



Prepared For: Hindmarsh

Lindfield Learning Village Stage 2

Construction Noise and Vibration Management Sub Plan

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1 Introduction

White Noise Acoustics has been engaged to undertake the acoustic assessment of the noise and vibration impacts during the construction stage of the Lindfield Learning Village Stage 2 project.

The assessment has been undertaken in conjunction with the requirements of Item B16 of the projects *Conditions of Consent* and the EPA's Interim Construction Noise Guideline which is detailed in this report.

This report includes the recommended noise and vibration mitigations and management controls for the operation of construction activities on the site to ensure impacts to surrounding receivers are minimised.

2 Development Description

The proposed development includes the construction of Stage 2 of the Lindfield Learning Village project which is located to the south of Dunstan Grove on the old UTS Kuring-Gai Campus.

The surrounding receivers to the site include residential receivers within proximity to the site.

The site location is detailed in Figure 1 below.

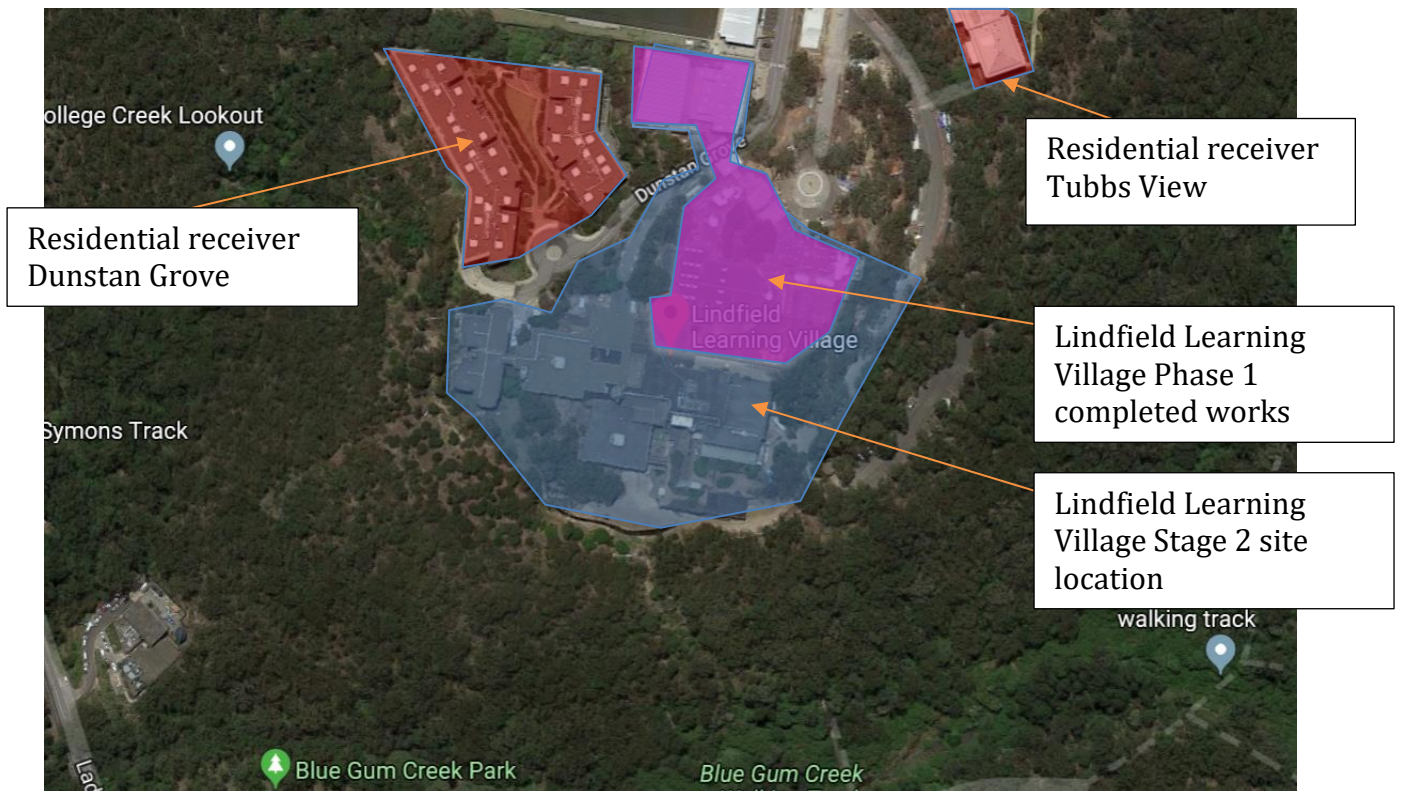


Figure 1 – Site Location including surrounding residential receivers

2.1 Conditions of Consent

The management of noise and vibration associated with the required construction works to be undertaken as part of the project will be undertaken in conjunction with the requirements of the DA Conditions of Consent, including Item B16 that requires the construction of the project to comply with NSW Dept of Env & Climate Change *"Interim Construction Noise Guideline"* 2009 and includes the following:

B14	The Construction Noise and Vibration Management Sub-Plan must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced noise expert;
	(b) describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009);
	(c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers;
	(d) include strategies that have been developed with the community for managing high noise generating works;
	(e) describe the community consultation undertaken to develop the strategies in condition B14(d);
	(f) include a complaints management system that would be implemented for the duration of the construction; and
	(g) include a program to monitor and report on the impacts and environmental performance of the development and the effectiveness of the management measures in accordance with condition B11.

This report has been undertaken in compliance with the items above and details the required management controls to comply with the Conditions of Consent detailed above.

3 Existing Acoustic Environment

The Lindfield Learning Village site is located on the site formally used as the UTS Ku-Ring-Gai Campus. The site is located within an area which does not include significant transportation industrial or commercial noise sources.

Existing environmental noise levels at the site are dominated by traffic noise generated predominantly from surrounding roadways.

As part of this previously conducted *Lindfield Learning Village, Phase 2 and 3 – Revised Noise Impact Assessment* dated 18th August 2020 an assessment of background noise levels has been undertaken, which will be used as the basis of this report. The site survey included the use of two noise monitoring locations including representative locations for the residential receivers within proximity to the site as detailed in Figure 1 above.

3.1 Noise Survey Results

The results of the noise survey undertaken within the *Lindfield Learning Village, Phase 2 and 3 – Revised Noise Impact Assessment* dated 18th August 2020 report have been used as the basis of this assessment and are summarised in Table 1 below.

Table 1 – Results of Noise Survey at the Site

Measurement Location	Time of Measurement	L _{Aeq, t} dB(A)	L _{A90, 15min} dB(A)	Comments
Residential Receiver Location – Dunstan Grove	Daytime	56 (15 hour) 59 (worst 1 hour)	42	Noise level at the site dominated by vehicle movements on surrounding roadways and the surrounding natural environment
	Evening	56 (15 hour) 59 (worst 1 hour)	40	
	Nighttime	47 (9 hour) 52 (worst 1 hour)	38	
Residential Receiver Location – Tubbs View	Daytime	56 (15 hour) 59 (worst 1 hour)	40	
	Evening	51 (15 hour) 53 (worst 1 hour)	39	
	Nighttime	47 (9 hour) 51 (worst 1 hour)	35	

4 Construction Noise and Vibration Assessment

This section of the report details the assessment of noise associated with the proposed construction activities associated with the development. The assessment has been undertaken to assess the potential noise impacts from construction and excavation on surrounding receivers to the site.

The proposed construction and excavation activities to be undertaken on the site include the excavation and construction on the site. The development will then be constructed using normal construction processes.

4.1 Construction Noise

The assessment of construction noise impacts generated from the site has been undertaken in accordance with the requirements of the EAP Interim Construction Noise Guideline.

The EPA's Interim Construction Noise Guideline defines normal day time hours as the following:

2.2 Recommended standard hours

The recommended standard hours for construction work are shown in Table 1; however, they are not mandatory. There are some situations, as described below, where construction work may need to be undertaken outside of these hours. The likely noise impacts and the ability to undertake works during the recommended standard hours should be considered when scheduling work.

Table 1: Recommended standard hours for construction work

Work type	Recommended standard hours of work*
Normal construction	Monday to Friday 7 am to 6 pm Saturday 8 am to 1 pm No work on Sundays or public holidays
Blasting	Monday to Friday 9 am to 5 pm Saturday 9 am to 1 pm No blasting on Sundays or public holidays

* The relevant authority (consent, determining or regulatory) may impose more or less stringent construction hours.

4.1.1 Approved Hours of Work

Works on the site will be undertaken in accordance with the requirements of the DA *Conditions of Consent* which will define the normal working hours for the project.

The *Conditions of Consent* also include the following condition regarding the operation of rock breaking on the site.

C8. Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be

carried out between the following hours:

(a) 9am to 12pm, Monday to Friday;

(b) 2pm to 5pm Monday to Friday; and

(c) 9am to 12pm, Saturday.

4.2 Proposed Construction Period

Based on the proposed works to be undertaken as part of the project the expected periods for construction phases include the following:

- Demolition- Mid September – End of October 2020
- Ground/Civil Works- End of October – End of January 2020
- Roof & Façade Restoration- End of September- End of December 2020
- Construction- Mid October- November 2021

4.3 Proposed Appliances

The proposed appliances which will be used as part of the excavation and construction of the project are detailed in the table below.

Table 2 – Noise Level from Expected Demotion Appliances

Tasks	Equipment	Sound Power Levels per task dB(A) L ₁₀	Aggregate Sound Power Level per Task dB(A) L ₁₀
Site Demolition works	Jack hammer mounted on skid steer	118	122
	Hand held jack hammer	111	
	Concrete saw	119	
	Skid steer	110	
	Power hand tools	109	
Construction Works	Piling	115	120
	Welder	101	
	Saw cutter	109	
	Dump truck	109	
	Concrete saw	119	
	Power hand tools	109	
	Cranes	110	

Notes: Noise levels of proposed equipment to be used on the site based on the Australian Standard AS2436-2010 and noise level measurements previously undertaken of similar equipment on construction sites.

4.4 Construction Noise Criteria

This section of the report details the relevant construction noise criteria which is applicable to the site including the EPA's *Interim Construction Noise Guideline* (ICNG).

4.4.1 Interim Construction Noise Guideline

Noise criteria for construction and excavation activities are discussed in the *Interim Construction Noise Guideline* (ICNG). The ICNG also recommends procedures to address potential impacts of construction noise on residences and other sensitive land uses. The main objectives of the ICNG are summarised as follows:

- Promote a clear understanding of ways to identify and minimise noise from construction works;
- Focus on applying all “feasible” and “reasonable” work practices to minimise construction noise impacts;
- Encourage construction to be undertaken only during the recommended standard hours unless approval is given for works that cannot be undertaken during these hours;
- Streamline the assessment and approval stages and reduce time spent dealing with complaints at the project implementation stage; and
- Provide flexibility in selecting site-specific feasible and reasonable work practices in order to minimise noise impacts.

The ICNG contains a quantitative assessment method which is applicable to this project. Guidance levels are given for airborne noise at residences and other sensitive land uses.

The quantitative assessment method involves predicting noise levels at sensitive receivers and comparing them with the Noise Management Levels (NMLs). The NML affectation categories for receivers have been reproduced from the guideline and are listed in the table below.

Table 3 – Noise Management Levels from Construction – Quantitative Assessment

Receiver Type	Time of Day	Noise Management Level LAeq(15minute) ^{1,2}	How to Apply
Residential	Recommended standard hours: Monday to Friday 7 am to 6 pm Saturday 8 am to 1 pm No work on Sundays or public holidays	Noise affected RBL + 10 dB	<p>The noise affected level represents the point above which there may be some community reaction to noise.</p> <ul style="list-style-type: none"> Where the predicted or measured LAeq(15minute) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
		Highly noise affected 75 dBA	<p>The highly noise affected level represents the point above which there may be strong community reaction to noise.</p> <ul style="list-style-type: none"> Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: <ol style="list-style-type: none"> Times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences. If the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
	Outside recommended standard hours	Noise affected RBL + 5 dB	<ul style="list-style-type: none"> A strong justification would typically be required for works outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable practices have been applied and noise is more than 5 dB above the noise affected level, the proponent should negotiate with the community.

Table 3 – Continued

Receiver Type	Time of Day	Noise Management Level LAeq(15minute) ^{1,2}	How to Apply
Classrooms at schools and other educational institutions	When is use	Internal Noise level 45 dB(A)	During construction, the proponent should regularly update the occupants of the premises regarding noise levels and hours of work.
<p><i>Note 1</i> Noise levels apply at the property boundary that is most exposed to construction noise, and at a height of 1.5 m above ground level. If the property boundary is more than 30 m from the residence, the location for measuring or predicting noise levels is at the most noise-affected point within 30 m of the residence. Noise levels may be higher at upper floors of the noise affected residence.</p> <p><i>Note 2</i> The RBL is the overall single-figure background noise level measured in each relevant assessment period (during or outside the recommended standard hours). The term RBL is described in detail in the NSW Industrial Noise Policy (EPA 2000).</p>			

Based on the table above the suitable construction noise management levels for works undertaken on the site is detailed in Table 6 below.

