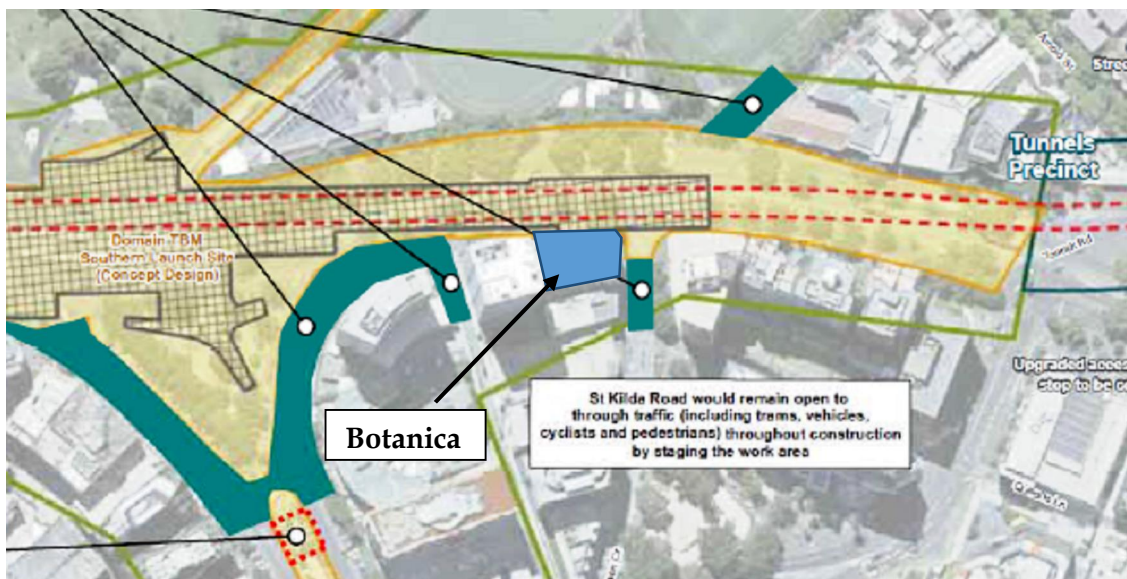


IN THE MATTER OF THE MELBOURNE METRO RAIL PROJECT  
INQUIRY PURSUANT TO THE ENVIRONMENTAL EFFECTS ACT AND  
ADVISORY COMMITTEE PURSUANT TO THE PLANNING AND  
ENVIRONMENT ACT

**OUTLINE OF SUBMISSIONS ON BEHALF OF  
OWNERS CORPORATION 348427V ('THE BOTANICA')**

**Introduction**

1. These submissions are made for Owners Corporation 348427V of 400 St Kilda Road, Melbourne ('**The Botanica**'). The Owners Corporation represents the interests of the owners of the residential apartments and commercial tenancies contained in the Botanica. The owners have authorised the Owners Corporation to make these submissions on their behalf.
2. The Botanica is located on the corner of St Kilda Road and Bowen Crescent, Melbourne. It contains 58 apartments, and includes a commercial massage/beauty care provider and real estate agency. About 50% of the apartments are owner occupied and the balance are occupied by tenants.
3. The Botanica will be materially affected by the Melbourne Metro Rail Project ('**Project**'). It is located to the immediate south of the proposed Domain Station 'Box' and associated construction site. This area is proposed to be a major focus of construction activity, including a TBM launch site. The Botanica is possibly the most affected residential/mixed-use building within this Precinct.



The Botanica site indicatively shown in blue, overlaid on an extract of the MMRA Technical Note 15 Attachment A map.

4. The Botanica includes many dwellings with frontages to Bowen Crescent and St Kilda Road, including numerous living areas and bedrooms. Indeed for many dwellings, their only windows are those facing St Kilda Road and/or Bowen Crescent.
5. The Botanica does not oppose the Project. It seeks to ensure that all relevant matters are appropriately considered and resolved throughout the phases of the Project. In this sense, detail is the key.
6. The Botanica has served and filed the following independent expert evidence, upon which it relies:
  - a. Dr Bellair, in matters of air quality;
  - b. Mr Goddard, in matters of noise and vibration; and
  - c. Mr Kiriakidis, in matters of traffic engineering.
7. The Inquiry and Advisory Committee ('IAC') will be aware of the significance of the Project and the need to 'get things right'. Aside from matters of design and operation, the Project has the real potential in this location to significantly affect the wellbeing of Botanica's residents if relevant matters are not adequately resolved through this process.
8. The Botanica agrees with submissions made by others to the IAC that it is not possible to judge the magnitude, likelihood or significance of environmental effects or the acceptability of environmental outcomes given the approach taken by the MMRA. The MMRA has elected to proceed with a performance based approach that lacks a necessary precision in terms of outcomes. Refinement is required to address the interests of affected parties, such as the Botanica.
9. At present, some Environmental Performance Requirements ('EPR's') provide no certainty of outcome or accountability to third parties whose interests are affected, such as the Botanica.

