



**ANGEL PLACE
LEVEL 8, 123 PITT STREET
SYDNEY NSW 2000**

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Mr Jason Maslen
Team Leader, School Infrastructure Assessments
NSW Department of Planning, Industry and Environment
4 Parramatta Square
Parramatta NSW 2124

Dear Jason,

MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT (SSD-9343) - RESPONSE TO REQUEST FOR ADDITIONAL INFORMAITON

This letter is prepared on behalf of School Infrastructure NSW (SINSW) and responds to the Department of Planning, Industry and Environment's (DPIE) request for additional information from March 2020. The information item and a response are provided below.

- 1. The flooding documentation indicates the car park entry (8.33m) would be higher than the 1 in 100 year flood event level. However, it would be 7.65m lower than the PMF event level (16.3m). Provide information in relation to the appropriateness of this arrangement and any mitigation measures, including intended emergency management arrangements in the event of a likely PMF event.*

Response: The PMF, by definition, is not likely. The PMF is an extreme event with an annual probability of between 1 in 1,000,000 and 1 in 100,000,000 for the catchment area in Meadowbank. Given the huge backwater effect of the rail embankment, the entire site, including the car park and car park entry, is impacted by the PMF.

Additional flood modelling has shown that the 0.05% Annual Exceedance Probability (AEP) event (2,000-year ARI) results in a flood level of 8.65m AHD. The car park entry has 1.65m freeboard to this level. The car park floor level is 0.85m above the 0.05% AEP flood level. Extrapolating between the flood levels of the 0.05% AEP and the PMF gives an AEP of 0.02% (5,000-year ARI) flood level of 9.50m AHD, equal to the finished floor level of the car park. Should this extreme 5000-year event occur, cars will not be impacted as the water level is not above the FFL. Such a flood event is not likely. This is also considered an extreme event.

The carpark has been designed such that any water entering the basement can flow out of the basement as flood waters recede. Unlike a basement, water will not pond in the car park following and extreme flood event. Other management solutions are not available given the unique situation of the rail embankment holding back flood waters in an extreme event that leads to the PMF being over 8m higher than what is experienced in a 1% AEP event.



Should an extreme flood event occur which exceeds the 1 in 5,000 annual exceedance probability, cars in the car park will be damaged. It is expected that the site would be evacuated (or school cancelled) if extreme weather is forecast, which minimises the risk to site occupants.

In the event the school is open, staff and students can shelter in place, with the classrooms and libraries all located above the extreme PMF level. In such an event, the priority is to ensure the safety of students and staff. This is further achieved by the fact that the main entrance to the school at the eastern most point of Rhodes Street being unaffected by the extreme PMF allowing suitable access should an evacuation need to occur. This is an appropriate arrangement for extreme circumstances.

- The Department requested confirmation of the predicted noise impact (i.e. NML exceedances) during construction works as part of the request RtS letter. This was not provided in the RtS. The proposal seeks to construct in accordance with Council's hours of construction for the site which are beyond the ICNG and the EPA has raised concern about this. Please provide information indicating the likely exceedances to the relevant NMLs (if any) (and their magnitude) in order for the Department to assess the appropriateness of the proposed construction hours and consider EPA's concern.*

Response: Ryde Council's standard construction hours in their Offensive Noise Management Policy are:

- 7.00am to 7.00pm Monday to Friday.
- 8.00am to 4.00pm on Saturday.
- No demolition or construction work is permitted on Sundays or Public Holidays.

The EPA "recommended standard hours" ICNG hours are:

- 7.00am to 6.00pm Monday to Friday.
- 8.00am to 1.00pm on Saturday.
- No demolition or construction work is permitted on Sundays or Public Holidays.

The differences between the two are an extra hour between 6pm and 7pm Monday to Friday and 3 hours on Saturdays (1pm to 4pm).

The relevant EPA Noise Management Levels are:

1. Noise Emission Goal – Residential Properties

Noise Receiver	Measured Background Noise Levels dB(A)L90(7am-6pm)	Noise Effected Level BG + 10dB(A)Leq(15min)
Receiver 1	42	52

(Bank Street)		
Receiver 2 (Macpherson Street)	52	62
Receiver 3 (See Street)	50	60

Where noise from the construction works is above the “noise affected level”, the proponent should apply any feasible and reasonable work practices to minimise noise.

