WIND MICROCLIMATE

IMPACT OF UPDATE TO CUMULATIVE SCHEMES

Weston and Pendulum

IQ Student Accommodation

17/07/2026

GIA No: **22885** Ref: **JW/22885**

WESTON AND PENDULUM - IMPACT OF ADDITIONAL CUMULATIVE SCHEME

Introduction & Background

This report has been prepared by GIA to demonstrate the impacts of the addition of the "Plot H, Sister" scheme (app ref. PLA-2026-000312) to the cumulative Wind Microclimate Assessment for the Proposed Development at Weston and Pendulum, Manchester.

GIA provided a Wind Microclimate Assessment to support the planning application, which was reported as Chapter 9 in the submitted Environmental Statement. These found that all wind microclimate effects were negligible (not significant).

Additionally, a cumulative scenario was reported in Appendix 9.2, which found that cumulative wind microclimate effects were also negligible (not significant).

The cumulative scenario which was reported in Appendix 9.2 accounted for the demolition of the existing car park on the neighbouring plot to the north of the site, but did not account for the Plot H, Sister scheme which is proposed to replace the car park (as this had not been submitted for planning at the time of writing).

Updated Assessment

This report shows the results of an additional Computational Fluid Dynamics (CFD) scenario with the Plot H, Sister scheme included as a cumulative scheme.

Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter) is shown in Figure 1 of this report, the Proposed Development in Updated Cumulative Surrounds (with Plot H, Sister included) is shown in Figure 2.

Wind Microclimate Conditions

Wind safety conditions for the Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter) are shown in Figure 3, and wind safety conditions for the Proposed Development in Updated Cumulative Surrounds (with Plot H, Sister included) are shown in Figure 4.

The windiest season conditions for the Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter) are shown in Figure 3, and windiest season conditions for the Proposed Development in Updated Cumulative Surrounds (with Plot H, Sister included) are shown in Figure 4.

Summer conditions for the Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter) are shown in Figure 5, and Summer conditions for the Proposed Development in Updated Cumulative Surrounds (with Plot H, Sister included) are shown in Figure 6.

There are no exceedances of the wind safety criteria either on or around the site, for either of the scenarios reported herein.

It is apparent that, in general, wind microclimate conditions are consistent between the two scenarios tested, with a slight increase in windiness between the Weston and Pendulum and Plot H, Sister sites, and slightly calmer conditions to the north of the Plot H, Sister site.

Conditions are of the same level for all of the sensitive wind receptors which were reported in the 2025 ES Chapter, with the exception of the bus stop directly north of the site on Charles Street. Conditions for this receptor were suitable for sitting in the windiest season for the original cumulative assessment, and are suitable for standing in the windiest season for the updated cumulative assessment. This is still suitable for the intended use so represents a negligible wind effect (not significant).

In terms of introduced receptors around Plot H, Sister scheme, the entrances to this scheme (marked H in Figures 4, 6 and 8) are suitable for sitting or standing in the windiest season, and the introduced amenity (marked A3) is suitable for sitting in summer. These are both suitable for the intended use so represent a negligible wind effect (not significant).

Conclusion

The inclusion of the Plot H, Sister cumulative scheme does not have a material impact on wind conditions on and around the Weston and Pendulum site.

All in-combination effects between Weston and Pendulum and Plot H, Sister are Negligible (not significant).

All in-combination effects between Weston and Pendulum and all Cumulative Projects are also Negligible (not significant).



Fig. 01: Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter)



Fig. 02: Proposed Development in Updated Cumulative Surrounds (with "Plot H, Sister" included)

