



By Email

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Dear Matthew

New Bird Street, Liverpool – Courtyard Daylight Levels

I write further to our recent conversation in connection with the above.

We have been instructed to consider the potential changes in the daylight levels between the previous Miami Limited application, and the current revised design.

We have reviewed a copy of the original Daylight Report dated February 2017 and prepared by Gray Scanlan Hill. The report considered the ADF daylight levels to the habitable rooms within the internal courtyard. It concluded that 69% of the bedrooms and 52% of the living kitchen diners (LKDs) would achieve the ADF targets set out in *BS8206-2: 2008 Lighting to Buildings: Code of Practice for Daylighting*.

The rooms that did not meet the targets were predominantly located on the first and second floors.

For context, the ADF method of assessment considers the following factors:

- The diffuse visible transmittance of the glazing to the room in question (i.e. how much light gets through the window glass);
- The net glazed area of the window in question;
- The total area of the room surfaces (ceiling, walls, floor and windows); and
- The angle of visible sky reaching the window(s) in question.

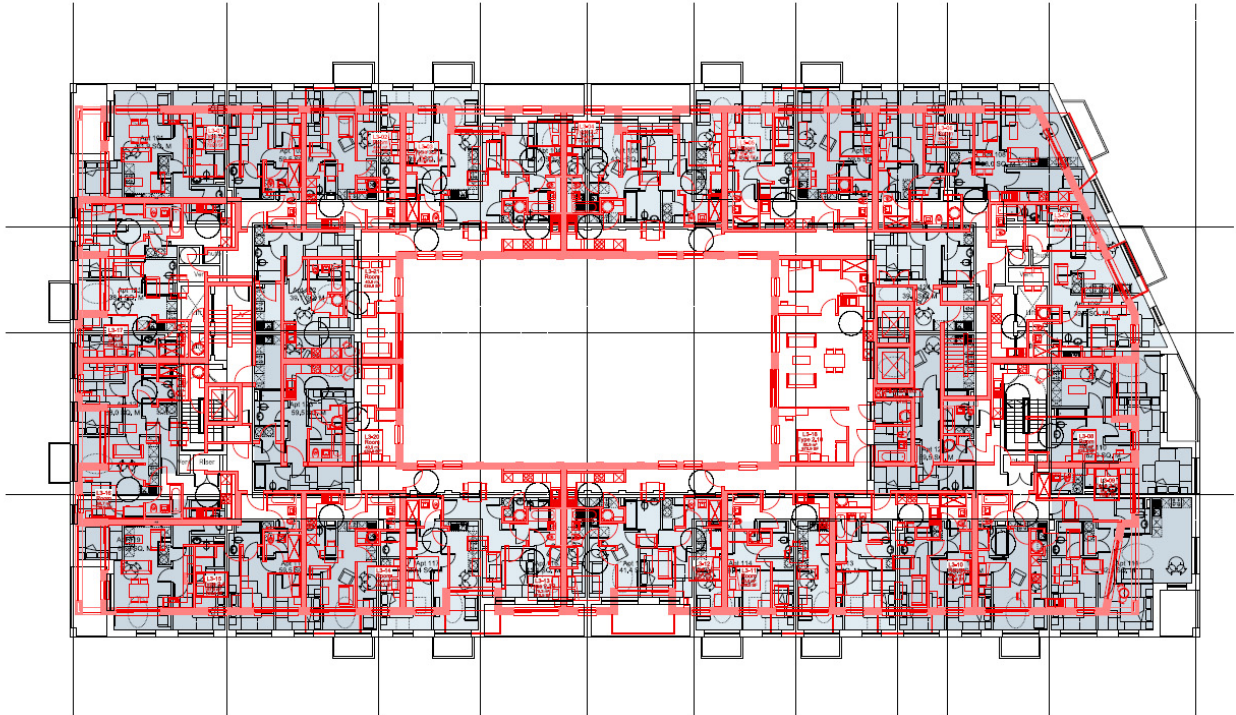
The design changes can be summarised as follows:

- Internal courtyard has been enlarged;
- The building is 0.5m higher overall;
- The internal configuration of the apartments facing onto the courtyard has changed; and
- Windows have changed.

As the ADF value is a function of the volume of the rooms, the layouts changes will have an overall improvement to the pass rate. Deep single aspect rooms have been minimised, particularly with the introduction of shallower two-bed units, with larger windows, replacing the deep, single aspect one-bedroom apartments on the eastern elevation.

The circulation spaces have also now been separated from the LKDs, which will reduce the overall volume of the rooms, improving the reflected daylight, and increasing the ADF levels.

The significant increase in the size of the courtyard is likely to have the largest benefit. The drawing extract below shows the extent of the increase, with the former design shown in red, overlaid on the current designs:



The increased separation distance will improve the angle of visible sky to the lower apartments, which receive the lowest ADF levels in the previous design. This improved angle, along with the changes in windows and layouts, means that all the lower level flats will achieve better ADF levels than those identified in the Gray Scanlan Hill report.

We expect that the minor increase in height will have no meaningful negative impact on the daylight levels.

Conclusion

Having reviewed the former technical analysis and design, against the design changes, in our opinion the ADF levels within all the habitable rooms overlooking the courtyard will improve substantially.

Yours sincerely
For and on behalf of GIA

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