

40-48 Mount Pleasant, Reading, RG1 2TD

Response to Pre-application Advice, Daylight/Sunlight Report.

Planning Reference PL/25/1577

Planning Issue 04/03/2026

The following report is a comparative assessment of daylight and sunlight access to the original approved design and the as built project with proposed changes. A brief description of the design principles used can be seen below. Conclusions can be found at the end of the report.

The development was designed using passive low energy principles, maximising the site's orientation and solar access. Each house has a South facing elevation, helping to maximise useful solar gains to passively heat the houses in winter whilst allowing for a straightforward shading strategy to avoid overheating in the summer months.

The approved design aimed to maximise the wellbeing of occupants by providing private outdoor space along side the best possible access to the sunlight on the site. The shading impact of 50 Mount Pleasant was acknowledged and addressed by the addition of second floor sun terraces with year-round solar access.

In order to determine if any of the properties were detrimentally effected by the shading of 50 Mount pleasant we modelled the site shading throughout the year at three times of day: morning, midday and mid afternoon. We have further focussed on the site shading, by hourly modelling of the shadows cast on mid winter's day.

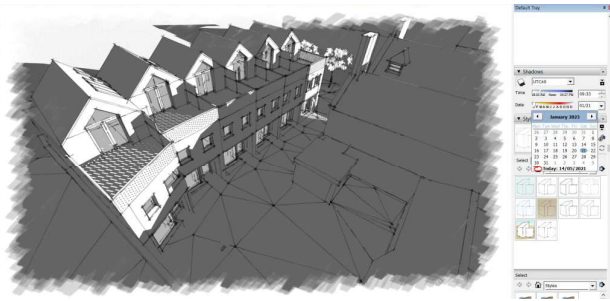
We also assessed the daylighting in the overshadowed properties by producing images showing the view of the sky available through the windows of these houses.

We have run the same daylight/sunlight modelling on the as built project with proposed changes architectural model to assess if sunlight/daylight has been detrimentally impacted by the changes made.

Also included is a comparison between the approved design and the as built project with proposed changes for sunlight access to the north facing back gardens of the properties.

Monthly morning sunlight study

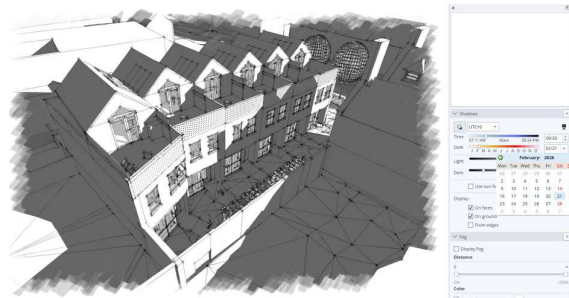
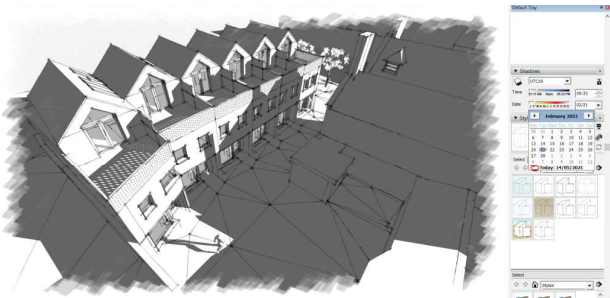
Original planning stage design



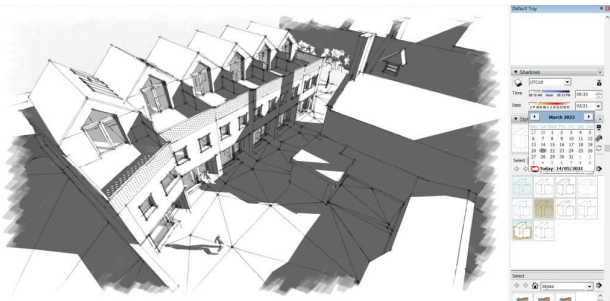
As built project with proposed changes



9:33am 21 January



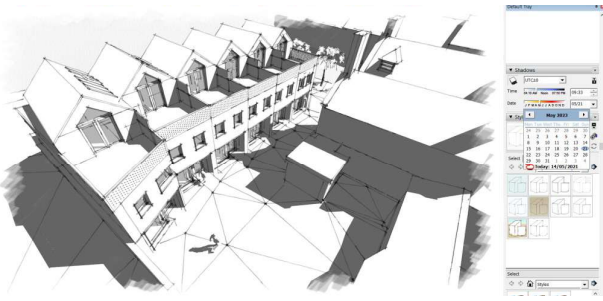
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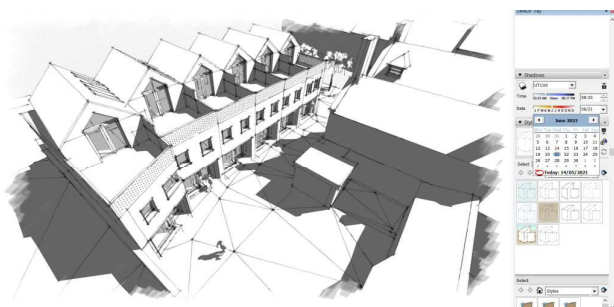
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9:33am 21 April



9:33am 21 May



9:33am 21 June

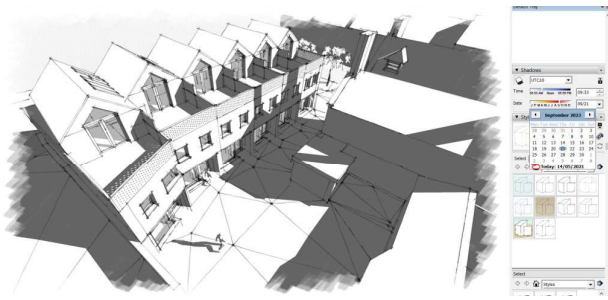


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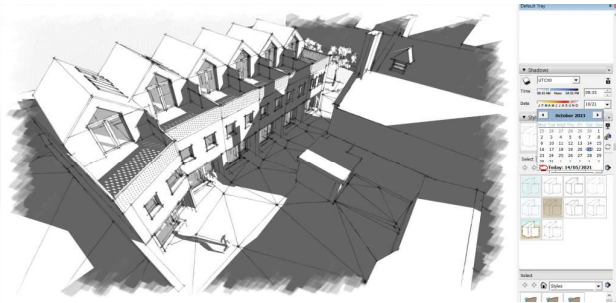


