Attachment C7

Visual Impact Assessment

5.3 APPENDIX C:

John Aspinall CV

Land and Environment Court guidelines for photomontages.

JOHN ASPINALL. director: urbaine design group

UK Qualifed Architect RIBA BA(Hons) BArch(Hons) Liverpool University, UK.

24 years' architectural experience in London and Sydney.
Halpin Stow Partnership, London, SW1
John Andrews International, Sydney
Cox and Partners, Sydney
Seidler and associates
NBRS Architects, Milsons Point
Urbaine Pty Ltd (current)

Design Competitions:

UK 1990 – Final 6. RIBA 'housing in a hostile environment'. Exhibited at the Royal Academy, London
UK Design Council – innovation development scheme finalist – various products, 1990.
Winner: International Design Competition: Sydney Town Hall, 2000
Finalist: Boy Charlton Swimming pool Competition, Sydney, 2001
Finalist: Coney Island Redevelopment Competition, NY 2003

Design Tutor: UTS, Sydney, 1997 – 2002

This role involved tutoring students within years 1 to 3 of the BA Architecture course. Specifically, I developed programs and tasks to break down the conventional problem-solving thinking, instilled through the secondary education system. Weekly briefs would seek to challenge their preconceived ideas and encourage a return to design thinking, based on First Principles.

Design Tutor: UNSW, Sydney 2002 – 2005

This role involved tutoring students within years 4 to 6 of the BArch course. Major design projects would be undertaken during this time, lasting between 6 and 8 weeks. I was focused on encouraging rationality of design decision-making, rather than post-rationalisation, which is an ongoing difficulty in design justification.

Current Position: URBAINE GROUP Pty Ltd

Currently, Principal Architect of Urbaine - architectural design development and visualisation consultancy: 24 staff, with offices in: Sydney, Shanghai, Doha and Sarajevo.

Urbaine specialises in design development via interactive 3d modelling.

Urbaine's scale of work varies from city master planning to furniture and product design, while our client base consists of architects, Government bodies, developers, interior designers, planners, advertising agencies and video producers.

URBAINE encourages all clients to bring the 3D visualisaton facility into the design process sufficiently early to allow far more effective design development in a short time frame. This process is utilised extensively by many local and international companies, including Lend Lease, Multiplex, Hassell, PTW, Foster and Partners, City of Sydney, Landcom and several other Governmental bodies. URBAINE involves all members of the design team in assessing the impact of design decisions from the earliest stages of concept design. Because much of URBAINE's work is International, the 3D CAD model projects are rotated between the various offices, effectively allowing a 24hr cycle of operation during the design development process, for clients in any location.

An ever-increasing proportion of URBAINE"S work is related to public consultation visualisations and assessments. As a result, there has also been an increase in the Land And Environment Court representations. Extensive experience in creating and validating photomontaged views of building and environmental proposals. Experience with 3D photmonages began in 1990 and has included work for many of the world's leading architectural practices and legal firms.

Co-Founder Quicksmart Homes Pty Ltd. , 2007 - 2009

Responsible for the design and construction of 360 student accommodation building at ANU Canberra, utilising standard shipping containers as the base modules.

Design Principal and co-owner of Excalibur Modular Systems Pty Ltd: 2009 to present.

High specification prefabricated building solutions, designed in Sydney and being produced in China.

Excalibur has developed a number of modular designs for instant delivery and deployment around the world. Currently working with the Cameroon Government providing social infrastructure for this rapidly developing country.

The modular accommodation represents a very low carbon footprint solution

Expert Legal Witness, 2005 to present

In Australia and the UK, for the Land and Environment Court. Expert witness for visual impact studies of new developments.

Currently consulting with many NSW Councils and large developers and planners, including City of Sydney, Lend Lease, Mirvac, Foster + Partners, Linklaters.

Author of several articles in ‘Planning Australia’ and ‘Architecture Australia’ relating to design development and to the assessment of visual impacts, specifically related to the accuracy of photomontaging.

Currently preparing a set of revised recommendations for the Land and Environment Court relating to the preparation and verification of photomontaged views for the purposes of assessing visual impact

Land and Environment Court
of New South Wales

Policy: Use of Photomontages and Visualisation Tools

Commencement

1. This policy commences on 17 May 2024 and replaces the policy published 21 August 2013.

Purpose of the policy

2. This policy is to guide the preparation of photomontages, still images, video images, and other visualisation tools to depict the development in an appeal under the *Environmental Planning and Assessment Act 1979*, to ensure that the data they present is represented and interpreted accurately, and that their use would assist the Court in determining the appeal.