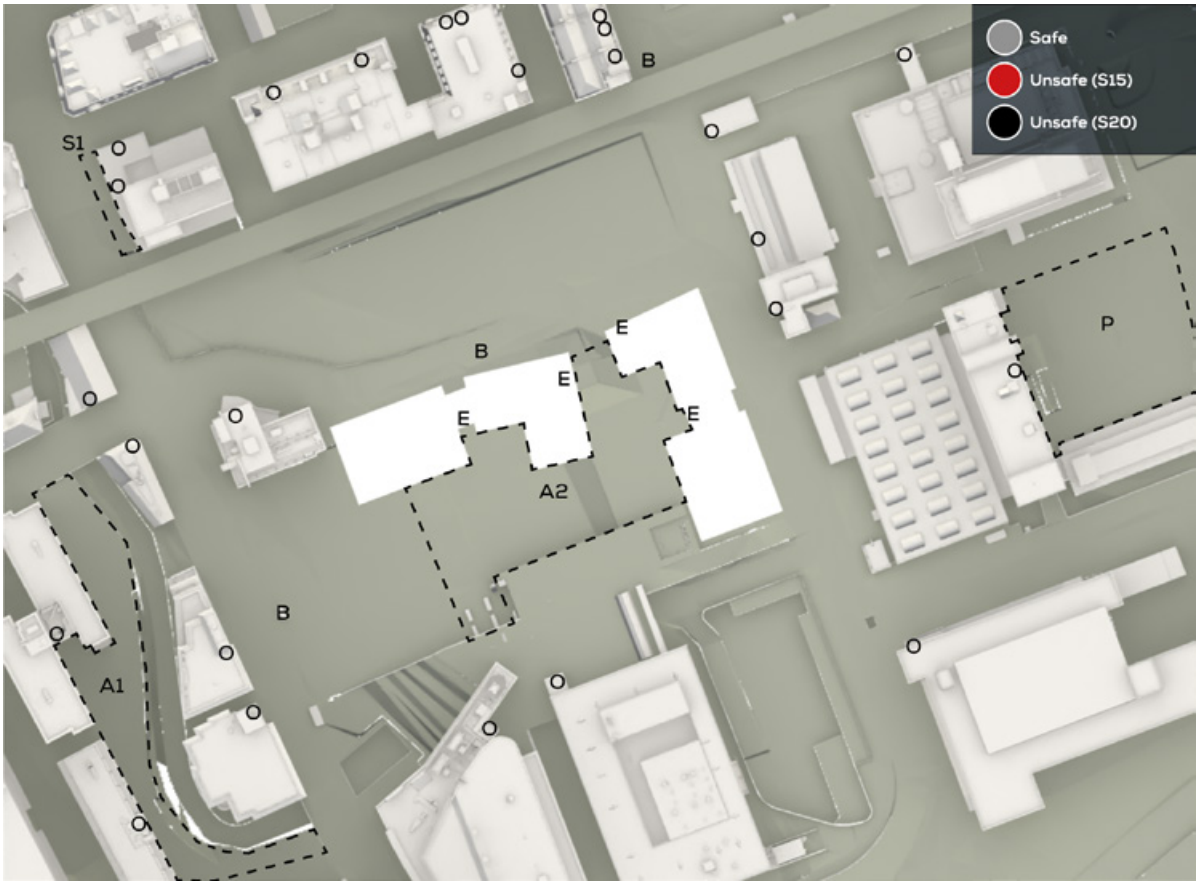


Fig. 03: Wind Safety Risk for Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter)

