

3002666.114

4 March 2021

EPSDD

Level 2, 480 Northbourne Avenue  
Dickson, ACT, 2602

Dear Ali,

### **Peer Review of Molonglo 3 East Planning and Infrastructure Study**

Colin Henson, Principal Transport Planner with SMEC, was requested by EPSDD in February 2021 to undertake an independent Peer Review of the Molonglo 3 East Planning and Infrastructure Study, concentrating on issues of transport planning and traffic engineering.

The objectives of this engagement were based on the SMEC proposal of 17 February 2021 are to undertake a peer review of WSP's traffic modelling reports for Molonglo 3 East Planning and Infrastructure Study, in particular provide peer review of the technical reports produced by WSP, a review of the transport planning assumptions and outcomes of the Molonglo 3 East project and provide high-level comments. The purpose of the review was to identify areas for improvement which will ensure the project is best practice.

I agree to maintain confidentiality of all matters and documents regarding this project. I am independent of this project and have no actual or potential conflicts of interest in reviewing this documentation for this project.

### **Version & date of the documents under review**

- Molonglo 3 East Planning and Infrastructure Study – Phase 1 Planning and Infrastructure Outcomes Report by WSP dated 29 January 2021, including appendices.

### **Plan of Investigation:**

This Preliminary Peer Review considered the following issues:

- Documentation: Sufficient, clear and reliable?
- Feasibility: Is there sufficient evidence to support the conclusions in the documents? Is the study feasible in terms of funds, time and other resources?
- Participants: Are the criteria for eligibility clear and justified? Have the methods used to identify approach, recruit and consent participants been clearly and completely described?
- Procedure plan: Has an appropriate plan of the study been detailed? Is the duration of the project stated and appropriate? Is it clear how a participant will progress through procedures and assessments, where applicable?



### **SMEC**

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- Outcome measures: Are these appropriate and achievable? Are definitions sufficiently detailed? Is the relevant data being collected on the proposed outcomes?
- Data collection: are the proposed data collection tools and data management systems appropriate for the project?
- Analysis: is there an adequate indication of what analysis was done to answer the questions? Are the proposed analyses appropriate?
- Expertise: Did the research team include (or have access to) all the necessary expertise for the project?
- Ethical issues: Have any potential ethical issues been addressed? Are risks to participants minimised?

## Peer Review

With reference to numbered sections in the WSP report:

Section 1.1 Key objectives were to:

1. *Explore options [...] and recommend a preferred outcome.*
2. *Identify the elements and describe an integrated design outcome.*
3. *Clearly describe and illustrate in sufficient detail to incorporate into a Territory Plan Statutory Concept Plan*

Section 1.2 The project vision has some undefined elements:

- Character-based lifestyle housing? (Character Areas are explained in Section 6.3)
- Align with movement and place framework? which framework – the Moving Canberra Transport Strategy
- Pave the way (sic) for significant modal shift – from what base?

Section 1.3 Study area – the site is 6.5 km from Civic, which is within cycling distance

Section 2: The site is very steep – 8% to 15% – which presents challenges for walking and cycling and provides a topographical challenge for equitable access to Public Transport (PT).

Section 3: Stakeholders – appears to be comprehensive consultation and big ideas, but mostly adult/technical issues. Was there any thought about asking what children want in their formative years?

Figure 4.1 shows managed access to the National Arboretum but no further connections across Tuggeranong Parkway to the east

None of the figures through Sections 1 to 5 have a scale bar – difficult to estimate distances. For example, how long is the proposed second entry to the Arboretum off William Hovel Drive? Does a new road fit with the desire to reduce car travel even for major events – maybe a bus/shuttle bus to remote car park/shared path would be better?

Figure 4.3 shows a robust, flexible grid local network. The challenge will be applying that grid sympathetically to steep topography. However, long curved collector road/bus avenues (#1) have been identified to have higher speeds and accident rates. Do they need to be curved, or is there another solution?

Section 4.1.8 slope responsive streets. Question some of the givens – e.g. garages right on the property line do not provide the sight triangles to footpath pedestrians required by AS 2890.1, but figure 4.5 and lots of other world cities operate safely without. Drivers just need to take responsibility. Reduces paved area and ramps.

Section 6.5 Design Concept Plan – does the Bindubi Street Extension have the potential to become a rat run?

