Hastings Secondary College, Port Macquarie

Visual impact photomontage and methodology report

VIRTUAL IDEAS

1. INTRODUCTION

This document was prepared by Virtual Ideas to demonstrate the visual impact of the proposed development at Hastings Secondary College, Port Macquarie NSW with respect to the existing built form and site conditions.

2. VIRTUAL IDEAS EXPERTISE

Virtual Ideas is an architectural visualisation company that has over 15 years experience in preparing visual impact assessment content and reports on projects of major significance that meet the requirements for relevant local and state planning authorities.

Our reports have been submitted as evidence in proceedings in both the Land and Environment Court and the Supreme Court of NSW. Our director, Grant Kolln, has been an expert witness in the field of visual impact assessment in the Supreme Court of NSW.

Virtual Ideas' methodologies and outcomes have been inspected by various court appointed experts in relation to previous visual impact assessment submissions, and have always been found to be accurate and acceptable.

3. PHOTOMONTAGE METHODOLOGY

The following describes the process that we undertake to create the photomontage renderings that form the basis of this report.

3.1 DIGITAL 3D SCENE CREATION

The first step in our process is the creation of an accurate, real world scale digital 3D scene that is positioned at a common reference point using the MGA 56 co-ordinates system.

We have used a variety of data from various sources to create the 3D scene including a building 3D model and a site survey. A detailed description of the various data sources used in this report can be found in Appendix A.

All data has been imported into the 3D scene at real world scale and positioned to a common reference point. This common reference point is established by using the MGA-56 co-ordinates system.
When we receive data sources that are not positioned to MGA-56 co-ordinates, we use common points in the data sources that can be aligned to points in other data sources that are positioned at MGA-56. This can be data such as site boundaries and building outlines.

Descriptions of how we have aligned each data source can also be found in Section 3.4.

3.2 SITE PHOTOGRAPHY

The site photography was captured from locations that were nominated by Ethos Urban, School Infrastructure NSW and DFP Planning.

Camera lenses for each photograph were selected taking a variety of factors into consideration including the distance from the site and the size of the proposed development with respect to the existing built form and landscape.

In some cases, a specific lens requirement set by planning authorities may not produce a photomontage that is effective for visual impact assessment. In the cases where we are required to satisfy a specific lens stipulation and we consider that this is not effective for assessment of visual impact, we will outline the extent of the longer lens on the photomontage.

Full metadata of the photographs was recorded during the site photography. The critical data we extracted was date, time and lens width or field of view.

3.3 SITE AND PHOTOGRAPHY LOCATION SURVEY

To correctly adjust the digital cameras in our 3D scenes to match the positions of the site photography, we used the relevant information provided in the site survey drawing (at MGA 56 co-ordinates) and a 3D model was created from drawings provided from FJMT.

3.4 ALIGNMENT OF 3D SCENE TO PHOTOGRAPHY

To align the 3D scene to the photograph, we first imported the site and photography location survey data into the 3D scene.

We then loaded the photograph into the background of the corresponding 3D scene camera view, ensuring that the aspect ratio and lens setting match.

The 3D scene camera was moved to the correct position and rotated so that the surveyed feature locations match the same features in the photograph.