10. Consultation alone does not ensure that affected interests will be considered or addressed. There is a real possibility that, following consultation, third party views will be ignored as the contractor follows its interests in applying the EPRs. Acceptable outcomes must be set out in the EPR's to ensure the interests of third parties are protected.
11. In respect of the proposed Incorporated Document, the Botanica has the following concerns:
  - a. Save for the Urban Design Strategy, the Project is proposed to be only '*generally in accordance*' with the various relatively broad plans to be approved. The MMRA proposes that use and development need only be carried out '*in a manner consistent with*' the EMF and EPR's;
  - b. The EPR's, which are the subject of extensive consideration over the course of the hearing, are not incorporated as a control in the Incorporated Document; and
  - c. The power of amendment to the development plans and the EPR's is not limited to avoid increased or new environmental impacts.
12. This approach is insufficient to ensure an appropriate outcome for affected parties such as the Botanica. With a project of this significance, duration and impact, such an approach is inappropriate.
13. The East West Link Assessment Committee in respect of Environment Performance Requirements found:

*The Committee understands the LMA's desire that the Performance Requirements be worded to maintain a high level of flexibility for the successful contractor, so that the range of responses to achieve a particular outcome is broad.*

*However, the Committee does not think that this a reasonable approach in a highly urbanised context where the community (and many decision makers)*

*have not seen a detailed project design. There is very little certainty as to what the Project will look like and how it will be delivered. This, in the Committee's opinion, supports the proposition that the Performance Requirements should be worded to ensure some reasonable level of third party input (particularly from the affected Councils) where relevant to improve project outcomes.*

*The risk in not taking this approach is, as put by the City of Melbourne, being where value judgements and decisions need to be made between project design and construction and other values, such decisions may be made out of the public eye and with no evident justification or explanation for any given outcome.*

*The Committee has avoided the temptation to make Performance Requirements subject to secondary consent where that is not otherwise required by legislation, but has attempted to provide more opportunities for meaningful consultation and input. The Committee has attempted where possible to qualify the use of open-ended terms such as 'minimise' to reference the Performance Requirements to objective criteria or at least more defined subjective criteria.<sup>1</sup>*

14. Given its context, the Botanica is particularly vulnerable to noise, vibration, air emissions and access issues that will be generated by the Project. It has a material interest in ensuring that the EPR's clearly define acceptable outcomes in this respect.
15. The Botanica acknowledges the challenges for the IAC and third parties in assessing the appropriateness of the environmental impacts in the context of ongoing changes to the proposed documentation.
16. These submissions are intended to be read in conjunction with the Botanica's submission dated 5 July 2016.

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<sup>1</sup> East West Link Assessment Committee (AC) [2014] PPV 76, 366 [17.4.2].

17. The key concerns sought to be addressed within these submissions are:
  - a. Adequate protection from inappropriate noise and vibration;
  - b. Transport and traffic impacts;
  - c. Maintenance of appropriate air quality during the construction of the Project; and
  - d. Impacts on the Botanica building structure and property from design, engineering and construction.

### **Adequate protection from inappropriate noise and vibration**

18. The proximity and use of the Botanica necessitate adequate protection from adverse noise and vibration impacts, both during the construction and operational phases of the Project.
19. Importantly, the Botanica includes numerous dwellings with living areas and bedrooms directly adjacent to the worksite. In many cases, these are the only windows for affected dwellings.
20. The Botanica is concerned by the prospect of adverse impacts arising from:
  - a. Airborne construction and operational noise;
  - b. Ground borne construction and operational noise; and
  - c. Construction and operational vibration.
21. Mr Goddard has independently reviewed the Project documents as they relate to the Botanica. He is of the view that *'The EES document doesn't provide definitive design details or in detail management protocols to ensure that the project will minimize potential impacts.'*<sup>2</sup>
22. Specifically, he has expressed concern in relation to the following matters as they relate to the Botanica:

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<sup>2</sup> Neville Goddard, *Review of Noise and Vibration Aspects in Relation to 'The Botanica'*, 400 St Kilda Road (12 August 2016) 4[1].

- a. References in the EES to the EPA 1254 Guidelines that allow for ‘unavoidable works’ to continue through the night if required without noise restrictions.

