I object to and oppose the approval and construction of the Northern Beaches Tunnel (NBT) on the grounds detailed in the submission below. The case for constructing the NBT is based on flawed economic modelling, flawed traffic modelling (using pre-Covid and pre "work-from-home" traffic data). If built the NBT will disrupt the amenity, endanger resident health and disrupt traffic in Balgowlah for 7 years during construction, and in perpetuity pollute the environment with runoff, dust and unfiltered tunnel emissions. The NBT should not be built. I detail the reasons as follows:

I object to construction of NBT and Balgowlah Golf Course Access road and exhaust stack based on the negative impact on residents and local workers, specifically health risks, pollution, stress, and disruption:

- To properties adjacent to Balgowlah Golf Course, it is expected that construction of NBT will cause about 7 years of disruption and negative health effects due to noise, dust and pollution starting in 2023. I object to the large and inevitable negative impact of construction traffic and construction employee parking, noise and dust pollution will have on my family at our home which borders on Balgowlah Golf Course.
- Aside from the significant impact on my whole family during non-work hours 4 of us will also be adversely affected in amenity and health during business hours because I operate my business from home and my children will also be studying at home for substantial and important periods during construction: Young adult 1: University Studies - 5 year combined degree 2021 – 2026, Young adult 2 – HSC in 2021 and University Studies - 4 year Degree 2022 – 2025. Young adult 3, HSC in 2023 and University studies 2024 - 2028.
- University students spend much of their time studying and working from their residence, particularly now that Covid has forced universities to deliver many lectures and tutorials via online media, this feature is unlikely to revert to pre-covid levels.
- There will be significant noise, particulate and dust pollution due to projected movements of one large truck per minute from Balgowlah using the local roads daily from 7am to 6pm weekdays and 8am to 1pm Saturday also causing additional local road congestion and traffic disruption.
- underground Tunnelling is planned 24 hrs a day 7 days a week; a large number of properties will experience noise from tunnelling above 35dbA and some 45dbA when tunnelling occurs below them.
- Early hour NBT construction workers, contractors and subcontractors will park in local streets irrespective of site prohibition.
- The Balgowlah Golf Course area will be subject to excessive noise from drilling, rock crushing and earth removal.
- Uncontained Silica dust generation and exposure from release and 'track through' will endanger local residents and workers putting them at increased risk of respiratory illnesses such as asthma, silicosis and lung cancer.
- The residences surrounding the underwater section of the NBT will be subject to loud construction noises greater than 75db from impact piling of cofferdam walls over 12 months.
- Possible sediment disturbance generating unsafe levels of heavy metals, lead hydrocarbons etc in middle harbour including the Sandy Bay area and Clontarf beach.

NBT lacks an accurate and supportive business case, and has poor environmental and social cases:

- The NBT was presented as a done deal by government. There was no community consultation on the reason for constructing a new \$12- 14 billion road tunnel in comparison to the cost and advantages of rail or other public transport enhancement alternatives.
- The NBT is justified as meeting the need for an additional transport route to alleviate traffic along Military road. This provides only a 10% traffic reduction and is based on incorrect traffic modelling assumptions using traffic data that pre-dates Covid and the likely permanent shift to Work From Home and the reduction on commuter traffic.
- There is no proper business case to justify the \$12-\$14 billion cost estimate.
- Instead of encouraging an increased use of public transport, the tunnel encourages "Induced traffic demand" which expert modellers calculate will neutralise the promised time savings within 3-4 years, leaving Northern Beaches commuters worse off at the end of that time.

Aside from Induced demand from existing commuters, if the tunnel is built, it has potential to induce demand for an additional 40,000 cars to travel to the local beaches during summer causing loss of street parking.

- In order to support the weak business case for the NBT expensive tolls \$7-8 each way are proposed, this will be a significant new impost on residents of \$70-\$80 per week (\$4,000 annually).
- Tunnel avoidance due to these expensive tolls will lead to worse traffic along Military road.
- Some of the hypothetical time saved on travel to the city during peak times will be lost due to local traffic congestion and bottlenecks.
- Introduction of traffic lights in Sydney road and at the tunnel entrance will impair current traffic flow along Sydney Road and Burnt bridge creek bypass.

