



EF13/5058, DOC17/332423-01
SSD 7610

Mr Peter McManus
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

Dear Mr McManus

SSD 7610 – INNER SYDNEY HIGH SCHOOL – EIS

I am writing to you in reply to your invitation to the NSW Environment Protection Authority (EPA) to make a submission concerning the above project EIS.

The EPA requests that this submission be read in conjunction with its letter dated 28 July 2016 in respect of the draft SEARs for the project.

The EPA emphasises that it does not review or endorse environmental management plans or the like for reasons of maintaining regulatory 'arms length' and therefore has not reviewed any environmental management plan forming part of or referred to in the EIS.

The EPA understands that the 1969 building (i.e. building 4) located on the western side of the site is to be demolished and the remaining (heritage significant) buildings are to be refurbished. However, EIS section 1.1 states that "No external demolition is proposed as part of this SSD application." The EPA therefore anticipates that demolition is to be carried out under a separate assessment process.

The EPA emphasises the need for the proponent to ensure seamless transition of environmental impact mitigation and management measures between site establishment and demolition phases and the construction phase, including bulk earthworks.

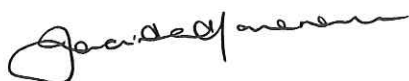
The EPA has identified the following site specific concerns based on the project information available on the Department of Planning and Environment major projects web site:

- (a) the need for a detailed assessment of potential site contamination, including information about groundwater and a detailed assessment of the footprint and surrounds of existing buildings following their demolition;
- (b) construction phase noise and vibration impacts (including recommended standard construction hours and intra-day respite periods for highly intrusive noise generating work) on noise sensitive receivers such as surrounding residences;

- (c) construction phase dust control and management;
- (e) construction phase erosion and sediment control and management;
- (f) operational noise impacts on noise sensitive receivers (especially surrounding residences on adjoining and adjacent holdings) arising from operational activities such as public address/school bell systems, community use of school facilities, waste collection services and mechanical services (especially air conditioning plant);
- (g) the need to assess feasible and reasonable noise mitigation and management measures (including time restrictions on the use of the facilities proposed to be available for community use) to minimise operational noise impacts on surrounding residences;
- (h) practical opportunities to implement water sensitive urban design principles, including stormwater re-use; and
- (l) practical opportunities to minimise consumption of energy generated from non-renewable sources and to implement effective energy efficiency measures.

The EPA's detailed comments are at Attachment A. Should you require clarification of any of the above please contact John Goodwin on 9995 6838.

Yours sincerely



4/8/2017

JACINTA HANEMANN
Regional Manager Operations, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A

Contact officer: J GOODWIN
9995 – 6838

ATTACHMENT A
- ENVIRONMENT PROTECTION AUTHORITY COMMENTS -
INNER SYDNEY HIGH SCHOOL

1. General

The EPA considers that the project comprises distinct phases of construction and operation and has set out its comments on that basis.

The EPA notes the proximity of surrounding residences which may be adversely affected by noise impacts during the demolition, site preparation, construction and operation phases of the project.

2. Construction phase

The EPA anticipates that site establishment, demolition, bulk earthworks, construction and construction-related activities will be undertaken in an environmentally responsible manner with particular emphasis on –

- the site contamination,
- compliance with recommended standard construction hours,
- intra-day respite periods from high noise generating construction activities (including jack hammering, rock breaking, pile boring or driving, saw cutting),
- feasible and reasonable noise and vibration minimisation and mitigation,
- effective dust control and management,
- erosion and sediment control, and
- waste handling and management, particularly concrete waste and rinse water.

2.1 Asbestos containing material, lead-based paint and other hazardous materials

The EPA notes that given the age of the structures identified for demolition, lead-based paint and asbestos containing materials are likely to be encountered. The EPA further notes the potential for polychlorinated biphenyls (PCBs) contamination from old light fittings.

