Upgrade to Cammeray Public School

NSW Department of Education

Air Quality Assessment

November 2024

Revision	Details	Date	Author	Reviewer
Draft	Draft issue for comment	22/11/2024	Paul Henschke	Haysam Elhassan
Draft	Revision 1	29/11/2024	Paul Henschke	Haysam Elhassan
Draft	Revision 2	21/01/2025	Paul Henschke	Haysam Elhassan
Final	Revision 2	18/02/2025	Paul Henschke	Haysam Elhassan

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18/02/2025

Luen Samonte
Group Leader
School Infrastructure, Northern Sydney Asset Management Unit
NSW Department of Education
Level 5, 22 Giffnock Avenue
Macquarie Park NSW 2113

Dear Luen,

Re: AIR QUALITY ASSESSMENT – UPGRADE TO CAMMERAY PUBLIC SCHOOL

Please find attached the final report relating to the air quality assessment associated with the upgrades to Cammeray Public School.

Should you have any questions, please feel free to contact the undersigned.

Yours sincerely,

Paul Henschke,
Certified Air Quality Professional
Todoroski Air Sciences

Haysam Elhassan, COH
Principal Hygienist
OHMS Hygiene

Contents

1 Introduction

At the request of the NSW Department of Education, RED OHMS Group (OHMS) was engaged to develop an air quality assessment report relating to the proposed development of a two-storey building at Cammeray Public School, Palmer Street, Cammeray NSW 2062 (the Site).

In order to complete this assessment, OHMS utilised the services of an approved subcontractor, Todoroski Air Sciences (c/o Ektimo Pty Ltd) to investigate the potential for air impacts to arise due to the proposed upgrade at the Cammeray Public School.

This letter report provides an overview of the Site, a review of the existing environmental conditions, a qualitative analysis of potential air quality impacts associated with the activities and suggested air quality mitigation and management measures.

The report has been prepared with consideration of the NSW Environment Protection Authority (EPA) documents *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (NSW EPA, 2022).

1.1 Introduction

This Air Quality Assessment has been prepared to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the upgrade of the Cammeray Public School (CPS) (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP and in consideration of the stakeholder and community participation plan.

The proposed activity is for upgrades to the existing CPS at 68 Palmer Street, Cammeray NSW 2062 (the site).

The purpose of this report is to assess the potential for air quality impacts associated with the activity. This letter report provides an overview of the proposed activity, a review of the existing environmental conditions, a qualitative analysis of potential air quality impacts associated with the proposed activity and suggested air quality mitigation and management measures.

1.2 Site Description

CPS is located at 68 Palmer Street, Cammeray on the northern side of Palmer Road, bound by Palmer Street to the south, Bellevue Street to the east and Miller Street to the west. The site has an area of 1.36 ha and comprises 11 allotments, legally described as:

- Lot 11 DP 837836
- Lot 1 DP 316130
- Lot 1 DP 316706
- Lot 1 DP 123406
- Lot 2 DP 174370
- Lot 1 DP 174370
- Lot 4 Sec 35 DP 758790
- Lot 5 Sec 35 DP 758790
- Lot 66 DP 1049613
- Lot 3 DP 571310
- Lot 4 DP 571310

The site currently comprises an existing co-education primary (K-6) public school with 6 permanent buildings, 3 demountable structures, covered walkways linked at multiple levels, play areas, on-grade parking, sports court, covered outdoor learning area (COLA) and vegetation/green spaces with mature trees.

The existing school buildings are clustered towards the southern portion of the site and comprise both single and 2 storey buildings. The northern portion of the site contains the sports court, vegetable garden and play equipment. The north-western portion of the site is heavily vegetated with trees of high landscape significance that are protected with fencing.

The site is identified as a locally listed heritage item (I0019) under Schedule 5 Environmental Heritage pursuant to the *North Sydney Local Environmental Plan 2013* (NSLEP). The school is also identified in the Plateau Heritage Conservation Area (HCA) (Part 2 Schedule 5 of the NSLEP). The school is listed on the Department of Education (DoE) Section 170 Heritage Conservation Register as 'Cammeray Public School'. The site is approximately 115m from a State heritage item (I0004) being the electricity substation at 143 Bellevue Street and in close proximity to locally heritage listed items.

Figure 1 presents the location of the site.

Figure 1: Aerial image of the site (Source: NearMap, taken 30 October 2024)

1.3 Proposed activity description

The proposed activity involves upgrades to the existing CPS, including the following:

- Construction of 4 new permanent teaching spaces in a two-storey building incorporating 2 general learning spaces and 2 practical activity areas
- New egress lift and stairs for access to all building levels
- External covered walkways connecting the new building to the existing school network
- Landscaping and external works including compensatory planting
- Upgrades to site infrastructure and services to support the new buildings
- 50 bicycle parking spaces

The intent of the activity is to provide 4 permanent teaching spaces (PTS) plus 2 practical activity areas (PAA) across a two-storey addition, adjoining Building E. This will result in CPS retaining the capacity of a 'large' school (553-1,000 students) under EFSG (SINSW Education Facilities Standards and Guidelines).

