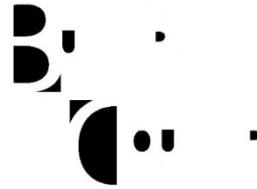


## DAYLIGHT AND SUNLIGHT ASSESSMENT



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Bulmer + Counter Architects

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### SITE ADDRESS

Twinwoods  
119 Ducks Hill Road  
Northwood  
HA6 2SQ

## **1.0 PROJECT**

This Daylight and Sunlight Assessment is in support of a full planning application for the demolition of an existing 5-bedroom detached dwelling, the erection of a new 5-bedroom dwelling and outbuilding.

## **2.0 THE EXISTING PROPERTY AND ITS CONTEXT**

For the purpose of this assessment the impact of the existing and proposed dwelling at the application site has been considered, features including existing trees and boundary structures such as fences have been ignored in this assessment to focus on the impact of the proposed dwelling only. Notably, if considered the impact of the omitted existing features would have some detrimental impact on the neighbouring dwellings.



Fig.1 Existing evergreen foliage on boundary to no.121



Fig.2 Existing timber fence and outbuildings to boundary of no.4 Wildwood (115 Ducks Hill Road)

### 3.0 GENERAL PRINCIPLES OF DEVELOPMENT

The proposed development has been designed to be within 45 degrees in plan and elevation of the neighbouring dwellings. In plan a worst-case scenario has been approached with 45-degree lines taken from corner of the adjacent equivalent storey. In elevation the 45-degree lines has considered to the nearest adjacent habitable window.

The existing building is close to the boundary with no.4 Wildwood, and to improve the existing situation the proposed massing looks to increase the gap to the boundary and adopt a hipped roof.



Fig.3 (right). Red indicates ground floor 45-degree lines and massing. Blue indicates 45-degree lines and massing. Massing set within 45-degree lines of the relevant neighbouring storey to limit impact on daylight



Fig.4 Massing is located well within 45-degree lines of neighbouring habitable windows. Proximity of massing is reduced to neighbour no.4 with the gable roof removed and the distance to the boundary increased. The existing garage adjacent neighbour no.121 is removed, and the proposed massing is a sufficient distance from the boundary not to pose any impact on daylighting.



#### 4.0 DAYLIGHT AND SUNLIGHT ASSESSMENT

Due to the orientation and position of the existing dwelling there is little to no impact on the neighbouring dwellings in terms of daylight. With the sun path starting approximately in the direction of the rear elevation, and moving towards the side then front throughout the day.

As shown in the sun path diagram No.121 is located directly to the south of the proposal and therefore is almost completely unaffected by the existing dwelling. As shown in the shadow study below, this does not change through the proposal and the dwelling remains unimpacted.

No.4 Ducks Hill Road to the north is also largely unimpacted due to its orientation, with the rear and front façades unimpacted by the existing building. Some shadowing occurs on the side elevation, and this is looked at in more detail in the shadow studies. Overall, no.4 would continue to receive similar levels of daylight to the existing situation. The side of the dwelling is slightly impacted as shown in the 21<sup>st</sup> December 12:00 study, albeit marginally. However, there is also an improvement to daylight received to the side elevation when looking at the 21<sup>st</sup> June 16:00 study. Thus overall, the impact on no.4 as a result of the proposal would be considered neutral.

The below assessment shows shadow studies from the longest day (21<sup>st</sup> June) and the shortest (21<sup>st</sup> December), to demonstrate best and worst case respectively.

Due to the orientation of the site the assessment below looks initially at the rear elevation and latterly the front elevation.

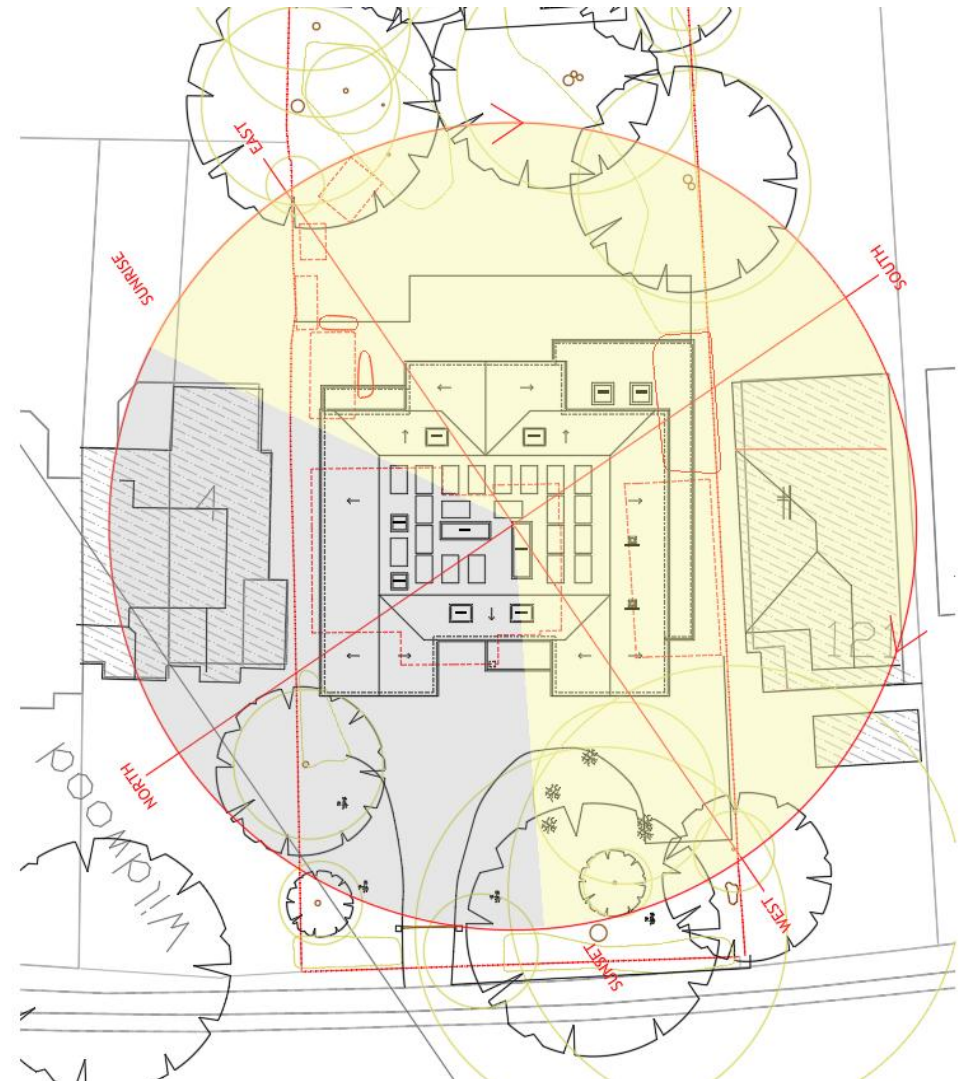
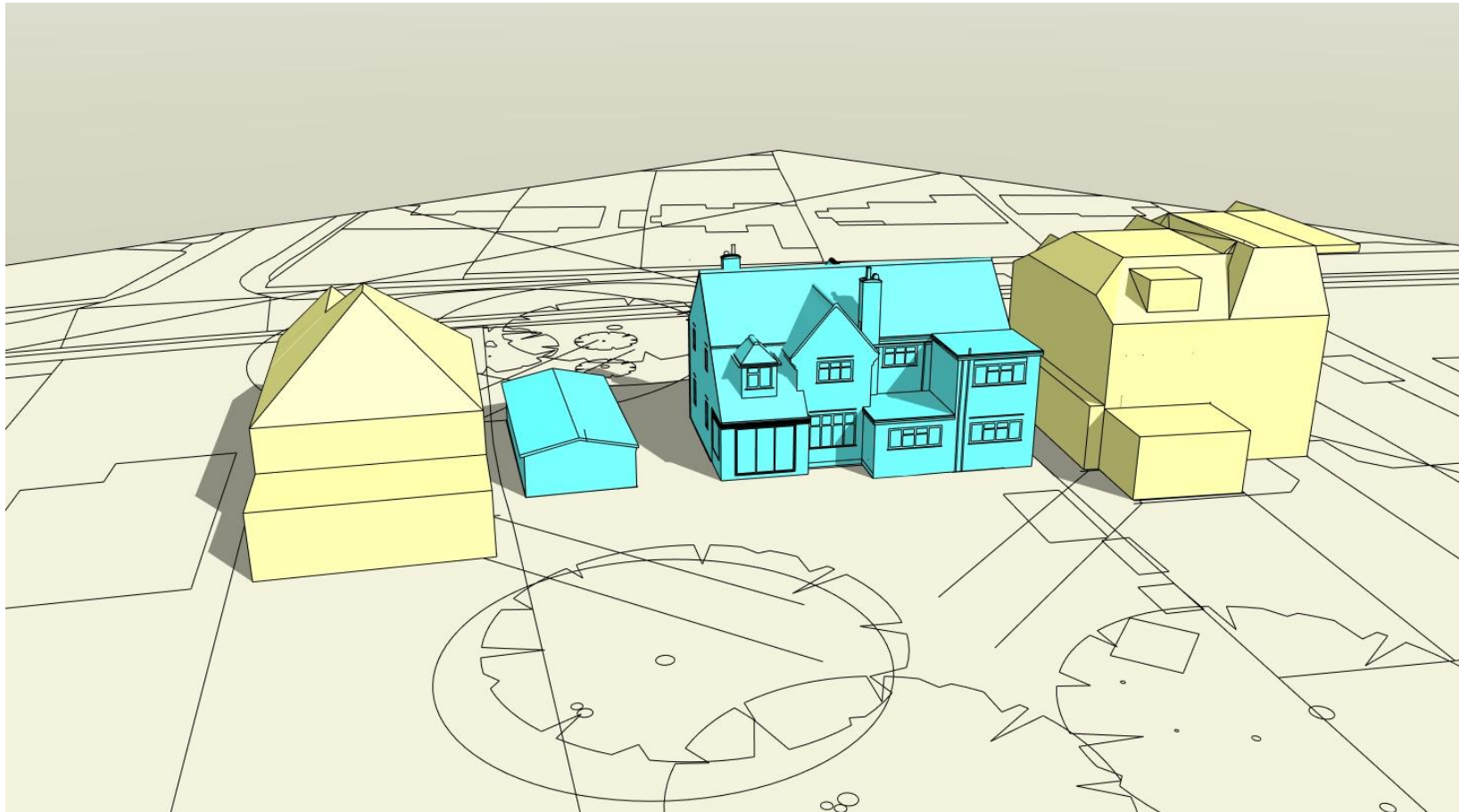