Mr Goddard is of the view that:

*It is highly likely that what the EPA had in mind when they adopted this was an occasional concrete pour that would continue overnight, not works continuing for weeks or significantly longer. It would not be reasonable in my opinion to rely upon such an exemption for a project of this nature in the circumstances, taking the duration and intensity of works into account.<sup>3</sup>*

- b. Some source noise data appears to be unrealistically low. Mr Goddard is of the view that:

*In the tabulation of source noise levels, the following items have been assigned sound power levels that in the experience of WMG Acoustics are approximately 10dB too low:*

- *Material delivery trucks, listed with a sound power level of 95dB(A), which in WMG’s experience would typically be closer to 105dB(A) sound power level.*
- *Spoil trucks, listed with a sound power level of 91dB(A), which in WMG’s experience would typically be closer to 105dB(A) sound power level.*
- *Loaders/backhoe listed with a sound power level of 96dB(A), which in WMG’s experience would typically be closer to 105dB(A) sound power level.*

*...With such a large number of truck movements per day in close proximity of 400 St Kilda Rd, under-stating the sound power level of*

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<sup>3</sup> Goddard, above n 2, 4 [2.1].

each truck by something in the order of 10dB could have a significant impact on the predicted noise levels.<sup>4</sup>

- c. Lack of clarification of the duration that daytime noise levels of a magnitude exceeding 80dB(A) would be present at the Botanica. Mr Goddard notes that Appendix A, Figure A.35 of the Noise and Vibration Technical Appendix includes predicted daytime construction noise levels indicating the St Kilda Rd façade of the Botanica will be exposed to levels above 80dB(A) (extract shown below).

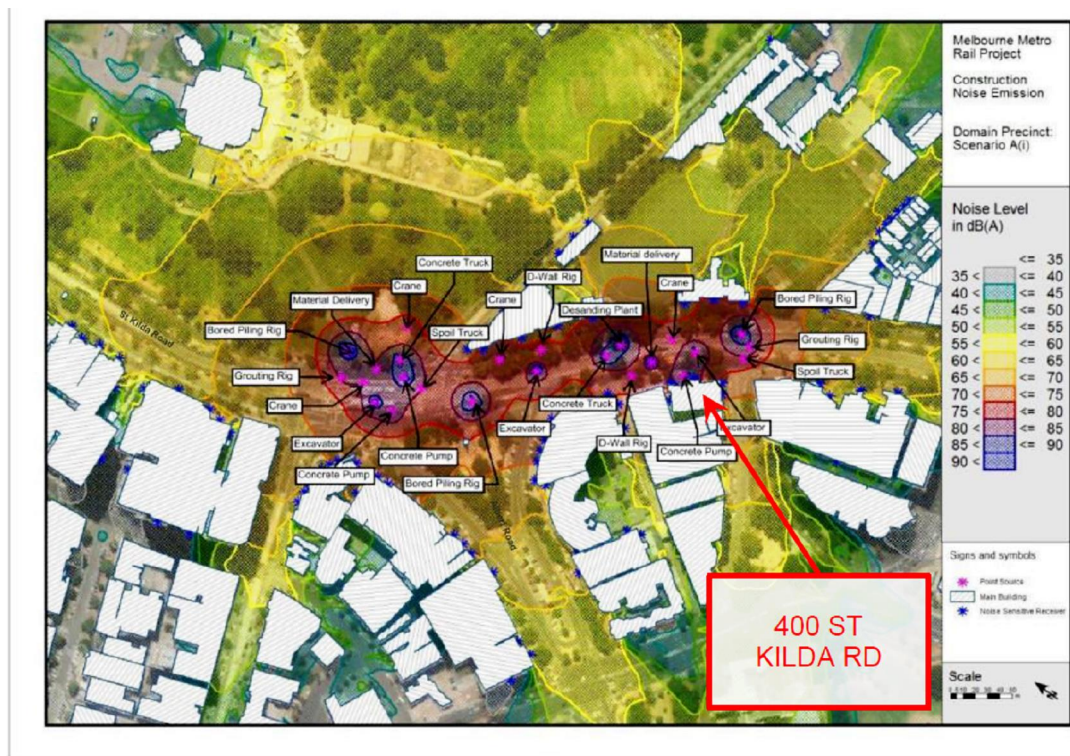


Figure A.35: Domain Station Precinct - Scenario A(i) - Predicted Noise Levels at 1.5 m above ground - construction activities to be undertaken during Normal Working Hours

As Mr Goddard identifies, ‘...anything above the first two levels will receive negligible attenuation from a 6m high barrier and be exposed to 80dB(A)+, which is very different to the 64dB(A) Leq during the day baseline level, not ‘marginally higher’.’<sup>5</sup>

He identifies that ‘Such high noise levels would have a significant impact on residents, so it is important that the expected duration of this stage is made

<sup>4</sup> Goddard, above n 2, 5 [2.2].

<sup>5</sup> Goddard, above n 2, 6[2.2].

*clear in order to fully understand the magnitude of the impact and assist residents in making decisions regarding actions that may be taken.'*<sup>6</sup>

- d. Lack of acknowledgement of the full extent of truck noise impacts in the EES. Mr Goddard has identified that:

*Despite the fact that the EES noise data for trucks understates the noise contribution of trucks, there is the potential for truck noise to be an even more significant issue than it need be if trucks are allowed to work on the project making more noise than necessary.*

*Two significant components of this are exhaust noise and reversing beepers.*<sup>7</sup>

In this respect Mr Goddard has recommended the following measures be adopted within a Construction Management Plan:

- *Trucks accessing the construction site and all mobile equipment operating at the construction site must be fitted with the 'new generation' broadband reverse alarms, which vary their noise output according to the ambient noise level. These reversing alarms should be selected for the lowest noise level consistent with safe operation. Trucks or other equipment with conventional reversing beepers will be refused access to the site.*
- *Product stockpiles and travel routes within the site should be configured so as to minimise need for trucks to reverse.*
- *Contractors wishing to be part of the project must provide evidence that trucks to be used on the project comply with the EPA in-service noise requirements, with respect to exhaust noise.*<sup>8</sup>

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<sup>6</sup> Goddard, above n 2, 7[2.2].