Application

3. The policy applies to appeals under the EPA Act, where photomontages or other visual tools are to be submitted as part of expert evidence.

Definitions

4. In this Policy:

   Appeal means an appeal to the Court under the EPA Act.

   CGI means Computer Generated Image.

   Commissioner means a Commissioner or Acting Commissioner of the Court.

   Court means the Land and Environment Court of New South Wales.

   Development means the development for which consent is sought in the development application that is the subject of the appeal.

   EPA Act means the *Environmental Planning and Assessment Act 1979*.

Existing Image means an unchanged or unaltered image of the location, viewing angle and approximate conditions on which the proposed development will be overlaid, to convey the issues in dispute.

Judge means a Judge of the Court.

Photomontages means, for the purpose of this policy, any visual tool or aid, whether still image, video, computer generated image, two dimensional (2D) or three dimensional (3D) or other visual means to depict development plans.

Registrar means a Registrar of the Court.

RL Reduced Level or Relative Level as defined in Australian Standard® AS1100 Technical Drawings.

General principles

5. A photomontage submitted in an appeal should provide to the Judge, Commissioner or Registrar the most accurate visual images of the development in its real-world location, so as to specifically convey the issues in dispute.

6. A photomontage must include:

   6.1 the existing image;

   6.2 a 2D plan and/or elevation showing the location of the camera, target point/viewing angle, and lighting source that corresponds to the location from where the existing image was taken; and

   6.3 the proposed built envelope and key features of the development overlaid on the existing image in the form of a wire frame and/or ‘block massing’ model to demonstrate the development.

7. Where a photorealistic CGI of the development is used:

   7.1 the metadata from the existing image to create an identical 3D computer generated camera should be provided;

   7.2 the environmental conditions of the CGI should be set to the same parameters as the existing image;

   7.3 colour matching in the CGI is to correspond with the existing image; and

7.4 the details of the software used in creating the CGI should be stated as part of the submission of the photomontage.

8. A detailed summary of the methodology used to create the photomontage should be provided, including:

8.1 survey data that is used to create the photomontages, including the name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame was obtained;

8.2 site specific topographical data used to create the photomontages, including the source and references utilised for the topographical data (for example paper, or survey inputs from file types such as from 'DWG' or 'DXF');

8.3 the camera type, lens, focal length or field of view, and sensor used for the purpose of the photograph from which the existing image has been derived;

8.4 accurate location, alignment and direction of the camera (whether fixed on tripod or drone) and RL of the camera for the existing image;

8.5 data that was used to prepare the photomontages, such as:

8.5.1 use of relevant plans and data for the depiction of existing buildings or existing elements as shown in the wire frame, block massing model or photorealistic CGI;

8.5.2 the means by which terrain has been generated (such as surveyed spot levels and/or contours or by some form of point cloud, or Ground Control Point survey method);

8.5.3 any variables applied to the images such as, time of day, lighting and weather conditions;

8.5.4 consistency in application of scale and interpretation of the relevant data;

8.5.5 rationale for selecting a particular view, use of camera lens or conditions in creating the image. For example, in circumstances where a development is best depicted with an expanded field of view or panoramic view, the type of panorama head and equipment must be stated, in addition to the data above.

8.6 where a photomontage has used more than one baseline image to represent the existing context (that is where multiple images are 'stitched together'), this must be stated, and the requirements above should be adapted to convey the key data required to verify its accuracy; and

8.7 whether any editing software or other visual manipulation has been used in the preparation of the final image, for example an adjustment in contrast, saturation, tilt shift or the like.

Visualisation Tools

9. As technology emerges, the principles outlined above are to be applied. What is important is that the Court has an unaltered and real life baseline, summary of metadata so the veracity of imagery presented can be verified, and application of relevant overlays of the proposed development that assists in the Court's consideration of the real issues in dispute.

10. All effort is to be made and the 'best practices' are to be applied when utilising technology for the purposes of visualisation of the development to ensure accuracy and avoid bias of information interpretation.