Fig.5. Approximate sun-path diagram showing direction of the sun throughout the day.



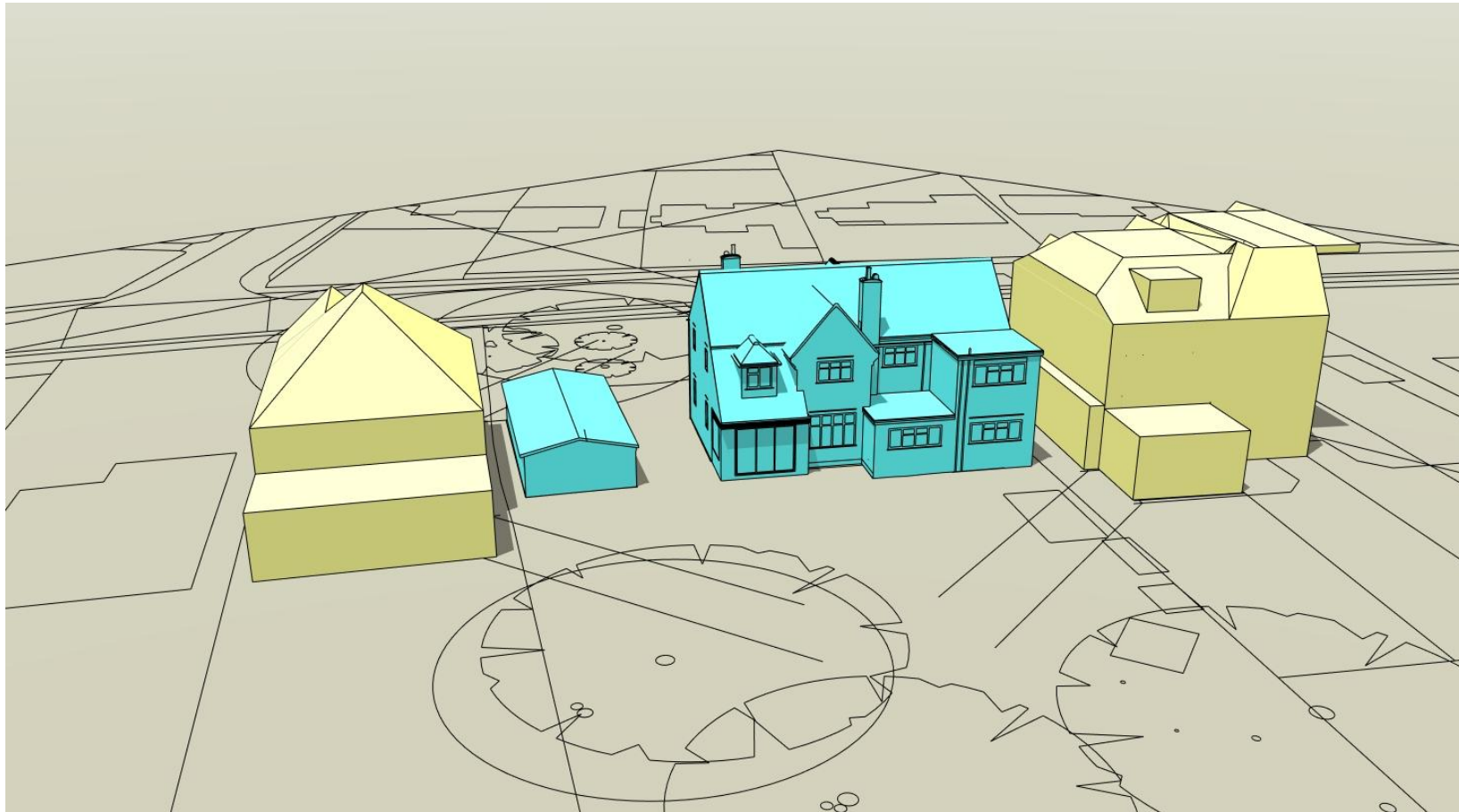
**Existing - 21<sup>st</sup> June, 08:00**

At this time the sunlight is coming from the east and largely directly towards the rear elevations of the dwellings. As a result the existing dwelling at no.119 has no impact on no.4 or no.121 in terms of the daylight received at this time.  
The rear and front elevations of both neighbours are unimpacted by the existing dwelling.



**Proposed - 21<sup>st</sup> June, 08:00**

Due to the orientation of the side both neighbours are not impacted by the daylight received by the proposal.  
The rear and front facades are not impacted by the proposal when compared to the existing.



