

**Submission
No 382**

INQUIRY INTO IMPACT OF THE WESTCONNEX PROJECT

Organisation: Financial Architects Asia

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Submission to NSW Upper House Inquiry re WestConnex

Friday, 31 August 2018

**Public Accountability Committee,
Legislative Council, NSW**
Parliament House, Macquarie St.
SYDNEY NSW 2000

Dear Inquiry Members

SOME ISSUES FOR YOUR CONSIDERATION: WESTCONNEX

We write to raise for your consideration certain issues with the WestConnex project which we have encountered during our research for several Sydney-based journalists.

BACKGROUND TO RESEARCH

Earlier this year, we were called in to assist investigative journalists Michael West¹ and Wendy Bacon² in relation to the perceived need to analyse aspects of the WestConnex project, the intended sell-down of control of Sydney Motorway Corporation (SMC), and the outcomes of each for motorists and taxpayers respectively.

We have so far been contributing calculations and opinions to such journalists for their various online reports and stories. [*Latest article*³ and *list of previous articles*⁴; *effective at early July, 2018*]. We have also engaged in email correspondence with Roads and Maritime Services (RMS), with the NSW Auditor-General's office (A-G) and with the Australian Competition and Consumer Commission (ACCC).

AUDIT ISSUE - M4 CONCESSION DEED

We found, in the course of this research, what we believed to be deficiencies in the M4 Concession Deed and Schedules which RMS had displayed on their web site at that time.

¹ See www.michaelwest.com.au

² <http://www.altmedia.net.au/tag/wendy-bacon>

³ <https://www.michaelwest.com.au/westconnex-sale-looms-as-bidding-duel-narrows-to-transurban-industry-funds/>

⁴ list of prior articles shown after his satirical sketch at: <https://www.michaelwest.com.au/exclusive-interview-unlocking-the-secrets-of-disconnex/>

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These were such as to potentially, in the extreme, allow abuse of toll calculations, and/or to negate the ability of RMS (or the A-G) to audit the traffic reporting from the M4 stage.

After failing to get clarification from RMS to questions we posed, we reported our concerns to the A-G (documents being email). We think the Committee should examine the matters raised in that correspondence, the details and their potential importance being referred to therein.

Please note that the web links to which we referred in the A-G correspondence were subsequently temporarily unavailable but, after raising the matter in correspondence with RMS, we were informed (on 13/8/18) that the following links were by then the latest for viewing the Deed and Schedules respectively. Note, we do not have the time or resources to ascertain if there are any differences in these to what we saw previously.

<http://www.rms.nsw.gov.au/documents/business-industry/partners-and-suppliers/tenders-contracts/contracts-awarded/westconnex-m4-project-deed-schedule-1.pdf>

<http://www.rms.nsw.gov.au/documents/business-industry/partners-and-suppliers/tenders-contracts/contracts-awarded/westconnex-m4-project-deed-schedule-1-schedules.pdf>

The correspondence with the A-G should be self-explanatory, hopefully, but we should point out that we have still outstanding questions of RMS, and that our concerns over data reporting will not have been fully relieved by the S.87B Undertaking given to ACCC by the participants in Sydney Transport Partners (STP) bid for control of Sydney Motorway Corporation.

TRAFFIC REPORTING ISSUE - M5 CONCESSION DEED

The issue of lack of definition in the Traffic Reporting section for “passenger” and “commercial” vehicles (as against “Passenger Vehicle” and “Heavy Vehicle”) observed in the M4 Concession Deed is repeated in the M5 Concession Deed which we saw. If a new entry/exit is added for F6 Extension Stage 1, we think similar problems regarding Flag Fall versus Distance Charges may well arise unless the “Tollable Sections” table is suitably corrected.

We did enquire of RMS regarding the apparent missing toll values for trips in either direction between the Marsh St interchange and the General Holmes Drive portal and they eventually were able to advise us (on 20/7/18) that:

“SMC does not intend to toll trips on the M5 East between Marsh St and General Holmes Drive in either direction”.

It was in the course of this research into the operations of the two existing WCX concession deeds that we discovered the issue of “Equalisation Factors” being applied to lengthen the

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distances charged for on the M5 East, a matter that is described in Michael West's "Mumbo Jumbo" article⁵.

EQUALISATION FACTORS: M4-M5 LINK

Subsequent to Michael West contacting RMS Media about the use of Equalisation Factors in the M5 Deed, we raised the question whether they were also involved in, or envisaged for, the M4-M5 Link. The reason for this being that the car toll rate published on the SMC web site didn't seem to comply with our understanding of the length of the main tunnels for that link, which was the only part of that link's construction which had been approved to that time. The SMC web site listed the toll as \$6.77 whereas our computation for an estimated 7.5 kms length worked out at \$4.78. The reply received by Mr West (12/3/18) from RMS included the following quotes:

"Equalisation will not apply on the M4-M5 Main Tunnel.