Figure 2 below shows the scope of works for the proposed activity.

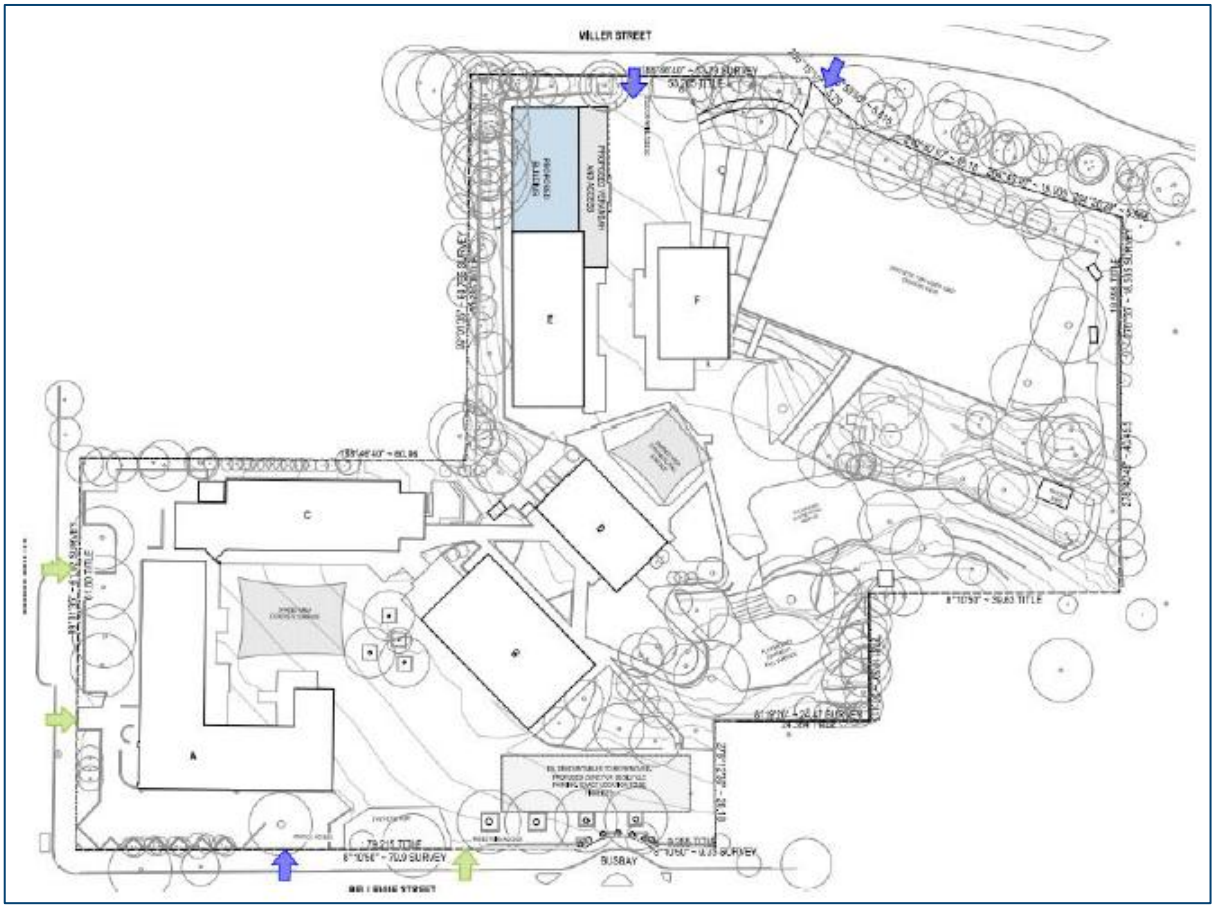

Figure 2: Proposed Scope of Works (Source: Fulton Trotter Architects, Proposed Site Plan (Rev P5))

2 Air Quality Criteria

Air quality criteria are benchmarks set to protect the general health and amenity of the community in relation to air quality. The criteria are set to protect the most sensitive persons in the community, including young children.

The key emissions generated by the construction activities are particulate matter/dust. Particulate matter consists of dust particles of varying size and composition. Air quality goals refer to measures of the total mass of all particles suspended in air defined as the Total Suspended Particulate matter (TSP). The upper size range for TSP is nominally taken to be 30 micrometres (µm) as in practice particles larger than 30 to 50µm will settle out of the atmosphere too quickly to be regarded as air pollutants.

Two sub-classes of TSP are also included in the air quality goals, namely PM_{10}, particulate matter with equivalent aerodynamic diameters of 10µm or less, and $PM_{2.5}$, particulate matter with equivalent aerodynamic diameters of 2.5µm or less.

Particulate matter, typically in the upper size range, that settles from the atmosphere and deposits on surfaces is characterised as deposited dust. The deposition of dust on surfaces may be considered a nuisance and can adversely affect the amenity of an area by soiling property in the vicinity.

While the combustion of fuels in construction equipment also releases combustion products such as carbon monoxide (CO), sulphur dioxide (SO_2) and nitrogen oxides (NO_X), the emissions are typically of such a low magnitude, that the ground-level concentrations are very low.