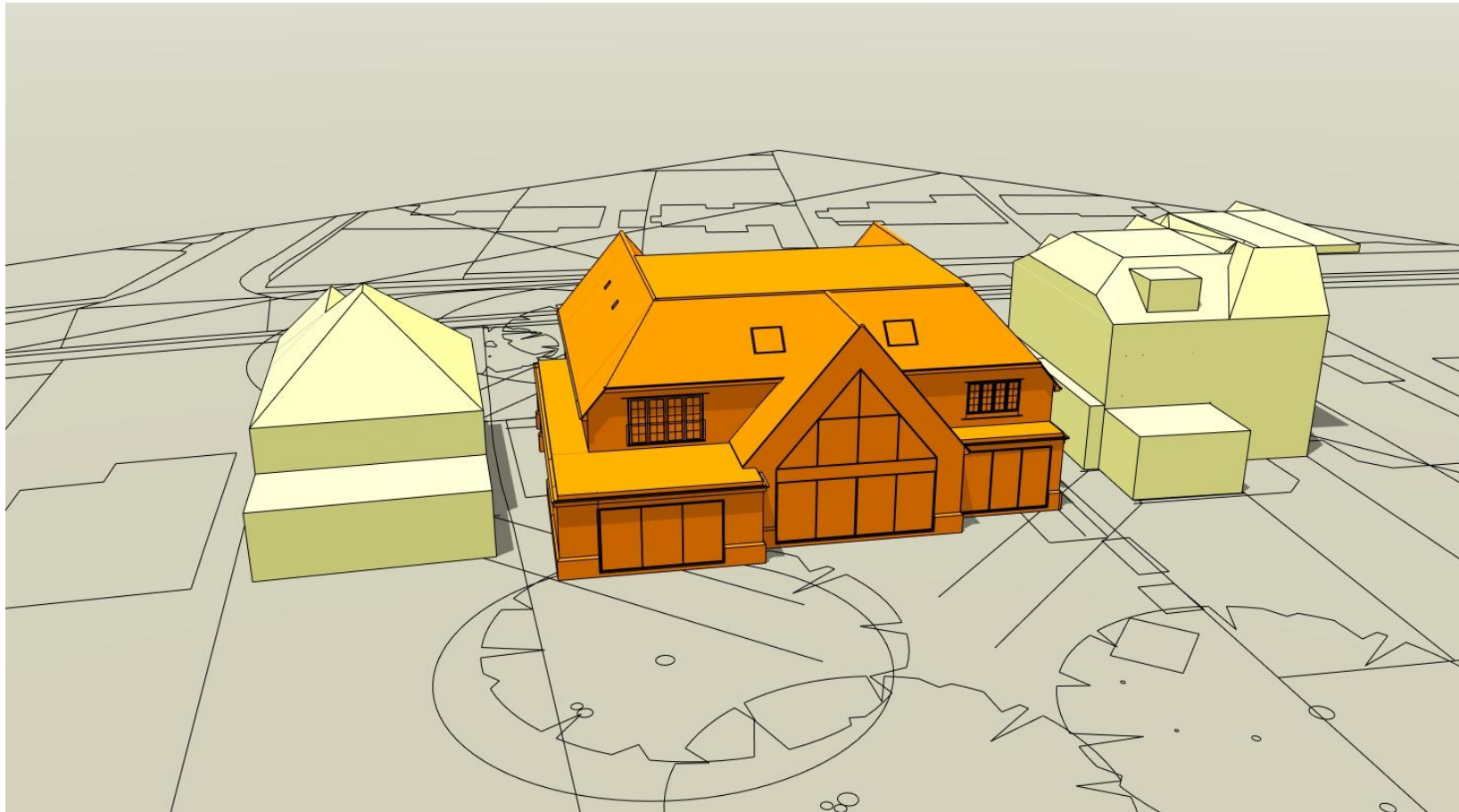
**Existing - 21<sup>st</sup> June, 12:00**

By this time the sun is approximately shining from no.121, and as such no.121 casts some shadow towards no.119. Although due to the height of the sun at this time the shadow length is marginal and little shadow is cast into the site.

Similarly, the shadow cast by no.119 towards no.4 is marginal and has no impact on the daylight received by the side elevation.

The rear and front elevation of no.4 is not impacted by no.119.





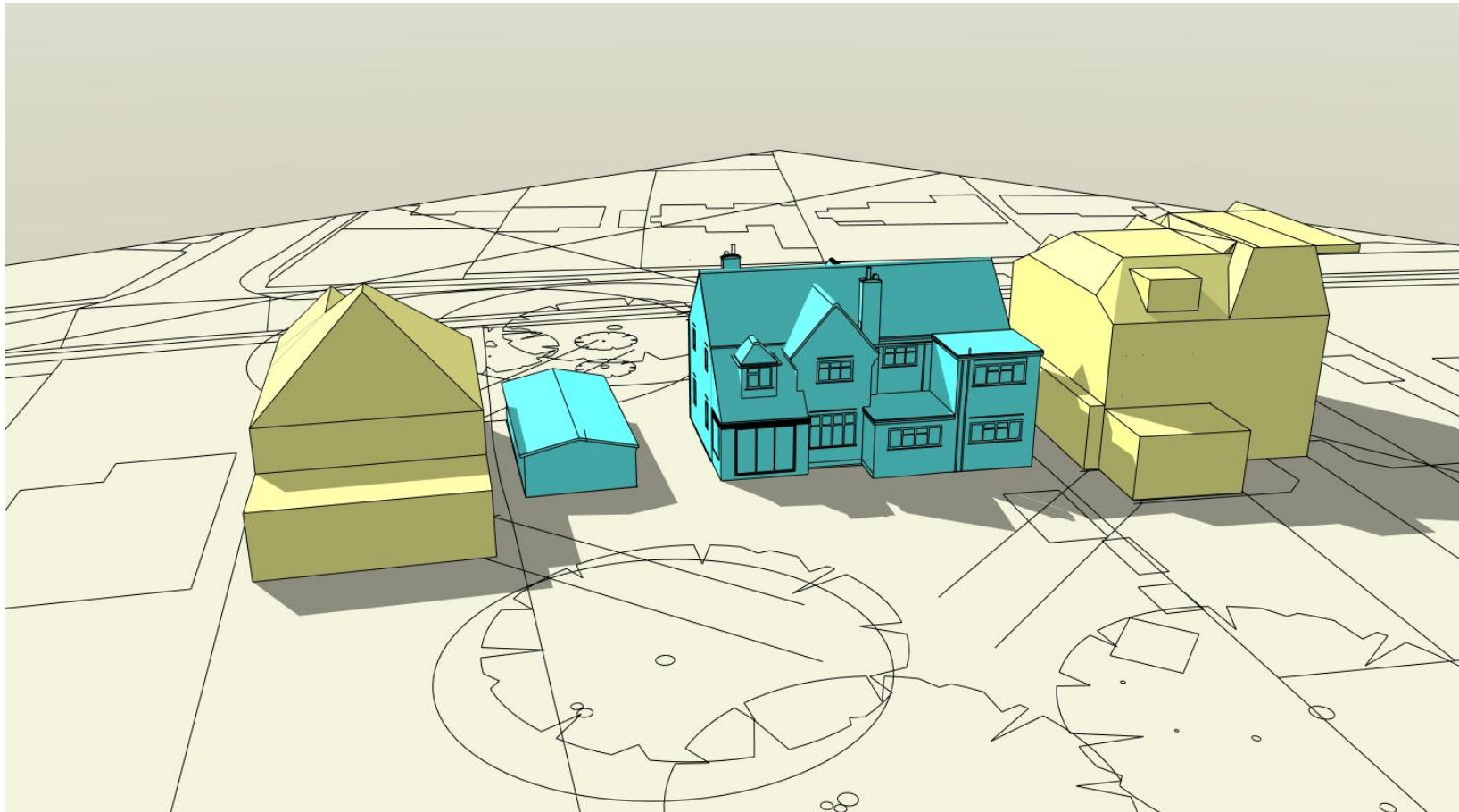
**Proposed - 21<sup>st</sup> June, 12:00**

Due to the orientation no.119 has no impact on no.121.

The side, rear and front elevations of no.4 remain unimpacted by no.119.

Thus the proposal has no impact on either neighbour at this time.