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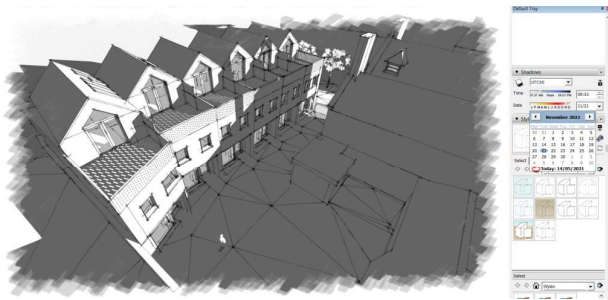
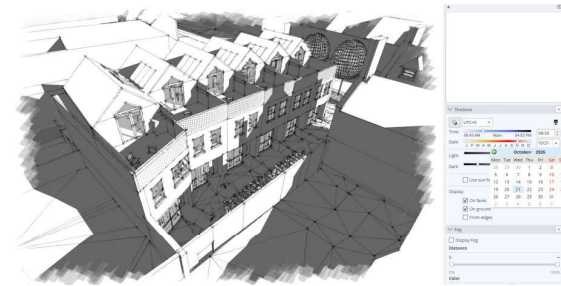




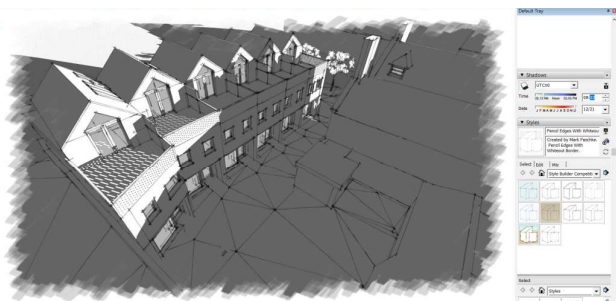
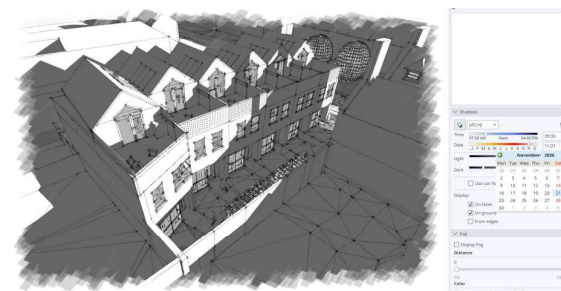
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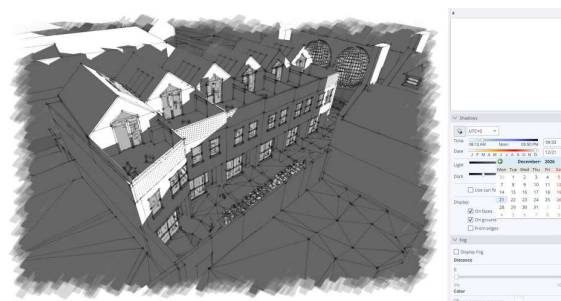
9:33am 21 October



9:33am 21 November



9:33am 21 December



Monthly midday sunlight study

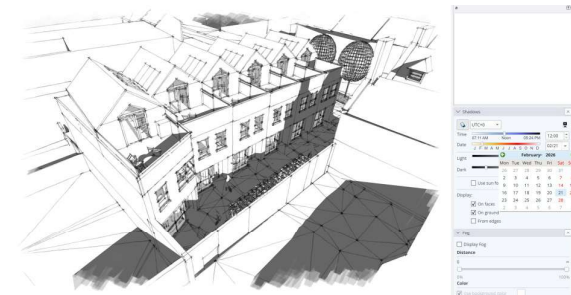
Original planning stage design



As built project with proposed changes



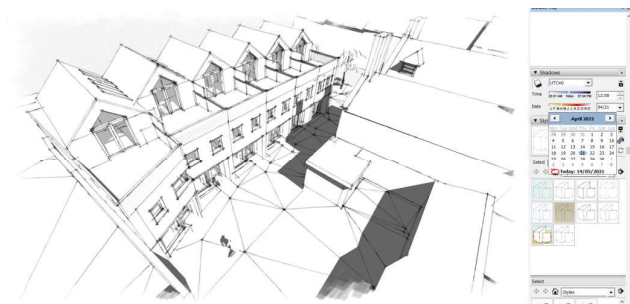
Midday 21 January



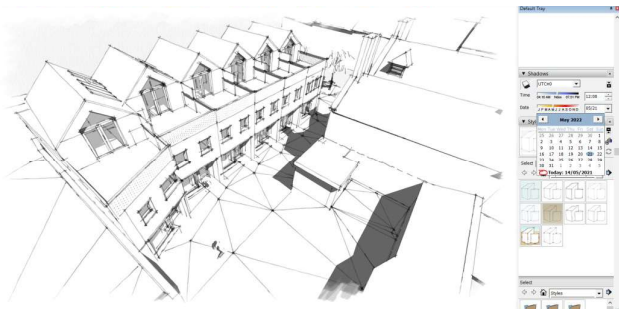
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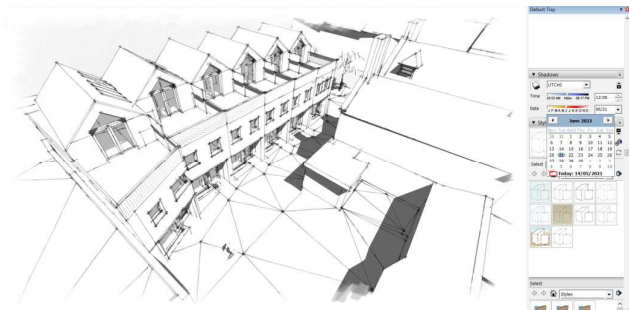
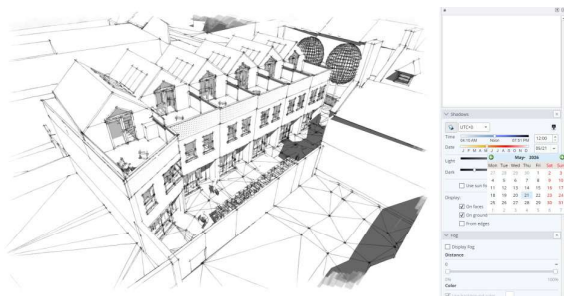
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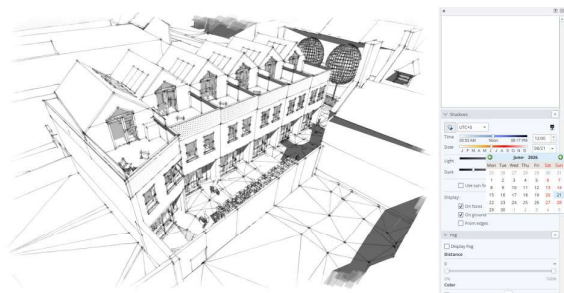
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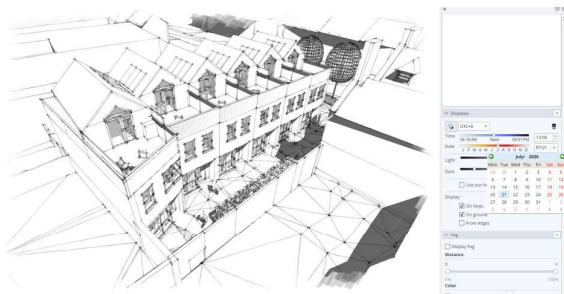
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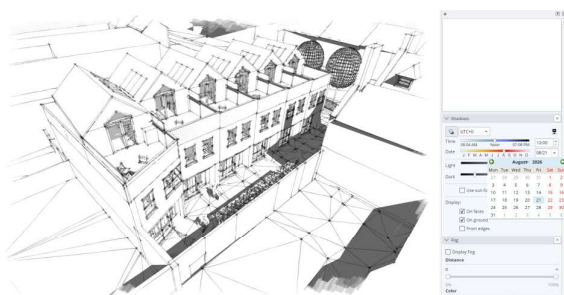
Midday 21 June

