MANAGEMENT AND MITIGATION MEASURES

By:	Airtrunk
In relation to:	Proposed Data Centre – State Significant Development Application
Site:	1 Sirius Road, Lane Cove West (Lot 1 DP 1151370) & 2 Apollo Place, Lane Cove West (Lot 7 DP 241877)

Airtrunk would undertake the facilitated construction and operation of the proposed Data Centre in accordance with the following:

Below prescribes some of the terms and abbreviations used in this Statement, including:

Approval	The Minister's approval of the Proposed Development
BCA	Buidling Code of Australia
Council	Lane Cove Council
Department	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act, 1979*
Airtrunk	Airtrunk
Project	The Proposed Development as described in this EIS
Secretary General	Secretary General of the Department (or delegate)
Site / Subject Site	Land to which the project application applies
WorkCover	NSW WorkCover

ADMINISTRATIVE COMMITMENTS

Commitment to Minimise Harm to the Environment

1. Airtrunk would implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the project.

Occupation Certificate

2. Airtrunk would ensure a staged Interim and Final Occupation Certificate is obtained prior to the occupation of the facilities.

Terms of Approval

3. Airtrunk would carry out the project generally in accordance with the:

    a) Environmental Impact Statement;
    b) Drawings prepared by Airtrunk;
    c) Management and Mitigation Measures;
    d) Any Conditions of Approval.

4. If there is any inconsistency between the above, the Conditions of Approval shall prevail to the extent of the inconsistency.

5. Airtrunk would ensure compliance with any reasonable requirement/s of the Secretary-General of the Department of Planning, Industry and Environment arising from the Department's assessment of:

    a) Any reports, plans, programs, strategies or correspondence that are submitted in accordance with this Approval; and
    b) The implementation of any recommended actions or measures contained in reports, plans, programs, strategies or correspondence submitted by the Project Team as part of the application for Approval.

Structural Adequacy

6. Airtrunk would ensure that all new buildings and structures data centre buildings and ancillary offices) on the Site are constructed in accordance with the relevant requirements of the BCA.

Operation of Plant and Equipment

7. Airtrunk would ensure that all plant and equipment used on the Site is maintained and operated in proper and efficient manner, and in accordance with relevant Australian Standards.

Construction Traffic Management Plan

8. Airtrunk would ensure a Construction Traffic Management Plan is prepared and submitted to DPIE. This plan would:

    a) be submitted to the Secretary-General for approval prior to the commencement of construction;
    b) describe the traffic volumes and movements to occur during construction;
    c) detail proposed measures to minimise the impact of construction traffic on the surrounding network, including driver behaviour and vehicle maintenance; and,
    d) detail the procedures to be implemented in the event of a complaint from the public regarding construction traffic.

Contractors Environmental Management Plan

9. Prior to the commencement of construction, a Contractors Environmental Management Plan (CEMP) would be prepared that addresses the following:

    a) Land Contamination;
    b) Air Quality;
    c) Waste Classification;
    d) Erosion and Sediment Control; and,
    e) Materials Management Plan

Monitoring of State of Roadways

10. The Applicant should monitor the state of roadways leading to and from the Site and should take all necessary steps to clean up any adversely impacted road pavements as directed by Council.

Waste Receipts

11. A permanent record of receipts for the removal of both liquid and solid waste from the Site should be kept and maintained up to date at all times. Such record is to be made available to authorised person upon request.

SPECIFIC ENVIRONMENTAL COMMITMENTS

Noise

12. Construction on the Site would only be undertaken between 7am and 6pm Monday to Friday, and 7am and 1pm on Saturdays. No construction would be allowed on Site on Sundays or public holidays. The following specific measures are proposed throughout the construction and operational phases of development:

    a) Prompt response to any community issues of concern;
    b) Noise monitoring on site and within the community;
    c) Refinement of onsite noise mitigation measures and plant operating procedures where practical;
    d) Preparation of a formal noise management plan including noise monitoring program;
    e) For equipment with enclosures (i.e. compressor rooms) ensure door and seals are well maintained and kept closed when not in use;

f) Keep plant and equipment well maintained, regular inspection and maintenance of equipment to ensure it is good working order;
g) Equipment not to be operated until it is maintained or repaired;
h) Regularly train workers (ie toolbox talks) to use equipment in ways to minimise noise;
i) Operate mobile plant in a quiet, efficient manner;
j) Switching off vehicles and plant when not in use; and,
k) Incorporate clear signage at the Site including relevant contact numbers for community enquiries.