Table 1 summarises the key air quality goals that are relevant to this assessment as it relates to traffic emissions, as outlined in the NSW EPA document *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (**NSW EPA, 2022**) which are identical to the National Environment Protection (Ambient Air Quality) Measure (NEPM) standards (**NEPC, 2021**).

Table 1: Air quality impact assessment criteria

POLLUTANT	AVERAGING PERIOD	IMPACT	CRITERIA
TSP	Annual	Total	90 µg/m^3
PM_{10}	24 hour	Total	25 µg/m^3
	Annual	Total	50 µg/m^3
$PM_{2.5}$	24 hour	Total	8 µg/m^3
	Annual	Total	25 µg/m^3
DEPOSITED DUST	Annual	Incremental	2 g/m^2/month
		Total	4 g/m^2/month

µg/m^3 = micrograms per cubic metre and g/m^2/month = grams per square metre per month.

Typically for dust generating activities, the air quality impact assessment criteria can be inferred from the relationship between the dust metrics in **Table 1**. For example, if compliance can be demonstrated with PM_{10} (which is often the limiting criteria) then compliance would also be achieved with TSP, $PM_{2.5}$ and deposited dust.

3 Existing Environmental Conditions

This section describes the existing environment including the climate and ambient air quality in the area surrounding the Site.

3.1 Local Climatic Conditions

Long-term climatic data obtained from the closest Bureau of Meteorology (BoM) automatic weather station (AWS) with available data Sydney Observatory Hill (Site No. 066062) were analysed to characterise the local climate in the proximity of the Site. The Sydney Observatory Hill is located approximately 4.4km south of the Site.

We note that the Sydney Observatory Hill closed in August 2020, however the statistical climatic data is still considered relevant for the purpose of this assessment. Table 2 and Figure 3 present a summary of the data from the Sydney Observatory Hill collected over a 37-to-162-year period for the various meteorological parameters.

The data indicate that January is the hottest month with a mean maximum temperature of 26.0 degrees Celsius (°C) and July is the coldest month with a mean minimum temperature of 8.1°C.

Rainfall decreases during the latter half of the year, with an annual average rainfall of 1211.1 millimetres (mm) over 99.5 days. The data indicate June is the wettest month with an average rainfall of 133.1mm over 8.8 days and September is the driest month with an average rainfall of 68.1mm over 7.1 days.

Relative humidity levels exhibit variability over the day and seasonal fluctuations. Mean 9am relative humidity ranges from 61% in October to 74% in February, March, May and June. Mean 3pm relative humidity levels range from 49% in August to 64% in February.

Wind speeds show a greater spread between the 9am and 3pm readings in summer compared to winter. Mean 9am wind speeds range from 7.9 kilometres per hour (km/h) in March to 13.3 km/h in August. Mean 3pm wind speeds range from 12.7 kilometres per hour in May to 19.5 km/h in December.

Table 2: Monthly climate statistics summary – Sydney Observatory Hill

PARAMETER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN.
TEMPERATURE													
MEAN MAX. TEMP. (°C)	26.0	25.8	24.8	22.5	19.5	17.0	16.4	17.9	20.1	22.2	23.7	25.3	21.8
MEAN MIN. TEMP. (°C)	18.8	18.9	17.6	14.8	11.6	9.3	8.1	9.0	11.1	13.6	15.7	17.6	13.8
RAINFALL													
RAINFALL (MM)	101.2	119.3	131.6	126.5	117.4	133.1	96.3	80.2	68.1	76.7	83.8	77.1	1211.1
NO. OF RAIN DAYS (≥1MM)	8.6	9.0	9.9	8.9	8.6	8.8	7.4	7.1	7.1	7.9	8.3	7.9	99.5
9AM CONDITIONS													
MEAN TEMP. (°C)	22.5	22.3	21.1	18.2	14.6	11.9	10.9	12.5	15.7	18.5	19.9	21.6	17.5
MEAN R.H. (%)	71	74	74	72	74	74	71	66	62	61	66	67	69
MEAN W.S. (KM/H)	8.6	8.2	7.9	8.8	10.5	11.9	13.1	13.3	12.4	12.2	11.0	9.8	10.6
3PM CONDITIONS													
MEAN TEMP. (°C)	24.8	24.9	24.0	22.0	19.4	16.9	16.4	17.5	19.2	20.7	22.1	23.8	21.0
MEAN R.H. (%)	62	64	62	59	57	57	51	49	51	56	58	59	57
MEAN W.S. (KM/H)	17.9	16.8	15.2	13.8	12.7	13.6	15.3	17.6	18.3	19.1	19.4	19.5	16.6