However, the proponent does not appear to have undertaken a hazardous materials survey which is particularly relevant given the proposal to refurbish heritage buildings on the site and to demolish building 4, the 1969 building located on the western side of the development site.

The EPA anticipates that an unexpected finds protocol would be prepared and implemented due to the age of the buildings, the presence of filled areas across the site and the potential to encounter asbestos containing materials. Whilst, section 10.0 to EIS Appendix N recommends preparation of an unexpected finds protocol, Appendix N did not contain a trigger for notification of contamination encountered during the course of the project.

Accordingly, the proponent should familiarise itself with the EPA's Guidelines for the Duty to Report Contamination available via the following link www.epa.nsw.gov.au/resources/clm/150164-report-land-contamination-guidelines.pdf

Recommendation

The proponent be required to undertake a hazardous materials survey prior to any demolition, stripping or construction work.

Recommendation

The proponent be required to prepare (prior to commencement of any work on the development site) and implement an unexpected finds protocol, including an action plan, in the event that previously unidentified asbestos containing material, lead-based paint, PCBs or other contamination is encountered during work on the development site.

Recommendation

The proponent be required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 'asbestos wastes'.

Note: The EPA provides additional guidance material at its web-site

<http://www.environment.nsw.gov.au/waste/asbestos/index.htm>.

Recommendation

The proponent be required to consult with Safework NSW concerning the handling of any asbestos waste that may be encountered during the course of the project.

2.2 site contamination

The processes outlined in SEPP 55 are required to be followed in order to assess the suitability of the development site and any remediation that may be required in relation to the proposed use of that site.

Section 10.0 to EIS Appendix N reports on a combined stage 1 and 2 Environmental Site Assessment and concludes that the site is suitable for "... the proposed school land use." subject to the various limitations outlined in section 11.0 of Appendix N.

The EPA notes the prospect of significant bulk earthworks and confirms that validation sampling is required prior to backfilling of the excavation to ensure that the development has not increased potential risks from contamination on the site. EIS Appendix N indicates that both lead and PCBs were analysed, establishing a baseline for these contaminants in the fill material on the site. The EPA notes that PCBs were not identified in the fill and lead concentrations were below the relevant threshold. The proponent will need to undertake Lead, asbestos and PCB analysis of soils for the validation of the excavation.

The EPA recognises that site preparation, demolition, stripping out, bulk excavation and construction activities may result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination. And, emphasises that such change of risk would render the proponent the 'person responsible' for the contamination under section 6(2) of Contaminated Land Management Act 1997.

The EPA understands that the proposed redevelopment would not change the site use and that soil will be excavated and then the surface re-sealed. However, the EPA is concerned that underlying soils that will be left in-situ may be impacted during the demolition and stripping out activities. And, expects that site validation would be undertaken to ensure there has been no resultant change of risk of contamination.

Recommendation

The proponent be required to ensure that:

- (a) the processes outlined in State Environmental Planning Policy 55 have been implemented to assess the suitability of the land and any remediation required in relation to the proposed use;
- (b) where any contamination is encountered which meets the trigger in the EPA's Guidelines for the Duty to Report Contamination, that contamination is notified in accordance with requirements of section 60 of the CLM Act;
- (c) site preparation, demolition, stripping out, bulk excavation and construction activities do not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination;
- (d) following the excavation and prior to any backfilling, validation of the excavation is undertaken to confirm that the material left in place is suitable for the site use (potential contaminants identified in the hazardous material survey – see section 2.1 to this submission – must be included in the analytical suite for validation of the excavation);
- (e) any material to be used as backfill satisfies the criteria for suitability for use on the site.
- (f) where further independent assessment of the suitability of the development site for the proposed use, consideration is given to the use of an independent site auditor accredited under the Contaminated Land Management Act 1997 to assess the suitability of the land for the proposed use.

2.3 noise and vibration

The EPA anticipates that demolition, stripping out, bulk earthworks, construction and construction-related activities are likely to have significant noise and vibration impacts on surrounding residences and the adjoining park.