<sup>7</sup> Goddard, above n 2, 8[2.3.2].

<sup>8</sup> Goddard, above n 2, 8[2.3.2].



- e. Maximising opportunities for noise mitigation. Mr Goddard has identified that:

*In a situation such as the Domain Station construction site overlooked by the elevated residential premises at 400 St Kilda Rd where there are limitations in the extent to which noise can be attenuated along the path from where it is generated to the receptor locations, it is critical to pursue all possible means of reducing noise emission at the source.*

*It should be a project requirement to use low-noise technology such as electrically powered cranes and other such equipment wherever possible, rather than simply accepting the way things have been done in the past.*

- f. Clarification and resolution of additional noise mitigation measures. Mr Goddard is of the view that:

*With the predicted high noise levels at 400 St Kilda Rd, a more specific framework around the provision of alternative accommodation, or upgrades to the building itself, needs to be developed as a priority, as it is highly likely that it will be relevant to at least some of the residents of the building, particularly those overlooking St Kilda Rd.<sup>9</sup>*

- g. Lack of indication as to duration of construction related vibration impacts. Mr Goddard identifies that ‘Appendix B of the Noise and Vibration section of the EES identifies that at times vibration will be more than two times the maximum guideline targets and ground borne noise more than 10dB above the night criterion, but there is no clear indication as to how long these circumstances would prevail for.’<sup>10</sup>

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<sup>9</sup> Goddard, above n 2, 9[2.3.4].

<sup>10</sup> Goddard, above n 2, 9[3.2].

Mr Goddard further identifies that it is critical that the mitigation measures identified within Section B.6.7 are adopted in a management plan.<sup>11</sup>

- h. Validation and verification of operational vibration propagation and mitigation measures. Mr Goddard is of the view that:

*...given the potential significance of this issue in terms of impact and the difficulty in rectification if it is not got right initially, further work to validate the predictions and verify the effective of proposed isolation solutions is required.*

*The opportunity will be available once the excavation for the Domain Station is in place to conduct vibration transmission testing at the actual site in order to confirm assumptions regarding transmissibility to the building at 400 St Kilda Rd.<sup>12</sup>*

23. The Botanica has appreciated the consultation by the MMRA representatives in the early stages on the Project, who have made assurances that no operational vibration will be felt in the building. However, it supports the independent expert opinion of Mr Goddard on this issue, in seeking further work to validate and verify proposed solutions, given the potential significance of operational vibration to the Botanica, and the inherent difficulties with any rectification work.
24. Mr Goddard attended the expert conclave where all witnesses, including the MMRA's witness, agreed to changes to the EPR's.<sup>13</sup> The MMRA has produced version 2 of the EPR's without changes to the noise and vibration EPR's. Consequently, the Botanica's submissions are made on the basis that changes agreed in the conclave report are not accepted by the MMRA and remain in issue, as well as the concessions made in evidence by the MMRA's witnesses.

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<sup>11</sup> Goddard, above n 2, 9[3.3].

<sup>12</sup> Goddard, above n 2, 11[6.3].

<sup>13</sup> See conclave minutes.

25. The following submissions are made in respect of the EPR's:

- a. EPR NV1: The Botanica supports the agreed conclave outcome to replace EPA 1254 with alternative guidelines that set criteria for noise limits for all time periods, such as the NSW Interim Construction Noise Guidelines. Without such criteria, there is no measure to assess unreasonable impacts. Without a quantifiable criteria for a contractor to meet, there can be little assurance or expectation that impacts will be managed appropriately.

Contrary to the submissions of the MMRA, it is doubtful that EPA 1254 is intended to apply in situations such as this. Certainly, EPA 1254 is not accepted as the appropriate guideline by all experts in this matter. The shortcomings of EPA 1254 have been recognised by various experts, and should not be accepted by the IAC. A best practice approach is necessary for a project of this magnitude, duration and impact within a sensitive urban setting such as this.

- b. EPR B3 and SC3: The Botanica supports the inclusion of a specific requirement that management plans be prepared in adequate time to allow identified mitigation measures to be carried out before works commence. For example, if unacceptable noise impacts cannot be sufficiently mitigated at source, or at the boundary of the work site, it may be necessary for the Project to provide attenuation works to the Botanica building. In such circumstances, it would be necessary for such works to be completed before noise making commences or other construction related matters arise which might affect the ability to carry out the works, such as restrictions on access.
- c. EPR NV3: The Botanica supports the conclave agreement that the work of the consultant appointed under NV3 be reviewed by an independent auditor, and any recommendations arising from that review be

implemented in the consultant's report. This is an appropriate measure to ensure that appropriate outcomes are achieved.

