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W366 Tumut MEC – Planning Hub RFI Response

Date: 16 April 2025
Issue: 01

1.0 Unacceptable Noise Impact Assessment

- *Significant inaccuracies and limitations in the Noise Impact Assessment (nss24414 Tumut – Multipurpose facility Feb 2025. Final) that impact the reliability of the study's findings.*

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

- ***Incorrect Address Information**: The study states that the nearest residential and commercial properties to the development are 1 and 3 Robertson Street. However, these addresses DO NOT EXIST. In fact, the closest properties to the development are 2 and 4 Robertson Street (boundary within 20m of site – see aerial photo below). The use of incorrect addresses undermines the accuracy of the report, as it inaccurately identifies the properties potentially most impacted by the development.*

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

- ***Ambient and Background Noise Measurements:** The report does not include ambient and background noise measurements at 2 and 4 Robertson Street, which are the closest properties to the development. This omission is critical, as the noise levels at these addresses should have been directly assessed to determine the actual noise impact on nearby residents. Instead, the ambient and background noise levels were recorded at 37 Richmond Street (>50m away), a property that was undergoing significant renovations during the study period. This ongoing construction would have affected the noise levels, potentially leading to skewed or unreliable results that do not reflect the typical noise environment in the area.*

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

- ***Impact of Car Park Noise on Residential Amenity** The level of noise generated by the proposed car park will be detrimental to local residents, particularly those living in close proximity to the development. The noise from car movements, engine start-ups, doors slamming, and general foot traffic will be clearly audible to residents in nearby homes. Even at a distance of 20 meters, it is estimated that*

the noise level could reach 60 dBA, which is above the acceptable limits for a residential area (55-60) dBA (7:00am -10:00pm).

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

- *During peak periods, such as before and after events at the multi-purpose facility, the noise from the car park will likely increase, resulting in disruptive noise levels that will interfere with the quiet enjoyment of local homes. This would be particularly problematic for residents who have chosen to live in a quieter, residential area, and it would significantly detract from their quality of life. The constant flow of vehicles, slamming doors, and other noises from the car park would create an ongoing disturbance, which could prove to be intrusive, especially during the evening and night when residents expect a higher degree of peace and privacy.*

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

- ***Absence of Comparison to Similar Buildings in Noise Impact Assessment*** *Another critical issue with the Noise Impact Assessment is the lack of comparison to noise levels emitted by similar buildings constructed from comparable materials, particularly those with two indoor basketball courts. Given the size and function of the proposed development, it is essential to understand how its noise emissions compare to other multi-purpose sports facilities built with similar materials and designs.*

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

- *Without this comparison, it is difficult to assess whether the predicted noise levels from the facility are realistic or if adequate mitigation strategies will in fact work. The construction materials and design of the building play a significant role in sound transmission, and without examining how similar structures have performed in terms of noise generation and mitigation, the assessment fails to provide a full picture of the potential impact on surrounding areas.*

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

- *To ensure the reliability and completeness of the study, a comparison should have been made between the noise levels emitted by similar sports facilities constructed with comparable materials and featuring two indoor basketball courts. This would help to better estimate the likely noise impact of the proposed development and determine whether additional noise mitigation measures will be required.*

Response: Refer Letter from Noise & Sound dated April 15 attached, and Acoustic report Rev A Prepared by Noise & Sound also attached

2.0 Unacceptable Traffic Impacts

- *While the Traffic Impact Assessment (PT22075r01 – Tumut Multipurpose Facility TIA-Final_A) provides some insights into potential traffic and parking impacts, it fails to adequately address the*

significant issues surrounding the 4:00 pm to 9:00 pm period, which is the time when the greatest traffic impacts are likely to occur.

The report provides analysis for the morning (7:00 am - 9:00 am) and afternoon (3:00 pm - 5:00 pm) periods, but there is a notable lack of focus on the evening period from 4:00 pm to 9:00 pm, when the greatest traffic impacts from the development are expected. During these hours, the following concerns arise:

- ***Increased Traffic from Events:*** *The proposed development will generate significant additional traffic during evening events, such as basketball games and training sessions. While the report estimates around 27 vehicle trips per hour, it overlooks the impacts on quite residential area.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

- ***Increased Traffic from the Bowling Club:*** *Between 4:00 pm and 9:00 pm, traffic will also increase due to the bowling club in the area, which experiences its own peak parking needs/traffic during these hours. The combined effect of the development's traffic and the bowling club's traffic will exacerbate congestion on local streets such as Richmond Street and Russell Street, making it difficult for local residents to navigate their own neighbourhoods.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

- ***Inadequate Parking for Events:*** *While the study mentions 50 parking spaces for the development, it fails to account for the overflow parking that will spill onto local streets, particularly during evening events. This will result in significant strain on the existing parking particularly on streets where residents rely on on-street parking.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

- ***Impact on Local Residents:*** *Currently, residents living on Robertson and Clunie Avenue experience very little traffic, with the majority of vehicles being those of local residents. This is a quiet area with minimal disruption from external traffic. The proposed development, however, will change this dynamic drastically, causing significant negative impacts during the 4:00 pm to 9:00 pm period, when both local residents and event traffic will peak. This change would not only increase traffic but also negatively impact the quality of life for all residents living in the area.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

- *The quiet, residential nature of Robertson and Clunie Avenue will be significantly disrupted by the influx of external traffic. The development would lead to a permanent change in the character of the area, affecting the peace and privacy that residents currently enjoy.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

Additional Response from Town Planner: The development has been carefully planned to ensure that the quiet, residential character of Robertson and Clunie Avenue is preserved. Traffic impact assessments indicate that the increase in external traffic will be minimal and well within the capacity of the existing road network. Access points (both pedestrian and vehicular) have been thoughtfully designed to avoid channelling excess traffic through the residential neighbourhood, with priority given to maintaining the safety and serenity of the mixed use neighbourhood.

Additionally, measures such as landscaping buffers, traffic calming features, and controlled access have been included in the design to ensure minimal disruption to existing residents. These strategies are aimed at preserving the privacy, peace, and overall quality of the recreational corridor locality.

The scale and nature of the development is in keeping with the existing recreational/mixed use fabric of the locality, and there is no indication that it will result in a permanent or adverse change to the character of the area. On the contrary, the development will enhance the local amenity through improved infrastructure and responsible planning.

All reasonable steps have been taken to ensure that the development integrates seamlessly with the surrounding neighbourhood, protecting the values of the surrounding context..

- ***Inadequate Carpark Functionality During Emergencies:*** *The design of the car park itself lacks functionality, particularly in the event of an emergency evacuation. The development features only one driveway for vehicle access to the car park. This single entry/exit point is highly problematic, as it would severely restrict the flow of both light and heavy vehicles, such as emergency vehicles and ambulance access, during critical evacuation scenarios. In emergency situations, such as bushfires, floods, or other natural disasters, it is crucial that multiple access points are available to allow for the safe and efficient movement of emergency vehicles and to accommodate large volumes of people and vehicles. The current design does not meet these necessary requirements and raises significant concerns about the ability of the facility to operate effectively as an emergency evacuation centre.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

- ***Safety Concerns at the Russell/Richmond Streets Intersection*** *There has been no assessment of the impact of the existing give-way signs at the Russell/Richmond Streets intersection and how they will affect the flow of traffic into and out of the proposed facility. This is a major concern, as these intersections already experience congestion and delays during peak periods. The addition of traffic from the development will likely exacerbate these issues, causing further strain on the local road network.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

- *Additionally, there are serious line of sight issues at these intersections, which are currently dangerous for drivers and pedestrians. The visibility at these key points is compromised, and it is unclear how the proposed development plans to address these safety concerns. The lack of any proposed solutions to the inadequacy of the development's traffic management plans and raises significant safety issues that have yet to be addressed.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

- ***Inconsiderate and Impractical Bus Stop Location*** *The location of the bus stop on Richmond Street, directly outside the funeral director's home, is inconsiderate and impractical. The placement of the bus stop in this location obstructs the flow of traffic, as buses are unable to turn onto Capper Street from Richmond Street due to the pedestrian refuge islands that are present at the intersection. These islands are there for safety reasons, but their presence significantly hinders buses from safely and efficiently accessing Capper Street. This design flaw will cause delays and potential safety hazards for both buses and other vehicles on Richmond Street, which already experiences traffic congestion.*

Response: Refer response from Positive Traffic Ref PT22075 Dated 15 April attached

3.0 Unacceptable Bulk and Scale

- ***Streetscape Compatibility:*** *The proposal claims that the building's design is compatible with the surrounding streetscape, stating that it has a single-storey design with high-quality finishes and low-scale proportions. However, there are several issues with this claim:*

Response:

Town Planner: The proposed development has been designed with careful attention to streetscape compatibility. Its design as a mixed use facility ensures that it sits comfortably within the existing recreational corridor. The building's height, scale, and massing has been deliberately kept modest to maintain a cohesive visual relationship with the adjacent recreational environment and neighbouring properties.

High-quality external finishes and materials have been selected to reflect and complement the locality. Elements such as the pitched roofing, colour palettes, and thoughtfully landscaped frontages further enhance its integration into the existing streetscape. In addition, the building's setback, orientation, and articulation has been designed to minimise visual impact and maintain a strong sense of openness within the existing recreational environment. The design choice demonstrates a commitment to preserving the visual harmony within the recreational environment of the area.

Overall, the proposal aligns well with the established character of Robertson and Clunie Avenue and contributes positively to the ongoing quality and cohesion of the streetscape.

- ***Building Height of 9.5 Meters****: The proposed building is 9.5 meters tall, which is significantly higher than many of the surrounding buildings, especially the single-storey residential homes in close proximity. This height creates a dominant presence in the streetscape and does not align with the scale and character of the neighbouring structures. A building of this height will negatively affect the visual harmony of the area, making the development stand out in a way that disrupts the established streetscape.*

Response:

Town Planner: Whilst the proposed multipurpose facility attains a maximum a height of 9.5 meters, this has been carefully considered within the context of the site, the development itself, the local planning controls and streetscape character. The height complies with the applicable planning controls and represents a modest form that remains appropriate within the recreational zone and local area which is undergoing gradual change and renewal.

Importantly, the design has incorporated architectural techniques to minimise the visual impact of the required height for this type of facility. This includes an articulated façade that breaks up the building's form avoiding a bulky/overbearing presence, the development itself being recessed into the site whilst utilising the gradient of the site minimising the form of the development.

The use of quality materials, landscaping, and attention to detail has ensured that the development integrates well with the surrounding recreational and built environments. While many nearby homes are single storey, there is a growing diversity in housing types in the area, noting the surrounding R3 Medium Density Residential zone. This proposal supports that evolving character while still respecting the established scale and feel of the streetscape noting a lower built form to Robertson Street,

It is noted that, the 9.5-meter height is both compliant and contextually appropriate within the RE1 - public recreational zone, offering a balanced approach that supports sustainable development whilst maintaining a positive relationship with the surrounding neighbourhood.

- ***Scale and Massing****: Even if the development is described as a single-storey structure, the 9.5-meter height means that the building will likely have a larger mass than surrounding buildings. This will overshadow residential properties and reduce the open, more intimate scale that characterises the area.*

Response:

Town Planner: A clear understanding of how the proposed facility will interact with the existing streetscape is essential to assessing its appropriateness in terms of height, scale, and overall character. While the Statement of Environmental Effects (SEE) provides a written summary, a comprehensive visual comparison has been included in the supporting application materials.

Specifically, a detailed set of architecturals including a 3D flythrough of the project design, montages, shadow diagrams, elevations, and landscape concept plans were submitted to visually demonstrate and confirm that the development is consistent with local planning controls and that its scale and design is compatible within the character of the mixed use locality. The supporting materials show the building from key vantage points and adjacent streets, offering a realistic representation of its height, scale, and streetscape integration. The documentation also highlights how the proposal maintains a respectful relationship with the subject site through thoughtful articulation, setbacks, and material selection whilst being consistent with the applicable local planning controls.

It is considered that the supporting tools and documentation provide a clear and transparent representation of the proposal's compatibility within the surrounding context and assist in addressing the concerns raised whilst mitigating it's visual impact within the existing streetscape.

- ***Comparative Analysis Missing****: The SEE fails to include a detailed comparison between the proposed development and existing buildings in the area. A more comprehensive visual analysis and comparison would allow for a more accurate assessment of how the facility will interact with the existing streetscape and whether the building's height and scale are appropriate.*

Response:

Town Planner: While the Statement of Environmental Effects (SEE) outlines the development's relationship in written form, additional visual comparison materials have been provided to support the proposal. As noted these include a detailed set of architecturals including a 3D flythrough of the project design, montages, shadow diagrams, elevations, and landscape concept plans, which illustrate how the building will appear in the context of its surroundings. This supporting information offers a realistic and accessible way to assess the proposal's scale and streetscape compatibility whilst demonstrating how the design responds within the existing recreational precinct corridor and the existing built form.

The supporting documentation highlights that the development has been sensitively designed with appropriate setbacks, articulation, and height transitions to ensure it integrates well within the local context. The intention is to maintain the mixed use nature of the area while allowing for well-considered growth and renewal.

- ***Heritage Considerations:*** *The nearby War Memorial within Richmond Park will be adversely affected by the proposed development. There is no mention of how the design would maintain or respect the character of these heritage elements, particularly given the proposed height of the building.*

Response:

Town Planner: The site is not identified as a heritage item and is not located within a Heritage Conservation Area.

The site is not identified as an archaeological site and given the history of land uses on the site, does not comprise any items of archaeological significance.

While the SEE may not have explicitly detailed the War Memorial's presence, its significance was considered as part of the broader context of the site, and the proposal has been designed to ensure it remains respectful of the area's heritage values. Noting that the war memorial is located some 100m from the rear of the development, it is considered that it will be substantially obscured from key vantage points through the siting of the design, by established and future vegetation, existing park structures - amenities block, playground, open air stage. Mature trees, various plantings, and built elements such as within the park provide a natural visual buffer that significantly reduces the visibility of the development from surrounding the surrounding recreational environment.

This existing screening will assist in to maintaining the overall visual amenity of the area and ensure that the development does not dominate or detract from the park environment or nearby historical features. In addition, the proposed landscape plan includes the retention and enhancement of planting along the rear boundary to further soften the building's appearance and reinforce the sense of separation between the development and public open space.

These measures collectively ensure that the interface between the development and the park remains respectful, discreet, and visually appropriate.