Whilst the EPA acknowledges that a separate assessment process may apply to demolition and stripping out of retained buildings, residents affected by noise and vibration impacts arising from those activities are unlikely to make the distinction. Accordingly, the EPA encourages the proponent to adopt standard construction hours and intra-day respite periods consistent with those recommended in this submission and apply them to those abovementioned activities.

2.3.1 *general construction hours*

The EPA emphasises that in general demolition, site preparation, bulk earthworks, construction and construction-related activities should be undertaken during the recommended standard construction hours.

The recommended standard construction hours are 8.00 am to 1.00pm. However, EIS Appendix W *Acoustic Assessment* proposes that construction works would occur between 7:30am and 3:30pm on Saturdays.

The Interim Construction Noise Guideline states that construction outside the standard hours should only be allowed where the proponent provides clear, strong, justification for reasons other than convenience, such as to sustain the operational integrity of road, rail and utility networks.

The EIS offers no justification for extended Saturday construction hours.

Recommendation

The proponent be required to ensure that as far as practicable all construction and construction-related work likely to be audible at any noise sensitive receivers such as residences are only undertaken during the standard construction hours, being -

- (a) 7.00 am to 6.00 pm Monday to Friday,
- (b) 8.00 am to 1.00 pm Saturday, and
- (c) no work on Sundays or gazetted public holidays.

2.3.2 *intra-day respite periods*

The EPA anticipates that those construction and construction-related activities generating noise with particularly annoying or intrusive characteristics (such as those identified as particularly annoying in section 4.5 of the Interim Construction Noise Guideline) would be subject to a regime of intra-day respite periods where –

- (a) they are only undertaken after 8.00 am,
- (b) they are only undertaken over continuous periods not exceeding 3 hours with at least a 1 hour respite every three hours, and,
- (c) 'continuous' means any period during which there is less than an uninterrupted 60 minute respite between temporarily halting and recommencing any of the intrusive and annoying work referred to in Interim Construction Noise Guideline section 4.5

The EPA emphasises that intra-day respite periods are not intended to apply to those demolition, stripping out, site preparation, construction and construction-related activities that do not generate noise with particularly annoying or intrusive characteristics.

Recommendation

The proponent be required to schedule intra-day 'respite periods' for construction activities identified in section 4.5 of the Interim Construction Noise Guideline as being particularly annoying to noise sensitive receivers, including surrounding residents.

2.3.3 *idling and queuing construction vehicles*

The EPA is aware from previous major infrastructure projects that community concerns are likely to arise from noise impacts associated with the early arrival and idling of construction vehicles (including concrete agitator trucks) at the development site and in the residential precincts surrounding that site.

Recommendation

The proponent be required to ensure construction vehicles (including concrete agitator trucks) involved in demolition, site preparation, bulk earthworks, construction and construction-related activities do not arrive at the project site or in surrounding residential precincts outside approved construction hours.

2.3.4 *reversing and movement alarms*

The EPA has identified the noise from 'beeper' type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives. Transport for NSW (nee Transport Construction Authority), Barangaroo Delivery Authority/Lend Lease and Leighton Contractors (M2 Upgrade project) have undertaken safety risk assessments of alternatives to the traditional 'beeper' alarms. Each determined that adoption of 'quacker' type movement/reversing alarms instead of traditional beepers on all plant and vehicles would not only maintain a safe workplace but also deliver improved outcomes of reduced noise impacts on surrounding residents.

Interim Construction Noise Guideline Appendix C provides additional background material on this issue.

Recommendation

The proponent be required to consider undertaking a safety risk assessment of site preparation, bulk earth works, construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.

2.4 Dust control and management

The EPA considers dust control and management to be an important air quality issue during demolition, stripping out, site preparation, bulk earthworks and subsequent construction.

Recommendation

The proponent be required to:

- (a) minimise dust emissions on the site, and
- (b) prevent dust emissions from the site.