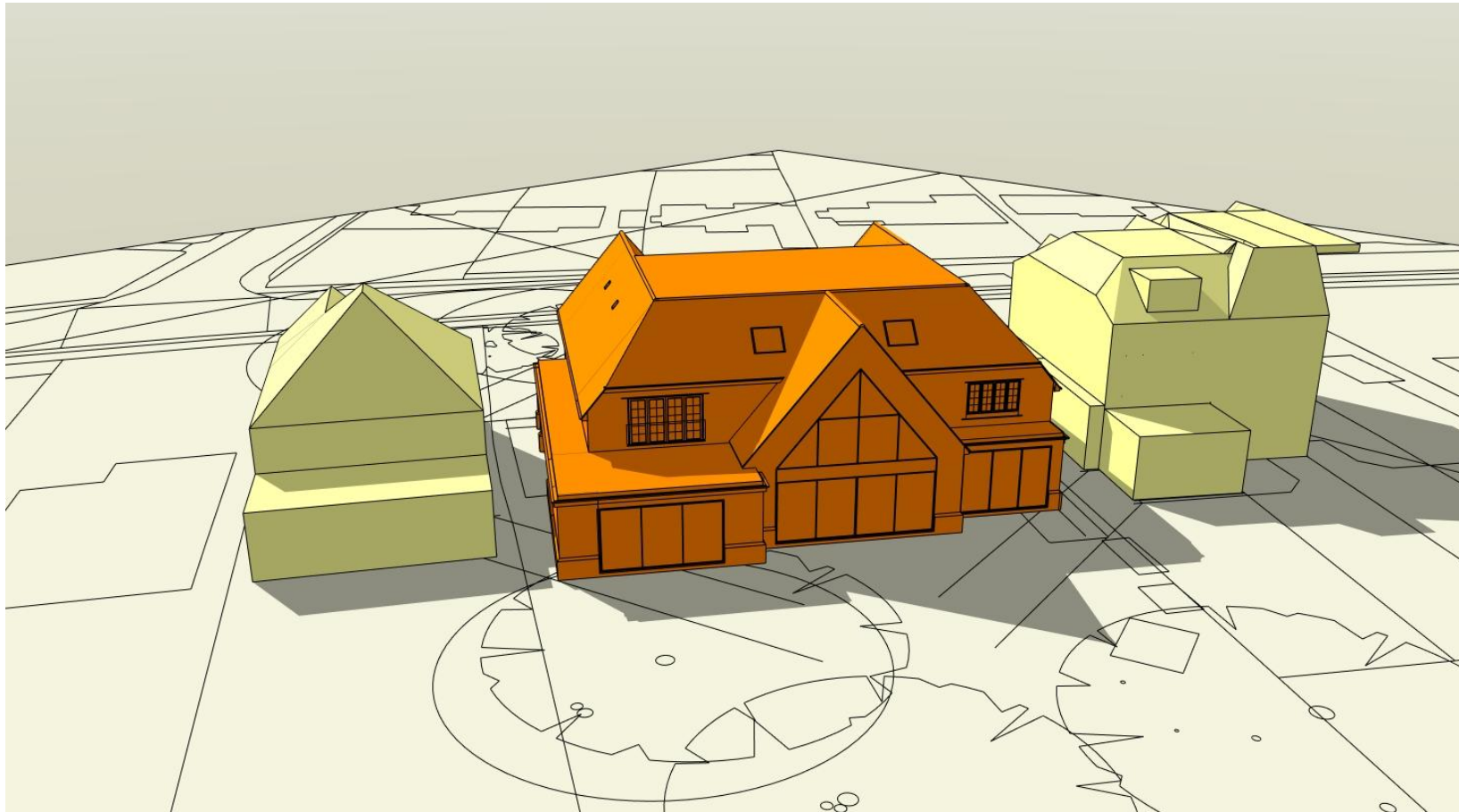


**Existing - 21<sup>st</sup> June, 16:00**

By this time the direction of the sun has moved towards the front of the side and is largely on front façade.  
Consequently, the existing rear elevations receive little to no direct sunlight at this time.

Again, no.121 is unimpacted by no.119

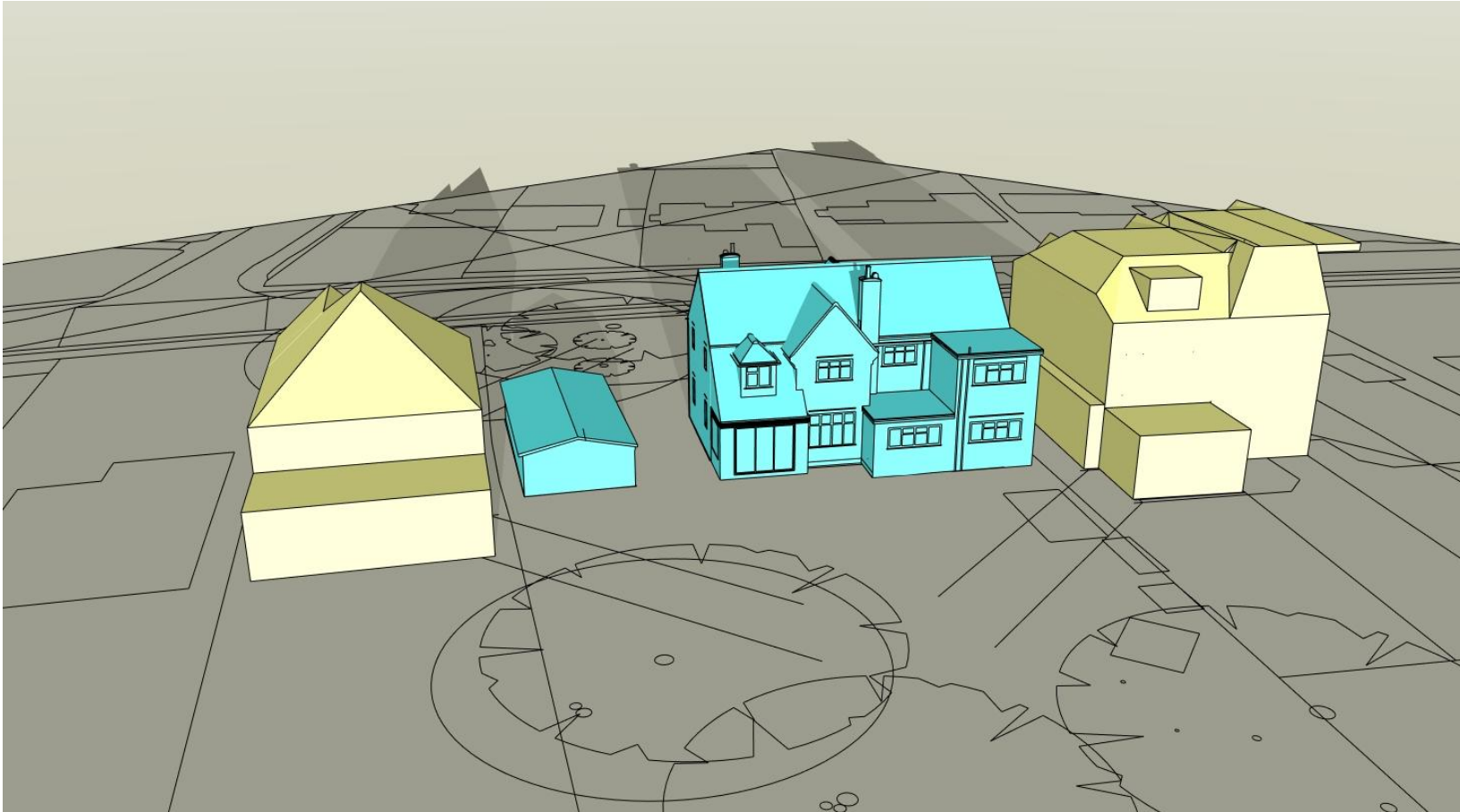
No.4 is impacted on the side elevation by no.119, with the shadow cast moving from the front/middle towards the rear, when compared to the existing condition at 21<sup>st</sup> June 12:00.



**Proposed - 21<sup>st</sup> June, 16:00**

The dwelling no.121 continues to be unimpacted by no.119

Due to the enlarged distance from the boundary, and the adoption of a hipped roof the shadow cast onto the side elevation of no.4 is reduced when compared to the existing situation at the same time. Therefore, the proposal makes a positive contribution to the daylight received to the side elevation of no.4 at this time. The rear and front elevation of no.4 remain unimpacted by the proposal at no.119.



**Existing - 21<sup>st</sup> December, 08:00**

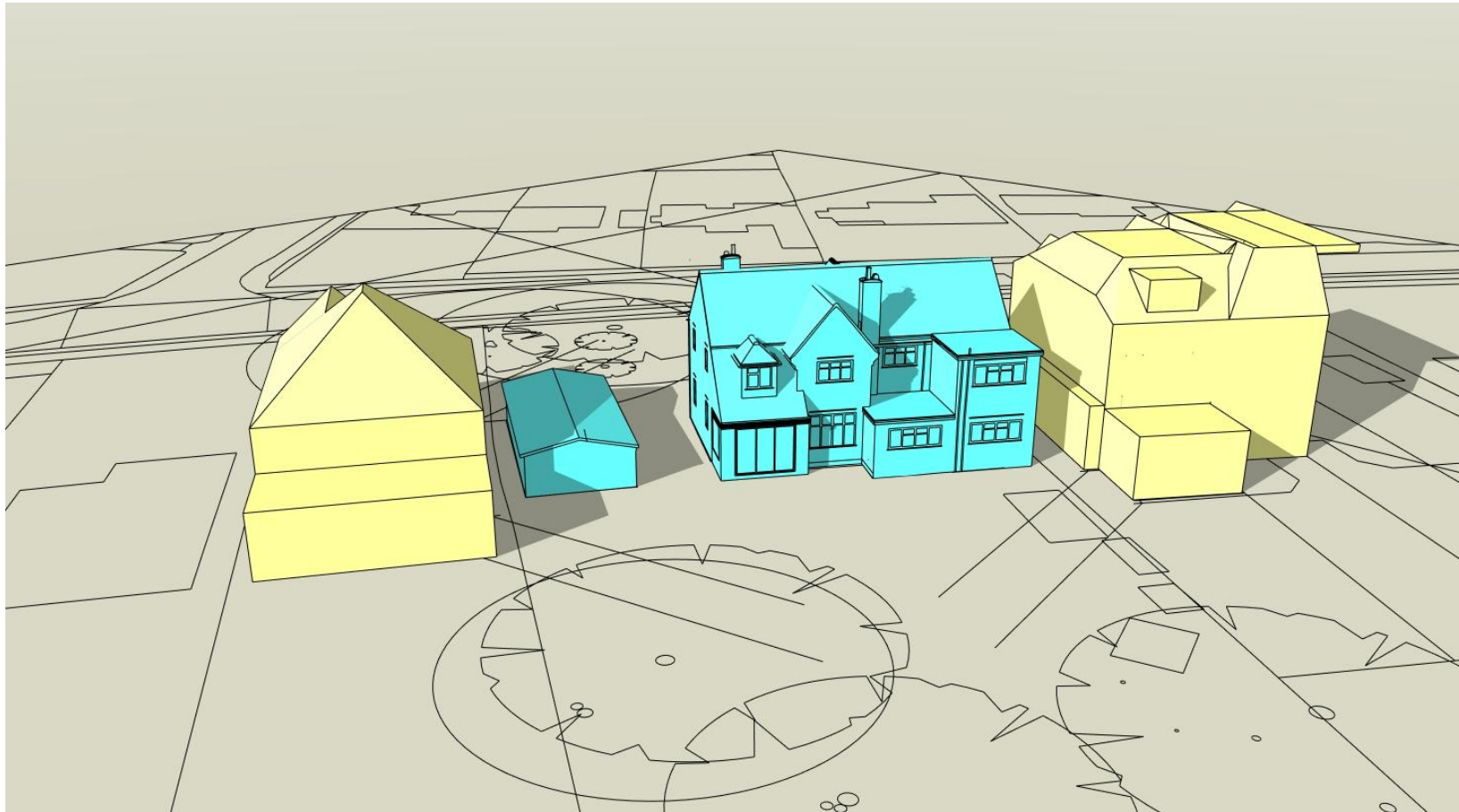
Due to the orientation both dwellings are unimpacted by the existing dwelling at no.119 at this time.





