

SYDNEY GRAMMAR SCHOOL

ADDENDUM TO THE VISUAL IMPACT ASSESSMENT

PREPARED FOR

SYDNEY GRAMMAR SCHOOL WEIGALL SPORTS COMPLEX

MARCH 2021

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INTRODUCTION

WEIGALL SPORTS COMPLEX SYDNEY GRAMMAR SCHOOL

(SSD-10421) RESPONSE TO SUBMISSIONS

This report has been prepared in response to submissions received for this SSDA which are relevant to views and visual impacts. Following exhibition of the EIS both Woollahra Municipal Council (WMC) and the Department of Planning, Infrastructure and Environment (DPIE) requested further information in relation to some aspects of the VIA prepared by Urbis.

In addition to the request by DPIE, Urbis examined 29-31 Lawson Street where a number of submissions were made by individual residents and where Woollahra Council made specific requests.

This letter addresses issues relevant to views and visual impacts as set out in attachment 1 of the Department's letter dated 21st December 2020 and those included in the WMC letter dated 18th December 2020. This report should be read in conjunction with the exhibited VIA as directed throughout this document.

RESPONSE TO DPIE

ISSUE/COMMENT

2. Visual Impact

The Department requires you to revise the visual impact assessment to include a 3D view analysis from Nos. 12 and 16 Neild Avenue. The View analysis must include:

- 1) details of the level of the building the view analysis was carried out from.
- 1) the height/position (height from the finish floor level), which room/area (i.e. living, balcony, bedroom) of the unit/dwelling.

URBIS RESPONSE TO THE DPIE

1.0 VIEWS INSPECTIONS

Dwellings selected for inspection were informed by submissions made to the DPIE and WMC. Visits were arranged and coordinated by the project management team for the project. Urbis inspected views from dwellings on Wednesday 3rd February in the company of a professional photographer (Virtual Ideas) and independent registered surveyor (Project Surveyors). Inspections took place between 12pm and 2pm when the sun was high and weather was clear. 3 dwellings were inspected at 12 -16 Neild Avenue to provide a representative sample of the types and nature of views that would be available from units in these residential flat buildings.

Photographs documented and used as base images for the photomontages were captured by a professional photographer using a Canon EOS 5DS R camera using a 35mm zoom Focal length lens, mounted on a tripod and manually levelled.

Additional photographs used in this report to show other views not modelled that are available from dwellings were captured by Urbis using a Canon EPS 6D Mark 11 full-frame camera using both 35mm and 24mm focal length lens on a variable 'zoom' lens (24mm to 105mm FL). Considering all available views including those that will be unaffected by the proposed development forms part of the assessment process in *Tenacity*. An explanation of the relevance and purpose of applying a *Tenacity* assessment is outlined below in section 4.0.

Views were inspected at units 45/16 Neild Avenue (the Cumberland Building) and units 3310 and 4407/12 Neild Avenue (Advanx Building) VIA.

Although not explicitly required by the DPIE, for completeness Urbis also inspected views from three upper level north-facing dwellings at 29-31 Lawson Street including; units 31, 32 and 33. Without the benefit of access to inspect units from this development in relation to the VIA Urbis had made general observations from external locations about the likely view access that would be available. This addendum report is based on the analysis of 3 additional photomontages now includes an analysis of potential view loss from this residential flat building.

2.0 PHOTOMONTAGES PREPARATION

Details regarding the method used to prepare the photomontages is the same as that followed for all other block-model photomontages as described in section 9 of the VIA. The photomontages have been prepared by Virtual Ideas to satisfy the guidelines set out in the Land and Environment Court of New South Wales practice direction for the use of visual aids.

The requirements to demonstrate the accuracy of a photomontage are outlined in the practice direction for use of visual aids in the Court. This is used as a guide for compliance and to establish the accuracy of photomontages in the absence of any other statutory guidelines in NSW.

The practice direction is quoted as follows;

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);

Urbis Comment.

This is provided for each view included on each view page. The photographs are high resolution full frame images captured by a professional photographer, using a tripod mounted camera at 1.6m above floor level which is typically adopted to represent standing eye height.

- a. 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

Urbis Comment.

The equivalent of a wire frame image is presented for each photomontage. The wire frame image that shows a clear outline of all surveyed features on the site is difficult to produce if enough of the existing site is not visible in the view to be modelled or is substantially blocked by intervening development or vegetation. Where the wireframe

surveyed features cannot be shown, we have adopted the principle of identifying a minimum of 5 fixed features adjacent to or on the site that are present in the view to be modelled. These surveyed features and can be linked/plotted on to the site survey and are subsequently used by the virtual camera in the computer software to cross-check the alignment of the 3D model in the photograph. Further details regarding the surveyed alignment points used for views analysed in this addendum are included in Appendix 1.

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

Urbis Comment.

The camera position has been independently surveyed and mapped. Please refer to Appendix 1.

Survey data.

- a. 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.

Urbis Comment

The camera positions and RLs have been independently surveyed the coordinates of which have been plotted onto the site survey CAD dwg. The surveyed fixed features in each view are marked and included in the Virtual Ideas photomontage report in Appendix 1.

1. 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

Urbis Comment

Independent survey data has been provided by Nathan Milligan (BEng (Geo) UNSW registered surveyor at Project Surveyors and is included in Appendix 2.

- 1) 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.

Urbis Comment

Key steps in determining the accuracy of photomontages used for assessment are outlined in the VIA please refer to section 9.0. No manipulation of base photographs has occurred. The 3D architectural model of the proposed massing was prepared by

AJC Architects and provided to Virtual Ideas. The surveyed fixed features used to align the 3D architectural model are shown in the Appendix 1.

3.0 VIEW SHARING ASSESSMENT

Neild Avenue

Private domain views from three dwellings within two residential flat buildings in Neild Avenue were inspected. Views were inspected at units 45/16 Neild Avenue (the Cumberland Building) and units 3310 and 4407/12 Neild Avenue (Advanx Building). In all cases the residents or resident's representatives were present and directed Urbis to various standing and seated preferred viewing locations within the dwelling.

Urbis selected in all cases the most affected or 'worse case' scenario view, which in our opinion is the view potentially most affected, to be used as a base image for the photomontages.

Further information regarding neighbouring buildings and the local visual context is included in the VIA.

A view from Unit 204 18-28 Neild Avenue has been updated to include minor architectural amendments. This view and all public domain views are included in Appendix 1 – Photomontage report prepared by Virtual Ideas. The minor changes to the height and form of the proposed Building 1 do not create any additional visual effects or alter the final ratings of visual impact as analysed and determined in the VIA. In this regard conclusions regarding visual impacts on all public domain views remain valid. Please refer to the VIA for further detail.

29-31 Lawson Street is massed in two separate blocks around a central open space. the floorplates which are connected via a narrow corridor could be described as "u"-shaped so that the two short elevations present to the subject site. The long section of the 'U', set close and parallel to Lawson Street is setback approximately 25m from the existing tennis courts on the subject site. The central open space and northern boundary of this development is characterised by mature evergreen trees which occupy space between the subject site and the residential flat building.

4.0 RELEVANT PLANNING PRINCIPLES

The most relevant planning principle to private domain view loss is **Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours** (Tenacity).

View loss or blocking effects refers to the extent a proposal will block access of an existing view or part of the composition of a view.

Tenacity concerns private domain view loss and describes what features are considered as scenic and valuable. The principle also describes the extent of view loss using a qualitative scale and takes into consideration the value of features in each composition, the value of the view as a whole and from where in the dwelling views are available.

Tenacity is not case law but provides guidance as to how view loss can be assessed and is described by the Court as a statement of a 'desirable outcomes' aimed at reaching a planning decision and defines a number of appropriate matters to be considered in making that decision. Therefore, the importance of the principle is in outlining all relevant matters and the relationships of factors to be considered throughout the process and is not simply a process of list features that may be lost.

Application of Tenacity

Applying *Tenacity* may not necessarily be required as prior to describing the views to be affected and the value of those views in Step 1, Roseth states the following;

"The notion of view sharing is invoked when a property enjoys existing views and a proposed development would share that view by taking some of it away for its own enjoyment. (Taking it all away cannot be called view sharing, although it may, in some circumstances, be quite reasonable.) To decide whether or not view sharing is reasonable, I have adopted a four step assessment"

This notion suggests that it may be reasonable in some circumstances to block views, even all of a view or create some view loss if the views affected are not considered to be highly valued or iconic. Therefore if there is no substantive loss of view in either quantitatively or qualitatively proceeding beyond Step 1 of the Assessment may not be relevant or required.

Arnott

The use of *Tenacity* for the assessment of view loss should be considered in the context of another judgement in Arnott v City of Sydney (2015) NSWLEC 1052 (Arnott).

Arnott is relevant to this assessment as it concerns view loss and an overall determination of the significance of those visual effects in relation to views from multiple dwellings in the same residential flat building.

Commissioner O'Neill in *Arnott* agrees that notwithstanding the presence of an icon or part of an icon in a view, composition, the whole view which includes an individual or isolated iconic element, may not be considered as an iconic view according to criteria in *Tenacity*.

Arnott also addresses the reasonableness of view loss caused by a complying development. The Weigall Sports Complex, is not subject to LEP height controls and is assessed under the State Environmental Planning Policy (Education and Child Care facilities) 2017 (SEPP). Notwithstanding, for the purposes of this assessment and in the context of the statutory development standards for the site, the majority of the built form is considered as compliant.

The fourth step in *Tenacity* refers to the skilful design of the proposed development. This step is only applicable if the proposed development complies with all relevant controls. The so called 'test' is not about whether a design is skilful, in the sense of the architect's expertise in creating a successful architectural composition; instead the intent of the fourth step is to look for opportunities within the massing and form of the proposal to minimise the impact on views across the site, whilst maintaining the capacity to reasonably develop the site.