Unacceptable Lighting Impacts

- ***Lighting Impacts on Nearby Residents:*** *The SEE fails to adequately address the potential lighting impacts from the proposed development on nearby residents, particularly those in Robertson Street and Richmond Street. Given the nature of the facility, the following concerns are not met:*

- ***Car Park Lighting:*** *The facility will require significant exterior lighting for safety, events, and security purposes. The lighting in the car park and surrounding areas will significantly affect nearby residents. Overhead lighting or floodlights will create unwanted glare and light intrusion into homes, particularly during evening or nighttime events.*

Response:

Town Planner: Exterior lighting is necessary for safe access and operation of the facility. The design has carefully considered potential impacts such as glare, light spill, and intrusion from the site into neighbouring properties.

The lighting strategy for the car park and external areas incorporates low-level, downward-directed fixtures that are designed to minimise light spill beyond the site boundaries. No floodlighting or high-mounted overhead lighting is proposed. Lighting will be shielded and strategically placed to illuminate the required areas, such as pathways, entry points, and parking bays, ensuring minimal disruption to surrounding residences.

The lighting plan has been developed in accordance with relevant Australian Standards for outdoor lighting and is aimed at ensuring both safety and residential amenity are satisfied.

5.0 Non Compliance with Snowy Valley Council DCP

- *Upon reviewing the proposal against the SVC Development Control Plan 2024, it is clear that the development does not meet several of the principles outlined in the DCP, particularly in the following areas:*

- *Compatibility with the Streetscape: The DCP emphasizes the need for developments to be compatible with the surrounding built environment, particularly in terms of height, scale, and design. The proposed building's 9.5-meter height and its massive scale do not align with the low-rise residential character of the area, nor do they respect the aesthetic qualities of the surrounding streetscape.*

Response:

Town Planner: Whilst the proposed multi purpose facility attains a maximum a height of 9.5 meters, this has been carefully considered within the context of the site, the development itself, the local planning controls and streetscape character. The height complies with the applicable planning controls and represents a modest form that remains appropriate within the recreational zone and local area which is undergoing gradual change and renewal. The use of quality materials, landscaping, and attention to detail has ensured that the development integrates well with the surrounding recreational and built environments.

While many nearby homes are single-storey, there is a growing diversity in housing types in the area, noting the surrounding R3 Medium Density Residential zone. This proposal supports that evolving character while still respecting the established scale and feel of the streetscape noting a lower built form to Robertson Street,

It is noted that, the 9.5-meter height is both compliant and contextually appropriate within the RE1 - public recreational zone, offering a balanced approach that supports sustainable development whilst maintaining a positive relationship with the surrounding neighbourhood.

- *Environmental and Visual Impact: The DCP requires developments to consider visual impact on the surrounding area and to provide appropriate mitigation measures. The proposed building, particularly given its height and lack of a detailed visual appeal, does not meet these requirements. The absence of a visual simulation to show how the building will blend into the streetscape is a significant oversight. The designer purposefully removed all resident buildings in the proposed concepts design!!*

Response:

Town Planner: While the Statement of Environmental Effects (SEE) outlines the development's relationship in written form, additional visual comparison materials have been provided to support the proposal. As noted, these include a detailed set of architectural plans including a 3D flythrough of the project design, montages, shadow diagrams, elevations, and landscape concept plans, which illustrate how the building will appear in the context of its surroundings. This supporting information offers a realistic and accessible way to assess the proposal's scale and streetscape compatibility whilst demonstrating how the design responds within the existing recreational precinct corridor and the existing built form.

With respect to the building's visual impact and height, the design has incorporated a range of mitigation measures, including setbacks, modulation, material variation, and landscaping, to soften its presence and improve streetscape integration. The proposed height remains compliant with planning controls, and the massing has been deliberately articulated to reduce any sense of bulk when viewed from the street. In addition, landscape buffers and the use of high-quality finishes have been integrated to support a positive environmental and visual contribution to the area. These efforts aim to ensure that the development not only meets the requirements of the DCP but also contributes positively to the evolving character of the neighbourhood.

The supporting documentation highlights that the development has been sensitively designed with appropriate setbacks, articulation, and height transitions to ensure it integrates well within the local

context. The intention is to maintain the recreational/residential nature of the area while allowing for well-considered growth and renewal.

- *Lighting and Amenity: The DCP places a strong emphasis on protecting residential amenity from excessive lighting and other disruptions. However, the SEE does not sufficiently address the potential lighting impacts on nearby residents, and there are no specific measures proposed to control light spill and minimise glare as it cannot be avoided with this type of infrastructure within close proximity to homes.*

Response:

Town Planner: The Statement of Environmental Effects (SEE) provides a general overview of the lighting strategy. It is noted that the lighting design has been developed with a strong focus on minimising light spill and glare, in line with the objectives of the DCP and relevant Australian Standards.

Although lighting cannot be entirely avoided due to safety, security, and operational needs, a range of specific mitigation measures have been incorporated to protect residential amenity. These include:

- Low-level, downward-directed lighting fixtures to reduce upward and outward light spill;
- Shielding and directional control to confine light to required areas such as pathways and parking zones;
- Lighting timers and motion sensors to limit duration and intensity of lighting during non-peak hours; and
- Landscape screening and strategic placement of lights to further buffer illumination from adjacent residential properties.

These strategies are designed to ensure that lighting levels are appropriate for the intended use of the facility, while also minimising potential disruption to nearby homes.

6.0 Stormwater Management

- *I would like to formally raise concerns regarding the Stormwater Management Plan (SWMP), (19372_SWMP – Stormwater Management Plan Report) for the proposed Multi-Purpose & Evacuation the development and its impacts on local watercourses, including McFarlane's Creek and Tumut River.*

- ***Unrestrained Flow and Impact on McFarlane's Creek:*** *The SWMP proposes that certain areas of the development, particularly the car park will discharge stormwater un-restrained onto surrounding areas, including Robertson Street, and ultimately into McFarlane's Creek. This is concerning for several reasons:*

- *McFarlane's Creek is already stretched to full capacity during major storm events, as evidenced by bridges being washed out during previous flooding events. The additional unrestrained flow from the development would significantly increase the volume of water entering the creek, exacerbating the potential for flooding, erosion, and water quality degradation downstream into Tumut River.*

- ***Inadequate Flow Management During Major Storm Events:*** *While the SWMP provides a detailed analysis of runoff for minor storm events, it lacks detail in its major storm management section. Specifically, the plan does not adequately address the potential risks posed by the unrestrained flow entering McFarlane's Creek during major storms. The existing stormwater infrastructure in the surrounding streets, including Robertson Street and Richmond Street, is not designed to handle such high*

volumes of runoff, particularly during major storm events. The un-restrained flow would lead to overflows and exacerbate flooding downstream in McFarlane's Creek and Tumut River.

- ***Pollution control measures are also insufficient:*** *The unrestrained flow from the car park and will likely carry pollutants such as oil, fuel, which would enter McFarlane's Creek (order 2 stream) and into Tumut River (order 1 stream), degrading water quality and affecting local ecosystems. These pollutants from vehicles, could pose significant risks to aquatic life and public health if they are not adequately addressed.*

Response:

Civil Engineer: Unrestrained flow to the road networks in the minor design storm has been reduced vs the existing condition due to the pit/pipe network and storage by approx. 10 L/s. I.e. the design is an improvement vs the existing.

The design has been undertaken in accordance with the relevant Australian Standard AS3500.3, relevant design manual (AUSPEC) and Australian Rainfall and Runoff Guidelines (ARR) with regard to the minor storm being the 10% AEP (10yr ARI) event for a commercial building. For this storm, the design is such that the post-development flow rate is not higher than in the pre-development condition.

The design considers and provides for safe discharge to the existing stormwater point of discharge (the road network) for storms greater than the 10% AEP event as required in the relevant standards and guidelines listed above.

The un-restrained areas of carpark do not converge as the surface grading in this area is linear planar,. Flows will discharge evenly across a nominally 3.7m wide 1:6 vegetated buffer strip, providing capture of trash, sediment, and hydrocarbons. This buffer strip is similar to one side of a conventional vegetated swale. This is considered a better outcome than collecting these flows before the site boundary with a kerb or strip drain and directing them below ground. Following filtration through/over the buffer strip, the flows then discharge through the same outfall as the road network, which is subject to the same types of traffic and pollutants as the carpark but does not benefit from the vegetated buffer strip.

7.0 Sustainability

- *Lack of solar panels and batteries in the development.*

Response: There are some 600 PV panels going on the roof and battery storage

8.0 Geotechnical Suitabliity

- *The geotechnical report (InlandGeo_93_GIR_0924) raises significant concerns about the suitability of the Richmond Park site for the proposed Multi-Purpose & Evacuation Centre. Based on the field assessment, lab data, data interpretation and assumption its current condition is classified as* ***P-Problem Site.*** *Due to the significant amount of uncontrolled fill materials exceeding 0.4m depth, present of large tee to be removed and abnormal moisture conditions identified in existing fill material.*

Response: *The site classification provided is in accordance with AS2870 and is provided on the basis of the site as it currently exists. All of the problems identified will be nullified due to the proposed cut, along with the earthworks recommendations provided in the report which address subgrade strength in areas of identified fill materials; noting that unsuitable and uncontrolled fill materials will be removed. The site is considered suitable for the proposed development providing engineering first principles are applied and earthworks and geotechnical recommendations are met.*

9.0 Lack of Operational Management Plan

- *There is no documentation that clearly outlines the procedures, logistics, or modifications that will be required to convert the facility from a sports venue into a fully operational state-of-the-art Emergency Evacuation Centre (which was in the funding application/deed) and what the community assumed they will be getting.*

Response:

It is noted that Operational Plans are not required as part of a Development Assessment.

Procedures to operate the facility as an emergency evacuation centre will be developed by those responsible for local emergency management. And these will be tailored to take advantage of this facility in any way they deem necessary.

The expert design consultant team engaged by Council were tasked with providing a contemporary and compliant facility to all relevant standards including emergency management guidelines. The consultants were provided the requirements of the NSW Government State Emergency Management Plan – Major Evacuation Centre Guideline. The consultant team has had meetings with representatives experienced in Emergency Management and included appropriate provisions within the design work for this facility.

The plans include storerooms dedicated to housing any equipment required to quickly establish as an emergency evacuation centre. The roller door near the entrance, houses multiple power ports, including 3 phase power, for immediate plug and play of any necessary equipment including generators, cool rooms, cooking equipment, and medical equipment. There is roller door access from the carpark into the sports hall, for pallet jack delivery of food and water if necessary. There are amenities and dedicated meeting spaces which are all at the disposal of emergency management personal and the community.

Additional Notes

All properties that are adjacent to Richmond Park are **zoned R3 Medium Density Residential**. The zone includes Clunie Avenue.

The objectives of zone are:

- To provide for the housing needs of the community within a medium density residential environment.
- To provide a variety of housing types within a medium density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

Permitted with consent:

Attached dwellings; Boarding houses; Centre-based childcare facilities; Community facilities; Group homes; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Respite Day Care Centres; Restaurants or cafes; Senior's housing; Take away food and drink premises; Tank-based aquaculture; Any other development not specified in item 2 or 4

Contextualisation of Opposition

Objectors purport that they live in a quiet residential zone; Residents within this zone live close to the CBD within a medium density area, which already generates activity and noise. Any neighbouring property can develop and have a greater impact on them than the proposed development in question.

Objectors assert that the proposal is grossly out of scale at 9.5m. The proposal is within a park frontage on Russell Street on its own. It is set back 21m and set down 4m in the environment. The DCP allows for 2 to 3 storey commercial buildings if they are in context with streetscape

Surveyed Heights of Surrounding Buildings:

- Music Bowl within Richmond Park – directly behind our proposal – 8.5m
- Beavan's Funeral home, 31 Richmond Street – directly opposite our proposal – 8.0mSeventh Day Adventist Church, 29 Richmond Street – directly opposite our proposal – 7.29m
- Club Tumut 24-30 Richmond Street – Directly opposite our proposal – 6.5m (Noting double story building with a flat roof. Solar panels project above that)
- Valmar Support Services, 63-65 Russell Street – Next Block from our proposal (105m away) – 9.69m
- In Russell Street there is also the Star Hotel, and Whisk and Dish Coffee shop within 150m which would also be buildings greater that 9m in height.
- In Capper Street above Clunie Avenue is the Tumut Tafe campus, with multiple Multistorey buildings.

Please refer attached document "CBD ROOF HEIGHTS" prepared by Snowy Valleys Council

NOISE AND SOUND SERVICES

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Date: 15th April 2025

The Facility Design Group
19 The Terrace,
Cambewarra,
NSW 2540

Page 1 of 5

For the Attention of: Stephen Johansson - Director

Re: **Acoustic Report – Reply to THE PLANNINGHUB Request for Additional Information – DA2025/0026 –Development Application (DA) at Russell Street, Tumut.**

Stephen

We thank you for sending us a copy of the Request for Additional Information – DA2025/0026 – Development Application (DA) at Russell Street, Tumut produced by The Planninghub**.** We note the following:-

The Planninghub - Comment 1
"Incorrect Address Information: The study states that the nearest residential and commercial properties to the development are 1 and 3 Robertson Street. However, these addresses DO NOT EXIST. In fact, the closest properties to the development are 2 and 4 Robertson Street (boundary within 20m of site – see aerial photo below). The use of incorrect addresses undermines the accuracy of the report, as it inaccurately identifies the properties potentially most impacted by the development."

Reply
The report does address the nearest properties at 2 and 4 Robertson Street, however these were incorrectly identified as 1 and 3 Robertson Street in the Noise and Sound Services Report nss24414, dated February 2025 (The Report). This has now been corrected in report nss24414 Rev A, dated April 2025.

The Planninghub - Comment 2

"Ambient and Background Noise Measurements: The report does not include ambient and background noise measurements at 2 and 4 Robertson Street, which are the closest properties to the development. This omission is critical, as the noise levels at these addresses should have been directly assessed to determine the actual noise impact on nearby residents. Instead, the ambient and background noise levels were recorded at 37 Richmond Street (>50m away), a property that was undergoing significant renovations during the study period. This ongoing construction would have affected the noise levels, potentially leading to skewed or unreliable results that do not reflect the typical noise environment in the area."

Reply

The location used for the background noise levels was given by the Snowy Valleys Council personnel. We understand that permission to place a noise logger at 2 and 4 Robertson Street was not given by the occupants. As stated in section 4.1 of The Report *"Any extraneous noise from rain, wind or DIY construction works in the area was excluded from the background assessment."* Hence, all extraneous noise for the ambient and background noise levels that were recorded at 37 Richmond Street were removed from the assessment. The ongoing construction at 37 Richmond Street did not affect the noise levels that were used in the assessment and the results are reliable.

In any case, the typical noise environment in the area, particularly at the evenings and night times, are at or below the minimum rated background levels (RBLs) to be use as given in the NSW Government's Noise Policy for Industry (2017) as issued by the EPA. This Policy balances the need for industrial activity with the community's desire to minimise intrusive sounds. It sets assessment noise levels, consistent methods, and best practice measures to manage industrial noise, and is based on the latest scientific research regarding noise's health effects.

