

Analysis Methodology

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Construct Virtual Model

Construct a 1:1 3D virtual model of the site incorporating the existing development and surrounding existing buildings.

Construct a 1:1 3D virtual model of the site incorporating the proposed development and surrounding existing buildings.

Figures 7 and 8 present an overview of the model with the existing buildings and proposed development in place.

Daylight Analysis

Existing Adjacent Buildings

Process two radiosity based computational simulations, the base and proposed conditions, to analyse the amount of direct daylight on test planes that correspond to window locations on the adjacent buildings. The simulations use a CIE diffuse photometric sky corrected for 12.00 on the summer solstice, 21st of June.

Post processing of the analysis images / data and assessment of the light level variance on the test planes.

Sunlight Analysis

Process two radiosity based computational simulations, the base and proposed conditions, to graphically assess the sunlight access around the site. The simulations use a CIE clear photometric sky corrected for the spring equinox, 21st of March, the summer solstice, 21st June and winter solstice, 21st December. Additional dates from the first assessment, March 2001, have been simulated with the revised architecture for the proposed development.

Post processing of the analysis images and assessment of the shadow conditions.

Assumptions

The location and size of the proposed development and surrounding buildings have been provided to Faber Maunsell in electronic model format by the project architect. The heights of the surrounding buildings have been provided to Faber Maunsell in electronic model format by the design team surveyor. The location and size of the buildings that will be replaced by the proposed development were determined from site survey and aerial photographs.

The average reflectance of the proposed development, base conditions and ground is assumed to be 0% to create a shadow mask ensuring only direct light is assessed.

Figure 7 - Overview of the model with the base buildings in place

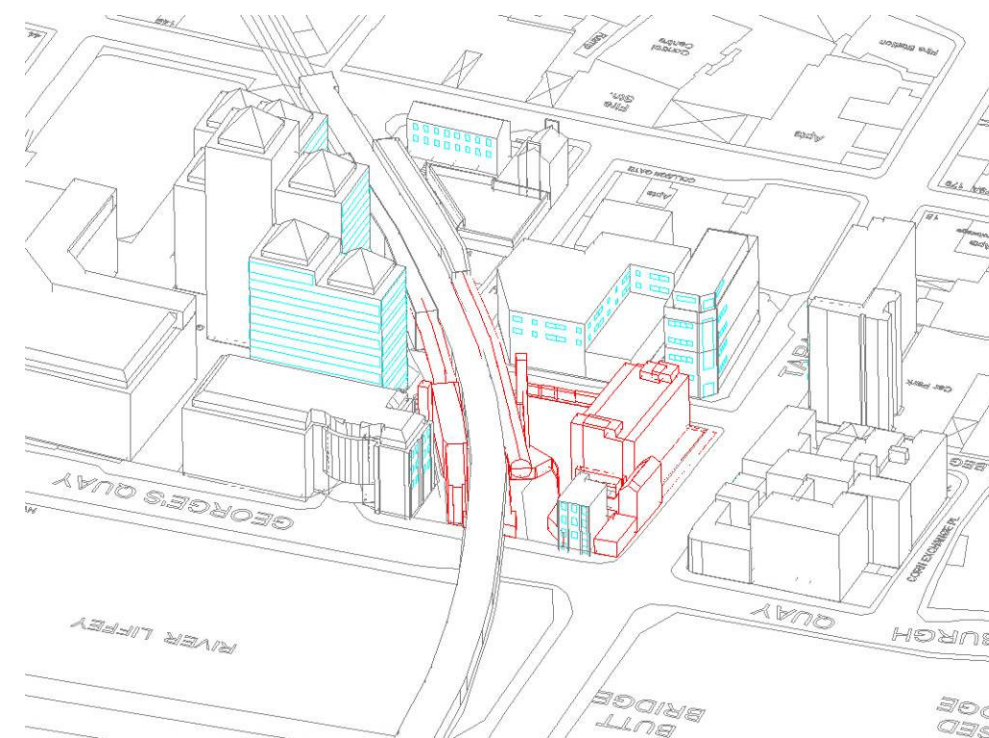


Figure 8 - Overview of the model with the proposed development in place

