

# Sydney Metro City & Southwest Chatswood to Sydenham section State Significant Infrastructure Application SSI 15\_7400

## **1 APPLICATION NAME**

Sydney Metro City & Southwest - Chatswood to Sydenham

## **2 APPLICATION NUMBER**

SSI 15\_7400

## **3 SUBMISSION BY;**

Campbell Balzer as Chairman and as instructed to act on behalf of the Executive Committee of Strata Plan SP56520 of 1-3 Gordon Avenue Chatswood, consisting of 12 units.

Chairman's Address: Unit 9 / 1-3 Gordon Avenue Chatswood.

## **4 OBJECTION SUMMARY**

We object to Sydney Metro Project specifically in respect of construction of the Chatswood Metro tunnel dive site and heavy rail works immediately adjacent to our block of 12 units at 1-3 Gordon Avenue, due to the lengthy excessive noise and vibration during construction and also excessive noise and vibration at our homes during operation of the rail networks on completion.

The EIS plans for dealing with construction noise have significant "opt out" clauses which permit major breaches without any penalty to the Contractor on the grounds of "unavoidable events or work" and "impractical to mitigate or avoid". Our review of the complaints reports for the Norwest Metro project reveal this excuse is used in almost every instance of breach, and that the mitigations are trivial or too late. The frequent response has been an offer of ear plugs or noise cancelling headphones, which is a disgusting affront to the affected residents. The offers of noise monitoring come AFTER the event and far too late to be of any benefit.

Similarly, the entire operational noise performance and criteria is referenced to the "Rail Infrastructure Noise Guideline (EPA, 2013)" which is a VOLUNTARY GUIDELINE, not mandatory. It

also contains multiple exclusions / excuses to exceed noise and vibration levels without action or penalty. This was quoted to us, the residents, by the operators and project management after the Chatswood to Epping project which caused frequent and intolerable excessive operational noise and vibration at 1-3 Gordon Avenue.

Our preferred and recommended outcome is an immediate acquisition of the properties at 1-3 Gordon Avenue.

The alternatives are equally expensive, equally painful for everyone and very time consuming.

## **5 SPECIFIC REASONS FOR OBJECTION**

### **5.1 EXCESSIVE RAIL OPERATIONAL NOISE AND VIBRATION - EXISTING**

High levels of Train Noise of can be heard and vibration felt at 1-3 Gordon Avenue from the current railway, and is frequently intrusive and interrupts sleep of the residents. The noise is both direct and also regenerated ground borne noise.

The northbound rail line was already moved 3m closer to the unit block during the Chatswood to Epping rail project. At various times since that work many complaints have been lodged, but with little or no useful action by the operators. It is only in the last twelve months that there has been some improvement in the noise and vibration, for reasons unknown, and unpredictably. We cannot rely on this improvement based upon bitter past experience.

The existing high levels also create an excuse for the operators to base the new operational noise limits higher than otherwise defined as acceptable, based upon on the already intolerable high levels being pre-existing.

The proponent has not even bothered to carry out site specific measurements at 1-3 Gordon Avenue during the EIS, despite specific issues raised in their own report, and strong objections from the residents in correspondence and at site meetings during the EIS phase.

### **5.2 EXCESSIVE RAIL OPERATIONAL NOISE AND VIBRATION - POST COMPLETION**

It is proposed to move the northbound heavy rail line closer to 1-3 Gordon Avenue by another three meters, and elevate it by 2m on a bridge structure which will make the noise at our units much worse. This is on top of the existing 3m closer relocation carried out under the Chatswood to Epping project in 2006.

1-3 Gordon Avenue is specifically mentioned in the EIS as an address that will remain affected excessively by operational noise after completion of the work. It further states that it is impractical to create an adequate noise barrier.

There is an inadequate and incomplete reference to “at site mitigation”, which implies someone may attempt to make some token sound proofing at the building, but not until after operation commences, and on an “ad hoc” basis. It is unclear who will be responsible, and police the process. As stated earlier, the EPA Railway Noise document is only a non-compulsory and unenforceable “guideline”. The operators may deem the situation is satisfactory or beyond their own definition of “reasonable” control.