2.5 Sediment control

Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective sediment control on construction sites. The proponent should implement all such feasible and reasonable measures as may be necessary to prevent water pollution in the course of developing the site.

The EPA emphasises the importance of –

- (a) not commencing demolition, construction and construction-related activities until appropriate and effective sediment controls are in place, and
- (b) daily inspection of sediment controls which is fundamental to ensuring timely maintenance and repair of those controls.

2.6 Waste control and management (general)

The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

Avoidance including action to reduce the amount of waste generated by households, industry and all levels of government

Resource recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources

Disposal including management of all disposal options in the most environmentally responsible manner.

All wastes generated during the project must be properly assessed, classified and managed in accordance with the EPA's guidelines to ensure proper treatment, transport and disposal at a landfill legally able to accept those wastes.

The EPA further anticipates that, without proper site controls and management, mud and waste may be tracked off the site during the course of the project.

Recommendation

The proponent be required to ensure that :

- (1) all waste generated during the project is assessed, classified and managed in accordance with the "*Waste Classification Guidelines Part 1: Classifying Waste*" (Department of Environment Climate Change and Water, December 2009);
- (2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and
- (3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises.

2.7 Waste control and management (concrete and concrete rinse water)

The EPA anticipates that during the course of the project concrete deliveries and pumping are likely to generate significant volumes of concrete waste and rinse water. The proponent should ensure that concrete waste and rinse water is not disposed of on the project site and instead that –

- (a) waste concrete is either returned in the agitator trucks to the supplier or directed to a dedicated watertight skip protected from the entry of precipitation, and
- (b) concrete rinse water is directed to a dedicated watertight skip protected from the entry of precipitation or a suitable water treatment plant.

Recommendation

The proponent be required to ensure that concrete waste and rinse water are

- (a) not disposed of on the development site, and
- (b) prevented from entering waters, including any natural or artificial watercourse.

3. Operational phase

The EPA considers that environmental impacts that arise once the development is operational should be able to be largely averted by responsible environmental management practices, particularly with regard to:

- (a) feasible and reasonable noise mitigation measures;
- (b) waste management in accordance with the waste management hierarchy;
- (c) water sensitive urban design; and
- (d) energy conservation and efficiency.

3.1 Noise and vibration impacts

The EPA anticipates the proposed development (especially out of hours use of school facilities by external parties) may have significant operational noise impacts on nearby sensitive receivers, including surrounding residences.

The EPA notes with concern the proximity of the surrounding residences and is aware from long experience of the need for appropriate operational noise mitigation and management measures, particularly in regard to:

- (a) the nature of and times during which school facilities (including facilities proposed to be shared with the local council) are made available for community use;
- (b) the design and operation of the school public address/bell system;
- (c) the design and location of waste storage facilities;
- (d) time restrictions on waste collection services;
- (e) design, selection and operation of mechanical ventilation plant and equipment; and
- (f) time restrictions on grounds maintenance using powered equipment (e.g. leaf blowers, brush cutters and lawn mowers).

'out of hours' community use of school facilities

The EPA is aware of government policy to encourage out of hours community use of school facilities provided that use does not cause noise emissions that interfere unreasonably with the comfort or repose of persons not on the premises.

The EPA considers the proposed community use of school facilities (especially the rooftop basketball court) outside normal school hours needs to be carefully managed to ensure noise impacts on nearby residences are minimised.

The EPA recognises that a range of low-level community activities may also take place at the school (example: community classes, meetings and workshops) outside normal school hours and that those activities are unlikely to have a significant noise impact on nearby residences.

