

Contact: David Morris / Robert Holbrook

Our Ref: DJM:RJH:230427

5 March 2024

Mr Roger Howlett Delegate (Chair) Tasmanian Planning Commission **GPO Box 1619** HOBART TAS 7001

By Email: tpc@planning.tas.gov.au

Dear Mr Howlett,

Devonport LPS - Draft Amendment AM2022.02 and Permit PA 2022.0024 -Stony Rise

- 1. This firm continues to act for Tipalea Partners in this matter.
- 2. At the resumption of the hearing in this matter on 12 and 13 December 2023, and owing to Mr Petrusma's un-availability on 13 December, it was agreed that questions that were put to Mr Higgs by Mr Hogan and yourself would be provided to Mr Petrusma to enable him to respond in writing.
- 3. Accordingly, please see the enclosed statement of evidence from Mr Petrusma dated 14 February 2024.
- 4. The transcript referred to and provided as Appendix A of Mr Petrusma's statement has been prepared by this office based on a recording of the hearing provided by the Commission. We understand it to be an accurate transcription.
- 5. Following submissions made by the parties at the conclusion of the hearing you indicated that the Commission would seek advice from the Solicitor General, particularly in relation to the submissions made by our client on 27 November 2023.
- 6. We have been instructed to seek an understanding in relation to timeframes and respectfully request an indication of when the Commission anticipates it will be able to advise the parties on any future arrangements for this matter.

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7. We note this correspondence has also been provided to the representatives of the Planning Authority and Mr Spence SC and Ms Lightfoot on behalf of Goodstone Pty Ltd and Mr Yaxley and Ms Rundle.

Yours faithfully,

SIMMONS WOLFHAGEN

Counsel for Tipalea Partners

Our Ref: DJM:RJH:230427 5 March 2024

STATEMENT OF EVIDENCE

Reference:	AP-DEV-AM2022.02
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Author: Mark Petrusma

Field of expertise: Traffic Engineering

Filed on behalf of: Tipalea Partners

Date: 14 February 2024

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1. INTRODUCTION

1.1 PREAMBLE

- 1.1.1 This is a statement of evidence from Mark Petrusma, Senior Transport Engineer of GHD Pty Ltd.
- 1.1.2 This statement has been prepared as a response to the discourse between Mr Higgs (Traffic Engineer), Mr Hogan (Commission Delegate) and Mr Howlett (Commission Chair) at the hearing on 13 December 2023.
- 1.1.3 This statement provides my responses to specific questions put to Mr Higgs as recorded in the transcript dated 13 December 2023 entitled "Traffic Questions" (attached as Appendix A to this statement).
- 1.1.4 This statement makes reference to my Statement of Evidence dated 7 June 2023.

2. DECLARATION

2.1 DECLARATION

- 2.1.1 This statement of evidence has been prepared in accordance with the Tasmanian Planning Commissions Practice Note 14. I have made all enquiries which I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge, been withheld from the Commission.
- 2.1.2 I have attempted at all times in preparing this statement to distinguish between matters of fact, professional opinion and submission.

Signed:

Date: 14 February 2024

3. RESPONSES TO QUESTIONS PUT TO MR HIGGS ON 13 DECEMBER 2023

- **3.1** In the following paragraphs:
- 3.1.1 MH = question asked by Mr Hogan
- 3.1.2 RH = question asked by Mr Howlett
- 3.2 MH: "Yeah well without re-going over all that ground I guess there was ..um.. some.., in terms of what you have got there, in terms of your table in um 6.6.1 there was some difference in the overall um level of um traffic generation under the...under that scenario between yourself and um Mr Petrusma, I mean are these in terms of, in terms of the quantification of those numbers are these sort of just.... the sort of differences you would expect in two different professionals just having a slightly different opinion on this underlying assumptions or are they sort of at a level where the significance means that the validity of either, either yours or Mr Petrusma's sort of overall findings are in question I mean are they.. what's the ...what's the weighting? In terms of the there doesn't appear to be a huge difference in the numbers when I look at them um between what you have come up with and what Mr Petrusma has come up with but what's the...what is the significance in weighting?" [page 2 of the transcript]
- 3.2.1 I have reviewed the differences between trip generation estimates provided by Mr Higgs in Paragraph 6.6.1 of his statement of evidence against the GHD TIA. A comparison is provided below.

Table 1	Difference between	n Mr Higgs estimates	s and GHD TIA	estimates for traffic generation
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Component	Mr Higgs	Evidence	GHD TIA			
	Weekday	Saturday	Weekday	Saturday		
	PM	Midday	PM			
Site "B" Showroom/bulky goods	77	183	212	283		
1 Friend Street						
Site "C" Shopping centre	741	922	741	922		
5 Friend Street (proposed supermarket)						
Site "D" Shopping centre	147	342	195	261		
90-102 Stony Rise Road						
Site "E" Residential	60	40	67	67		
124-128 & 130-136 Stony Rise Road						
Total	1062	1487	1,215	1,533		