1. The very close proximity of the works, the ground structure and our building basement and stairwell arrangement will result in vibration being amplified within our premises to excessive levels.
2. The realignment of the existing T1 northbound rail line to the temporary route requires heavy machinery and excavation work after hours with multiple rail corridor closure events that will cause severe disruption and noise fatigue effect to the life of all residents.
3. T1 northbound track is closer to Gordon Avenue unit block increasing the noise and vibration impact.
4. New Metro tracks will carry more traffic than the existing T1 tracks did. This volume is in addition to the T1 track traffic which will remain.
5. The T1 northbound track is raised in height due to being routed over the dive structure. However, in addition to this the dive structure itself finishes at Nelson Street which requires the T1 northbound track to be supported by a concrete bridge structure. This structure will generate significantly more noise than a closed structure and will also allow rail noise from the Metro tracks to pass through to the Gordon Avenue unit block.
6. For upper level units, the elevated T1 northbound trains and additional Metro trains will be noisier.
7. Ground vibration is a major concern with the increased volume of rail traffic on the T1 plus Metro lines. This vibration can potentially be amplified through the basement area of 1-3 Gordon Avenue.
8. All units feature large outdoor areas of open balcony or patio, making up typically ~25% of the nett liveable / rental space. The increase in train operational noise will make these areas useless and worthless as the sound levels will be far above tolerable levels for even casual use.

In the first instance we insist that our block of units is resumed by the Government under a negotiated acquisition. The whole property and some 40-50 residents will be removed from the project objects, and the project may proceed without interruption.

The specific reference to our properties is shown below;

Chapter 11 – Operational noise and vibration

OUR BUILDING IS SPECIFICALLY IDENTIFIED AS SUFFERING EXCESSIVE NOISE. THIS DOES NOT MENTION THE EXCESSIVE VIBRATION THAT IS ALSO ALMOST CERTAIN.

UNIT 9 IS OWNER OCCUPIED AND RUNS A PROFESSIONAL CONSULTING PRACTICE FROM A HOME OFFICE. THUS THEIR BUSINESS AND LIFE WILL BE SEVERELY AFFECTED BY THE WORKS ON A 24 HOUR BASIS, MAKING IT UNACCEPTABLE.

The results indicate that noise levels at residential receivers without the project are generally already close to, or exceeding, the overall noise criteria levels.

Comparing the 'with project' and 'without project' noise levels indicates that there is generally no change in noise levels from the project, primarily due to the measures incorporated into the design to minimise operational airborne noise impacts.

From the results it can be seen that there remains a predicted exceedance of the noise trigger levels at one residential receiver building (at address 1-3 Gordon Avenue, Chatswood) on the western side of the rail line. This residential receiver is a multi-storey apartment building and would consist of several dwellings. The upper floors of this receiver would have an unobstructed view of the rail tracks over the noise barrier, even with the proposed increase in barrier height. To break line of sight at the triggered receivers on the upper floor of this building would require a noise barrier in excess of six metres high. Noise barriers of this height are unlikely to be considered reasonable and may not be feasible, particularly since the barrier would need to be located in close proximity to the building facade. Based on the outcomes of noise modelling during detailed design, this property would be considered for at property treatment.

### 5.3 EXCESSIVE CONSTRUCTION NOISE AND VIBRATION AT 1-3 GORDON AVENUE

The extensive and heavy construction the works associated with the tunnel dive site and existing rail realignment will generate excessive noise, vibration and dust at 1-3 Gordon Avenue that cannot be mitigated adequately because the rail line is too close to the block, and the upper floor units immediately overlook the works and cannot be screened visually or acoustically;

1. The very close proximity of the works, the ground structure and our building basement and stairwell arrangement will result in vibration being amplified within our premises to excessive levels.
2. The realignment of the existing T1 northbound rail line to the temporary route requires heavy machinery and excavation work after hours with multiple rail corridor closure events that will cause severe disruption and noise fatigue effect to the life of all residents.
3. The construction of the bridge to accommodate the new T1 northbound track over the new dive structure requires major rock excavation and piling works immediately adjacent to 1-3 Gordon Avenue, with probable excessive noise and even structural damage.
4. Construction vehicles and material will continuously be moving in the track area adjacent to the 1-3 Gordon Avenue unit block. This construction traffic will occur when preparing the site for the new dive structure, bridge and track foundations for the new t1 northbound location.

