In the matter of the Melbourne Metro Rail Project

Joint Inquiry and Advisory Committee Hearing

Expert Witness Statement of *Timothy Offor*

Expert of Melbourne Metro Rail Authority

1 Name and address

Timothy Offor, Level 1, 10 Dorcas Street, South Melbourne, Victoria, 3205.

2 Qualifications and expertise

1) I hold the degree of Bachelor of Science (Hons) from The University of Melbourne.

2) For the past 20 years I have worked in a professional capacity as a consultant specialising in social impact assessment, conflict resolution and stakeholder engagement and as an independent mediator of social conflicts.

3) I have provided expert testimony on social and stakeholder engagement matters for numerous infrastructure projects.

4) My qualifications and experience are detailed in Annexure C.

3 Scope of engagement

3.1 Instructions

I was engaged by Herbert Smith Freehills as advisors to the Melbourne Metro Rail Authority on 6 July 2016 to act as an expert witness covering social issues associated with the Melbourne Metro Rail Project.

My instructions were to prepare an expert witness statement on social matters associated with the MMRP in accordance with the Planning Panel Victoria Guide to Expert Evidence.

Under a previous letter of engagement by Herbert Smith Freehills of 7 December 2015 I was engaged to undertake the following scope of work:

- Review and comment on the assumptions, methodology, assessment criteria (standards and limits) and scope applied by AJM in their initial draft social impact assessment as set out in the attached documents *Social Impact Assessment Method* ' and *Social Work Plan.* Please advise whether there are any additional matters which should be considered in your view, as part of the impact assessment, in order to address the EES Scoping Requirements that are relevant to social impacts and management, and

- Following provision of AJM's final draft social impact assessment report, provide a peer review of the report including advice as to whether there are any gaps or matters where you disagree with the assessment which in your view should be addressed.

This work was completed and my peer review report exhibited with the MMRP EES.

In preparing this expert witness statement I adopt the Social Report from the Melbourne Metro Rail Project as exhibited.

3.2 Process and Methodology

In preparing this expert witness statement, I have undertaken the following tasks:

- Reviewed 245 submissions to the exhibited EES that were considered by the Aurecon Jacobs Mott MacDonald Joint Venture (AJM) to contain responses relevant to the Social Report

- (Re)-read EES chapters and Technical Appendices relevant to social impact, including technical chapters covering the Project Description, Noise and Vibration, Air Quality, Transport, Contaminated Land and Spoil, and Social and Community

- Consulted the academic literature in relation to certain social impacts.

3.3 Listing of documents related upon

In preparing this statement, I have relied upon the documents listed in Annexure A.

3.4 Persons assisting with this work

The preparation of this expert witness statement has been entirely my own work.

4 Findings

4.1 Structure of this statement

As this statement is primarily a response to the matters raised in public submissions, I have used issue descriptions that can be readily related to the submissions rather than following the descriptions used in the EES Social Report.

For cross referencing to specific submissions I have added the submission numbers in square brackets. I have not referenced all submissions but have tried to select a representative sample. Where many submitters drew on the same material I have in some cases selected one example and indicated this with "-A" after the submission number.

Section 4 addresses the project as exhibited and I have left in discussion of some project elements, such as the Fawkner Park alternative TBM launch site, as they were discussed in submissions.

Section 5.1: "Response to matters raised in MMRP Technical Notes" discusses the social impact implications of matters raised in MRRP Technical Notes 1-18, which includes some proposed changes to the project that occurred subsequent to the EES being exhibited.

Annexure B provides recommended changes to the EPRs arising from this review, and in some cases new EPRs.

Regarding privacy considerations, I have sought to not use any identifying information from individual submissions. I have identified submitters where they are commercial or public bodies if this is necessary to properly understand their issues.

4.2 Submissions as an indicator of potential social impact

Assessment of social impact seeks to be objective and defensible as far as possible, but expert opinion based on experience and judgement also plays a role. When reviewing submissions, it is not possible to know a submitter's intent or how sincerely they hold the views expressed. Consequently, I take the views expressed on face value.

While the merit of perspectives expressed in submissions are not considered quantitatively (i.e. an issue that received 10X the number of responses is not assumed to be 10X as important), useful information *can* be gleaned from the number and distribution of submissions, and from the degree of similarity between submissions.

It is normal for the majority of submitters to have drawn upon pro-forma submission information circulated amongst particular geographic or social groups. Where people take this information and adapt it to express it in their own words or selectively present issues in their submissions, this is helpful for understanding the relative import of issues, which may otherwise be presented as a long list of impacts in almost identical submissions. Similarly, submissions which appear to be written in isolation of other submitters' views (based upon their content, format and style) can be instructive as they can help to establish how widely and/or strongly-held particular views are.

4.3 Response to Issues Raised in Submissions

The issues raised in the 245 submissions reviewed that are relevant to social impacts are listed in Table 1 below. As the language and categorization of impacts used in submissions are often different to that used in the EES, I have endeavored to use submitters' descriptions as far as possible and identify how these relate to those used in the EES.

Table 1: Issues as presented in EES submissions and treated in this EWS.

Topic heading(s) in this EWS	Issue as presented in submissions
Access	Access
Community cohesion	Community impacts, people forced to move out

Topic heading(s) in this EWS	Issue as presented in submissions
Dust	Air quality, dust
Financial hardship and impost	Lost income
Heritage	Heritage
Lighting	Lighting, construction lighting
Noise (construction)	Traffic, traffic in residential streets
Noise (operation)	Train noise, ventilation shaft noise
Odour	Air quality, odour, smell
Parking	Parking
Property acquisition	Compulsory acquisition, property acquisition
Property damage	Structural impacts, condition of buildings, condition assessments
Public open space	Impacts on specific parkland (JJ Holland, Fawkner etc)
Safety	Safety, traffic, traffic in residential streets
Stress and anxiety	Stress, mental health, anxiety
Traffic congestion	Traffic chaos, traffic, congestion, driver frustration
Tree removal	Tree removal
Vibration (construction)	Vibration
Vibration (operation)	Quiet enjoyment
Visual amenity	Visual impact, blocking views, ugly

Each of these is discussed in turn in the following sections.

(a) Access

(i) Issue as presented in submissions

Access to properties was an issue of particular concern for residents in all precincts affected by significant project works.

Residents in the Domain precinct were concerned about traffic congestion impeding vehicle access/egress from building carparks with many submitters clearly upset at the inconvenience that this could cause for themselves and their visitors [346, 343, 330, 315] as well as potential safety issues if emergency services access were impeded [330, 349, 343]. In the case of the submission from the Botanica Owners' Corporation [240], MMRP was seen as an opportunity to address current ingress/egress problems [240].

For commercial operators [295, 288] restricted vehicle and/or pedestrian access to their properties was considered to have financial implications for their business operations as it may deter custom.

Concerns about pedestrian access and safety were frequently raised [370, 367, 295], both in terms of access to buildings and movement around the precinct [370]. Specific concerns were raised about the impact that the project could have for elderly and less mobile people (visitors, congregations and residents) [135, 290, 59, 213, 189, 265].

Many submissions relating to the Western Portal discussed the difficulty that the Concept Design would cause for access to South Kensington Station and/or for movement around the area generally [282, 293, 271, 179]. Similarly, submissions relating to CBD North and South, which raised concerns about impacts on custom from impeded access [184, 222, 117] and for public accessibility and movement generally around the precincts [178, 317, 180].

(ii) Response

Changed and in many cases more difficult, access for pedestrians and vehicles is an inevitable consequence of major works on the scale of the MMRP and a large part of the EES deals with access issues specifically. From a social impact perspective, impacts can be minimised through well planned routes that take into account existing pedestrian movement patterns and incorporate clear signage. Planning must include consideration of people with special access needs.

(iii) Implications for Environmental Performance Requirements

EPRs relating to pedestrian and vehicle access should include reference to people with special accessibility needs.

(b) Community cohesion

(i) Issue as presented in submissions

Community impacts associated with compulsory acquisition were referred to by submissions addressing the Western Portal Concept Design [50, 93, 122-A, 124, 156, 230, 239, 238] with concerns raised that the school community would be affected by any loss of families.

The submission from the Fawkner Park Childcare Centre in response to the Fawkner Park TBM launch proposal – based on the assumption that this option would require the centre to close – raised concerns about a "significant detrimental impact to the community of families" from loss of the FPCC (note, this submission includes letters from more than 50 families associated with the FPCC). Other individual submissions raised similar issues [15, 87, 148, 355].

(ii) Response

Community cohesion can be impacted both negatively and positively by a major infrastructure project. In the case of the FPCC the impacts are clearly negative and enduring if the centre were to close and children dispersed to other centres. [The implications of removing the Fawkner Park alternative TBM launch site from the project are discussed in Section 5].

For the Kensington community, if the Concept Design were to be implemented and properties compulsorily acquired – assuming that the families were not re-housed in the same community – there would be negative impacts from the loss of families and the severing of neighbour relationships.

Perhaps perversely, I expect that the disruption of the MMRP proposal will also have had a community-bonding impact and have built social capital. Based on the consistent, strong messages throughout submissions from the Kensington community, there has clearly been much discussion and networking to organize this consistent response. However, this observation is in no way intended to diminish the other negative impacts, some of which, such as stress and anxiety, will already be felt by some from the prospect of the MMRP.

(iii) Implications for Environmental Performance Requirements

No changes to the EPRs are recommended.

