

Project: BH0056 Prestwich Travel Hub

Title: Condition 44 – Roof lighting only receptor based spill calculations

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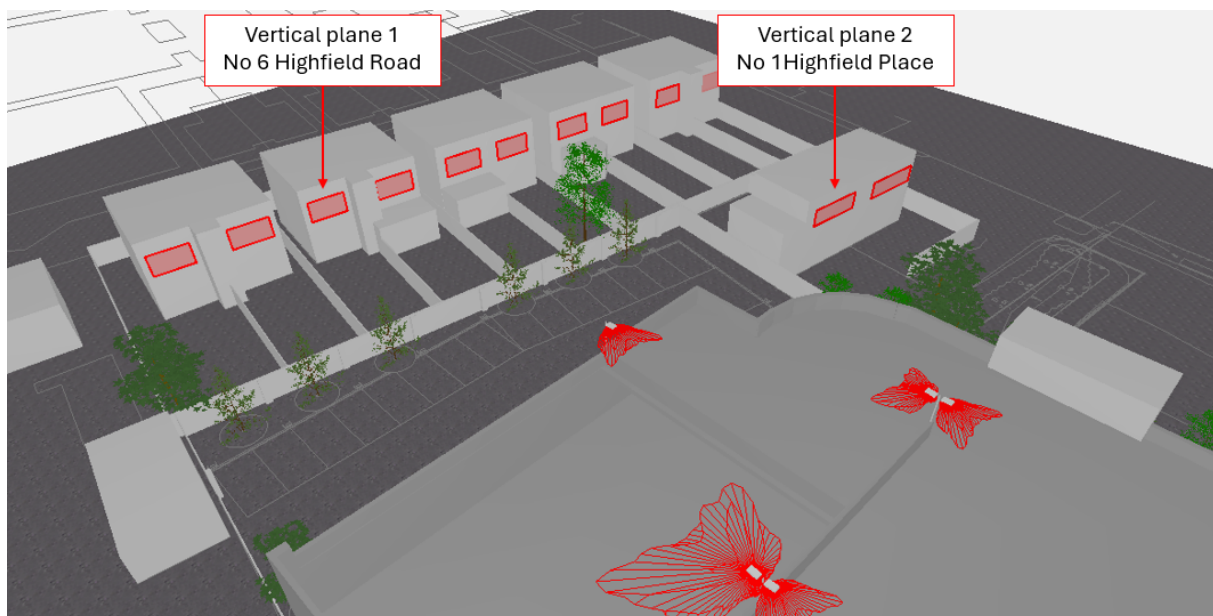
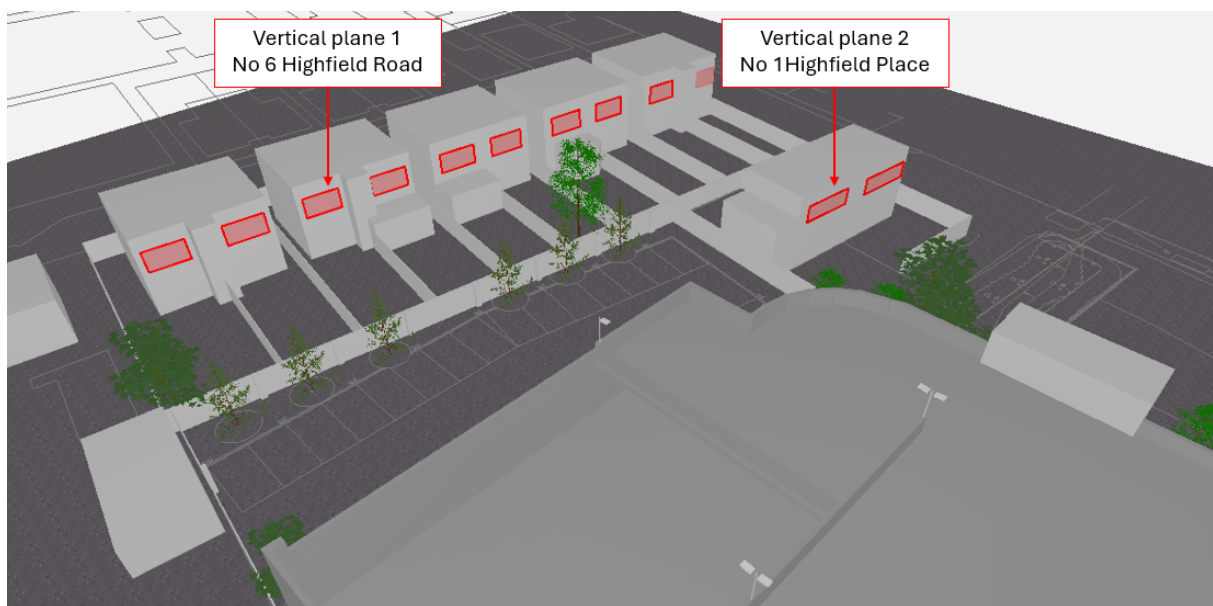
General Note:

This document is issued without prejudice or favour.