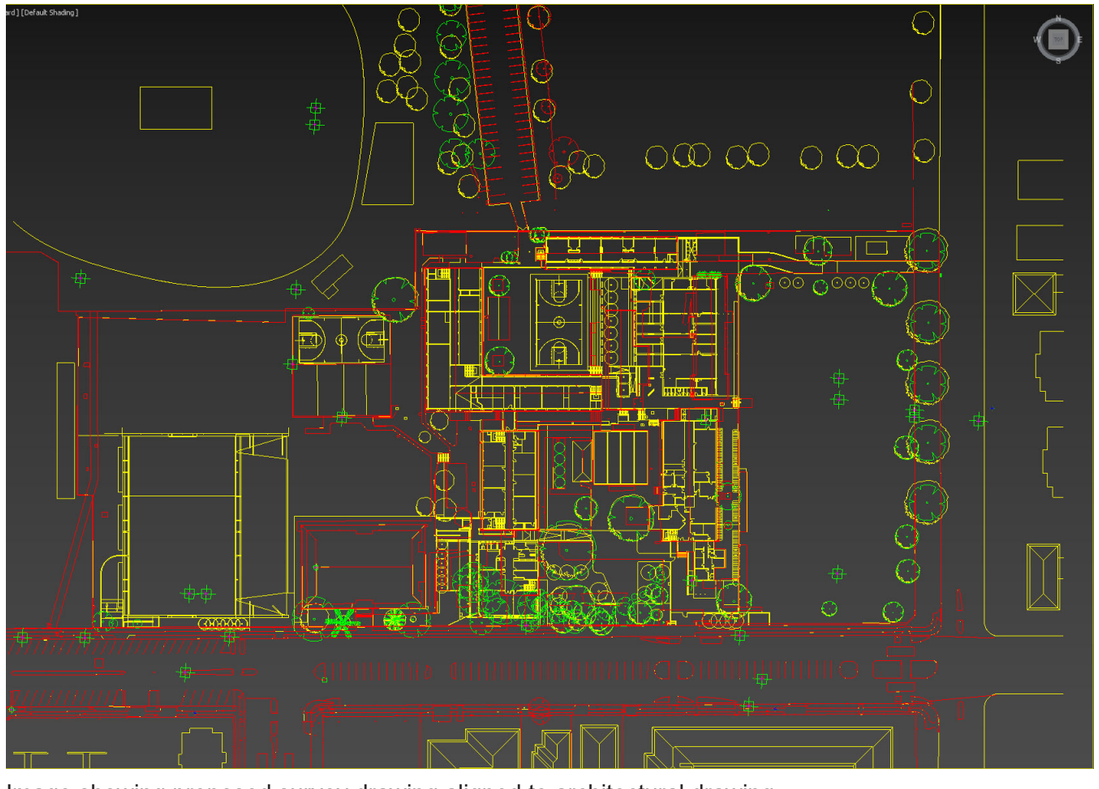


Image showing proposed survey drawing aligned to architectural drawing

3.5 RENDERING AND PHOTOMONTAGE CREATION

After the completing the camera alignment, we add lighting to the 3D scene.

A digital sunlight system was added in the 3D scene to match the lighting direction of the sun in the photograph. This was done using the software sunlight system that matches the angle of the sun using location data and time and date information. This data was extracted from the metadata of the site photographs.

For the photomontages, we were requested to apply a basic white material to the proposed development.

Trees being proposed for removal were also removed from the photography where this was achievable and trees easily identifiable. We referenced the supplied documentation included as Appendix E and F to ascertain the locations of such trees.

We also placed future proposed trees into the 3D model referring the proposed tree manangment plan included as Appendix G. Proposed trees are shown in the images as semi-transparent with a green overlay.

Images were then rendered from the software and layered over the photograph. Additional linework was added to show where built form occurs behind existing built form and landscape.

Image showing building model aligned to architectural drawing

4. MAP OF PHOTOGRAPHY LOCATIONS

PLAN ILLUSTRATING CAMERA LOCATIONS FOR VISUAL IMPACT PHOTOGRAPHY OF HASTING SECONDARY SCHOOL, PORT MACQUARIE NSW

5.1 CAMERA POSITION 01

ORIGINAL PHOTOGRAPH

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

Photo Date:	11th May 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF16-35mm f/4L IS USM
Focal length in 35mm Film:	24mm

5.1 CAMERA POSITION 01

ORIGINAL PHOTOGRAPH

5.1 CAMERA POSITION 01

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

5.2 CAMERA POSITION 02

ORIGINAL PHOTOGRAPH

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

Photo Date:	11th May 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF16-35mm f/4L IS USM
Focal length in 35mm Film:	24mm

5.2 CAMERA POSITION 02

ORIGINAL PHOTOGRAPH

5.2 CAMERA POSITION 02

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

5.3 CAMERA POSITION 03

ORIGINAL PHOTOGRAPH

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

Photo Date:	11th May 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF16-35mm f/4L IS USM
Focal length in 35mm Film:	24mm