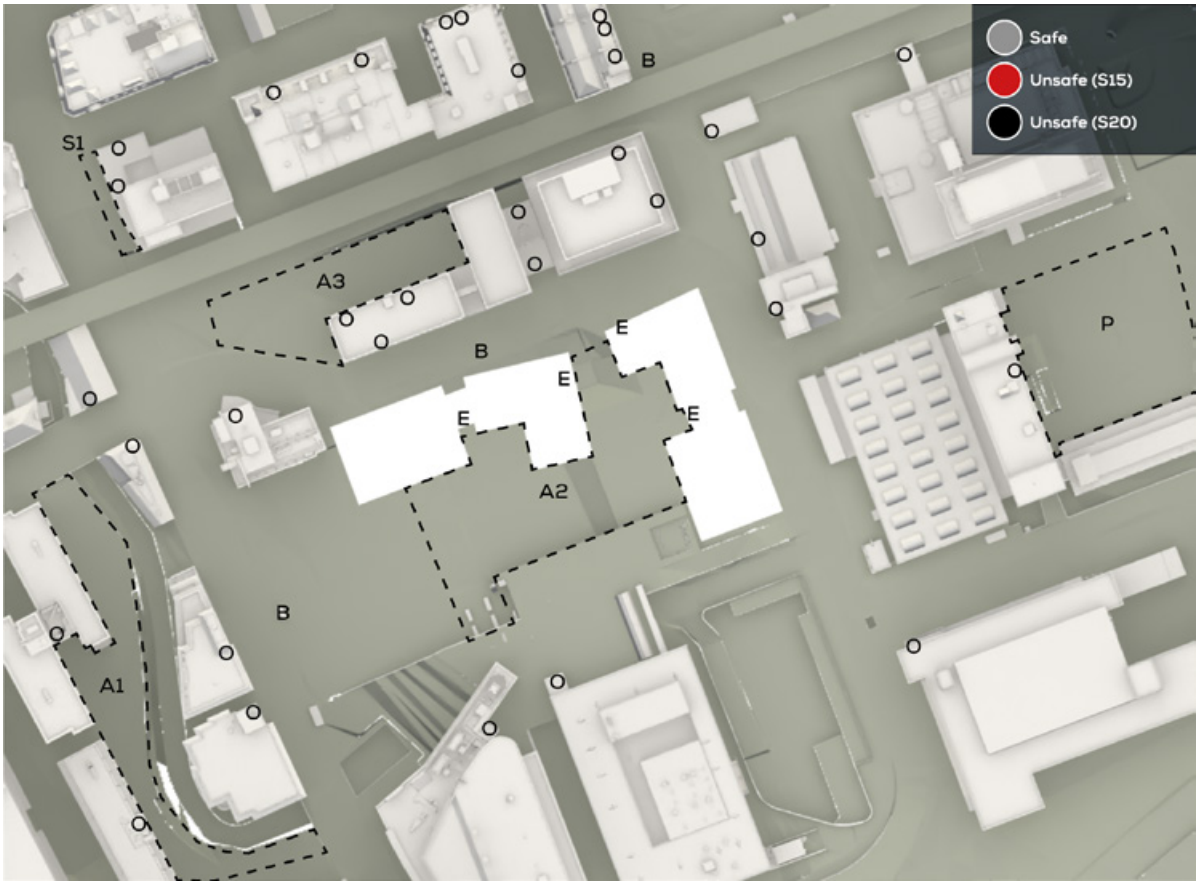


Fig. 04: Wind Safety Risk for Proposed Development in Updated Cumulative Surrounds (with "Plot H, Sister" included)