The Noise Policy for Industry (2017) states:- "Minimum assumed RBLs apply in this policy. These result in minimum intrusiveness noise levels as follows: Table 2.1:

Time of day	***Minimum assumed RBLs and project intrusiveness noise levels***	***Minimum project intrusiveness noise levels (LAeq,15min dB[A])***
Day	*35*	*40*
Evening	*30*	*35*
Night	*30*	*35*

These minima (most stringent) background levels have been used for the evening and night noise assessment, thereby overcoming the need to measure directly at the nearest residential premises. As the evening and night noise criteria has been used for the assessment the daytime criteria will also be met.

The Planninghub - Comment 3

"Impact of Car Park Noise on Residential Amenity: The level of noise generated by the proposed car park will be detrimental to local residents, particularly those living in close proximity to the development. The noise from car movements, engine start-ups, doors slamming, and general foot traffic will be clearly audible to residents in nearby homes. Even at a distance of 20 meters, it is estimated that the noise level could reach 60 dBA, which is above the acceptable limits for a residential area (55-60) dBA (7:00am -10:00pm)."

During peak periods, such as before and after events at the multi-purpose facility, the noise from the car park will likely increase, resulting in disruptive noise levels that will interfere with the quiet enjoyment of local homes. This would be particularly problematic for residents who have chosen to live in a quieter, residential area, and it would significantly detract from their quality of life. The constant flow of vehicles, slamming doors, and other noises from the car park would create an ongoing disturbance, which could prove to be intrusive, especially during the evening and night when residents expect a higher degree of peace and privacy.

Reply

The noise from car movements, engine start-ups, doors slamming, and general foot traffic may be audible to residents in nearby homes. Audibility is not used as a balanced noise criterion. However, car movements, engine start-ups, doors slamming, and general foot traffic currently occur due to the use of Richmond Park. There will be more vehicles parking at the site; however, these will meet the noise criteria being ($L_{Aeq,\ 15\ minute}$) 34 dBA at any nearby residential property. The 62 dBA mentioned in The Report is for a 40 second (or less) noise of door slamming at 3 metres, not over the 15-minute assessment period given by the EPA and not at 20 metres. In addition, no Russell Street residential premises will be within 20 metres of the car parking area. The property at 29A Richmond Street is a motel but has been treated at a dwelling to assess the most stringent criteria.

The development is in line with the NSW State Government's Noise Policy which balances the need for commercial and/or industrial activity with the community's desire to minimise intrusive sounds. It sets assessment noise levels, consistent methods, and best practice measures to manage commercial noise, and is based on the latest scientific research regarding noise's health effects. The noise levels as given in The Report, meet those given in the NSW State Government's Noise Policy.

In addition, advise on community relations are addressed in The Report. This is in line with the Australian Standard AS 2436:2010.

The Planninghub - Comment 4
"Absence of Comparison to Similar Buildings in Noise Impact Assessment. Another critical issue with the Noise Impact Assessment is the lack of comparison to noise levels emitted by similar buildings constructed from comparable materials, particularly those with two indoor basketball courts. Given the size and function of the proposed development, it is essential to understand how its noise emissions compare to other multi-purpose sports facilities built with similar materials and designs.

Without this comparison, it is difficult to assess whether the predicted noise levels from the facility are realistic or if adequate mitigation strategies will in fact work. The construction materials and design of the building play a significant role in sound transmission, and without examining how similar structures have performed in terms of noise generation and mitigation, the assessment fails to provide a full picture of the potential impact on surrounding areas.

To ensure the reliability and completeness of the study, a comparison should have been made between the noise levels emitted by similar sports facilities constructed with comparable materials and featuring two indoor basketball courts. This would help to better estimate the likely noise impact of the proposed development and determine whether additional noise mitigation measures will be required."

Reply
The Facility Design Group have successfully completed many indoor sports halls over the years.

These include:-
Junee Leisure Centre - Junee
Wollondilly Community Leisure Centre - Picton
Blayney Leisure Centre - Blayney
Anzac Park Stadium – Orange
Tamworth Sports Dome – Tamworth
Trinity Catholic College Sports Centre – Lismore
Goonellabah Leisure Centre – Lismore
West Wyalong Sports Centre – West Wyalong
Port Macquarie Sports Stadium – Port Macquarie
Goulbourn Indoor Sports Centre – Goulbourn
Hornsby PCYC – Hornsby

Some of these are joined with gyms and aquatic centres, some are 2, some are 4 to 7 courts, however all of these are in unique distinctive locations, have different mechanical plant (types and locations), different car parking arrangements, etc.

We are not of the opinion that a noise assessment comparison with any of these will be useful, in fact could even be misleading. The assessment at Tumut is based on the details of the site-specific types of proposed building materials, mechanical plant car parking. The NSW State Government's Noise Policy does not require such comparisons.

If you require any further information or discussion, please feel free to contact us.

Yours sincerely

Ken Scannell

Ken Scannell MSc MAAS.
Director and Senior Acoustical Consultant

Noise and Sound Services

Noise Impact Assessment

For the: Proposed -

W339 Tumut - Multipurpose Centre

April 2025

Report No. nss24414 – Final - Rev A

Prepared at the Request of:-

The Facility Design Group
19 The Terrace,
Cambewarra, NSW 2540

Prepared by:-

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C O N T E N T S

EXECUTIVE SUMMARY

A noise assessment has been carried out for the proposed Multi-purpose Centre in Tumut. The purpose of this report is to provide an independent and accurate assessment of the potential noise impact generated by the centre including proposed mechanical plant. These are compared to relevant noise criteria, and/or guidelines, and provide recommendations for noise amelioration measures where necessary. The car parking spaces on the site is also considered.

The nearest residential and commercial properties to the development are at 2 and 4 Robertson Street and 1 Clunie Avenue to the South and 27 to 35 Richmond Street to the north. The Seventh-day Adventist Church is on the Corner of Russell and Richmond Streets, Beavan's Funeral Home is at 31 Richmond Street and Sefton House motel is at 29A Richmond Street. The site boundaries are over 20 metres from the proposed site. Proposed hours of operation are Monday to Saturday 7am – 10pm and Sunday – 7am – 6pm.

Existing ambient and background noise levels have been monitored at a neighbouring residence to the proposed Multi-purpose Centre i.e., 37 Richmond Street for a period of 7 days. Background levels ($L_{A90,\ 15\ minute}$) were found to be 30 dBA in the evening times. Noise goals for the proposed development have been based on the recorded evening background noise levels plus 5 dB for residential areas and 65 dB for commercial areas in line with NSW Government recommendations.

Noise models based on the International Standard ISO 9613-2:2024, '*Acoustics — Attenuation of sound during propagation outdoors. Part 2: Engineering method for the prediction of sound pressure levels outdoors'* have been developed for the roof top mechanical plant , car parking area and use of the hall.

Providing the recommendations are incorporated into the design and construction of the proposed Multi-purpose Centre, noise emissions are predicted to comply with the noise criteria provided by the NSW Government via the Environment Protection Authority (EPA) for the external noise environment.

1. INTRODUCTION

Noise and Sound Services Pty Ltd was requested by the Facility Design Group, of 19 The Terrace, Cambewarra, NSW 2540, to carry out a noise assessment for the proposed a Multi-purpose Centre in Richmond Park, Tumut which has sufficient capacity to double as an Evacuation Centre in times of emergency.

The purpose of this report is to provide an independent and accurate assessment of the potential noise impact generated by ongoing activities with the development of the proposed centre, compare these to relevant noise criteria and/or guidelines and provide recommendations for noise amelioration measures where necessary.

2. MULTI-PURPOSE CENTRE LOCATION

2.1 Location

The Multi-purpose Centre in Tumut which is proposed to be located on part of the existing Richmond Park site has the Tumut Bowling Club to the northeast and the remainder of Richmond Park to the southwest. The nearest residential and commercial properties to the development are at 2 and 4 Robertson Street and 1 Clunie Avenue to the southeast and 27 to 35 Richmond Street to the northwest as shown in Figure 1 below. The Seventh-day Adventist Church is on the Corner of Russell and Richmond Streets, Beavan's Funeral Home is at 31 Richmond Street. And Sefton House motel is at 29A Richmond Street. The neighbouring site boundaries are over 20 metres from the proposed site.

Figure 1. Approximate Site and Noise Logger Location.
Original Source: Google Earth.

The surrounding area of the site was inspected on Sunday and Saturday 12th and 13th November 2025. The noise environment of the area is typically affected by occasional road traffic using Richmond, Robertson and Russell Street, neighbours DIY, community noise and fauna such as birds and dogs barking.

2.2 Proposed Development

The proposal is for a Multi-purpose Centre in Tumut which has sufficient capacity to double as an Evacuation Centre in times of emergency. See Facility Design Group drawings Multipurpose + Evacuation Centre at Prelim. DA drawings, Job number W366, dated 21/02/2025. The proposed construction of the structures relevant to the acoustic assessment are the plant room and roof mounted mechanical plant as shown in Figure 2 below. The proposed car parking spaces on the site is for 47 vehicles to the northeast. The proposed hours of operation are Monday – Saturday 7am – 10pm and Sunday – 7am – 6pm.

2.2.1 Mechanical Plant

The proposed mechanical plant is shown in Table 1 below.

TABLE 1. ROOF MOUNTED AND PLANT ROOM MECHANICAL PLANT

Mechanical Plant	Manufacturer's Type	Manufacturer's average sound power level. (dBA)
CU-01	Daikin REYQ22BYM09	85
		Manufacturer's average sound pressure level at 3 metres. (dBA)
TEF-01	Fantech GUA454V	56
TEF-02	Fantech RIL150SW	38
TEF-02	Fantech RIL150SW	38
KEF-01	Fantech CHD718	49
KSF-01	Fantech PUEEC40	54
		Manufacturer's average sound pressure level at 7 metres. (dBA)
CF-01	Airius Emerald 630 EC	48
CF-02	Airius Emerald 630 EC	48
CF-03	Airius Emerald 630 EC	48
CF-04	Airius Emerald 630 EC	48
CF-05	Airius Emerald 630 EC	48
CF-06	Airius Emerald 630 EC	48
CF-07	Airius Emerald 630 EC	48
CF-08	Airius Emerald 630 EC	48

The location of the plant is shown in Figure 2 and Figure 3 below.

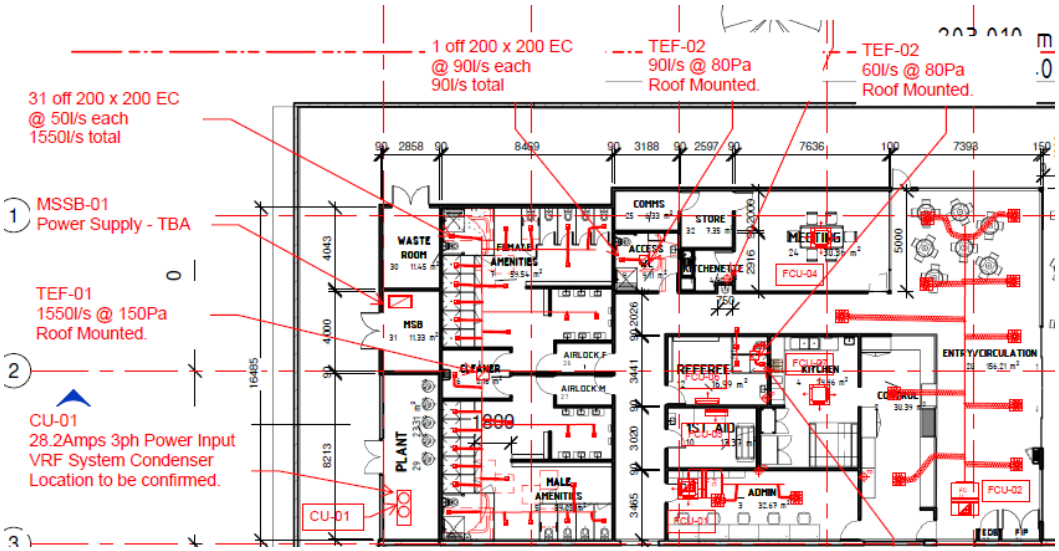


Figure 2. Layout Showing the Location of the Proposed Mechanical Plant to the Northwest of the Site. Source: The Facility Design Group.

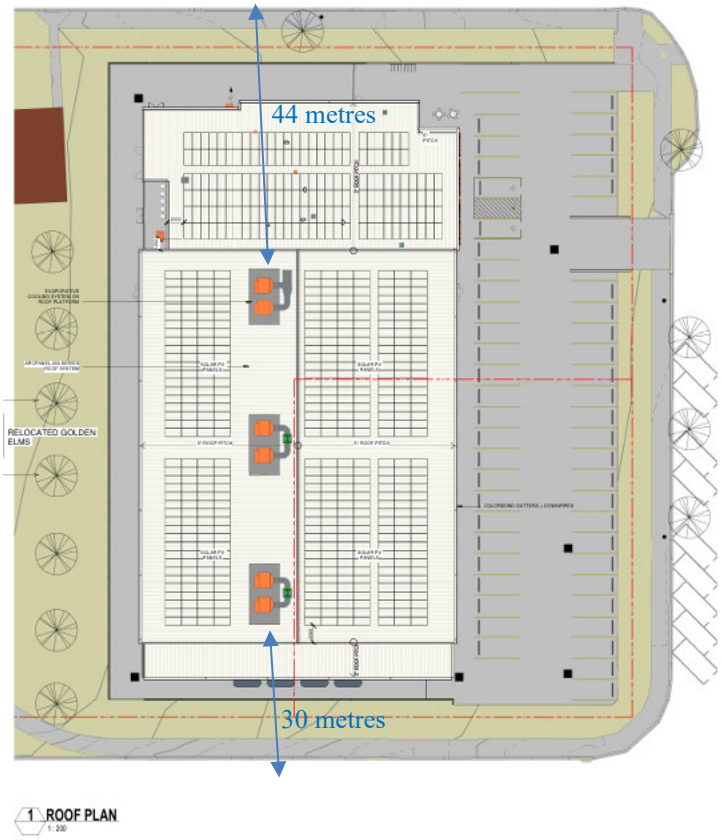


Figure 3. Plan Showing the Location of the Proposed Basketball Roof Top Mechanical Plant to the Nearest Residential Boundaries. Source: The Facility Design Group.

3. NOISE CRITERIA

The objectives of the noise assessment are to ensure surrounding noise sensitive locations are not unduly affected by noise emissions from the Multi-purpose Centre.

There are no specific Council, State or Federal criteria for noise emissions from Multi-purpose Centre. However, this section reviews the NSW Government criteria for other noise sources and developments. These may be used as a basis for realistic noise goals for the Multi-purpose Centre.