**Proposed - 21<sup>st</sup> December, 08:00**

Both dwellings continued to be unimpacted by the dwelling at no.119 at this time, thus the proposal has no impact.

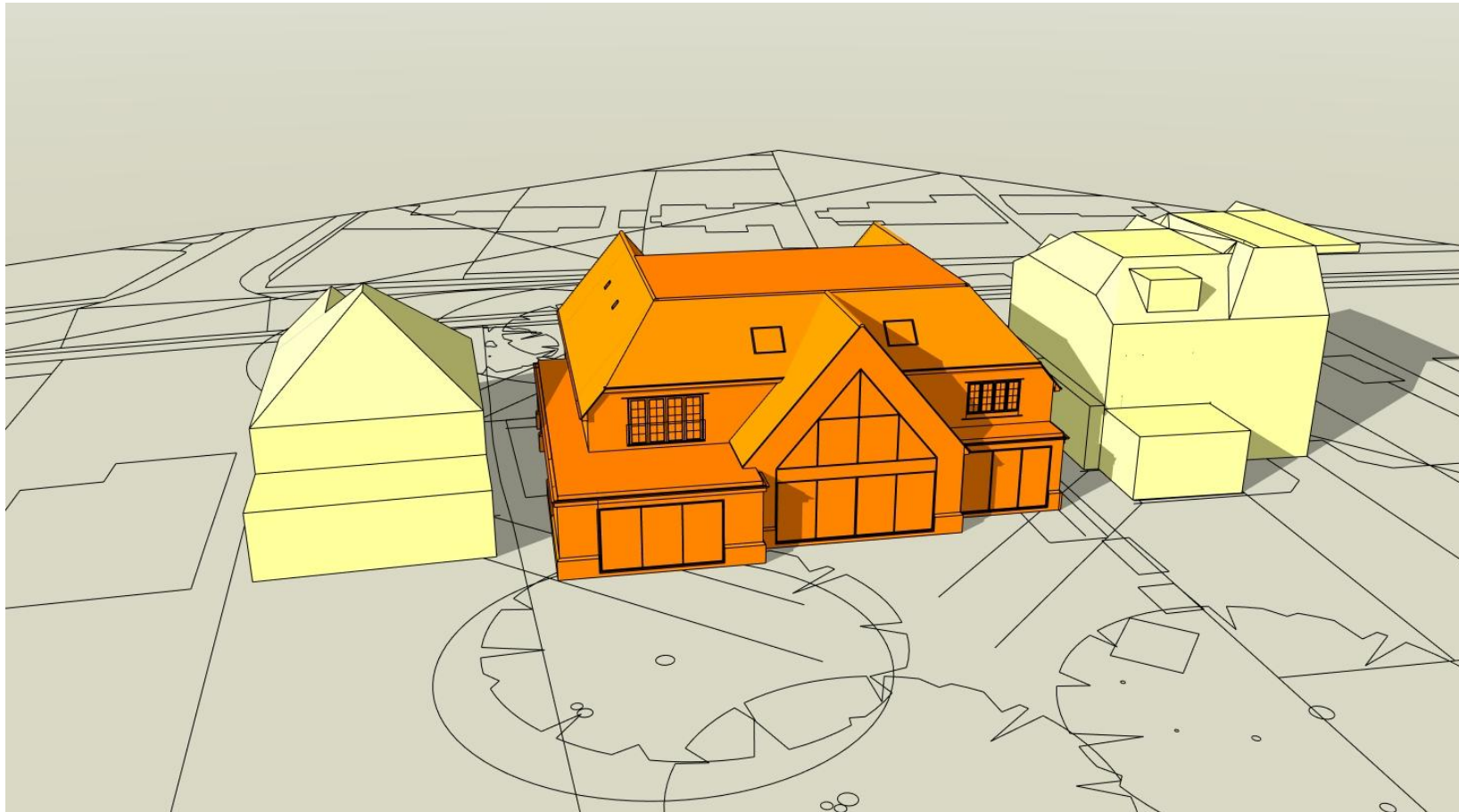


**Existing - 21<sup>st</sup> December, 12:00**

By this time the sun is approximately shining from no.121, and as such no.121 casts some shadow onto the existing garage of no.119.

However, due to the orientation no.119 has no impact on no.121.

Similarly, the rear and front elevation of no.4 is not impacted by no.119. There is some impact on the side elevation with shadow being cast from the existing gable roof and previous two storey extension.



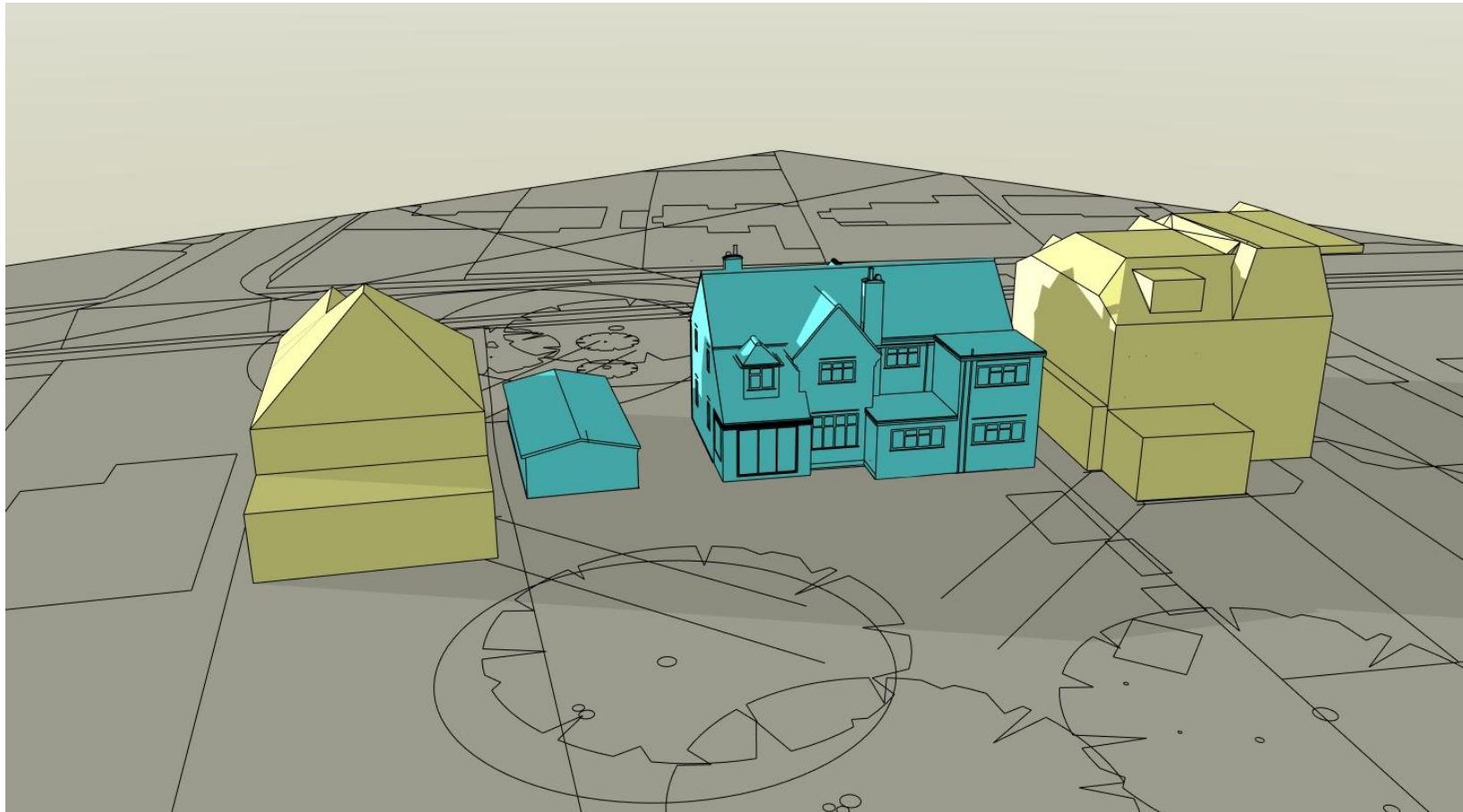
**Proposed - 21<sup>st</sup> December, 12:00**

