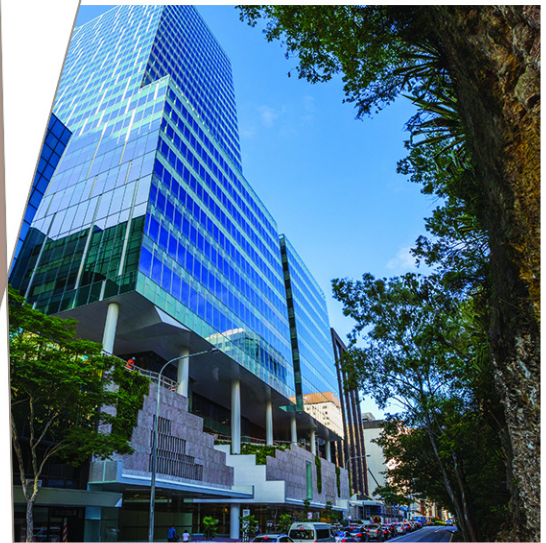


Moriah College STEAM Facility - Views Analysis

Moriah College Queens Park -
Proposed STEAM Facility

80220-008



Prepared for
Moriah College

10 October 2019

Contact Information

Cardno (NSW/ACT) Pty Ltd

ABN 95 001 145 035

Level 9 - The Forum

203 Pacific Highway

St Leonards NSW 2065

Australia

www.cardno.com

Phone +61 2 9496 7700

Fax +61 2 9439 5170

Document Information

Prepared for	Moriah College
Project Name	Moriah College Queens Park - Proposed STEAM Facility
File Reference	Document1
Job Reference	80220-008
Date	10 October 2019
Version Number	04 (Final)

Author(s): John O'Grady / Gilead Chen

Name	Effective Date	9/10/2019
Job title		

Approved By: John O'Grady

Name	Date Approved	9/10/2019
Job title		

Document History

Version	Effective Date	Description of Revision	Prepared by	Reviewed by
01	16/09/2019	Preliminary Findings Package	John O'Grady Gilead Chen	John O'Grady
02	17/09/2019	Prelim package rev 1	John O'Grady Gilead Chen	John O'Grady
03	09/10/2019	Final draft report	John O'Grady Gilead Chen	John O'Grady
04	10/10/2019	Final	John O'Grady Gilead Chen	John O'Grady

© Cardno. Copyright in the whole and every part of this document belongs to Cardno and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person other than by agreement with Cardno.

This document is produced by Cardno solely for the benefit and use by the client in accordance with the terms of the engagement. Cardno does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document.

Our report is based on information made available by the client. The validity and comprehensiveness of supplied information has not been independently verified and, for the purposes of this report, it is assumed that the information provided to Cardno is both complete and accurate. Whilst, to the best of our knowledge, the information contained in this report is accurate at the date of issue, changes may occur to the site conditions, the site context or the applicable planning framework. This report should not be used after any such changes without consulting the provider of the report or a suitably qualified person.

© Cardno. Copyright in the whole and every part of this document belongs to Cardno and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person other than by agreement with Cardno.

This document is produced by Cardno solely for the benefit and use by the client in accordance with the terms of the engagement. Cardno does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document.

Our report is based on information made available by the client. The validity and comprehensiveness of supplied information has not been independently verified and, for the purposes of this report, it is assumed that the information provided to Cardno is both complete and accurate. Whilst, to the best of our knowledge, the information contained in this report is accurate at the date of issue, changes may occur to the site conditions, the site context or the applicable planning framework. This report should not be used after any such changes without consulting the provider of the report or a suitably qualified person.

Table of Contents

1	Introduction	1
1.1	General	1
1.2	Process	1
2	Existing conditions	2
2.1	Planning background	2
2.2	Local visual character	2
3	Visual impacts of the proposal	4
3.1	Visibility of the proposed development	4
3.2	Views analysis	6
3.3	Visual impact assessment – findings	14
4	Conclusions	16

1 Introduction

1.1 General

The proposal to deliver a new STEAM facility at the Moriah College incorporates a number of new buildings of varying heights up to an equivalent of approximately 4 storeys. The main building in the proposal extends along part of the eastern boundary of the greater school site with a principal frontage and long elevation to Baronga Avenue and Queens Park.