This document is issued to describe, in finer detail, the obtrusive lighting calculations undertaken by VBL / 24-7 Group in respect to planning condition 44 pertaining to the above mentioned development. This report describes the light spill of the roof top column heads only; all other external lighting is removed from the calculations.

Identification of vertical measuring planes:

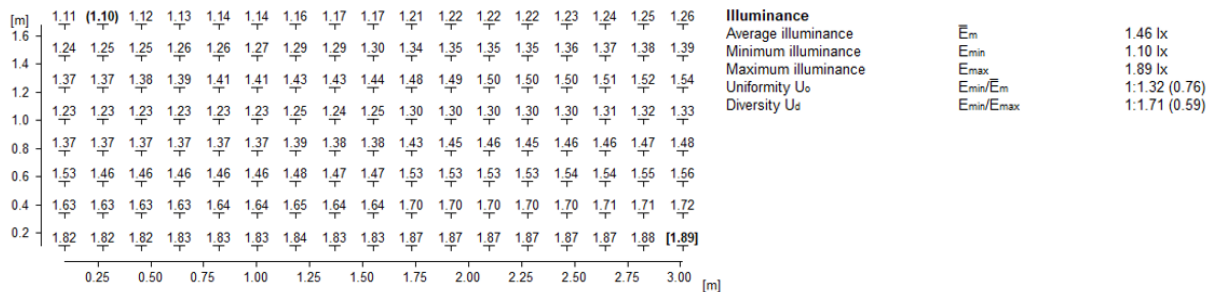
From the original calculations it was aparent that the worst affected first floor windows on both vertical measuring planes were properties No 6 Highfield Road and No 1 Highfield Place. The revised vertical planes are detailed below.



Lux grid on the vertical planes:

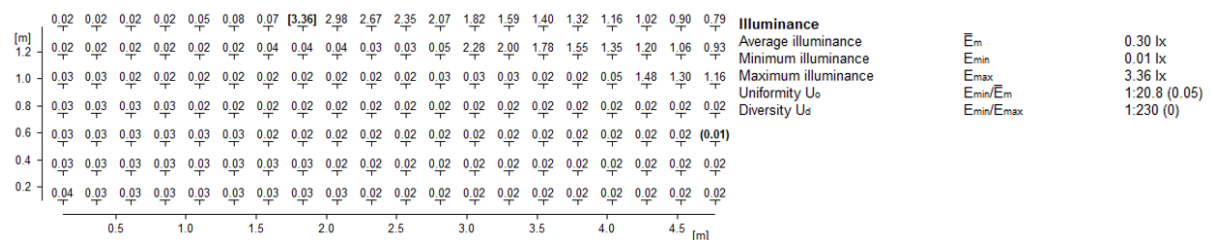
24-7 undertaken calculations to provide the vertical lux grids for these two receptor based planes.

Roof lighting only calculation vertical 1, first floor windows – (6) Highfield Road, Prestwich



With only the roof top columns operable in this calculation it can be seen that the obtrusive light spill is lessened on the receptor plane of the first floor windows of No 6 Highfield Road. The maximum lux point measured with all the external lighting illuminated was 2.99 lx measured where the maximum is now shown as 1.89 lx (approximately in the bottom RH corner of the RH window). The average obtrusive light spill across the receptor plane is 1.46 lx.