5.3 CAMERA POSITION 03

ORIGINAL PHOTOGRAPH

5.3 CAMERA POSITION 03

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

5.4 CAMERA POSITION 04

ORIGINAL PHOTOGRAPH

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

Photo Date:	11th May 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF16-35mm f/4L IS USM
Focal length in 35mm Film:	24mm

5.4 CAMERA POSITION 04

ORIGINAL PHOTOGRAPH

5.4 CAMERA POSITION 04

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

5.5 CAMERA POSITION 05

ORIGINAL PHOTOGRAPH

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

Photo Date:	11th May 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF16-35mm f/4L IS USM
Focal length in 35mm Film:	24mm

5.5 CAMERA POSITION 05

ORIGINAL PHOTOGRAPH

5.5 CAMERA POSITION 05

PHOTOMONTAGE OF PROPOSED DEVELOPMENT

6.1 APPENDIX A: 3D SCENE DATA SOURCES

A.1 - 3D Model of the proposed development

File Name:	HSPM Hastings Schools Port Macquarie Model
Author:	FJMT
Format:	DIN3D
Scene Alignment:	MGA GDA2020

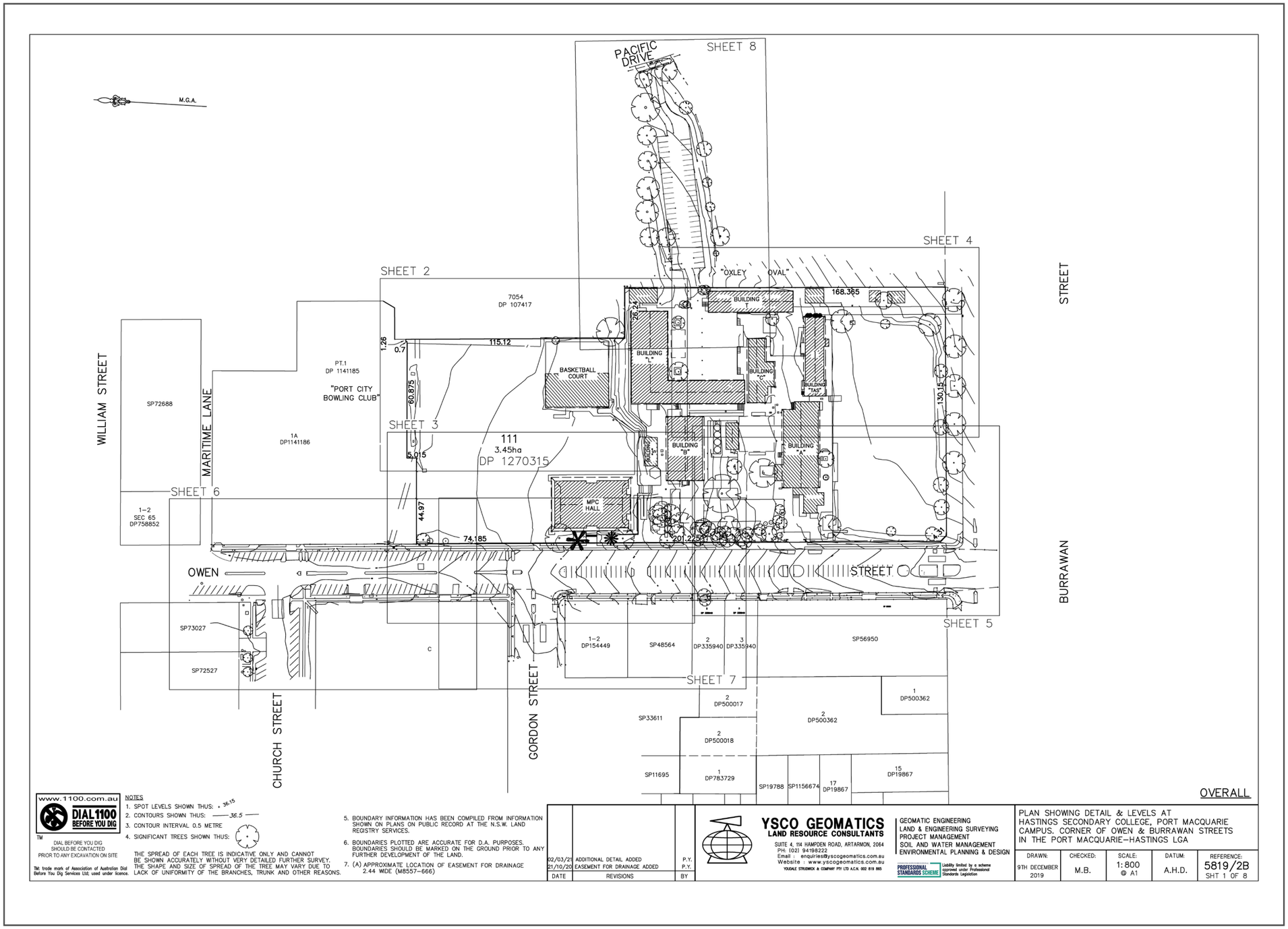
A.2 - Site Survey - refer to Appendix B for details