Further *Arnott* also cites the difficulty and utility in applying a *Tenacity* assessment to individual units in a residential flat building where the potential to re-mass the proposed development in a way that improves view sharing in relation to views from that adjoining residential flat building, difficult or would limit the development potential of the site. The current design of Building 1 has been refined and re-massed throughout the design process. Its function constrains the ability for wholesale changes to its mass and form. In my opinion given the quantum and quality of the view loss, and the requirements of Building 1, a reasonable level of view sharing and development potential have been achieved. Therefore according to the intention in Step 4 of Tenacity, the proposed development in our opinion would be considered as skilful.

Arnott states that ;

“The skilful design test is not about whether a design is skilful, in the sense of the architect’s expertise in creating a successful architectural composition; instead the intent of the fourth step is to look for opportunities within the massing and form of the proposal to minimise the impact on views across the site, whilst maintaining the capacity to reasonably develop the site”.

*“Dr Roseth’s own words at paragraph 29 of the Tenacity planning principle, ‘whether a more skilful design **could provide the applicant with the same development potential and amenity**’ It is partly for this reason that the Tenacity planning principle is less helpfully applied to impacts on views from individual apartments within residential apartment buildings, as there are generally more limited opportunities to rearrange massing to preserve what is often a singular orientation to a view. For this reason, it is also appropriate to consider the residential apartment building as a whole in assessing view impacts.”*

We note that in *Arnott*, the views to be lost were considered as iconic harbour views and yet the principles states that *“it is fair to weigh the detrimental impact of the proposal on their views against the reasonableness of the proposal”*. Arnott concludes that taking into account levels of view loss that include scenic items is acceptable. In this case where no views contain scenic or iconic items, are not whole views it follows that some level of view loss would be acceptable.

5.0 TENACITY ASSESSMENT

The steps in Tenacity are outlined in full in section 6.0 of the VIA and are not repeated here. Instead the visual effects (the extent of visible features of the proposed development) have been assessed against each step in Tenacity and are recorded on each view page.

RESPONSE TO COUNCIL

Council’s Urban Design Officer is of the opinion that existing landscaping would not screen the entire habitable areas at 25-27 and 29-31 Lawson Ave (refer Figure 1). Therefore, the proposed bulk and scale would affect additional habitable areas on these two buildings. As such, it is recommended that the proposed bulk and scale of the Building 1 is redesigned with more consideration to maintaining view sharing with the affected sites.

*Woollahra DCP 2015 C
J.2.4 Desired future character
CL.4.9 Views*

To ensure that development is of a height and scale that achieves the desired future character of the neighbourhood.

(j) provides for sharing of views and vistas;

01 To minimise the impact of new development on views from existing development.

Our assessment of view sharing is based on an analysis of photomontages which provide an accurate and objective aid to determine the extent of visibility of the built form proposed (the visual effects) and the significance of those effects in the context of all relevant factors, that is the overall level of visual impact.

Our opinion using *Tenacity* as a guide the impact on private views is minimal, ranging from negligible to minor in all cases except in two views where the extents were rated as moderate (Unit 45/16 Neild Avenue) but overall those effects in the context of other relevant considerations were considered to be reasonable and acceptable. In our opinion therefore the proposed development provides for the sharing of views.

02 To promote the concept of view sharing from private properties as a means of ensuring equitable access to views.

03 To protect and enhance views from streets and other public spaces.

C1 New development must enable view sharing with surrounding development, particularly from main habitable rooms of that development.

C4 To protect existing views and vistas

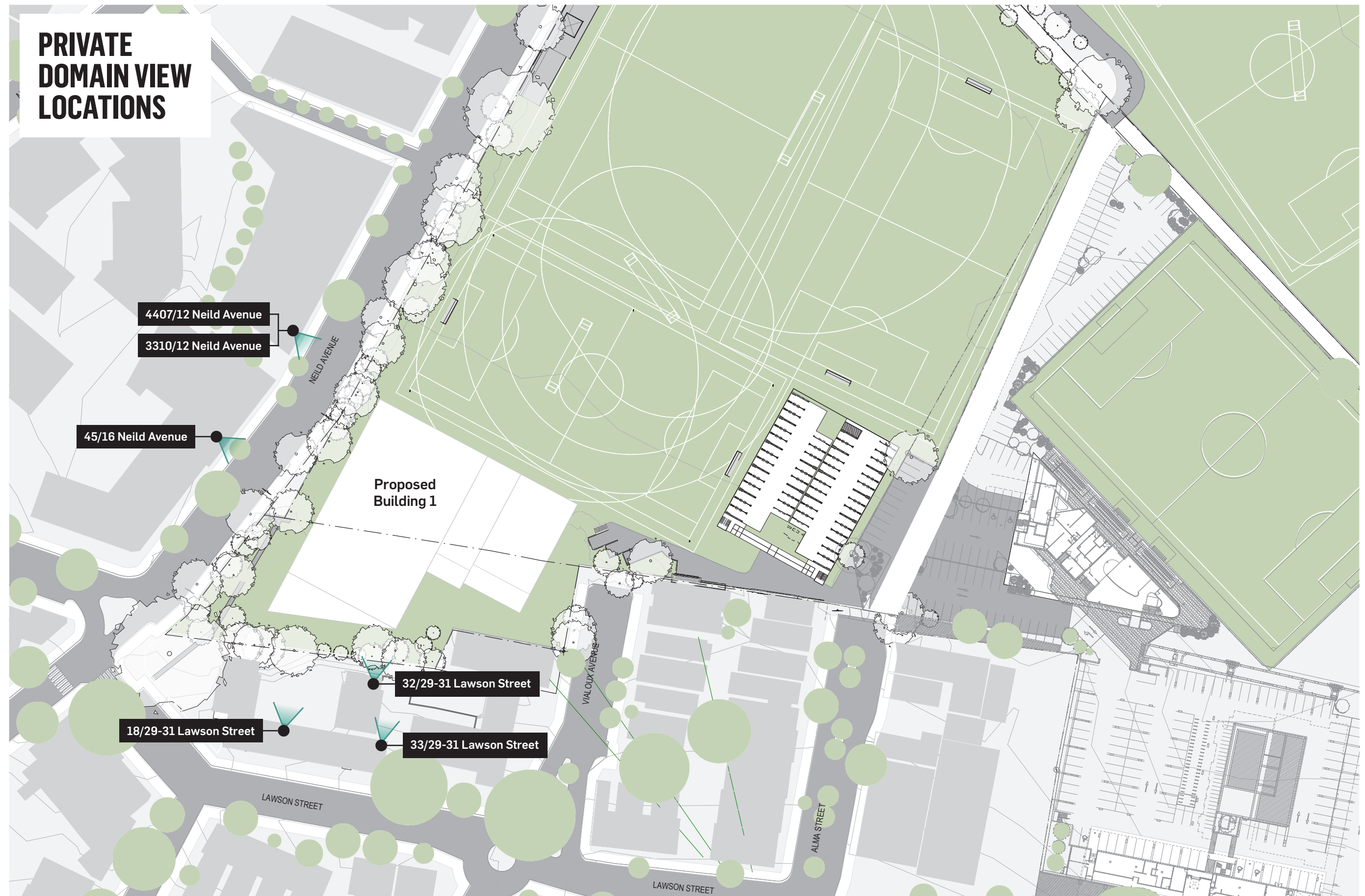
The proposed development does not create any significant visual effects in any public domain views mapped or identified in the DCP r LEP. Please refer to the VIA for further information.

C7 Development provides for view sharing from surrounding properties.

Please refer to each view page for detailed analysis of view sharing outcomes. The rating of view sharing is identified and rated on each view page.

VIEWS ANALYSIS

PRIVATE DOMAIN VIEW LOCATIONS



VIEW 01

UNIT 3310/12 NEILD AVENUE

Existing views

STEP 1 IN TENACITY

Dwelling

This is a three-bedroom unit located at the south end and 3rd level above ground. The dwelling includes two bedrooms and a main living area which adjoin an outdoor covered terrace that presents to Neild Avenue. The terrace varies in width from a wide sitting area to a narrow approximately 1m wide balcony which extends to the north in front of two rooms. We observed that the northern one is the master and the smaller room adjacent to the living area is used as a study/pilates area.

Views

Photographs of views from various parts of the terrace and balcony are included in the report as well as the view selected for modelling. Views are available to the south-east, east and north-east.

Internal locations

Views from internal locations including the master bedroom and study are constrained by internal walls so that views are predominantly to the east. Views from the kitchen and living areas are available to the east and south-east towards the subject site notwithstanding that these views are constrained by walls and stacking shutters along the balcony and the solid balcony wall itself.

External Views

Views to the south-east are characterised by virtually continuous tree canopies (including both vegetation internal and external to the site's boundary) which provides significant screening and filtering of views towards the school and the subject site. The presence of vegetation limits access to medium and long distance views to the south-east. Views to the east and north-east are more open and include a mid-ground composition predominantly characterised by the Weigall Sports fields with a background of building development residential towers and vegetation located along a low ridgeline in the vicinity of Ocean Street. In our opinion, the composition of south-easterly views could be described as vernacular district views of typical features and do not include scenic items or icons as described in Tenacity. In addition, the foreground of green open-space present in easterly and north-easterly views is occupied by the sports fields within the Sydney Grammar School grounds.

Views access

STEP 2 IN TENACITY

Step 2 in Tenacity requires consideration of how the views are gained. For this unit views are gained via the front boundary of the residential flat building and from internal dwelling within it from both standing and seated positions.

Rooms in the dwelling to be affected

STEP 3 IN TENACITY

Step 3 in Tenacity, requires that places and rooms within the dwelling from which views will be affected are identified. From this unit views to part of the proposed development are available from two bedrooms and the open plan living - kitchen area. Views from all rooms would be affected.

Visual effects of the proposed development on existing views (Qualitative description of the change in view)*based on the modelled view.

STEP 3 IN TENACITY

The proposal will introduce a new built form into the foreground of an oblique view to the south-east and east-south-east.