If noise emissions are likely to exceed 75dB(A)Leq(15min), the receiver is deemed to be “highly noise affected”. Introduction of management controls such as scheduling of noisy periods, or respite periods is recommended.

Construction noise management levels to other surrounding receivers are as follows:

2. Noise Emission Goal – Other Developments

Development Type	Noise Goal dB(A) Leq(15mins)
Industrial Developments	75
Meadowbank TAFE - Classrooms	45

Industrial receivers are unlikely to be adversely impacted by the additional hours.

The Meadowbank TAFE website indicates they close at 6pm and do not operate on Saturdays, so they will not be adversely impacted.

In respect of the likely noise levels at the other receivers, this will depend on the activities occurring at the time. Certain operations will be inaudible, while others such as earthworks will generate significantly higher levels of noise.

3. Predicted Noise– Residential Properties

Noise Receiver	Typical Construction
Receiver 1 (Bank Street)	55
Receiver 2 (Macpherson Street)	55

Receiver 3 (See Street)	50
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The predictions indicate that the NAML may be exceeded during the loudest activities, but general construction activities will generally not exceed or only marginally exceed the management levels.

In any case, typically noise from construction sites decreases after 4pm and the activities carried out after that are quieter, such as clean up, loading of materials, and finishing trades. This time is also used to finish concrete pours as these cannot be stopped once they are started and the time for concrete to go off can vary especially during the winter.

The 8am to 1pm Saturday EPA period does not provide for an efficient work day and the longer day permitted by Council will lead to a shorter overall construction period that benefits the local community and offsets any impacts from a longer work day, as well as delivering the facility earlier. Further given the current COVID 19 Situation, it is requested that a condition of consent to reflect the construction working hours order of 31 March 2020.

3. *273 bicycle parking spaces are provided. Please confirm the numerical split between primary, secondary, staff, visitor spaces.*

Response: Bicycle parking is proposed as follows:

- 100 primary school spaces (10% of students).
- 162 high school spaces (10% of students).
- 11 staff spaces (5% of staff), which has been increased to 15 spaces in the response to Council comments to address the 2032 staff bicycle mode share target.
- Visitor cycling is expected to be limited to parent/ carer volunteers and the like, who would be able to use the student bicycle parking facilities.

The annual monitoring and review process commitments in the School Travel Plan would track staff and student bicycle parking demand, with further bicycle parking installed if required.

4. *Please confirm the number of replacement trees proposed.*

Response: The proposal provides for 22 replacement trees.

5. *Noting the Urban Forest Technical Manual (Tree Management Technical Manual, City of Ryde 2012) and NSW Urban Tree Canopy Target 40% tree coverage, confirm the site's percentage.*

Response: Tree information is as follows:

- Existing tree cover - 14,415.54m² (44%)



- Tree cover removal resulting from the removal of 126 trees – 5,362.30m² (16%)
- Resulting proposed tree cover once the development is complete –
 - Existing tree coverage is 9,053.24m² (27.5%)
 - Proposed tree coverage is 1,058.32m² (3%)
 - Total tree coverage is 10,111.56m² (31%)

Achieving the 40% target on this site and for this school development would impact the outdoor and recreation areas and limit student's ability for full play.

The NSW Government's draft Urban Tree Canopy Guide suggests targets of 25% in urban residential areas (medium to high density and light commercial). The site is in a medium to high density urban area that is undergoing renewal and change. The proposed 31% tree coverage exceeds the draft 25% target in such areas.

6. *Provide details of the proposed signages zones, including.*

- *dimensions and area.*
- *confirmation of whether the signage is illuminated and any curfew on lighting.*
- *provision of a review of the signage against the criteria of SEPP 64.*

Response: *Detailed* signage is not proposed as part of this application. Signage will be subject to separate approval.

7. *Please confirm the proposed OOSH hours.*

Response: OOSH hours are 6.00am to 8.30 am and 3.00pm to 6.00pm Monday to Friday.

We trust this information satisfies DPIE's request such that the assessment of the application can be finalised.

Please do not hesitate to contact me on 0450 264 097 or aroff@urbis.com.au.

Yours sincerely,

A handwritten signature in blue ink that reads "Elaine Roff".

Elaine Roff
Associate Director