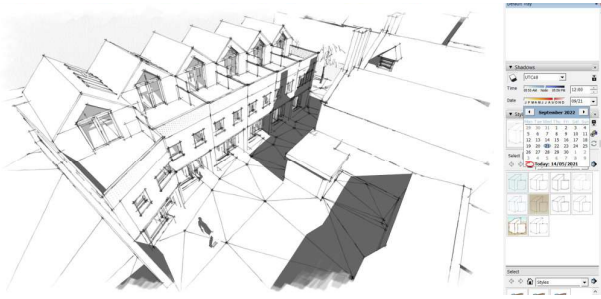


Midday 21 July

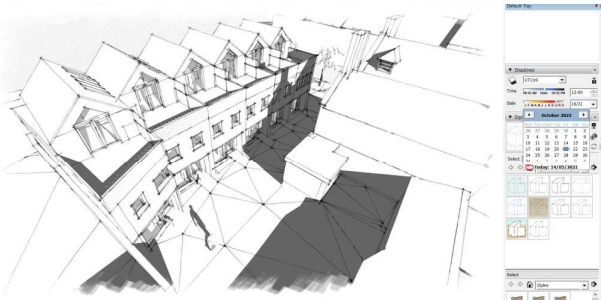
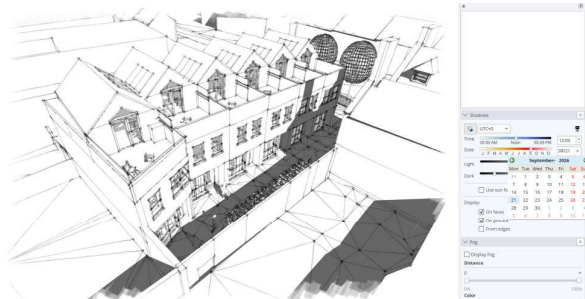


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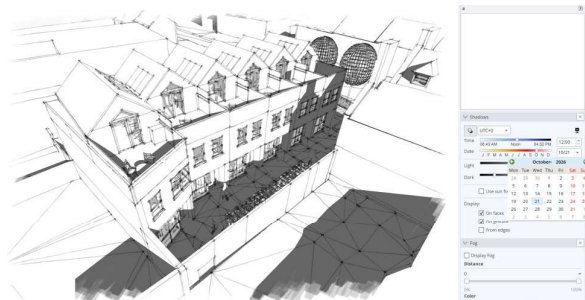




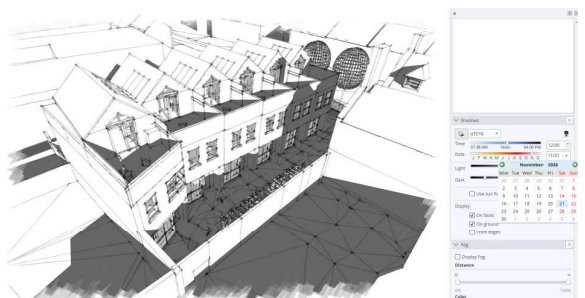
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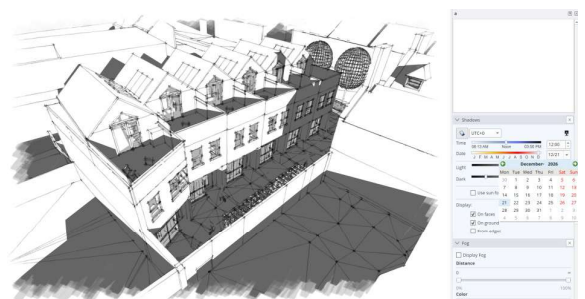
Midday 21 October



Midday 21 November



Midday 21 December



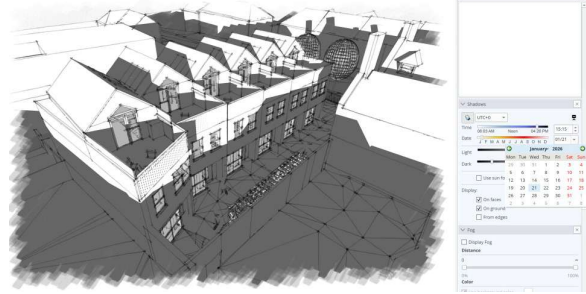
Monthly mid-afternoon day sunlight study

Original planning stage design

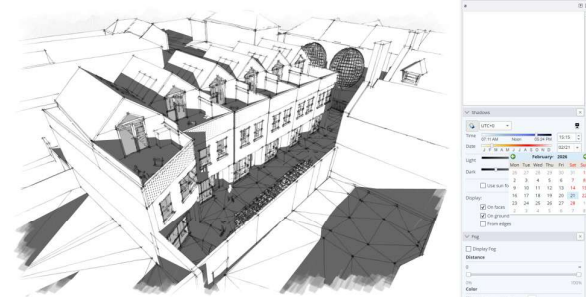


3:15pm 21 January

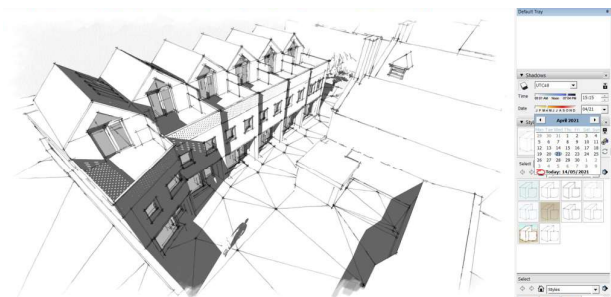
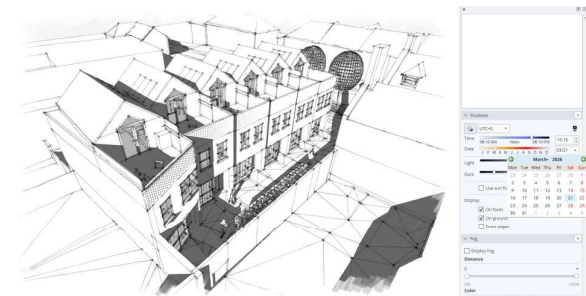
As built project with proposed changes