- 3.2.2 The difference in figures is for neighbouring sites and is around 153 vehicles per hour in the Weekday PM peak and around 46 vehicles per hour in the Saturday peak. Accounting for an entry/exit distribution, the difference is around halved for traffic volumes at the Stony Rise Road / Friend Street intersection (77 and 23 vehicles per hour respectively).
- 3.2.3 It is my view that this difference of opinion is not material and it is my evidence that intervention at the intersection of Friend Street and Stony Rise Road would be warranted in the future irrespective of the proposed amendment proceeding.
- 3.3 MH: "Yeah, I guess, and this is probably getting outside of your sphere of expertise, but I guess the assumptions around the timing of this and the....when these traffic um levels might be reached under the proposed development of the supermarket, its just a sort of base case scenario, I guess that's probably ...I mean...so you've modelled a Bunnings but sort of like ..um you know that's..but if...if whether or not a Bunnings ever goes there or whether its sort of ..you know..a small number of developments, big box developments, over a...over a longer period of time or whether that period of time is 5, 10, 15 years if that's ...well I guess we had a proposition put to us on the timing of that from Mr Petrusma um but we have various other experts sort of tell us that mannedyou know...the outtake of these things is lower than expected and what have you and it's fine if this solu...if this is getting into an area outside of your expertise because you have just taken an assumption and plugged it into a model that's fine just let me know but in terms of a......in terms

of a..you know...the likelihood of timing um how much difference is there between your views and that of Mr Petrusma's of uh..what might happen under the...under the..or the without the supermarket um scenario?" [pages 2-3 of the transcript]

- 3.3.1 I note that it is not my evidence that a second Bunnings would be developed on the 5 Friend Street site, but that under the current Planning Scheme a development with similar traffic generating characteristics to a Bunnings could be constructed there, as evidenced by previous approvals.
- 3.3.2 Under this development scenario, traffic modelling shows failure of the intersection of Friend Street and Stony Rise Road by the year 2035 (this is referred to as Scenario 2A provided on Page 12 of my Primary Statement of Evidence dated 7 June 2023).
- 3.3.3 Table 5 of my Statement of Evidence dated 7 June 2023 also shows that signalisation of this intersection would provide adequate capacity under this scenario which represents development under the current Planning Scheme.
- **3.4** MH: "So you're saying the SIDRA analysis applied first appearance Saturday pm now indicate the installation of traffic signals is not necessary for the likely development and under the current zoning?" [page 4 of the transcript]
- 3.4.1 Mr Higgs' modelling results for the 'Current Zone Potential' are described on Page 16 and 17 of his Statement of Evidence and appear to show adequate intersection performance under the future development scenario. I disagree with the modelling results presented by Mr Higgs as they appear to show better performance at this intersection than can be observed on-site even now, without the future development. It is my opinion that Mr Higgs' model has not been appropriately calibrated to observed conditions and therefore is not presenting an accurate view of future intersection performance.
- 3.4.2 I also note that when I apply the exact same volumes to a give-way controlled SIDRA Intersection model with the same configuration as Mr Higgs, the results that I observe are significantly different to those of Mr Higgs. A screenshot of the output is provided below. This can be compared to the outputs on Page 17 of Mr Higgs' Statement of Evidence (note in particular the 'demand flows' column).

Lane Use a	nd Perfor	mance													
	Demand [Total veh/h	Flows HV] %	Arrival [Total veh/h	Flows HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back [Veh	Of Queue Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Stony R	lise Road														
Lane 1 Lane 2 Approach	241 357 598	7.0 0.0 2.8	241 357 598	7.0 0.0 2.8	1865 698	0.129 0.511 0.511	100 100	0.0 12.1 7.2	LOS A LOS B NA	0.0 3.3 3.3	0.0 22.8 22.8	Full Short	500 60	0.0	0.0 NA
North: Friend	Street														
Lane 1 Lane 2	579 407	0.0	579 407	0.0	861 212	0.672 1.918	100 100	11.6 857.7	LOS B LOS F	6.2 125.8	43.7 880.7	Short Full	60 500	0.0 0.0	NA 25.6
Approach	986	0.0	986	0.0		1.918		360.9	LOS F	125.8	880.7				
West: Stony F	Rise Road														
Lane 1 Lane 2 Approach	304 352 656	0.0 7.0 3.8	304 352 656	0.0 7.0 3.8	1857 1865	0.164 0.189 0.189	100 100	5.6 0.1 2.6	LOS A LOS A NA	0.0 0.0 0.0	0.0 0.0 0.0	Short Full	60 500	0.0	NA 0.0
All Vehicles	2240	1.9	2240	1.9		1.918		161.5	NA	125.8	880.7				

Figure 1 Friend Street / Stony Rise Road intersection model outputs using Mr Higgs' traffic volume inputs (Sat)

- 3.4.3 Accordingly, I have low confidence in the modelling undertaken by Mr Higgs.
- **3.5** MH: "So but at...at what point then you're saying in 50...15 years' time ... that might change?" [page 4 of the transcript]
- 3.5.1 It is my opinion that intervention is warranted at this intersection by the year 2035 under a development scenario allowable under the current Planning Scheme. This is shown by Scenario 2A as documented in my Statement of Evidence dated 7 June 2023. I do not agree