- d. EPR NV4: The Botanica supports the conclave agreement that the communications plan be developed in consultation with councils, the EPA, and 14 precinct-specific community consultations. The Project should ensure that the Botanica is consulted as part of this process.
26. The Botanica seeks to ensure that the visual appearance and form of any temporary shielding structures or fencing is appropriately designed to provide reasonable amenity. In this respect, the Botanica will be principally affected by the very large acoustic attenuation shed proposed to be located in close proximity to the Botanica across its entire St Kilda Road frontage and beyond.
27. The lack of resolution in respect of how spoil will be conveyed from the Domain Station worksite to the Edmund Herring Oval is a further concern to the Botanica, both in respect of noise mitigation and air quality. A range of different (conflicting) options have been communicated to the Botanica at different times by MMRA representatives.

### **Transport and Traffic Impacts**

28. The Project will have a significant impact on the Botanica both in respect of access during construction and legacy transport and traffic outcomes.
29. The Botanica contains 71 car parking spaces across two separate car parking areas on the basement and ground floor respectively. There is no interconnectivity between the car parking levels.
30. The basement level contains 44 car spaces accessed via a single width crossover from St Kilda Road (shown below).



Access to the basement car parking level from St Kilda Road.

31. The ground floor level contains 27 car spaces accessed via a single width crossover from Bowen Crescent (shown below).



Access to the ground floor car parking level from Bowen Crescent.

32. No on-site loading facilities are provided within the Botanica, all loading and service vehicle activities are accommodated on-street. Short term parking spaces located at the Botanica's St Kilda Road frontage are used for some loading/unloading activities, particularly removalist activities due to access difficulties from other building entry points. Waste collection is conducted from the St Kilda Road frontage by Council's weekly collection service.

33. Mr Kiriakidis has assessed the Project documentation as it relates to traffic and transportation matters concerning the Botanica. He concluded that the Traffic Impact Assessment Report *'...is deficient in a range of areas and will require further substantive analysis and additions along with appropriate recognition that consultation will be required with key parties effected by the proposed works.'*
34. Mr Kiriakidis' key areas of concern in this respect relate to the following:
- a. *'a lack of sufficient detail around how travel habits with the MMRP labour workforce will be managed in an environment containing day time parking management mechanisms which discourage long term car parking';*
  - b. *'a lack of sufficient detail around how travel habits with the MMRP labour workforce will be managed in an environment containing no evening and early morning parking restrictions';*
  - c. *'a lack of sufficient detail around the retention of 24/7 vehicle access to The Botanica development during construction';*
  - d. *'a lack of sufficient detail around the retention of 24/7 pedestrian access to The Botanica from St Kilda Road';*
  - e. *'the retention of service vehicle and loading requirements associated with The Botanica along St Kilda Road through construction and afterward under the legacy layout and configuration';*
  - f. *'a commitment for representatives of The Botanica to provide input and comment on any Traffic Management Plans relied upon during construction to deliver Domain Station'; and*
  - g. *'existing safety concerns associated with traffic exiting the St Kilda Road vehicle access from The Botanica and a need to, however practical, avoid replicating present arrangements under the legacy layout and configuration.'*<sup>14</sup>
35. Mr Kiriakidis notes that there is an absence of any specific detail around the management of Melbourne Metro workforce stationed at the Domain Precinct, both in respect of traffic impacts and construction staff parking requirements.

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<sup>14</sup> John Kiriakidis, Melbourne Metro EES Report to Panel Traffic and Transport Review, Domain Station Precinct (12 August 2016) 27[7.1].

36. He identifies that:

*...it is evident from this assessment that the proposed construction works at the Domain Precinct are significant and will need to be carefully managed given:*

- 1. There is no commitment in the EES that any worker car parking will be provided in the construction area.*
- 2. On-street car parking in the nearby area is managed during the day time through time restrictions and fee parking however these same mechanisms do not extend to cover periods generally outside 6.00pm and 8.00am which could attract construction workforce parking activity during late night or early morning shift periods.*
- 3. Any traffic activity (spoil / delivery trucks and / or worker traffic) generated during either of the respective AM and PM road network peak hours will add activity to a transport network which is currently approaching capacity for a number of movements.<sup>15</sup>*

37. Mr Kiriakidis goes on to identify that:

*In the event that no specific arrangements are made off-street or through a shuttle service, then alternate changes which (say) comprise of permit only parking for construction staff will have the potential for significant impacts on existing residents and business (including the Botanica) in the area which I estimate have reliance on the resource for their day-to-day operation including visitor parking demands.<sup>16</sup>*

38. He recommends that '*...the EES make a stronger commitment to managing parking demands, preferably nominating a commitment to a shuttle service with parking provided for construction staff outside the Domain Precinct to minimise increased traffic loads at junctions which are experiencing traffic capacity difficulties.*'<sup>17</sup>

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<sup>15</sup> Kiriakidis, above n 14, 24 [5.5].