Paperless Hearings

11. Parties should be prepared to display the photomontage electronically if it is to be relied upon, or be the subject of an examination of an expert witness.

12. It will be the responsibility of the party whose expert is being examined, to provide a device compatible with courtroom technology which can display the photomontage electronically. This will allow the presiding officer, the experts, lawyers and all other people to be able to see in real time and on a common image, the subject of the examination.

Issued by:

The Honourable Justice Brian J Preston
Chief Judge – Land and Environment Court of NSW
Date: 17 May 2024

5.4 APPENDIX D:

APPENDIX D: Survey from TSS: Total Surveying Solutions.

Camera View Point Heights (AHD)		
Camera #	**Address**	**AHD Height (RL)**
Cam03	22-24 Macleay St	33.12
Cam08	22-24 Macleay St	36.26
Cam16	22-24 Macleay St	39.28
Cam20	22-24 Macleay St	45.23
Cam30	36A Macleay St	34.89
Cam34	36A Macleay St	34.90
Cam35	36A Macleay St	34.89
Cam41	36A Macleay St	37.80
Cam48	36A Macleay St	40.64
Cam51	36A Macleay St	43.53
Cam53	36A Macleay St	43.55
Cam54	36A Macleay St	43.49
Cam56	38 Macleay St	37.78
Cam58	38 Macleay St	44.18
Cam63	38 Macleay St	49.78
Cam66	38 Macleay St	52.68
Cam74	38 Macleay St	55.50
Cam75	38 Macleay St	55.62
Cam76	38 Macleay St	58.33
Cam80	28 Macleay St (Macleay Hotel)	33.82
Cam81	28 Macleay St (Macleay Hotel)	33.92
Cam83	28 Macleay St (Macleay Hotel)	38.59
Cam86	28 Macleay St (Macleay Hotel)	40.88
Cam87	28 Macleay St (Macleay Hotel)	41.01
Cam88	28 Macleay St (Macleay Hotel)	40.99
Cam89	28 Macleay St (Macleay Hotel)	40.92
Cam90	28 Macleay St (Macleay Hotel)	43.84
Cam91	28 Macleay St (Macleay Hotel)	43.93
Cam92	28 Macleay St (Macleay Hotel)	46.85
Cam93	28 Macleay St (Macleay Hotel)	46.90
Cam94	28 Macleay St (Macleay Hotel)	46.90
Cam95	28 Macleay St (Macleay Hotel)	49.79
Cam96	28 Macleay St (Macleay Hotel)	49.69
Cam97	28 Macleay St (Macleay Hotel)	49.70

Dhamendra Singh
Registered Surveyor
No. 8592

NOTES:

- BUILDING POSITIONS ARE INDICATIVE FOR PRESENTATION PURPOSES.
- DATA WAS CAPTURED USING TPS & TERRESTRIAL LASER SCANNER.
- CAMERA POSITIONS ARE FROM LASER SCAN DATA & SITE OBSERVATIONS WITHIN +/- 0.050m.
- LEVELS ARE BASED ON AUSTRALIAN HEIGHT DATUM (AHD) USING PM 58355 RL 12.390m.

TSS TOTAL SURVEYING SOLUTIONS

LANE COVE | CAMDEN | MANLY VALE | CENTRAL COAST

SKETCH PLAN SHOWING
INDICATIVE CAMERA POSITIONS FOR -

CLIENT:	URBAINE DESIGN GROUP
PROJECT:	1 Onslow Place, Elizabeth Bay NSW 2011
ADDRESS:	1 Onslow Place, Elizabeth Bay NSW 2011

JOB No.:	220898	LGA:	Sydney
PLAN No.:	220898-1	DATUM:	AHD
DATE:	04/11/2022	SCALE:	1:400 @ A3
DRAWN:	TP	CONT. INTERVAL:	N/A
CHK:	DS	SHEET	1 OF 1

urbaine design group
ABN: 31 654 488 043
Office 19c, Level 3, 74, The Corso. Manly NSW 2095
T: 0411 239 796

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urbaine DESIGN GROUP

Page _92

Project : 1, Onslow Place, Elizabeth Bay.

Client : Toohey Miller

5.5 APPENDIX E:

APPENDIX E: Wireframe Images – LEC Compliance.