5. There is the potential for noise and vibration from existing rail traffic to increase due to the temporary nature of the relocated main northern line.
6. While a noise barrier is planned for the Nelson St construction site, no such noise barrier is proposed between the Gordon Avenue unit block and the excavation area during the excavation work required for the T1 northbound bridge, dive structure and tunnel. This noise barrier is required during the construction of the bridge over the dive structure for T1 northbound. In addition, a noise barrier is required during the building of new Metro tracks.
7. Potential 24x7 work during the construction phase of this project will severely adversely impact residence during and after work hours. There are significant after hours large earth works, demolition, piling and track work proposed in the proximity of 1-3 Gordon Avenue unit block.

#### **5.4 BUSINESS INTERRUPTION DUE TO CONSTRUCTION & OPERATIONAL NOISE**

Some residence of 1-3 Gordon Avenue operate home business or work night shift work, requiring sleep, during the hours of 7am – 8 pm, the project will result in having a disruptive and high impact noise level unacceptably high for a work or daytime sleep environment. They will be forced to relocate at great personal expense. The adverse effects on these residents must be mitigated for this imposition by the project, by temporary or permanent relocation. Loss of income and rent must also be compensated for.

#### **5.5 TRAFFIC PROBLEMS FOR GORDON AVENUE RESIDENTS**

The loss of the Nelson Street direct access to Chatswood is a major transport problem for the residents of Gordon Avenue, and hundreds of all other residents between Albert Avenue and Nelson St. We currently have direct easy road access to our local Chatswood retail, business, schools and community without traffic lights, without having to further congest the Pacific Highway and Mowbray Road, or Orchard Road intersections.

The Mowbray Road - southbound Pacific Highway intersection is already extremely congested at all times of the day, and particularly in morning and afternoon times. The location of the construction site entrances in Nelson Road and Mowbray Road mean that there will be continuous major truck “movements” through this intersection aggravating the situation to an unacceptable level. Trucks will invariably block this lane and make it nearly impossible for us to enter the Pacific Highway.

Residents in Gordon Avenue will experience increased difficulty when joining onto Pacific Highway. Already there is major gridlock caused by cars blocking the exit from Gordon Avenue. Once truck start using the left lane to enter the Nelson Street site, causing increased congestion this problem will become much worse.

On completion the traffic problems will remain with increased travel time and pollution.

As a minimum mitigation we require that a DEDICATED LEFT TURN ONLY lane is established at the southbound Pacific Highway / Mowbray road intersection, without traffic light control and at the beginning of the project. There is plenty of space on the southwest corner in the large construction site to allow this to be built immediately at the project start.

We also require that the intersection of Gordon Avenue and Pacific Highway is line marked and signposted with "Do not Block this Intersection" and that this is policed.

## **5.6 TRAFFIC NOISE DURING CONSTRUCTION FOR GORDON AVENUE**

Trucks will use exhaust brakes to slow down to enter the Nelson St Site entry, particularly at night from high speed. This noise will affect ALL the residents including 1-3 Gordon Avenue because we have line of sight and reflectance of the Payless Tyres building façade.

Additionally the large volume of northbound truck traffic will be generating excessive noise accelerating and gear changing at the same point of road which affects our property directly.

A strict "no exhaust brakes" law, signage and enforcement is required, or alternatively ban construction traffic between 8pm and 7am.

Also we require that 24/7 noise & video recording monitoring is installed in both directions at the intersection of Gordon Avenue and Pacific Highway to identify and assist in prosecuting offending vehicles.

## **6 ACCEPTABLE MITIGATIONS**

### **6.1 ACQUISITION**

To be clear, the residents of 1-3 Gordon Avenue will object and seek a Court Injunction in the Land and Environment Court and / or Local Court if their objections are not answered clearly and completely to their satisfaction.