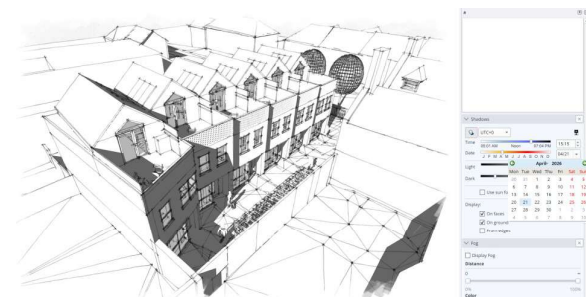
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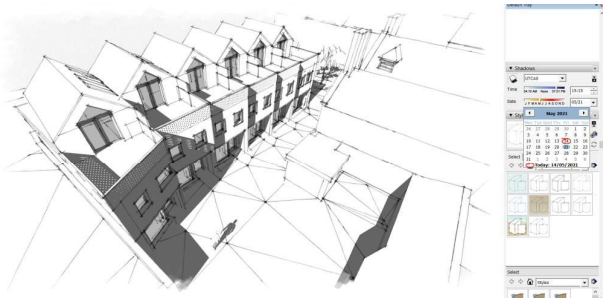


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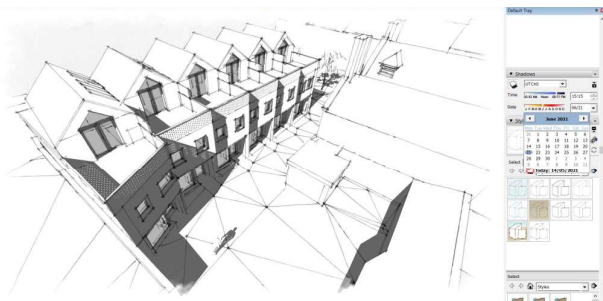
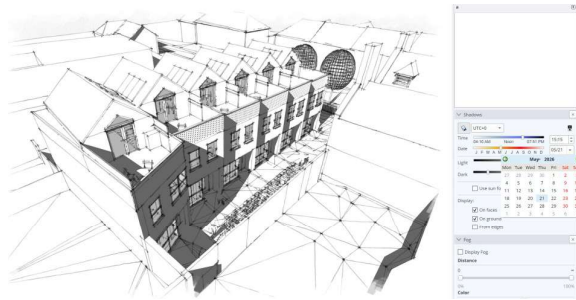


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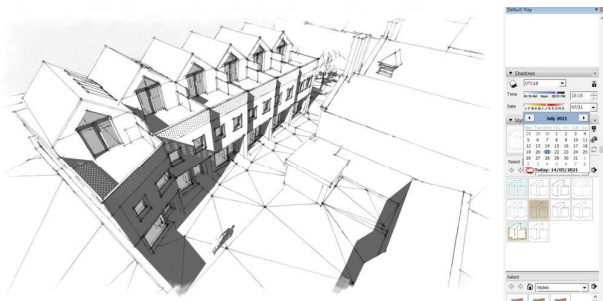
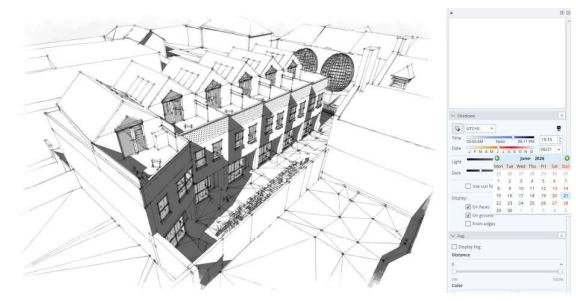




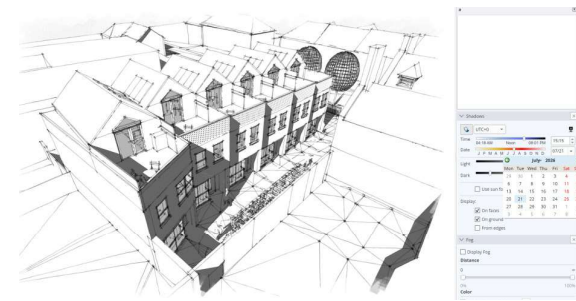
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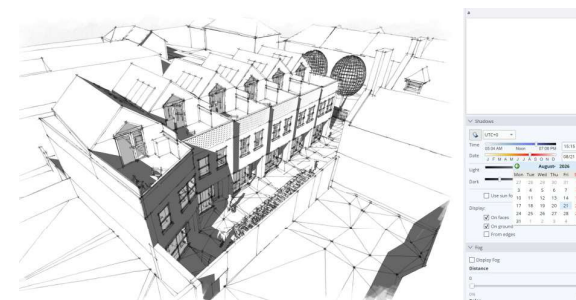
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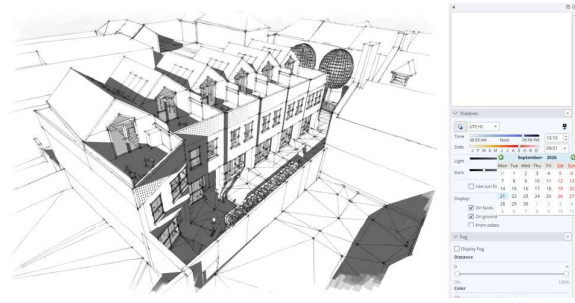


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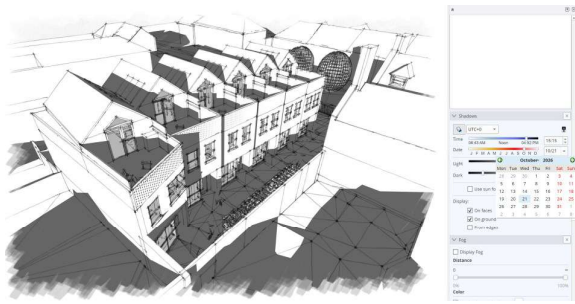