I also object to construction of NBT based on negative impact on the Environment, specifically:

- The provision of unsightly, unfiltered exhaust stacks 8 10 stories high exhausting polluted air containing fine particulates collected from a 7km tunnel length near schools (Balgowlah Boy's High and several Primary Schools) and in the middle of proposed public playing fields.
- Unnecessary loss of green space such as the Balgowlah golf course (which is also used by the community for walking / dog-walking) and due to widening of Wakehurst Parkway.
- The loss of approx. 400 mature trees and potential impact of a further 150 mature trees.
- Reduction in property values of homes, including my home.
- · Loss of nearly 2,000 mature trees due to widening of Wakehurst parkway.
- · Detrimental effect of runoff from the widening of Wakehurst parkway into Manly Dam.
- · Risk to and loss of endangered Flora and fauna.

I object to construction of NBT but if it is given planning approval the following mitigation measures must be stipulated and enforced in contracts with Construction company and Operator: I strongly object to the building of the Northern Beaches Tunnel and proposed related access road and unfiltered smokestack at Balgowlah Golf Course, however Northern Beaches Tunnel ("NBT") is given planning approval despite the widespread opposition from affected local residents, I require the following measures to be put in place to minimise negative impacts on health, amenity and property values:

Surface work and construction vehicle movements must not occur outside the times of 7am to 6pm weekdays and 8am to 1pm Saturday and must not occur on Sundays and Public Holidays.

Respite periods – especially during noisy works phases. These respite periods must be communicated in advance to the Residents to allow for planning of business calls / zoom meetings / child sleep periods etc.

- All construction traffic must be fitted with noise and pollution control devices (including 'croakers' or 'quackers' to reduce the impact of tonal reversing alarms).
- No construction vehicles must be permitted to wait or idle in Brighton St, Wanganella St, or other local roads.
- All staff, workers, contractors and sub-contractors ("Employees") must park only in designated parking hubs (away from residential areas) with a regular shuttle service to the Balgowlah construction envelope.
- The vehicles of all Employees are to be badged for ease of identification.
- Employees must, as part of their engagement contract, be prohibited from parking outside of designated parking hubs and be required to comply with local road and traffic rules, with a suitably deterrent penalty system put in place for any breaches reported by members of the public.
- Appropriate onboarding/induction for all Employees to educate them around local road structure and school zones. This induction needs to be maintained throughout construction of the NBT.
- A site-specific construction 24/7 hotline and website ("Balgowlah NBT Website") must be established for the receipt of complaints and breach reports from members of the public ("Complainant"). As part of this process there also needs to be a formal complaint handling mechanism in place requiring:
 - 1. responses to be provided to Complainants within 5 business days of receipt of a complaint / breach report, detailing what investigative, remedial or penalty action has been taken, or is to be taken (and when);
 - 2. penalties to be applied if the response time limit in 1) above is not met; and
 - 3. a designated department within TfNSW be given responsibility for the escalation of complaints or breach reports (where a similar transparent complaints handing mechanism must be implemented).
- The emission stacks must be filtered. This is non-negotiable. This is regarded as 'best practice' for tunnels of similar length in Europe.
- Better health protection measures must be implemented for the control of silica dust created from the tunnelling through sandstone. The current measures proposed are inadequate. 'Track through' dust pollution from site vehicles will not be adequately controlled by proposed measures.
- Air Quality Monitors need to be installed and operated 24/7 at the end of Brighton Street, near Balgowlah Boys campus and Seaforth Public School, with real time readings to be publicly available on the internet and a system for text alert notifications to be automatically sent to Residents if pollutant safety levels are exceeded.
- Clear suitably deterrent penalties must apply to the NBT Construction Entity and NBT Operator for every occasion when pollution level limits are exceeded.
- All penalties relating to the NBT project that are imposed as a result of pollution, complaint time limits, parking, or other road or traffic infringements must be published on the Balgowlah NBT Website.

END OF SUBMISSION