13. Prior to issue of an Occupation Certificate, the following recommendations provided in the Noise Impact Assessment Report should be acknowledged and adhered to accordingly, including:

Table 1: Indicative Noise Mitigation Measures		
Item	**Location**	**Attenuation Details**
Water-cooled Chillers	Enclosure	Enclosure achieving 15-20 dB noise level reduction.
Cooling Towers	Intake / discharge / equipment reselection	A collective noise level reduction of 25-30 dB is required which is likely to require a reselection of the cooling tower type along with intake/discharge attenuators.
Diesel Generators (backup power only)	Inlet / Discharge	Gensets recommended to be specified with a maximum emission of 72 dB(A) @ 1m. Discussed further below.
	Exhaust	
	Enclosure	
Building Envelope	Walls	Precast concrete ~150 mm Doors may need to be acoustically rated dependant on location.
	Roof	Recommend concrete ~150 mm.
Transformers	Enclosure	Enclosure achieving 10-15 dB noise level reduction.

Air Construction Traffic

14. During construction:

a) all trucks entering or leaving the Site with loads have their loads covered;
b) trucks associated with the project do not track dirt onto the public road network; and,
c) the public roads used by these trucks are kept clean.

Dust Management

15. During the construction phase of the project, all reasonable and feasible measures must be considered to minimise the dust generated by the project. These include:

Source	**Control Measures**
General	
Visual Inspection	Carry out visual inspections of the Site during site preparatory / construction activities and employ measures where necessary to minimise any visible air pollution generated by the Project.
Regular Maintenance	Regularly inspect and perform maintenance on dust control technologies (i.e. water sprays nozzles) and measures to ensure the effectiveness of these controls.
Erosion Control Structures	Silt and other material removed frequently from around erosion control structures to ensure deposits do not become a dust source.
Vegetated Buffers	Retain existing vegetation where appropriate and implement additional vegetated buffers around the boundary of the site to

	provide act as a physical barrier to the transport of pollutants in the direction of sensitive receptors.
Waste Materials	Cleared vegetation, demolition materials and other combustible waste material shall not be burnt on site. All waste materials be appropriately contained (in skips, bins) and covered during adverse weather conditions and handled in accordance with the site's Waste Management Plan.
Wind Blown Dust Sources	
Disturbed Areas	- Disturb only the minimum area necessary. - Stabilise all disturbed areas as soon as practicable to prevent or minimise windblown dust. - Rehabilitate disturbed areas as soon as practicable with a layer of inert material and vegetation (generally a minimum of 500mm). - Regularly assess weather conditions to identify adverse weather conditions that are unfavourable in terms of dust levels at receptor locations surrounding the Site (i.e. on dry days, during strong winds, and particularly north easterly winds blowing in direction of the school).
Stockpile/s	– Water sprays and/or covers would be employed for material stockpiles, particularly during adverse weather conditions, to minimise dust generation. – Stockpiles would be covered overnight. – Use of chemical dust suppressants would also be used where necessary. – Fencing, bunding or shelterbelts used to reduce ambient wind speeds (in some areas).
Transportation (Trucks)	– Truck loads covered with tarpaulin or lid prior to transport of dusty materials by road. – Minimise truck queuing and unnecessary trips through logistical planning of materials delivery and work practices. – Reduce vehicle / truck idling times. – Maintain a following distance of trucks of 20 seconds minimum to allow for dust clouds generated by the lead truck to dissipate. – Install a truck wheel wash or shaker grid to remove any loose dirt.
Activity Generated Dust Sources	
Internal Road Dust	– Roads and trafficked areas would be watered down using a water cart and/or sprinkler to minimise the generation of dust. – Haulage vehicles would be restricted to the most direct route and minimal manoeuvring areas to prevent indiscriminate driving over non-active areas. – Haul roads and hard stand areas would have designated speed limits (ie generally 20 km/hour). – Enforce speed limits on all on-site vehicles to minimise wheel-generated dust. – Stabilise access roads and work areas as soon as practicable to prevent or minimise windblown dust. – Maintain roads on a regular basis to ensure roads are clearly marked, pot holes and corrugations are eliminated, and extra material build up is removed or redistributed on the road. – Chemical dust suppressants used where necessary.