Source: **Bureau of Meteorology (2024)**

R.H. – Relative Humidity, W.S. – wind speed

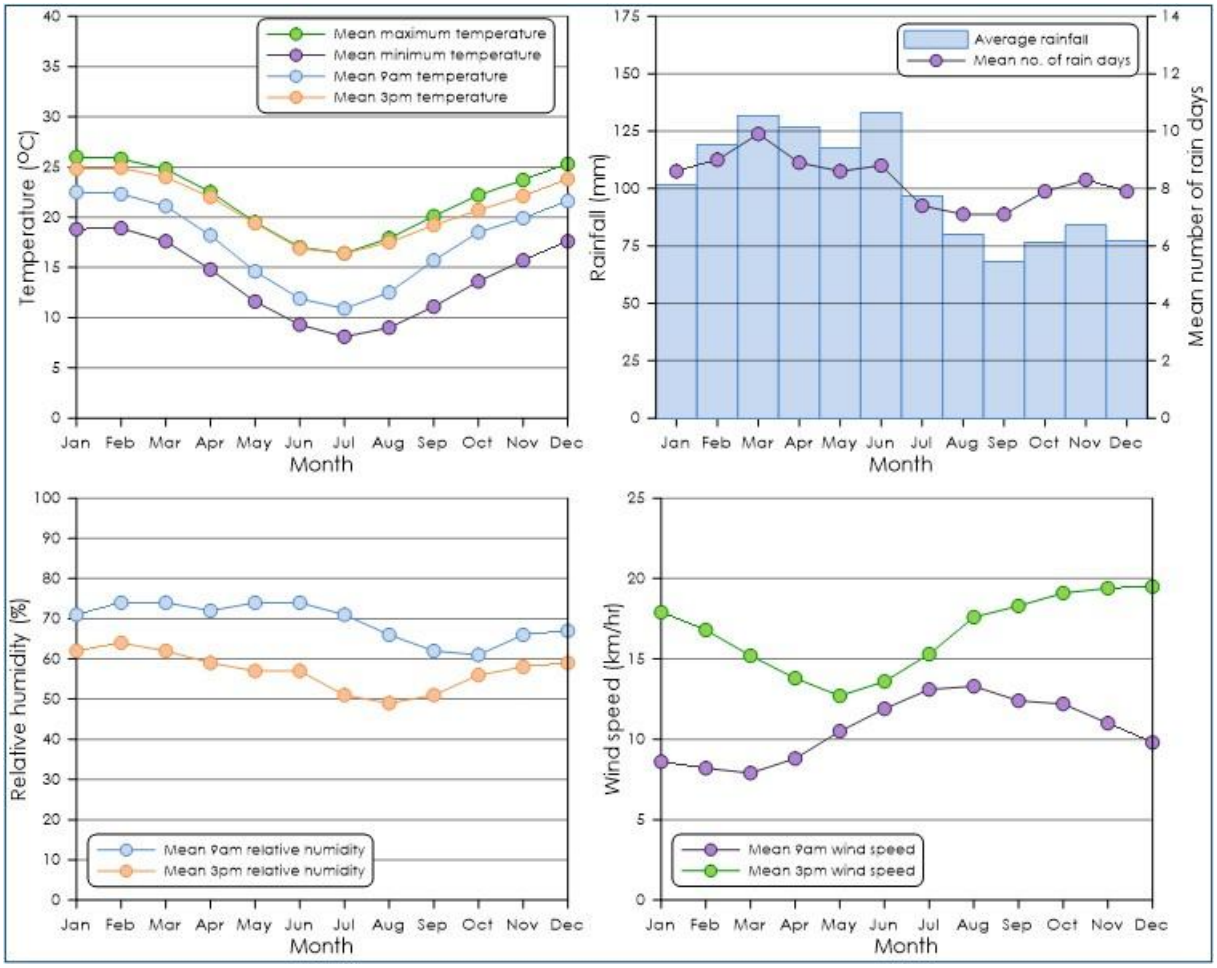

Figure 3: Monthly climate statistics summary – Sydney Observatory Hill

3.2 Local Meteorological Conditions

Annual and seasonal windroses for the BoM weather station at Fort Denison are presented in **Figure 4** for the 2023 calendar period. The Fort Denison is located approximately 3.9km south-southeast of the Site.

Analysis of the windroses shows that wind directions are typically from the west and west-northwest on an annual basis. During summer, winds from the east are most frequent. The autumn and winter windroses shows a similar distribution pattern to the annual windrose, with winds from the west and west-northwest being most frequent. In spring, winds are fairly evenly distributed from the west and east.

The windroses show a wind distribution pattern that is typical of the expected patterns for this area considering the location of the station is in Sydney harbour.