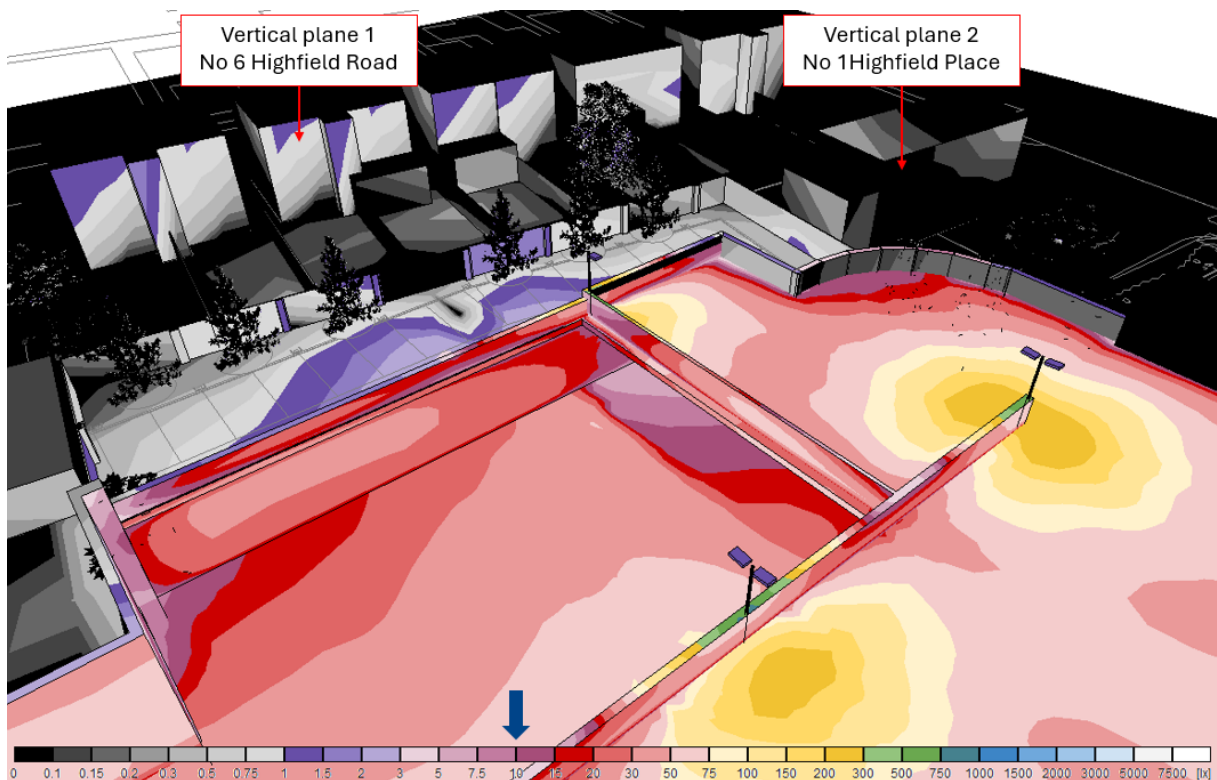
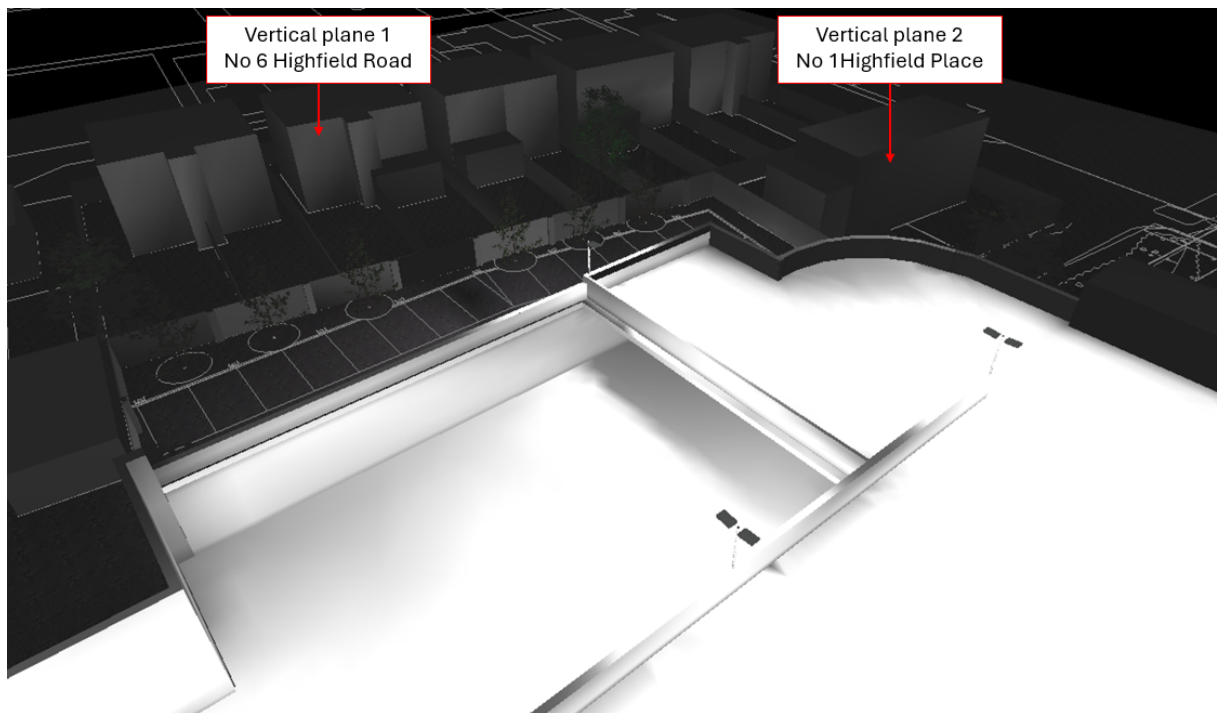
Roof lighting only calculation vertical 2, first floor windows – (1) Highfield Place, Prestwich



With only the roof top columns operable in this calculation it can be seen that the obtrusive light spill is lessened on the receptor plane of the first floor windows of No 1 Highfield Place. The maximum lux point measured with all the external lighting illuminated was 4.18 lx measured where the maximum is now shown as 3.36 lx (potentially on the wall between the two windows – see photo below). The average obtrusive light spill across the receptor plane is 0.30 lx.



Modelled results:



Please note – The Limitation of illumination on surrounding premises pre-curfew illuminance, as described ILP guidance note 01/21 is highlighted by the blue arrow (10 lx).