Modelled View

This is an oblique view to the south-east where parts of the proposed development will be visible north of existing, retained street tree vegetation. The upper part and roof form of the proposed development is partly visible and filtered by existing street tree vegetation. The removal of two Casuarina trees will expose more of the built form during construction and in the short term. The proposed development predominantly blocks filtered mid-ground views of parts of Sydney Grammar School and residential flat buildings. The building envelope does not significantly constrain the extent or horizontal distance of the view that is currently available. Views to the east and north-east do not align directly with the north edge of the proposed development. Therefore in seated and standing views to the east from all terrace and balcony areas Building 1 will not occupy the majority of the view. Views to the north-east from all parts of the terrace and balcony will not include the built form proposed and will be unaffected by it.

Comment on internal Views

Views from internal living areas such as the sitting room and kitchen will include parts of the built form proposed in oblique south-easterly views which will be heavily screened by vegetation and more immediately will be by parts of the dwelling such as walls and terrace stacking shutters. Standing kitchen views towards the built form proposed are oblique access to the upper part of Building 1 would be constrained by the ceiling of the dwelling.

Extent of View Loss using Tenacity Ratings of negligible, minor, moderate, severe and devastating

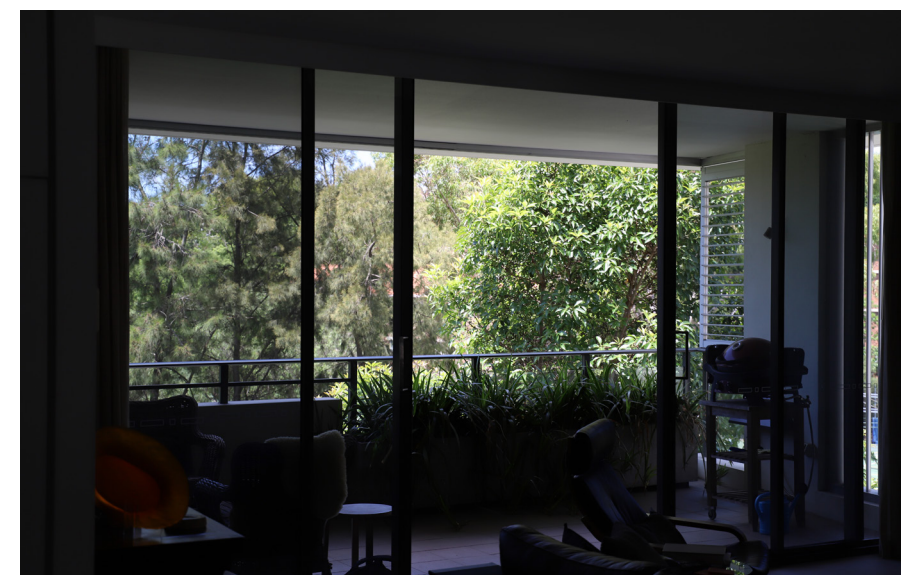
Terrace views south-east	MINOR
Balcony, Master bed, study and kitchen	MINOR
Balcony views to the east and north east	NEGLIGIBLE

Tenacity steps where threshold criteria is met

Taking a conservative view, the extent of the visual effects of the proposal meets the threshold test only for Step 1. In our opinion, the loss of view is neither substantive quantitatively nor qualitatively. For example the proposed development does not block items that are considered as highly valued in Tenacity terms such as whole views, icons or scenic features. **Technically in our opinion there is no need to assess view loss from this unit beyond step 1.**

Summary of Visual Effects and rating of view sharing outcome

As a conservative measure and for completeness we have considered the overall visibility from various parts of the dwelling and conclude that view loss from this dwelling overall is minor. The visual effects will be further reduced in time as a result of proposed planting. The removal of trees and loss of screening will be mitigated by the planting of tall native evergreen species planted at 2.5m in height, which will in time establish a canopy approximately 15m at 5 years post construction. We note further that the photomontage shows a simple block-model of the massing proposed and that the architectural detailing, materials and colours proposed, will help to soften the appearance of Building 1. Such details are shown in artists' impressions included in the DA package prepared by AJC architects. In the context of all relevant information such as the extent of view to be lost, the view location, nature of that view and the planning context overall the view sharing outcome is considered to be reasonable and acceptable.



VIEW 02

UNIT 4407/12 NEILD AVENUE

Existing views

STEP 1 IN TENACITY

This is a three bedroom unit located at the south end and 4th (top floor) level of this residential development. The unit includes a wide balcony that presents to the east and narrows to 1m wide balcony at its northern end in front of the master bedroom and dining room.

Views

Photographs of views from various parts of the terrace and balcony are included in the report as well as the view selected for modelling. Views are available to the south-east, east and north-east.

Internal locations

Views from internal locations including the master bedroom are constrained by internal walls so that views are to the east. Views from the kitchen and living areas are available to the east and south-east towards the subject site notwithstanding that these views are partly restricted by walls and stacking shutters along the balcony and the solid balcony wall itself.

External Views

Views to the south-east are characterised by the canopies of mature street trees (including both vegetation internal and external to the site's boundary) and buildings to the south-east including the upper storey and roof form of 29-31 Lawson Street and beyond to a medium-distant narrow section of view of residential development in Paddington. Views to the east and north-east do not directly align with the proposed building are more open and include a mid-ground composition predominantly characterised by the Weigall Sports fields with a background characterised by building development residential towers and vegetation located along a low ridgeline in the vicinity of Ocean Street. In our opinion the composition of south-easterly views could be described as vernacular district views including typical features and do not include access to scenic items or icons as described in Tenacity. The foreground in easterly and north-easterly views is characterised by an open green space occupied by the turfed sports fields within the Sydney Grammar School grounds.

Views access

STEP 2 IN TENACITY

Step 2 in Tenacity requires consideration of how the views are gained. For this unit views are gained via the front boundary of the residential flat building and for the dwelling within it from both standing and seated positions.

Rooms in the dwelling to be affected

STEP 3 IN TENACITY

Step 3 in Tenacity, requires that places and rooms within the dwelling from which views will be affected are identified. From this unit views to part of the proposed development are available from two bedrooms and the open plan living – kitchen area. Views from all rooms would be affected.

Visual effects of the proposed development on existing views (Qualitative description of the change in view)*based on the modelled view.

STEP 3 IN TENACITY

The proposal will introduce a new built form into the foreground of an oblique view to the south-east and east-south-east.

Modelled View

This is an oblique view to the south-east where parts of the proposed development will be visible east of existing, retained street tree vegetation. The removal of 3 existing trees (native Sheokes) located inside the school's boundary will reveal much of the west elevation of the built form proposed. A retained tree and proposed fast growing vegetation will provide some screening effects in relation to the south end of the proposed Building 1. The proposed development predominantly blocks views of building development, parts of Sydney Grammar School, residential flat buildings and background development and vegetation in the vicinity of the Ocean Street ridgeline. Views to the east and north-east do not align directly with the north edge of the proposed development. Therefore from seated and standing internal locations and from all terrace and balcony areas, in views to the east Building 1 is unlikely to be a focal feature. Views to the north-east from all parts of the terrace and balcony will be not include the built form proposed and will be unaffected by it.

Comment on Internal Views

Views from internal living areas such as the sitting room and kitchen will include parts of the proposed built form in oblique south-easterly views which will be partly screened by vegetation and more immediately will be constrained by parts of the dwelling such as walls and terrace stacking-shutters. Standing kitchen views towards the proposed built form are oblique to the upper part of Building 1 and would be constrained by the building's ceiling.

Note

The removal of foreground trees reveals part of the background composition above the proposed roof form, that is not visible in the base photograph. In this regard the features in the view above the roof have been constructed using aerometrix modelling available for the Sydney Metro area. We note that as a result, more open sky and vegetation canopy along the Ocean Street ridgeline will be revealed.

Extent of View Loss using Tenacity Ratings of negligible, minor, moderate, severe and devastating

Terrace views south-east	MINOR
Balcony, Master bed, study and kitchen	MINOR
Balcony views to the east and north east	NEGLIGIBLE

Tenacity steps where threshold criteria is met

Taking a conservative view, the extent of visual effects of the proposal meets the threshold test only for Step 1. In our opinion the loss of view is not substantive qualitatively. For example the proposed development does not block items that are considered to be highly valued in Tenacity terms such as whole views, icons or scenic features. Technically in our opinion there is no need to assess view loss from this unit beyond step 1.

Summary of Visual Effects and rating of view sharing outcome

Notwithstanding that Tenacity threshold steps are not met beyond step 1, as a conservative measure and for completeness we have considered the proposal's overall visibility from various parts of the dwelling and conclude that the extent of view loss from this dwelling minor to moderate. Further the negligible visual effects will be further reduced in time as a result of proposed planting. The removal of trees and loss of screening will be partly mitigated by proposed screen planting (7 native evergreen species planted at 2.5m in height) which will in time establish a canopy of approximately 15m at 5 years post construction. This vegetative screen once established will effectively screen the majority of the lower section of the west elevation of Building 1. In the context of all relevant information such as the quality of the view place location, the nature of that view and the planning context relevant to view loss, overall the view sharing outcome is considered to be reasonable and acceptable.



Unit 4407/12 Neild Avenue, existing view



Unit 4407/12 Neild Avenue, proposed view



Unit 4407/12 Neild Avenue. Top floor south end balcony view to the north-east which is unaffected by the proposal.



Unit 4407/12 Neild Avenue. Views east from the casual dining area from which the proposal will be of low visibility.



Unit 4407/12 Neild Avenue. View east from the formal dining area where part of Building 1 will occupy the far right part of the view.

VIEW 03

UNIT 45/16 NEILD AVENUE

Existing views

STEP 1 IN TENACITY

Dwelling

This is a three bedroom unit located at level 3 level and near the north end of this residential flat building which directly aligns with the existing tennis courts entry. The dwelling includes a master bedroom and main living area which adjoin an outdoor covered terrace that presents to Neild Avenue. The terrace varies in width from a wide sitting area to a narrow approximately 1m wide balcony which extends to the north in front of two rooms.