(c) Dust and mud

(i) Issue as presented in submissions

Dust was raised as an individual issue in many submissions from or on behalf of residents close to project work sites [370, 371, 367, 356, 348, 343, 315, 318, 179, 144, 102, 97]. Concerns related to its potential impact on health [371, 325, 276], amenity and for property maintenance [274]. Dust sources of concern were the major precinct construction sites, spoil storage areas and trucks removing spoil. The potential for impacts on patients with acute respiratory conditions was raised [308].

Mud on roads was raised in a small number of submissions relating to the CBD [317] Eastern Portal [352] and Arden precincts [157].

(ii) Response

The EES Air Quality chapter includes detailed dust mitigation measures for the handling, storage and removal of spoil. From a technical perspective I have no doubt that the dust issues can largely be managed through the measures described in the EES. There will however be some dust emitted and this will cause concern for some nearby residents.

In addition to effective dust mitigation, concerns about dust impacts can be best addressed through establishing confidence in the independence and veracity of the dust monitoring and grievance management processes.

(iv) Implications for Environmental Performance Requirements

No changes to the EPRs are recommended.

(d) Financial hardship and impost

(i) Issue as presented in submissions

Commercial operators within CBD and Domain precincts were concerned about the impact of the MMRP on the financial viability of their businesses as it may reduce custom [117, 184, 157, 288, 246] or cause tenants to vacate and make the property difficult to re-let [186, 178, 281].

With a person's home generally being their most valued, and valuable, asset, fears of the potential impact of MMRP construction and operation on the value of this asset, their ability to sell it or to obtain rental income, were expressed by many. These fall into four main groups:

1. Property owners concerned about the impact of vibration and noise from tunnel construction and operation or the effect that strata title acquisition may have on ease of sale (predominately in the northern section of the tunnel) [95, 119, 228, 90],

2. Owners concerned about the impact of station and/or portal construction on their property value and/or their ability to sell [343, 330, 80, 193, 196, 252, 266, 352],

3. Owners of rental properties concerned about their ability to let their properties over the duration of construction [348, 264], and

4. Owners whose properties are proposed for acquisition who are concerned about their ability to purchase equivalent property for the statutory purchase price [230, 239].

(ii) Response

I am not qualified to comment on the technical and statutory aspects of business compensation and understand the procedures for addressing these impacts are well developed. My comment with regard to addressing the *social* impacts of these financial issues – particularly the stress and anxiety introduced by the uncertainty during the approvals process – is to ensure communication with potentially affected businesses and property owners is frequent and clearly articulates the process for responding to these issues. This should be addressed through the Business Disruption Plan referred to in EPR B2.

Regarding property owners' concerns about possible damage from tunneling beneath their properties, this should be addressed through condition assessments (dilapidation surveys) undertaken shortly prior to works commencing. For these to be of most value they should be undertaken through a transparent process that is clearly independent of MMRA and the project contactor. The benefit of this will be increased trust and reduced disputation of assessments. Similarly, inspections following works should be through the same independent system. EPRs GM3, GM4 and GM6 are relevant to this matter and I have recommended a new EPR to address property owners' concerns in Annexure C. Heritage properties potentially affected by ground

movements are addressed under EPRs CH4 and CH19 and I make no recommendations for changes to these.

Regarding property owners who believe their ability to sell their property is significantly impacted by the construction works, there is the opportunity for the proponent to take a creative approach here. Commercial proponents – mining and wind energy companies for example – commonly purchase properties surrounding their projects where landowners believe they have been impacted by project "blight". While the number or properties potentially affected may be large, some creative thinking around objective assessments of impact that could enable prioritisation, and creativity in terms of the instruments used such as low/no interest loans, subsidized rental schemes etc., and this could lessen the impact significantly for some of the most affected property owners.

Similarly, owners whose properties are acquired but have difficultly buying a like property in the same community (potentially because of increased competition for properties from other displaced owners) could be offered low/no interest loans to increase their buying power [371], which is allowed under Section 45 of the *Land Acquisition and Compensation Act* 1986.

(iii) Implications for Environmental Performance Requirements

Regarding business impacts, customer and supplier access to business premises are referenced in EPR B2 and I have recommended some minor changes to this EPR.

Regarding property owner concerns about possible impacts, in the same manner as the EPRs in the Noise and Vibration chapter 13 addressing pre-construction dilapidation surveys for heritage listed buildings, I strongly advise MMRA to provide property owners within the corridor with the opportunity for a preconstruction dilapidation survey. I have recommended some changes to EPR GM4 and a new EPR to address these matters.

(e) Heritage

(i) Issue as presented in submissions

Concerns about the project's impact on heritage values were raised in numerous submissions. These specifically identified the relocation of the South African War Memorial, Cockbill Fountain [370, 356, 190], the Windsor Oak [267] heritage aspects of Fawkner Park [322] and potential impact on heritage buildings.

(ii) Response

Concerns about impacts on the South African War Memorial appear to be largely tied together with concerns about the Domain Station's construction zone impacts on the Albert Road Reserve and the proximity of construction site to residences. The current proposal to store, relocate and protect the memorial appears appropriate. Impacts on trees and public open space are discussed under those headings elsewhere in this document.

(iii) Implications for Environmental Performance Requirements

The heritage EPRs cover these issues and no changes to the EPRs are recommended.

(f) Lighting

(i) Issue as presented in submissions

Some submissions raised concerns about the potential for construction area lighting to impact on their amenity in the vicinity of the Domain Station [315, 267] and Eastern Portal [354].

(iii) Response

Lighting impacts are a common concern, most particularly in areas with little environmental light at night. Good practice with any construction site undertaking night works is to use lighting that only illuminates the works area and does not spill or reflect so as to affect neighbours' amenity.

(iv) Implications for Environmental Performance Requirements

The EPR within the Landscape chapter "Develop and implement measures to minimize light spillage…" appears sufficient to manage this impact and no changes to the EPRs are recommended.

(g) Noise (construction)

(i) Issue as presented in submissions

Noise was a very frequently cited issue of concern across the MMRP. The implications of noise from construction activities (piling, excavation etc.) [268, 135, 170] and from trucks servicing the project [115, 230, 354] are raised submissions from all precincts. Most submitters did not differentiate between air-borne and ground-borne noise, so this distinction has not been made in this EWS.

Regarding the Western Portal, construction noise and vibration were generally bundled together and presented as one of a number of reasons to select the Alternative Option for this portal [293, 282, 179, 169, 238]. Some also mentioned concerns about noise from trucks and traffic generally on neighbourhood roads [74, 124].

Submissions discussing Arden Station raised concerns about construction noise impacts on adjoining properties [377, 170] while residents along truck routes raised concerns about increased noise from trucks [115, 305, 49].

In the CBD, residents and commercial operators raised concerns about noise impacts [304, 222, 186, 178, 117, 281, 372]. The Westin Hotel advised that they considered the noise and vibration criteria to be appropriate but that monitoring of performance against these criteria should be undertaken by an independent agent [310].

Melbourne Health expressed a view that noise and vibration impacts, in terms of human comfort, may be more significant than specified in the EES given the "acute and complex nature of patients treated across Parkville" [308].

RMIT raised concerns about the baseline measurements and the degree to which impacts on amenity and functionality for educational use had been taken into account [180].

Most submissions relating to Domain Station works raised noise concerns and some residents are clearly fearful of the impact that these might have on their amenity [343, 330, 290, 267]. Ramsay Health Care raises specific concerns about the impact that elevated noise levels could have on their patients who are particularly sensitive [295].

Melbourne Grammar expressed concerns that classrooms had not been included as sensitive areas [367].

Submissions regarding the Eastern Portal raise concerns about construction noise and noise from trucks servicing the project [352, 354, 266].

(ii) Response

Noise is one of the most challenging social impacts to plan for and manage. The experience of noise is highly subjective and modulated by emotions and input from other senses (e.g. sight), whilst the measurement and modelling of noise is very technical and difficult to comprehend for non-specialists. Bringing these two very different elements together in a manner that enables an informed, objective discussion of the expected experience of noise is very challenging.

Great concern was expressed in submissions about the potential for noise to persist over a number of years and few submitters' fears were assuaged by the statements in the EES regarding noise levels or the EPRs for noise and vibration.

It is clear from the submissions reviewed that more work needs to be done before people living close to the proposed project works, and along the tunnels, feel confident that they will not be exposed to uncomfortable levels of noise (and vibration).

The data on the social impacts of environmental noise are complex, generally relate to noise sources other than construction, and cannot be simply translated to make a clear assessment of impact. The most robust contemporary source I have identified for interpreting the potential social impacts of noise from the MMRP is the World Health Organisation/European Commission 2011 Burden of Disease from Environmental Noise report (WHO 2011).

Based on a risk assessment informed by the available data, the WHO report identifies a range of health impacts that have been documented to result from environmental noise. Most of the studies on which the WHO assessment is based relate to motor vehicle traffic, rail or aircraft noise, rather than construction noise.

Based on the discussion of potential noise associated with construction and operation of the MMRP (duration and potential exposure levels) within the EES documentation, if the project achieves the noise performance intended, noise-related social impacts experienced by some people could still be reasonably expected to include annoyance and sleep disturbance. This is based on the assumption that the project is able to meet the requirements of EPA Publication 1254 *Noise Control Guidelines* but, even so, there is audible project-related noise up to 10pm evenings, and some night time noise above background levels due to unavoidable works.