Table 4 – Site Construction Noise Management Levels

Noise Source	Time Period	Receiver Type	Construction Noise Management Level ¹	'High Noise Affected' Level ¹
Construction Noise	During period of approved hours of works as detailed within the DA <i>Conditions of Consent</i>	Residential Receivers	52 dB(A) LAeq (15min)	75 dB(A) LAeq (15min)
		Education Receivers	Internal Noise level 45 dB(A)	-
Note 1: Construction noise management levels based on the Interim Construction Noise Guideline				

In addition to the normal working hours a period of extended working hours has been approved for the site.

The projects noise management levels for works undertaken during the approved extended hours period are detailed in the table below.

Table 5 – Site Construction Noise Management Levels

Noise Source	Time Period	Receiver Type	Extended Hours Construction Noise Management Level
Construction Noise	Proposed extended hours period including: (6pm to 12am during weekdays and 7:30am to 8:00am and 1pm to 5:30pm on Saturday & Sunday)	Residential receivers on Tubbs View	49 dB(A) LAeq (15min)
		Residential receivers on Dunstan Grove	47 dB(A) LAeq (15min)
Note: Background noise levels based on the previously obtained noise levels as detailed in the projects Noise Impact Assessment			

4.5 Construction Noise Management – Qualitative Assessment

Based on the assessment conducted of the expected construction noise levels generated from the site, levels are generally expected to require the building contractor to engage in management of activities on the site and engagement with the local community.

Notwithstanding, the following management controls are recommended to mitigate construction noise levels on the site:

1. Construction to be undertaken within the approved hours detailed within the projects *Conditions of Consent*.
2. All plant and equipment are to be maintained such that they are in good working order.
3. A register of complaints is to be recorded in the event of complaints being received, including location, time of complaint, nature of the complaint and actions resulting from the complaint.
4. If required a noise level measurement of the offending plant item generating complaints is to be conducted and noise mitigations undertaken to reduce noise levels to within Noise Management levels in the event magnitude of noise levels is found to be above suitable levels.
5. The use of percussive and concrete sawing should be undertaken behind a closed façade when possible.
6. For works undertaken outside of normal day time hours (proposed to include the period 6pm to 6am) the external façade of the building should be closed. In the event there are temporary openings in the façade these should be closed using a solid material such as 6mm FC sheet or 12mm plywood.
7. The use of high noise generating equipment including hydraulic hammers, rock cutters or the like should not be undertaken prior to 8am Monday to Friday or 8.30am Saturdays.
8. The loading of trucks should be conducted such that there is not a requirement to stack truck on the roadways adjacent to the residence on Dunstan Grove and or Tubbs view.
9. Where possible to use of squawkers or the like should be used in place of reversing alarms.

In addition to the recommended mitigations above details of the proposed construction (including excavation) works to be conducted on the site, including type of activities to be conducted as well as the expected duration of activities should be provided to the neighbouring receivers.

In the event noise levels are found to require additional noise reduction then all possible and practical mitigations are required to be included in the construction of the project. Possible acoustic treatments and controls may include the following:

1. Use of alternative appliances to complete the required works which result in reduced noise impacts on surrounding neighbours.
2. Period when noisy appliances are undertaken, such as undertaking noisy works on locations with the greatest distance to residential receivers during morning periods if possible.
3. Construction of acoustic screening to permanently located high noise generating equipment such as pumps and generators.
4. Scheduling of high noise generating works outside of noise sensitive periods if possible.
5. Other site specific treatments and controls which may become possible once works commence.

4.6 Construction Noise Assessment – Quantitative Assessment

A quantitative assessment of the construction noise levels resulting from the proposed works to be undertaken as part of the Lindfield Learning Village project on surrounding residential receivers has been undertaken.

The assessment has been based on the expected noise levels to be generated on the site including those detailed in Section 4.7 above. Calculations of the resulting construction noise levels of the residential receivers within proximity to the site is detailed in the table below.

Table 6 - Quantitative Assessment of Construction Noise to Neighboring Residence

Source Noise	Equipment	Sound Power Levels dB(A) L ₁₀	Aggregate Sound Power Level dB(A) L ₁₀	Calculated Construction Noise Level – Dunstan Grove	Calculated Construction Noise Level – Tubbs View
Site Demolition works	Jack hammer mounted on skid steer	118	122	Up to 75 dB(A) when items used externally	Up to 70 dB(A) when items used externally
	Hand held jack hammer	111		Up to 50 dB(A) when items used within the building with a closed façade	Up to 45 dB(A) when items used within the building with a closed façade
	Concrete saw	119			
	Skid steer	110			
	Power hand tools	109			
Construction Works	Piling	115	120	Up to 73 dB(A) when items used externally	Up to 68 dB(A) when items used externally
	Welder	101			
	Saw cutter	109			
	Dump truck	109		Up to 48 dB(A) when items used within the building with a closed façade	Up to 43 dB(A) when items used within the building with a closed façade
	Concrete saw	119			
	Power hand tools	109			
	Cranes	110			
Notes: Calculated qualitative noise levels are based on the overall Aggregate Sound Power Level for the expected demolition and construction works to be undertaken in the site.					

Based on the qualitative assessment of construction noise suitable management controls and community notifications are required to be conducted.

The required management of construction noise impacts are include in Section 4.7 above.

4.7 Construction Vibration Impacts

An assessment of the potential for vibration generated as part of the required construction activities on the project (including limited demolition, ground works and construction) has been undertaken.

As the proposed demolition includes limited areas within the existing building on the site are not attached to neighbouring structures and the proximity of neighbouring structures to the development site (which include residential receives). Ground works on the site include limited amounts of ground works including the play areas and do not include bulk excavation. Based on the proposed vibration levels to be generated from the proposed demolition excavation and construction on the site are expected to comply with all vibration criteria detailed in this report.

In the event that vibration rolling or compacting of ground conditions is required within 10m of neighbouring buildings than attended vibration measurements during the use of this equipment should be undertaken to ensure vibration does not result in unreasonable levels of vibration impact on the neighbouring building structures. Alternatively the use of an alternative appliance such as compaction rollers or the like.

Based on the location of the site and the proximity of the surround buildings vibration generated from proposed construction activities on the site are not expected to result in magnitudes approaching the project vibration criteria detailed in this report.

4.8 Noise and Vibration Monitoring

As part of the management of noise from the proposed excavation and construction activities to be undertaken on the site the following noise and vibration measurements are recommended to be undertaken:

1. Noise – Continuous noise monitoring is to be undertaken at the site during the proposed periods of demolition. Monitoring will be conducted at 2 locations including positions which are representative to the following residential receivers:
 - a. Dunstan Grove – to the north west of the site.
 - b. Tubbs View – to the north east of the site.

All noise monitoring is to be undertaken in accordance with the measurement procedures outlined in accordance with Australian Standard AS1055-2018 *Acoustics-Description and measurement of environmental noise*. All equipment is to include appropriate and current NATA (or manufacturer) calibration certificates.

2. Vibration – Based on the proximity of the surrounding receivers to the works magnitudes of vibration resulting from construction activities required to be undertaken on the site are not expected to approach vibration limits detailed in this report, therefore vibration monitoring is not recommended.

Vibration measurements are to be conducted using a suitable calibrated vibration monitor. All equipment to include appropriate and current NATA (or manufacturer) calibration certificates. All vibration measurements are undertaken in accordance with the methodologies outlined in British Standard 7385-1:1990 *Evaluation and measurement for vibration in buildings* and DIN V 4150-1 *Vibrations In Building; Influence On Persons In Buildings* and DIN 4150-1 *Effects On Structures*.

5 Community Engagement

During the proposed construction of the project (including excavation and construction) the building contractor is required to engage in community interaction. The community interaction and notification is required to include the following:

1. Notification of the proposed works to be undertaken on the site and the periods when works will be conducted, including information regarding the programme of works such as excavation. This should include the expected period when activities such as hydraulic hammering, rock breaking, concrete or rock sawing is required to be undertaken.
2. Details of the relevant site representative where complaints can be registered.
3. Details of the methodology to respond to complaints raised from the surrounding receivers.
4. A register of complaints, to be kept on site including record of time and nature of the complaint as well as the outcomes and comments regarding investigations resulting from the complaint.
5. Letter drop box drops to the residence within proximity to the site is to be undertaken. Information included in the letter drop drops will include working hours, proposed program of works, contact for complaints and the like.

Engagement with the community has been undertaken (as required by Items 16 d) and e) of the consent) to include the mitigation of noise from the high noise works. This includes the strategies detailed in the *Community Communication Strategy* (dated September 2020) and includes Table 4 for the engagement of the community regarding construction noise generated from the site (including high noise works).

5.1 Community Consultation

Community consultation has been and will continue to be undertaken by Hindmarsh during the proposed construction phases of the project.

Community consultation will include within the following, which are included in Appendix C:

- 1) The *Community Communication Strategy, Lindfield Learning Village – Stage 2*.
- 2) *Community Consultation Report, Lindfield Learning Village Stage 2 – SSDA*.
- 3) The *Hindmarsh Environmental and Sustainability Checklist*.

Community engagement and consultation has been undertaken and details are included within the *Community Consultation Report, Lindfield Learning Village Stage 2 – SSDA* including Section 2 *Engagement Outcomes*.

A project update was sent to surrounding receivers on 26th October 2020 detailing the anticipated construction activities and noise generating works. The following management measures to for high noise works were proposed:

- If high noise generating works are planned, neighbours will be notified of this before work starts.
- If piling and similar activities are required, effective equipment will be chosen and respite periods for local residents will be put in place. Rock breaking hours will be strictly limited to approved hours of:
 - 9:00am to 12:00pm, Monday to Friday
 - 2:00pm to 5:00pm Monday to Friday; and
 - 9:00am to 12:00pm, Saturday.
- For high noise generating works, if complaints are received, work will be managed to reduce the impact to local residents by implementing shorter time periods, or alternating with quieter work methods were practical.

The surrounding receivers were given till 2nd November 2020 to provide feedback on the proposed high noise works management measures via email or telephone hotline. A copy of this letterbox drop is attached in the Appendix. The above letterbox drop aims at undertaking the community consultation requirements to develop strategies to management high noise works under Conditions.

The project update is included in Appendix

5.2 Contingency Plans

In the event noise or vibration complaints are received from surrounding receivers the following methodology to assess impacts from the construction activities will be undertaken:

1. Review processes being conducted on the site and identify the item of plant or activity generating the source of the noise.
2. Assess the works being conducted and implement possible and practical mitigations to the item identified in the point above including work practices (alternatives), location of works, time when works are being conducted. Mitigations will include possible and practical methods when possible.
3. Detail a response to activity including noise monitoring/measurements if required.

5.3 Complaints Handling Management System

A system for residence to be able to register complaints is to be undertaken during the construction period. The complaints system is to include the following:

1. Details of the relevant site contact where complaints can be registered including possible phone numbers and email contact points.
2. Details of the methodology to respond to complaints raised from the surrounding receivers.
3. The register of complaints, to be kept including record of time and nature of the complaint as well as the outcomes and comments regarding investigations resulting from the complaint.
4. A record of the outcomes and actions resulting from the complaints received is to be included as part of the register.

6 Conclusion

This report details the construction noise and vibration assessment of the proposed construction of the proposed Lindfield Learning Village Stage 2 project.

An assessment of noise and vibration impacts from the required processes to be undertaken during the construction period of the project (including limited demolition, ground works and construction) has been undertaken and suitable treatments, management controls, perioding measurements and community engagement has been detailed in this report.

Providing the recommendations in this report are included in the construction of the site, compliance with the relevant EPA's Interim Construction Noise Guideline and Item B16 of the propjets *Conditions of Consent* will be achieved.

For any additional information please do not hesitate to contact the person below.