The proposal in its preliminary form has received a response from the Government Architect which has included the following relevant comment:

We understand the maximum height of buildings on the site is 8.5m and that the proposed STEAM building exceeds this by 1 – 2 storeys. Shadow diagrams show that overshadowing to Queens Park as a result of this building is limited to the existing clump of trees to the edge of the park and paths and useable space are not impacted. However, visual impacts across the valley of Queens Park and Centennial Park remain a concern. To limit these impacts the design team is encouraged to reduce the height by reducing or relocating the extent of program accommodated by the STEAM building

In response to the Government Architect's comments, our understanding is that the principal task for this consultancy is to carry out an assessment of the impacts of the proposal in its current form on views from Queens Park and Centennial Park and potentially from other residential areas within the valley.

1.2 Process

In order to assess the visibility of the proposed development and its likely impacts on views from Queens Park and Centennial Park, Cardno has performed the following tasks:

1.2.1 Assessment of existing conditions

- > Review all background documentation, including local planning controls and strategies to understand the Consent Authority's expectations with regard to protection of local visual and landscape quality;
- > Carry out a site and area inspection to assess the visual character of the locality with regard to:
 - o Existing built form
 - o Open space
 - o Building to open space relationship
 - o View lines, both to and from the study area (specifically views from the Queens Park / Centennial Park valley)
 - o Permissible development in the vicinity which could impact on local visual quality
- > Preparation of a GIS based visual catchment diagram to indicate land within the locality of the site from which the development in its proposed form would be visible;
- > Identify representative locations with the identified visual catchment that may potentially be impacted by the development with regard to visual quality.
- > Prepare electronically generated photomontages over professional photos taken from a series of representative viewpoints. The photomontages have been prepared by Virtual Ideas Pty Ltd, visualisation specialists. The montage package and supporting documentation is to be read in conjunction with the Cardno report.

1.2.2 Assessment of impacts of the proposal on local views.

- > Carry out a qualitative assessment of the potential impact of the proposal on local visual quality.
- > Provide advice on the visual impacts of the proposal along with recommendations for mitigating measures if necessary.

2 Existing conditions

2.1 Planning background

2.1.1 Waverly Local Environmental Plan, 2012 (WLEP)

Development site

- The Moriah School site is zoned SP2 – Educational Establishment with a maximum Height of Building Development Standard of 8.5m.
- Land within the south west corner of the school site is zoned E2 – Environmental Conservation
- The school site is within the scheduled Queens Park Landscape Conservation Area under the WLEP. It has Local Heritage Significance.

Queens Park

- Queens Park is zoned RE1 – Public Recreation under the WLEP.
- Queens Park is also within the Queens Park Landscape Conservation Area with Local Heritage Significance.

2.1.2 Randwick Local Environmental Plan, 2012 (RLEP)

- Centennial Park is zoned RE1 - Public Recreation and is a listed Heritage Item of State Significance under the RLEP.

2.2 Local visual character

As a result of the presence of significant parcels of open space, including Queens Park and Centennial Park, the local landscape is characterised by:

- Relatively broad, open vistas with a predominance of vegetation.
- Intermittent visibility of buildings of varying architectural quality as horizon elements



Figure 2-1 Typical panoramic view from Queens Park.

The view provides an indication of the visual character of the locality incorporating broad open parklands with a vegetated backdrop interspersed with built form of varying architectural quality at the horizon.



Figure 2-2 Typical view across Queens Park looking north west towards the Sydney CBD.

- Broad, open landscape with vegetation dominating built form.
- City skyline visible in long views from the east



Figure 2-3 Typical view in the direction of the site from the north western edge of Centennial Park near Lang Road.

- Contained parkland landscape with intermittent views of built development on the horizon. Dense vegetation dominates the background.

3 Visual impacts of the proposal

3.1 Visibility of the proposed development

Visual catchment diagrams have been generated at radii of 1km and 2kms from the development site using LIDAR data and GIS technology.

The diagrams indicate that at a finished rooftop RL of 68.7m, as indicated on the architectural drawings prepared by FJMT, the building would be visible from the lower lying parts of Queens Park directly to the west of the site but would be screened by topography and existing vegetation in the Park from the majority of the parkland. Similarly, the proposed buildings would not be visible from the great majority of surrounding suburban residential lands incorporated in the Queens Park Heritage Conservation Area.

The diagrams also indicate that, apart from some very small areas of elevated land, the development would essentially not be visible from land to the west, including Centennial Park.

Typical view locations were selected from within the identified visual catchment to assess the likely impact of the development on local views.