The technical aspects of noise mitigation are substantially addressed in the EES documentation and I will make no further comment on this aspect.

From a social impact perspective, the relocation management framework is one of the key planks of noise mitigation. The framework is not discussed in any detail and this lack of detail has been raised in some submissions [370, 330, 290, 354]. It would be beneficial to develop a clear framework for relocation early in the project. It would be advisable to have this framework managed at arm's length from the construction contractor with clear grievance management procedures in place, as relocation will be a contentious process that will need to be seen to operate fairly. This framework needs to be able to respond to different people's noise sensitivity [133]. It would be beneficial to consult with organisations such as Melbourne Water that have used similar processes to manage impacts around their major works. City of Port Phillip has specifically requested the opportunity to review this framework [133].

(iii) Implications for Performance Requirements

The noise-related EPRs are largely focused on addressing the technical performance aspects of the project. Successful management of noise impacts will also require acknowledging and addressing the factors that influence noise annoyance.

EPR NV1 "Develop and implement a plan to manage construction noise in accordance with EPA Publication 1254 Noise Control Guidelines" provides no detail on what this plan would contain, although such detail is available under mitigation in the body of the EES. As this is the most appropriate place to reference the how respite and relocation would be managed.

EPR NV3 requires "Appoint an acoustic and vibration consultant…" who has responsibilities for modelling and monitoring. This EPR would benefit from some additional description of the manner of appointment and reporting requirements and I have made some recommendations in this regard. Unless monitoring is managed transparently it will be contested and consequently of limited value from a social impact perspective. This applies to any form of monitoring that potentially relates to social impact (e.g. noise, vibration, property condition, air quality).

EPR NV4 "Develop and implement a communication plan…" refers to complaint management procedures. These should be through a project-wide grievance management process, incorporating a best-practice grievance triaging system with recourse to independent mediation where negotiated outcomes fail. Refer to EPR SC3 for my recommended changes.

EPR NV11 titled "Ground-borne (internal) Noise Guideline Targets for Amenity refers to implementing "management actions…" if "Guideline Targets…are exceeded during construction". I assume that these management actions are the Proposed Mitigation Measures listed in the table as it appears in the Chapter 13: Noise and Vibration. These mitigation measures include "Feasible and reasonable mitigation" which is a highly subjective statement that should provide little comfort in its current form. I recommend that clear guidance be provided on what is considered to be "feasible and reasonable" before contracts are let. Reference to an external source for these terms may be the simplest approach. I recommend the NSW Department of Environment and Climate Change *Interim Construction Noise Guideline,* which defines these terms.

(h) Noise (operation)

(i) Issue as presented in submissions

Much of the preceding discussion of construction-related noise relates to operational noise, also. Operational noise was raised as a concern in submissions from the Western Portal [122-A, 239] and the Tunnel precincts [95-A, 129]. For submissions relating to the Western Portal, concerns about operational noise related to increased rail traffic and the possibility of increased noise associated with trains entering/leaving the tunnel portal as well as more generally along the rail easement [314]. Concerns raised in submissions relating to the Tunnel [95-A] were that there may be operational noise from trains and it was proposed that the solution to this was a deeper tunnel, with reference to a 40-50m deep tunnel proposed for "Oran Park, NSW".

(ii) Response

In the case of the Western Portal, the potential for increased operating noise is one of a suite of arguments presented in support of "the Alternative Option" for the portal location. As there are noise mitigation measures proposed for the Concept Design and I discuss some of the potential social impacts of this option in other sections, I will not discuss the operational noise aspects of the Western Portal any further.

Regarding concerns raised about operational noise in submissions relating to the Tunnel, the issue appears to relate to people's level of confidence in the technical studies and the summary statement "Achieving the Environmental Performance Requirements for ground-borne noise could require the use of measures such as suitably attenuated track to mitigate noise to levels that do not adversely affect residents and business and that would comply with the Guideline Targets" (EES 13.9.2). Given the issues associated with noise annoyance discussed in the preceding section, *any* new audible noise associated with train passage through the tunnels – even if complying with the Ground-borne (internal) Noise Guideline Targets for Amenity – may cause annoyance. Causing annoyance is clearly not sufficient grounds alone for making a decision about the acceptability of a social impact as the scale, severity and duration of the impact must be taken into account as well.

(iii) Implications for Environmental Performance Requirements

EPR NV17 titled "Ground-borne Noise Guideline Targets for Operation" states "Where operational ground-borne noise trigger levels are exceeded for sensitive occupancies as shown in the table below… assess *feasible* and *reasonable* mitigation to reduce noise *towards* the relevant ground-borne noise trigger level" (my emphasis in italics). As an EPR this leaves a great deal of discretion in the hands of the MMRP operator. I have italicized the terms that I think lack adequate definition and, as with my comments on NV11 recommend that they be defined through reference to an external source. I have recommended a change to this EPR.

(i) Odour

(i) Issue as presented in submissions

The possibility of odour from stockpiled soil was specifically raised in submissions 170 and 318 (The University of Melbourne). However, references to air quality and pollution associated with Arden truck routes were inferred to refer to odour as well as dust [25, 115] as were the many Western Portal submissions raising concerns about "traffic in suburban streets".

(ii) Response

Odour should be able to be adequately managed within the SEPPs for Ambient Air Quality and Air Quality Management and I cannot see any requirement for specific social impact measures associated with odour at present. In the event that an odour event occurred, the stakeholder engagement response should be the same as for any other significant project-related event and captured within the relevant communication framework.

(iii) Implications for Environmental Performance Requirements

No changes to the EPRs are recommended.

(j) Parking

(i) Issue as presented in submissions

Concerns about impacts of MMRP construction on parking – for residents and visitors – were raised frequently. Concerns related to loss of on-street parking as well as competition for parking spaces [370, 367, 356, 349, 310, 295, 254, 249, 294, 339, 157, 122-A]. The RACV submission refers to the need to consider kerbside parking bans and removal of kerbside parking in some instances to improve traffic and pedestrian flow [343].

Commercial operators proximate to construction sites also expressed concerns that MMRP provide on-site parking for construction work forces [157, 227] and take measures to mitigate parking impacts such as providing on-site tool storage [263].

(ii) Response

I have little to add regarding the general matter of parking availability as its management is a large and complex task that will be addressed through transport management plans. These plans will need to respond to the specific issues within each major construction site, based on the final project configuration.

The availability of loading bays and short-term setting-down bays is important for the continued operation of commercial and public facilities in the vicinity of construction sites and I recommend that this be given particular attention in this planning process. Similarly, the availability of disabled parking bays for mobility-impaired residents and visitors should be a priority. There will also be a very important communication task to inform commuters and visitors about parking arrangements around construction sites, as cars seeking parking will increase traffic congestion.

(iii) Implications for Environmental Performance Requirements

Parking is addressed in EPR T1 titled "Road Transport (Construction Phase)". This EPR makes no mention of the role that communication will play in managing traffic and parking and a new point should be included that makes this point and relates it to the MMRP Community and Business Involvement Plan.

Similarly, a point should be added regarding maintaining availability of parking and set-down places for mobility-impaired people and other vulnerable groups.

The points in this EPR relating to providing replacement car parking for spaces lost due to construction, and provision of car parking for construction workers, both carry the "where possible" suffix, which on its own provides little confidence that significant efforts would be taken by the project developer if it did not suit them to do so.

It is recommended that this language be strengthened and the overall incentives or directives relating to car parking, to signal to bidders the importance of this issue for reducing disruption to residents and businesses, thus increasing their confidence that this concern is being taken seriously.

Finally, EPR T1 refers to the plan being developed "in consultation with the relevant road management authorities…" but this should be expanded to include other precinct stakeholders with a significant interest in traffic and parking changes such as schools, churches and major businesses.

Refer to Annexure C for my recommended changes to EPR T1.

(k) Property acquisition

(i) Issue as presented in submissions

Many submissions relating to the Western Portal raised concerns about property acquisition directly and its flow-on impacts on community cohesion [122-A, 124, 144].

Two submissions were from landowners whose properties would be acquired under the concept proposal [230, 239].

One submission concerning the Eastern Portal precinct [266] directly requests that their property be acquired due to the impact of the project on their ability to sell it. Other property owners in this precinct raise concerns about the financial impost if they cannot sell or continue to rent their properties (these are addressed under Financial hardship/impost).

(ii) Response

Under circumstances where a property owner wishes to remain, compulsory property acquisition is a disruptive process with considerable negative social impact. While there is a clear, legislated acquisition process under the *Land Acquisition and Compensation Act* 1996, owners are generally unfamiliar with it, may have different views on equitable value and – as something that is forced upon them – the process can be the source of stress and conflict. Consequently, from a social impact perspective it exemplifies the difficult trade-offs that sometimes need to be made between individual interests and broader public benefit.

In the specific instance of the Western Portal, where a Concept Design and an Alternative Proposal have been provided in the EES, there was an almost unanimous response in favour of the alternative proposal [331, 293, 282, 179, 156, 124, 122, 101], citing the need to acquire only one dwelling, compared to nine for the Concept Proposal. Submission 261 did oppose the Alternative Proposal, primarily on the basis that it would constrain future development of land that they own.

As detailed in the Social Report, the Alternative Proposal requires acquiring only one property and has reduced impacts on residential streets and JJ Holland Park. It would however still cause increased truck movements and local road disruption due to a new rail bridge over Kensington Road.