Our preferred and primary objective which we will fight for is that the Government shall acquire the properties at 1-3 Gordon Avenue under the Hardship considerations of the NSW laws, at fair value and with all costs considered. We agree that the overall project is essential and benefits a large number of people in Sydney, but the severe imposts and losses on us very few families at this address are NOT ACCEPTABLE to us, and we will fight for our rights.

With an acquisition of the properties the Government would be free to carry out the proposed development without hindrance or objection, and may choose to spend time and money making the residential property adequately resistant to the ill effects of the operational noise without hindrance of owners / occupants, then potentially selling the properties on completion for a nett minimal cost, or even profit.

The loss of value on our properties due to the degradation imposed by this project and hardship on our lives is not reconcilable or acceptable under any circumstances.

## **6.2 TEMPORARY RELOCATION DURING CONSTRUCTION**

Failing our preferred option of acquisition, the second minimum acceptable solution is relocation of all occupants of 1-3 Gordon Avenue for the duration of the construction project. This is an extremely complex solution and involves multiple tenancies as well as owner occupiers.

We would expect that a total acquisition would be cheaper, more expedient and satisfactory.

## **6.3 AT BUILDING NOISE MITIGATION**

Failing our preferred option of acquisition, the third minimum acceptable solution is an immediate complete noise and vibration treatment of ALL units prior to commencement of construction. This will require extensive investigation and detailed design to approval by qualified acoustic engineers and architects, and include as minimum;

- 1 Underpinning of the building structure to mitigate noise and vibration.
- 2 Full acoustic double glazing of all unit and common area windows, including the common entry doorway and surrounds.
- 3 Sound rated sealed fire doors on all common areas including unit entrances.
- 4 Roof acoustic treatments, including lifting roof tiles and laying a full acoustic barrier and insulation. Note the existing roof structure contains glass fibre and aluminised sheet thermal insulation.

- 5 Replacement of the top two floors unit bathroom ventilation systems with acoustically treated systems.
- 6 Replacement of existing vertical cement sheeting roof parapet elements with fully acoustically treated cladding.
- 7 Redesign and reconstruction of the existing common area light well / natural ventilation skylight and stairway with acoustically treated structure and ventilation to eliminate resonance and reverberation of noise. It is currently open to the atmosphere at the top and directly overlooking the railway.
- 8 Acoustic absorption panels shall be installed in the skylight well itself and the stairwell recesses to minimise reverberation and regenerated noise.
- 9 Complete acoustic sealing of the basement car park area, and associated forced ventilation system with acoustic treatment.
- 10 Full acoustic enclosure of all balcony and patio spaces in all units to make them suitable for normal use with the increased train noise levels.
- 11 If electrically powered forced ventilation is required for units or common areas then the operational cost of this shall be compensated to the body corporate or unit owners as an immediate lump sum calculated over a 20 year lifespan with escalation of energy and maintenance costs.
- 12 Continuous recording of noise and vibration at the premises during the works and on commencement of operation, with a live breach reporting structure in place to trigger immediate remedial action.

The extent, noise and duration of these works will require that the occupants are temporarily relocated for the duration to completion.

We again stress that it would be easier if the Government simply purchased the block so the whole project could proceed without our interference, then on sell it on completion of the upgrade.

#### **6.4 TRAIN SPEED RESTRICTION**

An enforced speed limit with dead man stop points of maximum 40kph for all rail traffic within 100m of 1-3 Gordon Avenue.



## **6.5 ATTACHMENTS**

Multiple extracts from the EIS are attached to this submission upload. They are annotated with comments of relevance of the adverse impacts to 1-3 Gordon Avenue and residents.

1- Metro Chatswood SSIA NOV 2015 comments & Aerial view of 1-3 GORDON AVE.pdf

2- Metro EIS - Visual Impacts - comments by C Balzer 1 Gordon Avenue 16.06.20.pdf

3- Metro EIS Technical Paper 2 - Noise and Vibration\_DP&E Adequacy\_23022016 - Severe affects at 1-3 Gordon Avenue .pdf

4- Metro EIS\_Ch 11 Operational noise and vibration\_DP&E\_23022016 - 1-3 GORDON AVE EXTRACT.pdf