External Road Dust	– Vehicles causing dirt track out onto main roads would be cleaned up on a regular basis to prevent this becoming an additional source of dust. – Material spillages would be cleaned up promptly.
Excavation	– Apply water sprays to trucks and loading points for dust suppression.
Loading and Dumping	– Dump heights would be minimised wherever possible (reduce to 5 m).
Plant and Equipment	– All plant and equipment used during mining activities would be maintained and operated in a proper and efficient condition. – Reduce idling times of trucks and other machinery. – Fixed plant should be located as far from local receptors as possible.
Excessive Dust Events	
Internal Roads	– Employ additional water spraying / water carts. – Further reduce speed on haul roads during high winds. – Halt traffic movements.
Stockpiles	– Cover stockpiles of material.
Project Site	– Temporarily halt activities and resume once weather conditions have improved.

Waste Management

16. Airtrunk would ensure that all waste generated on-site during operation is classified in accordance with the Office of Environmental and Heritage's *Waste Classification Guidelines: Part 1 Classifying Waste* and disposed of to a facility that may lawfully accept the waste.

Erosion and Sediment Control

17. Airtrunk would install silt traps during the construction phase to ensure there are no pollutants or sediments that exit the Site or unacceptable impacts that would result on surrounding vegetation or waterways.

Protection of Biodiversity and Vegetation

18. Airtrunk would mark on site with temporary fencing, the clearance boundaries prior to commencement of any construction to ensure that there is no unnecessary removal of vegetation. The fencing must be regularly checked and maintained throughout construction.
19. Airtrunk would undertake a pre-clearance survey of the buildings, immediately prior to clearing, alongside a qualified ecologist. Any bats occupying the buildings will be relocated (where feasible) to bushland immediately adjacent to the site. Where bats cannot be reached to be relocated, an alternative approach to their relocation will be discussed with the NSW DPIE.
20. Airtrunk would endorse the program of works outlined within the Vegetation Management Plan in relation to enacting revegetation, regeneration, maintenance, monitoring and review.
21. Airtrunk would adhere to the conditions agreed to in relation to the NSW DPIE's – Environment, Energy and Science Group (EES) including:

    a) The *revegetation areas of contaminated land including the riparian corridor of Stringybark Creek; the fire trail and the vegetated areas of the APZ are to be planted with a diversity of appropriate local native plant species from the native vegetation community (or communities) that occur, or once occurred, on the site.*
    b) *The revegetation areas and landscaped areas must a diversity of local provenance species (trees, shrubs and groundcovers) from the native vegetation community (or communities) that occurs, or once occurred, on the site.*
    c) *Any native trees that are required to be cleared from the site shall be salvaged (for example tree hollows and tree trunks which are greater than approximately 25-30 cm in*

diameter and 3 m in length) and placed in the revegetation and regeneration areas to enhance habitat.

d) *Seed from any native plants to be removed shall be collected and used in the revegetation and regeneration areas landscape areas.*
e) *Any trees that are to be removed from the site are replaced at a ratio greater than 1:1.*
f) *Any tree hollows to be removed are to be replaced at a ratio greater than 1:1.*

Aboriginal Heritage

22. During works, Airtrunk would notify the NSW Office of Environment and Heritage should an Aboriginal site and/or object be recorded in the Aboriginal Heritage Information Management System (AHIMS).