File Name:	55819-2B DETAIL.dwg
Author:	YSCO GEOMATICS
Format:	Autocad DWG
Alignment:	MGA GDA2020

A.2 - Survey of camera location and alignment positions - refer to Appendix C for details

File Name:	5819-2C.dwg
Author:	YSCO GEOMATICS
Format:	Autocad DWG
Alignment:	MGA GDA2020

6.2 APPENDIX B: SITE SURVEY SUPPLIED BY YSCO GEOMATICS



www.1100.com.au
DIAL 1100 BEFORE YOU DIG
TM
DIAL BEFORE YOU DIG SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION ON SITE

TM: trade mark of Association of Australian Dial Before You Dig Services Ltd; used under licence.

NOTES
1. SPOT LEVELS SHOWN THUS: + 36.15
2. CONTOURS SHOWN THUS: —— 36.5 ——
3. CONTOUR INTERVAL 0.5 METRE
4. SIGNIFICANT TREES SHOWN THUS:

THE SPREAD OF EACH TREE IS INDICATIVE ONLY AND CANNOT BE SHOWN ACCURATELY WITHOUT VERY DETAILED FURTHER SURVEY. THE SHAPE AND SIZE OF SPREAD OF THE TREE MAY VARY DUE TO LACK OF UNIFORMITY OF THE BRANCHES, TRUNK AND OTHER REASONS.

5. BOUNDARY INFORMATION HAS BEEN COMPILED FROM INFORMATION SHOWN ON PLANS ON PUBLIC RECORD AT THE N.S.W. LAND REGISTRY SERVICES.
6. BOUNDARIES PLOTTED ARE ACCURATE FOR D.A. PURPOSES. BOUNDARIES SHOULD BE MARKED ON THE GROUND PRIOR TO ANY FURTHER DEVELOPMENT OF THE LAND.
7. (A) APPROXIMATE LOCATION OF EASEMENT FOR DRAINAGE 2.44 WIDE (M8557–666)

DATE	REVISIONS	BY
02/03/21	ADDITIONAL DETAIL ADDED	P.Y.
21/10/20	EASEMENT FOR DRAINAGE ADDED	P.Y.

YSCO GEOMATICS
LAND RESOURCE CONSULTANTS
SUITE 4, 114 HAMPDEN ROAD, ARTARMON, 2064
PH: (02) 94198222
Email : enquiries@yscogeomatics.com.au
Website : www.yscogeomatics.com.au
YOUDALE STRUDWICK & COMPANY PTY LTD A.C.N. 002 819 885

GEOMATIC ENGINEERING
LAND & ENGINEERING SURVEYING
PROJECT MANAGEMENT
SOIL AND WATER MANAGEMENT
ENVIRONMENTAL PLANNING & DESIGN

PROFESSIONAL STANDARDS SCHEME — Liability limited by a scheme approved under Professional Standards Legislation

PLAN SHOWING DETAIL & LEVELS AT HASTINGS SECONDARY COLLEGE, PORT MACQUARIE CAMPUS. CORNER OF OWEN & BURRAWAN STREETS IN THE PORT MACQUARIE–HASTINGS LGA