3.1 NSW Government Criteria

The NSW Government, via the Environment Protection Authority (EPA), provide guidelines for many industrial, commercial and domestic types of noise sources. The primary aim of environmental noise control is to minimise the occurrence of offensive noise in the community. To be both effective and equitable, the determination and application of environmental noise control measures must take into account many factors for example: -

- the variation in response between individuals to any noise;
- the inherently noisy characteristics of many activities;
- the circumstances within which the noise occurs;
- the technical and economic feasibility for noise control; and
- the social worth of the activity.

Offensive noise is defined in the NSW Protection of the Environment Operations Act 1997 (POEO Act) as being noise:-

a) *that, by reason is of its level, nature, character or quality, or the time at which it is made, or other circumstances:*
   i. *Is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or*
   ii. *interferes unreasonably with (or is likely to Interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or*

b) *that, is of a level, nature, character or quality prescribed by the regulations or that is made at a time or in other circumstances, prescribed by the regulations.'*

The NSW Government, also state that social surveys have indicated that noise from any particular source will be audible to many people in the community when that noise exceeds the background level by more than 5 decibels (dB). The noise may have characteristics which are pleasant or unpleasant to the listener.

Technically the background is found from the noise level that is present for 90% of the measurement time periods (usually 15 minutes each) and this is known as the $L_{AF90,\ 15\ minute.}$ The source noise is found from the average of the sound energy (again usually 15 minutes samples), which is known as the $L_{Aeq,\ 15\ minute.}$ The 5 dB over background criterion is primarily aimed at industrial or commercial machine noise or domestic machine noise such as air conditioners.

3.2 NSW Noise Guide for Local Government

The NSW Government's Noise Guide for Local Government (NGLG) provides guidelines for the assessment of offensive and intrusive noise levels. Local councils are encouraged to develop noise policies which specify intrusive noise levels and appropriate descriptors for particular activities in certain situations and locations. Such a policy could, for example, specify that noise from mechanical plant located at commercial or industrial premises that exceeds the background noise at a residential boundary by more than 5 dB as measured over a 15-minute period ($L_{Aeq,\ 15\ minute}$) is intrusive.

The noise is assessed at the most affected point on or within the neighbouring residential property (unless that residence is more than 30 metres from the boundary). Intrusive noise is not the same as offensive noise as defined in the POEO Act 1997. Intrusive noise can represent offensive noise, but whether this is always the case depends on the source of the noise, noise characteristics and cumulative noise levels.

For non-tonal air conditioners, the intrusive noise criteria can be taken as a measure of offensive noise, however sound from community activity within a leisure centre should not be automatically considered to be offensive just because it may exceed the 5 dB on background criterion.

3.3 NSW Government Noise Policy for Industry (2017)

The assessment procedure for industrial and commercial noise sources given in the Noise Policy for Industry (2017) has two components:-

- **Controlling intrusive noise impacts; and**
- **Maintaining noise level amenity;**

Both components are taken into account when determining a project noise trigger level. The project noise trigger level is a level that, if exceeded, would indicate a potential noise impact on the community, and so 'trigger' a management response. The project noise trigger level reflects the most stringent noise level requirement.

3.3.1 Intrusive Noise Impacts

The NSW Government in their Noise Policy for Industry (2017) states that:- '*The intrusiveness of an industrial noise source may generally be considered acceptable if the level of noise from the source (represented by the LAeq descriptor), measured over a 15-minute period, does not exceed the background noise level by more than 5 dB when beyond a minimum threshold.'*

The perception of noise and its level of offensiveness depend greatly on the broader situation within which it occurs. Noise that might intrude into a resting or sleeping place may be found offensive whereas the same noise occurring in a marketplace or noisy working area may pass unnoticed. The concept of *'background + 5 dB'* derives from this consideration.

The Noise Policy for Industry defines the background noise level as *'the underlying level of noise present in ambient noise, generally excluding the noise source under investigation, when extraneous noise is removed'*.

'*Sound levels contributing to background levels can include sound from nearby traffic, birds, insects, animals, machinery and similar sources, if these sounds are a normal feature of the location. The background noise level is represented by the* $L_{AF90,15min}$ *descriptor when undertaking short-term monitoring.'*

The Rating Background Level is used for assessment purposes. This is the single-figure background noise level derived from monitoring over a representative period of time, typically one full week. The outcome of this approach aims to ensure that the intrusiveness noise level is being met for at least 90% of the time periods over which annoyance reactions can occur (taken to be periods of 15 minutes).

3.3.2 Protecting Noise Amenity

In the Noise Policy for Industry, it is stated that *'To limit continuing increases in noise levels from application of the intrusiveness level alone, the ambient noise level within an area from all industrial noise sources combined should remain below the recommended amenity noise levels specified in Table 2.2 where feasible and reasonable.*' The relevant part of the NSW Government's recommended levels are given in Table 2 below.

The recommended amenity noise levels represent the objective for total industrial noise at a receiver location, whereas the project amenity noise level represents the objective for noise from a single industrial development at a receiver location.

Where a receiver is affected by existing levels of industrial noise, a project amenity noise level applies for each new source of industrial noise. The project amenity noise level is then equal to the recommended amenity noise level minus 5 dB.

TABLE 2: AMENITY NOISE LEVELS

Receiver	Noise amenity area	Time of day	Recommended amenity noise level - $L_{Aeq,}$ dB(A)
Residential	Rural	Day Evening Night	50 45 40
	Suburban	Day Evening Night	55 45 40
	Urban	Day Evening Night	60 50 45
Commercial premises	All	When in use	65
Industrial premises	All	When in use	70
Industrial interface – residential receiver only	All	All	Plus 5 dB(A) to recommended amenity noise level

In cases where transport noise, road traffic noise in particular, may be high enough to make noise from an industrial source effectively inaudible, even though the L_{Aeq} noise level from that industrial noise source may exceed the project amenity noise level, the project amenity noise level may be derived from the $L_{Aeq,\ period\ (traffic)}$ minus 15 dB (A) (other conditions may be applicable).

3.3.3 Modifying Factor Adjustments

Where a noise source contains certain characteristics, such as tonality, intermittency, irregularity or dominant low-frequency content, there is evidence to suggest that it can cause greater annoyance than other noise at the same sound pressure level. A correction should be applied to both the intrusive and the amenity measurement before a comparison is made with the criteria. An abbreviated version of the correction factors is shown in Table 3 below:-

TABLE 3 – MODIFYING FACTOR CORRECTIONS

Factor	Assessment/ Measurement	When to Apply	Correction	Comments
Tonal Noise	One-third octave band or narrow band analysis	Level of one third octave band exceeds the level of the adjacent bands by 5 dB or more (500-10000 Hz)	+ 5 dB	Narrow band frequency analysis may be required to precisely detect occurrence
Low Frequency Noise	Measurement of C-weighted and A-weighted level	Measure/assess C and A-weighted levels over same time period. Correction to be applied if the difference between the two is 15 dB or more	+ 5 dB	C-weighted is designed to be more responsive to low frequency noise
Intermittent Noise	Subjectively Assessed	Level varies by more than 5 dB	+ 5 dB	Adjustment to be applied for night time only
Duration	Single event noise 1.5 min to 2.5 hr	One event in any assessment period	0 to 20 dB(A)	Conditional on duration
Maximum adjustment		Where two or more modifying factors are indicated	10 dB(A)	Excludes duration correction

Note: Tonal noise - Level of one third octave band exceeds the level of the adjacent bands on both sides by 5 dB or more if the centre frequency of the band containing the tone is in the range 500-10000 Hz; 8 dB or more if the centre frequency of the band containing the tone is in the range 160 to 400 Hz; or 15 dB or more if the centre frequency of the band containing the tone is in the range 25-125 Hz.

4. BACKGROUND NOISE MEASUREMENTS

Existing ambient and background noise levels have been monitored at the nearest residence to the centre, i.e., 37 Richmond Street for a period of 7 days. The instrumentation, procedure and results are described below.

4.1 Background and Ambient Noise Monitoring Procedure

Free field continuous noise monitoring was carried out from Monday 13th January 2025 through to Sunday 20th January 2025. Noise measurements were carried out in accordance with Australian Standard AS 1055:2018, '*Acoustics – Description and measurement of environmental noise".* The noise logger was set for the 'A' frequency weighting and 'fast' time weighting.

The measured background noise levels ($L_{AF90,\ 15\ minute}$) are considered to be representative of background noise at all potentially affected residences in close vicinity of the proposed centre. The energy average noise levels ($L_{Aeq,\ 15\ minute}$) at the logger location include the intermittent noise generated by local and distant road traffic noise, fauna and community noise. Any extraneous noise from rain, wind or DIY construction works in the area was excluded from the background assessment.

4.2 Instrumentation

The instrumentation used during the unattended noise survey consisted of an 'ARL' - Rion NL-42A, Environmental Noise Logger with serial number: 422908. This instrument conforms to IEC 61672-1: 2013/2002 Class 2 and has an accuracy suitable for both field and laboratory use.

The environmental noise logger has been checked, adjusted and aligned to conform to the ARL factory specifications and issued with conformance certificates within the last 24 months as required by the regulations. The internal test equipment used is traceable to the National Measurement Laboratory at C.S.I.R.O, Lindfield, NSW, Australia.

The calibrator has been checked, adjusted and aligned to conform to the Brüel and Kjær factory specifications and issued with a conformance certificate within the last 12 months as required by the regulations. The internal test equipment used is traceable to the National Measurement Laboratory at C.S.I.R.O, Lindfield, NSW, Australia.

4.3 Noise Monitoring Results

Measured ambient noise levels are assessed according to the NSW Industrial Noise Policy in terms of ambient noise (L_{Aeq}) and background noise (L_{AF90}) for the time periods defined as: Day: 7:00 am – 6:00 pm, Evening: 6:00 pm – 10:00 pm and Night: 10:00 pm – 7:00 am.

The recorded L_{AF90} levels determine the Rating Background Level (RBL). The RBL is defined as the median value of the tenth percentile value for the recorded L_{AF90} levels for the complete monitoring period. The tenth percentile is also referred to as the Assessment Background Level (ABL). The resultant RBL (L_{AF90}) and ambient (L_{Aeq}) levels for each period are summarised below in Table 4. The full statistical noise measurement results are shown in graphical form in Appendix A below.

TABLE 4 – SUMMARY OF EXISTING NOISE LEVELS.

Time of Day	Rating Background Noise Levels (L_{A90}) dBA	Log Average Existing Ambient Noise Levels (L_{Aeq}) dBA
Day (07:00 – 18:00)	39	53
Evening (18:00 – 22:00)	35	49
Night (22:00 – 07:00)	28	38

Note 1- All levels rounded to the nearest whole decibel.

5. ENVIRONMENTAL NOISE GOALS

As discussed in Section 3.3 above the assessment procedure given in the Noise Policy for Industrial (2017) has two components to determine project-specific noise goals: Intrusive noise impacts and noise level amenity. The noise goals relevant to each assessment period based on logged noise levels are given below. The more stringent of the two apply.

5.1 Intrusive Criteria

To ensure that on-site noise sources are not intrusive, the $L_{Aeq,\ 15\ minute}$ noise level due to stationary sources should not exceed the background $L_{AF90,\ 15\ minute}$ level by more than 5 dB when measured at the affected residential property boundary. The intrusive noise goal is based upon the RBL level of 42 dBA for the day period, 43 dBA for the evening and 40 dBA for the night period. The intrusive $L_{Aeq,\ 15\ minute}$ noise goal for noise generated by the development is therefore 47 dBA for the day period, 48 dBA for the evening and 45 dBA for the night period at or within the nearest residential boundaries.

5.2 Amenity Criteria

The amenity noise criteria are used to limit the maximum ambient noise levels within an area from stationary noise sources associated with the proposed development. To protect the acoustic amenity of land users the combined noise from all stationary noise sources should not exceed the Acceptable Noise Level (ANL) calculated according to the procedures as given in chapter 2 of the NSW Noise Policy for Industry. The amenity assessment relates only to industrial-type noise and does not include road or community noise. Modifications are made to the recommended ANL to account for the existing level of industrial (or commercial) noise. As the existing environment is unaffected by industrial or commercial type noise (including mechanical services) the ANL is not modified are therefore represents the amenity criteria.

TABLE 5 – SUMMARY OF AMENITY CRITERIA.

Type of Receiver	Time of Day	Recommended Acceptable Noise Level ($L_{Aeq, period}$)	Existing Amenity Level ($L_{Aeq, period}$)	Amenity Criterion ($L_{Aeq, period}$)
Residence urban location	Day	55	53	50
	Evening	45	49	39
	Night	40	28	40

Note - All levels rounded to the nearest whole decibel.

5.3 Project Specific Noise Criteria

Applying both the amenity and intrusive criteria to the development and adopting the more stringent of the two, determines the project specific noise levels. Project specific noise criteria based on logged data are provided below in Table 6.

TABLE 6 – PROJECT SPECIFIC NOISE CRITERIA RESIDENTIAL.

Time of Day	Intrusive Noise Criteria dB - ($L_{Aeq,15\ minute}$)	Amenity Noise Criterion dB - ($L_{Aeq, period}$)	Project Specific Noise Criterion dB - ($L_{Aeq,15\ minute}$)
Day (07:00 – 18:00)	44 (39+5)	55	**44**
Evening (18:00 – 22:00)	35 (30+5)	39	**35**
Night (22:00 – 07:00)	35 (minimum 30+5)	40	**35**

The project specific noise criteria dB - ($L_{Aeq,15\ minute}$) for Commercial premises when in use is **65 dBA**.

6. NOISE SOURCE MODELS

Noise models have been prepared for the occurrence of noise emissions from the proposed development. This section provides details of the calculations and noise models for each scenario.

6.1 Noise Modelling Specifications

The sound pressure level from a source noise has been modelled using the International Standard ISO 9613-2:2024, '*Acoustics — Attenuation of sound during propagation outdoors. Part 2: Engineering method for the prediction of sound pressure levels outdoors'*. This Standard specifies methods for the description of noise outdoors in community environments. The method described

in the Standard is general in the sense that it may be applied to a wide variety of noise sources and covers the major mechanism of attenuation. The method allows for downwind propagation conditions within an angle of ± 45° of the direction connecting the centre of the dominant sound source and the centre of the specified receiver region with the wind blowing from source to receiver, and wind speed between approximately 1 m/s and 5 m/s measured at a height of 3 m to 11 m above the ground.