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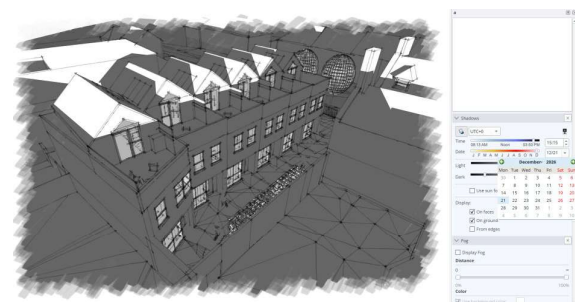
3:15pm 21 September



3:15pm October



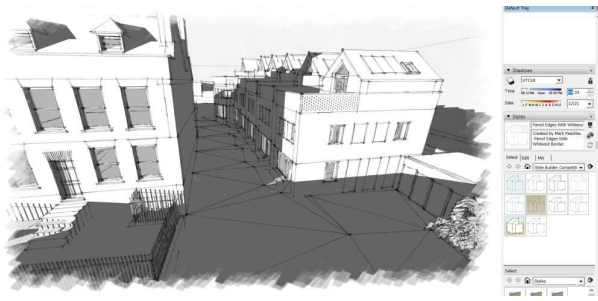
3:15pm 21 November



3:15pm 21 December

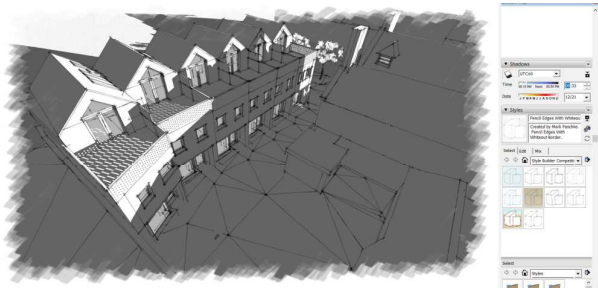
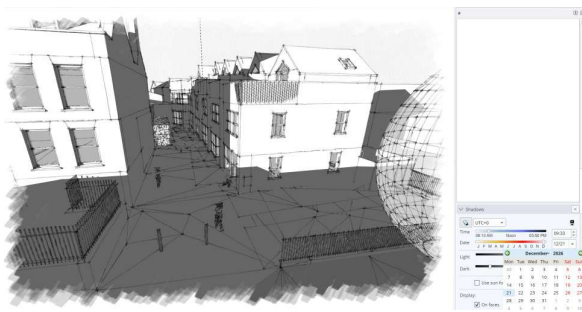
Mid Winter's day sunlight study

Original planning stage design

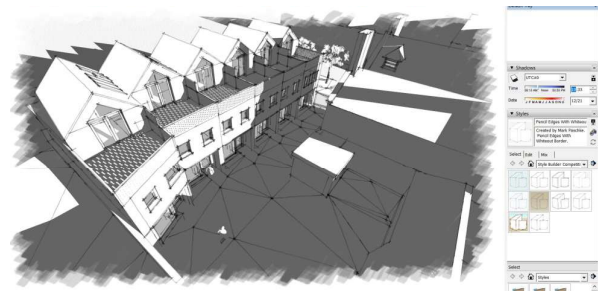
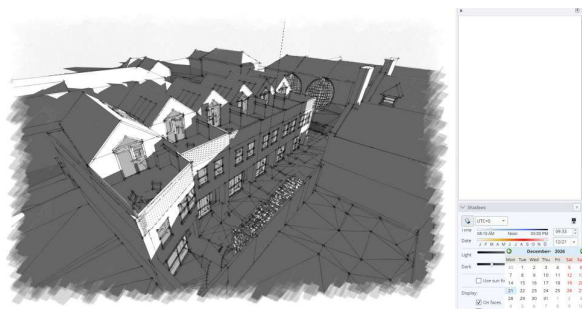


09:33am 21 December East Elevation

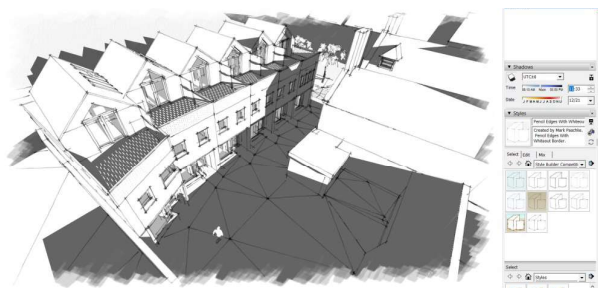
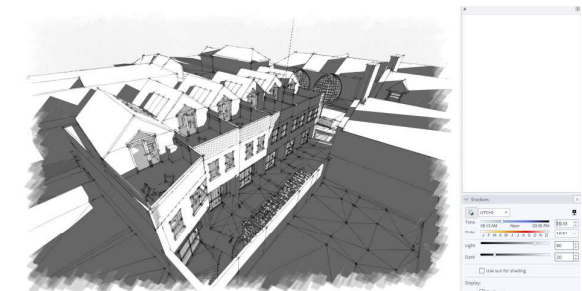
As built project with proposed changes



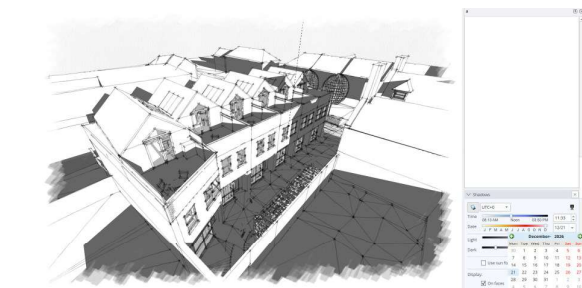
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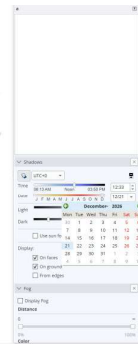
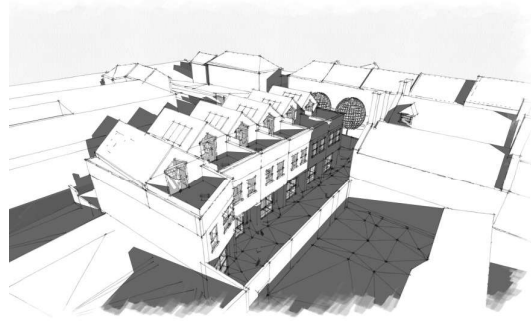
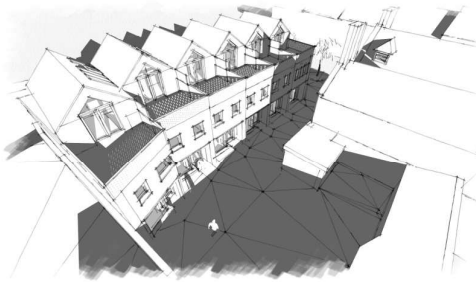