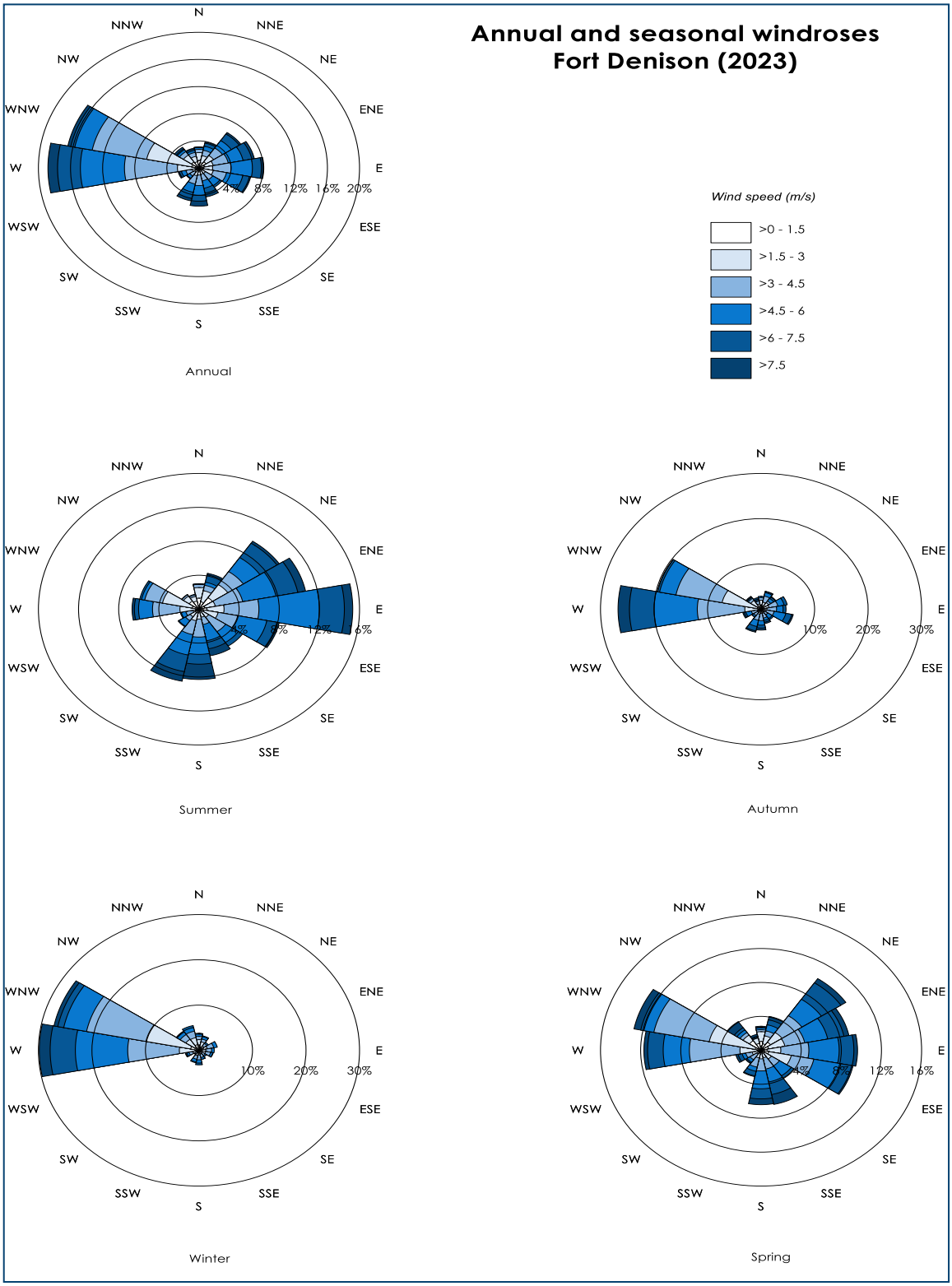

Figure 4: Annual and seasonal windroses – Fort Denison (2023)

3.3 Local Air Quality Monitoring

Available data from the nearest air quality monitors operated by the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) at Rozelle and Macquarie Park were used to characterise the background air quality levels at the Site. The Rozelle and Macquarie Park monitoring sites are located approximately 6.6km southwest and 10.6km northwest of the Site, respectively.

A summary of the available $PM_{2.5}$ data for the DCCEEW monitoring stations from 2019 to 2023 is presented in **Table 3** and **Figure 5**. These data include levels measured during all extraordinary event days. Extraordinary event days are characterised as those days influenced by exceptional events such as bushfires, dust storms and hazard reduction burns.

A review of **Table 3** indicates that the annual average $PM_{2.5}$ concentrations at all monitoring stations were below the relevant criterion of 8µg/m³ for all years, except for 2019. The maximum 24-hour average $PM_{2.5}$ concentrations were found to exceed the relevant criterion of 25µg/m³ for all years of the review period except in 2022.

It is noted that there was a significant increase in the frequency of exceedances of the 24-hour average $PM_{2.5}$ criterion in the 2019/ 2020 summer, predominately due to smoke associated with the widespread bushfires occurring at this time (refer to **Figure 5**).

Table 3: Summary of $PM_{2.5}$ levels from monitoring stations (µg/m³)

YEAR	ROZELLE	MACQUARIE PARK	CRITERION
	ANNUAL AVERAGE		
2019	10.3	9.2	8
2020	7.5	7.1	8
2021	6.3	7.3	8
2022	4.6	4.4	8
2023	6.3	6.0	8
YEAR	MAXIMUM 24-HOUR AVERAGE		CRITERION
2019	101.8	152	25
2020	87.3	77.8	25
2021	61.7	213.1	25
2022	12.7	17.6	25
2023	35.4	33.3	25