Figure 3-1 Visibility of the developed site in 1km radius (red shading indicates areas from which the developed site would be visible).

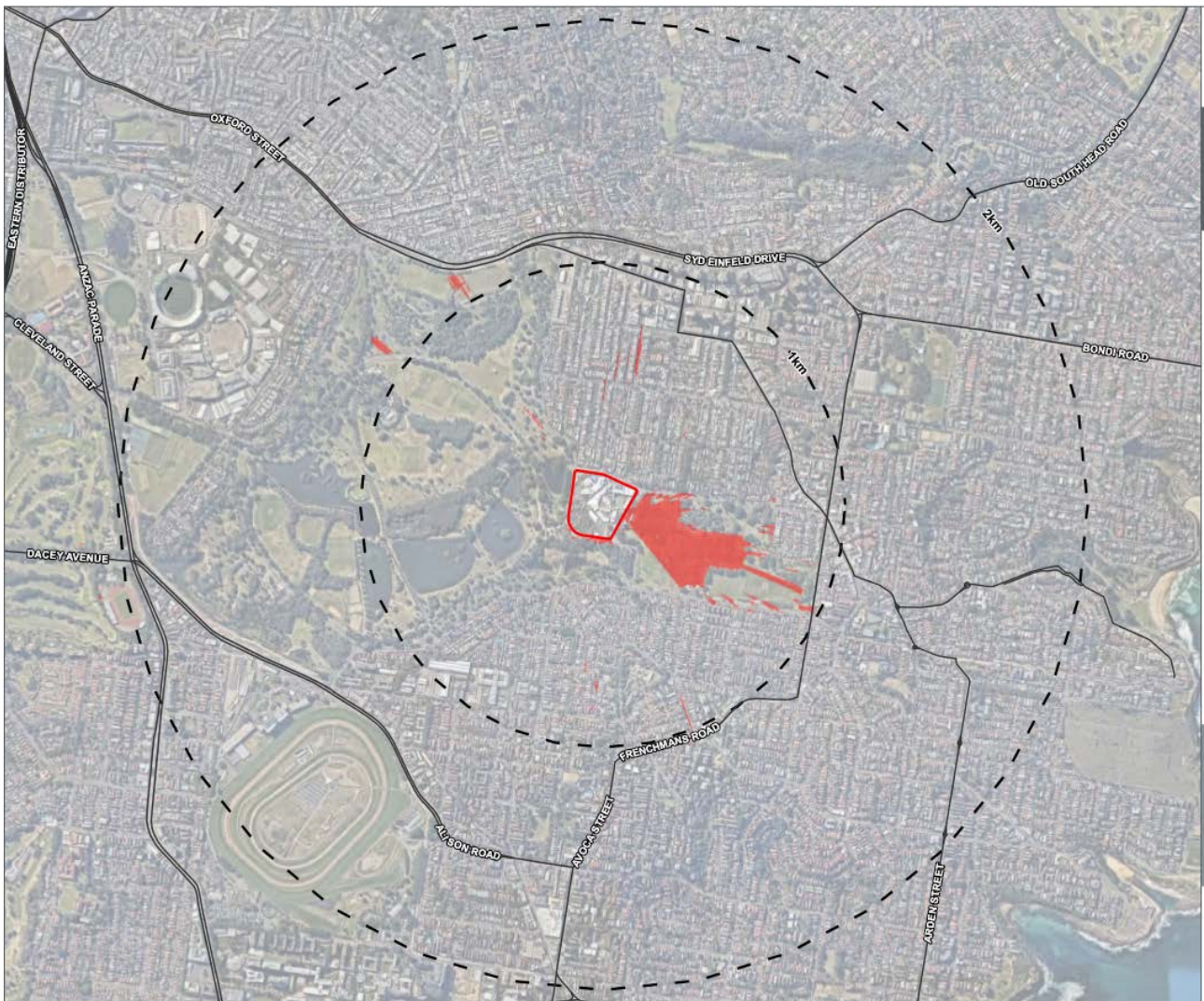


Figure 3-2 Visibility of the developed site in 2km radius (red shading indicates areas from which the developed site would be visible).

3.2 Views analysis

Following the preparation of the visual catchment maps, a site and area inspection was carried out in order to assess the likely visibility of the site in its developed form from a series of representative locations within the identified catchment.