<sup>16</sup> Kiriakidis, above n 14, 25 [6.2.1].

<sup>17</sup> Kiriakidis, above n 14, 25 [6.2.1].

39. The access points and bin collection areas are located within the proposed Domain Precinct Construction Areas.<sup>18</sup> Access to both vehicle crossovers is vital to the ongoing operation of the Botanica, both during and post construction.

40. In respect of the maintenance of access for the Botanica, Mr Kiriakidis has recommended that:

*...the EES specifically recognise the need to maintain on a continual basis suitable vehicle access to 400 St Kilda Road via St Kilda Road and Bowen Crescent. Access arrangements during the construction period should be referred to the building body corporate to ensure all matters are satisfactorily addressed before they are settled and implemented.*<sup>19</sup>

41. Indeed, without specific recognition and appropriate consultation of the Botanica, there can be little assurance that ongoing access will be managed appropriately by a contractor.

42. Mr Kiriakidis has recommended that occupants of the Botanica:

- 1. Along with various agencies, be afforded the opportunity to comment on developing TMPs for the project including the various construction phases. This is especially important for both the St Kilda Road and Bowen Crescent vehicle access points and the St Kilda Road pedestrian access point.*
- 2. Be specifically advised of transitioning between one construction phase and next to help residents of Botanica manage their day to day activities.*
- 3. Be provided with, amongst others in the precinct, an ability to communicate with an appropriate representative of the construction management team to discuss any unforeseen issues (traffic safety and traffic capacity) which need to be addressed throughout construction.*<sup>20</sup>

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<sup>18</sup> See MMRA Technical Note 15 (26/7/2016), Attachment A.

<sup>19</sup> Kiriakidis, above n 14, 25[6.2.2].

<sup>20</sup> Kiriakidis, above n 14, 26[6.2.3].



43. It is not only the construction period that is important to the Botanica, but also the legacy outcomes for the surrounding road network. As a result of the construction of the Domain Station, the Botanica's access to St Kilda Road will be permanently modified. The current proposal would necessitate vehicles exiting the Botanica basement car parking to cross a new Copenhagen-style bicycle lane and then pass by new on-street parking. As Mr Kiriakidis has identified, *'This has the potential to restrict available vehicle sight lines to through traffic on St Kilda Road for exiting vehicles.'*<sup>21</sup>
44. Mr Kiriakidis has recommended that:
- ...before Melbourne Metro activates, it is recommended that a functional design and detailed design road safety audits are completed of plans detailing changes to their St Kilda Road access to ensure existing design shortcomings are not replicated or exacerbated. Indeed, any changes proposed in association with the MMRA should satisfy applicable Austroads design standards.*<sup>22</sup>
45. For the avoidance of any doubt, the Botanica supports the relocation of the emergency access structure from the western side of St Kilda Road to the eastern end of Bowen Crescent as identified with the MMRA Technical Note 15 Attachment B.
46. Mr Kiriakidis attended the traffic and transport expert conclave.<sup>23</sup> Following the traffic conclave and the MMRA's version 2 of the EPRs, there are a number of matters of outstanding concern for the Botanica.
47. The conclave agreed that there should be a new EPR providing for a traffic and transport working group and that the group must consult relevant stakeholders, including the Botanica. The MMRA's witness, Mr Smedley agreed with that position but did not agree with naming key stakeholders in the EPR. Version 2 of EPR TA seeks to 'wind back' the agreed conclave position by allowing the group to *'elicit responses on ... matters for consideration'*.

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<sup>21</sup> Kiriakidis, above n 14, 26[6.3.1].

<sup>22</sup> Kiriakidis, above n 14, 26 [6.3.1].

<sup>23</sup> See conclave minutes.

This is insufficient. The EPR should require consultation and consideration of matters put by relevant stakeholders. Anything less allows for the possibility that stakeholders' interests will not be taken into account and addressed, particularly if those interests are inconvenient or difficult to resolve, as for example the issue of access to the Botanica may be perceived to be. The impacts of this Project on the Botanica are simply too great to allow that prospect.

48. EPR T1 has been modified to require construction workers to be provided with car parking where practicable. This does not implement the agreed expert conclave position to prohibit construction workers parking on street. The recommendation of Mr Kiriakidis that there be a shuttle service for construction workers should be implemented.
49. Mr Smedley agreed with the intent of an EPR recommended by Mr Kiriakidis that '*Vehicle and pedestrian access is to be satisfactorily maintained to 400 St Kilda Road at all times including requirements associated with waste collection and loading across the St Kilda Road frontage.*'<sup>24</sup> However he ultimately did not agree with the recommendation because he considered such an EPR '*...too specific to this one location and may not provide the flexibility required to construct a project of this scale and complexity.*'
50. Mr Smedley's position though does not recognise the significance of this issue to the Botanica. In the following recommendation, Mr Smedley has no difficulty with a specific requirement related to the Botanica, identifying that it is '*...directly affected by the works...*'<sup>25</sup> The prospect of impacts to this specific location, and the consequence of those impacts, warrant specific reference to the Botanica in this measure as well. Sufficient flexibility for the contractor would be allowed by qualifying the requirement as '*subject to agreement with the Owners Corporation.*'

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<sup>24</sup> See conclave outcome 34.