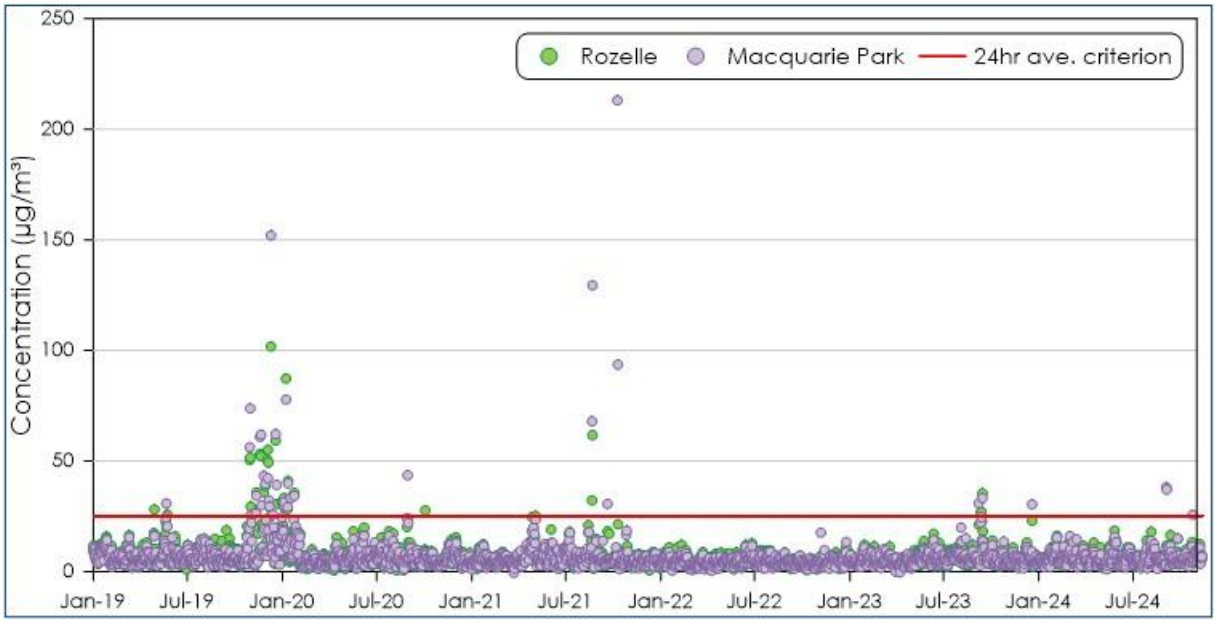

Figure 5: 24-hour average $PM_{2.5}$ concentrations (µg/m³)

A summary of the available PM_{10} data for the DCCEEW monitoring stations from 2019 to 2023 is presented in **Table 4** and **Figure 6**.

A review of **Table 4** indicates that the annual average PM_{10} concentrations at all monitoring stations were below the relevant criterion of 25µg/m³ for all years. The maximum 24-hour average PM_{10} concentrations were found to exceed the relevant criterion of 50µg/m³ for all years of the review period except in 2022 and 2023.

Similar trends in the PM_{10} concentrations in **Figure 6** can be seen in the $PM_{2.5}$ data, in particular the influence of bushfires affecting the region.

Table 4: Summary of PM_{10} levels from monitoring stations (µg/m³)

YEAR	ROZELLE	MACQUARIE PARK	CRITERION
	ANNUAL AVERAGE		
2019	22.7	19.9	25
2020	18.1	15.7	25
2021	15.5	13.2	25
2022	12.9	11.4	25
2023	15.7	14.5	25
YEAR	MAXIMUM 24-HOUR AVERAGE		CRITERION
2019	142.7	187.3	50
2020	113.5	146.7	50
2021	52.6	125.2	50
2022	28.5	25.9	50
2023	40.9	44.7	50