6.2 Basic Noise Modelling Equation

As given in the International Standard ISO 9613-2:2024 the equivalent continuous downwind octave band sound pressure level at a receiver location, L_{fT} (DW), shall be calculated for each point source, and its image sources, and for the eight octave bands with nominal mid-band frequencies from 63 Hz to 8 kHz from :

$$\boldsymbol{L_{fT}\,(Dw) = Lw + D_c - A}$$

Where :
L_W is the octave band sound power level produced by the point sound source relative to a reference sound power of one picowatt (1 pW), expressed in decibels;
Dc is the directivity correction, in decibels, that describes the extent by which the equivalent continuous sound pressure level from the point sound source deviates in a specified direction from the level of an omnidirectional point sound source producing the sound power level LW, expressed in decibels; and

A is the octave band attenuation that occurs during propagation from the point sound source to the receiver, expressed in decibels.

The attenuation term A in Formula above is given by :

$$A = A_{div} + A_{atm} + A_{gr} + A_{bar} + A_{misc}$$

Where:
A_{div} is the attenuation due to geometrical divergence, expressed in decibels (dB);
A_{atm} is the attenuation due to atmospheric absorption, expressed in dB;
A_{gr} is the attenuation due to the ground effect, expressed in dB;
A_{bar} is the attenuation due to a barrier, expressed in dB;
A_{misc} is the attenuation due to miscellaneous other effects, expressed in dB.

The last term (A_{misc}) generally refers to miscellaneous propagation through foliage, industrial sites and areas of houses. Due to the vicinity of the development to the neighbouring dwellings the attenuation due to atmospheric absorption, ground effects and other miscellaneous effects are of minor significance at this site. For a first conservation approximation over relatively short distances (i.e. under 100 metres) only, A_{div} needs to be considered, where :

$$\boldsymbol{A_{div} = 20\ \log_{10}\ (d/d_0) + 11 \text{ for spherical sound radiation and}}$$

$$A_{div} = 20 \log_{10} (d/d_0) + 8 \text{ for hemispherical sound radiation.}$$

Where:
d is the distance from the source to receiver, expressed in metres; and
*d*0 is the reference distance (= 1 m).

Hence, where sound power levels are known. the 'A' frequency weighted sound pressure level (dB) at the nearest residential boundaries receiver location can be found from:

$$L_{pA} = L_{WA} - 20 \log_{10} d - 10 \log_{10} (2\pi)$$

Or where the 'A' frequency weighted sound pressure levels are known at a certain distance (L_{pA1}) the 'A' frequency weighted sound pressure level at the nearest residential boundaries location (L_{pA2}) can be found from:

$$L_{pA2} = L_{pA1} - 20 \log_{10} (d_2/d_1)$$

Where d_1 is the given distance with known sound pressure level and d_2 is the distance to the nearest residential boundaries.

6.2.1 Mechanical Plant Located to the Northwest

6.2.1.1 Daikin

The CU-01, **Daikin REYQ22BYM09** heat recovery unit is proposed to be mounted in the plant room as shown in Figure 2 above. This has a sound power level of 85 dBA. The plant room is approximately 30 metres from the from nearest residential boundaries. Hence, without attenuation the sound pressure level would be 48 dBA (from 48 = 85 – 20 $\log_{10}$ – 8). This exceeds the daytime noise goal by 4 dB and the evening/nighttime noise goal 13 dB. The unit is situated within the plant room but will require ventilation. Hence, mitigation is recommended. See section 7 below.

6.2.1.2 Fantech

The stated sound pressure level of the **Fantech GUA454V** is given by the manufacturers as 58 dBA at 3 metres. This rooftop fan is proposed to be located approximately 30 metres to the nearest residential boundaries. Here the sound pressure level with be 38 dBA (from 38 = 58 – 20 $\log_{10}$ (30/3)) at the nearest residential boundaries. This meets the daytime noise goal but exceeds the evening and nighttime noise goal by 3 dB. Hence, mitigation is recommended. See Section 7 below.

The stated sound pressure level of the two **Fantech RIL150SW** fans is given by the manufacturers as 38 dBA at 3 metres. Here the sound pressure level with 22

dBA (from 22 = 38 – 20 $\log_{10}$ (20/3)) at the nearest residential boundaries. This meets the daytime, evening and nighttime noise goals.

The two **Fantech kitchen exhaust fans** have not yet been specified; however, it is recommended that these should be chosen in line with the manufacturers sound pressure level not more than 54 dBA at 3 metres. Here, the sound pressure level with be less than 37 dBA (from 37 = 54 – 20 $\log_{10}$ (20/3)) at the nearest residential boundaries. This should only be used at daytime hours 07:00 to 18:00 as it exceeds the noise goals for evening use.

6.2.2 Mechanical Plant Located on the Proposed Basketball Court

Mechanical Plant located to the Southeast consists of eight rooftop mounted coolers. These coolers are proposed in pairs at three difference distances from nearest residential boundaries as shown in Figure 3 above. These are given as 48 dBA each which equates to 51 dBA for two. To the southeast these are approximately 30, 50 and 70 metres. To the north these are approximately 40, 65 and 85 metres.

TABLE 7 – PREDICTED NOISE LEVELS FROM THE AIRIUS EMERALD 630 EC.

Direction	Approximate distance (d_2) from nearest residential boundaries (m)	'A' frequency weighted sound pressure level at the nearest residential boundaries location (dBA) 51 – 20 $\log_{10}$ (d_2/d_1)
Southeast	30	38
	40	34
	70	31
	Total	40*
Northwest	40	36
	65	32
	86	29
	Total	38*

Totals 40 =10$\log_{10}$ ($10^{(38/10)} + 10^{(34/10)} + 10^{(31/10)}$) and
38 =10*$\log_{10}$ ($10^{(36/10)} + 10^{(32/10)} + 10^{(20/10)}$).

For noise generated within a building structure the following formula is used to predict the sound pressure level at each receiver point.

$$\mathbf{L_{Aeq} = (L_{Aeq,\,int} + 10 \log_{10} S - R) - 14 + D_c - \mathit{A}}$$

Where: $L_{Aeq, int}$ is the sound pressure level within the space;
S is the area of the building envelope radiating noise;
R is the sound reduction index of the building envelope component;
D_c is directivity correction; and
A is the attenuation that occurs during the propagation from source to receiver.

6.2.3 Mechanical Plant Cumulative Noise Levels

To the southeast the only relevant mechanical plant noise will be the two closest rooftop mounted coolers which are predicted to exceed the evening time noise gaol by 3 dB. Hence, mitigation will be required See section 7 below.

The cumulative noise levels to the northeast will be from the CU-01, Daikin REYQ22BYM09 heat recovery unit, the Fantech GUA454V and the two closest rooftop mounted coolers. Here, the cumulative noise levels Hence, mitigation will be required See section 7 below.

6.2.4 Car Park

The proposed car parking spaces on the site is for 50 vehicles to the northeast. Noise emissions generated by vehicle movements within the car park are based on measured noise data from previous numerous assessments of developments with car parking provisions.

Table 8 below provides the measured noise levels of intermittent and impulsive noise from typical car activities within a car park, normalised to 3 metres. Specific distances to residences and the number of cars accessing the car park are considered in this noise assessment.

TABLE 8 – SOUND PRESSURE LEVELS AT 3 METRES FOR CAR MOVEMENTS.

Source	Duration	Sound Pressure Level (dBA)		
		at 3 metres	at 3 metres	at 20 metres
		$L_{Aeq, T}$	$L_{Aeq, 15\ minute}$	$L_{Aeq, 15\ minute}$
Arrival & parking	45 secs	57	22	6
Departure	40 secs	62	27	11
Car passage	45 secs	58	23	7
Total for 10 car movements in one 15 minute period				32

Notes.
1. Arrival, parking and departure includes door closing and engine starts.

2. Car passage relates to a drive by over 20 metres.

The nearest residential façade to the car park is the dwelling at 29A Richmond Street to the northeast. This façade is located over 20 metres from nearest edge of the car parking space. Noise emissions ($L_{Aeq,\ 15\ minute}$) for 50 vehicles, taking into account distance to individual neighbouring residential boundaries are predicted to be less than 34 dBA at any time. This meets the noise goal.

6.2.5 Indoor to Outdoor Noise

The assessment is based on a maximum of 70 people using the sports hall at any one time. Noise models have been developed for the calculation of vocal levels from a group of individuals. This is based on sound pressure level data for one person at 1 metre as given by Karl Kryter in *'The Effects of Noise on Man'* Academic Press (1985). This model has been verified by on site measurements by us and covers various types of voice as shown in Tables 9 below. Public addresses systems should only be used during emergency situations.

The estimated time of each type of voice is used to predict a 15-minute average for one person. An adjustment is made for the amount of people vocal at any one time. This is typically 20% to 35% of the number of people within the hall. Hence, for the hall with a maximum of 50 people, a maximum of 25 people could be expected to be vocal at any one time. Raise speech levels would be expected with an occasional loud or shout level voice. The predicted levels at 1 metre are adjusted to provide the reverberant level within the hall, see Table 9 below.

TABLE 9 – SPORTS HALL NOISE LEVELS

Type of voice	Sound Pressure Level (dBA) at 1 metre	Estimated time spent at each type of voice (minutes in 15)	Resultant sound level (dBA) 15-minute average ($L_{Aeq,\ 15\ minute}$)
Casual	53	0	0
Normal	58	5	53
Raised	65	5	60
Loud	74	3	67
Shout	82	2	73
15-minute Average for 1 Person at 1 metre Distance			75
15-minute Average For 25 People at 1 metre Average Distance (From 75 + 10 $\log_{10}$ (25) dB)			**89**
Adjustment to Room Reverberant Level			6
Sound pressure level internally			**83**

Note 1- All levels rounded to the nearest whole decibel.

Internal $L_{Aeq, (15\text{-minute})}$ noise levels within the sport hall are predicted to be **83 dBA** from students during activities or classes. This also takes into account ball games, whistles and similar. Other room noise will be significantly lower than the sport hall noise and will be inaudible at neighboring residential premises.

The indoor noise level and intelligibility of speech within a hall is dependent upon the room acoustics, in particular the amount of acoustic absorbent materials used as opposed to 'hard' surfaces.

The proposed internal finish will present reflective surfaces in each dimension which will lower speech intelligibility and present higher noise levels generated by the activities within the hall. The assessment has been carried out based on the providing acoustic absorbent materials to the surface of the ceiling and/or walls. This will lower internal reverberant noise levels and lower the external noise levels even when windows are open. The predicted reverberation time of the hall without acoustic absorbent material added is predicted to be high. Acoustic absorbent material (at least 50 mm thick and with an average sound absorption coefficient of at least 0.85 in the frequency range 250 Hz to 4 kHz) added to walls and ceiling is recommended. Further details are available upon request. Example suppliers of suitable materials are given in Appendix B below.

The breakout from the hall, including open windows, using the equation in section 6.2 as given above, confirms noise levels not greater than **30 dBA** at distance to the residential boundaries. and compliance of the noise criteria.

7. NOISE MITIGATION AND ASSESSMENT

Acoustical calculations have confirmed that the sports hall will be compliant with all NSW Government noise criteria and policy. This is based on the following:-

- The mechanical plant should not be used at nighttime (i.e., between 10:00 pm and 7:00 am on any day;

- A detailed design with the input from an acoustical consultant is recommended for the CU-01, Daikin REYQ22BYM09 heat recovery unit. The required noise reduction can be achieved with careful design involving the use of acoustic louvers and acoustic absorbent lined ducted discharge for the exhaust air;

- A rooftop acoustic barrier is recommended for each of the two closest basketball rooftop mounted coolers to the southeast and the two to the northwest. These two acoustic barriers should be at least 1 metre larger than the coolers, have enough mass to reflect a significant amount of sound and has no holes or gaps (including at the base);

- It is recommended that the Fantech GUA454V fan is fitted with an Fantech (or equivalent) electronic speed-controller to enable the fan speed to be reduced at evening times.

- The mechanical plant should be well maintained to ensure that fan balance and/or faulty bearings (or similar) do lead to long term increase in noise levels;

- Signs should be place on, or near to, the car park areas advising users to people to minimise noise when arriving at and/or leaving the centre;

- No amplified music or public address systems should be used accepting in emergency situations.

- A community relations program should be implemented as detailed below.

Community Relations

Community relations are addressed in Australian Standard AS 2436:2010. The following is based on this Standard.

An effective community relations program is essential to keep the neighbouring residents informed. The community is likely to be more understanding and accepting of the noise where the information provided (such as special events) is forthright, does not attempt to understate the likely noise impacts and where commitments made (such as start and stop times) are firmly adhered to. It is essential for all personnel on the site to be considerate of people who live or work nearby so they are not subjected to unnecessary or excessive noise. The hall staff personnel should be aware of the need to take all necessary steps to minimise such adverse impacts on neighbouring residents. Contact details for complaints and further information, including emergency phone numbers, should be readily available to the community. Complaints should be recorded and managed in conformity with the plan to ensure a prompt and fair response.

8. CONCLUSION

Noise emissions from the proposed Multi-purpose Centre in Tumut are predicted to comply with the noise goals as given in the NSW Government Noise Policy for Industry (2017). This is providing that the noise mitigation measures given above are incorporated into the design and construction of the centre.