(iii) Implications for Environmental Performance Requirements

The EPR relating to compulsory acquisition is SC1 "Reduce the impact of acquisition or temporary occupation on affected premises". This EPR provides no guidance on the hierarchy of preferred approaches where acquisition is being considered. This is perhaps appropriate *if* all decisions regarding acquisition are made prior to construction contracts being awarded. This is based on the assumption that the planning panel process enables informed, transparent recommendations about trade-offs to be made, such as how to best decide between the Western Portal Concept Design – with its associated property acquisitions and significant community opposition – and the Alternative Proposal. If this is *not* the case, then there needs to be additional guidance provided as to where property acquisition sits in the hierarchy of responses.

The "Reduce the impact of acquisition…" EPR would benefit from some additional points describing how the impact will be reduced. When comparing EPRs across the EES documentation, some have considerable detail (e.g noise) while others have very little (e.g. social). As a matter of practice, I recommend that EPRs carry more rather

than less detail as I am not aware that the mitigation measures are binding on contractors whereas the EPRs would be. More detailed EPRs will also help to instill public confidence in the PPP process. I have made some suggested changes to SC1 based on the mitigation measures in Chapter 10.

(l) Property damage

(i) Issue as presented in submissions

Many submissions raise concerns about the potential for the project (through vibration or settlement) to damage their property. These relate to both tunneling [159, 339, 348, 95-A] and station excavation works [135, 370, 155, 25, 325, 289, 283, 186] across most precincts. Concerns relate to both residences and public buildings, some of which have heritage status.

Numerous submitters state that pre-condition assessments (i.e. dilapidation surveys) should be undertaken, with specific mention that these be undertaken by an independent assessor in some submissions [95-A].

(ii) Response

Refer to my discussion of dilapidation surveys under the Financial Hardship and Impost section.

(iii) Implications for Environmental Performance Requirements

Regarding property owners' concerns about possible impacts, in the same manner as the EPRs in the Noise and Vibration chapter 13 addressing pre-construction dilapidation surveys for heritage listed buildings, I recommend that property owners within the Zone of Potential Influence have the opportunity for a preconstruction dilapidation survey even if their property is not considered to be potentially affected by project-related ground movement. I have recommended changes to EPR GM4 and a new EPR GM7 to address these issues.

(m) Public open space

(i) Issue as presented in submissions

Loss of, or negative impacts on, public open space was frequently cited in submissions with the major areas of concern being JJ Holland Reserve [74, 77, 145, 212, 106, 144, 111], Albert Road Reserve [196, 311, 260, 190, 379], Fawkner Park [2, 46, 214, 322, 370], Osborne Street Railway Reserve [354, 266], the City Square [317, 372, 304], Domain Parklands [189], Edmund Herring Oval [367] and University Square [364].

Concerns typically related to loss of open space and the parkland environment, but references to JJ Holland Reserve related to recreational use, also.

RMIT raised issue with the treatment of the existing "social and community context" of RMIT and its "open, free-flowing campus" [180].

The opportunity that the MMRP provided for the re-design of the City Square and pedestrian movement was also raised [274].

(ii) Response

Loss of the City Square open space is of particular concern due to the very limited open space in the city grid and consequently the City Square is heavily used at lunch times, as are the lawns of St Paul's Cathedral. Replacement open space – as far as is possible – is a priority as referenced in the submission from the Melbourne City Council [365].

Loss of public open space associated with the Western Portal has been raised as a concern but does not appear to be a significant risk from either portal design, although the amenity for park users may be affected more by the Concept Design.

Loss of the Albert Road Reserve would clearly be upsetting for some local residents and access to alternative public open space would require crossing Kings Way or skirting the Domain Station construction site and crossing St Kilda Road to the Shrine Reserve. It will be important to ensure that access around the Domain Station works area and across St Kilda Road provides a high quality surface allowing easy and safe ambulatory and disabled access.

Residents in the vicinity of the Eastern Portal will be negatively affected by the loss of the Osborne Street Railway Reserve as there is little other public open space in the vicinity.

Information on alternative open space should be included in the "community and business involvement plan" referred to in the Social EPRs.

(iii) Implications for Environmental Performance Requirements

The EPRs dealing with stakeholder engagement are currently spread across a number of topics (Social and Community, Business, Noise and Vibration, Ground Movement and Land Stability) and these need to be unified so that there is a well-coordinated engagement process with key stakeholders around each precinct during the formulation of plans that significantly affect them and on an ongoing basis. I have recommended some changes to SC3 for this purpose as well as establishing a consistent referencing of the MMRP Community and Business Involvement Plan across EPRs.

(n) Safety

(i) Issue as presented in submissions

Safety was raised as an issue in many submissions. Concerns included risks to pedestrian safety due to increased truck and local road traffic and traffic diversions due to MMRP works [343, 310, 295, 184, 156, 227, 305, 294, 180], to student safety due to changed traffic conditions [61] and increased walking distances from tram stops [367] and from changes to the current safe drop off arrangements at Fawkner

Park [355, 148]. Safety of cyclists due to changed traffic conditions was of concern [343, 227, 294] as was the safety of roads in general [343, 356].

Some residents in the Domain Station Precinct expressed concerns about their personal safety due to the predicted large influx of construction workers [266, 196], and also raised concerns about safety from an influx of people from outside areas once Domain Station was operating [196, 240, 268]. Difficulty of ambulance access due to congestion was also raised as a concern that could impact on personal safety [229, 193].

Healthcare providers raised concerns about safety of patients accessing their facilities [295, 308], the potential for the project to impact on their ability to provide safe care to their patients [308] and implications of the works for the safety and wellbeing of their staff [308]. Also, the location of Parkville station entrance with regards to public safety [308].

Some submissions raised the opportunity provided by the project to increase safety at Kensington Station if the Alternative Option was selected [158].

(ii) Response

As an issue safety is heavily regulated and is front of mind for numerous authorities, as well as for the major contractors who would construct the MMRP. Consequently, I will make no recommendations for particular safety-related measures in response to the matters raised in submissions other than some suggestions relating to community engagement.

Fears about personal safety due to construction workforces are common and largely associated with the social change (or anticipated change) wrought by an influx of "strangers" into existing communities. It would be appropriate for MMRA to engage with property owners around the Domain Precinct (and others where similar concerns are held) to discuss how safety concerns about project workforces can be satisfactorily addressed. Involvement of Victoria Police in these discussions may be useful.

(iii) Implications for Environmental Performance Requirements

The MMRP Community and Business Involvement Plan (SC3) should include community engagement over issues such as safety. No changes to the EPRs are recommended.

(o) Stress and anxiety

(i) Issue as presented in submissions

Some submissions include statements about the stress [330, 309, 265, 190, 156, 117] and anxiety [343 330] created by the MMRP proposal, for themselves and for others. These include a business owner [117] concerned about the impact of constructing the CBD North station on his business.

(ii) Response

While the number of submissions directly raising issues of stress and anxiety are relatively small, I do not think that this should be taken to mean that stress and anxiety are not more widely present amongst people potentially affected by the MMRP. Any change in a person's environment – particularly one that is being imposed by others and impacts on their amenity – can cause stress and anxiety. In the case of the MMRP – where changes are in many cases very significant and will persist for years – it is inevitable that the project will affect some people in this way. That said, there is much that can be done to lessen the psychological impact through the manner of the project's execution.

During project planning and approvals, it is essential that those most affected by the project are kept well informed about matters of interest to them. Uncertainty about process and progress will exacerbate people's stress and anxiety. There is a great deal of information already available to MMRA from consultation to date that can inform targeted communications with residents and other affected stakeholders. There is a tendency for proponents to reduce communication once the formal consultation process has ceased, which would be a mistake in this case. Demonstrating a commitment to ongoing communication, and a willingness to hear concerns from affected residents, will make the engagement process more productive, and to some extent can lessen the impact for residents (assuming the project proceeds).

A person's internal state (genetic, physiological, psychological, life style) impacts on their sensitivity to environmental stressors (refer to my discussion in the Noise section). Consequently, the impact of these stressors will not be the same for everyone. This differential response must be taken into account when designing the social mitigation framework – including relocation management – for managing the social impact of the project. This means that objective measures such as noise monitoring are only one part of a well-designed framework for managing amenity impacts.

(iii) Implications for Environmental Performance Requirements

Many of my recommended changes to EPRs will contribute positively to addressing the level of stress and anxiety caused by the project. Most important will be the responsiveness of the communication and grievance management processes within SC3 and the effectiveness of the mitigation measures.

(p) Traffic congestion

(i) Issue as presented in submissions

Concerns about traffic congestion were raised for all precincts involving major above-ground construction. Generally, "congestion" alone was the issue raised in submissions [370, 354, 190, 227] but some also elaborated on the implications of increased congestion such as reduced vehicle and pedestrian safety [276, 59, 25], increased travel times [356, 343, 196, 367], increased noise and reduced air quality in local streets [180, 74], difficulty entering or leaving their property [276, 241] and impeded access for emergency services [276, 241].