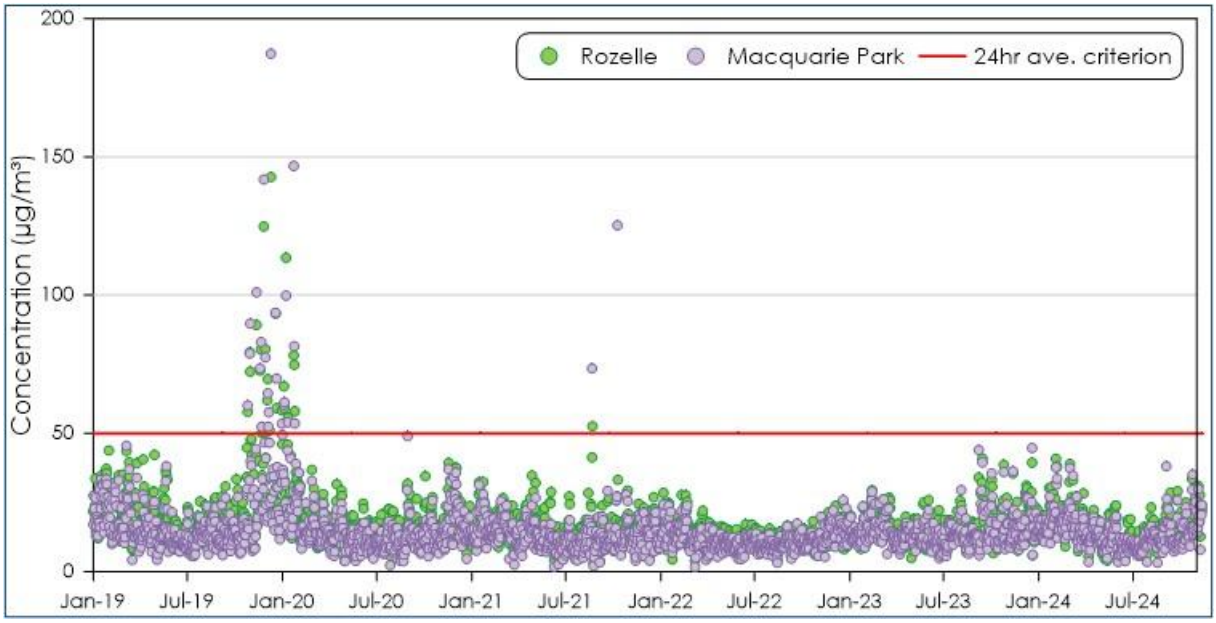

Figure 6: 24-hour average PM_{10} concentrations (µg/m³)

4 Assessment of potential air quality impacts

To assess the potential for air quality impacts from the activity, a qualitative approach has been used which includes the identification of potential air emission sources, a review of the proposed air quality control measures, an assessment of the existing air quality levels in the vicinity of the Site and local dispersion conditions.

A qualitative approach has been applied due to the nature of the activities at the Site having an inherently low potential for air quality impacts with consideration of appropriate air emission controls.

4.1 Potential Air Emission Sources

Air emissions are expected to arise from the likely construction activities at the Site, including minor earthworks and site preparation, vehicles travelling on-site for material delivery, and building construction. Emission rates will vary daily, depending on the stage and type of activities, with peak times generating more air emissions. Dust sources are temporary and will only occur during the construction period.

4.2 Air Control Measures

The potential air emissions associated with the construction activities are expected to be easily managed with good operational practices.

To ensure dust generation is adequately controlled during the construction period and the potential for off-site impacts is reduced, appropriate (operational and physical) mitigation measures will be implemented as necessary. The suggested dust mitigation measures to apply during construction are outlined in the following section.

4.3 Existing Air Quality Levels

Since the Site is located in a residential area, background air quality levels are expected to be good. Air emissions influencing local air quality are likely to be attributed to nearby sources such as road traffic and wood heaters, as well as regional events such as bushfires and dust storms.

The total dust generated from constructing the proposed structure is unlikely to be significant due to the scale and nature of the activities, and as construction will be temporary, no significant or prolonged effects are anticipated at off-site receptors.

Emissions from road traffic on surrounding streets, which fluctuate with peak times, are a potential air quality factor. Any emissions from the Site would blend with these traffic emissions and are expected to be minimal.

The main source of traffic emissions is identified as Miller Road, which runs directly adjacent to the Site. According to the Transport for NSW (TfNSW) Traffic Volume Viewer, traffic counter station 21032 Strathallen Avenue recorded an Annual Average Daily Traffic (AADT) volume of approximately 25,000 vehicles (TfNSW, 2024). For this traffic volume, a setback of approximately 10 meters (m) from a roadway curb is considered adequate. Since the activity maintains a setback of more than 10m from the curb, it is suitably located to reduce the risk of potential air quality impacts from traffic emissions along Miller Road.

Additionally, the existing and well-established vegetation surrounding the Site will further mitigate traffic emissions by absorbing and dispersing pollutants. This natural barrier enhances protection against any potential air quality impacts from traffic emissions along Miller Road.

Wood heaters typically operate on winter nights when construction is not expected to occur, so they are unlikely to interact with Site emissions.

Regional events, such as bushfires or dust storms, would impact the wider area on a much larger scale than construction emissions, minimising any relative impact from the Site.

4.4 Local Dispersion Conditions

Annual and seasonal windroses for the Fort Denison weather station are presented in **Figure 4**. Strong winds are generally experienced in the area with wind directions predominately coming from the west and west-northwest with varied winds from other directions throughout the year.

Potential air emissions from the activity will most likely be subject to similar wind patterns and be reasonably well distributed through the year. This means that it is unlikely for nearby residential receptors to remain downwind of the operations for extended periods of time and overall, the prevailing dispersion conditions should allow for air emissions from the Site to be reasonably well dispersed before reaching any residential receptors.

4.5 Potential Air Quality Impacts On School

The school will remain operational during the construction phase, and any emissions generated from these activities have the potential to affect both the indoor and outdoor environments. However, given the scale, nature, and timeline of the construction activities, these impacts are expected to be low risk.

Proactive measures are recommend to be implemented to minimise exposure, including, but not limited to:

- Closing classroom windows and doors during dust-generating activities to reduce indoor exposure;
- Restricting access to classrooms or areas close to construction activities during certain stages of the construction schedule to limit exposure;
- Limiting high impact activities (e.g. excavation, heavy vehicle movements) to times when the school is less active, such as outside school hours or during holiday periods;
- Monitoring weather conditions and halting construction operations during adverse conditions where dust levels cannot be adequately managed (e.g. periods of high winds resulting in visible dust spreading across the school grounds); and,
- Communicating with the school to provide timely updates on construction schedules, high-activity periods, and any additional measures being taken to mitigate dust impacts.