Regards



Ben White
Director
White Noise Acoustics

7 Appendix A – Glossary of Terms

<i>Ambient Sound</i>	The totally encompassing sound in a given situation at a given time, usually composed of sound from all sources near and far.																				
<i>Audible Range</i>	The limits of frequency which are audible or heard as sound. The normal ear in young adults detects sound having frequencies in the region 20 Hz to 20 kHz, although it is possible for some people to detect frequencies outside these limits.																				
<i>Character, acoustic</i>	The total of the qualities making up the individuality of the noise. The pitch or shape of a sound's frequency content (spectrum) dictate a sound's character.																				
<i>Decibel [dB]</i>	The level of noise is measured objectively using a Sound Level Meter. The following are examples of the decibel readings of every day sounds; <table> <tr><td>0dB</td><td>the faintest sound we can hear</td></tr> <tr><td>30dB</td><td>a quiet library or in a quiet location in the country</td></tr> <tr><td>45dB</td><td>typical office space. Ambience in the city at night</td></tr> <tr><td>60dB</td><td>Martin Place at lunch time</td></tr> <tr><td>70dB</td><td>the sound of a car passing on the street</td></tr> <tr><td>80dB</td><td>loud music played at home</td></tr> <tr><td>90dB</td><td>the sound of a truck passing on the street</td></tr> <tr><td>100dB</td><td>the sound of a rock band</td></tr> <tr><td>115dB</td><td>limit of sound permitted in industry</td></tr> <tr><td>120dB</td><td>deafening</td></tr> </table>	0dB	the faintest sound we can hear	30dB	a quiet library or in a quiet location in the country	45dB	typical office space. Ambience in the city at night	60dB	Martin Place at lunch time	70dB	the sound of a car passing on the street	80dB	loud music played at home	90dB	the sound of a truck passing on the street	100dB	the sound of a rock band	115dB	limit of sound permitted in industry	120dB	deafening
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120dB	deafening																				
<i>dB(A)</i>	<i>A-weighted decibels</i> The ear is not as effective in hearing low frequency sounds as it is hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. The sound pressure level in dB(A) gives a close indication of the subjective loudness of the noise.																				
<i>Frequency</i>	Frequency is synonymous to <i>pitch</i> . Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.																				
<i>Loudness</i>	A rise of 10 dB in sound level corresponds approximately to a doubling of subjective loudness. That is, a sound of 85 dB is twice as loud as a sound of 75 dB which is twice as loud as a sound of 65 dB and so on																				
<i>L_{Max}</i>	The maximum sound pressure level measured over a given period.																				
<i>L_{Min}</i>	The minimum sound pressure level measured over a given period.																				
<i>L₁</i>	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.																				
<i>L₁₀</i>	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.																				
<i>L₉₀</i>	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L ₉₀ noise level expressed in units of dB(A).																				
<i>L_{eq}</i>	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.																				
<i>Background Sound Low</i>	The average of the lowest levels of the sound levels measured in an affected area in the absence of noise from occupants and from unwanted, external ambient noise sources. Usually taken to mean the L _{A90} value																				
<i>C_{tr}</i>	A frequency adaptation term applied in accordance with the procedures described in ISO 717.																				
<i>dB (A)</i>	'A' Weighted overall sound pressure level																				

<i>Noise Reduction</i>	The difference in sound pressure level between any two areas. The term “noise reduction” does not specify any grade or performance quality unless accompanied by a specification of the units and conditions under which the units shall apply
<i>NR Noise Rating</i>	Single number evaluation of the background noise level. The NR level is normally around 5 to 6 dB below the “A” weighted noise level. The NR curve describes a spectrum of noise levels and is categorised by the level at 1000 Hz ie the NR 50 curve has a value of 50 dB at 1000 Hz. The NR rating is a tangential system where a noise spectrum is classified by the NR curve that just encompasses the entire noise spectrum consideration.
<i>R_w</i>	Weighted Sound Reduction Index - Laboratory test measurement procedure that provides a single number indication of the acoustic performance of a partition or single element. Calculation procedures for R _w are defined in ISO 140-2:1991 “Measurement of Sound Insulation in Buildings and of Building Elements Part 2: Determination, verification and application of precision data”.
<i>R'_w</i>	Field obtained Weighted Sound Reduction Index - this figure is generally up to 3-5 lower than the laboratory test determined level data due to flanked sound transmission and imperfect site construction.
<i>Sound Isolation</i>	A reference to the degree of acoustical separation between any two areas. Sound isolation may refer to sound transmission loss of a partition or to noise reduction from any unwanted noise source. The term “sound isolation” does not specify any grade or performance quality and requires the units to be specified for any contractual condition
<i>Sound Pressure Level, L_p dB</i>	A measurement obtained directly using a microphone and sound level meter. Sound pressure level varies with distance from a source and with changes to the measuring environment. Sound pressure level equals 20 times the logarithm to the base 10 of the ratio of the rms sound pressure to the reference sound pressure of 20 micro Pascals.
<i>Sound Power Level, L_w dB</i>	Sound power level is a measure of the sound energy emitted by a source, does not change with distance, and cannot be directly measured. Sound power level of a machine may vary depending on the actual operating load and is calculated from sound pressure level measurements with appropriate corrections for distance and/or environmental conditions. Sound power levels is equal to 10 times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power of 1 picoWatt
<i>Speech Privacy</i>	A non-technical term but one of common usage. Speech privacy and speech intelligibility are opposites and a high level of speech privacy means a low level of speech intelligibility. It should be recognised that acceptable levels of speech privacy do not require that speech from an adjacent room is inaudible.
<i>Transmission Loss</i>	Equivalent to Sound Transmission Loss and to Sound Reduction Index in terminology used in countries other than Australia. A formal test rating of sound transmission properties of any construction, by usually a wall, floor, roof etc. The transmission loss of all materials varies with frequency and may be determined by either laboratory or field tests. Australian Standards apply to test methods for both situations.

8 Appendix B – CV of Ben White

Curriculum Vitae – Benjamin White

58 Carrington Road, Randwick
NSW 2031



Employment Experience:

Director - White Noise Acoustics:
Present

March 2019 –

Director/Engineer - Acoustic Logic Consultancy:
July 2018

March 2001 –

Experience:

Ben White the Director of White Noise has over 17 years of experience in acoustic.

Ben has significant experience in providing acoustic services and expert advice in the following areas:

- Residential acoustic reports including aircraft noise (AS2021) assessments, traffic noise, train noise and vibration assessments.
- Noise emission assessments for various projects including assessments with planning requirements using EPA, Department of Planning, Council DCP's and similar regulatory requirements.
- Planning approvals including Development Applications for multi dwelling residential developments, commercial developments, hotels and boarding houses, places of entertainment, car parks, mixed use developments, shopping centres and the like.
- Expert court witness including Land and Environment Court and other expert witness work.
- Project planning and specifications for types of projects including residential, commercial, retail, hotel accommodation, warehouses and industrial developments and mixed-use projects.
- Project delivery for all types of projects including, design advice and project delivery requirements at all stages of projects during design and construction.
- Certification works including on site testing for the provision of certification of all types of projects including items required to comply with Part F5 of the BCA as well as project specific acoustic requirements.
- Mechanical design and advice for the treatments of mechanical services with project requirements.
- External façade design and specification.
- Specialised acoustic design advice including areas of projects.
- Issues with existing building include site surveys and audits as well as advice regarding rectification if required.

9 Appendix C- Project Update

Development Consent

Section 4.38 of the Environmental Planning and Assessment Act 1979

As Minister for Planning and Public Spaces, I approve the Development Application referred to in Schedule 1, subject to the conditions specified in Schedule 2.

These conditions are required to:

- prevent, minimise, or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.



The Hon. Rob Stokes MP
Minister for Planning and Public Spaces

Sydney *12th November* 2020

SCHEDULE 1

Application Number:	SSD 8114
Applicant:	NSW Department of Education
Consent Authority:	Minister for Planning and Public Spaces
Site:	Lot 2 and 4 DP 1151638, 100 Eton Road, Lindfield Former UTS Ku-ring-gai Campus
Development:	Staged construction and operation of Lindfield Learning Village, including: <ul style="list-style-type: none">• adaptive reuse of existing buildings to cater for up to 2000 students;• alterations and additions to the existing buildings, including construction of a Covered Outdoor Learning Area (COLA) and external egress staircase;• access arrangements, including provision of drop-off/pick-up and turnaround facilities for vehicles and buses;• construction of a fire trail for bush fire management purposes;• tree removal and provision of open play space areas and other associated landscaping works; and• associated infrastructure works.

DEFINITIONS

Aboriginal object	Has the same meaning as the definition of the term in section 5 of the <i>National Parks and Wildlife Act 1974</i>
Aboriginal place	Has the same meaning as the definition of the term in section 5 of the <i>National Parks and Wildlife Act 1974</i>
Accredited Certifier	Means the holder of accreditation as an accredited certifier under the <i>Building Professionals Act 2005</i> acting in relation to matters to which the accreditation applies.
Advisory Notes	Advisory information relating to the consent but do not form a part of this consent
Applicant	NSW Department of Education or any other person carrying out any development to which this consent applies
Approved disturbance area	The area identified as such on the development layout
BCA	Building Code of Australia
BC Act	<i>Biodiversity Conservation Act 2016</i>
CEMP	Construction Environmental Management Plan
Certification of Crown building work	Certification under section 6.28(2) of the EP&A Act
Certified Contaminated Land Consultant	A person certified in accordance with the requirements of the Contaminated Land Consultant Certification Policy Version 2 (EPA November 2017) or any subsequent policies as in force from time to time
Certifier	Means a council or accredited certifier or in the case of Crown development, a person qualified to conduct a Certification of Crown Building work
Compliance Reporting Post Approval Requirements	Compliance Reporting Post Approval Requirements as available on the Department's website
Conditions of this consent	The conditions contained in Schedule 2 of this document
Construction	<p>All physical work to enable operation including (unless specifically excluded by a condition) but not limited to the partial demolition of fabric, the carrying out of works for the purposes of the development, and erection of buildings and other infrastructure permitted by this consent, but excluding the following:</p> <ul style="list-style-type: none"> • building and road dilapidation surveys; • investigative drilling or investigative excavation; • Archaeological Salvage; • establishing temporary site offices (in locations identified by the conditions of this consent); • installation of environmental impact mitigation measures, fencing, enabling works; and • minor adjustments to services or utilities. <p>However, where heritage items, or threatened species or threatened ecological communities (within the meaning of the <i>Biodiversity Conservation Act 2016</i> or <i>Environment Protection and Biodiversity Conservation Act 1999</i>) are affected or potentially affected by any physical work, that work is construction, unless otherwise determined by the Planning Secretary in consultation with EES Group or DPIE Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation)</p>
Council	Ku-Ring-Gai Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays

Demolition	The deconstruction and removal of buildings, sheds and other structures on the site
Department	NSW Department of Planning, Industry and Environment
Development	The development described in the Response to Submissions, Supplementary Response to Submissions and Further Supplementary Response to Submissions including the works and activities comprising Phases 2 and 3 of the Lindfield Learning Village development, as modified by the conditions of this consent.
EES Group	Environment, Energy and Science Group of the Department of Planning, Industry and Environment (Former Office of Environment and Heritage)
ENM	Excavated Natural Material
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6pm to 10pm.
Feasible	Means what is possible and practical in the circumstances
Further Supplementary Response to Submissions	The 'Supplementary Response to Submissions Exhibited Phases 2 & 3 Lindfield Learning Village SSD 8114' prepared by Urbis dated 26 August 2020
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement
Heritage NSW	Heritage, Community Engagement of the Department of Premier and Cabinet
Heritage Item	An item as defined under the <i>Heritage Act 1977</i> , and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i> , the World Heritage List, or the National Heritage List or Commonwealth Heritage List under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth), or anything identified as a heritage item under the conditions of this consent
IBRA	Interim Biogeographic Regionalisation for Australia
Incident	An occurrence or set of circumstances that causes, or threatens to cause, material harm and which may or may not be, or cause, a non-compliance <i>Note: "material harm" is defined in this consent</i>
Independent Audit Post Approval Requirements	Independent Audit Post Approval Requirements as available on the Department's website
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act
Management and mitigation measures	The management and mitigation measures set out in Section 7 of the Phase 2 and 3 Response to Submissions.
Material harm	Is harm that: <ul style="list-style-type: none"> a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all

	reasonable and practicable measures to prevent, mitigate or make good harm to the environment)
Minister	NSW Minister for Planning and Public Spaces (or delegate)
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Monitoring	Any monitoring required under this consent must be undertaken in accordance with section 9.39 of the EP&A Act
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
NSW RFS	New South Wales Rural Fire Service
Operation	The carrying out of the approved purpose of the development upon completion of construction, excluding operational readiness work.
Operational Readiness	Use of the completed areas of the site by school staff to prepare for the operation of the school.
Phase 1 Partial Development Consent	The Partial Development Consent granted Phase 1 of the development on 24 October 2018 under 4.16(4)(c) of the EP&A Act
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Reasonable	Means applying judgement in arriving at a decision, taking into account: mitigation, benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements
Registered Aboriginal Parties	Means the Aboriginal persons identified in accordance with the document entitled " <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i> " (DECCW)
Response to submissions	The 'Response to Submissions Phases 2 and 3 of Lindfield Learning Village SSD 16_8114' prepared by Urbis dated 16 September 2019, submitted with the application for consent for the development, including any additional information provided by the Applicant in support of the application
Sensitive receivers	A location where people are likely to work, occupy or reside, including a dwelling, school, hospital, office or public recreational area
Site	The land defined in Schedule 1
Supplementary Response to Submissions	The 'Response to Submissions Exhibited Phases 2 & 3 of Lindfield Learning Village SSD 8114' prepared by Urbis dated 16 June 2020
TfNSW	Transport for New South Wales
VENM	Virgin Excavated Natural Material
VMP	Vegetation Management Plan
Waste	Has the same meaning as the definition of the term in the Dictionary to the POEO Act
Year	A period of 12 consecutive months

SCHEDULE 2
PART A ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

A1. In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and, if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development.