(ii) Response

Traffic congestion is a "catch all" type of issue that is experienced in a myriad of ways depending on the experiencer's perspective – as motorist, pedestrian or home occupier. For *motorists* the social impact is largely emotional – annoyance and frustration with their inability to reach their destination on time, as well as road safety. For *pedestrians* the impact is more generally one of discomfort of the mass of vehicles and increased traffic fumes (and also health and safety). This is increased when there are many trucks involved due to their physical mass and diesel fumes. For *home occupiers* the impact can be one of concern or fear about the safety of their streets, particularly children, and the potential health impacts of associated air and noise pollution. Congestion will also increase "rat running" [239, 294,] – cars using suburban streets to avoid the congested traffic.

(iii) Implications for Environmental Performance Requirements

I recommend inclusion of an additional point in the Traffic EPR T1 "Road Transport (Construction phase)" to specifically address traffic management measures to protect residential amenity in local streets.

This EPR also refers to the plan being developed "in consultation with the relevant road management authorities…" but this should be expanded to include other precinct stakeholders with a significant interest in traffic and parking changes such as schools, churches and major businesses.

(q) Tree removal

(i) Issue as presented in submissions

Concerns about tree removal were raised frequently, particularly in relation to St Kilda Road [317, 356, 349, 343, 313, 240] but also Childers Street [239, 282, 144] Arden Station precinct [365], Royal Parade and Grattan Street [128], Fawkner Park [128] and the City Square [317]. Tree removal was considered unnecessary by many submitters as they promoted an alternative "deep cavern" construction method for the Domain Station that they believed would enable St Kilda and Albert Road trees to be retained [292, 298, 306, 172]. Others, such as the City of Port Phillip, recommended that all efforts be made to retain existing trees [133].

(ii) Response

Tree removal is a highly emotive issue, particularly for residents whose local environment is being affected. This is doubly so when the removal is thought to be unnecessary, a view held by many submitters responding to the Domain Station Precinct. The best mitigation for the emotional impact of tree removal is a requirement that MMRP developers must effectively prosecute the case for the removal, which includes demonstrating that significant efforts are being taken to limit the number of trees affected.

(iii) Implications for Environmental Performance Requirements

EPRs related to tree removal fall within Cultural Heritage (i.e. heritage trees and places), Arboriculture, Landscape and Visual, and Terrestrial Flora and Fauna. While EPR AR1 does provide for "maximum tree retention where possible", the EPRs provide little guidance on how the detailed project design process is informed by environmental and social constraints, and how such conflicts are to be resolved.

A project-wide sustainability framework would be an appropriate method of guiding these decisions. I note that EPR G1 requires that a Sustainability Management Plan (SMP) be developed but it I have little information on what it seeks to achieve. There is the opportunity to expand this SMP to provide the type of guidance I refer to above through simple policy guidance such as establishing the MMRA's "avoid, minimise, offset" policy commitment as a guiding principle for helping to resolve such conflicts.

(r) Vibration (construction)

(i) Issue as presented in submissions

Vibration and noise during construction were typically mentioned together in submissions and in most cases without any further elaboration [377]. Unlike noise, vibration was of concern both in terms of its possible annoyance value [370, 371, 372] and its possible impact on building integrity [374, 159]. Concerns were raised in response to MMRA information sheets referring to vibration and submitters questioned who would judge whether vibration was "unacceptably intrusive" [370] – recommending that a clear framework be put in place to guide this. Some submissions raised concerns about the impact of vibration on heritage buildings [365, 159, 365, 274], in some cases proposing – or demanding – that assessments of building integrity (dilapidation assessments) be undertaken before any works commence [178, 356, 285, 266, 240, 178].

Concerns about the adequacy of baseline vibration (and noise) assessments were also raised [180, 325, 253, 250, 227, 228] as some were concerned that measurements were not taken in "quiet suburbs". One submission stated that the noise and vibration criteria used were appropriate and made recommendations about monitoring [310].

(ii) Response

Like noise, experience of vibration can be highly subjective and the technical descriptions of expected levels are difficult to interpret. I have addressed the issue of potential impacts on buildings under Property Impacts so will not discuss it further here.

Regarding baseline assessments, it may be advisable to review the distribution of baseline assessments to ensure that they did properly represent the existing conditions along the route – and communicate this information to those who are concerned about the veracity of the baseline data. This may be even more important for operating vibration as – based on EES Figure 13.2 – the baseline measurements are not distributed along much of the North Melbourne residential section, which

appears to be where concerns have been expressed about elevated vibration during operation.

(iii) Implications for Environmental Performance Requirements

Key EPRs for managing the social impacts of noise and vibration are EPR NV4 and SC3. I have made recommendations in Annexure B for some changes to the exhibited EPRs to address the matters discussed above, including a requirement to communicate around the design and results from environmental monitoring programs.

All recommended changes to EPRs listed under Noise (construction) apply to Vibration (construction), also.

(s) Vibration (operation)

(i) Issue as presented in submissions

Submissions from along the tunnel route raised concerns about feeling vibrations from trains passing below their properties [370, 129, 155, 228] and/or their properties being damaged by operating vibration [129, 135]. These were mostly from the North Melbourne section of the route [129, 299, 300, 285] but also from the Domain Precinct [370, 367, 240, 135] and Eastern Portal [358]. My comments about the baseline measurements from the previous section apply to operating vibration, also.

(ii) Response

The response I have provided under Vibration (construction) above also applies here.

(iii) Implications for Environmental Performance Requirements

The response I have provided under Vibration (construction) above also applies here.

(t) Visual amenity

(i) Issue as presented in submissions

The impact of the project on visual amenity was raised in submissions from across the project. The majority of responses related to the impact of construction works on current views, with most responses relating to Domain Precinct and Western Portal works, although very strong feelings about visual amenity were expressed by some residents adjacent to the Eastern Portal site.

Concerns were expressed about the impact of tree removal on the attractiveness (in many cases “beauty”) of the St Kilda Road viewshed [343, 336, 333, 330, 284, 283, 256, 241, 215, 196, 190, 128] and views to Osborne Street Railway Reserve [266, 325, 352]. The appearance of construction sites and “ugly structures” such as noise attenuation barriers or tunnel works was mentioned by some [325, 333, 264, 154, 124, 111, 274].

(ii) Response

The impact of the MMRP on visual amenity is particularly galling for some, particularly around the Domain Precinct, as they believe that the impact is largely unnecessary and that the "cut and cover" construction technique selected has not been demonstrated to be optimal [367]. Also, that an alternative station location with a lower amenity impact was not proposed. Consequently, many submissions raise the prospect of an alternative station location on the edge of the Shrine Reserve [349, 343, 276, 265, 202] or an alternative construction technique to allow for a deeper station [133]. Clearly such an alternative location would carry with it its own set of environmental and social impacts but the existence of an, albeit untested, alternative appears to have reduced some residents' confidence in the robustness of the MMRP assessment process and the manner in which siting decisions have been made for the Concept Design.

(iii) Implications for Environmental Performance Requirements

Visual amenity issues are addressed through the landscape and visual EPRs and these appear sufficient to address the issues raised.

5 Matters arising subsequent to the exhibited EES

The 26 July 2016 EES Inquiry directions hearing involved some matters that may be of relevance to the assessment of social impact that are supplementary to those that I have addressed in responding to the exhibited EES and associated submissions.

5.1 Response to matters raised in MMRP Technical Notes

The following responses to matters raised in technical notes is of a preliminary nature only and I will seek to investigate some matters in more detail prior to the panel hearings, including inspecting the affected areas when necessary to understand the proposed project changes.

(a) Technical Note 2: Public Off-Street Parking Facilities within the Parkville Precinct

Changed access arrangements and traffic congestion due to MMRP works will negatively impact commuters who drive to the precinct to work and use public car parking. All precinct works will require extensive communications to minimize the inconvenience and disruption to residents and workers. The transport related activities are addressed through EPR T1 (Develop and implement a transport management plan(s)]). The stakeholder communication elements of EPR B2 (Prepare a business disruption plan) and SC3 (Develop and implement a community and business involvement plan) will need to ensure that parking changes are communicated and I have recommended some changes to these EPRs to specifically include notification of changes to parking arrangements.

(b) Technical Note 7: Structures at which protective measures may be required. – note reference to Potential Zone of Influence, which is mapped in Chapter 19

This note does not raise any new social impact issues. I refer to my recommended changes to EPRs GM3 and GM4, which may have some bearing on the conduct of assessments.

(c) Technical Note 9: Western Portal Option A - Construction of a temporary access ramp for the Lloyd Street Business Park between Tennyson Street and McClure Road

The proposed access ramp would appear to increase the potential for amenity impacts for residents to the west of the business park.

(d) Technical Note 10: Additional construction area in Franklin Street (east) between Swanston Street and Victoria Street

It appears from the available information that the proposed new works area may extend the area of potential social impact lightly to the north. As it falls within the existing station precinct and it is support activity rather than additional excavation, the additional impacts do not appear to be significant.

(e) Technical Note 12: Franklin Street Legacy Condition

It would be advisable to seek RMIT University's view on this proposal. I am neutral on it without any additional information but note that it may be a positive benefit for traders.

(f) Technical Note 13: Additional Construction Areas in Flinders Street and Federation Square

This proposal will have significant impacts on traffic congestion and therefore could be expected to have a number of negative flow-on social impacts (amenity, stress). This increases the need for a very effective communication campaign targeting people intending driving into the city and encouraging them onto public transport.

(g) Technical Note 14: CBD South Station Entrance: Properties located at 65 and 67-73 Swanston Street no longer required as potential station entrance

This note does not raise any new social impact issues.

