∇IRTU∆L IDE∆S

338 Pitt Street
Public Domain View Impact Study

Public Domain View Impact Study

BACKGROUND

This document was prepared by Virtual Ideas and includes a methodology of the processes used to create the visual impact photomontages and illustrate the accuracy of the results.

Virtual Ideas is an architectural visualisation company that is highly experienced at preparing visual impact assessment media to a level of expertise that is suitable for both council submission and use in court.
Virtual Ideas is familiar with the court requirements to provide 3D visualisation media that will accurately communicate a proposed developments' design and visual impact.

Virtual Ideas' methodology and results have been inspected by various experts in relation to previous visual impact assessment submissions and have always been found to be accurate and acceptable.

OVERVIEW

The general process of creating accurate photomontage renderings involves the creation of an accurate, real world scale digital 3D model.

Site photography is captured from specified positions on location. The camera positions are surveyed to identify the MGA coordinates at each position. Additional reference points are also surveyed at each camera location to assist in aligning our 3D camera to the real world camera position.

Cameras are then created in the 3D scene to match the locations and height of where the photographs were taken from. The lens data stored in the metadata of the photograph is also referenced for accuracy.

The cameras are then aligned in rotation so that the surveyed points of the 3D model align with the corresponding objects that are visible in the photograph.

A realistic sun and skylight light system is then created in the 3D scene and matched to the precise time and date of each photograph as noted in the metadata of the photos.

3D renderings of the indicative new building or envelope are then created from the selected cameras at the exact pixel dimensions and aspect ratio of the original digital photograph.

The 3D renderings are then placed into the digital photography to show the envelope of the proposed building in context.

DESCRIPTION OF COLLECTED DATA

To create the 3D model and establish accurate reference points for alignment to the photography, a variety of information was collected.

This includes the following:

1) 3D model of proposed Stage 1 DA building envelope including 10% height bonus
   - Created by: FJMT
   - Format: Din3D model

2) 3D model of proposed Stage 2 DA building
   - Created by: FJMT
   - Format: Din3D model

3) 3D models of surrounding approved Stage 1 and Stage 2 DA building envelopes
   - Created by: FJMT
   - Format: Din3D model

4) Camera location and alignment point surveyed data (Appendix A)
   - Created by: Lockley Registered Surveyor NSW
   - Format: DWG files

5) Site photography
   - Created by: Virtual Ideas
   - Format: JPEG and NEF files

METHODOLOGY

Site Photography

Site photography was taken from predetermined positions in reference to key viewlines noted in the City of Sydney's Central Sydney Planning Strategy. All photographs were taken using a Canon EOS 5DS R digital camera, using a 16mm lens, with the camera approximately 1.6m above the ground level.

The positions of the photographs were surveyed and then plotted onto a survey drawing in DWG format.

3D Model

Using the imported surveyed data into our 3D software (3DS Max) as reference, we then imported the supplied 3D models of the Stage 1 DA building envelope including 10% height bonus, the Stage 2 DA building model and the 3D models of surrounding approved Stage 1 and Stage 2 DA building envelopes.

Alignment and 3D Camera Set-up

The positions of the real world photography were located in the 3D scene. Cameras were then created in the 3D model to match the locations and height of the position from which the photographs were taken. They were then aligned in rotation so that the points of the 3D model aligned with the corresponding objects that are visible in the photograph.

Renderings of the building massing were then created from the aligned 3D cameras and montaged into the existing photography at the same location. This produces an accurate representation of the scale and position of the proposed building envelope with respect to the existing surroundings.

A 50mm crop frame is also shown over some images. This is to offer an alternate viewing frame, as a 50mm camera lens is widely regarded as a closer equivalent to the human eye's interpretation of perspective.

CONCLUSION

In conclusion, it is my opinion as an experienced, professional 3D architectural and landscape renderer, that the images provided accurately portray the level of visibility and impact of the proposed building envelope and building design.

Yours sincerely,
Grant Kolln

CV of Grant Kolln, Director of Virtual Ideas

Personal Details

Name: Grant Kolln
DOB: 07/09/1974
Company Address: Suite 71, 61 Marlborough St, Surry Hills, NSW, 2010
Phone Number: 02 8399 0222

Relevant Experience

2003 - Present   Director of 3D visualisation studio Virtual Ideas. During this time, Grant has worked on many visual impact studies for council and planning submission for projects across various different industries including architectural, industrial, mining, landscaping, and several large public works projects. This experience has assisted Grant to develop a highly accurate methodology for the creation of visual impact media and report creation.

1999 - 2001   Project Manager for global SAP infrastructure implementation - Ericsson, Sweden

1999 - 1999   IT Consultant - Sci-Fi Channel, London

1994 - 1999   Architectural Technician, Thomson Adsett Architect, Brisbane QLD.

Relevant Education / Qualifications

1997   Advanced Diploma in Architectural Technology, Southbank TAFE, Brisbane, QLD
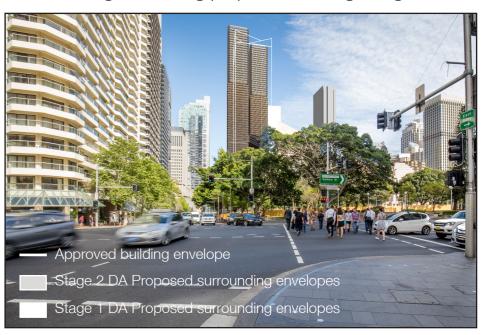
VIRTUΛL IDEΛS

Original photograph

Photomontage indicating proposed building envelope

10% design excellence height bonus

Approved building envelope

Stage 2 DA Proposed surrounding envelopes

Stage 1 DA Proposed surrounding envelopes

Photomontage indicating proposed building design

Approved building envelope

Stage 2 DA Proposed surrounding envelopes

Stage 1 DA Proposed surrounding envelopes

Original photo indicating surveyed alignment lines

Alignment lines derived from AAM 2013 surveyed City model

Photomontage indicating proposed building RLs

279.20
256.25
269.59
258.16

Photograph details

Photo Date: 10.10.16

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF16-35mm f/4

Focal length:
16mm

50mm lens frame

VIRTUAL IDEAS

50mm lens frame

10% design excellence height bonus

Approved building envelope

Stage 2 DA Proposed surrounding envelopes

Stage 1 DA Proposed surrounding envelopes

∇IRTU∆L IDE∆S

50mm lens frame

— Approved building envelope

▢ Stage 2 DA Proposed surrounding envelopes

▢ Stage 1 DA Proposed surrounding envelopes

Alignment lines derived from AAM 2013 surveyed City model