

1 CHURCH ROAD, HORNSEY, LONDON, N6 4QH

PROPOSED 2 STOREY INFILL DWELLING

DAYLIGHT & SUNLIGHT ASSESSMENT

INTRODUCTION

This report has been prepared in response to the Local Planning Authority's request for a Daylight, Sunlight, and Overshadowing Assessment in connection with the proposed redevelopment of land adjacent to 1 Church Road, Highgate, N6 4QH.

The proposal comprises a two-storey, two-bedroom residential dwelling on a previously underutilised infill site. The design includes a fully enclosed courtyard, front patio, and first-floor terrace, providing private external space while respecting the surrounding context.

The site lies within the Highgate Conservation Area, adjacent to 1 Church Road and directly alongside the four-storey residential building at 3-5 Church Road. The proposed dwelling shares the boundary with the tower block, with careful stepped massing and design measures to reduce visual bulk and maintain daylight and sunlight to neighbouring properties.

Given the modest scale of the proposed infill dwelling and the availability of a robust precedent assessment for the adjacent tower block, this report provides a proportionate and targeted review of daylight, sunlight, and overshadowing effects using 3D modelling and site-specific shadow analysis.

The adjacent building at 3-5 Church Road is of significantly greater scale than the proposed infill dwelling and has been previously assessed in a BRE-compliant Daylight, Sunlight, and Overshadowing study. This provides a robust contextual reference, demonstrating that the comparatively modest scale and limited shadow impact of the current proposal are unlikely to adversely affect neighbouring amenity.

METHODOLOGY

This assessment has been undertaken to evaluate potential impacts of the proposed dwelling on both internal daylight and sunlight within the new unit, as well as on neighbouring properties and gardens. The assessment follows the principles outlined in the Building Research Establishment (BRE) guidance: Site Layout Planning for Daylight and Sunlight (2011), with a proportionate approach reflecting the modest scale of the development. Given the small scale of the proposal and the limited potential for wide-ranging shadow impact, a proportionate qualitative assessment supported by shadow path modelling has been undertaken rather than a full quantitative BRE daylight factor analysis.

Assessment Approach

A 3D model of the site and immediate context was prepared, reflecting existing buildings, boundary walls, and proposed massing, including the courtyard, terrace, and front patio. Shadow analysis was carried out for key times of year:

- **Winter solstice (21 December)** – worst-case scenario for shadows
- **Spring / Autumn equinox (21 March / 21 September)** – typical conditions
- **Summer solstice (21 June)** – maximum sunlight potential

Times of day assessed: 09:00, 12:00, 15:00.

Site orientation: street-facing / front elevation is north; rear elevation is south-facing.

Neighbouring Properties Considered

1 Church Road: immediate neighbouring property to the east; rear garden and windows assessed for potential overshadowing or daylight loss.

3-5 Church Road: directly adjacent to the west; impact assessed by reference to the existing BRE-compliant report, as the tower block is of significantly greater scale than the proposed infill dwelling.

54 Talbot Road (garden): immediate neighbouring garden adjacent to the rear of the site

Other neighbouring properties (e.g., 4 Church Road across Church Road) have been excluded from detailed assessment, as shadows from the proposed dwelling do not reach these properties.

Internal Daylight and Sunlight

Assessment focused on habitable rooms within the proposed dwelling (two bedrooms and first-floor living/kitchen area).

The analysis considers window locations, ceiling heights (2.5 m), and daylight sources, including:

- North-facing courtyard
- Front street-facing windows
- First-floor French door and terrace

Overshadowing Assessment

Potential overshadowing of neighbouring gardens and external amenity spaces was reviewed using the 3D model and shadow diagrams. Focused on material impact, in line with BRE guidance, rather than minor or temporary shading.

INTERNAL DAYLIGHT ASSESSMENT

The proposed dwelling has been designed to maximise daylight penetration to all habitable rooms within the constrained infill site. The internal layout, window positioning, and material choices ensure that each space benefits from natural light while maintaining privacy. Window-to-floor area ratios and glazing proportions are appropriate for habitable rooms of this size and are consistent with typical BRE recommendations for adequate daylight provision.

Rear Bedroom

Receives north light via a fully enclosed courtyard (1.5 m × 2 m), which has white-painted brick walls to maximise light reflection into the room.

A 1.3 m × 2.3 m French door provides additional glazing, allowing maximum daylight penetration while giving direct access to the courtyard.

Courtyard and window arrangement overcome the constraints posed by adjacent boundaries and the neighbouring tower block, ensuring well-lit, functional accommodation.

Front Bedroom

Street-facing 1.2 m × 1.1 m north-facing window provides natural light to the room in addition to a 1.3 m × 2.3 m French door, enhancing daylight levels and sense of openness.

Room dimensions (largest width 3.5 m, narrowest 3.3 m; area 11.25 m²) are suitable for 2-person occupancy, ensuring comfortable and functional internal space.

First-Floor Living / Kitchen Area

Large 2.1 m × 2.3 m French sliding door provides primary daylight and direct access to the first-floor terrace, allowing unobstructed street views.

Elevated position enhances sunlight penetration and offers pleasant outdoor amenity without overlooking neighbouring properties.

Summary

All habitable rooms have been designed with sufficient window areas and ceiling heights (2.5 m) to ensure functional daylight levels throughout the day. The combination of courtyard, reflective white walls, large French doors, and additional street-facing window maximises internal daylight, while access to three private external spaces (courtyard, front patio, terrace) ensures a high standard of residential quality within a compact infill plot.

SHADOW & OVERSHADOW ANALYSIS

The following comparative shadow studies assess existing and proposed conditions at key times on 21 March (equinox), representing typical annual daylight conditions.

SHADOW PATH ANALYSIS

VIEW TIME - 21 MARCH 9:00



EXISTING SITUATION (WITHOUT PROPOSED DEVELOPMENT)



PROPOSED DEVELOPMENT

At 09:00 on 21 March, the proposed development does not introduce any additional overshadowing to neighbouring residential gardens. Shadowing is confined to the public highway (Church Road), and there is no material impact on surrounding private amenity areas.

SHADOW PATH ANALYSIS

VIEW TIME - 21 MARCH 12:00



EXISTING SITUATION (WITHOUT PROPOSED DEVELOPMENT)



PROPOSED DEVELOPMENT

At 12:00 on 21 March, the proposal introduces a limited shadow (approx. 1.0m) to a 2.1m wide peripheral garden strip at No. 1 Church Road, with the principal 3.2m x 3.8m amenity area remaining largely unaffected. An existing 2m boundary fence (not modelled) would cast a comparable shadow into this strip under the same conditions, and the proposal therefore represents only a negligible change over the existing baseline.

SHADOW PATH ANALYSIS

VIEW TIME - 21 MARCH 15:00



EXISTING SITUATION (WITHOUT PROPOSED DEVELOPMENT)



PROPOSED DEVELOPMENT

At 15:00 on 21 March, the proposed development does not result in any additional overshadowing to neighbouring gardens. All shadowing within adjacent amenity areas falls within the existing shadow envelope cast by 3-5 Church Road.

CONCLUSION

The proposed two-storey infill dwelling is modest in scale and sensitively designed to maximise internal daylight and sunlight through well-proportioned windows, French doors, and a reflective courtyard. Overshadowing of neighbouring gardens is negligible, largely confined to minor peripheral strips, and falls well within the existing shadow envelope cast by the adjacent four-storey building at 3–5 Church Road. Overall, the scheme delivers a high-quality, well-lit home while protecting neighbouring amenity and respecting the character of the Highgate Conservation Area.