Views

Photographs of views from various parts of the terrace and balcony are included in the report as well as the view selected for modelling. Views are available to the south-east, east and north-east.

Internal locations

Internal views from the master bedroom, internal living and kitchen areas are orientated to the east towards the subject site. Such views are partially constrained by walls, ceiling and internal structures of the dwelling. These structures limit views to the north-east or north.

External Views

Views from the balcony and terrace are more expansive and include views to the north-east and north. The view from the terrace outside the main living area is in our opinion the most affected view. This view place directly aligns with the subject site from which the composition as captured in the modelled view, includes street tree canopies and vegetation within the school grounds and an open expanse of hard standing and tennis courts and three to four story residential flat buildings located in Lawson Street and Vialoux Avenue. The distant background view includes vegetation, urban development and tower forms. The northern edge of the view is characterised by an open 'green' foreground occupied by the turfed sports fields within the Sydney Grammar School grounds.

Views access

STEP 2 IN TENACITY

Step 2 in Tenacity requires consideration of how the views are gained. For this unit, views are gained via the front boundary of the residential flat building and for the dwelling within it from both standing and seated positions.

Rooms in the dwelling to be affected

STEP 3 IN TENACITY

Views to be affected are available from 1 bedroom and the open plan living - kitchen area. Views from the east-facing balcony would also be affected.

Visual effects of the proposed development on existing views (Qualitative description of the change in view)*based on the modelled view.

STEP 3 IN TENACITY

View modelled

The proposal will introduce a new built form into the foreground composition and will occupy much of the whole view. The canopy of existing and retained vegetation in Neild Avenue will provide some screening effects and proposed planting as shown at 5 years post construction, will augment this screening over time. The upper parts of the west elevation and roof form of the proposed development are visible above the vegetation and will block the majority of the foreground and part of the distant background that is predominantly characterised by building development in the vicinity of the Ocean Street ridgeline. The upper part of this view will be retained. The part of the built form proposed that sits above the LEP height control does not block views that include iconic or scenic items or features as defined in Tenacity.

Comments on other views

Views to the north-east from the external balcony do not align directly with the north edge of the proposed development and will be less affected by the proposed development. Views to the north from the terrace and balcony will largely be unaffected by the proposed development.

Extent of View Loss using Tenacity Ratings of negligible, minor, moderate, severe and devastating

Living, bedroom and balcony views	MODERATE
Kitchen views	MODERATE

Tenacity steps where threshold criteria is met

The extent of the visual effects of the proposal meets the threshold test for step 1, however, for completeness and as a conservative measure we have considered the extent of view loss in all steps in Tenacity. This is because in the modelled eastern view the proposed development will occupy a large extent of the view.

Summary of Visual Effects and rating of view sharing outcome

In our opinion the threshold tests for Steps 1, 2 and 3 are met. The split land-use zone creates some difficulty in determining the application of Step 4 which is only considered if a proposal is fully compliant with controls that are relevant to potential view loss. As a conservative measure and for completeness we have considered the significance of the visual effects as modelled. In quantitative terms a large amount of the view composition will change. The existing view will be replaced by a new built form which alters the spatial arrangement of the view, reducing the prospect of a mid-ground and back ground view. The extent of view loss is rated as moderate overall, where the view sharing outcome is considered reasonable in the context of the controls that apply to the site. The significance of the view sharing outcome is influenced by the compliance of the proposed development with the appropriate controls.

We note that under the Education SEPP no height control applies to the site. A narrow horizontal section of the roof form which sits above the LEP height control across the southern part of the site does not block views to scenic, iconic items or a whole view to the south-east and therefore does not create any significant view loss. In Tenacity, the reasonableness of a proposal that is causing an impact should be considered in Step 4, if it is fully compliant with controls. We have assumed that as the northern part of the built form proposed complies with the SEPP it is subject to the 'reasonableness test' in Step 4. This step requires that the skillfulness of the design be considered. "A more skilful design could provide the applicant with the same development potential and amenity and reduce the impact on the views of neighbours". In our opinion given the minimum requirements for the use of the building and physical constraints of the site a more skilful massing or design would be unlikely to provide any significant reduction in view impacts for this dwelling. In this case Tenacity states that "the view impact of a complying development would probably be considered acceptable and the view sharing reasonable". In addition we note that the proposed planting of native *Elaeocarpus Eumundii* species (Quandong trees) which reach approximately 15 metres in height will in time, create significant visual screening of the majority of the built form proposed.

In the context of all relevant information such as the extent of view to be lost, the view location, nature of that view and the planning context overall the view sharing outcome is considered to be reasonable and acceptable. We note further that the photomontage shows a simple block-model of the massing proposed. The architectural detailing, materials and colours will help to soften the appearance of Building 1. Such details are shown in artists' impressions included in the DA package prepared by AJC architects. In the context of all relevant information such as the extent of view to be lost, the view location, nature of that view and the planning context overall the view sharing outcome is considered to be reasonable and acceptable.



VIEW 04

UNIT 33/29-31 LAWSON STREET

Existing views

STEP 1 IN TENACITY

This is a 2 bedroom unit located at the east end and fourth (top) level of this residential flat building. The unit includes one bedroom with views access to the north. There are no external balconies or other locations from which views to the subject site are available. The view is constrained to the west by the projecting eastern elevation of existing built form and to the north is heavily screened by mature vegetation located within the residential block and some trees located along the southern boundary of the subject site. Parts of the existing tennis courts are visible in gaps in vegetation. The upper and eastern part of the view above the tree canopy includes a distant background composition characterised by tower forms near Edgecliff, part of the elevated light rail infrastructure and what appears to be a short section of tree canopy in Rushcutters Bay Park. We note that the sash windows are in a state of disrepair and are unable to be fully opened. The existing view composition does not include features that are considered in Tenacity terms as scenic, iconic or highly valued.

Views access

STEP 2 IN TENACITY

Views from one room via the rear boundary of the dwelling would be affected.

Rooms in the dwelling to be affected

STEP 3 IN TENACITY

Views to be affected are from the master bedroom.

Visual effects of the proposed development on existing views
(Qualitative description of the change in view)*based on the modelled view.

STEP 3 IN TENACITY

Modelled view

Parts of the proposed built from are visible behind the existing and retained vegetation. An upper horizontal section of the south elevation and roof form will be visible above and between existing and retained vegetation. A narrow section of this built from which sits above the LEP height control, predominantly blocks views to areas of open sky. The parts of the composition to be lost are not considered to be significant in either quantitative or qualitative terms and in this regard an assessment against Tenacity is not required.

Extent of View Loss using Tenacity Ratings of negligible, minor, moderate, severe and devastating

Bedroom	MINOR
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Tenacity steps where threshold criteria is met

Taking a conservative view, the extent of visual effects of the proposal meets the threshold test only for Step 1. In our opinion the loss of view is neither substantive quantitatively nor qualitatively. For example the proposed development does not block items that are considered as highly valued in Tenacity terms such as whole views, icons or scenic features. Technically in our opinion there is no need to assess view loss from this unit beyond step 1.

Summary of Visual Effects and rating of view sharing outcome

In our opinion the pre-test threshold step to proceed to Step 1 in Tenacity is not met and in this regard any further assessment of the extent or significance of view loss is not required. In our opinion if an assessment against Tenacity was undertaken it would be likely to conclude that extent of view loss from this unit would be minor to negligible. Considering all relevant information such as the extent of view to be lost, the view location, nature of that view and the planning context overall, and the view sharing outcome is considered to be reasonable and acceptable.



VIEW 05

UNIT 32/29-31 LAWSON STREET

Existing views

STEP 1 IN TENACITY

This is a 2 bedroom unit located at the north-east corner of a block which is set forward of the larger 'U'-shaped main block within this residential development. The unit has a long rectangular shaped floorplate so that except for one bedroom, all views are orientated to the east. There are no external balconies or other locations from which views to the subject site are available. The view north includes a foreground composition characterised by existing the evergreen canopy of two existing trees Lophostomen species (Brushbox) and Auracaria species (Bunya Pine) located within the residential block and some vegetation inside the site's southern boundary including Fig trees, which will be retained. The lower part of the composition includes part of the existing tennis courts and between tree branches a medium distant view is available across the Weigall Sports Grounds towards the sports pavilion neighbouring residential flat buildings and a section of the elevated light rail viaduct. The distant background is characterised by vegetation located in Rushcutters Bay Park and further north includes a short section of the landform of the Lower North Shore. The existing view composition does not include features that are considered in Tenacity terms as scenic, iconic or highly valued.

Views access

STEP 2 IN TENACITY

Views are accessible from across the rear boundary of the site and rear or side boundary of the unit, and its formal presentation to the east is considered.

Rooms in the dwelling to be affected

STEP 3 IN TENACITY

Views from one bedroom would be affected. All other views from this unit would remain unaffected by the proposed development.

Visual effects of the proposed development on existing views
(Qualitative description of the change in view)*based on the modelled view.

STEP 3 IN TENACITY

Modelled view

The upper parts of the proposed built form are visible in the foreground, either side of existing retained vegetation. Part of the proposed development will sit above the LEP height control line of 10.5m that has been applied to the south elevation. The built form that sits above this line does not block access to scenic or iconic features and predominantly blocks access to areas of open sky.

Extent of View Loss using Tenacity Ratings of negligible, minor, moderate, severe and devastating

Bedroom	MODERATE
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Tenacity steps where threshold criteria is met

The extent of visual effects of the proposal meets the threshold test for all steps in Tenacity.

Summary of Visual Effects and rating of view sharing outcome

In Tenacity more weight is given to views that are obtained across a front or rear boundary and those available from living, dining and kitchen areas etc rather than bedrooms or service areas. The extent of view blocking is (conservatively) rated as moderate but the views lost are not considered in Tenacity as highly valued. A narrow horizontal band of built form which sits above the LEP height control does not block access to scenic or iconic features or a whole view and further, as the control does not apply to the northern part of the site, built form in that section that is of the same approximate height would not be considered as non-compliant. In the context of all relevant information such as the extent of view to be lost, the view location, nature of that view and the planning context overall the view sharing outcome is considered to be reasonable and acceptable.