<sup>25</sup> See conclave outcome 35.

51. If there was no EPR on this issue, there can be no assurance or expectation that satisfactory access will be maintained for the Botanica over the prolonged period of construction.
52. The agreed EPR T5 [35] conclave outcome is appropriate to ensure consideration of an appropriate traffic outcome to the Botanica.

### **Maintenance of appropriate air quality during the construction of the Project**

53. The Botanica is particularly sensitive to air quality issues associated with the Project given:
  - a. Its proximity to one of the major focuses of construction activity for the Project; and
  - b. The fact that the only way to introduce fresh air into the apartments is by opening external doors and/or windows. All of the apartments facing St Kilda Road and Bowen Crescent have openable windows, doors to balconies, and most contain individual split system air conditioning units.
54. Dr Bellair has undertaken an independent expert analysis of the air quality considerations associated with the Project as they relate to the Botanica. His findings present a number of concerns with respect to the current Project documentation in this respect. Dr Bellair has concluded:
  1. *The Botanica apartments will be particularly sensitive to increases in local dust levels, because: they are located in close proximity to the Domain station worksite; the construction period is projected to extend for 48 months; and the only way to introduce fresh air into the apartments is by opening external doors and/or windows.*
  2. *The dispersion modelling described in Chapter 12 of the EES does not provide an adequate basis for defining a residual air quality risk rating of medium for the Domain precinct, and in particular for nearby residents such as those in the Botanica.*

3. *It will be most important to establish whether respirable crystalline silica (RCS) will be an issue associated with managing spoil generated by the TBMs, excavation works, and ventilation systems serving underground construction areas – if so, RCS should be modelled to assess compliance with the SEPP(AQM) criterion, and dust control measures for relevant sources within the Domain precinct will need to comply with the “maximum extent achievable” requirements of SEPP(AQM).*
4. *I recommend that further dispersion modelling is conducted to include estimated particulate emissions from the excavation of the Domain Station, a realistic “worst case” scenario for residents at the Botanica, estimated RCS emissions if appropriate, and discrete receptors defined at sensitive locations including the Botanica and Melbourne Grammar school – the configuration files for all model runs should be provided, along with the model predictions and plots.*
5. *I recommend that a Community Liaison Committee be established, to include representatives of the Botanica Owners Corporation and other relevant parties, to meet regularly with technical representatives of MMRA, following the completion of the EES Inquiry process, and continue until completion of construction works within the Domain precinct. The liaison committee should review the results of particulate monitoring, consider any concerns raised by members of the community, and assess the adequacy of dust management measures, and other issues affecting local amenity.<sup>26</sup>*

55. The establishment of a Community Liaison Committee to oversee dust management during the construction period has been agreed by the expert conclave of Dr Bellair and Mr Lakmaker.<sup>27</sup> This is a positive and necessary inclusion. However, the MMRA’s version 2 of the EPR’s does not reflect this. It is clear, based upon the weight of evidence, that such an initiative is important and necessary.

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<sup>26</sup> Terry Bellair, *Proposed Melbourne Metro Domain Station Assessment of Air Quality Issues* (12 August 2016) 14[6].

<sup>27</sup> See conclave outcomes.

56. Dr Bellair has concluded that '*... little weight should be given to the air quality modelling predictions presented in Chapter 12 the EES, particularly in relation to the Botanica and other nearby apartment buildings.*'<sup>28</sup>
57. Dr Bellair identifies that the EES air quality assessment '*...does not consider that significant quantities of respirable crystalline silica particles less than 2.5 microns in size (RCS) may be generated by the TBMs and station excavation works (which largely will be constructed within the Melbourne Formation). This geological formation comprises interbedded siltstone and sandstone...*' In this respect, Dr Bellair notes that the Safe Work Australia's publication on crystalline silica, identifies that sandstone has an average crystalline silica (quartz) content of 67%. He further notes that '*... work activities involving crystalline silica which require special attention (from an OHS standpoint) when assessing exposure to RCS include excavation, earth moving and drilling plant operations (all of which are relevant to the proposed underground operations).*'<sup>29</sup> In short, this is a serious issue.
58. On this issue, Dr Bellair notes that:
- Schedule A of the EPA's State Environment Protection Policy (Air Quality Management) classifies respirable crystalline silica particles smaller than 2.5 microns as a Class 3 Indicator, on the basis that it is listed by the International Agency for Research on Cancer (IARC) as a Group 1 carcinogen. Clause 20(1) of SEPP(AQM) requires that "Generators of emissions of Class 3 indicators must reduce those emissions to the maximum extent achievable" – this would require much more stringent dust control than those proposed by the EES.*
59. Mr Lakmaker is of the view that RCS is not expected to be an issue, however Dr Bellair's opinion is that the potential for RCS to be a significant issue cannot be discounted at this stage. The Botanica submits that as a matter of common sense, proper consideration of this issue is required given the possible ramifications.