Date	Prepared by:	Status
29th January 2025	Ken Scannell MSc MAAS	Draft
Date	**Checked by:**	**Status**
30th January 2025	Mark Scannell BA MAAS	Draft
Date	**Issued by:**	**Status**
26th February 2025	Ken Scannell MSc MAAS	Draft
Date	**Issued by:**	**Status**
15th April 2025	Ken Scannell MSc MAAS	Draft

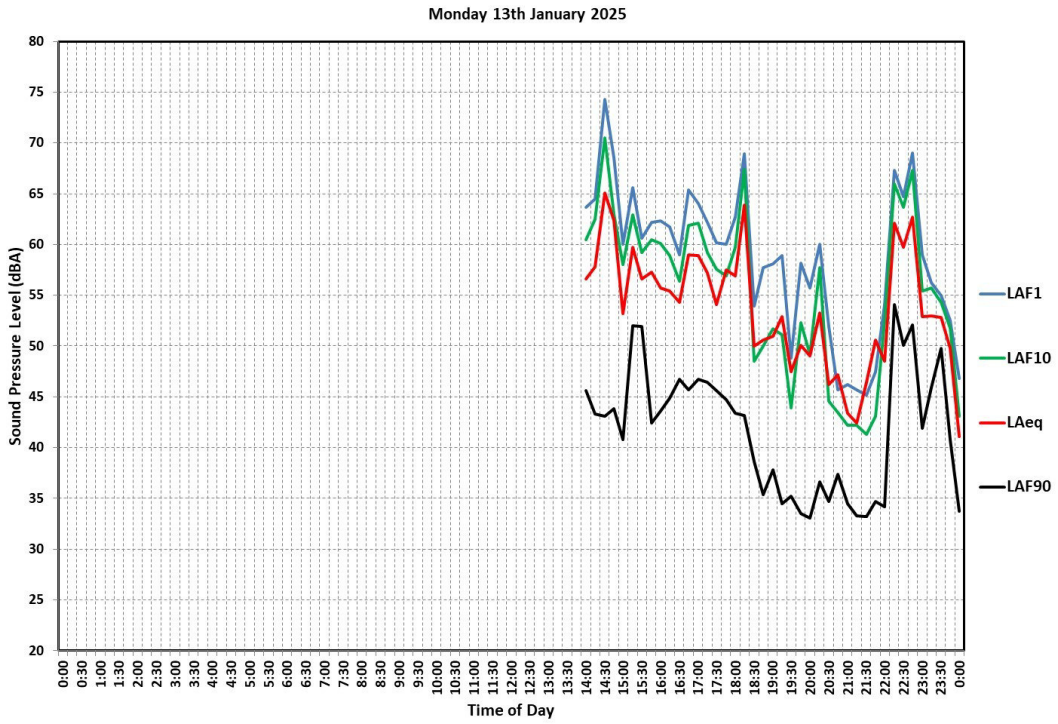
Important Note. *All products and materials suggested by 'Noise and Sound Services' are selected for their acoustical properties only. All other properties such as airflow, aesthetics, chemical, corrosion, combustion, construction details, decomposition, expansion, fire rating, grout or tile cracking, loading, shrinkage, ventilation, etc are outside of 'Noise and Sound Services' field of expertise and* ***must be*** *checked with the supplier or suitably qualified specialist before purchase.*

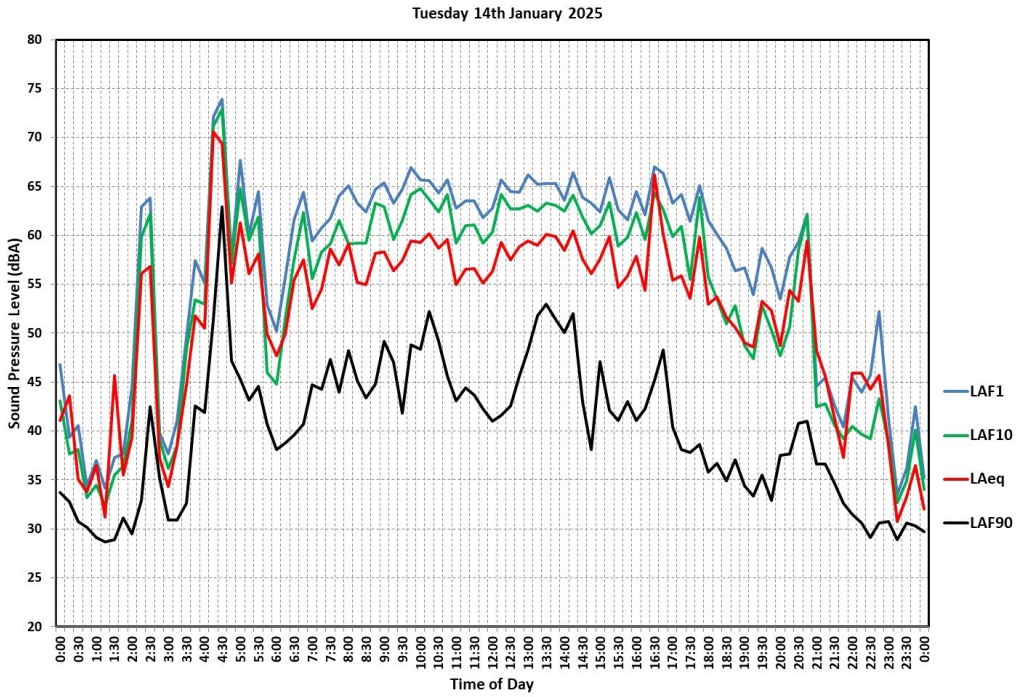
APPENDIX A – MEASURED AMBIENT NOISE LEVELS

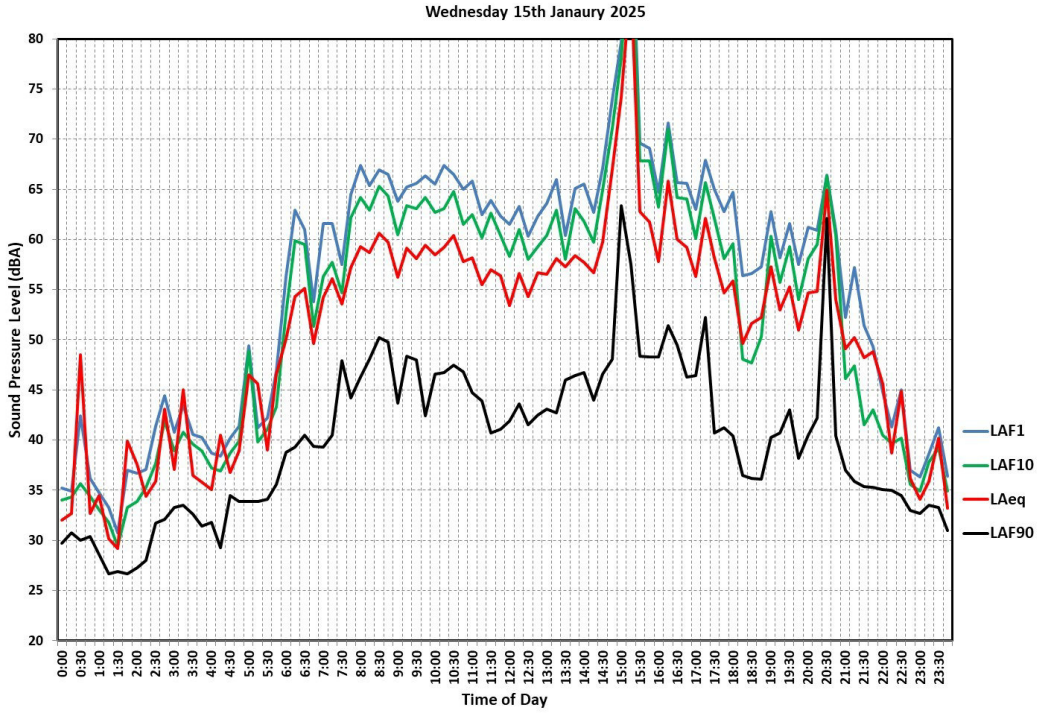
Environmental noise levels can vary considerably with time; therefore, it is not adequate to use a single number to fully describe the acoustic environment. The preferred, and now generally accepted, method of recording and presenting noise measurements is based upon a statistical approach. For example, the L_{AF10} noise level is the level exceeded for 10% of the time and is approximately the average maximum noise level. The L_{AF90} level is the noise level that is exceeded for 90% of the time and is considered to be approximately the average of the minimum noise level recorded. This level is often referred to as the "background" noise level. The L_{Aeq} level represents the average noise energy during the measurement period. This level is often referred to as the 'ambient' noise level.

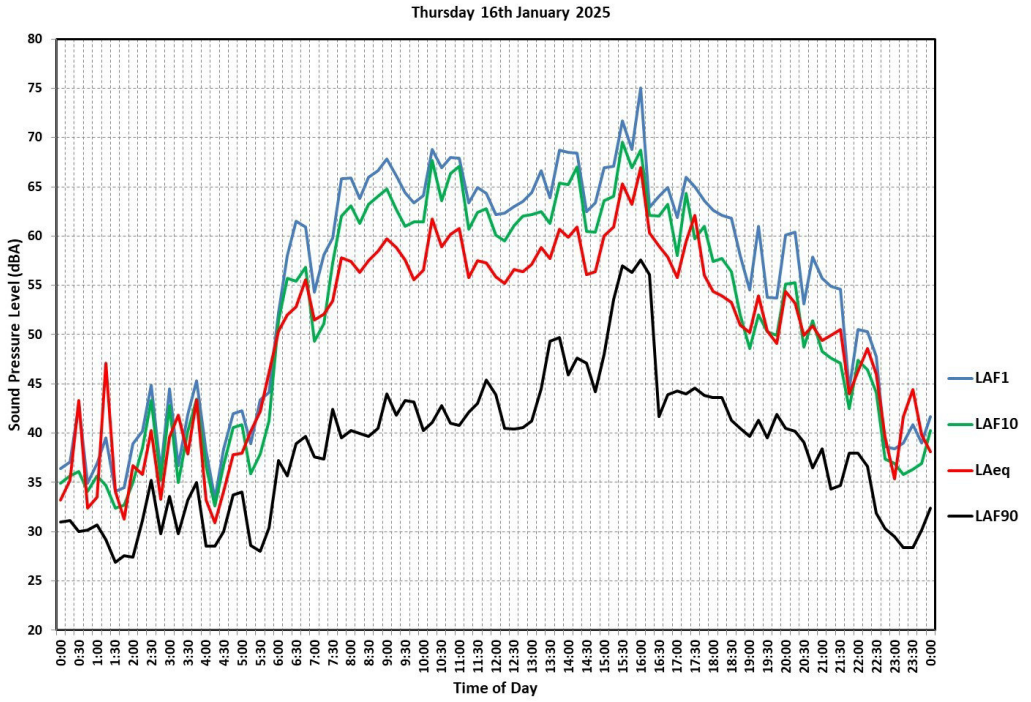
The measurement results from ambient noise monitoring are shown below.

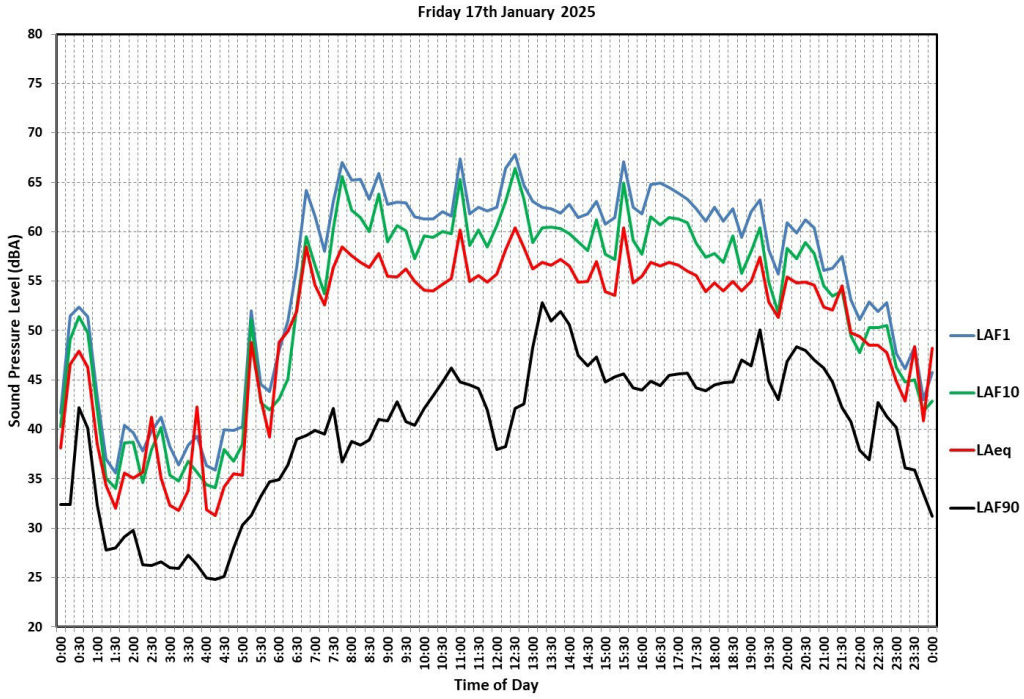
Logged Ambient Noise Levels
37 Richmond Street, Tumut, NSW2720

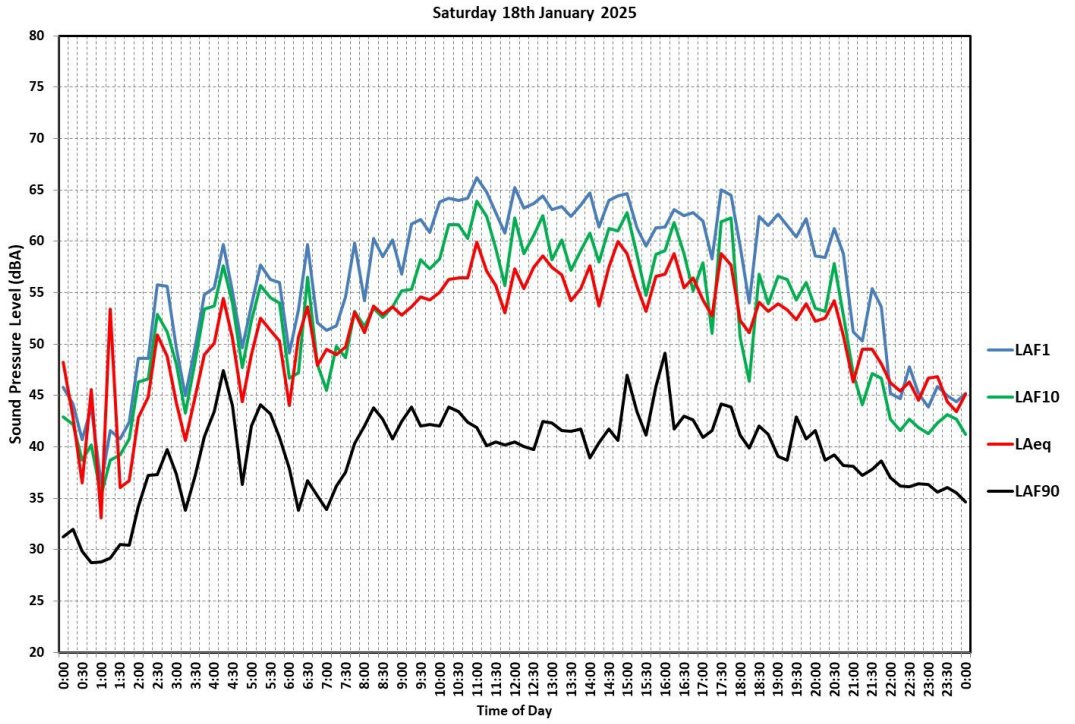


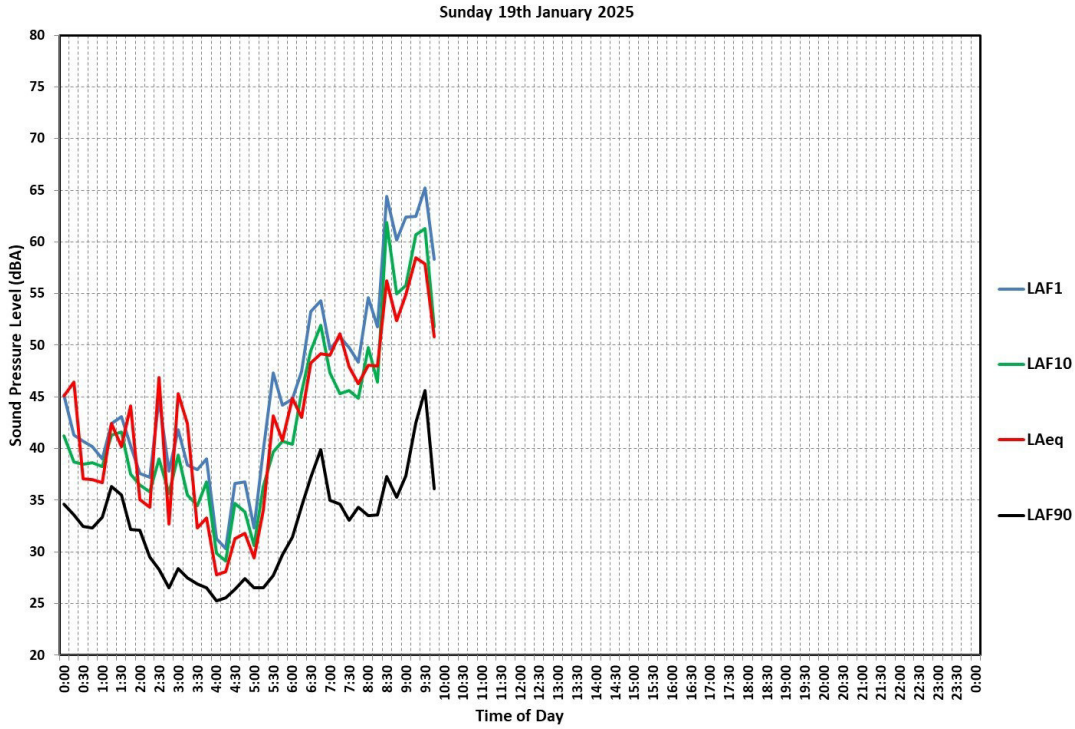

Tuesday 14th January 2025
Sound Pressure Level (dBA)
Time of Day
LAF1
LAF10
LAeq
LAF90


