

16<sup>th</sup> August 2012

Chantel Walker  
5 Shamrock Street  
Hexham NSW 2322

**Attention:**

Director, Infrastructure Projects  
Major Projects Assessment  
Department of Planning and Infrastructure  
Application Reference Number: SS1 - 4992  
Hexham Relief Roads

**RE: Hexham Relief Roads**

I am a resident of 5 Shamrock Street Hexham NSW and I strongly object to the Hexham Relief Roads Project.

I have read the EIS issued August 2012. My comments and concerns are listed below, in which I request further clarification and response on:

1. There is no mention of Shamrock Street, Hexham in the current EIS but, at the community forum held by UHVA at Hexham Bowling Club in March 2012 Shamrock Street, Hexham was an option for access to the Rail Corridor. If Shamrock Street, Hexham is going to be an access point to the Rail Corridor, I believe, noise, vibration and dust assessments need to be carried out in this street.

I am more than happy to have noise, vibration and dust monitors placed on my property to ensure that a more comprehensive assessment is undertaken of the potential impacts for the proposal of using Shamrock Street as an option for access to the rail corridor and further, the impacts in which the Hexham Relief Roads Project will have on the community.

2. Within the Parsons Brinckerhoff *Noise and Vibrations Assessment dated 4<sup>th</sup> July 2012, Rev D*, it states that the only receiver out of those placed within the Hexham community, that is affected by IGANRIP is the Church located on Old Maitland Road, which is located on the

other side of the Highway and there is approx. 20 residents (including commercial) between it and the Rail line. The concerns I have surrounding this are:

- How and why are the predicted day time and night time noise and vibration levels decreasing in residences located at those monitored such as Clarke Street, Merchant Street and Fenwick Street, if the amount of coal trains passing through Hexham is increasing, and the number of train lines are increasing. Theoretically this would mean an increase in the noise, vibration and dust levels.
  - My residence is located one (1) Street South of Fenwick Street, yet it is not included on any monitoring models or project documentation, why is this?
3. I don't believe that the Hexham Relief Road Project has adequately addressed the cumulative impact of the QR National Transport Support Facility. Again, Shamrock Street is not listed as a sensitive receiver and no investigations to date have been undertaken within my property's vicinity. Why is this?
4. Referring to Newcastle Herald's Great Cover Up Campaign to eliminate dust emissions from Coal Wagons, I agree and am in great support that the Federal Government should withhold future funding of the Hunter Valley Rail Corridor until coal trains are covered.

The air quality from diesel fumes, especially given the numbers of trains in **2024**, is of great concern to me and my family.

5. If the project is to receive approval, given the close proximity of my residence to the project, the following conditions need to be put in place to protect the health and wellbeing of myself, my family and my property from the impact of this project:
- 5.1 The offer of Alternative Accommodation during construction works outside of approved construction hours, i.e. after 6pm during the week and after 1pm on weekends.**

## **5.2 Construction of a Deflection Wall along the residential suburb of Hexham for protection against derailment.**

Main considerations I would like addressed and considered when designing any proposed deflection wall/noise barrier (all other things being equal):

- *The closer the deflection wall/noise barrier is to the noise source, the more effective the barrier*
- *The taller the barrier, the greater the noise reduction*
- *Barriers are more effective when the site slopes away from the source*
- *The wider the barrier, the more effective - barriers should ideally extend far beyond the edges of the development*
- *Any holes or discontinuities in a barrier wall will significantly reduce its noise reduction ability.*
- *Material used in the barrier must have a surface density of at least 20kg/m<sup>2</sup>*

## **5.3 Installation of Double Glazed Windows and Double Glazed Doors with correctly fitted seals at my property.**

The main factors influencing the acoustic performance of windows that should be addressed:

- *Window seals: ensure windows are fitted with high quality acoustic seals and close windows to reduce internal noises levels.*
- *Reduce window size, recognising that reducing the proportion of window to wall size from 50% to 25% reduces noise by only 3 decibels.*
- *Increase the glass thickness: the thicker the glass the more noise resistance it provides.*
- *When using double-glazing, the wider the air space between the panes the higher the insulation.*

- *The presence of absorbent materials on the window reveals will improve noise insulation.*
- *Window frames and their installation in wall openings must be air tight and openable windows must incorporate acoustic seals for optimal noise insulation.*

*The main factors influencing the acoustic performance of doors which should be addressed:*

- *Airtight seals should be used around the perimeter of the door.*
- *The heavier (thicker or more dense) the door, the better the noise insulation.*
- *Ensure an airtight seal between the frame and the opening aperture in the building.*

**If there is installation of non-opening double glazed windows at my property then installation of mechanical ventilation will need to be provided.**

Installation of Double Glazed Windows and Double Glazed Doors will mitigate:

- **Sleep Disturbance:**  
*Adverse levels of noise, whether the source is road or rail, rarely causes damage to hearing, but rather has psychological and physiological effects such as fatigue due to sleep deprivation. Although the research into the effects of noise on sleep is limited with varying results, it is generally considered that noise may interfere with sleep in a number of ways:*
  - *awakening – it can cause a person to awaken repeatedly, resulting in poor sleep quality as well as other impacts*
  - *alter sleep pattern – noise may cause sleep to change from heavier to lighter sleep*
  - *Reduce the percentage and total time in rapid eye movement (REM) sleep*
  - *affect slow wave sleep*
  - *increase body movement*
  - *change cardio vascular responses*

*These changes can affect mood and performance the next day and may have longer term effects. This is particularly the case for sensitive groups such as young children where it can decrease their ability to learn and can impact on long-term health. The effects of high levels of noise on child cognition can include:*

- *reduced attention span;*
  - *difficulties in concentrating;*
  - *poorer discrimination and perception of speech;*
  - *poorer memory of complex spoken information; and*
  - *Poorer reading ability and school performance.*
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- Reduce dust entering inside my home
  - Eliminate allergies
  - Reduce the risk of Asthma and future health issues

6.0 I have previously requested upon 2 occasions, further information regarding biodiversity offset strategy and acquisition proposals for the project, to date; I am yet to receive a response on the matter and am still seeking this clarification/Information.

Thank you for taking the time to review my submission regarding the concerns I have for myself, my family, our residence and the greater Hexham community.

I look forward to receiving your response in due course, on the items I have raised.

Yours Faithfully,



Chantel Walker