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<sup>28</sup> Bellair, above n 26, 9 [5].

<sup>29</sup> Bellair, above n 26, 9[5.1].

60. Dr Bellair raised concern regarding the lack of model input files within the document. He has noted that he was provided with the input file used for the modelling during the conclave process, but that the printout of the input file was only three A4 pages.
61. Dr Bellair is of the view that *'The Air Quality assessment does not evaluate the effectiveness of measures to avoid, minimise - - environmental effects and related risks - while some basic dust control measures have been assumed by the modellers, to my knowledge, these have not been specified/endorsed by MMRA.'* He identifies that *'Predictions should have been made for discrete receptors (such as Botanica apartment balcony doors facing St Kilda Road, because of their close proximity to the Domain station site), and also for "worst case" situations when construction activities are occurring in their immediate vicinity.'*<sup>30</sup>
62. Consistent with the evidence of Dr Bellair, it will be important to include an EPR requiring the preparation of a comprehensive Dust Management Plan, to ensure that appropriate air quality is maintained in a sensitive location such as this. AQ1 should be modified to ensure that the following measures are included:
- a. Robust modelling is used to identify all key dust sources which may impact sensitive land uses, such as the Botanica;
  - b. Appropriate dust mitigation measures are identified, including the treatment of haul roads and covering of spoil storage/transfer - if RCS identified as an issue, control to the "maximum extent achievable" will be required by SEPP (AQM);
  - c. Weather model predictions are constantly reviewed to inform the need to modify or suspend problematic activities during adverse weather conditions;
  - d. Suspended particulate monitors are installed around work sites at sensitive locations, such as the Botanica, to transmit 'real time'

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<sup>30</sup> See conclave outcomes 3[1].

- information and warnings to the site manager, as well as interested parties such as the Botanica;
- e. Records are retained to determine compliance with air quality criteria, and provide a basis for modifying the dust control measures where appropriate; and
  - f. Dust deposition gauges are installed before work commences and regularly sampled.

### **Impacts on the Botanica building structure and property from design, engineering and construction**

- 63. The proximity of the Botanica to a major focus of construction activity and the Domain Station 'Box' creates significant potential for the Project to impact upon both the building structure and the ability to make future changes to the Botanica land.
- 64. The EPR's as presently proposed contain insufficient requirements for the Project to protect or limit the impact on existing third party assets, particularly in the design and engineering of the Project.
- 65. It is of note to compare the level of protection proposed to be afforded to the Project assets by the Port Phillip Planning Scheme DDO30 *Melbourne Metro Rail Project – Infrastructure Protection Areas* in respect of the design and/or demolition of buildings on adjacent land. The DDO30 is proposed to cut through the majority of the Botanica land and provide extensive protection to Project assets, including the need to obtain planning approval to demolish, excavate or build on the land (relating to both loading and unloading of the ground). Such a provision could provide a significant undue imposition on third party assets such as the Botanica if the Project is not sufficiently designed to limit impacts on nearby property.

66. The EPR's as presently drafted do not sufficiently specify such an obligation. In this respect, the Botanica submits that it is necessary and appropriate for an additional EPR to be included that requires the Project to be designed, engineered and constructed to minimise impacts on third party property to the maximum extent possible.
67. Furthermore, given the Project documents currently lack the necessary precision in terms of outcomes, it is premature to introduce the proposed DDO at this time. The introduction of the DDO should be delayed until the design of the Project is finalised, as this may affect the extent of the DDO.
68. The Botanica supports the EPR GM4 and expects, based upon its context and representations made by MMRA representatives, that it will be the subject of a pre-construction condition survey and ongoing consultation in this respect.

## **Conclusion**

69. The EPR's as presently proposed by the MMRA do not sufficiently specify the outcomes that will be required of the contractor. They leave too much discretion, which will not ensure that matters are adequately addressed throughout this significant and long-running Project. Revisions are required to properly stipulate those matters and outcomes which must be satisfied.
70. The Botanica submits that revisions are required to the documentation to:
  - a. Include the EPR's as part of the Incorporated Document;
  - b. Reflect properly agreed expert conclave outcomes in relation to noise and vibration, traffic and transport, and urban design;
  - c. To project sensitive uses, such as the Botanica, from unacceptable impacts arising from the Project;
  - d. To ensure meaningful and ongoing participation and input of the Botanica in matters that affect it within the Domain Precinct, including a requirement to consider the input from stakeholders in relation to all matters for which consultation is proposed;



- e. The presence and accountability of the contractor in the Reference Group; and
- f. Ongoing access to reliable and relevant monitoring information.

**Planning & Property Partners Pty Ltd**  
**Solicitors for the Botanica**

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