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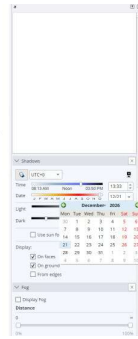
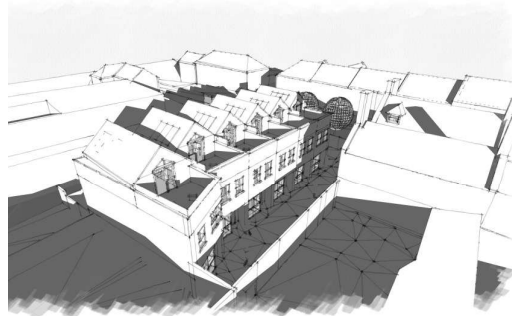


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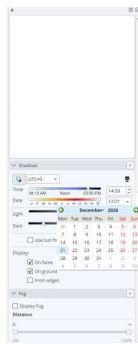
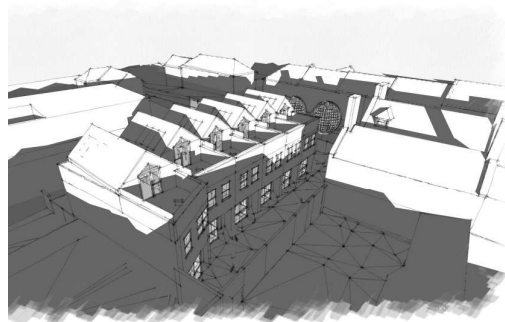




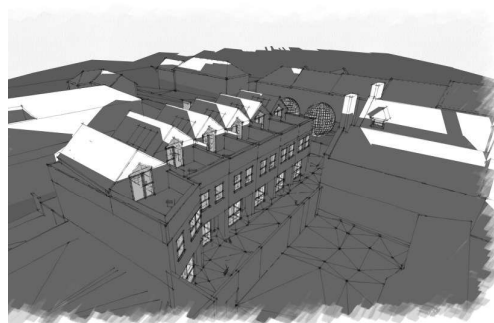
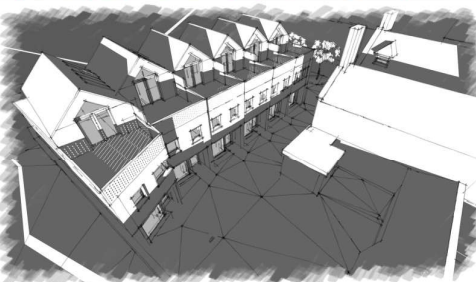
12:33pm 21 December



1:33pm 21 December



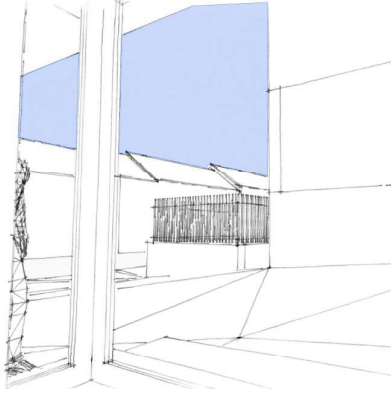
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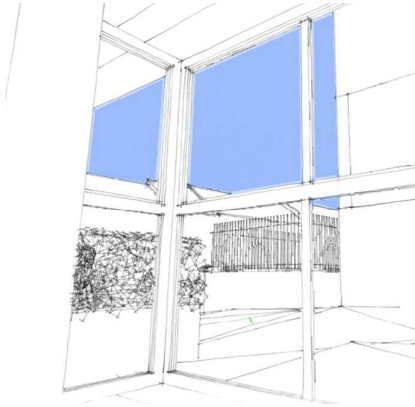
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House 1 Daylight study—view of the sky

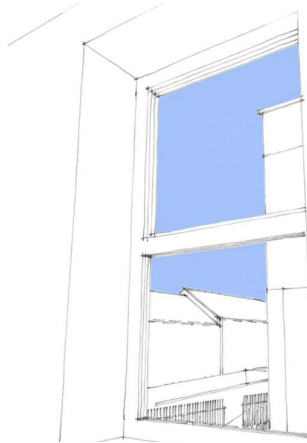
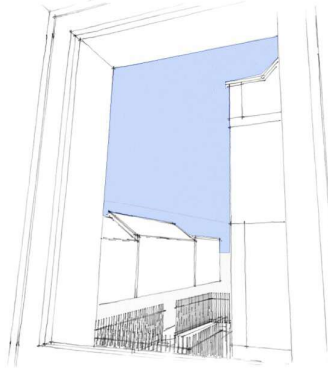
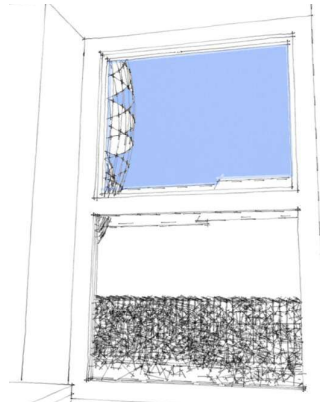
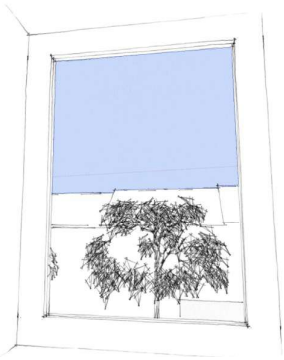
Original planning stage design



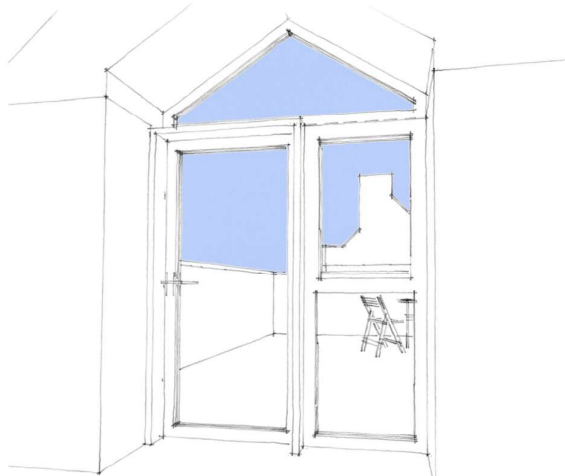
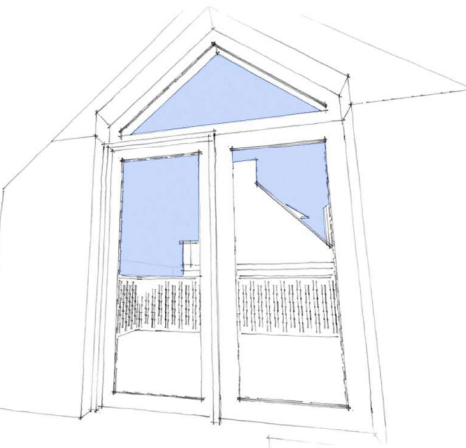
As built project with proposed changes