- with the intersection modelling undertaken by Mr Higgs as it does not appear to be consistent with on-site observations.
- 3.5.2 I further note that background traffic growth on Stony Rise Road, in particular, is unlikely to stall in the short to medium term. This background traffic growth is also a key driver of intervention at the Stony Rise Road and Friend Street intersection. This is based on the following general comments:
 - 3.5.2.1 The *Devonport Road Network Strategy*, which was introduced by Mr Hogan at the hearing on 12 December 2023, shows a clear desire to discourage the use of Middle Road and to strengthen the routes comprising Stony Rise Road, Don Road and Devonport Road (refer Section 5.6.2 of the Strategy). This means that there is a strategic focus on promoting Stony Rise Road for future traffic growth.
 - 3.5.2.2 The Devonport Local Provisions Schedule includes a Specific Area Plan (SAP) entitled the *Devonport Reserved Residential Land Specific Area Plan*. There are a number of large parcels in the immediate vicinity of Stony Rise Road that are subject to this SAP including, but not limited to, 57 Stony Rise Road (approximately 24 hectares) and parts of 26-70 Stony Rise Road (approximately 17 hectares) and 133 Middle Road (approximately 8 hectares). This suggests that there is substantial potential for residential growth along the Stony Rise Road corridor that would contribute to background traffic growth and further increase the need for intervention at the Friend Street intersection.
- **3.6** MH: "So after 10 years at...at ...at that well generally at A & B getting down...getting down to C in terms of level of service but it's not getting close to... what's...what's saturation? F? Suggestion D is it?" [page 4 of the transcript]
- 3.6.1 Generally speaking, an intersection that is operating at Level of Service (LOS) F is operating under oversaturated conditions (i.e. degree of saturation greater than 1.0). LOS C is typically the target level of service in urban environments, however LOS D is often acceptable depending on the site context. LOS E is approaching capacity and typically accepted only in very constrained circumstances.
- 3.7 MH: "I guess the ...I guess the degree to which the traffic flows on Friend Street is probably, I mean I guess your ...I mean my ...my local knowledge of and we'll have to talk to Council and Garry Hill about this, but is ...is Friends Street, because it's got ...because it's got a um off ramp from the Bass Highway, is...is the Friends Street an alternative to...to Middle Road in terms of through traffic or do people that are going down into this area, and even thinking of future residents are they using a combination of either Middle Road or...or Friends Street to get off the Bass Highway or is that not something you're aware of, how it's actually used, as through traffic or not?" [pages 4-5 of the transcript]
- 3.7.1 It is possible that Friend Street could generate through traffic originating at Bass Highway, but my opinion is that it is unlikely. This is because a) the route from Bass Highway through the Homemaker Centre site towards Friend Street has a lot of slow moving traffic accessing various parking areas, and b) there are few destinations that are better served by this route compared to the Middle Road Interchange (to the east) or the Tugrah Road Interchange (to the west).
- 3.8 MH: "Ok but I guess in terms...in terms of the degree to which the background traffic is increasing, I mean as...as a function of just general population growth, more car ownership, more car usage, if it's being used as a sort of a...you know...a through arterial road verse..versus just a ...just a place to access those shops you'd expect, I mean..mean would I be right to expect that that you know..that's the likelihood of...of traffic growth increasing is..is..is more likely if it's sort of got that arterial through route road function than just something that serves a um just shops and residences there?" [page 5 of the transcript]
- 3.8.1 I have assumed a 2.0% per annum traffic growth rate on Stony Rise Road and a 0.5% per annum growth rate on Friend Street (Paragraph 4.3.3 of my Statement of Evidence dated 7 June 2023). The background traffic growth on Friend Street is effectively limited to increases

- in traffic using pass-by facilities such as fast food outlets and the petrol station, as the trip generation of these uses tends to be tied to Bass Highway traffic growth. Stony Rise Road, as an arterial road corridor, will experience significantly more background traffic growth.
- 3.9 MH: "Yeah yeah I mean that's the point, I wasn't necessarily saying that that is the case I'm saying that it might actually be slower but the traffic growth on ...on that road might be slower than the ...than the residual traffic growth on roads like on Friends Street through that side might be slower than on ..on Middle Road or Stony Rise Road where they're actually being used for, you know, a variety of purpose as sort of, through roads?" [pages 5-6 of the transcript]
- 3.9.1 Yes.
- **3.10** RH: "Um Mr Higgs you say that the junction of Stony Rise and Friends Street is stressed already and something needs to happen irrespective of what is proposed within 15 years, is that what you are saying to us?" [page 6 of the transcript]
- 3.10.1 Mr Higgs and I are in agreement that some intervention would be warranted at some point in the future with development currently allowable under the current Planning Scheme.
- 3.10.2 Mr Higgs stated: "Now yesterday there was a proposition that within 15 years or thereabouts this intersection is likely to need traffic signals regardless of a change to allow standard retail including a supermarket and that is a proposition that I wouldn't argue about if the background growth continues" (page 3 of the transcript) and "... I think it will get to that point at some point whether it's 15 years or 13 or 18 or 20 or whatever." (page 6 of the transcript)
- 3.10.3 My evidence is that this point would be reached before the year 2035. This is shown by Scenario 2A as documented in my Statement of Evidence dated 7 June 2023.
- **3.11** RH: "So if this er if this um shopping centre that's part of the permit was approved that would probably potentially bring forward and would need to do something about the intersection?" [page 6 of the transcript]
- 3.11.1 Yes.
- **3.12** RH: "And you say that at 8.3.2 you can go round the roundabouts, one's 800 metres away ah and the roundabout to the east 400 metres away are you saying that's too far...is that what you..?" [page 7 of the transcript]
- 3.12.1 At this stage, it is not proposed to remove right turn access to residences along Stony Rise Road. This would be considered as part of further design investigations and separate approvals required for traffic signal upgrades. The concept layouts presented in Attachment 1 to the *Signalisation Report* (GHD 2022) show right turns retained for all driveways along Stony Rise Road.
- 3.12.2 The presence of roundabouts 800 metres to the west and 400 metres to the east mitigates the impact due to a future loss of right turns, or even difficulty undertaking right turns during peak periods. However, there are other impact mitigation options available including "KEEP CLEAR" pavement markings, extended "All Red" phases and provision of roundels rather than right turn arrows at the intersection as described in Paragraph 4.4.10 to 4.4.13 of my Statement of Evidence dated 7 June 2023. These also would be considered as part of further design investigations.
- **3.13** RH: "So you... you draw the conclusion that'd have a significant impact?" [page 7 of the transcript]
- 3.13.1 It is not certain that right turn access to residences would be lost as part of the intersection upgrade works. Notwithstanding, if this is the case, it is my opinion that the impact is both limited in scope (to a finite number of residences) and limited in scale (to a reasonable increase in travel time set by the physical distance between roundabouts). I do not agree that the impact is significant in the context of the proposal.