Recommendation

The proponent be required to ensure implementation of all feasible and reasonable noise mitigation and management measures, including but not limited to:

- (a) comprehensive noise compliance monitoring of representative uses of the rooftop basketball court outside school hours to demonstrate that the level, nature, quality and character of noise emitted by those uses and the time at which and frequency of those uses would not interfere unreasonably with or be likely to interfere unreasonably with the comfort or repose of persons not on the development site, especially the occupants of nearby residences;
- (b) restricting use of rooftop basketball court to weeknights and to not later than 10.00pm,
- (c) restricting use of the rooftop basketball court to –
 - (i) no use before 8.00 am,
 - (ii) no use after 6.00 pm on Saturdays, and
 - (iii) no use on Sundays and public holidays;

The EPA anticipates that the recommended noise compliance monitoring would include quantitative noise impact assessment to address noise emissions arising from amongst other things –

- audience/spectator noise,

- referee whistle noise,
- basketball impact noise on sports court floor, walls and backboard surfaces,
- amplified sound during sporting events and any associated training sessions, and
- post-event audience/spectator noise, including vehicle door slamming and departure noise.

mechanical plant and equipment

EIS Appendix S *ESD Report* proposes mechanical ventilation to most teaching and learning spaces.

The EPA further notes that the EIS does not provide detailed noise impact assessment of any of the mechanical plant and equipment but proposes instead to prepare such an assessment pending detailed design becoming available.

Recommendation

The proponent be required to:

- (a) provide a comprehensive quantitative assessment of operational noise impacts on surrounding noise sensitive receivers, especially nearby residences;
- (b) ensure mechanical plant and equipment (including lift motors and mechanical ventilation) installed on the development site and operating in combination does not generate noise that –
 - (i) exceeds project specific noise levels measured at the most affected residence, and
 - (ii) exhibits tonal or other annoying characteristics.

Public address and school bell system

The EPA notes numerous reports of community concern arising from inadequate design and installation as well as inappropriate use of school public address and bell systems and considers that appropriate design, installation and operation of those systems can both –

- meet the proponent's objectives of proper administration of the school and ensuring the safety of students, staff and visitors, and
- avoid interfering unreasonably with the comfort and repose of occupants of nearby residences.

The EIS does not appear to address noise impacts from school public address/bell system.

Recommendation

The proponent be required to ensure the design, installation and operation of the school public address/bell system and all such other measures as may be necessary (without compromising the safety of students, staff and visitors) to ensure use of that system does not interfere unreasonably with the comfort and repose of occupants of nearby residences.

waste collection services

The EPA notes numerous reports of community concern arising from waste collection services undertaken at schools and especially during evening and night times.

The EIS does not appear to address noise impacts arising from waste collection services.

Recommendation

The proponent be required ensure waste collection services are not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.

grounds maintenance using powered equipment

The EPA notes numerous reports of community concern arising from grounds maintenance involving the use of powered equipment (example: leaf blowers, lawn mowers, brush cutters) at schools during early morning and evening periods as well as on weekends and public holidays.

The EIS does not address noise impacts arising from the use of powered equipment to undertake grounds (including rooftop basketball court) maintenance.

Recommendation

The proponent be required ensure grounds (including rooftop basketball court) maintenance involving the use of powered equipment is not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.

3.2 Waste management

The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

Avoidance including action to reduce the amount of waste generated by households, industry and all levels of government

Resource recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources

Disposal including management of all disposal options in the most environmentally responsible manner.

Recommendation

The proponent be required to identify and implement feasible and reasonable opportunities for the re-use and recycling of waste, including food waste.

3.3 Water sensitive urban design and energy conservation and efficiency

EIS Section 6.3.4 outlines various measures proposed to minimise water and energy consumption.

Whilst section 2.4 to EIS Appendix S proposes adoption of water sensitive urban design (WSUD), subsection 2.4.4 indicates that practical opportunities for stormwater harvesting and re-use have not been fully considered in proposing a "... small rainwater capture and storage system ..." that is only intended for instructive purposes.

Recommendation

The proponent be required to review opportunities to implement water sensitive urban design principles such as optimisation of stormwater harvesting for re-use including for irrigation of the adjoining park in consultation with City of Sydney.