Furthermore, the activity is situated on the far southwestern side of the school, away from the primary areas where students are likely to be most active. This distance, combined with the proactive mitigation measures, is expected to further reduce the risk of exposure to potential air impacts, ensuring a low overall risk.

5 Air Quality Mitigation Measures

Specific air quality mitigation measures will depend on the actual nature of the activity. General mitigation measures for construction activities as presented in the Institute of Air Quality Management (IAQM) document *Guidance on the assessment of dust from demolition and construction* (IAQM, 2024) are provided in Table 5.

All reasonable and feasible mitigation measures relevant for the construction activities outlined in Table 5 are recommended to be implemented for the proposal to minimise the risk of dust impacts occurring.

Table 5: Summary of potential mitigation measures during construction phase

ACTIVITY	MITIGATION MEASURE
COMMUNICATIONS	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
	Display the head or regional office contact information.
DUST MANAGEMENT	Develop and implement a Construction Dust Management Plan (DMP).
SITE MANAGEMENT	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
	Make the complaints log available to the local authority when asked.
	Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book.
MONITORING	Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked.
	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
	Establish real-time PM_{10} continuous monitoring in locations surrounding the construction activity. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences.
SITE LAYOUT	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
	Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period.
	Avoid site runoff of water or mud.
	Keep site fencing, barriers and scaffolding clean using wet methods.
	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on-site. If they are being re-used on-site cover as described below.

	Cover, seed or fence stockpiles to prevent wind whipping.
OPERATING VEHICLE / MACHINERY AND SUSTAINABLE TRAVEL	Ensure all vehicles switch off engines when stationary - no idling vehicles.
	Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
	Impose and signpost a maximum-speed-limit of 25km/h on surfaced and 15km/h on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
OPERATIONS	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
	Use enclosed chutes and conveyors and covered skips.
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
WASTE MANAGEMENT	Do not burn waste materials.
CONSTRUCTION	Avoid scabbling (roughening of concrete surfaces) if possible.
	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
TRACKOUT	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
	Avoid dry sweeping of large areas.
	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
	Record all inspections of haul routes and any subsequent action in a site log book.
	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable.

6 Conclusion

This report has assessed the potential for air impacts associated with the proposed construction of a new structure at the Cammeray Public School, Cammeray.

Given the nature of the construction air emission sources, the receiving environment, and prevailing winds, it is unlikely that the activity would create any air quality issues at this location. It is recommended that appropriate mitigation measures are implemented to minimise dust generation and potential for impact.

References

- ADE Consulting Group (2023) Details Site Investigation – Cammeray Public School", prepared for School Infrastructure NSW by ADE Consulting Group, May 2024.
- Bureau of Meteorology (2024) Climate statistics for Australian locations, Bureau of Meteorology website, accessed November 2024. http://www.bom.gov.au/climate/averages
- IAQM (2024) "Guidance on the assessment of dust from demolition and construction", Institute of Air Quality Management, January 2024
- NEPC (2021) "National Environment Protection (Ambient Air Quality) Measure", National Environment Protection Council, May 2021.
- NSW DPIE (2021) "New South Wales Annual Compliance Report 2020", NSW Department of Planning, Industry and Environment, October 2021.
- NSW EPA (2022) "Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales", NSW Environment Protection Authority, August 2022.

Amendment Details

REVISION	DETAILS	DATE	AUTHOR	REVIEWER
DRAFT	Draft for Comment	22/11/2024	Paul Henschke	Haysam Elhassan
DRAFT	Revision 1	29/11/2024	Paul Henschke	Haysam Elhassan
DRAFT	Revision 2	21/01/2025	Paul Henschke	Haysam Elhassan
FINAL	Revision 2	18/02/2025	Paul Henschke	Haysam Elhassan

Approval

SIGNED	DATE	BY
	22/11/2024	Haysam Elhassan

Appendix 1: Limitation of Liability

The report is based upon a desk-top review of the documents provided by or on behalf of the Client and / or a site visit and publicly available information at the date it is issued. The observations and findings it contains are limited by a range of factors, including:

- Access to documentation: In preparing this report OHMS Hygiene has relied upon data, surveys, analyses, designs, plans and other information provided by or on behalf of the Client ("Client Material"). Except as otherwise stated in the report, OHMS Hygiene has not verified the accuracy or completeness of the Client Material. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this report ("conclusions") are based in whole or in part on the Client Material, those conclusions are contingent upon the accuracy and completeness of the Client Material. To the extent permitted by law, OHMS Hygiene shall not be liable to any person for any loss or damage (including consequential loss) suffered or incurred as a result of conclusions in this report. Further, where those conclusions arise directly or indirectly from inaccuracies in any Client Material, from relevant information or documents having been concealed, withheld, misrepresented, altered, changed or otherwise not fully disclosed to OHMS Hygiene, or from inaccuracies in any other data, report or information relied upon in connection with the report, any liability of OHMS Hygiene is expressly excluded.

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