- 3.14 RH: "As part of the TA do we know exactly what would be done to that intersection ...do we know exactly what's proposed to be done to it? Did it show how long ... how long the lanes and right turn slots might need to be?" [page 8 of the transcript]
- 3.14.1 Indicative concept layouts have been prepared (refer to Attachment 1 of the *Signalisation Report*) to demonstrate that a feasible solution for this intersection exists. The actual design of the intersection would be subject to further design investigation and separate approvals as part of the normal process for traffic signal upgrades.
- 3.14.2 It is likely, however, that the ultimate solution would be similar to one of those options presented.
- 3.15 RH: "And would that, depending on the design the length of the right turn slots etc and so on would that have an impact on the potential number of properties in Stony Hill Rise that are likely to be affected?" [page 8 of the transcript]
- 3.15.1 Yes. In the event that properties are impacted by the intersection upgrade, the length of the works area would determine how many properties and driveways have the potential to be impacted.
- **3.16** RH: "Would your experience in medians would normally be instructed so as to stop at right turn slot rather than double white lines?" [page 8 of the transcript]
- 3.16.1 There are numerous examples across Tasmania of signalised intersections without median islands. This is not a strict requirement. The concept layouts presented in Attachment 1 of the *Signalisation Report* show potential layouts without physical islands which would block right turn access. The need for median islands would be considered as part of further design investigations and separate approvals required for the traffic signal upgrade.
- **3.17** RH: "So, in your view is it clear what that traffic signalisation actually ...what will occur? Is it detailed enough to be able to ah show actually ...what will be done to deal with the traffic at that...that ah ... intersection?" [page 9 of the transcript]
- 3.17.1 The indicative concept layouts demonstrate that a feasible solution for this intersection exists. It is my opinion that the impacts of signalisation can be mitigated through design, and any residual impacts would be limited in both scope and scale. It is likely that the ultimate solution for the intersection would be similar to one of the options presented.
- 3.18 MH: "There's a bit of a bell curve though where the ...where the ones closer to the centre of the intersection are, sort of, a higher degree of confidence than the ones further out but then...so you're saying there's that there's every potential that at some point there's going to be some median strip there that means you can't cross across there?" [page 11 of the transcript]
- 3.18.1 Setting aside the high likelihood that impacts associated with this intersection would be experienced irrespective of this amendment and development proceeding, it is my opinion that the impacts of future signalisation are manageable, limited in scope, and can be mitigated through conventional engineering means.
- 3.18.2 These impacts are described in Section 4.4 of my Statement of Evidence dated 7 June 2023. I note that this is a common situation that occurs on urban arterial roads (such as Stony Rise Road) when traffic volumes increase over time to the point where intervention is warranted in the form of retrofitting of traffic signals to an existing intersection. These are often in areas which have been built up over time and driveways are present. Specifically, land use and development on the terminating side of a T-intersection will unavoidably be located within the intersection footprint.
- 3.18.3 Sections 4.4.3 and 4.4.4 of my Statement dated 7 June 2023 identify a number of locations where this has occurred in Tasmania and Victoria. Appendix E of my Statement show a series of examples.

- 3.18.4 I further note that any future signalisation of this intersection would be subject to further design investigations and consultation with Department of State Growth and other authorities to achieve the separate approvals required for traffic signal work. These investigations and consultation would require due consideration of road safety and capacity, including mitigating any significant impacts associated with driveway access.
- 3.18.5 The presence of roundabouts both 800 metres to the west and 400 metres to the east of this intersection provide an alternative for access in the event further design investigations identify that loss of right turn access is unavoidable. It is my opinion however that the removal of right turn access may not be required, and if required would be applied sparingly, with a minimal number of properties impacted.
- 3.18.6 My evidence is that there exists a feasible solution for signalisation. The *Signalisation Report* dated 11 April 2022 documents two potential options, however as noted above, any upgrade would be subject to further design investigation and separate approvals.

4. CONCLUSIONS

- 4.1.1 It is my opinion that both Mr Higgs and I appear to be in agreement that some form of intervention at the intersection of Friend Street and Stony Rise Road is likely to be required in the future irrespective of this amendment and particular development proceeding (provided background traffic growth continues), however we vary in our opinion of the timing.
- 4.1.2 My evidence is that based on development allowable under the current Planning Scheme, intervention will be required at some point prior to 2035.
- 4.1.3 Given that, the proposed amendment and development does not impact on driveways along Stony Rise Road except to accelerate the timing of future signalisation.
- 4.1.4 As documented in my Statement of Evidence dated 7 June 2023 and in the *Signalisation Report* dated 11 April 2022, there exists a feasible solution for signalisation. However, this would be subject to further design investigation, consultation with authorities and separate approvals as is required for traffic signal work.