Unit 32/29-31 Lawson Street, existing view



Unit 32/29-31 Lawson Street, proposed view

VIEW 06

UNIT 18/29-31 LAWSON STREET

Existing views

STEP 1 IN TENACITY

This is a 2 bedroom unit located along the central part of the 'U' shaped floorplate of this residential flat building. The unit is setback from the proposed built form and separated from it by a central garden courtyard. The view shown is from a living room window which is orientated to the north. A similar view is available from a bedroom located west of this view place. The view is limited in its distance constrained by the window structure itself and by foreground components . The existing view composition does not include features that are considered in Tenacity terms as scenic, iconic or highly valued.

Views access

STEP 2 IN TENACITY

Views to be affected are available across the rear boundary of the site which would conservatively be considered as the front boundary of the unit.

Rooms in the dwelling to be affected

STEP 3 IN TENACITY

Views to be affected are available from two rooms including the living area and master bedroom.

Visual effects of the proposed development on existing views
(Qualitative description of the change in view)*based on the modelled view.

STEP 3 IN TENACITY

Modelled view

The upper parts of the proposed built form are partially visible in the foreground composition as a result of the significant screening effects of existing and retained vegetation. Part of the proposed development will sit above the LEP height control line of 10.5m that has been applied to the south elevation. The built form that sits above this line does not block access to scenic or iconic features and predominantly blocks access to areas of open sky.

Extent of View Loss using Tenacity Ratings of negligible, minor, moderate, severe and devastating

Living room	MINOR
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Tenacity steps where threshold criteria is met

Taking a conservative view, the extent of visual effects of the proposal meets the threshold test only for Step 1. In our opinion the loss of view is neither substantive quantitatively nor qualitatively. For example the proposed development does not block items that are considered as highly valued in Tenacity terms such as whole views, icons or scenic features. Technically in our opinion there is no need to assess view loss from this unit beyond step 1.

Summary of Visual Effects and rating of view sharing outcome

In Tenacity, more weight is given to views that are obtained across a front or rear boundary and those available from living, dining and kitchen areas etc rather than bedrooms or service areas. The extent of view-blocking is (conservatively) rated as minor but the views lost are not considered in Tenacity as highly valued. A narrow horizontal band of built form which sits above the LEP height control does not block access to scenic or iconic features or a whole view and further, as the control does not apply to the northern part of the site, built form in that section that is of the same approximate height would not be considered as non-compliant.

In the context of all relevant information such as the extent of view to be lost, the view location, nature of that view and the planning context overall the view sharing outcome is considered to be reasonable and acceptable.



Unit 18/29-31 Lawson Street, existing view



Unit 18/29-31 Lawson Street, proposed view

UPDATED PHOTOMONTAGES INCLUDING MINOR AMENDMENTS TO THE ROOF FORM



Boundary view

This is a streetscape view towards the proposed entry to the school site. The amendments that are visible in this amended view do not change ratings of visual effects and impacts of low as determined in the VIA. This view is included here to demonstrate minor changes such as incorporation of the green electrical transformer and the removal of trees at the new entry point.



View 15, Unit 204/18-28 Neild Avenue

This updated photomontage is included in the addendum report to show minor amendments to the roof form. The minor amendments do not cause any significant change to the visual effects or the overall rating of view loss of minor-moderate as previously determined in the VIA.

CONCLUSIONS

Views from 6 additional neighbouring private dwellings were inspected, documented and modelled as required by the DPIE and Woollahra Council.

The visual effects of the proposed development were analysed based on a review of accurate and certifiable photomontages.

The photomontages were prepared to satisfy the practice direction outlined in the Land and Environment Court of New South Wales for the preparation of visual aids, in the absence of any other formal guidelines.

The method followed and the certification of that method and accuracy of the resultant images is not repeated here but is included in the VIA.

Units 3310 and 4407 at 12 Neild Avenue and Units 18 and 33 at 29-33 Lawson Street are not exposed to a significant level of visual effects. The extent of potential view loss is rated as minor, to negligible or nil in all cases. View sharing outcomes in all cases as assessed against Tenacity is considered to be reasonable and acceptable.

The extent of visual effects of the built form proposed are greatest in views as modelled from Unit 45/16 Neild Avenue and 32/29-31 Lawson Street. The extent of effects was rated as moderate which is mid-level using the Tenacity scale (negligible-devastating).

The extent of visual effects does not directly equate to the level of visual impacts but is influenced by other relevant factors.

The level of view sharing is determined by considering all relevant factors including the quantitative and qualitative aspects of the views to be affected, internal room types and uses, views that will be unaffected from each dwelling and the reasonableness of a complying development.

In our opinion the view sharing outcome that would be achieved subsequent to the approval of the DA in relation to views from 45/16 Neild Avenue and 32/29-31 Lawson Street would be reasonable and acceptable in the circumstances.

Kind regards,



Jane Maze-Riley
Associate Director National Design

VIRTUAL IDEAS

SGS Weigall Sports Complex, Paddington

Visual Impact Photomontage and Methodology Report

Visual Impact Photomontage and Methodology Report

SGS Weigall Sports Complex, Paddington

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 development's 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.

We capture site photographs 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 sky lighting system is then created in the 3D scene and matched to the precise time and date of when each photograph was taken.

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 models of proposed building envelope

- Created by: AJ+C
- Format: FBX

2) Camera location and alignment point surveyed data (Appendix A & B)

- Created by: Project Surveyors
- Format: PDF and DWG files

3) Site Survey (Appendix C)

- Created by: Project Surveyors
- Format: DWG files

4) Photogrammetric Sydney 3D model (Appendix D)

- Created by: Aerometrex
- Format: FBX file

5) Site photography

- Created by: Virtual Ideas
- Format: JPEG and CR2 files

METHODOLOGY

Site Photography

Site photography was taken from predetermined positions as directed by Urbis. The photographs were taken using a Canon EOS 5DS R digital camera.

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 model of the indicative building envelope.

Alignment

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 from. They were then aligned in rotation so that the points of the 3D model aligned with their 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.

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 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 Studio 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 and planning submissions for council on 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 for further analysis.
- 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



Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
From 5/7 Vialoux Avenue on street

Photo Date:
03rd June 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
24mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Vialoux Avenue near Lawson Street

Photo Date:
06th June 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF16-35mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Neild Avenue crossing
looking north

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Southwest corner Boundary
Street and Neild Avenue

Photo Date:
26th May 2020

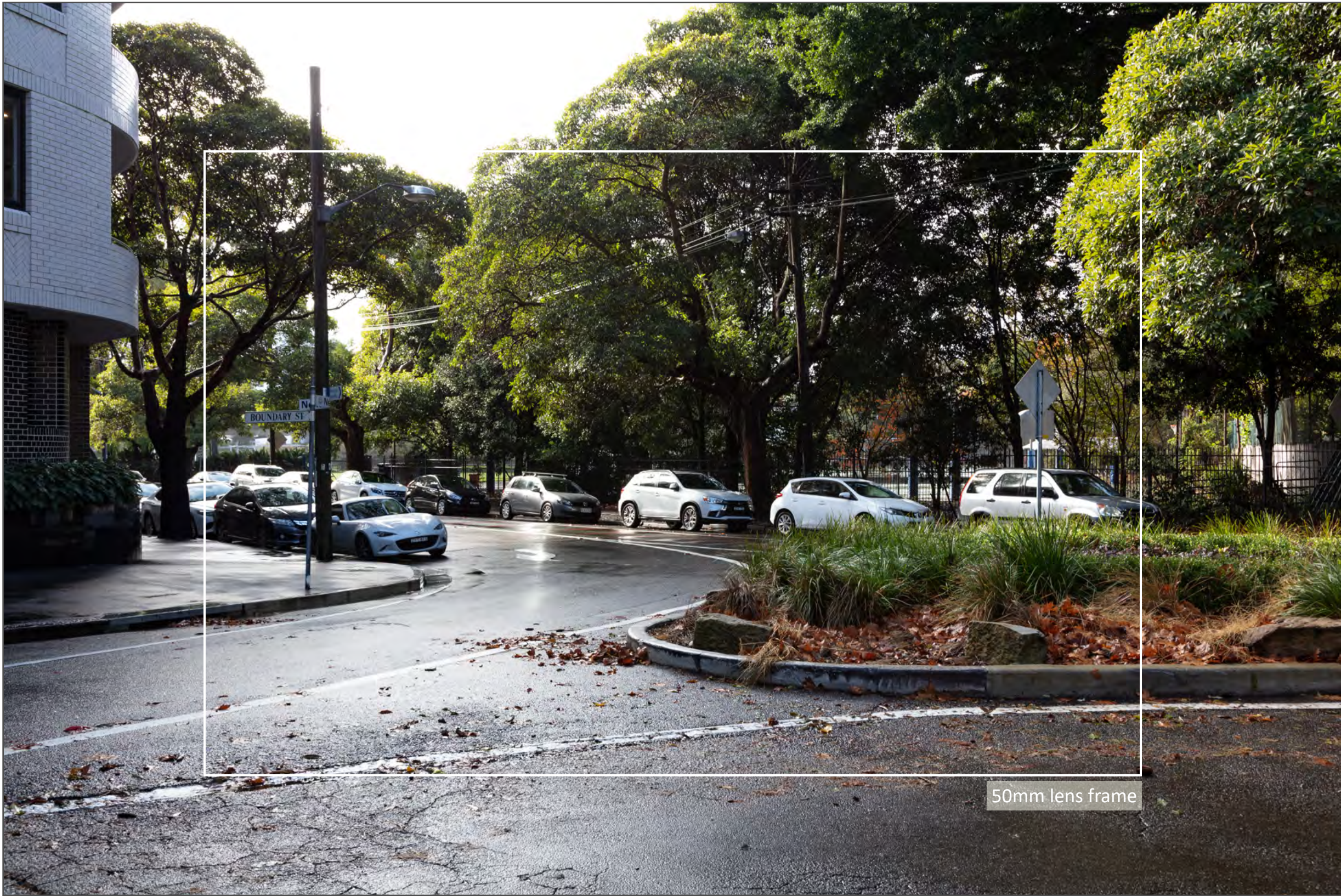
Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Opposite side of Neild Avenue entry gates