Ecologically Sustainable Development

23. Airtrunk would investigate the following ESD measures in respect of:

a) Energy & Greenhouse Gas Emissions;
b) Potable water reduction;
c) Minimising waste to landfill;
d) The Indoor Environment;
e) Occupant amenity and comfort;
f) Land Use & Ecology;
g) Emissions; and,
h) Building Management

Bushfire Protection

24. Airtrunk would ensure that:

a) At the commencement of building works and in perpetuity, the area around the proposed buildings shall be managed as an inner protection area (IPA) as depicted in Schedule 1 – Bushfire Protection Measures (ref: 18AWE02.5:NvD/JT) dated 4 February 2020, prepared by Travers Bushfire & Ecology and as outlined within Section 4.1.3 and Appendix 5 of PBP 2006 and the NSW Rural Fire Service's Standards for Asset Protection Zones as follows:

    - North-east: IPA for a distance of 25 m (residue of site located towards the north-east to be revegetated to a riparian corridor);
    - South-west: IPA for a distance of 27-36 m;
    - South: IPA for a distance of 27 m; and,
    - North: IPA for a distance of 4-23 m.

b) The provision of water, electricity and gas shall comply with Section 4.1.3 of PBP 2006.
c) The proposed property access road (driveway) shall comply with Section 4.1.3 (2) of PBP 2006.
d) Fire trails shall comply with the performance criteria outlined in Section 4.1.3 (3) of PBP 2006.
e) Arrangements for emergency and evacuation are to comply with Section 4.2.7 of PBP 2006, including the preparation of an emergency/ evacuation plan consistent with the NSW RFS document titled Guidelines for the Preparation of Emergency / Evacuation Plan.
f) Construction of the proposed data hall's southern and eastern elevation shall comply with Sections 3 & 8 (BAL 40) of AS3959 – 2009 or NASH Standard – 2014 as appropriate and section A3.7 Addendum Appendix 3 of PBP 2006.
g) Construction of the proposed data halls northern and western elevations and roofing shall comply with Section's 3 & 9 (BAL FZ) of AS3959 – 2009 or NASH Standard – 2014 as appropriate. Except for windows, flaming of the specimen is not permitted and there shall be no exposed timber.
h) Construction of the proposed substation shall comply with Sections 3 & 7 (BAL 29) of AS3959 – 2009 or NASH Standard – 2014 as appropriate.

i) Construction of the proposed generator platforms shall comply with Sections 3 & 9 (BAL FZ) of AS3959 – 2009 or NASH Standard – 2014 as appropriate. Except for windows, flaming of the specimen is not permitted and there shall be no exposed timber.
j) Radiant heat shields are to be provided to the generator platforms to prevent flame contact and reduce radiant heat exposure on the structures / machinery.
k) Landscaping to the site is to comply with the principles of Appendix 5 of PBP 2019.
l) The existing office building (2 Apollo Place) is to be upgraded to be upgrade for ember protection as follows:
    - Openable windows, vents and weepholes shall be externally screened with corrosion resistant steel, bronze or aluminum mesh screens having a maximum aperture size of 2 mm.
    - The base of external side hung doors are fitted with weather strips, drought excluders or drought seals where the doors do not close on a rebated edge.
m) The proposed link bridge and any building additions / refurbishments at 2 Apollo Place is to comply with sections 3 and 6 (BAL 19) of *AS 3959-2018: Construction of buildings in bushfire-prone areas* (Standards Australia, 2018) or the *NASH Standard (1.7.14 updated) – Steel Framed Construction in Bushfire Areas* (NASH, 2014).

Dangerous Goods

24. Airtrunk would ensure that:

a) The tank fill points shall be provided with impact protection.
b) Tank fill points shall be provided with signage clearly identifying the location of the fill points.
c) The tanks shall be provided with high level monitoring and alarms per Clause 5.3.3 of AS 1940-2017.
d) At least one powder type extinguisher shall be accessible within 10 m of the diesel tanks.
e) The hydrant system shall be able to provide at least 20 L/s.