5.6 APPENDIX F:

APPENDIX F: LEC Compliance description.

urbaine design group

Date: **April, 2023**

Urbaine – Land and Environment Court Compliance:
Development Application, 1 Onslow Place, Elizabeth Bay - Residential Flat Building. Visual Impact Assessment Report, November, 2022.

This document outlines the compliance with LEC Guidelines by Urbaine Design Group Pty Ltd in relation to the Visual Impact Assessment prepared for CPG Onslow Pty Ltd v Council of the City of Sydney.

LAND AND ENVIRONMENT COURT

Use of photomontages
The following requirements for photomontages proposed to be relied on as or as part of expert evidence in Class 1 appeals will apply for proceedings commenced on or after 1 October 2013. The following directions will apply to photomontages from that date:
Requirements for photomontages

1. Any photomontage proposed to be relied on in an expert report or as demonstrating an expert opinion as an accurate depiction of some intended future change to the present physical position concerning an identified location is to be accompanied by:
Existing Photograph.
a) A photograph showing the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage (the existing photograph);

Original site photos are included in Urbaine's written VIA and also within the Appendix A. Generally, 2 photos are provided for the view assessment – one is panoramic, composed of a series of 50mm photos from a fixed-head tripod. The second is a single 35mm photo of the view in the direction of the new proposal.

b) A copy of the existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed. The wire frame overlay represents the existing surveyed elements which correspond with the same elements in the existing photograph; and

These are included in Urbaine's VIA and also within Appendix E. In some situations, the existing site elements are not visible, for use as a wifreframe background. In this instance, Urbaine combines the existing site survey, with a 'point cloud' survey and the 'Metromap' LIDAR survey of the relevant area, in order to position a 3d model of the immediate and distant elements accurately. This is combined with a number of surveys from neighbouring buildings, with stamped DA approved plans, sourced from the City of Sydney DA tracker website. The existing buildings on the site are also modelled in wireframe for alignment within the point cloud survey.

c) A 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken.

These are provided within the VIA and Appendix A. More detailed camera positions are shown, within the TSS survey. As a general guideline, all of the Urbaine photos are taken from a camera positioned at a fixed, measured height of 1600mm, located 1000mm back from the centrepoint of the main glazing line. These positions are replicated within the accurate 3d model of the neighbouring buildings, set up from their original surveys.

Survey data.

d) Confirmation that accurate 2D/3D survey data has been used to prepare the Photomontages. This is to include confirmation that survey data was used:
i. for depiction of existing buildings or existing elements as shown in the wire frame; and
ii. to establish an accurate camera location and RL of the camera.

Accurate 2D/3D survey data was used to prepare the photomontages. The survey data was sued for depiction of the existing buildings, as shown in the wireframe images (Appendix E) and also to establish an accurate camera location and RL of the camera.
A full 3d 'point cloud' survey was prepared by TSS – Total Surveying Solutions, together with a survey of the individual camera positions – see below. The Surveyor is noted on the TSS drawings as Dhamendra Singh. Registered Surveyor No.8592.
Plans for the neighbouring building were sourced from the City of Sydney tracking portal. From here, original surveys are sourced, together with the stamped, approved DA drawings.
The various surveys are digitally imported into Autodesk 3d Studio Max software and are accurately aligned with each other, both in plan and elevation. Finished slab heights of the relevant neighbouring buildings are then replicated in 3d, aligning with the relevant surveys, to allow an accurate placement of the cameras.
For the existing buildings, these 3d models also align with the overall LIDAR survey of the area, purchased from Metromap. This gives 3 separate sources of accuracy for alignment and camera placement, all linked to the original 2d and 3d survey data.

3d view of the 'point cloud' survey from TSS Total Surveying Solutions.

Detail view of the point-cloud survey from TSS Total Surveying Solutions.

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Dharmendra Singh
Registered Surveyor
No. 8592

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DRAWN: TP	CONT. INTERVAL: N/A
CHK: DS	SHEET 1 OF 1

2d survey of camera positions from TSS Total Surveying Solutions.

2. Any expert statement or other document demonstrating an expert opinion that proposes to rely on a photomontage is to include details of:
a) The name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame from which the photomontage was derived was obtained; and

Several Surveys were used by Urbaine to accurately to locate the proposed building. The survey of the subject site was provided by The Applicant. The point cloud survey was prepared by TSS Total Surveying Solutions, covering the subject site and neighbouring buildings. This was combined, within the 3d Autodesk model, with surveys of the adjoining sites and camera positions, also surveyed by TSS Total Surveying Solutions. See above for survey images.

b) The camera type and field of view of the lens used for the purpose of the photograph in (1)(a) from which the photomontage has been derived.