(h) Technical Note 15: Additional Construction Areas in Domain

The proposed additional construction areas would appear to increase amenity impacts on some residents in this precinct.

(i) Technical Note 16: Modification - Removal of the Fawkner Park TBM southern launch site

This proposal has positive social impact benefits as it avoids the significant impacts that the TBM launch site would have had on the Fawkner Park Child Care Centre as well as impacts on public open space. However, it does result in increased construction activity and truck movements close to St Kilda road residences, so could be expected to have some incremental negative amenity impacts.

(j) Technical Note 17: Service Structures Within Albert Road

This move appears to be neutral from a social impact perspective.

(k) Technical Note 18: Clarification of Construction Timeframes at the Eastern Portal

This note appears to be neutral from a social impact perspective but the correct information should be communicated to residents promptly.

(l) Technical Note 39: Revised station cavern construction methodology

Given that the existing timeframe has been given as "approximately three years", and the changes are an additional three to four months, this proposal does not appear to introduce any significant additional social impact.

5.2 Further information request from IAC to MMRA, 25 July

Section 4.2 of the Inquiry and Advisory Committee's Further Information Request addressing social and community impacts references the peer review of the social and community impact assessment and comments on the "brevity of the peer review". As I authored this review I felt it appropriate to respond through this statement so as to clarify the peer review process and the reason for the brevity of the culminating peer review document.

In my 18 January review of an early draft of the social and community assessment I made 20 recommendations for changes to the SCIA. This 16-page document served as a framework for a detailed response from the AJM social team, which was discussed at length at two meetings and through this process the large majority of matters I raised were resolved to my satisfaction. This process is described in my final report. The final short peer review document included in the EES was drafted as a final statement of assurance that the SCIA process and culminating report were appropriately robust for inclusion in the EES.

6 Declaration

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.

.....

11 August 2016

Annexure A – Documents reviewed

AJM Joint Venture, MMRP EES Chapter 6 (Project Description), Chapter 8 (Transport), Chapter 12 (Air Quality), Chapter 13 (Noise and Vibration), Chapter 19 (Ground Movement and Land Stability), Chapter 20 (Contaminated Land and Spoil Management), Chapter 23 (Environmental Management Framework)

AJM Joint Venture, MMRP EES Technical Appendix D (Transport), Appendix H (Air Quality), Appendix I (Noise and Vibration), Appendix P (Ground Movement and Land Stability), Appendix Q (Contaminated Land and Spoil Management)

AJM Joint Venture, Notes of 12 community information sessions conducted during the EES exhibition period

EPA Victoria, *Noise Control Guidelines*, Publication 1254, October 2008

Melbourne Metro rail Project Environment Effects Statement Inquiry and Advisory Committee, MMRA Technical Notes 1 to 18

NSW Department of Environment and Climate Change *Interim Construction Noise Guideline*, 2009.

Submissions to the Melbourne Metro Rail Project EES

World Health Organisation, *Burden of disease from environmental noise,* 2011.

Annexure B – Recommended changes to EPRs

In the table below I have recommended changes to EPRs where necessary to address matters raised in this document. Recommended new text is underlined and deletions indicated with strike through.

EPR Number	Environmental Performance Requirement	EWS Reference
T1	**Road Transport (Construction Phase)** Develop and implement a transport management plan(s) in consultation with the relevant road management authorities <u>and major precinct occupants</u> to minimise disruption to traffic, car parking, pedestrian and bicycle movements during construction, including but not limited to: • Management of any temporary or permanent full or partial closure of traffic lanes including (but not limited to): – Childers Street, Kensington – Royal Parade, Grattan Street and Barry Street, Parkville – Franklin Street, A'Beckett Street and Little La Trobe Street at CBD North – Flinders Street and Flinders Lane at CBD South – Linlithgow Avenue, Melbourne – St Kilda Road, Domain Road, Albert Road at Domain – Toorak Road at Fawkner Park – Osborne Street, William Street in South Yarra • Monitoring of travel behaviour changes caused by construction works, including pre-construction baseline data and periodic reporting on behaviour change. Use this data as an input to the design of transport networks following construction • Traffic management plan(s) must be developed recognising other projects operating concurrently, where relevant • Provision for a minimum of one lane for traffic in each direction on St Kilda Road to be maintained throughout the construction within the Domain station precinct • Potential routes for construction vehicles travelling to and from all Melbourne Metro construction work sites, recognising sensitive receptors • <u>Specific consideration of residential amenity and safety concerns when designing trucking routes</u> • Provision of suitable routes for vehicles to maintain connectivity for road users to JJ Holland Park, South Kensington station and to the medical and educational facilities adjacent to the Parkville construction work site • Provision of alternative routes for trucks accessing the 50 Lloyd Street Business Estate, Kensington • Provision of alternate parking where possible to replace parking lost from Childers Street, Laurens Street, Grattan Street, Domain Road, St Kilda Road and Albert Road during construction and preventing parking at undesignated locations on local roads • <u>Provision of car parking for construction workers unless it can be demonstrated that this is not possible</u> • <u>Provision of incentives such as tool storage on site and travel vouchers to discourage vehicle use by employees and sub-contractors</u> • Provision of suitable routes for cyclists and pedestrians to maintain connectivity and safety for roads and shared paths to provide continued	4.1(p)iii

EPR Number	Environmental Performance Requirement	EWS Reference
	access, including (but not limited to):Childers Street, JJ Holland Park, South Kensington station, Laurens Street, Grattan Street, Swanston Street, Franklin Street, Flinders Street, St Kilda Road, Albert Road, Domain Road, Toorak Road and Fawkner Park • Provision of complementary improvements to Kings Way, Canterbury Road and other roads to accommodate additional traffic that may use these roads and to assist traffic flow in St Kilda Road for the duration of the works • In consultation with emergency services, develop suitable measures to ensure emergency service access is not inhibited as a result of Melbourne Metro construction worksites • Special arrangements for delivery or removal of large loads. Insert a new point: • Provision of arrangements for access and parking for mobility-impaired drivers and passengers	
B2	Prepare a business disruption plan consistent with the MMRP Community and Business Involvement Plan to manage impacts to non-acquired businesses and to engage with business, commercial property owners and ~~the community~~ customers throughout construction. The plan shall serve to guide the stakeholder engagement activities of all project-related personnel and shall include: • Timely information on key project milestones • Changes to traffic and parking conditions and duration of impact • A project construction schedule developed in coordination with transport authorities and local councils and in consultation with businesses to minimise cumulative impacts of this and other projects • Plans for notifying customers of proposed changes to business operations, including the setting of suitable timeframes for notification prior to commencement of works • Measures to ensure access to businesses is maintained for customers, delivery and waste removal unless there has been prior engagement with affected businesses (including mutually agreed mitigation measures as required). This could include the installation of directional and business signage to assist customers • Process for registering and management of complaints from affected businesses	4.1(l)iii 5.1(a)
GM3	Develop and implement a ground movement plan for construction and operational phases of the project that: • Addresses the location of structures/assets which may be susceptible to damage by ground movement resulting from Melbourne Metro works • Identifies appropriate ground movement impact acceptability criteria for buildings, utilities, trains, trams and pavement after consultation with the various stakeholders • Identifies mitigation measures to ensure acceptability criteria can be met • Identifies techniques for limiting settlement of buildings and protecting buildings from damage • Addresses additional measures to be adopted if acceptability criteria are not met such as reinstatement of any property damage • Addresses monitoring ground movement surrounding proposed Melbourne Metro works and at the location of various structures/assets to measure consistency with the predicted model	4.1(i)iii

EPR Number	Environmental Performance Requirement	EWS Reference
	• Within the framework of the MMRP Community and Business Involvement Plan, consult with land and assets owners that could potentially be affected and where mitigation measures ~~would~~ could be required.	
GM4	Conduct pre-construction condition surveys for the assets predicted to be affected by ground movement. Develop and maintain a data base of as-built and pre-construction condition information for each potentially affected structure or structure where a property owner within the Zone of Potential Influence has requested an assessment, specifically including: • Identification of structures/assets which may be susceptible to damage resulting from ground movement resulting from Melbourne Metro works • Results of condition surveys of structures, pavements, significant utilities and parklands to establish baseline conditions and potential vulnerabilities • Records of consultation with landowners in relation to the condition surveys. • Post-construction stage condition surveys conducted, where required, to ascertain if any damage has been caused as a result of Melbourne Metro. Share pre- and post-condition assessments and records of consultation with the property owner proactively. Ensure all stakeholder engagement activities are undertaken within the framework of the MMRP Community and Business Liaison Plan.	4.1(d)ii 4.1(l)iii
New EPR GM7	Provide pre-conduction dilapidation surveys in response to requests from property owners within the Potential Zone of Influence [as defined by the hatched areas within Figures 19.1-19.5 of the EES] even if these properties are not considered to be potentially affected by ground movements.	4.1(d)ii 4.1(l)iii
SC1	Reduce the disruption to residences from direct acquisition or temporary occupation through measures such as: • Using a case-management approach for all project interactions with affected landowners • Appointing a social worker or equivalent to help households manage the transition • Taking into account relative vulnerability and special needs of occupants • Purchasing properties early and/or in part when supported by the landowner	4.1(k)iii
SC3	Prior to main works or shaft construction, develop and implement a MMRP Community and Business Involvement Plan to engage potentially affected stakeholders and advise them of the planned construction activities and project progress. This plan should integrate all project activities that potentially impact on community and business operations and provide for a well-coordinated communication and engagement process. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, changed access and parking conditions, periods of predicted high noise and vibration activities • Measures for communicating the design and results from environmental	4.1(l)iii 5.1(a)