House 1 Living room sky view



House 1 First floor sky views



House 1 Second floor sky view

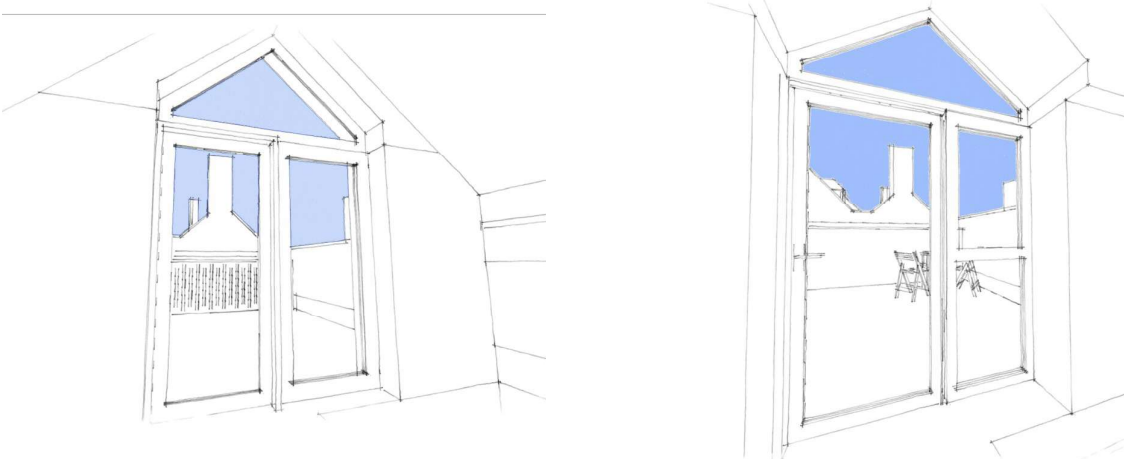
House 2 Daylight study—view of the sky



House 2 Living room sky view



House 2 First floor sky view

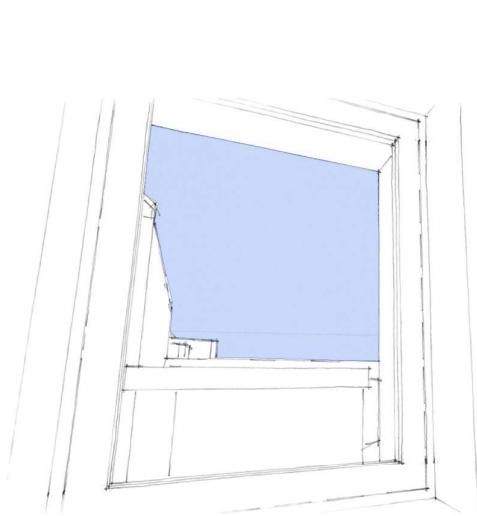
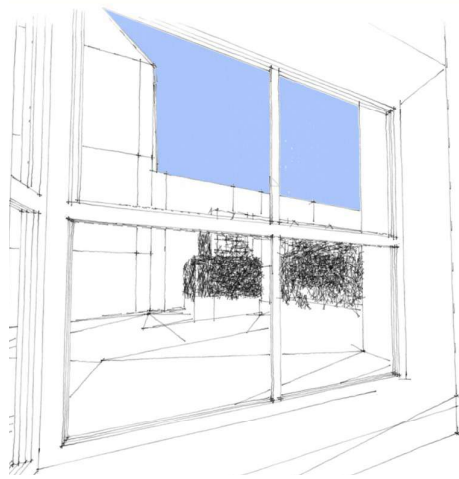


House 2 Second floor sky view

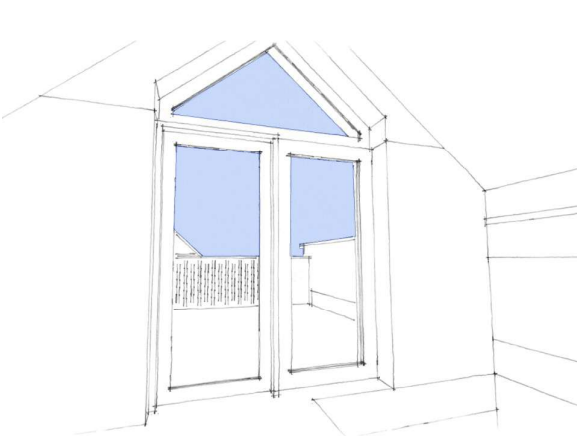
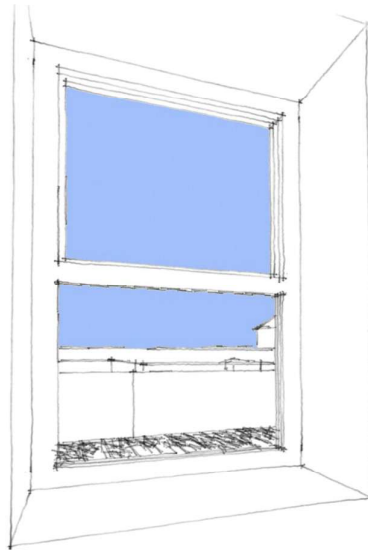
House 23Daylight study—view of the sky