...

The \$6.77 quoted on SMC's website is based on the 2015 mainline tunnel alignment of 11.75km Roads and Maritime and SMC continued to develop the design <https://www.westconnex.com.au/news-media/new-m4-m5-link-design-features-released>

Based on the M4-M5 EIS (published in 2017), the mainline tunnel between Haberfield and St Peters Interchange is about 7.5km.

Using 2018\$ toll pricing, a car toll would be around \$4.78, assuming a final tunnel length of 7.5Km."

This seems to point to a misleading figure on the RMS/SMC web page and the answer does not fully clarify the matter because it is not possible to be sure of the 11.75 kms figure when the design has not been finalised (and is different from what was approved at the time of promulgation of the \$6.77 rate). Because the currently intended design has multiple portals associated with the Rozelle Interchange, we wonder if the tolls will differ depending on which entry or exit point is used (because each ramp will be of a different length) or whether some new interpretation of the Equalisation Factors approach will apply for the M4-M5 Link concession.

We therefore suggest that the Committee examine this aspect, unless clarifications on road design, distances and toll values are made publicly in the meantime.

STOP PRESS: The Transurban Investor Presentation released to the ASX today has a slide 49 which states in a Footnote that: "*The WestConnex concessionaires cannot toll the Iron Cove Link section of the Rozelle Interchange under the M4-M5 Link Project Deed*". There is no further information on whether or not that means the Iron Cove Link will be tolled (by RMS) or un-tolled.

⁵ <https://www.michaelwest.com.au/mumbo-jumbo-response-to-westconnex-tolling-alchemy/>



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TRAFFIC DATA QUALITY AND AVAILABILITY

[For WestConnex and other areas for which future Motorways are proposed]

The ACCC, in reviewing the circumstances of Sydney Transport Partners, took the view that more traffic data should be made available on Transurban NSW Toll Roads. We made several concerns about this known to them. It should be noted, however, that despite the Undertakings given, not all of our data availability concerns have been extinguished at this point. In particular:

- I. **We reason that the Undertaking will be insufficient in relation to ‘traffic data’** (even if that term is otherwise adequately defined ⁶) **for the WestConnex project** because it fails to take account of the unique nature of the WCX Tolling Regime, which has a combination of Flag Fall, Distance Charge and Toll Cap elements. As we understand things, the Undertaking imposes an obligation to publish traffic data in the form of traffic counts, but only in respect of vehicles detected upon passing through an electronic toll gantry. This means traffic flow (throughput) at individual points. However under the WestConnex tolling regime, whilst the incidence of Flag Fall elements would be captured by such data (namely reflecting counts at entry point gantries), the distance charge elements will **not** be subject to disclosure (and cannot be checked) because, as stated in the ACCC Media Release yesterday, there is no obligation to publish data “*such as individual trip data that shows the duration and length of trips on toll roads*”. The lack of distance data is a key omission, in our view, and results in a situation where 3rd parties will be unable to reproduce toll calculations or revenues (for comparative modelling, or other purposes, including any official audit - such as by the A-G). This is something we warned about, to each of RMS, the A-G and the ACCC. Distance charges and situations where the distance brings the Toll Cap into play, will not be adequately represented by, or obtainable from, the data. **We attach (Annexure) a very simplified table to exemplify why this is the case.** The Undertaking in the above regard seems to have been based on statements from Transurban that it does not use individual trip data on duration and length of trips on (its) toll roads “in its traffic modelling and forecasts” (to quote the ACCC’s Media Release). However, whilst it may not be used in such “traffic modelling and forecasts” it has to be used to compute tolls and hence toll revenues, for WestConnex, so it is possible the ACCC was misled or failed to understand this aspect.
- II. **A corollary of the fact that trip length data is not required to be published is that important data on Vehicle Kilometres Travelled (Vkt) will be absent/unobtainable.** Such data is important for Government (or general) understanding of aggregate road usage. It could also be valuable for future planning of new road usage pricing methods, as alluded to below under Future Road Pricing.
- III. **A corollary of the fact that trip duration data is not required to be published is that important data on average vehicle speeds experienced will be absent/unobtainable.**

⁶ - Noting that it has been changed between the original draft Undertaking and the final signed version; but we have had no time to closely check the final version and are not lawyers anyway.