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
24mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Pavilion roof top view looking south

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Northwest corner Neild
Avenue and New South Head
Road (approach to
Rushcutters Bay Park)

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Pedestrian connection and
heritage item Neild Avenue

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
24mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
North end of Alma Street

Photo Date:
03rd June 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Living room of unit 5,
8 Vialoux Avenue

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points

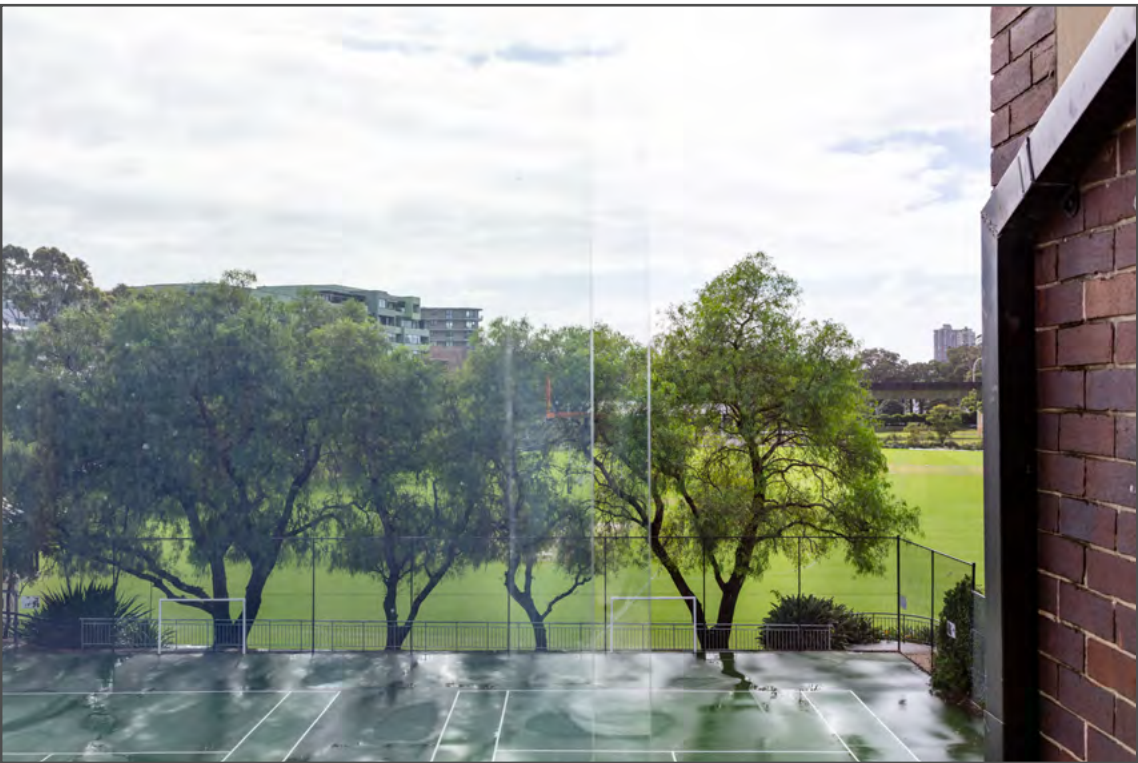








Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Living room of unit 9,
8 Vialoux Avenue

Photo Date:
26th May 2020

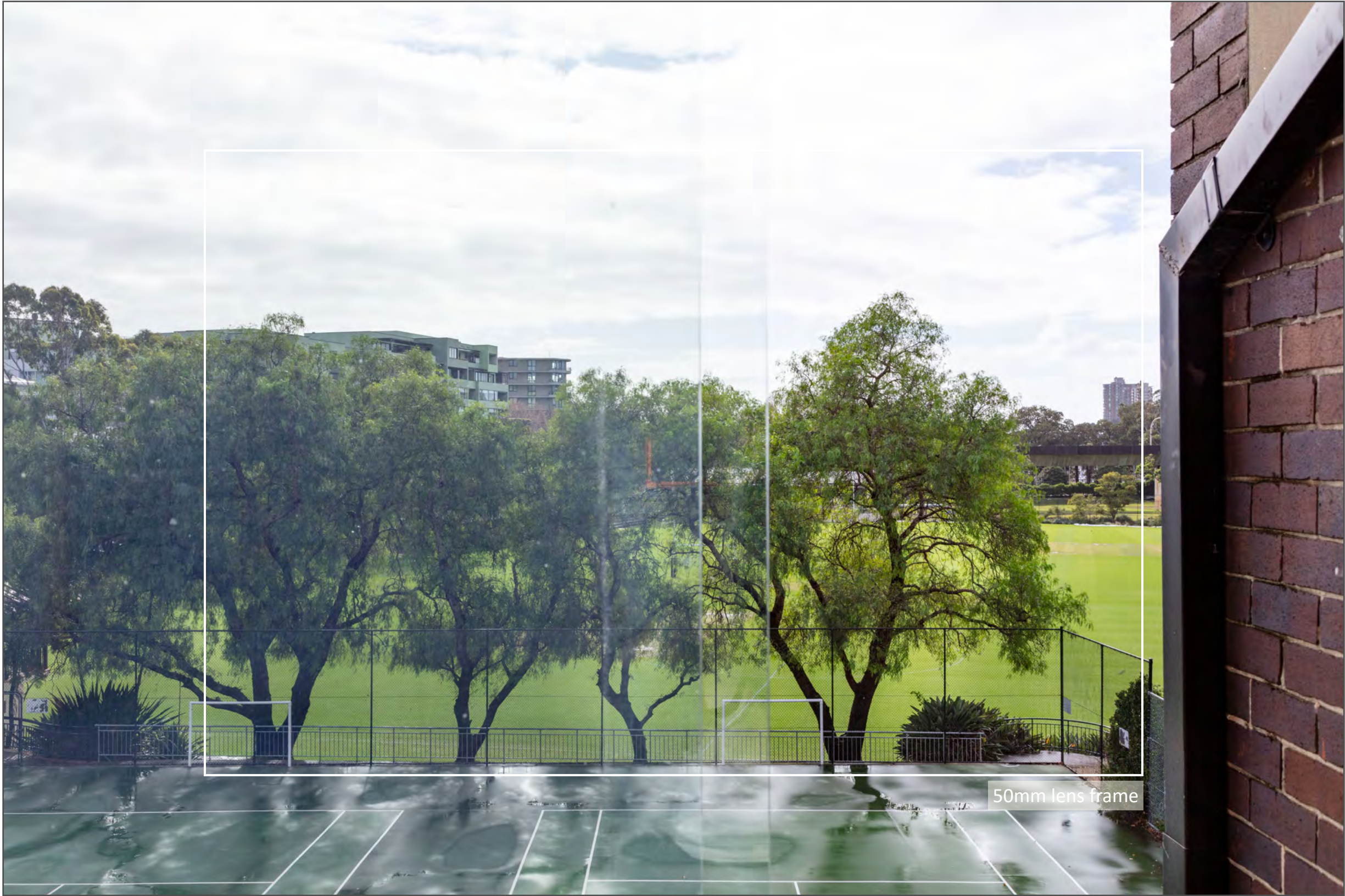
Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points





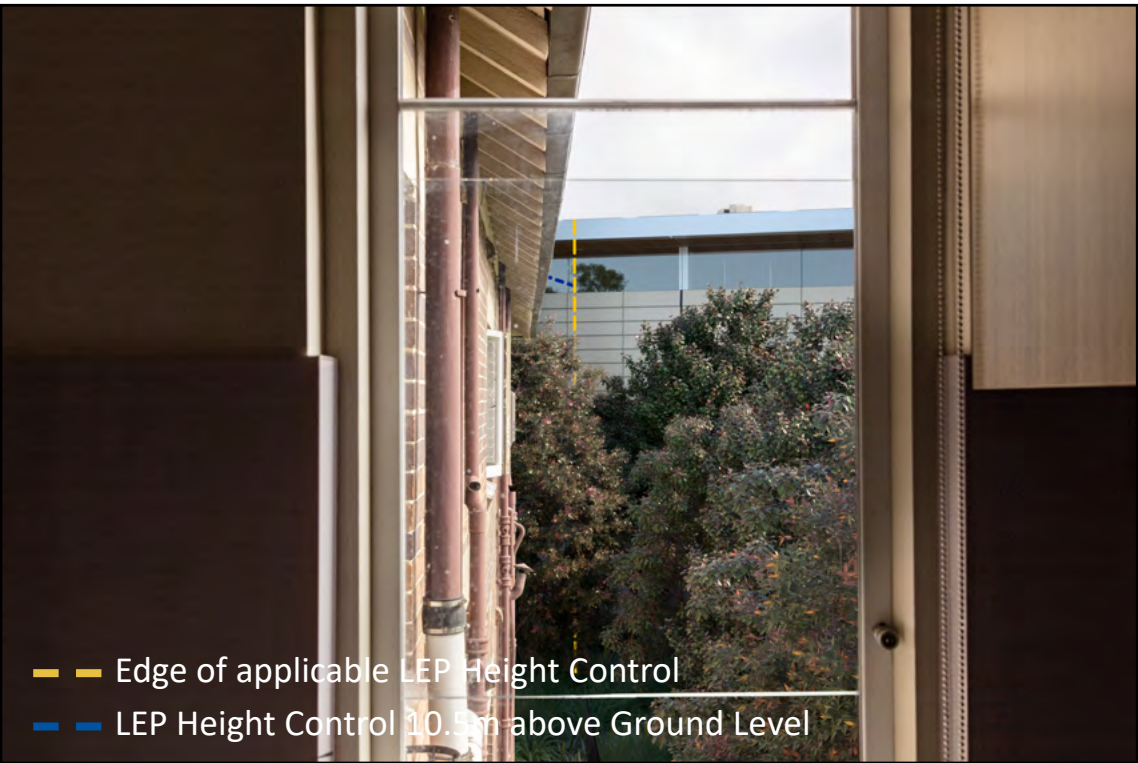




Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Kitchen of unit 9,
8 Vialoux Avenue