The Group Centre Slow Speed Connector sounds like a good idea, but lacks definition. How will volumes be restrained? Low speed limits (10, 20, 30 or 40 km/h) or shared zones? What volumes of traffic will it attract? Modelling report volumes appear reasonable (noting comments on the modelling outcomes provided by Josh Everett).

If the Slow Speed Collector is too slow, through traffic from the south of Stage 3 could use a local road shortcut immediately west of the creek to shortcut to the Bindubi Street area.

Group Centres will be predominantly car-free with parking to the perimeter – sketch of how this will work? There is a risk of it becoming an isolated mall area surrounded by large car parks on perimeter.

No discussion on parking provision rates yet. Parking = cars = traffic. General guidance is good but not specific in Section 7.8.

Figure 7.1 – neighbouring road network logos are cars – suggest adding buses, trucks, bikes, pedestrians to assert the desired multi modal objective and reflect the ACT transport modes hierarchy.

Suggest re-ordering Chapter 7 to start upfront with Public Transport imperatives, and Active Transport/bike links perhaps based on no-go area of excessive slope or water or flooding. These diagrams also need to extend “off the page” to include links to areas external to the tight study area. Then “road” network and intersection diagrams. E.g. Figures 7.19, 7.20 and 7.21 are good examples – again they need a scale bar.

What speed assumptions were in the traffic model for each link type? Some detail in Table 7.3 but just “various” for Collector/Local road. Suggest we need to be specific for a design speed too. Note Noise Assessment in Appendix Table 3.2 suggests 50km/h on northern and southern collector and 40 km/h on the Slow Collector. Note correlation of speed and noise.

A stretch target fitting the project objectives would be a blanket speed limit of 30 km/h within Molonglo 3. Belgian data show 45% of pedestrians hit by a car at 50 km/h are killed, while only 5% die if hit by a car at 30 km/h. Children benefit most. Many European cities are implementing 30 km/h speed limits on all two-lane urban streets.

Section 7.10 Bindubi Street Extension described as 2 lanes, but Volume/Capacity will be greater than unity by year 2041. Modelled in CSTM as one traffic lane, one PT lane in each direction. Traffic growth in peaks will be controlled by congestion, leading to peak spreading.

Modelling does not specify trip generation per household. Is this to be suppressed below ACT averages as part of the plan?

Appendix F Design Principles, page 48 notes: Bullet 1: Use the ACT Household travel survey to estimate trip generation within Molonglo 3 and Bullet 3: have visionary mode share targets supporting the active travel and public transport to reflect Canberra’s vision. This seems to confuse BAU with visionary targets. This should be quantified and be explicit in the traffic modelling.

Section 9.3.4: PT in place at the outset is noted to reduce car ownership and increase PT mode share long term.

Section 10.4 proposes a review of the vehicle movements per dwelling per day standards, and parking provision rates – but no detail has been provided.

No substantial mention of freight traffic or loading – how will this occur in car free zones?

Appendix H – Transport Modelling Report by WSP dated 20 January 2021:

The Bindubi Street Extension is coded as 60 km/h stretch (was 70 km/h in the base model) but also say is coded as 40 km/h as in the base model. It is uncertain what this means.

Appendix table B3 appears to have some anomalies. Add another line for walk-only trips, given this is a project objective. Is total PT mode split of 11.5% a stretch target for new Canberra? Seems low.

Bicycle mode split of 6.2% appears a reasonable average target. Can the report include separate stats for internal trips within Molonglo 3 area, where walk and bike to school are to be maximised?

In utility cycling there is a large variation; an elderly person on an upright roadster might do less than 10 km/h (6.2 mph) while a fitter or younger person could easily do twice that on the same bicycle. For cyclists in Copenhagen, the average cycling speed is 15.5 km/h (9.6 mph).

### **Summary of Preliminary Peer Review**

The subject documents indicate a process that demonstrates an effective basis for the proposed development and transport improvements. There may be changes required to meet the stated Objective 3: "Clearly describe and illustrate in sufficient detail to incorporate into a Territory Plan Statutory Concept Plan" and should be capable of being addressed in future revisions.

We would be pleased to provide further advice on this preliminary peer review as required.

Yours sincerely,

A grey rectangular box redacting the signature of the Principal Transport Planner.

Principal Transport Planner - SMEC Australia