## Summary of Sunpath Model – R E V I S I O N A

Site Address: 15 Ettrick Road, Jarrow, Tyne & Wear NE32 5SL

### Application Number: ST/0552/15 HFUL

#### Introduction

This information has been updated following a meeting with Helen Lynch to discuss the proposal, and subsequent redesign of the rear extension component, and the roof structure at that point.

#### Model

The proposal has been modelled using the same 3D CAD software as previously, and the GPS coordinates of the location used to calculate the geographical position and sunlight position.

The attached diagrams in Section 1 show the existing and proposed situation at 30minute intervals. This has been modelled on the 21<sup>st</sup> June to relate back to the initial report.

The diagrams in Section 2 compare photographs submitted by the adjoining neighbour at 8 Teviot Way, with the timing of the model matched to the photographs.

Section 3 shows the path of the sun compared to the proposed application site, with a summary of the times and directions of sunlight/shadow at that time.

### Section 1

The model shows the sun path starting at 1pm. At this point, the shadow cast over the gardens is made by 8 Teviot Way.

By 4.30pm, the sun is directly facing the application site, with the shadow cast across the gardens. The proposal casts a slight additional shadow partially across the garden of 8 Teviot Way, caused by the new dormer window.

By 5.00pm, the gap between 13 and 15 Ettrick Way allows sunlight to the garden of 8 Teviot Way and the application site, and the shadow cast by the proposed extension moves across the garden of 8 Teviot Way. The shadow caused by the revised proposal allows more sunlight into the garden of no. 8.

Due to the existing orientation of the property, it is no until 8pm that the larger shadow caused by the proposed extension is cast across the rear elevation of 8 Teviot Way. The rear elevation of the original house at 8 Teviot Way is in the shadow of the existing shape of the application site, and the rear extension of 8 Teviot Way, projecting into the garden, is affected after 8pm.

## Section 2

Unfortunately the same view from the first floor window of 8 Teviot Way could not be modelled using the software (too narrow a field of view), so the model has had to show a wider view.

- At 16.50, the model shows limited impact to 8 Teviot Way (please note the shadow cast by the fence at this point).
- At 17.25, the model shows a minor additional shadow, caused by the dormer of the proposed rear extension element. This is improved over the original submission.
- At 18.20, there is a small additional shadow over the garden area, and cast across the wall of the rear extension of number 6 Teviot Way.
- By 19.27 the entire garden area is in shadow caused by the existing property. The shadow caused by the proposed extension is now cast over the flat roof of the rear extension to number 6 Teviot Way, rather than the rear elevation of 8 Teviot Way, due to the orientation of the site. There remains some sunlight between from between 13 and 15 Ettrick Road.

# Section 3

The final diagrams show the path of the sun during the afternoon and evening. The application site's front elevation faces West, with the rear elevation of 8 Teviot Way facing North. Due to the orientation, the shadow cast by the proposed extension is largely limited to the gardens and outside space of 8 Teviot Way, with virtually no impact to number 6 Teviot Way, or number 13 Ettrick Road.

## Summary

The model shows that the direction of the sun, and the shadow that is cast, has a minor effect on both the rear garden of the application site, and that of 8 Teviot Way. The change of the roof design to the rear extension element improves the position for 8 Teviot Way, and the addition of the rear dormer window, which allows the en-suite bathroom feature to remain part of the proposal, is considered to be a good compromise to allow the scheme to progress.