Terms of Consent

A2. The development may only be carried out:

- (a) in compliance with the conditions of this consent;
- (b) in accordance with all written directions of the Planning Secretary;
- (c) generally, in accordance with the Response to Submissions, Supplementary Response to Submissions and Further Supplementary Response to Submissions;
- (d) in accordance with the approved plans in the table below:

Architectural Plans and Landscape Plans prepared by DesignInc Lacoste + Stevenson bmc2			
Dwg No.	Rev	Name of Plan	Date
AR-2-2104J	C	STAGE 2 - EXISTING & DEMOLITION PLAN - LEVEL 4 - ZONE J - EARLY WORKS	07/08/2020
AR-2-2204J	B	STAGE 2 - EXISTING & DEMOLITION RCP - LEVEL 4 - ZONE J - EARLY WORKS	07/08/2020
AR-2-2304J	C	STAGE 2 - GA PLAN - LEVEL 4 - ZONE J	07/08/2020
DA-2-100	C	SITE PLAN	17/04/2020
DA-2-101	D	INDICATIVE CONSTRUCTION MANAGEMENT PLAN	17/04/2020
DA-2-102	D	PHASE 1-3 SITE PLAN	09/10/2020
DA-2-200	B	PHASE 2 & 3 - PROPOSED FLOOR PLAN LEVEL 0	28/08/2019
DA-2-201	D	PHASE 2 & 3 - PROPOSED FLOOR PLAN LEVEL 1	17/04/2020
DA-2-202	D	PHASE 2 & 3 - PROPOSED FLOOR PLAN LEVEL 2	17/04/2020
DA-2-203	D	PHASE 2 & 3 - PROPOSED FLOOR PLAN LEVEL 3	17/04/2020
DA-2-204	E	PHASE 2 & 3 - PROPOSED FLOOR PLAN LEVEL 4	09/10/2020
DA-2-205	D	PHASE 2 & 3 - PROPOSED FLOOR PLAN LEVEL 5	17/04/2020
DA-2-206	D	PHASE 2 & 3 - PROPOSED FLOOR PLAN LEVEL 6	17/04/2020
DA-2-207	C	PHASE 2 & 3 - PROPOSED ROOF PLAN	17/04/2020
DA-2-300	C	NORTH & SOUTH BUILDING ELEVATION	17/04/2020
DA-2-301	C	EAST & WEST BUILDING ELEVATION	17/04/2020
DA-2-400	B	BUILDING SECTIONS - SHEET 1	17/04/2020
DA-2-401	B	BUILDING SECTIONS - SHEET 2	17/04/2020
LA-2-0005	G	LANDSCAPE ANALYSIS	25/08/2020

LA-2-0006	H	LANDSCAPE MASTER PLAN	25/08/2020
LA-2-0007	B	LANDSCAPE MASTER PLAN	25/08/2020
LA-2-0008	G	CIRCULATION DIAGRAM	25/08/2020
LA-2-0009	H	WSUD DIAGRAM	25/08/2020
LA-2-0010	G	LANDSCAPE BLOW UP PLAN 1	25/08/2020
LA-2-0011	G	LANDSCAPE BLOW UP PLAN 2	25/08/2020
LA-2-0012	G	LANDSCAPE BLOW UP PLAN 3	17/04/2020
LA-2-0013	G	LANDSCAPE BLOW UP PLAN 4	17/04/2020
LA-2-0014	G	LANDSCAPE BLOW UP PLAN 5	17/04/2020
LA-2-0015	G	LANDSCAPE BLOW UP PLAN 6	25/08/2020
LA-2-0016	G	LANDSCAPE BLOW UP PLAN 7 – PARKOUR TRAIL	25/08/2020
LA-2-0017	G	LANDSCAPE BLOW UP PLAN 8	25/08/2020
LA-2-0018	E	SHELTER DESIGN	22/07/2019
LA-2-1000	G	SECURITY FENCE MASTER PLAN	28/04/2020
LA-2-1001	G	SECURITY FENCE PLAN 1	17/04/2020
LA-2-1002	F	SECURITY FENCE PLAN 2	04/12/2019
LA-2-1003	G	SECURITY FENCE PLAN 3	28/07/2020
LA-2-1004	G	SECURITY FENCE PLAN 4	17/04/2020
LA-2-1005	G	SECURITY FENCE PLAN 4	28/04/2020
LA-2-2000	E	LANDSCAPE DETAILS	21/04/2020
LA-2-3000	E	PLANTING PALLETTE	21/04/2020
LA-2-4001	A	TREE LOCATION PLAN 1	25/08/2020
LA-2-4002	A	TREE LOCATION PLAN 2	25/08/2020

- A3. Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:
- (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary;
 - (b) any reports, reviews or audits commissioned by the Planning Secretary regarding compliance with this approval; and
 - (c) the implementation of any actions or measures contained in any such document referred to in (a) above.
- A4. The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in condition A2(c) and A2(d). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition A2(c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

Limits of Consent

- A5. This consent lapses five years after the date of consent unless work is physically commenced.

Prescribed Conditions

- A6. The Applicant must comply with all relevant prescribed conditions of development consent under Part 6, Division 8A of the EP&A Regulation.

Planning Secretary as Moderator

- A7. In the event of a dispute between the Applicant and a public authority, in relation to an applicable requirement in this approval or relevant matter relating to the Development, either party may refer the matter to the Planning Secretary for resolution. The Planning Secretary's resolution of the matter must be binding on the parties.

Evidence of Consultation

- A8. Where conditions of this consent require consultation with an identified party, the Applicant must:
- (a) consult with the relevant party prior to submitting the subject document for information or approval; and
 - (b) provide details of the consultation undertaken including:
 - (i) the outcome of that consultation, matters resolved and unresolved; and
 - (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

Staging

- A9. The project may be constructed and operated in stages. Where compliance with conditions is required to be staged due to staged construction or operation, a Staging Report (for either or both construction and operation as the case may be) must be prepared and submitted to the satisfaction of the Planning Secretary. The Staging Report must be submitted to the Planning Secretary no later than one month before the commencement of construction (unless otherwise agreed to in writing by the Planning Secretary) of the first of the proposed stages of construction (or if only staged operation is proposed, one month before the commencement of operation of the first of the proposed stages of operation).
- A10. A Staging Report prepared in accordance with condition A9 must:
- (a) if staged construction is proposed, set out how the construction of the whole of the project will be staged, including details of work and other activities to be carried out in each stage and the general timing of when construction of each stage will commence and finish;
 - (b) if staged operation is proposed, set out how the operation of the whole of the project will be staged, including details of work and other activities to be carried out in each stage and the general timing of when operation of each stage will commence and finish (if relevant);
 - (c) specify how compliance with conditions will be achieved across and between each of the stages of the project; and
 - (d) set out mechanisms for managing any cumulative impacts arising from the proposed staging.
- A11. Where a Staging Report is required, the project must be staged in accordance with the Staging Report, as approved by the Planning Secretary.
- A12. Where construction or operation is being staged in accordance with a Staging Report, the terms of this consent that apply or are relevant to the works or activities to be carried out in a specific stage must be complied with at the relevant time for that stage as identified in the Staging Report.

Staging, Combining and Updating Strategies, Plans or Programs

- A13. The Applicant may:
- (a) prepare and submit any strategy, plan (including management plan, architectural or design plan) or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan (including management plan, architectural or design plan) or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan (including management plan, architectural or design plan) or program);
 - (b) combine any strategy, plan (including management plan, architectural or design plan), or program required by this consent (if a clear relationship is demonstrated between the

strategies, plans (including management plan, architectural or design plan) or programs that are proposed to be combined); and

- (c) update any strategy, plan (including management plan, architectural or design plan), or program required by this consent (to ensure the strategies, plans (including management plan, architectural or design plan), or programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).

A14. Any strategy, plan or program prepared in accordance with condition A13, where previously approved by the Planning Secretary under this consent, must be submitted to the satisfaction of the Planning Secretary.

A15. If the Planning Secretary agrees, a strategy, plan (including management plan, architectural or design plan), or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.

A16. Updated strategies, plans (including management plan, architectural or design plan), or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan, program or drawing.

Structural Adequacy

A17. All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, must be constructed in accordance with the relevant requirements of the BCA.

Notes:

- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*
- *Under section 21 of the Coal Mine Subsidence Compensation Act 2017, the Applicant is required to obtain the Chief Executive of Subsidence Advisory NSW's approval before carrying out certain development in a Mine Subsidence District.*

External Walls and Cladding

A18. The external walls of all buildings including additions to existing buildings must comply with the relevant requirements of the BCA.

Design and Construction for Bush Fire

A19. New construction must comply with the recommendations and specifications as outlined in the Bushfire Design Fire Engineering Report prepared by Stephen Grubits & Associates, dated 30 September 2020.

A20. Water, electricity and gas are to comply with sections 4.1.3 and 4.2.7 of Planning for Bush Fire Protection 2019.

Applicability of Guidelines

A21. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.

A22. Consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

Monitoring and Environmental Audits

A23. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, site audit report and independent auditing.

Note: For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.

Access to Information

- A24. At least 48 hours before the commencement of construction until the completion of all works under this consent, or such other time as agreed by the Planning Secretary, the Applicant must:
- (a) make the following information and documents (as they are obtained or approved) publicly available on its website:
 - (i) the documents referred to in condition A2 of this consent;
 - (ii) all current statutory approvals for the development;
 - (iii) all approved strategies, plans and programs required under the conditions of this consent;
 - (iv) regular reporting on the environmental performance of the development in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent;
 - (v) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - (vi) a summary of the current stage and progress of the development;
 - (vii) contact details to enquire about the development or to make a complaint;
 - (viii) a complaints register, updated monthly;
 - (ix) audit reports prepared as part of any independent audit of the development and the Applicant's response to the recommendations in any audit report;
 - (x) any other matter required by the Planning Secretary; and
 - (b) keep such information up to date, to the satisfaction of the Planning Secretary.

Compliance

- A25. The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.

Incident Notification, Reporting and Response

- A26. The Planning Secretary must be notified through the major projects portal immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one), and set out the location and nature of the incident.
- A27. Subsequent notification must be given and reports submitted in accordance with the requirements set out in **Appendix 1**.

Non-Compliance Notification

- A28. The Planning Secretary must be notified through the major projects portal within seven days after the Applicant becomes aware of any non-compliance. The Certifier must also notify the Planning Secretary through the major projects portal within seven days after they identify any non-compliance.
- A29. The notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.
- A30. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

Revision of Strategies, Plans and Programs

- A31. Within three months of:
- (a) the submission of a compliance report under condition A33;
 - (b) the submission of an incident report under condition A27;
 - (c) the submission of an Independent Audit under condition C37;

- (d) the approval of any modification of the conditions of this consent; or
- (e) the issue of a direction of the Planning Secretary under condition A2 which requires a review,

the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary and the Certifier must be notified in writing that a review is being carried out.

- A32. If necessary to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans, programs or drawings required under this consent must be revised, to the satisfaction of the Planning Secretary or Certifier (where previously approved by the Certifier). Where revisions are required, the revised document must be submitted to the Planning Secretary and / or Certifier for approval and / or information (where relevant) within six weeks of the review.

Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.

Compliance Reporting

- A33. Compliance Reports of the project must be carried out in accordance with the Compliance Reporting Post Approval Requirements.
- A34. Compliance Reports must be submitted to the Department in accordance with the timeframes set out in the Compliance Reporting Post Approval Requirements, unless otherwise agreed by the Planning Secretary.
- A35. The Applicant must make each Compliance Report publicly available a minimum of 60 days and maximum of 90 days after submitting it to the Planning Secretary.
- A36. Notwithstanding the requirements of the Compliance Reporting Post Approval Requirements, the Planning Secretary may approve a request for ongoing annual operational compliance reports to be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that an operational compliance report has demonstrated operational compliance.

Signage

- A37. Building identification signage is not approved as part of this consent.

Modification of Phase 1 Consent

- A38. Within one month of the commencement of Phase 2 operations, in accordance with section 4.17(1)(b) of the EP&A Act, conditions E1 to E18 of the Phase 1 Partial Development Consent are to be deleted.

School Capacity

- A39. The student population must not exceed 1050 until evidence has been provided to the Certifier that the upgrade to the intersection of Pacific Highway and Grosvenor Road required under condition B28 has been completed to the satisfaction of TfNSW.

PART B PRIOR TO COMMENCEMENT OF CONSTRUCTION

Notification of Commencement

- B1. The Applicant must notify the Planning Secretary in writing of the dates of the intended commencement of construction and operation at least 48 hours before those dates.
- B2. If the construction or operation of the development is to be staged, the Planning Secretary must be notified in writing at least 48 hours before the commencement of each stage, of the date of commencement and the development to be carried out in that stage.

Certified Drawings

- B3. Prior to the commencement of construction, the Applicant must submit to the satisfaction of the Certifier structural drawings prepared and signed by a suitably qualified practising Structural Engineer that demonstrates compliance with this development consent.

External Walls and Cladding

- B4. Prior to the commencement of construction, the Applicant must provide the Certifier with documented evidence that the products and systems proposed for use or used in the construction of external walls, including finishes and claddings such as synthetic or aluminium composite panels, comply with the requirements of the BCA. The Applicant must provide a copy of the documentation given to the Certifier to the Planning Secretary within seven days after the Certifier accepts it.