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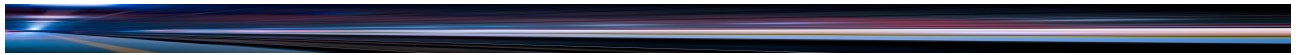
This data is important for Government (or general) understanding of the effectiveness and efficiency of the motorways. It could also be valuable for future planning of new road usage pricing methods, as alluded to below under Future Road Pricing.

- IV. **The exclusion in the Undertaking of detection devices other than electronic toll gantries could be a drawback.** Transurban's Linkt™ product could foreshadow a future move to mainly GPS-enabled recording, which means the specified exclusion of "induction loop devices and electronic tag devices or telecommunications devices installed or held within motor vehicles" (see "Detection Device definition in the Dictionary to the Undertaking) could result in data gaps sometime in the future if Linkt™ takes over from the electronic toll gantries for any recording purpose.
- V. Aside from the Undertaking and Transurban's control of data on its roads, the only other standard source of publicly available traffic information is that from RMS. When endeavouring to evaluate the Beaches Link proposal we concluded that the present RMS interactive Traffic Volume Viewer method for gathering such data exhibited gaps, inconsistencies and definitional issues. Likewise we didn't think that the display RMS provides online of traffic volumes for the Widened M4 was well enough defined for us to be sure of what it meant (it seems also, at least prima facie, to be oriented towards Flag Fall counts and not traditional measures of traffic volume throughput in that it refers to "trips" not AADT). **So we asked the RMS Media people about these problems and whether improvements might be made**, such as to make historical data fully comparable, and their eventual reply (13/8/18) was simply:

"RMS provides actual passage data collected from road side tolling infrastructure and has no current plans to publish any additional traffic data"

The concern we have about this is that for future motorway projects, like the Western Harbour Tunnel, the Beaches Link, and the F6 Extensions, the anti-competitiveness issues might arise again. Moreover, certainly independent analysts like us would not be able to access data of sufficient quality to be able to advise clients about any project or funding proposal. It could also be a drawback in terms of future planning of new road usage pricing methods, as alluded to below under Future Road Pricing.

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FUTURE ROAD PRICING

It is now fairly broadly accepted in academia and political circles that Australia will need a new approach to road pricing for the future, as the advent of non-fossil-fuelled vehicles grows and the Fuel Excise revenue raised correspondingly reduces, causing a growing gap in the funding available for roads (or transport infrastructure more generally). Many contributions have already been made to the thinking on this, starting perhaps with the Henry Tax Review papers 2008-10 (see also ⁷, ⁸, ⁹, and ¹⁰) and the Productivity Commission's Public Infrastructure Review of 2014.

As a general theme, the thinkers are tending to favour replacement of motor vehicle registration fees and fuel taxes with more comprehensive and equitable road usage charging based on the factors of mass, distance, location and perhaps also time of day. Some seem to favour peak hour surcharging on motorways as a form of congestion charging, and that would clearly be a potential bonanza now for Transurban and its partners. Others prefer something similar to Singapore's ERP (Electronic Road Pricing) system, a Government run system using in-vehicle telecommunication units which record data as gantries are passed.

To introduce some such system in Australia will require re-negotiation of existing motorway tolling concessions, or imposition of some over-arching regulatory scheme for toll roads. [Not that road pricing should only apply to toll roads, as that would be self-defeating]. In order to be able to do this, and keep a reasonable level of fairness to taxpayers versus investors in toll road companies, it will be necessary to have good data. That means, in the case of NSW, that the quality and quantum of roads data held by Transurban and RMS is of vital importance. **This is why we say that the Committee should cast its thoughts forward into the future possibilities for road pricing with a view to ensuring that present opportunities for improvements to available roads data are not overlooked.**

⁷ *Transport Reform Network 2013 report by Deloitte*: <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/public-sector/deloitte-au-ps-road-pricing-transport-infrastructure-funding-260914.pdf>

⁸ *Speech by Federal Minister Fletcher in 2015*: http://minister.infrastructure.gov.au/pf/speeches/2015/pfs001_2015.aspx

⁹ *Infrastructure Victoria's November, 2016 paper "The Road Ahead"* <http://www.infrastructurevictoria.com.au/sites/default/files/images/The%20road%20ahead%20final%20web.pdf>

¹⁰ *City of Melbourne's paper "Reducing Traffic for Better Streets"* https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.com-participate.files/3515/3241/1563/Transport_Strategy_refresh_-_Reducing_traffic_for_better_streets_Discussion_paper.PDF



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This letter and information is being forwarded to you purely in the interests of the public good and has been prepared on a completely 'pro bono' basis. We have no relationship with any party involved in ownership or potential investment in toll roads, so are fully independent in that context.

We would be happy to answer questions, but possibly only by way of written correspondence, as the writer is currently no longer permanently resident in NSW.