DRAWN:	CHECKED:	SCALE:	DATUM:	REFERENCE:
9TH DECEMBER 2019	M.B.	1:800 @ A1	A.H.D.	5819/2B SHT 1 OF 8

6.3 APPENDIX C: PHOTOGRAPHY SURVEY SUPPLIED BY YSCO GEOMATICS

Project: HASTINGS SECONDARY SCHOOL DEVELOPMENT
PORT MACQUARIE

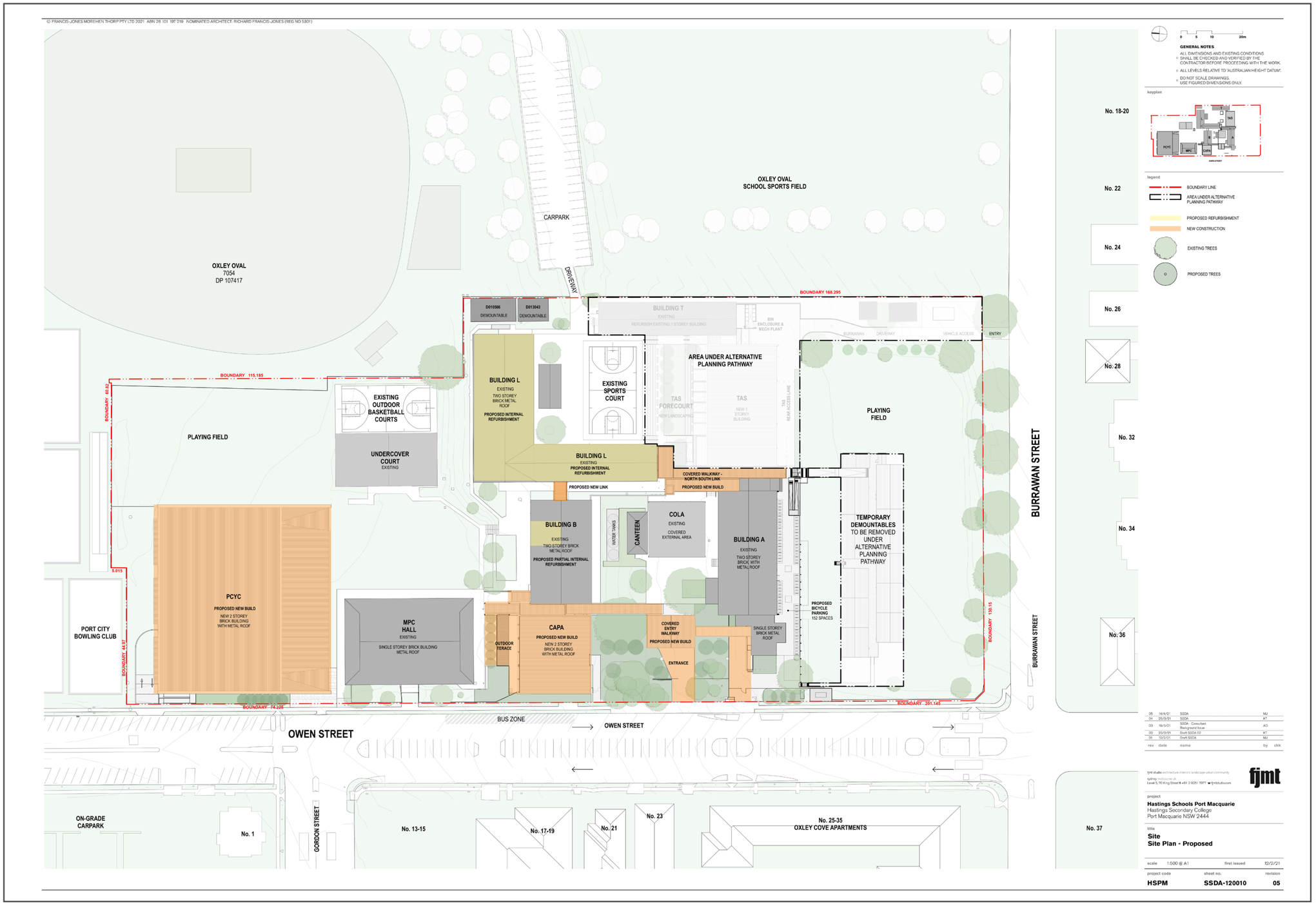
Survey and Coordination of Photo Control Points
YSCO GEOMATICS Ref: 5819 Photo Points (amendment A)
Date of Survey: 13 MAY 2021

