculations



The Inui results are shown on a separate attachment which is too large for this document.

Results above superimposed on the Inui calculations



The Inui outer red line is the 0.5 lux contour.