Figure 3-3 Selected viewpoints (numbered)

After visiting the locality to make a preliminary assessment of the actual visibility of the developed site and its likely impact on local visual quality, nine locations were selected as representative of the potential impacts of the proposal on local visual quality. Six of these locations are within Queens Park, two in Centennial Park and one adjacent to the site on York Road. The viewpoints included:

- Viewpoints 1,2,3 & 6: close views east of the development site from within Queens Park;
- Viewpoints 4 & 5: mid distant views from mid Queens Park;
- Viewpoint 9: a street view from York Road directly south of the site; and
- Viewpoints 7 & 8: 2 viewpoints from elevated locations in the north western portion of Centennial Park.

In order to provide a clear indication of how the developed site would present within its locality, photomontages were prepared by Virtual Ideas Pty Ltd from six of the selected viewpoints. Copies of these are included below for analysis purposes. The images have been prepared in accordance with accepted practices in visual impact analysis. Accordingly the montage views and base photographs include crop marks to indicate the extent of the view that would be available using a 50mm lense – the focal length that is generally accepted to best represent the visibility of the human eye.

Outcomes of the analysis of impacts of the development on visual quality from the selected viewpoints are summarised below.

3.2.2 Views from Queens Park



Figure 3-4 Viewpoint 1 - close view towards the site from the north western edge of Queens Park



Figure 3-5 Viewpoint 1 - Montage (Virtual Ideas).

- Trees on the boundary of the Moriah College site and within Queens Park form a continuous natural backdrop in these views.
- The montage indicates that the proposed building would present as a new built element on the horizon in views from the north east. Its height would be visually similar to the existing street tree group along Baronga Avenue. These trees in combination with the substantial existing tree group on

the southern boundary of Queens Park would form a frame for the new building group in these views.

- Existing vegetation in on the Baronga Avenue boundary in front of the development site would be lost and there would be some loss of sky in these views.
- In general the new building at its proposed height would form a new built element that would be complementary to the local character of these views.



Figure 3-6 Viewpoint 2 – close views from the central western portion of Queens Park.

The proposed building would form a new built backdrop in these views. Foreground vegetation would be lost but would be replaced with new plantings as part of the proposed landscape scheme which is coordinated with the architectural design to result in a resolved design approach to the site. Our opinion is that the proposal would be an improvement in the quality of these views.



Figure 3-7 Viewpoint 3 – close view towards site from the south western edge of Queens Park.