Notes:
- Points surveyed relate to the brief provided on 12 MAY 2021
- Coordinates have been shown in MGA2020 coordinates (ground coordinates related to PM11959)
- Reduced Levels (RL) are related to Australian Height Datum (AHD)
- Points surveyed using combination of GNSS and total station observations
-This table to be used in conjunction with the .dwg file provided, and the data contained in this hard copy table takes precedence over any co-ordinate interpolated from the CAD file or EXCEL spreadsheet

Point Number	Easting (MGA 2020 ground coordinates (origin PM11959))	Northing (MGA 2020 ground coordinates (origin PM11959))	REDUCED LEVEL AH.D.	Description
1	492358.20	6522536.09	9.22	**CAMERA VIEW 01**
101	492384.83	6522524.70	11.81	CORNER OF STREET SIGN
102	492386.02	6522503.61	18.64	TOP OF LIGHT POLE
103	492414.55	6522427.12	21.39	RIDGE POINT
104	492360.22	6522526.90	11.86	TOP OF STREET SIGN POST
2	492376.26	6522269.14	18.66	**CAMERA VIEW 02**
201	492386.12	6522274.18	18.89	REFLECTOR IN ROAD
202	492417.84	6522299.93	22.78	CORNER OF BUILDING GUTTER
203	492376.67	6522278.14	21.31	TOP OF STREET SIGN POST
204	492400.33	6522282.58	29.21	TOP OF POWER POLE
205	492399.27	6522354.91	18.28	CORNER OF GUTTER OF ENTRY BUILDING
3	492482.23	6522202.07	22.94	**CAMERA VIEW 03**
301	492477.65	6522206.44	22.83	JOINT IN CONCRETE KERB
302	492481.99	6522253.98	24.82	CORNER OF BUILDING GUTTER (MIDDLE)
303	492489.16	6522254.48	24.72	CORNER OF BUILDING GUTTER (EAST)
304	492472.38	6522298.45	26.20	CORNER OF BUILDING GUTTER (WEST)
305	492423.19	6522250.96	21.59	BOTTOM CORNER OF BUILDING
306	492477.59	6522228.14	24.75	TOP OF FENCE POST
307	492480.07	6522228.30	24.78	TOP OF FENCE POST
4	492615.32	6522533.37	12.03	**CAMERA VIEW 04**
401	492507.22	6522512.53	35.97	TOP OF RIGHT HAND LIGHT POLE
402	492507.89	6522439.55	36.50	TOP OF LEFT HAND LIGHT POLE
403	492569.54	6522436.67	14.85	CORNER GOAL POST (EAST)
404	492563.84	6522436.69	14.81	CORNER GOAL POST (WEST)
405	492482.60	6522439.21	19.03	CORNER GUTTER BASKETBALL STADIUM

Point Number	Easting (MGA 2020 ground coordinates (origin PM11959))	Northing (MGA 2020 ground coordinates (origin PM11959))	REDUCED LEVEL AH.D.	Description
5	492362.91	6522464.91	10.36	**CAMERA VIEW 05**
501	492376.41	6522469.01	11.60	TOP OF SIGN IN MEDIAN
502	492403.03	6522469.27	16.70	TOP OF GOAL POST (NORTH)
503	492403.34	6522463.58	16.70	TOP OF GOAL POST (SOUTH)
504	492389.37	6522454.82	13.70	TOP OF PARKING SIGN
505	492465.73	6522421.41	20.98	RIDGE OF BASKETBALL STADIUM