Due to the orientation no.119 has no impact on no.121.

The rear and front elevation of no.4 is not impacted by no.119.

There is some additional shadowing onto the side elevation of no.4 when compared to the existing situation. However, this impact is minimal when considering the dwelling on the whole and the improved situation on the same elevation at 21<sup>st</sup> June, 16:00 (see above)



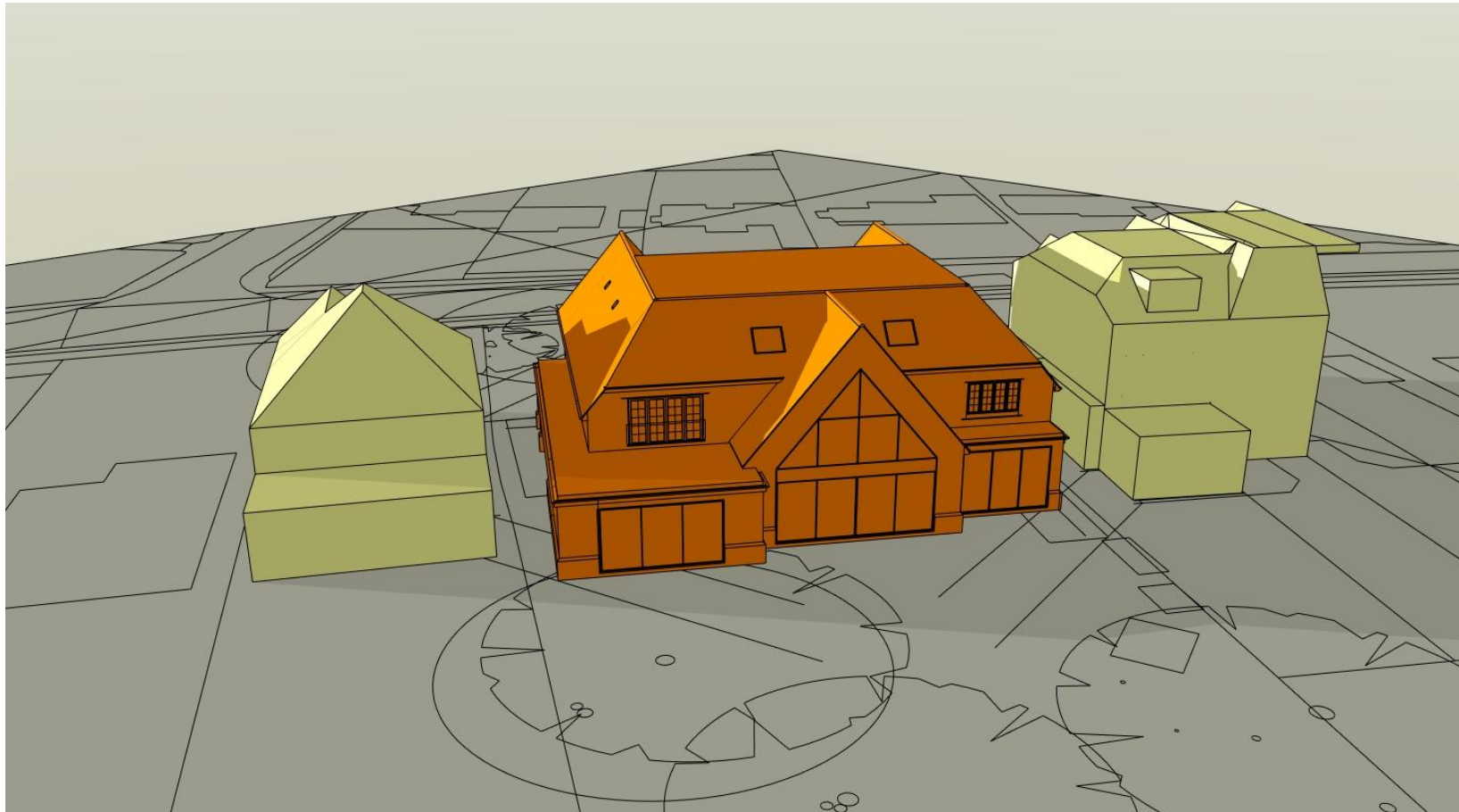


**Existing - 21<sup>st</sup> December, 16:00**

By this time the sun is on the front façade and therefore no.119 has no impact on no.121.

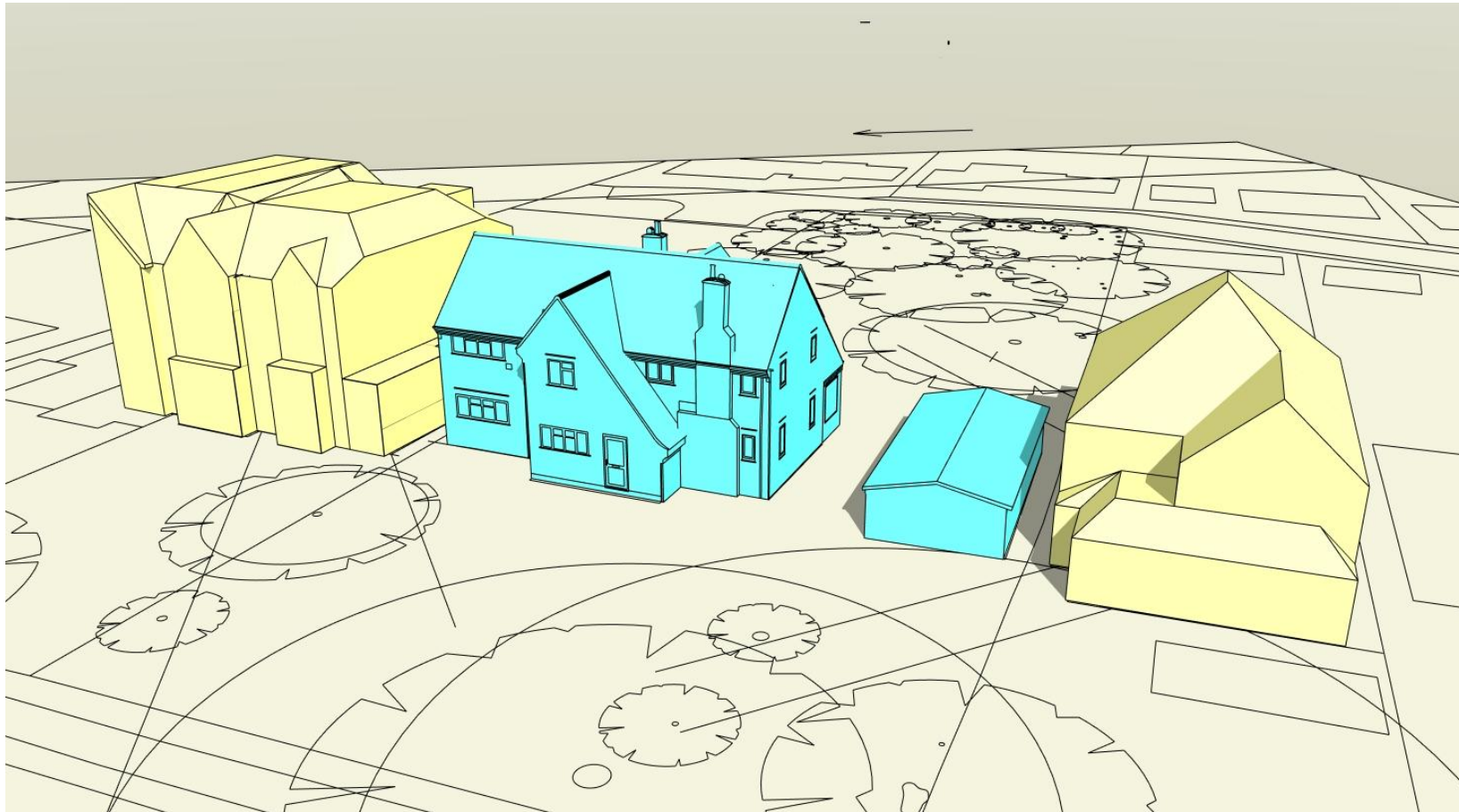
The existing dwelling also has no impact on the rear elevation to no.4.