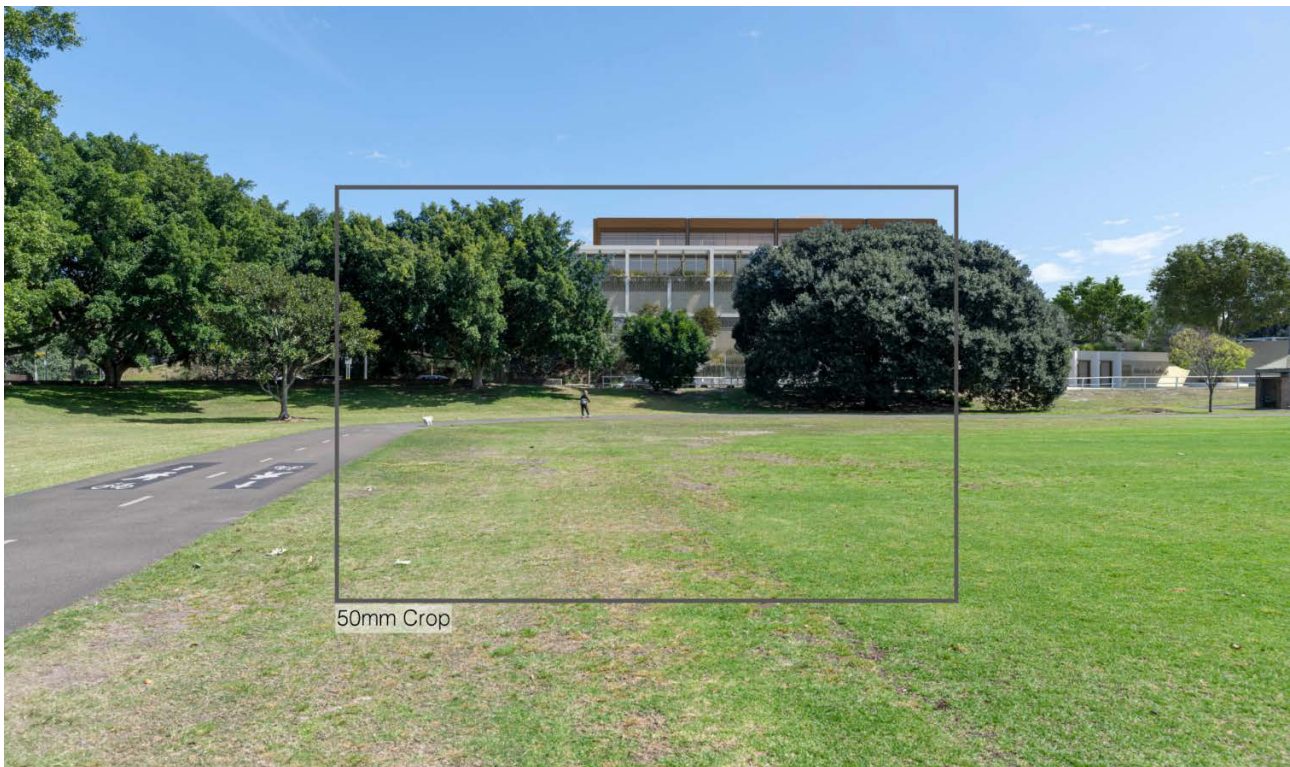


Figure 3-8 Viewpoint 3 - Montage (Virtual Ideas).

- The proposed building would be largely screened in these views by existing trees within the boundaries of Queens Park. This screening effect would increase with movement of the viewer to the south.
- Glimpses of the new built form would form an interest point that would improve the quality of these views.



Figure 3-9 Viewpoint 4 – Mid distant views from Queens Park



Figure 3-10 Viewpoint 4 - Montage (Virtual Ideas).

Mid distant views from Queens Park include a variably vegetated horizon with some built form visible. At its proposed height the new building would be a new built horizon element with a vegetated foreground. It would not substantially impact on the quality of these views and, contingent on the quality of its architecture, would potentially create a point of visual interest in the landscape.



Figure 3-11 Viewpoint 5 – long views from the eastern portion of Queens Park.



Figure 3-12 Viewpoint 5 – montage (Virtual Ideas)

The new building would be a small built horizon element in an expansive view with a vegetated foreground. Its impact on these views would be acceptable.



Figure 3-13 Viewpoint 6 slightly elevated view from the central northern portion of Queens Park.



Figure 3-14 Viewpoint 6 – montage (Virtual Ideas)

The building group would appear as a new horizon element framed and partially screened by existing trees in Queens Park and on Baronga Avenue. Again, subject to architectural quality, the new built form would potentially create a new point of interest as a skyline element with softening foreground vegetation intact.