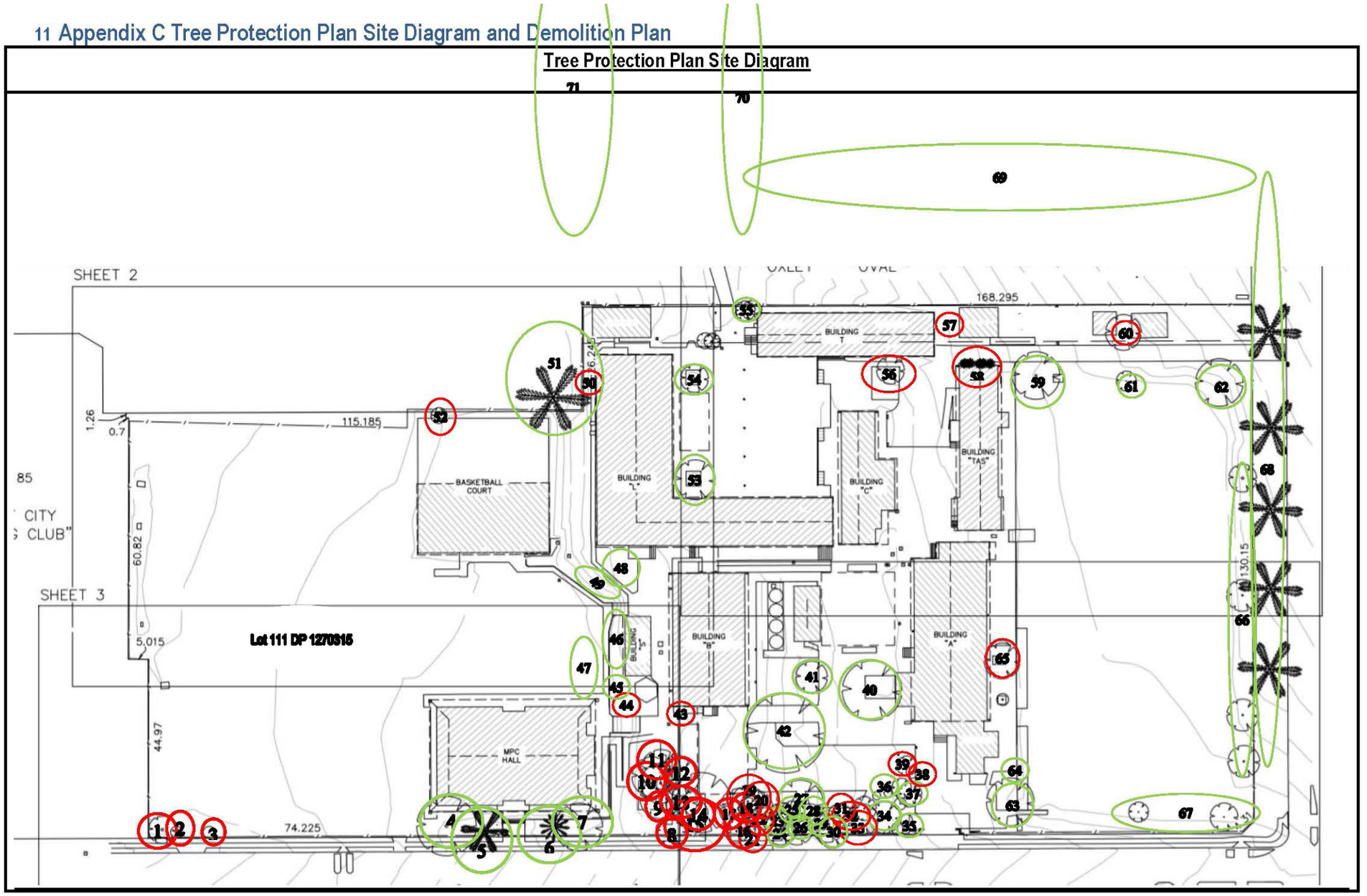
6.4 APPENDIX D: ARCHITECTURAL PLANS SUPPLIED BY FJMT



6.4 APPENDIX E: TREE REMOVAL PLAN SUPPLIED BY FJMT

6.4 APPENDIX F: TREE REMOVAL PLAN CREATED BY THE TREE MD PTY LTD

11 Appendix C Tree Protection Plan Site Diagram and Demolition Plan



Geoffrey Ashton Hastings Secondary College Port Macquarie Campus
Created: 16th April 2021

Page 53 of 61

6.4 APPENDIX G: TREE MANAGEMENT PLAN - PROPOSED SUPPLIED BY FJMT