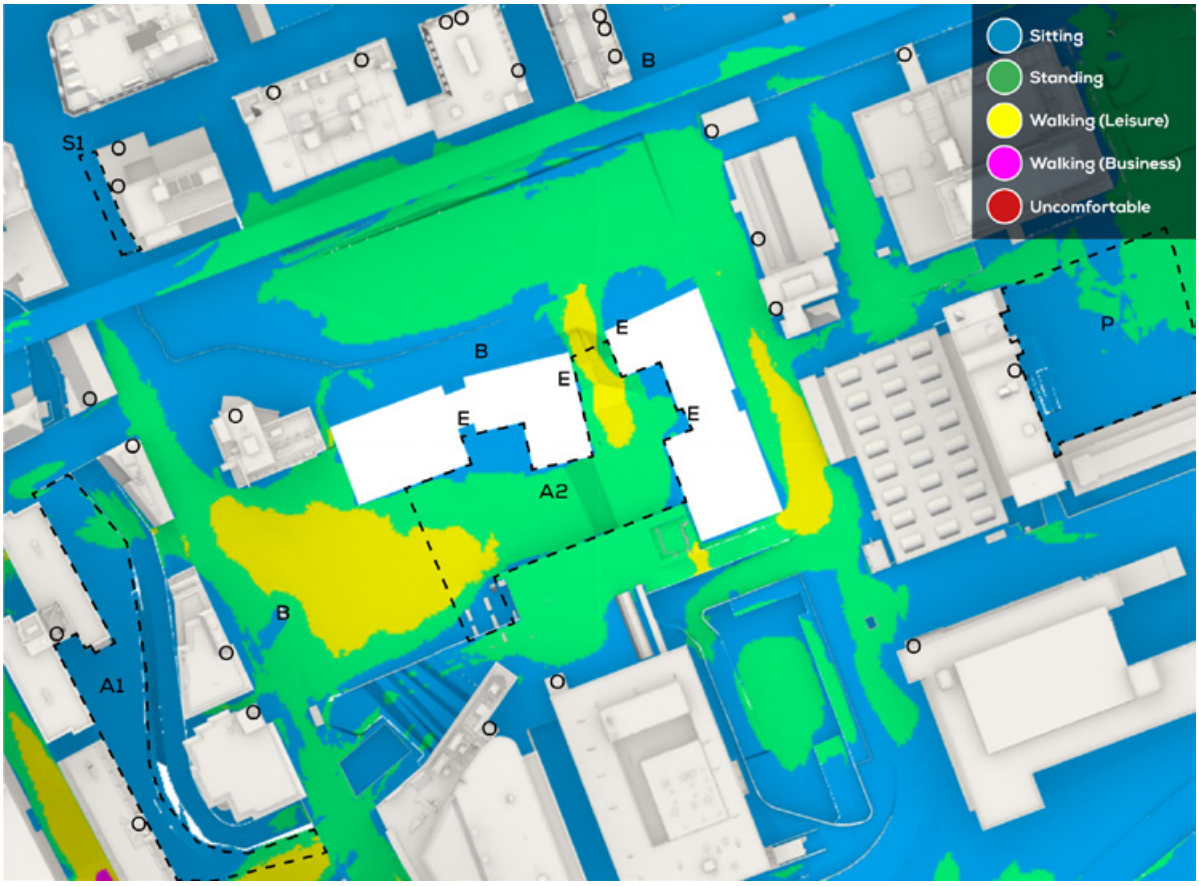


Fig. 05: Windiest Season Conditions for Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter)