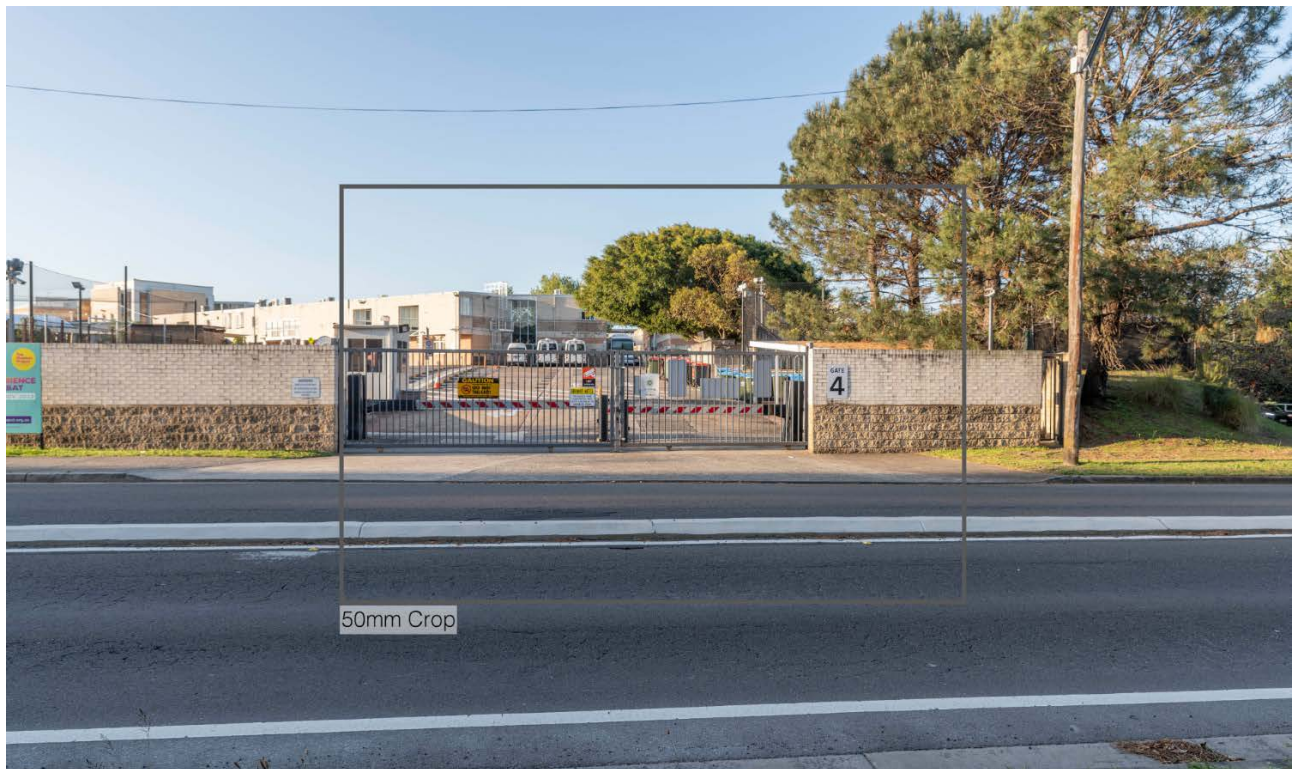


Figure 3-15 Viewpoint 9 – York Road directly opposite the development site.