This lens information is contained within the various Urbaine written Visual Impact Assessment reports. 2 camera lenses have been used, appropriate to the views. We have included a standard 35mm lens photo within the reports, although this gives a restricted view, in relation to the human eye: 2 human eyes have a field of vision of approximately 120 degrees. A 50mm lens gives only a 40 degree field of vision, which is unsuitable for assessing visual impact. A combination of 50mmphotos, as per DPIE Guidelines gives a more suitable means of visual impact consideration.

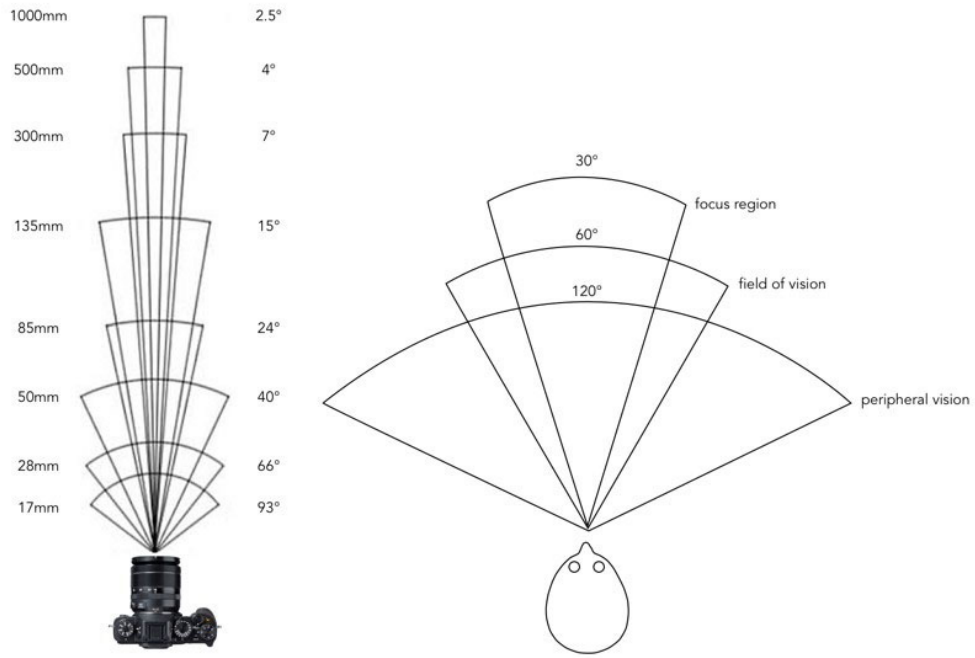

Diagram indicating the field of vision from 2 human eyes, in comparison with the single lens of a camera.

Panoramic context photos have also been supplied, prepared using the Guidelines of the DPIE Technical Supplement - Landscape and Visual Impact Assessment, October 2022 – in relation to the preparation of panoramic base photography. These are all composed of individual 50mm photos and are the closest representation to the field of view of 2 human eyes – being contained within a 120 degree viewing angle. These are the most important views for the assessment of visual impact within the overall context of a view.

Diagram showing 3 individual 50mm photos being composited into a panoramic background photo – following DPIE Guidelines.

In instances where access to neighbouring properties was not authorised, or not possible, accurate virtual models were used, combined with the Metromap data for the actual view.

I believe that the methods used by Urbaine Design Group represent the most accurate means of representing a true photomontaged view of a proposed development, for the purposes of undertaking a Visual Impact Assessment. The wider-angle views from Urbaine, are in line with DPIE Guidelines and serve the purpose of demonstrating context and a representation of the wider extent of view.
A combination of survey information, accurate modelling of neighbouring buildings, together with LIDAR models, allows several cross-reference checks to be undertaken to verify the accuracy of the final photomontaged view.
The LEC Guidelines for the Preparation of Photomontaged views, represent only a small component of the process of verification of accuracy. Compliance with these guidelines, whilst necessary, is no guarantee of an accurate result.

John Aspinall, Director, Urbaine Design Group Pty Ltd.