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference model









Areometrex city model

Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Living room of unit 12,
8 Vialoux Avenue

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference model









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Balcony of unit 204,
18-28 Neild Avenue

Photo Date:
26th May 2020

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF24-105mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points and model





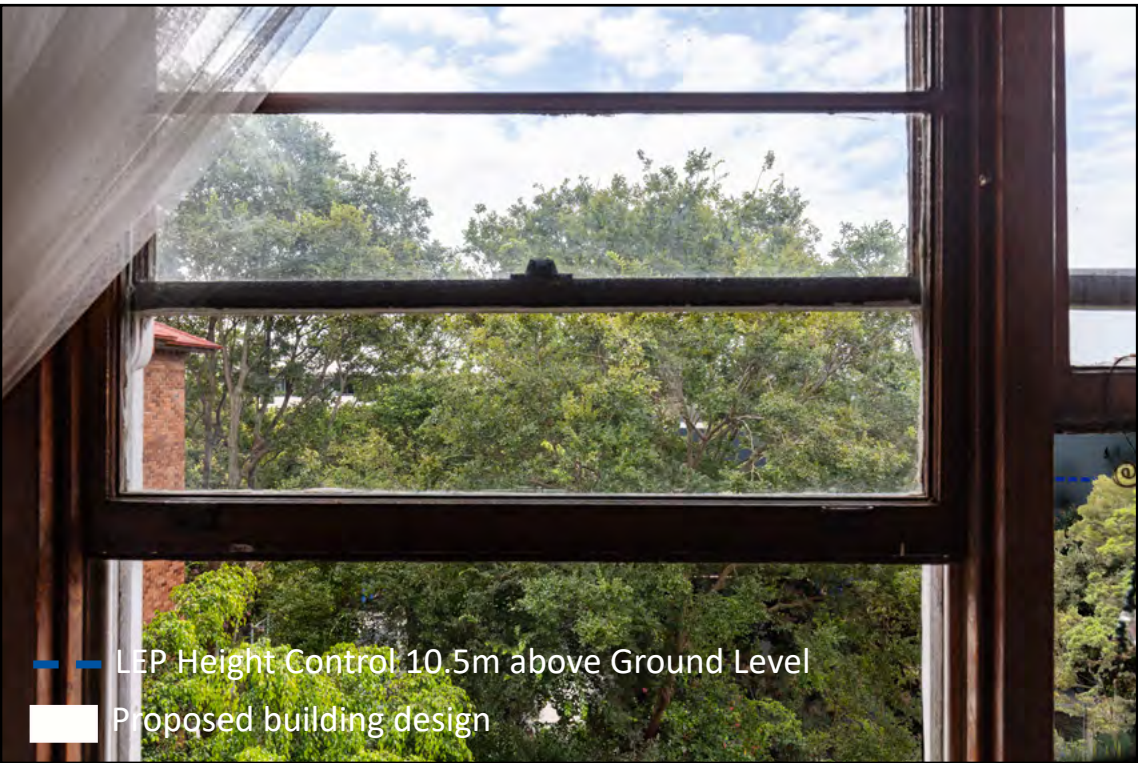




Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Living room of unit 18,
29-31 Lawson Street

Photo Date:
3rd February 2021

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF16-35mm f/4L IS USM

Focal length in 35mm Film:
24mm

Original photo indicating surveyed reference points and model









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Bedroom of unit 32,
29-31 Lawson Street

Photo Date:
3rd February 2021

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF16-35mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points and model









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Bedroom of unit 33,
29-31 Lawson Street

Photo Date:
3rd February 2021

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF16-35mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points and model









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Balcony of unit 45,
16 Neild Avenue

Photo Date:
3rd February 2021

Camera Used:
Canon EOS 5DS R

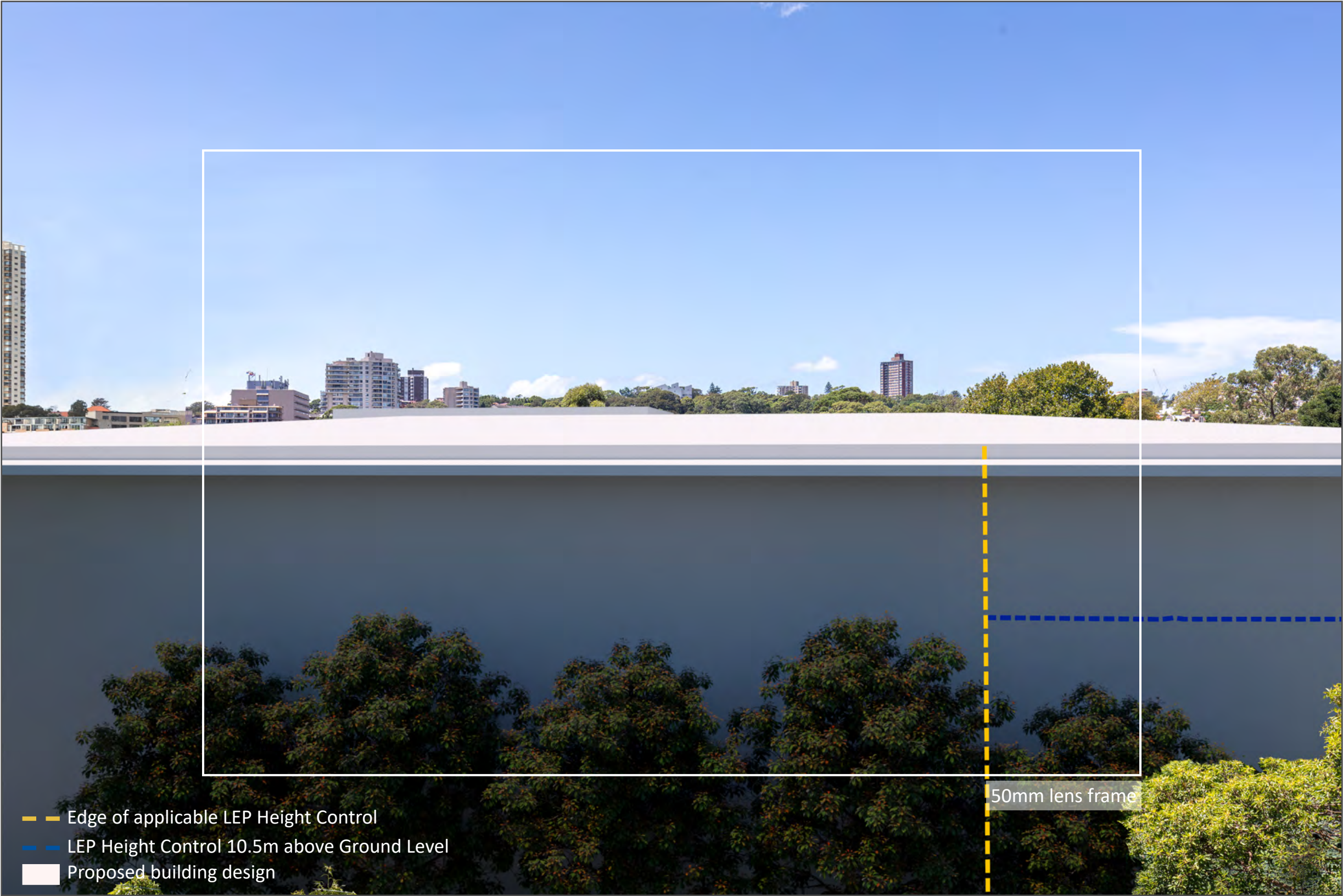
Camera Lens:
EF16-35mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points and model









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Balcony of unit 3310,
12 Neild Avenue

Photo Date:
3rd February 2021

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF16-35mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points and model









Original photograph



Photomontage indicating proposed building and landscaping



Photograph Details

Location Description:
Balcony of unit 4407,
12 Neild Avenue

Photo Date:
3rd February 2021

Camera Used:
Canon EOS 5DS R

Camera Lens:
EF16-35mm f/4L IS USM

Focal length in 35mm Film:
35mm

Original photo indicating surveyed reference points and model







Background detail is from the Aerometrex City model and for indicative purposes only



CAMERA LOCATIONS

Location Map Number	Easting	Northing	RL
1	336235.9	6249821.3	8.3
2	336291.83	6249737.17	13.69
3	336227.68	6249790.12	9.84
4	336058.47	6249810.6	9.08
5	336076.34	6249835.03	8.3
6	336123.28	6249881.31	7.45
7			
8	336250.65	6250103.22	6.47
9	336173.07	6249963.08	6.95
10	336299.85	6249823.09	8.13
5/8 Living L1	336205.04	6249821.18	11.7
9/8 living L2	336204.94	6249821.64	14.92
9/8 Kitchen facing west	336208.59	6249822.73	14.92
12/8 Living L3	336191.43	6249824.94	14.92
12/8 bed facing west	336186.57	6249824.79	14.92
204/18 Neild balcony	336106	6249862.38	15.12