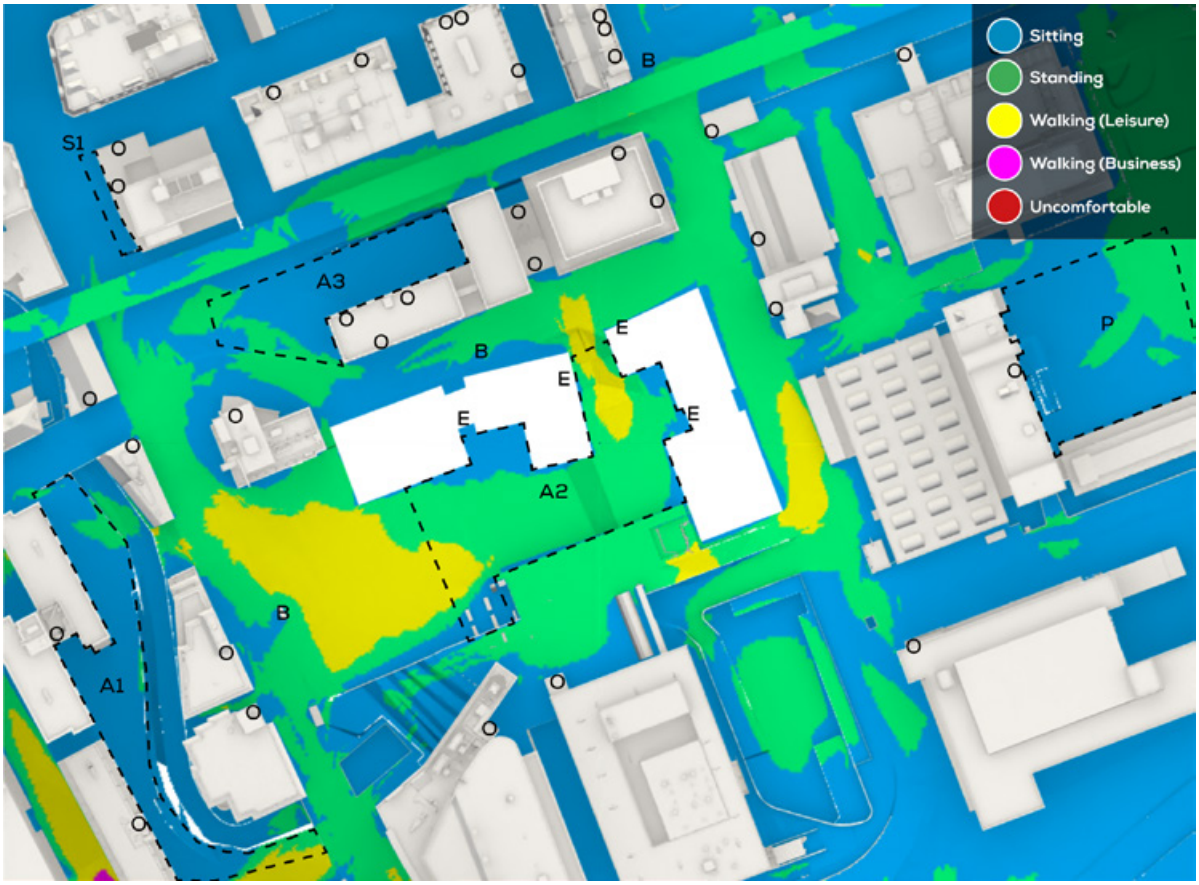


Fig. 06: Windiest Season Conditions for Proposed Development in Updated Cumulative Surrounds (with "Plot H, Sister" included)

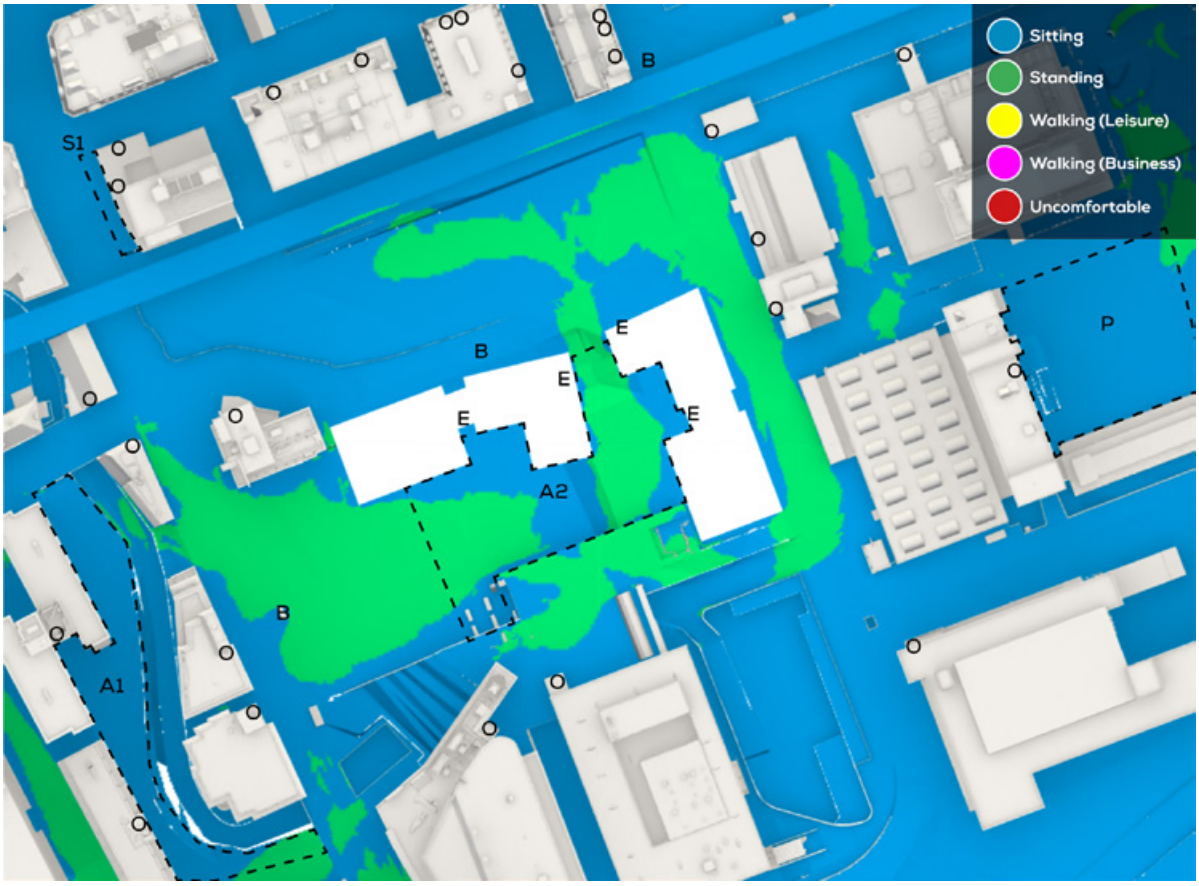


Fig. 07: Summer Conditions for Proposed Development in Cumulative Surrounds (as reported in 2025 ES Chapter)