Protection of Public Infrastructure

- B5. Prior to the commencement of construction, the Applicant must:
 - (a) consult with the relevant owner and provider of services that are likely to be affected by the development to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure;
 - (b) prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the site (including roads, gutters and footpaths); and
 - (c) submit a copy of the dilapidation report to the Planning Secretary, Certifier and Council.

Pre-Construction Dilapidation Report

- B6. Prior to the commencement of construction, the Applicant must submit a pre-commencement dilapidation report to Council, Heritage NSW and the Certifier. The report must provide an accurate record of the existing condition of adjoining private properties, heritage items and Council assets that are likely to be impacted by the proposed works.

Community Communication Strategy

- B7. No later than 48 hours before the commencement of construction, a Community Communication Strategy must be submitted to the Planning Secretary for information. The Community Communication Strategy must provide mechanisms to facilitate communication between the Applicant, the relevant Council and the community (including adjoining affected landowners and businesses, and others directly impacted by the development), during the design and construction of the development and for a minimum of 12 months following the completion of construction.

The Community Communication Strategy must:

- (a) identify people to be consulted during the design and construction phases;
- (b) set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the development;
- (c) provide for the formation of community-based forums, if required, that focus on key environmental management issues for the development;
- (d) set out procedures and mechanisms:
 - (i) through which the community can discuss or provide feedback to the Applicant; and
 - (ii) through which the Applicant will respond to enquiries or feedback from the community.

Ecologically Sustainable Development

- B8. Prior to the commencement of construction, unless otherwise agreed by the Planning Secretary, the Applicant must demonstrate that ESD is being achieved by either:
- (a) registering for a minimum 4 star Green Star rating with the Green Building Council Australia and submit evidence of registration to the Certifier; or
 - (b) seeking approval from the Planning Secretary for an alternative certification process.

Outdoor Lighting

- B9. Prior to commencement of lighting installation, evidence must be submitted to the satisfaction of the Certifier that all outdoor lighting within the site has been designed to comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS 4282-2019 Control of the obtrusive effects of outdoor lighting. Lighting must be designed to minimise light spill into nearby residential and bushland areas.

Demolition

- B10. Prior to the commencement of construction, demolition work plans required by AS 2601-2001 *The demolition of structures* (Standards Australia, 2001) must be accompanied by a written statement from a suitably qualified person that the proposals contained in the work plan comply with the safety requirements of the Standard. The work plans and the statement of compliance must be submitted to the Certifier and Planning Secretary.

Environmental Management Plan Requirements

- B11. Management plans required under this consent must be prepared in accordance with relevant guidelines, including but not limited to the *Environmental Management Plan Guideline: Guideline for Infrastructure Projects* (DPIE April 2020).

Notes:

- The *Environmental Management Plan Guideline* is available on the Planning Portal at: <https://www.planningportal.nsw.gov.au/major-projects/assessment/post-approval>
- The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans

Construction Environmental Management Plan

- B12. Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifier and provide a copy to the Planning Secretary. The CEMP must include, but not be limited to, the following:
- (a) Details of:
 - (i) hours of work;
 - (ii) 24-hour contact details of site manager;
 - (iii) management of dust and odour to protect the amenity of the neighbourhood;
 - (iv) community consultation and complaints handling as set out in the Community Communication Strategy required by condition B7;
 - (b) Construction Traffic and Pedestrian Management Sub-Plan (see condition B13);
 - (c) Construction Noise and Vibration Management Sub-Plan (see condition B14);
 - (d) Construction Waste Management Sub-Plan (see condition B15);
 - (e) Bush Fire and Flood Emergency Response Sub-Plan (see condition B16);
 - (f) Construction Soil and Water Management Plan (see condition B17);
 - (g) Biodiversity Management Sub-Plan (see condition B18);
 - (h) an unexpected finds protocol for contamination and associated communications procedure to ensure that potentially contaminated materials is appropriately managed;
 - (i) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure; and

- B13. The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:
- (a) be prepared by a suitably qualified and experienced person(s);
 - (b) be prepared in consultation with Council and TfNSW;
 - (c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; and
 - (d) detail heavy vehicle routes, access and parking arrangements.
- B14. The Construction Noise and Vibration Management Sub-Plan must address, but not be limited to, the following:
- (a) be prepared by a suitably qualified and experienced noise expert;
 - (b) describe procedures for achieving the noise management levels in EPA's *Interim Construction Noise Guideline* (DECC, 2009);
 - (c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers;
 - (d) include strategies that have been developed with the community for managing high noise generating works;
 - (e) describe the community consultation undertaken to develop the strategies in condition B14(d);
 - (f) include a complaints management system that would be implemented for the duration of the construction; and
 - (g) include a program to monitor and report on the impacts and environmental performance of the development and the effectiveness of the management measures in accordance with condition B11.
- B15. The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the following:
- (a) the recording of the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations; and
 - (b) removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility in accordance with the requirements of the relevant legislation, codes, standards and guidelines, prior to the commencement of construction.
- B16. The Bush Fire and Flood Emergency Response Sub-Plan (BFFERSP) must address, but not be limited to, the following:
- (a) be prepared by a suitably qualified and experienced person(s);
 - (b) address the *Planning for Bushfire Protection 2019*;
 - (c) address the provisions of the *Floodplain Risk Management Guidelines* (EESG);
 - (d) include details of:
 - (i) the bush fire and flood emergency responses for the construction phase of the development;
 - (ii) predicted flood levels;
 - (iii) flood warning time and flood notification;
 - (iv) assembly points and evacuation routes;
 - (v) evacuation and refuge protocols; and
 - (vi) awareness training for employees and contractors, and students.
- B17. The Applicant must prepare a Construction Soil and Water Management Sub-Plan (CSWMSP) and the plan must address, but not be limited to the following:
- (a) be prepared by a suitably qualified expert, in consultation with Council;

- (b) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site;
- (c) describe all erosion and sediment controls to be implemented during construction, including as a minimum, measures in accordance with the publication Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004) commonly referred to as the 'Blue Book';
- (d) provide a plan of how all construction works will be managed in a wet-weather events (i.e. storage of equipment, stabilisation of the site);
- (e) detail all off-site flows from the site; and
- (f) describe the measures that will be implemented to manage stormwater and flood flows for small and large sized events, including, but not limited to 1 in 5-year ARI.

B18. The Biodiversity Management Sub-Plan (BMSP) must address, but not be limited to, the following:

- (a) details of:
 - (i) impacts to flora and fauna due to the development's impact on movement, construction traffic, proposed construction hours, fencing, light spill, construction noise and on-site crane movements;
 - (ii) mitigation measures to limit impacts including the installation and maintenance of exclusion fencing along and around native vegetation not being removed as part of this development;
 - (iii) tree protection measures to be implemented, including those required under condition C19;
- (b) measures to communicate to the construction workforce the biodiversity values that are to be retained and protected;
- (c) procedures for:
 - (i) any hollows to be removed to be salvaged and replaced into trees within the vegetated areas to be retained or be replaced with nest boxes that are suitable for local native fauna;
 - (ii) pre clearing surveys and subsequent relocation of fauna to be undertaken under the guidance of a suitably qualified ecologist prior to vegetation removal;
 - (iii) provision of evidence of pre-clearing surveys and relocation of fauna to the Certifier; and
 - (iv) capturing and relocation of animals that are injured or displaced during vegetation clearing by a qualified ecologist or wildlife carer to nearby bushland (subject to landowner approval).

B19. A Driver Code of Conduct must be prepared and communicated by the Applicant to heavy vehicle drivers and must address the following:

- (a) minimise the impacts of earthworks and construction on the local and regional road network;
- (b) minimise conflicts with other road users;
- (c) minimise road traffic noise; and
- (d) ensure truck drivers use specified routes.

Construction Parking

B20. Prior to the commencement of construction, a Construction Worker Transportation Strategy must be submitted to the Certifier. The Strategy must detail the provision of sufficient parking facilities or other travel arrangements for construction workers which minimise demand for parking in nearby streets, residential accessways or parking facilities.

Operational Noise – Design of Mechanical Plant and Equipment

B21. Prior to installation of mechanical plant and equipment, the Applicant must incorporate the noise mitigation recommendations in the Revised Noise Impact Assessment prepared by White Noise Acoustics dated 18 August 2020, into the detailed design drawings. The Certifier must verify

that all noise mitigation measures have been incorporated into the design to ensure the development will not exceed the recommended operational noise levels identified in the Revised Noise Impact Assessment.

Biodiversity

- B22. Prior to the commencement of vegetation clearing, the class and number of ecosystem credits in the table below must be retired to offset the residual biodiversity impacts of the development.
- B23. The requirement to retire credits in condition B22 above may be satisfied by payment to the Biodiversity Conservation Fund of an amount equivalent to the class and number of ecosystem credits, as calculated by the Biodiversity Offsets Payment Calculator.
- B24. Evidence of the retirement of credits or payment to the Biodiversity Conservation Fund in satisfaction of condition B22 must be provided to the Planning Secretary prior to carrying out development that will impact on biodiversity values.

A PCT as specified below	Number of Credits	Area to be impacted	In the below IBRA subregions
Dwarf Apple - Broad-leaved Scribbly Gum - Sydney Peppermint low open woodland on sandstone ridges with subtle enrichment in northern Sydney	10	0.47 ha	Pittwater (Part B) and any IBRA subregion that adjoins the IBRA subregion in which the development occurs.
Smooth-barked Apple - Red Bloodwood open forest on enriched sandstone slopes around Sydney and the Central Coast	6	0.22 ha	Pittwater (Part B) and any IBRA subregion that adjoins the IBRA subregion in which the development occurs

Landscaping

- B25. Within two months of the commencement of construction, the Applicant must submit an updated Landscape Plan to manage revegetation and landscaping works on-site, to the Certifier. The plan must:
- include the planting of at least three replacement trees;
 - include additional tree planting where considered appropriate following a review by a suitably qualified bush fire consultant recognised by the NSW RFS having regard to compliance with the asset protection zone requirements under condition D32;
 - identify all existing tree/shrub species to be retained;
 - have regard to the heritage setting of the site;
 - include the entirety of the site (fire trails, footpaths, bus stop etc);
 - identify existing natural features such as rock outcrops;
 - include contour lines and levels;
 - include details of terracing or other slope stability measures;
 - include details for managing stormwater runoff;
 - include native grasses endemic to the locality;
 - detail the species to be planted on-site;
 - include details of all boundary and internal fencing constructed of non-combustible materials;
 - include details of any landscape furniture/structures such as seating, lighting etc; and

- (n) comply with the principles of Appendix 5 of *Planning for Bush Fire Protection 2019* and asset protection zone requirements under condition D32.

Operational Waste Storage and Processing

- B26. Prior to the commencement of construction of waste storage and processing areas, the Applicant must obtain agreement from Council for the design of the operational waste storage area (where waste removal will be undertaken by Council). Where waste removal will be undertaken by a third party, evidence must be provided to the Certifier that the design of the operational waste storage area:
- (a) is constructed using solid non-combustible materials;
 - (b) is designed to ensure the door/gate to the waste storage area is vermin proof and can be openable from both inside and outside the storage area at all times;
 - (c) includes a hot and cold water supply with a hose through a centralised mixing valve;
 - (d) is naturally ventilated or an air handling exhaust system must be in place; and
 - (e) includes signage to clearly describe the types of materials that can be deposited into recycling bins and general garbage bins.

Construction Access arrangements

- B27. Prior to the commencement of construction, compliance with the following requirements must be submitted to the Certifier:
- (a) all vehicles must enter and leave the site in a forward direction unless otherwise allowed in the Construction Traffic and Pedestrian Management Sub-Plan approved under condition B12(b);
 - (b) the swept path of the longest construction vehicle entering and exiting the site in association with the new work, as well as manoeuvrability through the site, must be in accordance with the latest version of AS 2890.2; and
 - (c) the safety of vehicles and pedestrians accessing adjoining properties, where shared vehicle and pedestrian access occurs, is to be addressed.

Pacific Highway / Grosvenor Road Intersection Works

- B28. Prior to the commencement of upgrade works to the Pacific Highway, the Applicant must submit information to TfNSW confirming that the upgrades for Pacific Highway and Grosvenor Road intersection along Pacific Highway have been designed to meet TfNSW requirements and endorsed by a suitably qualified practitioner. The information must also include the following:
- (a) the design has been undertaken in accordance with AUSTROADS and other Australian Codes of Practice;
 - (b) the certified copies of the civil design plans have been submitted to TfNSW for consideration and approval (all of these documents shall be sent to development.sydney@transport.gov.au); and
 - (c) a Works Authorisation Deed (WAD) for the abovementioned works has been entered into.

Note: Any works associated with the upgrades for Pacific Highway and Grosvenor Road intersection along Pacific Highway are to be at no cost to TfNSW.

Eton Road / Dunstan Grove Intersection Works

- B29. Prior to the commencement of upgrade works to the intersection of Eton Road and Dunstan Grove, the Applicant must submit plans and specifications of the proposed realignment of Eton Road proposed in the Further Supplementary Response to Submissions to the satisfaction of Council. The works must include the provision of a pedestrian refuge unless other pedestrian safety measures are agreed with Council.