Wednesday 15th Janaury 2025
Sound Pressure Level (dBA)
Time of Day
LAF1
LAF10
LAeq
LAF90


Thursday 16th January 2025
Sound Pressure Level (dBA)
Time of Day
LAF1
LAF10
LAeq
LAF90


Friday 17th January 2025
Sound Pressure Level (dBA)
Time of Day
LAF1
LAF10
LAeq
LAF90


Saturday 18th January 2025
Sound Pressure Level (dBA)
Time of Day
LAF1
LAF10
LAeq
LAF90


Sunday 19th January 2025
Sound Pressure Level (dBA)
Time of Day
LAF1
LAF10
LAeq
LAF90

APPENDIX B - EXAMPLE SOUND ABSORBING MATERIAL SUPPLIERS

Autex Australia Pty Ltd
166 Bamfield Road,
PO Box 5099,
West Heidelberg, Melbourne,
VIC 3081, Australia
Tel: 03 9457 6700
Website: www.autexglobal.com/au

Recommend material Horizon™ Floating acoustic panels

Pyrotek Noise Control
147/149 Magowan Road, Girraween NSW 2145
Mobile: 0416 146 806
Tel: 1300 928 322
E-mail: bruher@pyrotek-inc.com
*Website: www.**pyrotek**nc.com*

Recommend material white 50 mm thick Sorbermel® GC or light grey Sorbermel®

Megasorber Pty Ltd
Building 1, 25 Chapman Street
Blackburn North, Vic. 3130, Australia
Mobile: 0407 088 880
Tel: 03 9077 2918
E-mail: harvey.law@megasorber.com
Website: www.megasorber.com

Recommend material white 50 mm thick Megasorber ® FM50.

Soundblock® Solutions
Rosebery NSW
Tel: 1300 881 120
E-mail: michael@soundblock.com.au
Website: www.soundblock.com.au

Recommend material white 50 mm thick Stratocell Whisper® ™ Sound Absorbing Polyethylene Foam.

APPENDIX C – GLOSSARY OF TECHNICAL TERMS

'A' Frequency Weighting – The most widely used sound level frequency filter is the A scale, which roughly corresponds to the inverse of the 40 dB (at 1 kHz) equal-loudness curve. Using this filter, the sound level meter is less sensitive to very high and, in particular, very low frequencies. Sound pressure level measurements made with this filter are commonly expressed as **dBA.**

Acoustic Barrier – A wall or fence which has enough mass to reflect a significant amount of sound and has no holes or gaps (including at the base).

Ambient Sound – The all-encompassing sound associated with that environment being a composite of sounds from many sources, near and far.

Assessment Background Level (ABL) – The tenth percentile value of the recorded L_{AF90} level for each day, evening and night period.

Background Noise Level ($L_{AF90, T}$) – A statistical parameter used for assessments of constantly varying noise levels. The L_{AF90} is the 'A' frequency weighted noise level that is exceeded for 90 % of the measurement period, 'T'. The measurement period is normally 15 minutes. The background noise is therefore the lowest noise level that occurs for 1.5 minutes in any 15 minute period.

Decibel (dB) – The logarithmic ratio of any two quantities and relates to the flow of energy (power). A scale used in acoustical measurement related to power, pressure or intensity. Expressed in dB, relative to standard reference values.

Energy Average Noise Level ($L_{Aeq, T}$) – The L_{Aeq} noise level is also known as the equivalent continuous sound pressure level. This is the 'A' frequency weighted logarithmic average of the sound energy of the measurement time 'T'. When measured over a 15 minute time period the symbol $L_{Aeq, 15\ minute}$ is used. This is the standard descriptor used for source noise measurements and ambient noise measurements.

Percentile Level (L_{90}, L_{10}, etc) – A statistical measurement giving the sound pressure level which is exceeded for the given percentile of a specified time period, e.g. L_{90} is the level which is exceeded for 90% of a measurement period.

Rating Background Level (RBL) – The median value of the tenth percentile value (ABL) for the recorded L_{AF90} levels for each day, evening and night period over the complete 7 days or more of noise monitoring. The tenth percentile is also referred to as the Assessment Background Level (ABL).

Sound Pressure Level (SPL) – 20 times the logarithm to the base 10 of the ratio of the r.m.s. sound pressure of 20 micro Pascals.

Our Reference: **PT22075**

Facility Design Group
19 The Terrace
Cambewarra NSW 2540

16 April 2025

Via email: stephen@fdg.com.au

Attention: Mr Stephen Johansson

Tumut Multipurpose Facility
Responses / Additional Information to Request for Information
DA2025/0026 –Development Application (DA) at Russell Street, Tumut

Further to the request for information prepared by The Planning Hub dated 14 April 2025 please find below and attached comments / additional information where relevant on all matters pertaining to traffic, access and parking. A copy of this request for information is provided in **Appendix A** of this response report.

For ease of reference each item is repeated below with a response following.

2.0 Unacceptable Traffic Impacts

- *While the Traffic Impact Assessment (PT22075r01 – Tumut Multipurpose Facility TIA-Final_A) provides some insights into potential traffic and parking impacts, it fails to adequately address the significant issues surrounding the 4:00 pm to 9:00 pm period, which is the time when the greatest traffic impacts are likely to occur.*

Response

As per the requirements of the Transport for NSW Guide to Traffic Impact Assessments, the traffic report assessed the expected peak traffic demands of both the road network and the proposed use concurrently to provide a conservative forecast of potential future traffic conditions. That is, the report assessed the potential traffic impact of the proposal during times of least available road capacity.

The expected demands of the site were developed on a first principles basis in consultation with Basketball NSW and Council to seek agreement on methods of use of the development.

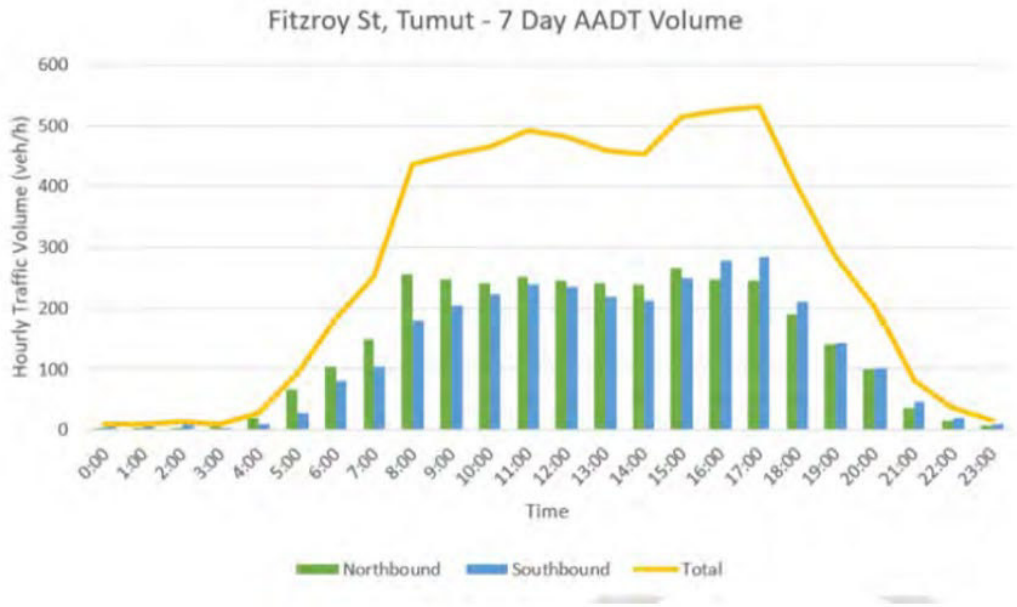
The statement there are *significant issues* between the hours of 4:00pm – 9:00pm is unverified and are not reflective of the recorded afternoon peak hour counts of the surrounding road network up to 5:00pm. That is, there are little traffic issues surrounding the site.

Whilst training demands may continue beyond 5pm with similar demands to that which were modelled when the road network was observed to have its least capacity, these training demands would occur when the road network would have even greater capacity to accommodate the potential demands of the site.

There are no observed or recorded *significant traffic issues* which currently occur around the site.

Further and as clearly stated in the traffic impact assessment report prepared, a review of the Tumut Town Centre Traffic & Parking Study[1] Fitzroy Street Hourly Traffic Volumes showed that traffic flows near the site decrease markedly after 5pm and by 7pm are half the volume of 5pm recorded traffic. This is shown again below.

Figure 3 – Tumut Town Centre Traffic & Parking Study Fitzroy Street Hourly Traffic Volumes



The above informed the appropriate times to conduct the intersection surveys to ensure periods of least road capacity were obtained. This approach ensures a robust and conservative traffic impact assessment of potential impacts.

- *The report provides analysis for the morning (7:00 am - 9:00 am) and afternoon (3:00 pm - 5:00 pm) periods, but there is a notable lack of focus on the evening period from 4:00 pm to 9:00 pm, when the greatest traffic impacts from the development are expected. During these hours, the following concerns arise:*

Response

See above comments on methodologies and historical assessments which informed the agreed survey periods of existing traffic demands.

[1] Tumut Town Centre Traffic & Parking Study - Cardno Consulting (now Stantec Australia Pty Ltd) dated December 2022

- *Increased Traffic from Events: The proposed development will generate significant additional traffic during evening events, such as basketball games and training sessions. While the report estimates around 27 vehicle trips per hour, it overlooks the impacts on quite residential area.*

Response

The comment above is unclear. It refers to weekday traffic / games as 'events' and not larger events which may occur periodically at the centre. Weekday training and games are considered operational demands whereas 'events' are typically larger in scale, subject to specific plans of management and of which their occurrence is sporadic in nature.

The TIA report, in consultation with Basketball NSW, provides a clear assessment of potential traffic of all operational games and training which would typically occur at the venue. Further, the approach of the report conservatively loads the road network during its period of *least* capacity on a weekday afternoon. As stated above, operational training demands may continue to later evening hours but do so when road capacity would be even greater.

The TIA report confirms that traffic volumes in surveyed streets surrounding the development site are well within the environmental capacity of each street with intersections *all* operating at Level of Service A. There are no significant traffic issues surrounding the site during periods of least road capacity. See below:

Table 3 – Existing Weekday Peak Intersection Operating Conditions

		Morning Peak		Evening Peak	
Intersection	Control	Av Delay	LOS	Av Delay	LOS
Richmond St / Simpson St	Priority	6.1	A	6.2	A
Richmond St / Capper St	Priority	7.3	A	7.5	A
Richmond St / Russell St	Priority	6.0	A	5.9	A
Richmond St / Snowy Valleys Hwy	Priority	7.6	A	7.2	A
Capper St / Robertson St	Priority	7.1	A	6.9	A
Robertson St / Clunie Ave	Priority	5.5	A	5.8	A
Robertson St / Russell St	Priority	5.5	A	5.9	A

Avg Delay (sec/veh) is over all movements at signals, and for worst movement at priority and roundabouts

The TIA report includes an assessment of potential sporting events which may occur at the venue which would require appropriate plans of management in place. Often these plans of management for such events are considered by Council's Local Traffic Committee and approved on a case by case basis. Appropriate development should include infrastructure provision which caters for 'operational demands' of a development and not infrequent larger events. As a comparative example, traffic / parking provisions of shopping centres should accommodate operational demands and not seek to accommodate Christmas trading demands where it is acknowledged that overflow demands may occur in a managed fashion.

As with the cited carols in the park event, infrequent larger events are managed by plans of management which would be expected to form a condition of consent for the development.

- *Increased Traffic from the Bowling Club: Between 4:00 pm and 9:00 pm, traffic will also increase due to the bowling club in the area, which experiences its own peak parking needs/traffic during these hours. The combined effect of the development's traffic and the bowling club's traffic will exacerbate congestion on local streets such as Richmond Street and Russell Street, making it difficult for local residents to navigate their own neighbourhoods.*

Response

The statement that there are existing congestion issues on local streets such as Richmond Street and Russell Street is unsubstantiated and is not based on any data, studies or evidence to support this statement.

The traffic data collected as part of the TIA report clearly shows the surrounding road network during peak weekday periods in the morning and afternoon is not subject to congestion with traffic generally free flowing on surrounding streets and *all* intersections surrounding the site operating at Level of Service A.

Regarding the bowling club traffic generation, this existing club generated traffic during hours surveyed was captured in the intersection counts undertaken. The benefit of such a facility located across from the site in Russell Street is the increased potential for 'linked trips' to occur where both developments are visited by a single generated vehicle trip.

That is, parents of children walk to or from the bowling club before / after training and games without the use of their vehicle or need for a further parking space.