Best Regards
Yours sincerely

IAN

Ian F Bell, FIAA
Principal & Director
Financial-Architects.Asia Pty Ltd

ATTACHED BY EMAIL:

- Correspondence to NSW Auditor-General as referred to in this submission.



ANNEXURE

SIMPLIFIED GANTRY COUNTER SETUP FOR TOLLED SEGMENT (untolled beyond extremities)					
TOLL GANTRY			TOLL GANTRY		
EastBound	Traffic Data	Exits @	WestBound	Traffic Data	Exits @
CASE 1 : Only throughput data is known					
A	1	Unknown	Z	1	Untolled
B	1	Unknown	Y	1	Unknown
C	1	Untolled	X	1	Unknown
CASE 2 : Both throughput data and distance travelled are known					
A	1	B	Z	1	Untolled
B	1	C	Y	1	Z
C	1	Untolled	X	1	Z
CASE 3 : Throughput data & distance travelled are known but also distance exceeding Cap					
A	1	B	Z	1	Untolled
B	1	C	Y	1	Z
C	1	Untolled	X	1	Z, but Capped
<i>Nb Distance between gantries/counters each 10km for simplicity, Toll cap @ 15Kms</i>					
CASE 1 : Two possibilities exist: Vehicles travelling full distance (20Kms) or vehicles travelling shortest distance (each 10Kms), but we don't know details of that so can't work out the distance based toll element even though we can get the correct Flag Fall count					
CASE 2 : We now know the total of distances travelled (that being specified data) but we can't ascertain the loss of tolls through Toll Capping					
No. Flag Falls >	2		No. Flag Falls >	2	
No. of Vehicles >	3		No. of Vehicles >	3	
Total Distance >	20 Kms		Total Distance >	30 Kms	
CASE 3 : We now know the total of distances travelled as well as total distance charged (all being specified data)					
No. Flag Falls >	2		No. Flag Falls >	2	
No. of Vehicles >	3		No. of Vehicles >	3	
Total Distance >	20 Kms		Total Distance >	30 Kms	
Charged Distance >	20 Kms		Charged Distance >	25 Kms	
Distances relate to intervals spent within the hypothetical WCX only					

This highly simplified set of examples shows that simply knowing throughput data at individual gantries is insufficient for reproducing WCX toll calculations, whether by a competitor, an auditor, or by knowledgeable members of the general public.

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Same outcomes apply if Traffic data is more commensurate with WCX levels:					
SIMPLIFIED GANTRY COUNTER SETUP FOR TOLLED SEGMENT (untolled beyond extremities)					
TOLL GANTRY			TOLL GANTRY		
EastBound	Traffic Data	Exits @	WestBound	Traffic Data	Exits @
CASE 1 : Only throughput data is known					
A	100,000	Unknown	Z	100,000	Untolled
B	100,000	Unknown	Y	100,000	Unknown
C	100,000	Untolled	X	100,000	Unknown
CASE 2 : Both throughput data and distance travelled are known					
A	100,000	B	Z	100,000	Untolled
B	100,000	C	Y	100,000	Z
C	100,000	Untolled	X	100,000	Z
CASE 3 : Throughput data & distance travelled are known but also distance exceeding Cap					
A	100,000	B	Z	100,000	Untolled
B	100,000	C	Y	100,000	Z
C	100,000	Untolled	X	100,000	Z, but Capped
<i>Nb Distance between gantries/counters each 10km for simplicity, Toll cap @ 15Kms</i>					
CASE 1 : Two possibilities exist: Vehicles travelling full distance (20Kms) or vehicles travelling shortest distance (each 10Kms), but we don't know details of that so can't work out the distance based toll element even though we can get the correct Flag Fall count					
CASE 2 : We now know the total of distances travelled (that being specified data) but we can't ascertain the loss of tolls through Toll Capping					
No. Flag Falls >	200,000		No. Flag Falls >	200,000	
No. of Vehicles >	300,000		No. of Vehicles >	300,000	
Total Distance >	2,000,000	Kms	Total Distance >	3,000,000	Kms
CASE 3 : We now know the total of distances travelled as well as total distance charged (all being specified data)					
No. Flag Falls >	200,000		No. Flag Falls >	200,000	
No. of Vehicles >	300,000		No. of Vehicles >	300,000	
Total Distance >	2,000,000	Kms	Total Distance >	3,000,000	Kms
Charged Distance >	2,000,000	Kms	Charged Distance >	2,500,000	Kms
Distances relate to intervals spent within the hypothetical WCX only					

Excel spreadsheet for these examples is available and was sent to ACCC. However, the principles should be seen to be straightforward by experienced analysts.