Operational Access, Car Parking and Service Vehicle Arrangements

- B30. Prior to the commencement of construction, compliance with the following requirements must be submitted to the Certifier:
- (a) the proposed internal roads comply with Table 6.8b of *Planning for Bush Fire Protection 2019*;

- (b) all vehicles must enter and leave the site in a forward direction;
- (c) a minimum of 166 on-site car parking spaces, including at least one accessible space, for use during operation of the development and designed in accordance with the latest versions of AS 2890.1 and AS 2890.6;
- (d) the swept path of the largest service vehicle entering and exiting the site in association with the new work, as well as manoeuvrability through the site, must be in accordance with the latest version of AS 2890.2; and
- (e) the safety of vehicles and pedestrians accessing adjoining properties, where shared vehicle and pedestrian access occurs, is to be addressed.

Public Domain Works

- B31. Prior to the commencement of any footpath or public domain works, the Applicant must consult with Council and demonstrate to the Certifier that the streetscape design and treatment meets the requirements of Council, including addressing pedestrian management. The Applicant must submit documentation of approval for each stage from Council to the Certifier.

Protection of Heritage Fabric

- B32. Prior to the commencement of demolition of significant heritage fabric on the site, the Applicant must submit construction details (drawings at Scale or 1:10 or 1:20 where appropriate) and demolition methodologies for the below items of works to Heritage NSW and Council for review and comment:
- (a) intervention for secondary reception (Level 4);
 - (b) intervention for removal of concrete wall adjacent to spiral stair (Level 4);
 - (c) partial demolition of link between Stages 1 and 5 for emergency vehicle access; and
 - (d) partial demolition (for the purposes of light creation.) of south façade (Level 1).
- B33. Works which have the potential to reduce the internal and external significant fabric of the item (not including the landscape setting) must be designed to be reversible in the future.
- B34. Prior to the commencement of demolition of significant heritage fabric on site, the management and mitigation measures identified in the Conservation Management Plan (including appended documents) prepared by Urbis, dated 14 April 2020 must be implemented.

Project Arborist

- B35. Prior to the commencement of any works, a project arborist must be engaged to ensure all tree protection measures and works are carried out in accordance with the conditions of this consent. The project arborist must have a minimum AQF Level 5 qualification a minimum of 5 years' experience. Details of the arborist including name, business name and contact details must be provided to the Certifier.

PART C DURING CONSTRUCTION

Site Notice

- C1. A site notice(s):
- (a) must be prominently displayed at the boundaries of the site during construction for the purposes of informing the public of project details including, but not limited to the details of the Builder, Certifier and Structural Engineer is to satisfy the following requirements;
 - (b) minimum dimensions of the notice must measure 841 mm x 594 mm (A1) with any text on the notice to be a minimum of 30-point type size;
 - (c) the notice is to be durable and weatherproof and is to be displayed throughout the works period;
 - (d) the approved hours of work, the name of the site/ project manager, the responsible managing company (if any), its address and 24-hour contact phone number for any inquiries, including construction/ noise complaint must be displayed on the site notice; and
 - (e) the notice(s) is to be mounted at eye level on the perimeter hoardings/fencing and is to state that unauthorised entry to the site is not permitted.

Operation of Plant and Equipment

- C2. All construction plant and equipment used on site must be maintained in a proper and efficient condition and operated in a proper and efficient manner.

Demolition

- C3. Demolition work must comply with the demolition work plans required by *Australian Standard AS 2601-2001 The demolition of structures* (Standards Australia, 2001) and endorsed by a suitably qualified person as required by condition B10.

Construction Hours

- C4. Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:
- (a) between 7am and 6pm, Mondays to Fridays inclusive; and
 - (b) between 8am and 1pm, Saturdays.
- No work may be carried out on Sundays or public holidays.
- C5. Notwithstanding condition C4, provided noise levels do not exceed the existing background noise level plus 5dB, works may also be undertaken during the following hours:
- (a) between 6pm and 7pm, Mondays to Fridays inclusive; and
 - (b) between 1pm and 4pm, Saturdays.
- C6. Construction activities may be undertaken outside of the hours in condition C4 and C5 if required:
- (a) by the Police or a public authority for the delivery of vehicles, plant or materials; or
 - (b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
 - (c) where the works are inaudible at the nearest sensitive receivers; or
 - (d) where a variation is approved in advance in writing by the Planning Secretary or his nominee if appropriate justification is provided for the works.
- C7. Notification of such construction activities as referenced in condition C6 must be given to affected residents before undertaking the activities or as soon as is practical afterwards.
- C8. Rock breaking, rock hammering, sheet piling, pile driving, and similar activities may only be carried out between the following hours:
- (a) 9am to 12pm, Monday to Friday;
 - (b) 2pm to 5pm Monday to Friday; and

- (c) 9am to 12pm, Saturday.

Implementation of Management Plans

- C9. The Applicant must carry out the construction of the development in accordance with the most recent version of the approved CEMP (including Sub-Plans).

Construction Traffic

- C10. All construction vehicles are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site or an approved on-street work zone before stopping.

Hoarding Requirements

- C11. The following hoarding requirements must be complied with:
- (a) no third-party advertising is permitted to be displayed on the subject hoarding/ fencing; and
 - (b) the construction site manager must be responsible for the removal of all graffiti from any construction hoardings or the like within the construction area within 48 hours of its application.

No Obstruction of Public Way

- C12. The public way (outside of any approved construction works zone) must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances.

Construction Noise Limits

- C13. The development must be constructed to achieve the construction noise management levels detailed in the *Interim Construction Noise Guideline* (DECC, 2009). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures identified in the approved Construction Noise and Vibration Management Plan.
- C14. The Applicant must ensure construction vehicles (including concrete agitator trucks) do not arrive at the site or surrounding residential areas on Dunstan Grove and Tubs View outside of the construction hours of work outlined under condition C4.
- C15. The Applicant must implement, where practicable and without compromising the safety of construction staff or members of the public, the use of 'quackers' to ensure noise impacts on surrounding noise sensitive receivers are minimised.

Vibration Criteria

- C16. Vibration caused by construction at any residence or structure outside the site must be limited to:
- (a) for structural damage, the latest version of *DIN 4150-3 (1992-02) Structural vibration - Effects of vibration on structures* (German Institute for Standardisation, 1999); and
 - (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: a technical guideline* (DEC, 2006) (as may be updated or replaced from time to time).
- C17. Vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in condition C16.
- C18. The limits in conditions C16 and C17 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition B14 of this consent.

Tree Protection

- C19. For the duration of the construction works:

- (a) street trees must not be trimmed or removed unless it forms a part of this development consent or prior written approval from Council is obtained or is required in an emergency to avoid the loss of life or damage to property;
- (b) all street trees immediately adjacent to the approved disturbance area / property boundary/ies must be protected at all times during construction in accordance with Council's tree protection requirements. Any street tree, which is damaged or removed during construction due to an emergency, must be replaced, to the satisfaction of Council;
- (c) all trees on the site that are not approved for removal must be suitably protected during construction as per the recommendations of the Arborist Impact and Tree Risk Assessment prepared by McArdle Arboricultural Consultancy, dated 30 August 2019 and the advice of the project arborist appointed under condition B35; and
- (d) if access to the area within any protective barrier is required during the works, it must be carried out under the supervision of the project arborist appointed under condition B35. Alternative tree protection measures must be installed, as required. The removal of tree protection measures, following completion of the works, must be carried out under the supervision of the project arborist appointed under condition B35 arborist and must avoid both direct mechanical injury to the structure of the tree and soil compaction within the canopy or the limit of the former protective fencing, whichever is the greater.

Rock Outcrops

C20. Rock outcrops must be protected during construction activities and appropriately fenced.

Air Quality

C21. The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.

C22. During construction, the Applicant must ensure that:

- (a) exposed surfaces and stockpiles are suppressed by regular watering;
- (b) all trucks entering or leaving the site with loads have their loads covered;
- (c) trucks associated with the development do not track dirt onto the public road network;
- (d) public roads used by these trucks are kept clean; and
- (e) land stabilisation works are carried out progressively on site to minimise exposed surfaces.

Unexpected Contamination Procedure

C23. The Applicant must ensure the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site that would result in significant contamination.

Imported Soil

C24. The Applicant must:

- (a) ensure that only VENM, ENM, or other material approved in writing by EPA is brought onto the site;
- (b) keep accurate records of the volume and type of fill to be used; and
- (c) make these records available to the Certifier upon request.

Disposal of Seepage and Stormwater

C25. Adequate provisions must be made to collect and discharge stormwater drainage during construction to the satisfaction of the Certifier. The prior written approval of Council must be obtained to connect or discharge site stormwater to Council's stormwater drainage system or street gutter.

Emergency Management

- C26. The Applicant must prepare and implement awareness training for employees and contractors, including locations of the assembly points and evacuation routes, for the duration of construction.

Stormwater Management System

- C27. Within three months of the commencement of construction, the Applicant must design an operational stormwater management system for the development and submit it to the satisfaction of the Certifier. The system must:
- (a) be designed by a suitably qualified and experienced hydraulic engineer;
 - (b) be generally in accordance with the conceptual design in the Supplementary Response to Submissions;
 - (c) be in accordance with applicable Australian Standards;
 - (d) ensure that the discharge of stormwater into the bushland is controlled and undertaken to minimise bushland and water quality impacts in accordance with the Guidelines for developments adjoining land managed by the Office of Environment and Heritage; and
 - (e) ensure that the system capacity has been designed in accordance with *Australian Rainfall and Runoff* (Engineers Australia, 2016) and *Managing Urban Stormwater: Council Handbook* (EPA, 1997) guidelines.

Aboriginal Cultural Heritage

- C28. A representative of the Local Aboriginal Land Council must be invited to observe any excavations greater than one metre in depth. Any invitation must be provided at least 14 days prior to excavations occurring and reasonable arrangements agreed for the observation of excavations where an invitation is accepted. In the event that any unexpected finds are discovered, any direction from the Local Aboriginal Land Council representative and the procedures outlined in condition C29 must be followed.

Unexpected Finds Protocol – Aboriginal Heritage

- C29. In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by EES Group and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and EES Group to develop and implement management strategies for all objects/sites. Works shall only recommence with the written approval of EES Group.

Unexpected Finds Protocol – Historic Heritage

- C30. If any unexpected archaeological relics are uncovered during the work, then all works must cease immediately in that area and the Heritage NSW contacted. Depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area. Works may only recommence with the written approval of the Heritage NSW.

Waste Storage and Processing

- C31. All waste generated during construction must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties.
- C32. All waste generated during construction must be assess, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).
- C33. The Applicant must ensure that concrete waste and rinse water are not disposed of on the site and are prevented from entering any natural or artificial watercourse.
- C34. The Applicant must record the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations for the duration of construction.

- C35. The Applicant must ensure that the removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility is in accordance with the requirements of the relevant legislation, codes, standards and guidelines.

Outdoor Lighting

- C36. The Applicant must ensure that all external lighting is constructed and maintained in accordance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting.

Independent Environmental Audit

- C37. Proposed independent auditors must be agreed to in writing by the Planning Secretary prior to the or commencement of an Independent Audit.
- C38. Independent Audits of the development must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements.
- C39. The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified above, upon giving at least 4 week's notice to the Applicant of the date or timing upon which the audit must be commenced.
- C40. In accordance with the specific requirements in the Independent Audit Post Approval Requirements, the Applicant must:
- (a) review and respond to each Independent Audit Report prepared under condition C38 of this consent, or condition C39 where notice is given;
 - (b) submit the response to the Planning Secretary; and
 - (c) make each Independent Audit Report and response to it publicly available within 60 days after submission to the Planning Secretary.
- C41. Independent Audit Reports and the applicant/proponent's response to audit findings must be submitted to the Planning Secretary within 2 months of undertaking the independent audit site inspection as outlined in the Independent Audit Post Approval Requirements unless otherwise agreed by the Planning Secretary.
- C42. Notwithstanding the requirements of the Independent Audit Post Approval Requirements, the Planning Secretary may approve a request for ongoing independent operational audits to be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that an audit has demonstrated operational compliance.

Operational Readiness Work

- C43. Operational readiness work must not commence on site until the following details have been submitted to the Certifier:
- (a) a plan and description of the area(s) of the site to be used for operational readiness work (including pedestrian access) and areas still under construction, (including construction access);
 - (b) the maximum number of staff to be involved in operational readiness work on site at any one time;
 - (c) arrangements to ensure the safety of school staff on the site, including how:
 - (i) areas to be used for operational readiness work will be clearly and securely separated from the areas of the site still under construction;
 - (ii) pedestrian access to and within the site will be managed to ensure no conflict with construction vehicle movements; and
 - (d) access and parking arrangements to minimise impacts on the surrounding street network having regard to number of staff involved in operational readiness work on site at any one time and parking arrangements for construction workers on site.
- C44. Operational readiness work must only be undertaken in accordance with the details submitted under condition C43 and the following requirements:
- (a) no more than 12 staff are involved in operational readiness work on site at any one time;

- (b) no more than 5 vehicles must access the school related to the operational readiness work;
- (c) no students or parents are permitted on the site; and
- (d) the Applicant has implemented appropriate arrangements to ensure the safety of school staff on the site.