5. APPENDIX A: TRANSCRIPT

[230427] TPC Hearing AM2022.02 & Permit PA 2022.0092

13 December 2023

Traffic Questions

AS – Anthony Spence SC

- AS Was..was there any brief supplementary issues you wish to bring um um to the attention of the Commission or are you happy just to ah proceed with the questions?
- JH No, no I'm just...I'm happy to proceed as ...as we are.
- AS Thank you

(exchange between Commission members regarding Ms Williams)

- RH Mr Morris, do you have anything?
- DM Yes, thank you having regard to the responses of Mr Petrusma yesterday, I have no questions.
- RH Okay thank you
- MH Um..perhaps, so I guess you were...you heard the discussion yesterday in relation to the questions that were put to Mr Petrusma, Mr Higgs?
- JH Yes
- MH Yeah well without re-going over all that ground I guess there was ..um.. some.., in terms of what you have got there, in terms of your table in um 6.6.1 there was some difference in the overall um level of um traffic generation under the...under that scenario between yourself and um Mr Petrusma, I mean are these in terms of, in terms of the quantification of those numbers are these sort of just.... the sort of differences you would expect in two different professionals just having a slightly different opinion on this underlying assumptions or are they sort of at a level where the significance means that the validity of either, either yours or Mr Petrusma's sort of overall findings are in question I mean are they.. what's the ...what's the weighting? In terms of the there doesn't appear to be a huge difference in the numbers when I look at them um between what you have come up with and what Mr Petrusma has come up with but what's the...what is the significance in weighting?
- JH I don't....I don't think there is much um significance at all um as you say the differences are um are not great um and it is just a matter of ..of how one person or another might apply the available data.
- MH Yeah
- JH Yeah
- MH Okay
- JH Yeah So I don't think the consequences of the differences um in respect of what is in table 6.2.1 um make much difference to anything?
- MH Yeah, I guess, and this is probably getting outside of your sphere of expertise, but I guess the assumptions around the timing of this and the....when these traffic um levels might be reached under the proposed development of the supermarket, its just a sort of base case scenario, I guess that's probably ...I mean...so you've modelled a Bunnings but sort of like ..um you know that's..but if...if whether or not a Bunnings ever goes there or whether its sort of ..you know..a small number of developments, big box developments, over a...over a longer period of time or whether that period of time is 5, 10, 15 years if that's ...well I guess we had a proposition put to us on the timing of that from Mr Petrusma um but we have various other experts sort of tell us that mannedyou know...the outtake of these things is lower than expected and what have you and it's fine if this solu...if this is getting into an area outside of your expertise because you have just taken an assumption and plugged it into a model that's fine just let me know but in terms of a...
- JH Well....

- MHin terms of a..you know...the likelihood of timing um how much difference is there between your views and that of Mr Petrusma's of uh..what might happen under the...under the..or the without the supermarket um scenario?
- JH Okay, what...what um I did, and Mr Petrusma yesterday accused me of using um a modelling of Bunnings, which I didn't do by the way um ah and in response to your question just now I... I didn't model a Bunnings. At at um section 5.2 um this was the one that Mr Petrusma um said that I'd...I'd ah I had a mismatch with logic or something was his terminology um when because I...because he said I used two vehicles an hour and 4.5 vehicles an hour per 100m2 of floor area for the two peaks that were under consideration I was simply reporting what O'Brian Traffic used..

MH Oh okay

- JH ...in their assessment um that was not my estimate um now um and one of the reasons I haven't modelled a Bunnings is that there is already a Bunnings there and ah I've never seen Bunnings put two stores with...within 150 yards of each other um I...I think that's most unlikely um well.... It's even more unlikely than most unlikely put it that way um and..and so ah but when I did model ah what would be likely to occur under the current um plan....um
- MH (unintelligible)...Plan B the proposed supermarket?
- JH No the current ...the current plan B ah with under a zone that ah exists
- MH Oh right okay
- JH When I modelled that I added ah 20% 10 years at 2% growth um ah to all movements um and then um you will notice that at section um um 8.1.4 I added a further 10% of ah traffic volumes on um Friend Street ah which ...you know..arguably adds additional time to it. Now yesterday there was a proposition that within 15 years or thereabouts um this intersection is likely to need traffic signals regardless of...of um ah a change to...to allow standard retail including a supermarket um and that that is a proposition that I...I wouldn't um wouldn't argue about um ah if the background growth continues but that's 15 years away that's not um what we're dealing with now, that...that 15 years gives everyone involved plenty of time to work out what should happen so um fundamentally what..what I have done is modelled um.... And by the way I modelled it and..and the conclusion that I came to showed that the... the um operation was satisfactory, I didn't use the word admiral...admirable which I was accused of using yesterday um um that's...that's ridiculous um if it's got a degree of saturation of...of ah.. 0.7 um then um that indicates adequate operation as determined by the SIDRA program which is well used throughout the country.
- MH When you are saying, when you are talking about your analysis of the proposed um site layout that you've got there on page, um it's not numbered but underunder 8.1.5 is that what you were referring to then or are you referring to the existing ...the existing um arrangement?
- JH No..no I'm referring, I'm referring to the ...the existing situation
- MH Ok where ...where are they referred to in... in your report? You're saying that its satisfactory.
- JH At ...at ...at Section um 8.1.2 um there is a SIDRA analysis for the Thursday pm peak...
- MH Yep
- JH ... which shows a degree of saturation of 0.686 and queue lengths are about satisfactory and levels of service between A and C, now ...um and then on the Saturday midday the degree of saturation is higher at 0.727 um and so um what I say there and as would ah most people um familiar with the use of SIDRA is that SIDRA is showing that that's um with...within acceptable limits without the traffic signals.