Coordinates of photo points

Cam 01_24mm-002	Easting	Northing	RL
A (top pole)	336217.16	6249825.59	9.75
B (top pole)	336219.64	6249840.34	9.62
C (No.326-LHS)	NOT	VISIBLE	
D (No.326-RHS)	NOT	VISIBLE	
Cam 02_35mm_005	Easting	Northing	RL
A (bottom pole)	336279.51	6249757.36	10.33
B (bottom Pole)	336292.62	6249745.4	11.43
C (top sign)	336281.26	6249763.01	12.89
D (top sign)	336285.93	6249788.9	11.31
Cam 03_35mm_001	Easting	Northing	RL
A (bottom pole)	336217.2	6249809.72	7.16
B (Ridge)	336209.65	6249820.98	19.22
C (Bottom light pole)	336236.18	6249836.24	6.14
D (Conduit encasing)	336236.21	6249836.16	6.14
Cam 04_35mm_001	Easting	Northing	RL
A (bottom pole)	336070.97	6249818.97	7.24
B (bottom pole)	336076.89	6249810.95	7.35
C (bottom pole)	336089.21	6249818.4	7.04
D (top pole)	336074.33	6249823.04	10.11
E (top pole)	336092.44	6249821.64	15.71
Cam 05_35mm_003	Easting	Northing	RL
A (bottom pole)	336092.08	6249843.57	6.35
B (top corner sign)	336094.4	6249834.12	9.41
C (top corner sign)	336098.89	6249829.22	9.24
D (corner sign)	336088.36	6249829.95	8.14
E (top light pole)	336099.22	6249847.31	15.58
Cam 06_24mm_001	Easting	Northing	RL
A (bottom pole)	336139.28	6249875.91	5.73
B (bottom pole)	336143.35	6249871.26	5.81
C (bottom pole)	336140.97	6249866.97	5.85
D (top pole)	336131.89	6249867.52	14.89
E (corner wall)	336206.49	6249824.34	17.29

Coordinates of photo points

Cam 07_35mm_001	Easting	Northing	RL
A (corner of ridge LHS)	336188.56	6249868.91	13.5
B (Corner of ridge RHS)	336185.34	6249870.08	13.4
C (corner wall)	336278.14	6249794.97	17.74
D (Int ridge + wall)	336287.12	6249832.63	13.7
Cam 08_35mm_001	Easting	Northing	RL
A (bottom pole)	336250.31	6250072.91	4.49
B (bottom pole)	336245.32	6250064.35	4.47
C (bottom pole)	336235.62	6250046.54	4.6
D (bottom pole)	336240.19	6250077.75	4.85
E (corner ridge)	336250.56	6250059.8	12.1
Cam 09_35mm_001	Easting	Northing	RL
A (top yellow sign)	336132.45	6249867.29	9.21
B (end bar-bottom)	336177.46	6249943.05	13.42
C (end bar-bottom)	336179.41	6249942.26	13.44
D (corner gutter)	336194.55	6249872.25	10
Cam 10_24mm_003	Easting	Northing	RL
A (bottom pole)	336294.29	6249833.41	5.87
B (bottom pole LHS)	336295.73	6249835.23	5.89
C (bottom pole RHS)	336296.9	6249835	5.94
D (bottom pole)	336301.39	6249834.16	5.94
E (corner wall)	336289.31	6249835.46	12.33
F (bottom pole)	336322.27	6249875.16	3.74
U5_8 Vialoux_Liv_35mm_001	Easting	Northing	RL
A (corner of bar LHS)	336198.99	6249860.29	8.12
B (corner of bar RHS)	336201.7	6249859.76	8.11
U9_8 Vialoux_Kit_35mm_001	Easting	Northing	RL
A (corner of wall)	336103.09	6249857.3	19.57
B (corner of gutter)	336094.92	6249850.85	23.26
C (corner gutter underside)	336186.11	6249827.33	16.07
U9_8 Vialoux_Liv_35mm_001	Easting	Northing	RL
A (top post)	336222.41	6249855.7	10.13
B (top gutter)	336191.89	6249862.99	10.04

Coordinates of photo points 3 February 2021

U18 29-31 Lawson St_24mm	Easting	Northing	RL
A (corner gutter)	336 130.2	6 249 819.05	21.11
B (int lines)	336 149.25	6 249 833.75	6.18
C (int lines)	336 157.82	6 249 849.18	6.07
D (top post)	336 126.95	6 249 835.5	10.07
U32 29-31 Lawson St_Pos2_35mm_01	Easting	Northing	RL
A (top ridge)	336 185.28	6 249 869.92	13.5
B (top pole)	336 186.9	6 249 869.33	17.48
C (top pole)	336 184.3	6 249 863.16	10.01
D (corner of parapet)	336 218.9	6 250 051.61	33.28
U33 29-31 Lawson St_35mm_01	Easting	Northing	RL
A (corner gutter)	336 164.9	6 249 810.76	21.12
B (top corner of slab)	336 164.39	6 249 809.87	18.43
C (top corner of slab)	336 164.41	6 249 809.9	15.42
D (top corner of window beam)	336 187.07	6 249 823.16	12.49
U45 16 Neild Ave_35mm_03	Easting	Northing	RL
A (top ridge)	336 189.16	6 249 821.58	19.25
B (top ridge)	336 209.62	6 249 821.08	19.28
C (top pole)	336 164.13	6 249 867.11	10.06
D (bottom of wall)	336 182.65	6 249 872.52	4.29
U3310 12 Neild Ave_35mm_04	Easting	Northing	RL
A (corner of bar)	336 195.15	6 249 826.72	8.53
B (corner of bar)	336 178.66	6 249 829.87	8.46
C (top left corner sign)	336 176.58	6 249 830.19	8.32
U4407 12 Neild Ave_35mm_04	Easting	Northing	RL
A (intersection lines tennis court)	336 170.9	6 249 836.46	6.58
B (corner basketball backboard)	336 153.44	6 249 830.26	9.94
C (top corner of top bar of power pole)	336 149.48	6 249 888.5	14.66
D (top corner of lower bar of power pole)	336 149.53	6 249 888.5	14.02
E (top of brick parapet)	336 287.23	6 249 832.56	14.06





Sydney 75mm - 3D MODEL

Aerometrex Project Number: A5673
Aerial Survey Acquisition Dates: 4th, 10th, 11th and 12th February 2019
Number of frames captured: 127,250
Capture Pixel Size: 7.5 cm GSD
Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94)
Vertical Datum: Australian Height Datum (AHD)
Map Projection: MGA Zone 56 (MGA56)
FBX Offsets: X= 313,000 Y= 5,236,000

Spatial Accuracy – XYZ: Derived controls from 10cm Photogrammetric surveying – 25cm absolute accuracy

Data Summary:

- **FBX Tiles** – 3D mesh tiles in FBX format split into their Level of Details. Please refer to the associated *metadata.xml* and *Tile_Index.kml* folder for global offsets and tile extents respectively.

Please note there are different directories for different Level of details meaning L19 is typically the highest level of resolution and geometry and every Level down the geometry gets simplified as well as the texture resolution.



Figure 1: Sydney 2019 3D Model example



Figure 2: Sydney 2019 3D Model example

Any queries/feedback please contact Aerometrex - Adelaide
ph +61 8 8362 9911



DIGITAL CAMERA LENSES FOR PHOTOMONTAGES AND VISUAL IMPACT ASSESSMENTS

The intention of a photomontage rendering is to visually communicate how proposed built form sits in respect to its surroundings. To achieve this, a digitally rendered image from a digital 3D model is superimposed into a digital photograph to provide an accurate representation in terms of light, material, scale, and form.

Camera lens selection also plays an important part in creating a photomontage that communicates visual impact. There are several things to consider with respect to lens selection.

Field of View of the Human Eye

The field of view of the human eye is a topic that varies depending on the source of information. In many cases, the field of view of the eye is stated to be 17mm. Other opinions claim a smaller field of view of around 22-24mm.

Whichever the case, it is accepted that the human eye has a wide field of view. When a person stands close to a subject - for instance a building - their field of vision can potentially read all of the top, sides and bottom of the building simultaneously in a single glance.

In addition to this, the human eye can change focus and target direction extremely rapidly, allowing a person to view a large structure in a very short period of time, effectively making the perceived field of view even larger.

The Perspective of the human eye

It is difficult to accurately reproduce what the human eye sees by the means of a printed image. The eye's image sensor - the retina - is curved along the back surface of the eyeball, whereas the sensor on a camera is flat. Consequently, the perspective of a photograph can look quite different to how a person views a scene in the real world, especially when comparing to a photo captured with a wide camera lens.

In digital photography circles, it is widely accepted that using a longer lens (approximately 50mm) reduces the amount of perspective in an image and therefore more closely replicates what the human eye would see in reality. This, however, only addresses how the eye perceives perspective and does not consider the field of view of the eye.

If a photo is taken of a scene using a 50mm camera lens, printed out and then held up in front of the viewer against the actual view at the same location as the photo was taken, it is unmistakable that the human eye can see much more of the surrounding context than is captured within the photo.

DIGITAL CAMERA LENSES FOR PHOTOMONTAGES AND VISUAL IMPACT ASSESSMENTS

Changing the field of view on a digital camera

The main difference in using a longer lens vs a wider lens is the amount of information that is displayed at the edges of the subject. Changing the lens to a smaller FOV produces the same result as cropping in on the wide angle image, providing that the position and the angle of the camera remains constant while taking the photographs.

In short, a lens with a wider field of view does not create an image that has incorrect perspective, it simply means that the perspective is extended at the edges of the image showing more of the surrounds in the image.

Summary

With regards to visual assessment, there is no definitive solution for camera lens selection.

Longer lenses produce images that are more faithful to the perspective of the human eye, though the field of view is more limited, making it difficult to capture the entirety of a subject or enough of the surrounding context in which the subject resides.

Conversely, the perspective of wider camera lenses can make subjects appear further away than they would appear through the perspective of the human eye. This also limits a persons ability to accurately assess visual impact.

For these reasons, Virtual Ideas has taken the view that it is not possible to exactly replicate the real world view of the human eye in an image created with a camera and for visual impact photomontages, camera lenses are selected that strike a balance between these two considerations and can accurately display the built form in its surroundings.

The most effective way to accurately gauge visual impact and achieve a real world understanding of scale, is to take prints of the photomontages to the exact site photography locations and compare the prints with the scale of the existing built form.