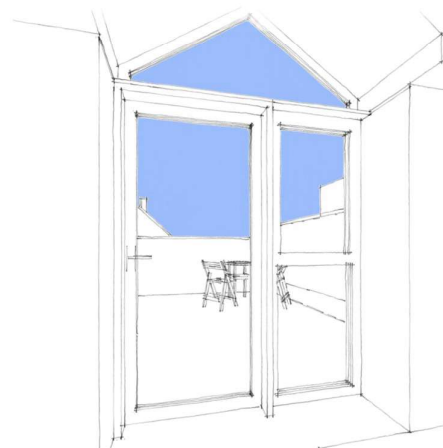
House 3 Living room sky view



House 3 First floor sky view

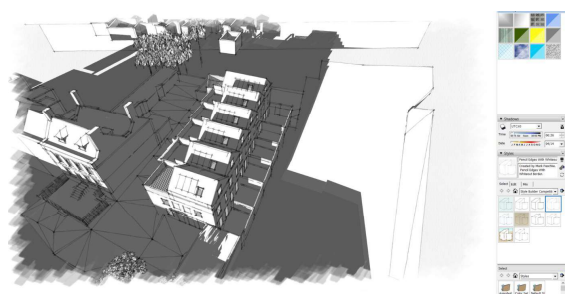


House 3 Second floor sky view



North facing Gardens

Original planning stage design



April morning

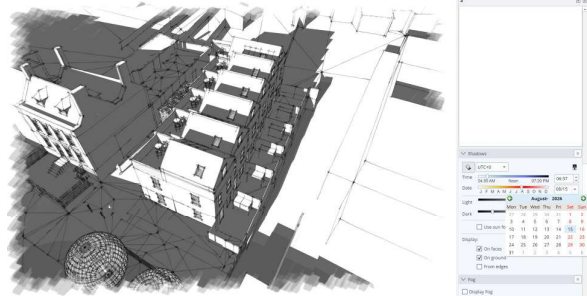
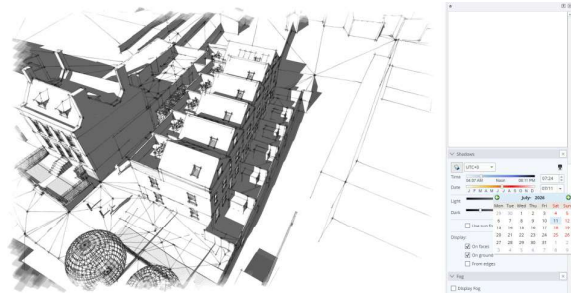
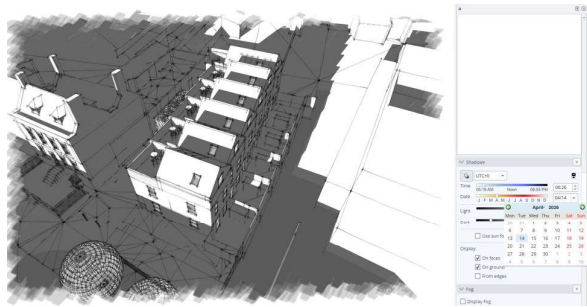


July morning



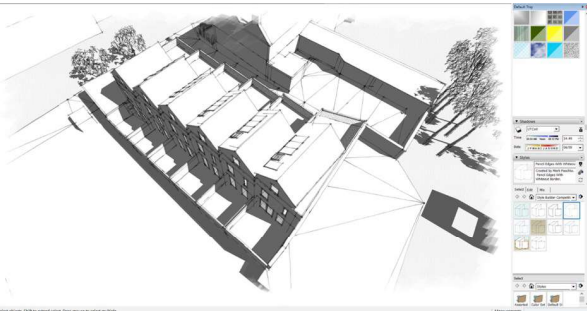
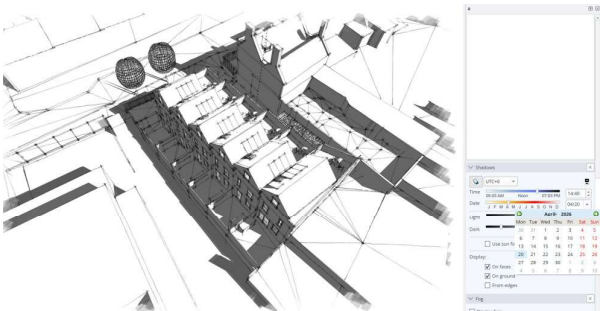
August morning

As built project with proposed changes

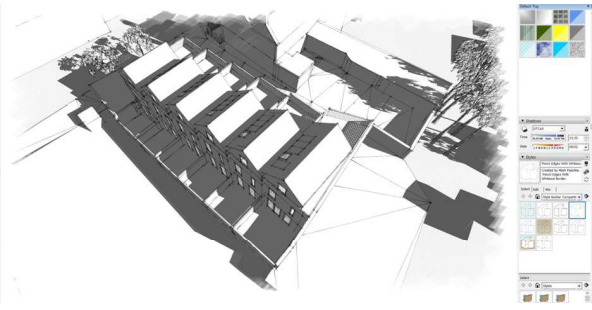
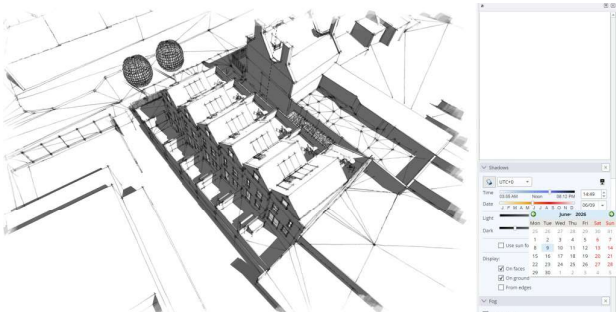




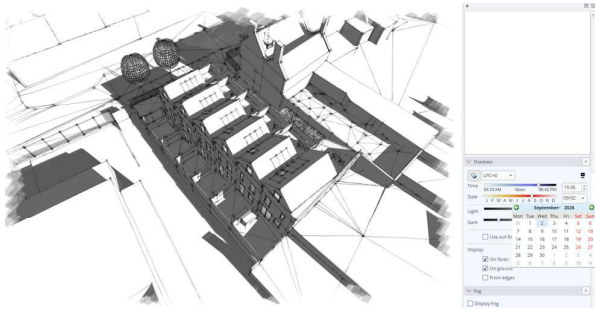
April afternoon



June afternoon



September afternoon



Conclusions

The original analysis shows that despite the adjacent shading of 50 Mount Pleasant, the proposal in general has high levels of solar access throughout the year. This is the case for both the approved design and the as built project with proposed changes. Although there are differences between the two, the as built project with proposed changes retains the key principles relating to design for solar access.

The main differences seen in the models are twofold:

Firstly, solar access to the external space between the listed building and the as built project with proposed changes is reduced compared to the original model. This is due to the wall between the rear of the listed building and the back of the site. The design at the time of the first model included for the demolition of this wall.

Secondly, the model of the as built project with proposed changes includes more detailed information on the surrounding properties, particularly those on Southampton Street. This explains the apparent increased overshadowing on winter afternoons.

As part of the original study, in order to improve the sunlight and daylight access to houses 1, 2 and 3, it was recommended that the window area is increased to compensate for the reduction in light levels due to overshadowing. It was suggested this could be done on the South elevation of houses 1, 2 and 3. This suggestion wasn't incorporated on the as built project with proposed changes. The South facing first floor fenestration area however was increased from the original model to taller windows on the as built project with proposed changes, helping to increase daylight to the internal spaces. The suggestion in the original report to add an additional window to the East elevation of house 1 was implemented on the as built project with proposed changes.

The shading study images show that the north facing gardens all receive some morning sun from April to August and afternoon/evening sun from April to September. This is the case for both the approved design and the as built project with proposed changes. As part of the occupant wellbeing strategy for the project, and in acknowledgement of the limited solar access to the private gardens, south facing roof terraces to each dwelling with year-round solar access remain on the as built project with proposed changes.