MH Yeah

- MH So you're saying the SIDRA analysis applied first appearance Saturday pm now indicate the installation of traffic signals is not necessary for the likely development and under the current zoning
- JH Yes
- MH So but at...at what point then you're saying in 50...15 years' time
- JH No he...
- MHthat might change
- JH Yes um that is a 10 year horizon which is...
- MH That's a 10 year ok
- JH That was a standard um sort of planning horizon
- MH So after 10 years at..at ...at that well generally at A & B getting down...getting down to C in terms of level of service but it's not getting close to... what's...what's saturation? F? Suggestion D is it?
- JH You wouldn't ...you wouldn't want to get it to F um.
- MH Right, so D, at D you're trying to avoid F?
- JH Yeah
- MH Yeah ok and getting close to D in your..., well you haven't modelled it but you're saying like that's close 10 years that's probably 15 years away?
- JH Yeah I yeah look it ..it...it is a function of the background growth which....
- MH Yeah
- JHyou know is...is...is a guesstimate at best um
- MH Yeah
- JH and ...and some...and sometimes what happens with background growth um is that, ah and this is ah present in lots of ah traffic counts if you look at them carefully, um if you take a ...take a..take a 10 year difference whilst the overall volume may have risen by 10 or 20% ah often the peak period volumes which ah we use in intersection analysis um don't increase by the same amount
- MH Yeah ...yeah...
- JH So..
- MH so while the traffic is increasing the peak isn't increasing at the same proportion yeah?
- JH Not necessarily no, so..
- MH Yeah
- JH ...so so that...that would be um some data that ah ...
- MH Yeah
- JH ...could be taken into consideration
- MH I guess the ...I guess the degree to which the traffic flows on Friend Street is probably, I mean I guess your ...I mean my ...my local knowledge of and we'll have to talk to Council and Garry Hill about this, but is ...is Friends Street, because it's got ...because it's got a um off ramp from the Bass Highway, is...is the Friends Street an alternative to...to Middle Road in terms of through

traffic or do people that are going down into this area, and even thinking of future residents are they using a combination of either Middle Road or...or Friends Street to get off the Bass Highway or is that not something you're aware of, how it's actually used, as through traffic or not

JH I did have a look at that because if ...if you uh see in my evidence at...at section um..aww it's section 4 um ah yeah section 4, um I...I looked at what was ...what sort of um started me on this was I thought the volumes at the...on the Friends Street approach to the intersection as recorded by ah GHD and then there was some similar ones recorded by um ah Mr Burk, um ah they weren't exactly the same but you wouldn't expect that anyway but, um I thought they were fairly high for a homemaker centre um..and...and perhaps if ah um if you look through ah that section 4.1.3 um I've scaled off um 78000m2 of the site and 21,000m2 of floor area plus pad sites with a KFC with a building area of 200m2 and a service station with a McDonalds and a Subway under the roof, now um, bear in mind I didn't go to the site um ..

MH Yeah

JH ...so I'm relying on street view and aerial photography to ah work these things out, but um um when I took away from the standard bulky goods um or homemaker centre type uses, um if I took away standard service station volumes and standard KFC, McDonalds and um the other fast food Subway, um away from it I still ended up with a fairly high traffic generation rate. Now that to me suggests um a couple of possibilities, um one is that er...one is a definite and that Bunnings is in there and Bunnings always generates um higher levels of traffic than most other bulky goods although there is a Harvey Norman in there and Harvey Norman is..is in that sort of upper range um ah of traffic generators, you know, compared with a you know an ah A1 Furniture or a um you know these slower trade type um um outlets that..that..that are often um included in homemaker centres, so ...but it was still pretty high, um and ah whether I've got, whether I have taken the right amount of stuff out or not ah I wouldn't be sure but the other possibility is exactly as you suggest, it...it could be um additional traffic avoiding ah perhaps Middle Road um ah by coming through and making a right hand turn out of Friend Street into ah Stony Rise Road and ah ah that would skew that data that way as well, so um ah I...I can't be certain about

MH Yeah that's fine

JH ... about any of that but...but it does...it does have that sort of

MH yeah

JHsmell about it.

MH Ok but I guess in terms...in terms of the degree to which the background traffic is increasing, I mean as...as a function of just general population growth, more car ownership, more car usage, if it's being used as a sort of a...you know...a through arterial road verse..versus just a ...just a place to access those shops you'd expect, I mean..mean would I be right to expect that that you know..that's the likelihood of...of traffic growth increasing is..is..is more likely if it's sort of got that arterial through route road function than just something that serves a um just shops and residences there

JH I...I would temper that view a little because to actually use it um you gotta come off the...off the ah Bass Highway, circle around the service station....

MH yeah

JH come through a roundabout, deal with probably traffic trying to come in and out of Harvey Norman um Bunnings whatever um and then get through another roundabout in the middle of the bottom part of Friends Street. Um on the ..the face of it I would think that is less convenient than going along Middle Road.

MH Yeah yeah – I mean that's the point, I wasn't necessarily saying that that is the case I'm saying that it might actually be slower but the traffic growth on ..on that road might be slower than the ...than the residual traffic growth on roads like on Friends Street through that side might be slower