The side elevation to no.4 is somewhat impacted by the existing dwelling.



**Proposed - 21<sup>st</sup> December, 16:00**

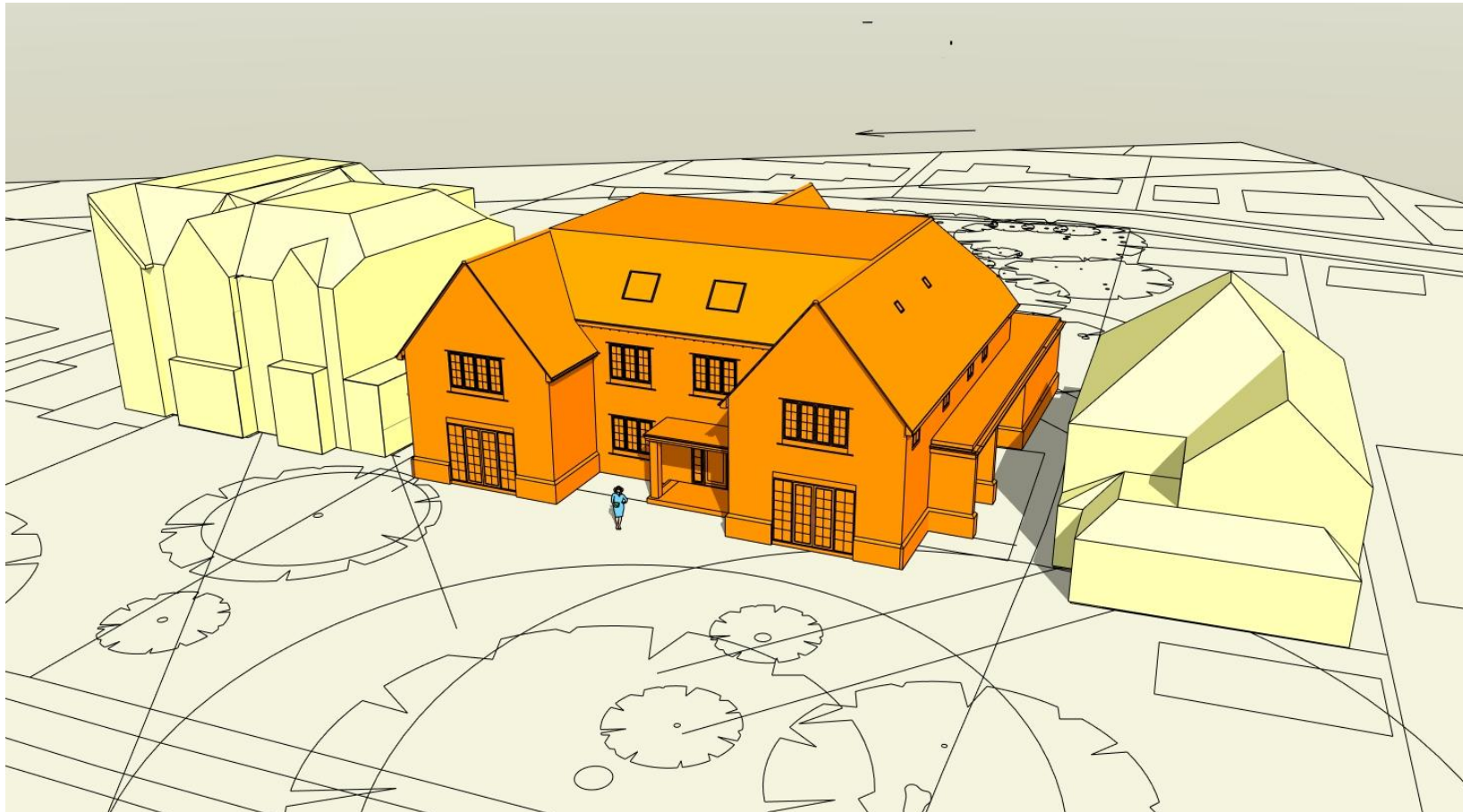
The existing and proposed situations are very similar at this time, with the only difference being an increase in shadow received to the side elevation of no4. Overall, this difference in the existing and proposed can be seen a minimal, particularly in the context of the front elevation being unaffected by the proposal.



**Existing Front Elevation - 21<sup>st</sup> June, 16:00**

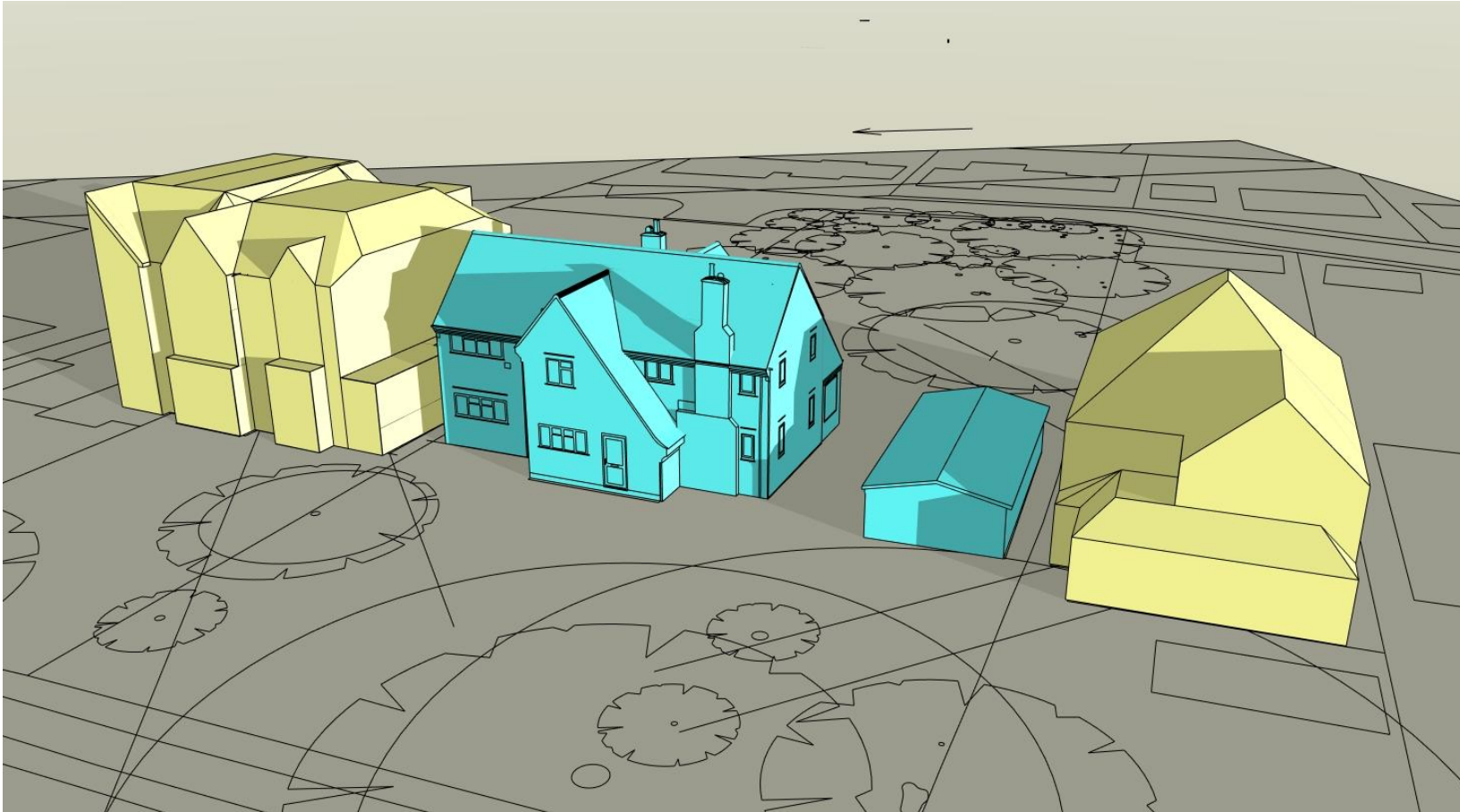
The existing dwelling at no.119 has no impact on the daylight received to the front elevations of the neighbours.