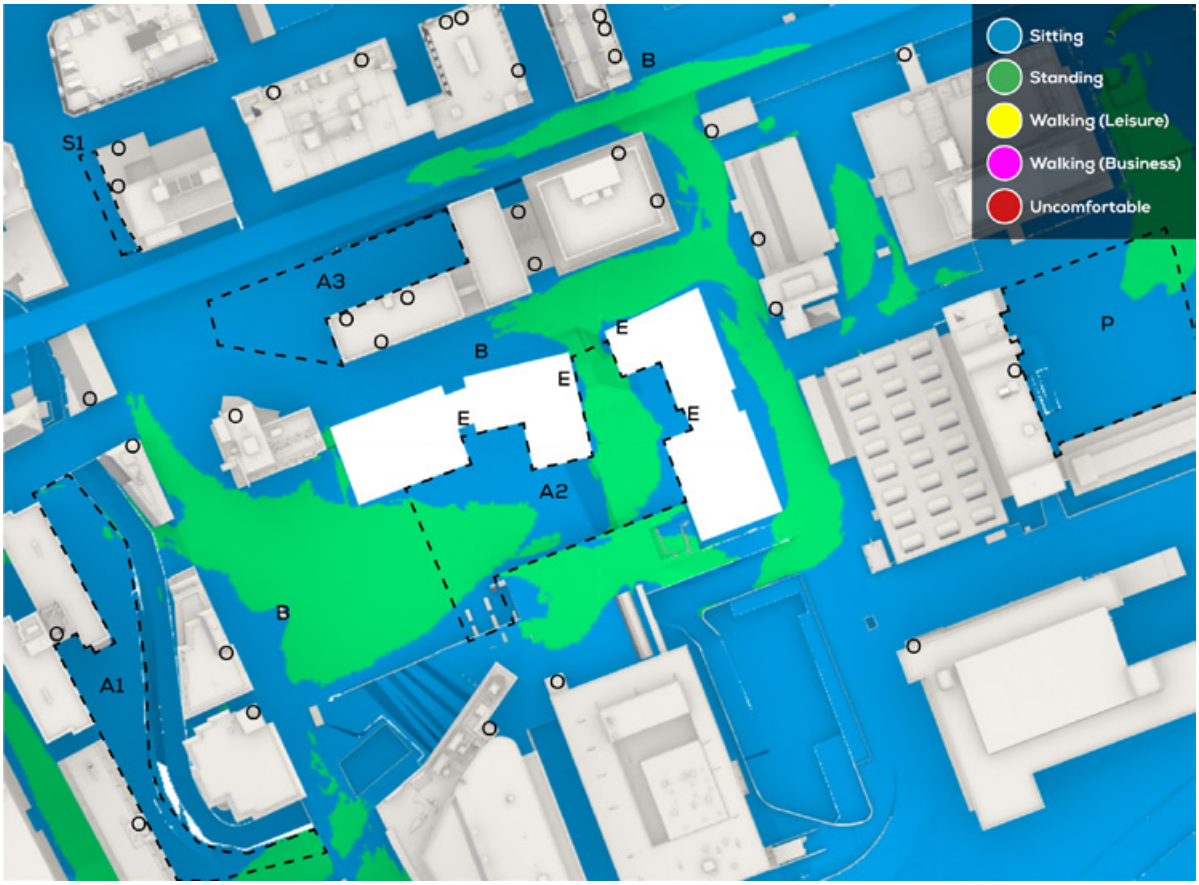


Fig. 08: Summer Conditions for Proposed Development in Updated Cumulative Surrounds (with "Plot H, Sister" included)

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What we do:

Climate & Resilience
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Flood Risk & Drainage
Light Obstruction Notices
Measured Surveys
Party Wall & Neighbourly Matters
Rights of Light
Solar PV
Wind Analysis

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