PART D PRIOR TO COMMENCEMENT OF OPERATION

Notification of Occupation

- D1. At least one month before commencement of operation, the date of commencement of the operation of the development must be notified to the Planning Secretary in writing. If the operation of the development is to be staged, the Planning Secretary must be notified in writing at least one month before the commencement of each stage, of the date of commencement and the development to be carried out in that stage.

External Walls and Cladding

- D2. Prior to commencement of operation, the Applicant must provide the Certifier with documented evidence that the products and systems used in the construction of external walls including finishes and claddings such as synthetic or aluminium composite panels comply with the requirements of the BCA.
- D3. The Applicant must provide a copy of the documentation given to the Certifier to the Planning Secretary within seven days after the Certifier accepts it.

Works as Executed Plans

- D4. Prior to the commencement of operation, works-as-executed drawings signed by a registered surveyor demonstrating that the stormwater drainage and finished ground levels have been constructed as approved, must be submitted to the Certifier.

Warm Water Systems and Cooling Systems

- D5. The installation of warm water systems and water cooling systems (as defined under the *Public Health Act 2010*) must comply with the *Public Health Act 2010*, Public Health Regulation 2012 and Part 1 (or Part 3 if a Performance-based water cooling system) of *AS/NZS 3666.2:2011 Air handling and water systems of buildings – Microbial control – Operation and maintenance* and the NSW Health Code of Practice for the Control of Legionnaires' Disease.

Outdoor Lighting

- D6. Prior to the commencement of operation, the Applicant must submit evidence from a suitably qualified practitioner to the Certifier that demonstrates that installed lighting associated with the development achieves the objective of minimising light spillage to any adjoining or adjacent sensitive receivers or bushland and:
- (a) complies with the latest version of *AS 4282-2019 - Control of the obtrusive effects of outdoor lighting* (Standards Australia, 1997); and
 - (b) has been mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

Mechanical Ventilation

- D7. Prior to commencement of operation, the Applicant must provide evidence to the satisfaction of the Certifier that the installation and performance of the mechanical ventilation systems complies with:
- (a) *AS 1668.2-2012 The use of air-conditioning in buildings – Mechanical ventilation in buildings* and other relevant codes; and
 - (b) any dispensation granted by Fire and Rescue NSW.

Operational Noise – Design of Mechanical Plant and Equipment

- D8. Prior to the commencement of operation, the Applicant must submit evidence to the Certifier that the noise mitigation recommendations in the Revised Noise Impact Assessment prepared by White Noise Acoustics dated 18 August 2020 have been incorporated into the design to ensure the development will not exceed the recommended operational noise levels identified in the Environmental Noise Assessment.

Fire Safety Certification

- D9. Prior to commencement of occupation, a Fire Safety Certificate must be obtained for all the Essential Fire or Other Safety Measures forming part of this consent. A copy of the Fire Safety

Certificate must be submitted to the relevant authority and Council. The Fire Safety Certificate must be prominently displayed in the building.

Structural Inspection Certificate

- D10. Prior to the commencement of operation of the relevant parts of any new or refurbished buildings, a Structural Inspection Certificate or a Compliance Certificate must be submitted to the satisfaction of the Certifier. A copy of the Certificate with an electronic set of final drawings (contact approval authority for specific electronic format) must be submitted to the approval authority and the Council after:
- (a) the site has been periodically inspected and the Certifier is satisfied that the structural works is deemed to comply with the final design drawings; and
 - (b) the drawings listed on the Inspection Certificate have been checked with those listed on the final Design Certificate/s.

Compliance with Food Code

- D11. Prior to the commencement of operation, the Applicant is to obtain a certificate from a suitably qualified tradesperson, certifying that the kitchen, food storage and food preparation areas have been fitted in accordance with the AS 4674 *Design, construction and fit-out of food premises* and provide evidence of receipt of the certificate to the satisfaction of the Certifier.

Post-construction Dilapidation Report

- D12. Prior to commencement of operation, the Applicant must engage a suitably qualified person to prepare a post-construction dilapidation report at the completion of construction. This report is:
- a) to ascertain whether the construction created any structural damage to adjoining buildings or infrastructure;
 - b) to be submitted to the Certifier. In ascertaining whether adverse structural damage has occurred to adjoining buildings or infrastructure, the Certifier must:
 - i) compare the post-construction dilapidation report with the pre-construction dilapidation report required by these conditions; and
 - ii) have written confirmation from the relevant authority that there is no adverse structural damage to their infrastructure and roads.
 - c) to be forwarded to Council.

Protection of Public Infrastructure

- D13. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out the development; and
 - (b) relocate, or pay the full costs associated with relocating any infrastructure that needs to be relocated as a result of the development.

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

Road Damage

- D14. Prior to the commencement of operation, the cost of repairing any damage caused to Council or other Public Authority's assets in the vicinity of the subject site as a result of construction works associated with the approved development must be met in full by the Applicant.

Protection of Property

- D15. Unless the Applicant and the applicable owner agree otherwise, the Applicant must repair, or pay the full costs associated with repairing any property that is damaged by carrying out the development.

Utilities and Services

- D16. Prior to commencement of operation, the Applicant must obtain a Compliance Certificate for water and sewerage infrastructure servicing of the site under section 73 of the *Sydney Water Act 1994*.

Roadworks and Access

- D17. Prior to the commencement of operation (unless otherwise agreed by the Planning Secretary), the upgrade works to the intersection of Eton Road and Dunstan Grove must be completed in accordance with the details approved under condition B29.

Note: Approval for is required from the relevant roads authority for roadworks under section 138 of the Roads Act 1993.

- D18. Prior to the commencement of operation, an independent Road Safety Audit (RSA), prepared by a suitably qualified consultant, must be undertaken of the internal access road from the main entry at Eton Road to the turnaround, in consultation with TfNSW, and any recommendations of the RSA must be implemented. The RSA and evidence of implementation of recommendations must be submitted to the Certifier prior to any occupation.
- D19. Prior to the commencement of operation, evidence must be submitted to the Certifier that:
- (a) the proposed alterations and additions to the internal access road, including the provision of separate bus and parent/carer drop-off/facilities have been completed;
 - (b) the proposed fire trail connection between Dunstan Grove and the extended internal access road has been completed;
 - (c) the internal road design including driveways, grades, turn paths, sight distance requirements in relation to landscaping and/or fencing, aisle widths, aisle lengths, and drop-off/pick-up bay dimensions, is in accordance with AS 2890.1- 2004, AS2890.6-2009 and AS 2890.2 – 2002 for heavy vehicle usage; and
 - (d) the swept path of the longest service vehicle (including garbage trucks, building maintenance vehicles and removalists) entering and exiting the subject site, as well as manoeuvrability through the site, is in accordance with Austroads.

Pedestrian Infrastructure Upgrades

- D20. Prior to the commencement of operation, the Applicant must provide (unless otherwise agreed by the Planning Secretary), pedestrian infrastructure upgrades to accommodate the expansion of the school and further improve connectivity to Lindfield Public School. The upgrades must be finalised in consultation with Council and include (but not limited to) the provision of the following unless otherwise agreed by the Planning Secretary:
- (a) a footpath along the southern side of Eton Road from Austral Avenue to the existing footpath north of Abingdon Road;
 - (b) a footpath along the southern side of Grosvenor Road between Austral Avenue and Bent Street;
 - (c) provision of pedestrian crossing on Eton Road at Austral Road; and
 - (d) provision of a pedestrian crossing on Abingdon Road at Eton Road.
- D21. Detailed design of pedestrian crossing facilities as required by condition D20 must be submitted to the Ku-ring-gai Traffic Committee for recommendation and approval by Council.
- D22. Works agreed under condition D20 and D21 must be completed within three months of the commencement of operation (or other timeframe agreed by the Planning Secretary) to the satisfaction of Council.

Bicycle Parking and End-of-Trip Facilities

- D23. Prior to the commencement of operation, compliance with the following requirements for secure bicycle parking and end-of-trip facilities must be submitted to the satisfaction of the Certifier:
- a) the provision of a minimum 42 bicycle parking spaces;
 - b) the layout, design and security of bicycle facilities must comply with the minimum requirements of the latest version of AS 2890.3:2015 *Parking facilities - Bicycle parking*, and be located in easy to access, well-lit areas that incorporate passive surveillance;
 - c) the provision of end-of-trip facilities for staff; and
 - d) appropriate pedestrian and cyclist advisory signs are to be provided.

Note: All works/regulatory signposting associated with the proposed development shall be at no cost to the relevant roads authority.

School Transport Plan

D24. Prior to the commencement of operation, a School Transport Plan (STP), must be submitted to the satisfaction of the Planning Secretary. The plan must:

- (a) be prepared by a suitably qualified consultant in consultation with Council and TfNSW;
- (b) include arrangements to promote the use of active and sustainable transport modes, including:
 - (i) objectives and modes share targets (i.e. Site and land use specific, measurable and achievable and timeframes for implementation) based on those included in the Further Supplementary Response to Submissions;
 - (ii) specific tools and actions to help achieve the objectives and mode share targets;
 - (iii) details regarding the methodology and monitoring/review program to measure the effectiveness of the objectives and mode share targets, including the frequency of monitoring and the requirement for travel surveys to identify travel behaviours of users of the development;
- (c) include operational transport access management arrangements, including:
 - (i) detailed pedestrian analysis including the identification of safe route options to identify the need for management measures such as staggered school start and finish times to ensure students and staff are able to access and leave the Site in a safe and efficient manner during school start and finish;
 - (ii) the location of all car parking spaces on the school campuses and their allocation (i.e. staff, visitor, accessible, emergency, etc.);
 - (iii) the location and operational management procedures of the drop-off and pick-up parking, including staff management/traffic controller arrangements;
 - (iv) the location and operational management procedures for the drop-off and pick-up of students by buses and coaches including staff management/traffic controller arrangements;
 - (v) delivery and services vehicle and bus access and management arrangements;
 - (vi) management of approved access arrangements;
 - (vii) potential traffic impacts on surrounding road networks and mitigation measures to minimise impacts, including measures to mitigate queuing impacts associated with vehicles accessing drop-off and pick-up zones;
 - (viii) car parking arrangements and management associated with the proposed use of school facilities by community members; and
- (d) measures to promote and support the implementation of the plan, including financial and human resource requirements, roles and responsibilities for relevant employees involved in the implementation of the plan; and
- (e) a monitoring and review program that includes:
 - (i) travel mode surveys (undertaken at a suitable time to reflect typical school operations) to determine the level of achievement of travel mode share targets;
 - (ii) car parking demand surveys (undertaken during and after school hours) to identify any school parking demand that spills out onto the road network;
 - (iii) review of the adequacy of school bus services to cater for school demand; and
 - (iv) identification of measures to be taken where travel mode targets are not met, parking issues have been identified on neighbouring private land, access ways or the surrounding road network or where demand exceeds the capacity of bus services.

Stormwater Operation and Maintenance Plan

D25. Prior to the commencement of operation, a Stormwater Operation and Maintenance Plan (SOMP) must be submitted to the Certifier along with evidence of compliance with the SOMP. The SOMP must ensure the proposed stormwater quality measures remain effective and contain the following:

- (a) maintenance schedule of all stormwater quality treatment devices;

- (b) record and reporting details;
- (c) relevant contact information; and
- (d) Work Health and Safety requirements.

Signage

- D26. Prior to the commencement of operation, way-finding signage and signage identifying the location of staff car parking must be installed.
- D27. Prior to the commencement of operation, bicycle way-finding signage must be installed within the site to direct cyclists from footpaths to designated bicycle parking areas.

Operational Waste Management Plan

- D28. Prior to the commencement of operation, the Applicant must prepare a Waste Management Plan for the development and submit it to the Certifier. The Waste Management Plan must:
- (a) detail the type and quantity of waste to be generated during operation of the development;
 - (b) describe the handling, storage and disposal of all waste streams generated on site, consistent with the *Protection of the Environment Operations Act 1997*, *Protection of the Environment Operations (Waste) Regulation 2014* and the *Waste Classification Guideline* (Department of Environment, Climate Change and Water, 2009);
 - (c) detail the materials to be reused or recycled, either on or off site; and
 - (d) include the Management and Mitigation Measures included in the Operational Waste Management Plan prepared by Foresight Environmental, dated 22 July 2019.

Landscaping

- D29. Prior to the commencement of operation, landscaping of the site must be completed in accordance with landscape plan(s) approved under condition B25.
- D30. Prior to the commencement of operation, the Applicant must submit an Operational Landscape Management Plan to manage the revegetation and landscaping undertaken on-site, to the Certifier. The plan must describe the ongoing monitoring and maintenance measures to manage revegetation and landscaping.

Operational Flora and Fauna Management Plan

- D31. Prior to commencement of operation, the Applicant must submit an Operational Flora and Fauna Management Plan (OFFMP) to the Certifier that include measures to ensure biodiversity values not intended to be impacted are protected, including but not limited to:
- (a) retention of areas of native vegetation for threatened flora and fauna within the site;
 - (b) weed control;
 - (c) feral animal control;
 - (d) pathogen management procedures;
 - (e) monitoring; and
 - (f) rehabilitation actions.