EPR Number	Environmental Performance Requirement	EWS Reference
	monitoring programs (e.g. vibration, noise, dust, ground movement) • Process for registering and ~~management of~~ managing complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but are not limited to): • Municipalities • Potentially affected residents • Potentially affected businesses • Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre • Other public facilities in proximity.	
NV1	Develop and implement a plan to manage construction noise in accordance with EPA Publication 1254 Noise Control Guidelines. [I recommend that this be expanded to at least deal with how respite and relocation will be managed]	4.1(g)iii
NV3	Appoint an acoustic and vibration consultant to predict construction noise and vibration (through modelling) and update the modelling to reflect current construction methodology, site conditions and specific equipment noise and vibration levels (this will require noise and vibration measurements). The model would be used to determine appropriate mitigation to achieve the Environmental Performance Requirements. The acoustic and vibration consultant will also be required to undertake noise and vibration monitoring to assess levels with respect to Guideline Targets specified in the Environmental Performance Requirements. Where monitoring indicates exceedances of Guideline Targets, apply appropriate management measures as a soon as possible. The acoustic and vibration consultant must be engaged and managed through a transparent process that can establish and maintain public trust in the independence and quality of their work.	
NV4	Develop and implement a communications plan consistent with the MMRP Community and Business Involvement Plan to liaise with potentially affected community stakeholders and land owners regarding potential noise and vibration impacts. The plan shall include procedures for complaint management.	4.1(l)iii
NV17	Ground-borne Noise Guideline Targets for Operation Where operational ground-borne noise trigger levels are exceeded for sensitive occupancies as shown in the table below (trigger levels are based on the Rail Infrastructure Noise Guideline, 17 May 2013 (RING(1)), assess feasible and reasonable (definition per S1.4 of NSW Interim Construction Noise Guideline) mitigation to reduce noise towards the relevant ground-borne noise trigger level.	4.1(h)iii

Annexure C – Qualifications and experience

Refer to the attached Curriculum Vitae

Tim Offor

A professional consultant since 1996, Tim Offor advises corporate and government clients on stakeholder relationships, social impact, conflict resolution and sustainable development initiatives throughout the Asia-Pacific region.

He works mainly with high-impact infrastructure and resources projects, which are characterized by high levels of social and reputational risk and potential for stakeholder outrage.

Through this work he has achieved deep insight and capability for preparing for and responding to activist and grassroots campaigns.

Tim is a Director of stakeholder collaboration company, Pax Republic, which provides deep collaboration technology and services to companies and governments.

He has also been a director of social issues consultancies, Pax Populus and Pax Populus (Melanesia) Ltd, which provide stakeholder relations strategy and conflict resolution services, mainly in the resources, energy and infrastructure sectors.

Trained initially in veterinary science and ecology, Tim began his working career developing and managing non-government organisations focused on community-based natural resource management. He moved into social issues consulting in 1996.

Tim is a regular public speaker on stakeholder engagement, social impact and conflict resolution at forums across the Asia-Pacific.

He is also a mediator and facilitator of 20 years' experience, specialising in complex and often large-scale corporate-community conflicts.

EDUCATION

Bachelor of Science (Hons), the University of Melbourne, 1987

PROFESSIONAL DEVELOPMENT

- Mastery in Mediation – advanced mediation training with Dr Peter Adler, Accord Group
- Mediation Skills 40-hour course, International Centre for Conflict Resolution (The University of Melbourne)
- Co-mediation Skills, 20-hour course, ICRC and Dispute Settlement Centre of Victoria
- Cranlana Justice & Society Symposium, The Myer Foundation
- Train the Trainer, 40-hr course, Australian Institute of Management.

HONORARY POSITIONS

Honorary positions have included:

- Member, Ministerial Advisory Committee on Landcare (Northern Territory)
- Chairman, Grassy Ecosystems Reference Group
- Member, Water and Environment Committee, The Myer Foundation
- Director, Igniting Change
- Director, Environment Defenders Office (Vic)

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EXPERIENCE

Consulting: Social impact

- East Gippsland Shire Council – **Bastion Point Safe Ocean Access** – conducted a social impact assessment and presented as an expert witness for the council at the public hearings (assessed under *Environment Effects Act* 1978).
- Origin Energy Ltd – **Mortlake Power Station and Gas Pipeline** – conducted a social impact assessment and prepared a social impact management plan for the project.
- Origin Energy Ltd – **BassGas Project** – led the social impact assessment for the BassGass project, a Victorian gas pipeline and processing project to bring a new source of Bass Strait gas to the mainland (assessment under *Environment Effects Act* 1978).
- Morobe Mining Joint Venture (Newmont / Harmony Gold) – **Morobe Province In-migration Plan** - researched population influx issues and provided a report to the JV management team on planning for, managing and mitigating the impacts of population influx associated with Hidden Valley mine and future projects in Morobe Province, PNG. Also provided a negotiation framework for re-negotiating the mine's Memorandum of Agreement with the host community.
- RES Pty Ltd – **Penshurst Wind Farm** – leading the social impact assessment for a 750MW wind farm in western Victoria (assessment under *Environment Effects Act* 1978).
- AGL Ltd – **Tarone Power Station** – led the socio-economic impact review & expert witness testimony for the public hearings.
- Wind Power Ltd – **Bald Hills Wind Farm** – led the socio-economic impact assessment and provided expert witness testimony on social impacts for the independent panel hearing considering the company's proposal to construct a 104 MW wind farm (assessment under *Environment Effects Act* 1978).
- Origin Energy Ltd – **Stockyard Hill Wind Farm** – conducted the Social Impact Assessment for the project and prepared a Social Impact Management Plan.
- Origin Energy Ltd – **Dundas Tablelands Wind Farm** – conducted a baseline socio-economic assessment for a prospective Victorian wind farm.
- Pacific Hydro Ltd – **Yaloak Wind Farm** – conducted quantitative research into community attitudes to the visual impacts of wind farms and provided expert evidence on social issues at the public hearings for a proposed 115 MW wind farm west of Melbourne.
- Gunns Ltd – **Bell Bay Pulp Mill** – conducted social research, reviewed the social impact assessment and prepared an expert review and witness statement on the social impacts of the proposed pulp mill in preparation for the public hearings by the Resource Planning and Assessment Commission.
- WestWind Energy – **Lal Lal Wind Farm** – expert witness testimony on social impacts for the planning panel hearings.

Consulting: Stakeholder engagement, negotiation & communication

- ANZ Ltd – **strategic advice regarding community protests** – advised ANZ IIB Hong Kong on strategy for managing community protests in Phnom Penh regarding ANZ's financing of Phnom Penh Sugar refining operations.
- Monash University – **Eliminate Dengue Program** – leading a team to support the international rollout of the project. The work involves developing program stakeholder engagement strategy and designing and trialling a Public Acceptance Model to secure and track community support for the large-scale research trials in Townsville, Vietnam and Indonesia. We have also developed case studies of Eliminate Dengue projects from Brazil, Vietnam, Indonesia and Australia.
- Ok Tedi Mining Ltd – **Ok Tedi Mine Human Health & Ecological Risk Assessment stakeholder engagement** – designed and implemented an international program of stakeholder engagement for the release of a major risk assessment detailing current and predicted impacts from the mine.

- Kingsgate Consolidated Ltd – **Bowdens Silver Mine** – developed stakeholder engagement strategy and provided training and support to Kingsgate staff for a new silver/zinc project near Mudgee, NSW.
- Ok Tedi Mining Ltd – **Stakeholder relations** – provided advice to OTML senior management on a wide range of operationally sensitive issues over an eight-year period.
- Origin Energy Ltd – **Purari Hydropower Project** – provided advice on social risk and prepared communication and stakeholder engagement strategy for this 2,000MW hydropower project proposed to bring electricity from Papua New Guinea to connect to the Australian grid at Townsville.
- Lihir Gold Ltd – **One Million Ounce Upgrad**e - stakeholder engagement strategy – developed a stakeholder engagement process to support a major upgrade of the mine's processing operations.
- Newcrest Mining Ltd – **PNG projects** – strategic communication and stakeholder relations advice to Newcrest's corporate affairs team for the company's PNG projects.
- Newmont Mining Ltd – **Global Community Relations Review** – reviewed the company's community relations activities for the Minahasa Mine, North Sulawesi, which was the focus of an international NGO campaign and the jailing of Newmont executives for alleged environmental offences.
- Venture Minerals Ltd – **Tasmanian Mining Projects** – developing communication and stakeholder engagement strategy to support Venture's Livingston and Riley DSO and Mt Lindsay projects in north-western Tasmania.
- Morobe Mining Joint Venture – **Memorandum of Agreement review** – designed a process for conducting the 2012/13 review of MMJV's MoA with the State and project area landowners.
- Gunns Ltd – **Bell Bay Pulp Mill stakeholder engagement** – designed a stakeholder engagement program to support the early stage development of this proposed large Tasmanian pulp mill.
- Gunns Ltd (under administration) – **strategic advice** – advised Gunns administrators, Korda Mentha, on stakeholder and communications issues.
- Victorian Department of Treasury and Finance – **Disaggregation and sale of Victorian power and gas assets** – lead a three-year engagement to project manage the environmental due diligence, contribute to information memoranda and respond to bidder inquiries for the disaggregation of Gas & Fuel Victoria, sale of the resultant gas distribution and retail businesses and the sale of Loy Yang Power, Hazelwood Power, EnergyBrix, Newport Power Station, Southern Hydro, and PowerNet.
- Dart Energy Limited – **NSW CSG projects** - provided advice and support to senior management for handling campaigning and communicating over Dart's CSG exploration and development activities in NSW.
- EPA Victoria / Transpacific Industries Ltd – **Tullamarine Prescribed Waste Landfill** – conducted a conflict assessment and stakeholder engagement process for a entrenched dispute between the community and TPI/EPA Victoria relating to the rehabilitation plans for the landfill.
- Melbourne Water – **Future Use of Devilbend Reservoir** – designed a stakeholder engagement process and facilitated a diverse working group to develop a future use strategy for this disused reservoir on the Mornington Peninsula.
- Ok Tedi Mining Ltd – **Ok Tedi Mine Community Agreement Review** – designed and project managed a large-scale review and re-negotiation of the company's compensation and benefits packages with the communities affected by the mine's environmental impacts. The review was designed to be independent of the company, facilitated by a US non-government organization and observed by former members of the PNG judiciary.
- Commonwealth Department of Finance – **Villawood Detention Centre Upgrade Project** – prepared a stakeholder engagement plan and conducted a stakeholder analysis for a major project to upgrade the refugee detention centre.
- Department of Sustainability & Environment – **Western Grasslands Reserve** – conducted depth interviews and recommended a program to re-establish dialogue and trust with landholders affected by a compulsory