**Proposed Front Elevation - 21<sup>st</sup> June, 16:00**

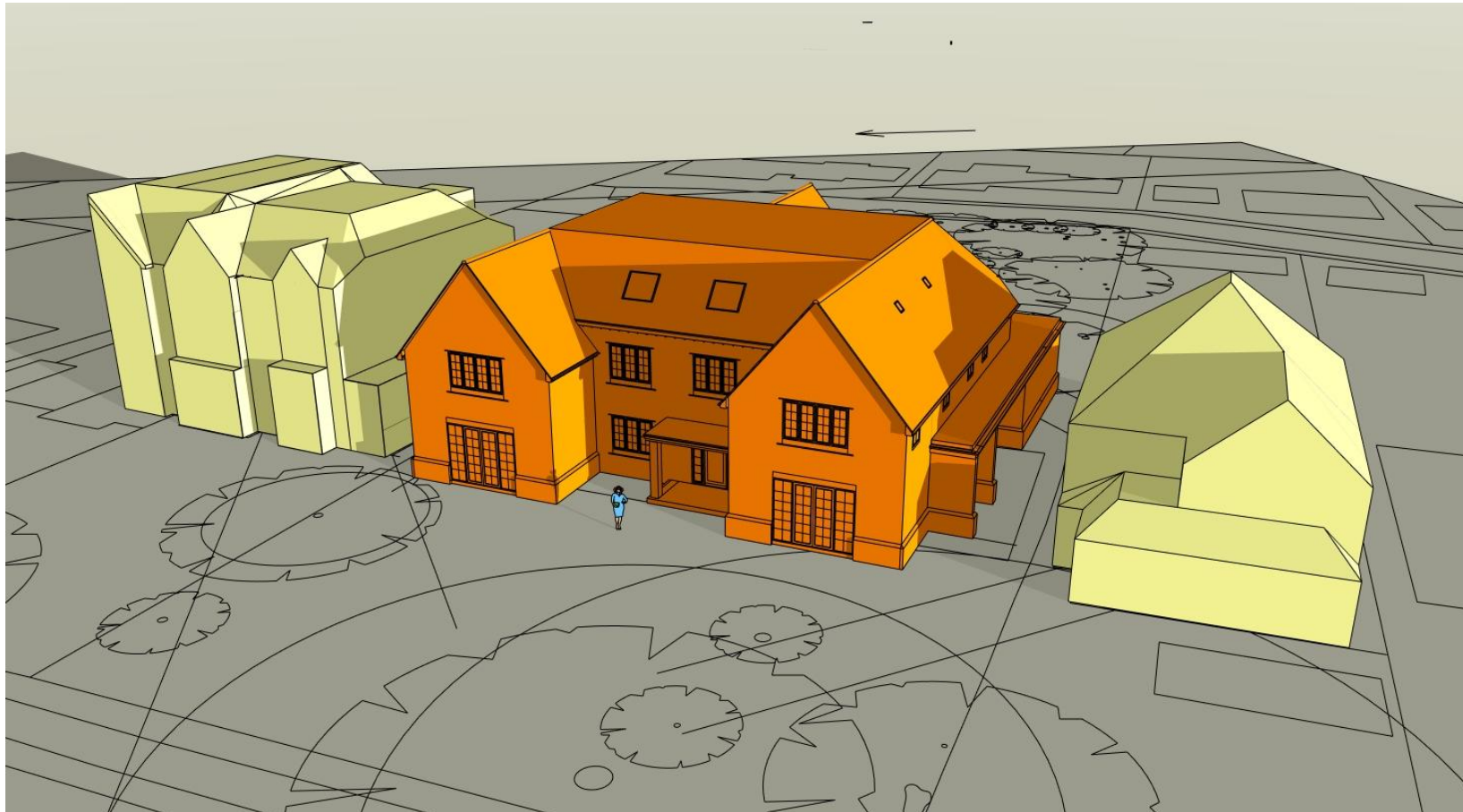
The proposed dwelling has no impact on the daylight received to the front elevations of the neighbours.



**Existing Front Elevation - 21<sup>st</sup> December, 16:00**

Neighbouring dwelling no.121 is unimpacted by no.119

The front elevation of no.4 is unimpacted by no.119, with some shadows being cast to the side elevation. The front corner of the side elevation is unimpacted by the existing, although this area is an existing garage and therefore not a critical area for consideration.



**Proposed Front Elevation - 21<sup>st</sup> December, 16:00**

Neighbouring dwelling no.121 continues to be unimpacted by no.119

The front elevation of no.4 is unimpacted by no.119, as per the existing condition.

The shadows to the side elevation are increased, however the area impacted is an existing garage and therefore not a critical area for consideration.

Thus, overall the impact on both dwellings is minimal to none.



## 7.0 SUMMARY:

Table 1. Summary of Daylight and Sunlight Assessment

Time of Analysis	Impact of Existing on no.4 Wildwood	Impact of Proposed on no.4 Wildwood	Impact of Existing on no.121 Ducks Hill Road	Impact of Proposed on no.121 Ducks Hill Road	Summary
21 <sup>st</sup> June, 08:00	No impact	No impact	No impact	No impact	Proposal has no impact on the sunlight or daylight to either neighbour.
21 <sup>st</sup> June, 12:00	No impact	No impact	No impact	No impact	Proposal has no impact on the sunlight or daylight to either neighbour.
21 <sup>st</sup> June, 16:00	No impact on the rear or front façade, with some shadowing onto the side elevation. Shadow predominately at the middle and rear of the side elevation.	No impact on the rear or front façade, with some shadowing onto the side elevation. Shadow has changed compared to the existing, casting a lower shadow onto the side elevation. As a result the amount of daylight received to the side elevation is improved.	No impact	No impact	Side elevation of no.4 benefits from the proposal and receives more daylight at this time. No impact on no.121
21 <sup>st</sup> December, 08:00	No impact	No impact	No impact	No impact	Proposal has no impact on the sunlight or daylight to either neighbour.
21 <sup>st</sup> December, 12:00	No impact on the rear or front façade, with some shadowing onto the side	No impact on the rear or front façade, with some shadowing onto the side	No impact	No impact	Side elevation of no.4 is slightly impacted by the proposal. However, the

	elevation. Shadow predominately at the middle and rear of the side elevation.	elevation. The shadow cast is now lower and slightly longer than the existing shadow. Therefore the proposal has some impact.			impact is mitigated if the existing boundary fence at circa 1.8m is considered. Therefore overall, the impact is marginal to none. No impact on no.121
21 <sup>st</sup> December, 16:00	Some shadowing on the side elevation, largely towards the rear two-thirds of the side elevation.	Some increased shadowing on the side elevation.	No impact	No impact	Some increased shadowing to the side elevation of no. 4. However the area impacted is mostly an existing garage and continuous brickwork. Therefore not a critical area for consideration. No impact on no.121. Thus, overall the impact on both dwellings is minimal to none.

As demonstrated through the analysis the proposal has no impact on no.121 Ducks Hill Road.

Neighbouring dwelling no.4 Wildwood (115 Ducks Hill Road) is also largely unimpacted by the proposal. There is a slight increase in shadow to the side elevation in the December studies. However, this impact is seen as minimal due to some of the increased shadowing being cast onto blank brickwork facades and the side of the garage. The marginal increase in shadowing demonstrated in the 21<sup>st</sup> December 12:00 study is offset by the improvement on daylight shown in the 21<sup>st</sup> June 16:00 study. Where areas of the side elevation previously fully in shadow are mostly receiving direct sunlight in the proposal.

Accordingly, we trust that this application may be viewed favourably.

Chris Bulmer  
18<sup>th</sup> March 2025

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