- than on ..on Middle Road or Stony Rise Road where they're actually being used for, you know, a variety of purpose as sort of, through roads.
- JH I, I, I would suspect that that is highly likely to be correct. I...I don't think the through traffic volume in this instance would be um too significant, it's probably not much at all, and ...and there would be, like there are probably people who want to pick up fuel or food or um...
- MH On the way
- JH Or, stuff to do with convenience items on the way that will be ...will be doing that um..um...
- MH But then they have got to go through Friends Street, there's no way back onto Bass Highway, they've got to go through Friends Street
- JH Yeah well to get back...to get back to the Highway, presuming they are travelling West, they've got to go down Stony Rise Road for about, ahh it's pretty close to 1,500 meters I think to get back onto the um, on to the highway
- MH They're, they're not...They are using it, the road, because they have stopped there to do something as opposed to just using it as a through route.
- JH Yes
- MH That's fine, that's all, that's all I wanted to have a conversation about that, no more questions.
- RH Um Mr Higgs you say that the junction of Stony Rise and Friends Street is stressed already and something needs to happen irrespective of what is proposed within 15 years, is that what you are saying to us?
- JH Um I'm saying that at the moment SIDRA indicates that it is operating satisfactorily in those peak periods um um but with..if. if background growth um aah was 2% per annum for 15 years, I..I suspect and AND by the way if the rest of the ah development potential of the land that's served by Friend Street was taken up ah by um something that that would by a range of uses that would generate traffic typical of um of a homemaker centre, um ah it might approach that condition, I erm ah it might not either, I mean I think you would have to....you'd have to monitor that and work out what sort of development um is occurring because er um you know we don't know that um um presumably they would have to get permits for um for whatever it is that would be proposed, so then you would know um ah so it might be that it wouldn't get to that point um I think it will get to that point at some point whether it's 15 years or 13 or 18 or 20 or whatever, um I think that's...that would be pure speculation.
- RH So if this er if this um shopping centre that's part of the permit was approved that would probably potentially bring forward and would need to do something about the intersection
- JH Well yes, the ...the shopping centre um generates traffic at a significantly higher rate per unit land area or however you want to measure it um than than typical bulky goods um outlets for other uses that would be likely be permissible within that land.
- RH On um 8..821 of your evidence, the bottom of the page is the Friends Street internal intersection
- JH Yep
- RH You say set out in the PA allowance would need to be made for the alterations of the roundabout and approaches. Is that
- JH Uh
- RH Is that the rounda....Is that the roundabout that's shown under 4.1 Figure 3 which is right
- JH Sorry...which section are we referring to here?
- RH I've just read from 8.2.1

- JH Oh 8.2.1 right
- RH Where you said allowances would need to be made for alterations to the roundabout and approaches if the development proposal is to occur
- JH Uh yeah that's under Friends...Friends Street internal impact yeah I'm talking about the...the roundabout I'm simply recording that statement as made by GHD I have no argument with it
- RH Cause is that ... is that the roundabout that's shown under 4.1.1 of Figure 3 in your Evidence?
- JH Uh
- RH that's the one half way up between the Homemaker centre and the Stony Rise
- JH Yeah yeah
- RH Is that the one
- JH near where that..that red carrot thing is
- RH Yeah
- JH Yeah
- RH So you're saying you're agreeing are you with GHD's BA that if the..the...the shopping centre or whatever received it would need to be alterations etc for that roundabout
- JH Well when...when I say I agree...I...I...I didn't make any ah detailed analysis of it, I read it and the..the logic of it ah seemed to be there.
- RH So under 8.3 and there was a bit of discussion yesterday with Mr Petrusma about this, he has made the assumption that there are 18 properties that rely on driveways.
- JH Yeah
- RJ They are potentially ...likely to be effected if work was done to intervene with traffic management at the junction of Stony Hill Rise and Friends Street
- JH Yes um and by the way I...I...counted the um...I counted those using the NearMap um package um um cause I hadn't been to the site...but ah that was the one..that's the section where he was accusing me of being speculative about it well I...I.. what I've written there is based on um on um ah considerable experience in these matters.
- RH And you say that at 8.3.2 you can go round the roundabouts, one's 800 metres away ah and the roundabout to the east 400 metres away are you saying that's too far...is that what you..?
- JH Well I'm, I'm saying that that..that is particularly inconvenient for um somebody that can concurrently um well yeah can currently not concurrently can currently um ah make right hand turns in or out um of their property
- RH Yeah
- JH and...and...and the reason that I'm..I'm mentioning that um is because I don't think that um what has been put forward to date goes far enough to um reasonably ah respect the convenience amenity and safety of..of um the occupants of those properties that ah that rely on Stony Rise Road in the vicinity of the intersection for access to their property
- RH So you... you draw the conclusion that'd have a significant impact
- JH Yes
- RH On the... is that what you say?
- JH Yes