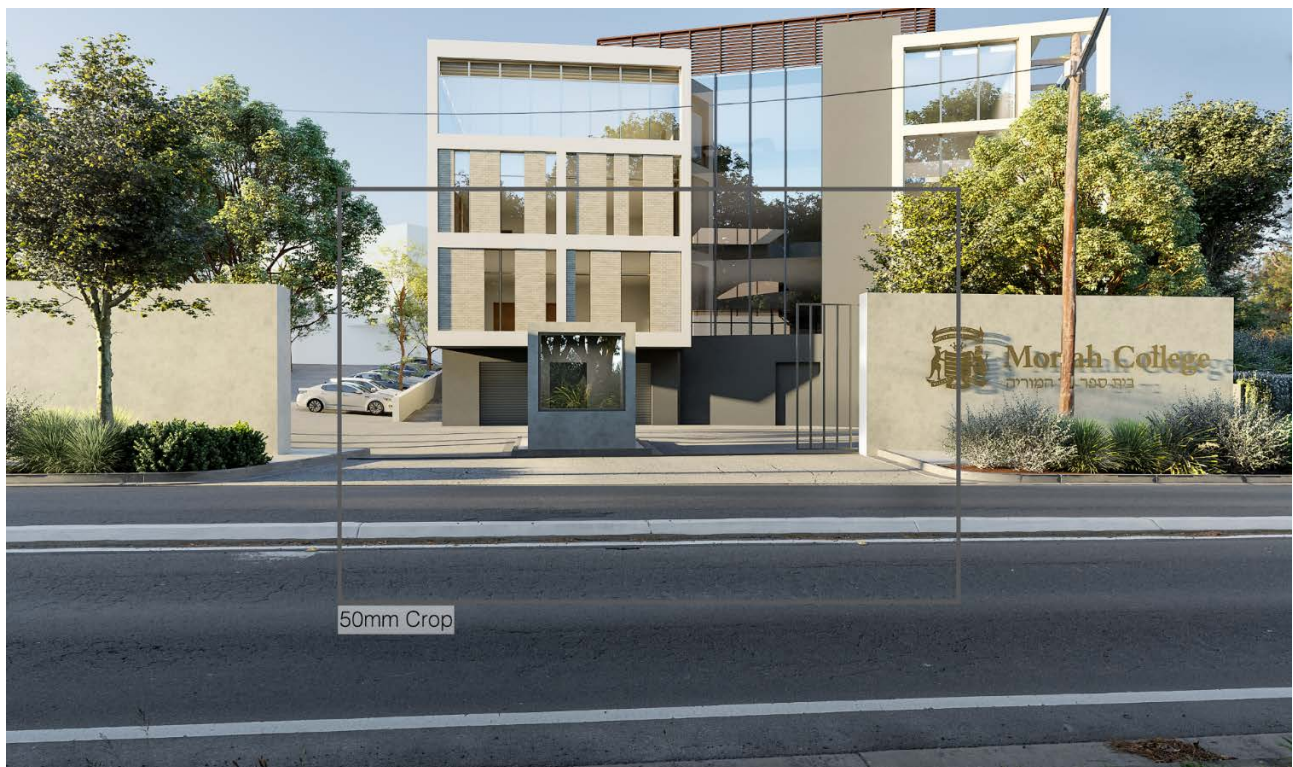


Figure 3-16 Viewpoint 9 – Montage (Virtual Ideas)

The site constitutes a non-descript and visually uninteresting element in existing views from York Road. The proposed development will significantly improve the quality of these views by providing a legible address to the school and a well resolved new built element. Proposed new plantings will further improve the quality of these views and create a visual link between Queens Park and Centennial Park.

3.2.3 Views from Centennial Park

The visual catchment analysis at Figures 3-1 & 3-2 indicates that potential views of the proposed development would only be available from very restricted portions of elevated land near the north western boundary of Centennial Park.



Figure 3-17 Viewpoint 7 – elevated view from the north eastern edge of Centennial Park.

The developed site may be partially visible near the roadside tree group in the central left portion of this view. If visible, the new buildings would constitute a very small component of a broad and expansive view.

The impacts of the proposed development on views from Centennial Park would be essentially negligible.

3.3 Visual impact assessment – findings

Views from the East (Queens Park)

- The development will create a new built element on the skyline in views from Queens Park.
- In both close and distant view from the Park the built form will be screened to differing degrees by existing vegetation along the boundaries of Queens Park and adjacent to the western edge of the Moriah College site.
- In views from the south east (around viewpoints 3 & 4) the new building will be substantially screened by vegetation with the screening effect increasing with movement to the south towards York and Darley Roads.
- From the central western and north western edges of Queens Park (around viewpoints 1 & 2) the building would form a substantial new skyline element in the view, with its lower portions screened by vegetation occurring largely within the boundary of the College site along its frontage to Baronga Avenue.
- From more distant views from the eastern edges of Queens Park, the developed site would form a small built horizon component in expansive views that include both built and vegetated horizons.

Views from the West (Centennial Park)

- The views assessment has found that the new development would be unlikely to be visible from Centennial Park. If visible at all, it would form a very small built component in expansive views from very restricted portions of elevated land near the north eastern boundary of the Park.
- Our opinion is that the impact of the development on the visual integrity of Centennial Park would be negligible.

Mitigation measures

Measures to mitigate any identified visual impacts may include:

- Retention and protection where possible of existing vegetation on the eastern boundary of the Moriah College site.
- Ensuring high architectural quality in the proposed building by:
 - Designing in response to the character of the locality;
 - Including well articulated and detailed facades;
 - Using non-reflective finishes, particularly on facades facing Queens Park
- Implementation of a considered landscape scheme that will complement the built form and provide a landscape setting consistent with the visual and heritage values of the locality.

4 Conclusions

Cardno has carried out this analysis of the impacts of the proposal to develop a new STEAM facility at the Moriah College at Queens Park in response to comments made by the NSW Government Architect's Office in relation to the proposed height of the new building group. Specifically, the Government Architect has stated that:

“..... visual impacts across the valley of Queens Park and Centennial Park remain a concern. To limit these impacts the design team is encouraged to reduce the height by reducing or relocating the extent of program accommodated by the STEAM building.”

The analysis has been supported by a series of photomontages of views from selected representative viewpoints prepared by Virtual Ideas Pty Ltd. The montage package and supporting documentation is to be read in conjunction with the Cardno report.

Cardno's analysis of the additional height of the proposed development over the permissible maximum height of 8.5 metres has found:

- The new building group would be visible from Queens Park and from surrounding streets but would be either framed or significantly screened by existing vegetation. In this context, it is considered that the building group as proposed would be a contributive element to local visual quality in these views.
- The building has been shown through GIS based visual catchment analysis to be only visible from very isolated locations within Centennial Park. Where it would be potentially visible it would form a very small component of broad and expansive views and its impact on visual quality would be negligible.

Our overall conclusion is that the development at its proposed height would not have an unacceptable impact on views from the locality and specifically from Queens Park and Centennial Park.