acquisition overlay for creating a new 15,000 ha conservation reserve.

- Melbourne Water – **EPA Works Approval for the Upgrade of the Eastern Treatment Plant** – designed, facilitated and supported the implementation of a stakeholder engagement process for the works approval to improve the quality of effluent discharged at Boags Rocks outfall. The project won a Gold Quill award from the International Association for Business Communication.
- Basslink Development Board (Tas) – **Basslink Project** – designed the stakeholder engagement plan and provided general stakeholder and environmental advice for the original proponent of the undersea cable link between Tasmania and the Victorian electricity grid.
- Hancock Timber Resource Group – **2000 Olympic Games Crisis Communications** – drafted a crisis communications plan to manage Hancock parent company, John Hancock Ltd's Sydney Olympic Games sponsorship, which was under attack from environment groups opposed to its subsidiary company's logging practices. Work also included a stakeholder engagement plan for the purchase of PaperlinX's forest assets, now Grand Ridge Plantations.
- Hancock Victorian Plantations – **Strzelecki Forest Negotiations** – facilitated a dialogue between the State, environmental NGOs and Hancock over forest harvesting and protection of high conservation value forests in the Strzelecki Ranges.
- Edison Mission Energy – **Bo Nok Power Station** – reviewed the community relations activities of the Thai project partners in a new power station project on the Gulf of Thailand. The project had been the focus of a series of violent community demonstrations.
- Department of Sustainability & Environment – **Trade Waste Review** – developed a stakeholder engagement plan for a review of Melbourne's trade waste licencing system.
- Victorian Government – **Water Rebates Phase Two** – supervised market research, developed a communication strategy and supported implementation of a rollout of State-funded water rebates.
- EPA Victoria – **Seagrass Project** – prepared a stakeholder engagement plan for a multi-stakeholder initiative to reduce the impact of land use on the seagrass beds of Westernport Bay.
- Victorian Government – **Australian Synchrotron** – developed a community relations plan and provided a community relations officer for the construction project.
- Goodman International – **Werribee Landholdings** – developed a stakeholder engagement strategy and oversaw government relations for a large commercial land development.
- Transurban Limited – **Eastlink** – undertook a large stakeholder mapping exercise for Transurban Limited's bid to build Eastlink.

Consulting: Sustainable development

- World Bank Group – **PNG oil palm country situation analysis** – prepared a country analysis to support the WBG's review of its investment strategy in PNG.
- Plastics and Chemicals Industry Association – **Review of the Responsible Care Program** – reviewed the stakeholder engagement and "community right to know" components of the program as part of an overall review and report for the PACIA Board.
- Responsible Jewellery Council (UK) – **RJC Mining Sector Supplement** – developed and implemented the stakeholder engagement process for a mining supplement to the RJC's code of practices. Also helped to develop the complaints mechanism and other governance aspects for this international assurance initiative.
- Monash Energy Project (Anglo American plc) – **MEP Sustainable Development Framework** – designed a management-systems based framework to guide integration of sustainable development considerations into a proposed project to extract synthetic liquids from brown coal, including a large coal mine and carbon capture and storage system
- Lihir Gold Limited – **Corporate Sustainable Development Framework** – facilitated a sustainability strategic planning process with LGL executive management team and worked with senior management and across the Lihir Island business to ensure effective integration of the resulting SD framework into the business' operations.

Mediation, facilitation, chairing

- Victorian Government – **Smart Growth Committees** – Ministerial appointment as Chairman of Casey-Cardina and Wyndham Smart Growth Committees, which developed Smart Growth Plans for two of Melbourne's five metropolitan growth areas.
- Melbourne Water – **Maribyrnong River irrigation conflict** – mediated a dispute between Melbourne Water and irrigators over quantum and management of licensed water diversions from the Maribyrnong River.
- Roundtable on Sustainable Palm Oil – **Conflict Assessment of Sarawak Land Dispute** – assessed and recommended a conflict resolution process for a long-running land dispute between IOI Pelita Plantations and indigenous communities of Sarawak, Malaysia.
- Multi-stakeholder group client - **Forest Stewardship Council (FSC) National Initiative** – designed and facilitated a two-day national forum for a diverse group of 100 participants from civil society, unions and business to discuss whether to proceed with FSC certification in Australia.
- Australian National University / The Myer Foundation - **Roundtable on Sustainable Forest Management** – designed and facilitated a round table involving forest industry stakeholders and international experts to explore opportunities for alternative silviculture in Victoria's Mountain Ash forests.
- Monash University – **Eliminate Dengue Program** – designed and facilitated a four-day community engagement workshop for Eliminate Dengue project teams from eight countries.
- National Oceans Office - **Oceans Policy Workshop** – facilitated a workshop for the National Oceans Office to set priorities for oceans biodiversity policy and programs.
- Sita Environmental Services – **Lyndhurst Landfill** – conducted a conflict assessment and recommended a conflict resolution process to resolve amenity and planning issues between Sita and the community surrounding this prescribed waste landfill.
- Terminals Limited - **Community Consultative Committee** – mediated a dispute between a chemical storage facility operator and its community consultative committee over an application to obtain an accredited EPA licence.
- Melbourne Water – **Rehabilitation of Bunyip Main Drain** – Chaired the committee overseeing the rehabilitation project for this major component of Gippsland's drainage infrastructure.
- Melbourne Water – **Northern Sewerage Project** – mediated conflicts between Melbourne Water and residents affected by this major infrastructure project.
- Ok Tedi Mining Limited – **Acid Rock Drainage Workshop** – facilitated a two-day expert forum to develop an ARD management strategy for the Ok Tedi Mine, PNG.
- Multi-stakeholder group – **Mining Certification Evaluation Project Working Group** – a three year engagement facilitating a working group comprising representatives of major mining companies, non-government organisations and government undertaking a research project to develop principles, criteria and performance standards for certifying well managed mine sites.
- EPA Victoria – **Section 20B conferences** – chaired Section 20B conferences for Mattingly Brown Coal and Sita Australia Advanced Waste Treatment Facility (Hallam Road) works approval applications.
- Minerals Council of Australia – **Enduring Value Sustainable Development Workshops** – facilitated a national series of workshops to secure stakeholder input for developing "Enduring Value", the sustainable development operational code for the Australian mining industry.
- Australian Petroleum Production and Exploration Association – **APPEA CEO Forum** – facilitated a forum for chief executives of Australian oil and gas companies to explore strategic issues and priorities for the Australian oil and gas sector.
- Australian Petroleum Production and Exploration Association – **APPEA Environment Workshops** - designed and facilitated two two-day national stakeholder forums for the Australian Petroleum Production and Exploration Association and external stakeholders from government and non-government sectors to explore a wide range of issues relevant to the petroleum sector.
- Plastics and Chemicals Industry Association – **PACIA Sustainability Leadership Framework**

- facilitated a national series of workshops to obtain stakeholder input on a draft Sustainability Leadership Framework for the Australian industry.

Teaching & training

- Secretariat of the Pacific Community (SOPAC) – Port Vila, Vanuatu – **training in public participation** for the SPC-EU Deep Sea Minerals Project.
- Hong Kong University, Faculty of Architecture – **Structured Thinking Intensive** – a four-day intensive course teaching MSc students thinking models for solving "wicked problems".
- The University of Melbourne – **Masters of Public Policy** – sessional lectures on dealing with high conflict and complex stakeholder engagement situations.
- The University of Melbourne – **Specialist Certificate in Communication and Engagement** – delivered one-day intensives on advanced stakeholder engagement.
- The University of Queensland – **Guest lectures on Free Prior and Informed Consent.**
- Charles Darwin University – sessional lecturer on a range of environmental and social science topics.
- Provided training in stakeholder engagement and conflict resolution to numerous corporate and government clients over 20 years.