- *Inadequate Parking for Events: While the study mentions 50 parking spaces for the development, it fails to account for the overflow parking that will spill onto local streets, particularly during evening events. This will result in significant strain on the existing parking particularly on streets where residents rely on on-street parking.*

Response

All dwellings which front both Richmond Street, Russell Street, Robertson Street and Clunie Avenue include off street car parking for one or more vehicles. On street parking demands surrounding the site were observed to be extremely low and operational parking demands of the proposal would be fully accommodated in the 50 space car park proposed as confirmed in the first principles parking assessment undertaken through consultation with Basketball NSW and Snowy Valleys Council.

As cited in the TIA report, the Tumut Town Centre Traffic & Parking Study included a record of parking demands in Richmond Street across the frontage of the site as shown below in Figure 3-27 of the report.

Figure 3-27 On-Street Parking Restrictions (Unrestricted and Timed Parking Zones)

The report found that total parking demands in the study are including Richmond Street where well below available capacity for a weekday and were lower on a weekend day as shown below in Figure 4-16 and Figure 4-17 of the report.

Figure 4-16 Typical Weekday Parking Demand

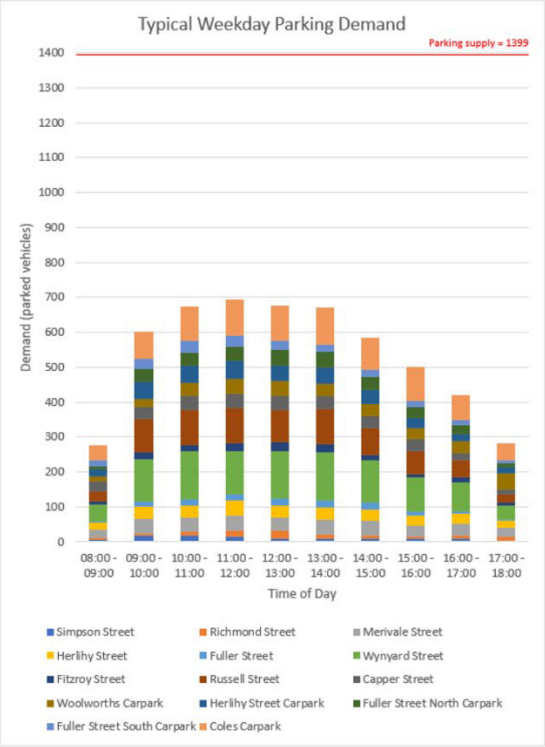
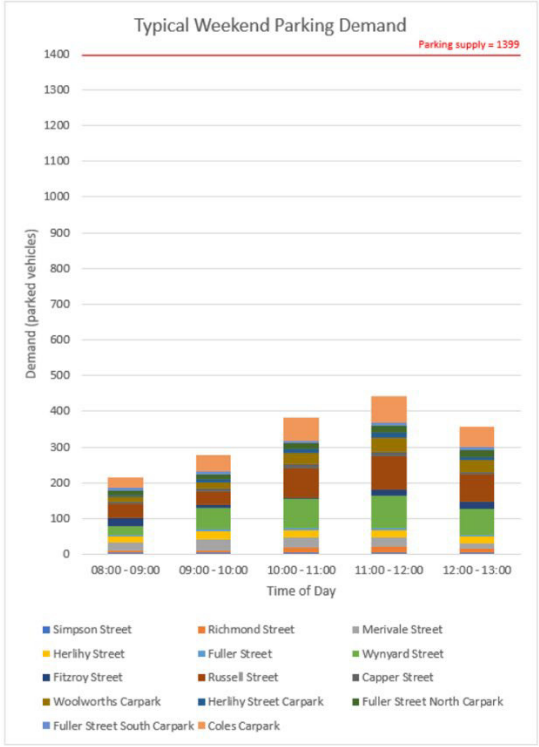


Figure 4-17 Typical Weekend Parking Demand



For Richmond Street, the report found the following parking demands versus total provision:

Table 4-3 Weekday Parking Occupancy (Fri 18 Feb 2022)

	Capacity	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00
Simpson Street											
No restriction	80	6%	21%	20%	19%	13%	10%	13%	10%	11%	5%
Bus Zone	11	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Street Total	***91***	***5%***	***19%***	***18%***	***16%***	***11%***	***9%***	***11%***	***9%***	***10%***	***4%***
Richmond Street											
No restriction	134	4%	4%	9%	12%	16%	10%	6%	5%	6%	7%
Street Total	***134***	***4%***	***4%***	***9%***	***12%***	***16%***	***10%***	***6%***	***5%***	***6%***	***7%***

Table 4-4 Weekend Parking Occupancy (Sat 19 Feb 2022)

	Capacity	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00
Simpson Street						
No restriction	80	6%	5%	5%	4%	5%
Bus Zone	11	0%	0%	0%	0%	0%
Street Total	***91***	***5%***	***4%***	***4%***	***3%***	***4%***
Richmond Street						
No restriction	134	3%	4%	10%	13%	9%
Street Total	***134***	***3%***	***4%***	***10%***	***13%***	***9%***

Parking demands in Richmond Street peaked at only 12% of total provision between 8:00am – 6:00pm on a weekday. Parking demands were only 3% of total provision between 8:00am - 1:00pm on a weekend day.

The surrounding road network includes significant spare parking capacity to accommodate potential overflow demands of large events which may occur periodically at the venue.

- *Impact on Local Residents: Currently, residents living on Robertson and Clunie Avenue experience very little traffic, with the majority of vehicles being those of local residents. This is a quiet area with minimal disruption from external traffic. The proposed development, however, will change this dynamic drastically, causing significant negative impacts during the 4:00 pm to 9:00 pm period, when both local residents and event traffic will peak. This change would not only increase traffic but also negatively impact the quality of life for all residents living in the area.*

Response

Of note, the above comment in is contrast to the previous statement that there are traffic congestion issues surrounding the development site of concern.

It is appreciated that current traffic volumes in streets including Robertson Street and Clunie Avenue are low during weekday peak periods. It is also noted that during most hours of a weekday, there would be little to no traffic generated by the proposal unlike other permissible developments at the site.

The design of the site has intentionally located the driveway access in Russell Street opposite a commercial development to minimise the impacts on surrounding residents.

Whilst the site will generate traffic on a weekday traffic generation would be relatively low in concentration with patrons provided a grid road network to travel to / from the site to avoid low order residential streets such as Clunie Avenue. It is observed that the previous use at the site, a bowling club, likely generated traffic during similar periods at a similar scale.

Overall, the traffic impacts of the proposal are considered acceptable by measured standards.

- *The quiet, residential nature of Robertson and Clunie Avenue will be significantly disrupted by the influx of external traffic. The development would lead to a permanent change in the character of the area, affecting the peace and privacy that residents currently enjoy.*

Response

See above comment.

Further, the site in its hard copy an electronic advertising information to patrons / visitors could promote Richmond Street and Russell Street as the preferred routes to / from the site to further reduce potential traffic using Robertson Street and Clunie Avenue.

- *Inadequate Carpark Functionality During Emergencies: The design of the car park itself lacks functionality, particularly in the event of an emergency evacuation. The development features only one driveway for vehicle access to the car park. This single entry/exit point is highly problematic, as it would severely restrict the flow of both light and heavy vehicles, such as emergency vehicles and ambulance access, during critical evacuation scenarios. In emergency situations, such as bushfires, floods, or other natural disasters, it is crucial that multiple access points are available to allow for the safe and efficient movement of emergency vehicles and to accommodate large volumes of people and vehicles. The current design does not meet these necessary requirements and raises significant concerns about the ability of the facility to operate effectively as an emergency evacuation centre.*

Response

The TIA report confirmed that the design of both the car park and access arrangements fully comply with the minimum requirements of the Australian Standard. Further, this includes both light vehicle access and service vehicle access.

As stated above, the access driveway has been located in Russell Street to minimise potential impacts on surrounding lower order residential streets and avoid headlight spillage into dwelling windows.

During emergencies or the need for an ambulance to access the site, typically venues such as the one proposed, include both plans of management to facilitate ingress / egress is a quick and efficient manner. Further, staff / volunteers involved in sport take it upon themselves to advise patrons and drivers in the car park of an incoming ambulance to minimise disruption to gain access to the development.

The Australian Standard for Off Street Car Parking Facilities provides recommendations for both the width and number of access driveways which should be provided to serve a range of development types including the one proposed as a sporting facility. These recommended width and number of driveways considers both the type of development and its turnover along with the number of parking spaces served and the road frontage street type.

For the proposed development, AS2890.1 would classify the venue as a User Class 2. For a local road frontage serving a 50 space on site car park, AS2890.1 recommends a driveway minimum width of 6.0 – 9.0m with combined entry / exit lanes as shown below:

TABLE 3.1

SELECTION OF ACCESS FACILITY CATEGORY

Class of parking facility (see Table 1.1)	Frontage road type	Access facility category				
		Number of parking spaces (Note 1)				
		<25	25 to 100	101 to 300	301 to 600	>600
1,1A	Arterial	1	2	3	4	5
	Local	1	1	2	3	4
2	Arterial	2	2	3	4	5
	Local	1	2	3	4	4
3,3A	Arterial	2	3	4	4	5
	Local	1	2	3	4	4

NOTES:

1 When a car park has multiple access points, each access should be designed for the number of parking spaces effectively served by that access.

2 This Table does not imply that certain types of development are necessarily suitable for location on any particular frontage road type. In particular, access to arterial roads should be limited as far as practicable, and in some circumstances it may be preferable to allow left-turn-only movements into and out of the access driveway.

TABLE 3.2

ACCESS DRIVEWAY WIDTHS

metres

Category	Entry width	Exit width	Separation of driveways
1	3.0 to 5.5	(Combined) (see Note)	N/A
2	6.0 to 9.0	(Combined) (see Note)	N/A
3	6.0	4.0 to 6.0	1 to 3
4	6.0 to 8.0	6.0 to 8.0	1 to 3
5	To be provided as an intersection, not an access driveway, see Clause 3.1.1.		

NOTE: Driveways are normally combined, but if separate, both entry and exit widths should be 3.0 m min.

As confirmed in the TIA report, the proposed access driveway complies with the minimum requirements of AS2890.1 and is considered satisfactory.

- *Safety Concerns at the Russell/Richmond Streets Intersection There has been no assessment of the impact of the existing give-way signs at the Russell/Richmond Streets intersection and how they will affect the flow of traffic into and out of the proposed facility. This is a major concern, as these intersections already experience congestion and delays during peak periods. The addition of traffic from the development will likely exacerbate these issues, causing further strain on the local road network.*

Response

The above statement is contested.

The TIA report examines both the existing and future intersection operating conditions under the current Give Way priority arrangements for the intersection of Richmond Street and Russell Street. The modelling of both existing and future conditions confirm that the intersection would continue to operate at Level of Service A with little delay.

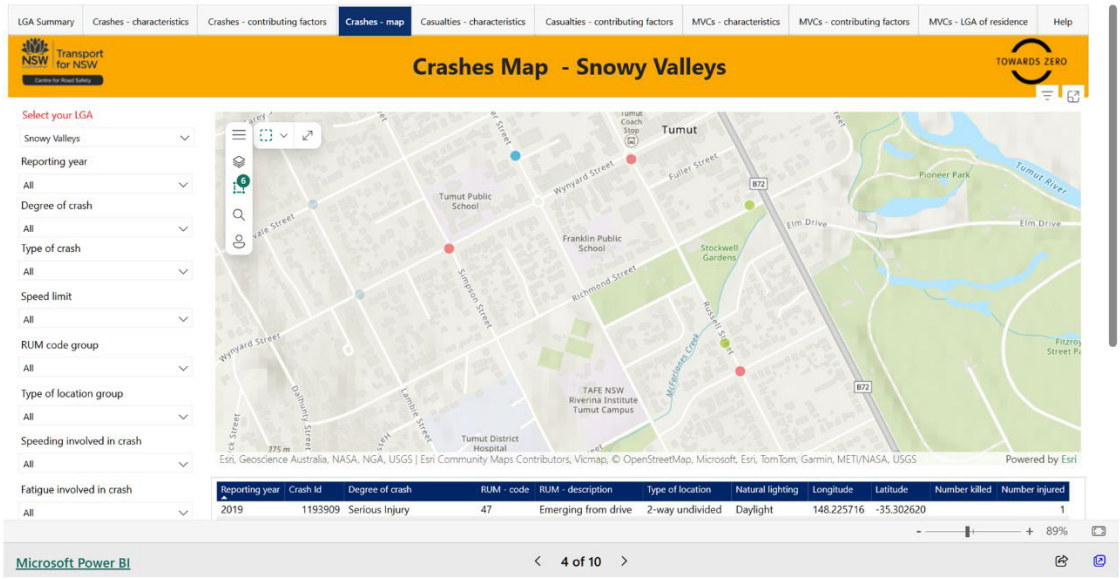
- *Additionally, there are serious line of sight issues at these intersections, which are currently dangerous for drivers and pedestrians. The visibility at these key points is compromised, and it is unclear how the proposed development plans to address these safety concerns. The lack of any proposed solutions to the inadequacy of the development's traffic management plans and raises significant safety issues that have yet to be addressed.*

Response

Sight distance issues at existing intersections are generally matters for the Local Traffic Committee of Council. Observations during site inspections at different time periods of surrounding intersections did not note any specific issues with lack of sight distance availability at intersections surveyed.

The Transport for NSW Crash Statistics show that *no* accidents have occurred since 2019 at any intersection surveyed as part of the TIA report with the closest accident occurring in Richmond Street near Snowy Mountains Highway in 2019. Two (2) further accidents have occurred in Russell Street south of the site near Howick Street as shown below:

LGA view - crashes map



As with all matters pertaining to local streets raised during exhibitions of proposals, this information has been passed onto Council's traffic engineer for further consideration through the Local Traffic Committee..

- *Inconsiderate and Impractical Bus Stop Location The location of the bus stop on Richmond Street, directly outside the funeral director's home, is inconsiderate and impractical. The placement of the bus stop in this location obstructs the flow of traffic, as buses are unable to turn onto Capper Street from Richmond Street due to the pedestrian refuge islands that are present at the intersection. These islands are there for safety reasons, but their presence significantly hinders buses from safely and efficiently accessing Capper Street. This design flaw will cause delays and potential safety hazards for both buses and other vehicles on Richmond Street, which already experiences traffic congestion.*

Response

The development does not propose any changes to existing bus stop or bus route arrangements as these are matters for Transport for NSW to consider.

The above issue raised has been passed onto Council's traffic engineer for further consideration through the Local Traffic Committee.

Please do not hesitate to contact myself on 0414 462247 should you require any additional information.

Yours sincerely

DEAN BRODIE
Managing Director
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APPENDIX A – REQUEST FOR INFORMATION LETTER DATED 14 APRIL 2025 – THE PLANNING HUB