Asset Protection Zones

- D32. Prior to the commencement of operation, the entire property must be managed as an inner protection area (IPA) in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019. When establishing and maintaining an IPA the following requirements apply:
- (a) tree canopy cover should be less than 15% at maturity;
 - (b) trees at maturity should not touch or overhang the building;
 - (c) lower limbs should be removed up to a height of 2m above the ground;
 - (d) tree canopies should be separated by 2 to 5m;
 - (e) preference should be given to smooth barked and evergreen trees;

- (f) large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
 - (g) shrubs should not be located under trees;
 - (h) shrubs should not form more than 10% ground cover;
 - (i) clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
 - (j) grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
 - (k) leaves and vegetation debris should be removed.
- D33. Prior to commencement of operation, a Vegetation Management Plan prepared by a suitably qualified person and in consultation with a suitably qualified bush fire consultant recognised by the NSW RFS for the ongoing maintenance of asset protection zones within the site and approved under licence within the Lane Cove National Park. This must include:
- (a) a plan showing asset protection zones within and outside of the site relied upon by the school for bush fire protection, including management zones within the former UTS campus precinct and clearly identify areas to be managed by the Applicant;
 - (b) provisions for the annual audit of all APZs within and outside the site by a bush fire consultant recognised by the NSW RFS prior to the declaration of the bush fire season; and
 - (c) provisions for the identification of actions to be taken in order to rectify non-compliances with APZ requirements where identified.

Operational Bush Fire Emergency Management and Evacuation Plan

- D34. Prior to the commencement of operation, a Bush Fire Emergency Management and Evacuation Plan must be prepared by a suitably qualified person. The plan must:
- (a) be consistent with Development Planning – A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan and Australian Standard AS 3745-2010 Planning for Emergencies in Facilities;
 - (b) address evacuation risk with regard to the multi-level configuration of the school;
 - (c) incorporate provisions to address access into the site, the level of available firefighting assistance, and the blockage of evacuation escape routes;
 - (d) provide for updating of the plan on an annual basis following an audit of bush fire protection measures, including maintenance of asset protection zones, water supplies and access roads on and off site; and
 - (e) be submitted to NSW RFS, Council and the Planning Secretary for information.

Operational Flood Emergency Management Plan

- D35. Prior to the commencement of operation, an Operational Flood Evacuation and Emergency Management Plan (OFEMP) must be prepared by a suitably qualified person. The plan must:
- (a) be prepared in consultation with the NSW SES and Council and in accordance with *Floodplain Risk Management Guideline* (OEH, 2007);
 - (b) include specific flood emergency measures required to be incorporated into the detailed design to mitigate impacts of a range of flood events up to and including the PMF;
 - (c) include measures to manage flood impacts outside the site to ensure accessibility is maintained;
 - (d) include details of:
 - (i) predicted flood levels;
 - (ii) flood warning time and flood notification;
 - (iii) assembly points and evacuation routes;
 - (iv) evacuation and refuge protocols;
 - (v) awareness training for employees and contractors; and

- (e) be submitted to the NSW SES, Council and the Planning Secretary for information.

Community Consultative Committee

- D36. Prior to the commencement of operation, a Community Consultative Committee (CCC) must be established for the development in accordance with the Department's *Community Consultative Committee Guideline: State Significant Projects* (January 2019). The CCC must begin to exercise functions in accordance with such Guideline before the commencement of operation of Phase 2 and continue to do so for a period of three years after the commencement of operation of the final stage of operation or other timeframe agreed by the Planning Secretary.

Notes:

- *The CCC is an advisory committee only.*
- *In accordance with the Guidelines, the Committee should comprise an independent chair and appropriate representation from the Applicant, Council, relevant transport agencies and the local community.*

PART E POST OCCUPATION

Out of Hours Event Management Plan

- E1. Prior to the commencement of the first out of hours events (school use) run by the school that involve 100 or more people (excluding out of school hours care), the Applicant is to prepare an Out of Hours Event Management Plan (school use) and submit it to the Council and Planning Secretary in consultation with Council for information. The plan must include the following:
- (a) the number of attendees, time and duration;
 - (b) arrival and departure times and modes of transport;
 - (c) where relevant, a schedule of all annual events;
 - (d) measures to encourage non-vehicular travel to the school and promote and support the use of alternate travel modes (i.e. public transport);
 - (e) details of the use of the theatre, auditorium, gymnasium or squash courts, where applicable, restricting use before 8am and after 10pm;
 - (f) measures to minimise localised traffic and parking impacts; and
 - (g) measures to minimise noise impacts on any sensitive residential receivers, including the preparation of acoustic management plan.
- E2. The Out of Hours Event Management Plan (school use) must be implemented by the Applicant for the duration of the identified events or use.
- E3. Prior to the commencement of out of hours events (community use) run by the external parties that involve 100 or more people, the Applicant is to prepare an Out of Hours Event Management Plan (community use) in consultation with Council and submit it to the Council and Planning Secretary for information. The plan must include the following:
- (a) the number of attendees, time and duration;
 - (b) arrival and departure times and modes of transport;
 - (c) where relevant, a schedule of all annual events;
 - (d) measures to encourage non-vehicular travel to the school and promote and support the use of alternate travel modes (i.e. public transport);
 - (e) details of the use of the theatre, auditorium, gymnasium or squash courts, where applicable, restricting use before 8am and after 10pm;
 - (f) measures to minimise localised traffic and parking impacts; and
 - (g) measures to minimise noise impacts on any sensitive residential receivers, including the preparation of acoustic management plan.
- E4. The Out of Hours Event Management Plan (community use) must be implemented by the Applicant for the duration of the identified community event or use.

Operation of Plant and Equipment

- E5. All plant and equipment used on site must be maintained in a proper and efficient condition operated in a proper and efficient manner.

Warm Water Systems and Cooling Systems

- E6. The operation and maintenance of warm water systems and water cooling systems (as defined under the Public Health Act 2010) must comply with the Public Health Act 2010, Public Health Regulation 2012 and Part 2 (or Part 3 if a Performance-based water cooling system) of AS/NZS 3666.2:2011 Air handling and water systems of buildings – Microbial control – Operation and maintenance and the NSW Health Code of Practice for the Control of Legionnaires' Disease.

Community Communication Strategy

- E7. The Community Communication Strategy, as approved by the Planning Secretary, must be implemented for a minimum of 12 months following the completion of construction.

School Transport Plan (STP)

- E8. The STP(s) approved under condition D24 (as revised from time to time) must be implemented by the Applicant for the life of the development and reviewed annually unless otherwise agreed in writing by the Planning Secretary. Details and outcomes of the review(s) must be submitted to the Planning Secretary for information.

Operational Noise Limits

- E9. The Applicant must ensure that noise generated by operation of the development does not exceed the noise limits in the Revised Noise Impact Assessment prepared by White Noise Acoustics dated 18 August 2020.
- E10. The Applicant must undertake short term noise monitoring in accordance with the *Noise Policy for Industry* where valid data is collected following the commencement of use of each stage of the development. The monitoring program must be carried out by an appropriately qualified person and a monitoring report must be submitted to the Planning Secretary within two months of commencement of operation of each stage of the development (or other timeframe agreed by the Planning Secretary) to verify that operational noise levels do not exceed the recommended noise levels for mechanical plant identified in the Revised Noise Impact Assessment prepared by White Noise Acoustics dated 18 August 2020. Should the noise monitoring program identify any exceedance of the recommended noise levels referred to above, the Applicant must implement appropriate noise attenuation measures so that operational noise levels do not exceed the recommended noise levels or provide attenuation measures at the affected noise sensitive receivers.

Unobstructed Driveways and Parking Areas

- E11. All driveways, footways and parking areas must be unobstructed at all times. Driveways, footways and car spaces must not be used for the manufacture, storage or display of goods, materials, refuse, skips or any other equipment and must be used solely for vehicular and/or pedestrian access and for the parking of vehicles associated with the use of the premises.

Dunstan Grove Fire Trail Access

- E12. The fire trail access to Dunstan Grove must not be used for vehicular access except in the event of an emergency.

Ecologically Sustainable Development

- E13. Unless otherwise agreed by the Planning Secretary, within six months of commencement of operation, Green Star certification must be obtained demonstrating the development achieves a minimum 4 star Green Star Design & As Built rating. If required to be obtained, evidence of the certification must be provided to the Certifier and the Planning Secretary. If an alternative certification process has been agreed to by the Planning Secretary under condition B8, evidence of compliance of implementation must be provided to the Planning Secretary and Certifier.

Outdoor Lighting

- E14. Notwithstanding condition D6, should outdoor lighting result in any residual impacts on the amenity of surrounding sensitive receivers, the Applicant must provide mitigation measures in consultation with affected landowners to reduce the impacts to an acceptable level.

Landscaping

- E15. The Applicant must maintain the landscaping and vegetation on the site in accordance with the approved Operational Landscape Management Plan required for the duration of occupation of the development.

Heritage

- E16. The Applicant must ensure that the heritage characteristics of the site are managed and protected in accordance with the Conservation Management Plan (including appended documents) prepared by Urbis, dated 14 April 2020.

Asset Protection Zones

- E17. The asset protection zones required by condition D32 must be maintained for the duration of operation of the development.

Vegetation Management Plan

- E18. The vegetation management plan approved under condition D33 must be maintained for the duration of operation of the development and reviewed annually unless otherwise agreed by the Planning Secretary. Details and outcomes of the review(s) must be submitted to the Planning Secretary for information.

Fire Safety Certificate

- E19. The owner must submit to Council an Annual Fire Safety Statement, each 12 months after the final Safety Certificate is issued. The certificate must be on, or to the effect of, Council's Fire Safety Statement.

Road Safety Audit

- E20. Within three months of the student population reaching 1050 students and again within three months of the school population reaching 2000 students, an independent Road Safety Audit (RSA), prepared by a suitably qualified consultant, must be undertaken of the local road network surrounding the school and generally centred on Eton Road and intersecting roads south of Austral Road. The RSA must be prepared in consultation with TfNSW and Council and any recommendations must be implemented within three months of the RSA being completed. The RSA and evidence of implementation of recommendations must be submitted to the Certifier and a copy provided to Council and the Planning Secretary for information.

APPENDIX 1 ADVISORY NOTES

General

AN1. All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes any obligation to obtain, renew or comply with such licences, permits, approvals and consents.

Long Service Levy

AN2. For work costing \$25,000 or more, a Long Service Levy must be paid. For further information please contact the Long Service Payments Corporation Helpline on 131 441.

Legal Notices

AN3. Any advice or notice to the consent authority must be served on the Planning Secretary.

Access for People with Disabilities

AN4. The works that are the subject of this application must be designed and constructed to provide access and facilities for people with a disability in accordance with the BCA. Prior to the commencement of construction, the Certifier must ensure that evidence of compliance with this condition from an appropriately qualified person is provided and that the requirements are referenced on any certified plans.

Utilities and Services

AN5. Prior to the construction of any utility works associated with the development, the Applicant must obtain relevant approvals from service providers.

AN6. Prior to the commencement of above ground works written advice must be obtained from the electricity supply authority, an approved telecommunications carrier and an approved gas carrier (where relevant) stating that satisfactory arrangements have been made to ensure provisions of adequate services.

Road Design and Traffic Facilities

AN7. All roads and traffic facilities must be designed to meet the requirements of Council or TfNSW (whichever is applicable). The necessary permits and approvals from the relevant road authority must be obtained prior to the commencement of road or pavement construction works.

Road Occupancy Licence

AN8. A Road Occupancy Licence must be obtained from the relevant road authority for any works that impact on traffic flows during construction activities.

SafeWork Requirements

AN9. To protect the safety of work personnel and the public, the work site must be adequately secured to prevent access by unauthorised personnel, and work must be conducted at all times in accordance with relevant SafeWork requirements.

Hoarding Requirements

AN10. The Applicant must submit a hoarding application to Council for the installation of any hoardings over Council footways or road reserve.

Handling of Asbestos

AN11. The Applicant must consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during construction. The requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 – 'Transportation and management of asbestos waste' must also be complied with.

APPENDIX 2 WRITTEN INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS

Written Incident Notification Requirements

1. A written incident notification addressing the requirements set out below must be emailed to the Planning Secretary through the major projects portal within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition A26 or, having given such notification, subsequently forms the view that an incident has not occurred.
2. Written notification of an incident must:
 - a. identify the development and application number;
 - b. provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
 - c. identify how the incident was detected;
 - d. identify when the applicant became aware of the incident;
 - e. identify any actual or potential non-compliance with conditions of consent;
 - f. describe what immediate steps were taken in relation to the incident;
 - g. identify further action(s) that will be taken in relation to the incident; and
 - h. identify a project contact for further communication regarding the incident.
3. Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.
4. The Incident Report must include:
 - a. a summary of the incident;
 - b. outcomes of an incident investigation, including identification of the cause of the incident;
 - c. details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
 - d. details of any communication with other stakeholders regarding the incident.