- RH As part of the TA do we know exactly what would be done to that intersection ...do we know exactly what's proposed to be done to it
- JH Well in...in the um ah the GHD TIA and perhaps without going to that if you went back in my um report if you went back to section 8.1.5 um there's a site layout um which is what um ah it'll said at the top it's leading to a likely need for a layout as shown below and as indicated in the ...TA...TIA by GHD now in...in that....that's just a diagram that SIDRA produces, it's not a design um that...that makes ah reference to anything really, it's just ah...ah..it tells you how many lanes are involved basically and that's that's about it and perhaps how long they are ah..
- RH Did it show how long ...how long the lanes and right turn slots might need to be...
- JH Yeah um
- RH And that...would that have an impact on the properties that are affected?
- JH Sorry I didn't catch that
- RH And would that, depending on the design the length of the right turn slots etc and so on would that have an impact on the potential number of properties in Stony Hill Rise that are likely to be affected?
- JH Um...ah... probably, probably not, I..I don't think it would extend much further than currently it would either remain the same or maybe there would be um um ah you know one or two additional driveways covered by double lines or even a median um ah that might be ah put in there for ah safety purposes um
- RH Would your experience in medians would normally be instructed so as to stop at right turn slot rather than double white lines?
- JH Ah In a.. in a...um if you weren't constrained by space ah you would normally do that because ah a median ah has control over the traffic but when you've got a signal controlled intersection it also um allows ah a signal pedestal ah to be put in the middle of the road which has improved safety outcomes because it's more visible um compared with not having a median um so that you know there...generally speaking you would target a median, ah the other thing is where you've got pedestrian crossing ah it's a pausing area um for pedestrians that might be a bit slow off the mark or um ah started their crossing too late or whatever so it...it's a refuge ah um for pedestrians as well...um um so um ah...you know that would be um not 100% certain that that's what happen but that um ah.. but it would be desirable put it that way.
- RH Yep You don't really know what the solution is? Is the TA....
- JH No, no, I...I don't and...and um ah...I spose it's...it's fair to say that I...um that my brief didn't um ah go to that..that level ...um...which I think is understandable.. um um but those ah comments I make are just based on...on you know what typically happens.
- RH Yep. And while I'm in your conclusion you've don't particularly say that there's been insufficient planning etc...you've...you've referred to what you've called a significant difference. Can you give us a clue about what you mean by significant?
- JH Um...the...well.. the the significant differences are first of all in the traffic generation. Now unto itself um you might say well does that really matter um um probably not but it ...but it does ah extend to the infrastructure that would need to go with it to cope with that additional traffic. Um ah the additional traffic also has traffic and safety related um amenity impacts on ah adjoining property and in this case we've got a um a mish mash of zones and land uses in the area, it looks like, you know, Brown's cows have been here somewhere but um...um it..it.. to me it needs.. and by the way I'm not saying you can't turn all of this into ...you know...into a shopping centre...um I'm not saying that at all what I'm saying is if you're gunna do that um there needs to be ah a significant body of work that that actually ah takes into consideration ah what might be needed and what the impacts of...of ah the additional traffic and the additional necessary infrastructure

would be uh on existing properties I mean you might..somebody might decide to buy all the properties on one side of the road for example and then that would um um have a ...a...potentially a different outcome, um so that there's um ah there's a whole...there's a whole range of work in my view that would be needed and per...perhaps um...just while...while you were asking that question I looked up the ah GHD traffic impact assessment um and that's the one from...oh when was it...ahum...ah... oh it was just called the TIA and on page 46 of that um you can see a signal...signalised intersection layout plan that has been put forward there with two right turn lanes um and ah it's a bit different from what I had cause it's got two ah...well it's not a median ah on both sides actually of the intersection and and ah.

- RH So that traffic..is that traffic impact assessment that you're looking at there by GHD got a project number or a revision number?
- JH Ah...Yeah...just a moment...um...it's
- RH Is it 12559925 Revision 2?
- JH 12559925...yes?
- RH Revision 2?
- JH Um was it revision 2...let me see....ah...revision 2...yes...so page 46 in that.
- RH So, in your view is it clear what that traffic signalisation actually ...what will occur? Is it detailed enough to be able to ah show actually ...what will be done to deal with the traffic at that...
- JH Well...
- RH ...that ah..intersection?
- JH Well, well it...it.. I don't think it does um um.... it..it.. it solves the ...it solves the problem of dealing with the traffic generation
- RH Going through the intersection?
- JH Yeah...at the intersection...but it doesn't take into account the knock on impacts um of the infrastructure required AND of the traffic volumes because if you look at that um.. thing on page 46...was it page 46...yes...yeah...um if you look at that diagram at page 46 you can see that those properties um...um...particularly along the south side where the majority of ...of them are located um have got this...this issue and...of ...um...of not being able to make right turns...now you know it could ...it could even be that a decent solution might include a service road..um...it could be that...um...that um ah.. a turning provision ah nearby ah would...um ...ah..would assist with um the reduction inconvenience for these people and...and one um option that...that could be ah thrown into the mix is...is a roundabout at Leary Road which...um... um I mean it's not super convenient but it's not disastrous, it... but it's a lot closer than um than the 800 metres that you'd have to go up to the west to um make a turnaround otherwise um..ah...but to work that out you would need to know um ah what all the services were and you'd need to know...um um...well um it would need to be properly worked out put it that way um
- RH But...but if you assume for the moment that, I think Mr Petrusma put to us yesterday that the distance of 800 metres in one direction and 400 metres to the other to go round the roundabout to get to the right side of the road is not that inconvenient. Would you need to look at all those other options?
- JH Well...well I...well I think it is pretty inconvenient. I mean, if...if you've gotta, if you've got to drive 1.6 kilometres to start your journey um ah I...I think that ...that is inconvenient. Um...ah...
- RH Okay thanks
- JHbut ...but ...but Leary Road is only 330 metres away from Friends Street....
- RH Yup

- JHSo you know that's those sort of things are options that ...that ought to be considered um...I'm not saying that ah that any of them are...are ideal or none of them work or..or anything of that nature but that's the sort of work that needs to be done if you're going to make significant changes to um ah effectively to the environment in which um ah other...there are other occupants
- RH Might just be one of the hazards of having a residential zone directly opposite ah a commercial zone (unintelligible)
- JH Ah absolutely it is...and that that's um.. you know that... those mixes of zones across roads or streets um have generated those compatibility problems for years and um you know sometimes we we still even see planning authorities today come up with it um despite the lessons of the past.
- RH Thanks Mr Higgs that's fine. Mr um...
- MH Hogan...
- RH ... Mr Hogan has got another question for us as a result of that
- MH Just er um um I was just wondering if we could share on the screen the...the LIST map showing this short of area sort of south of the Friends Street intersection um with just a sort of basic base map...just the basic base map and just the..yeah...and the ... can you put on the plan scheme zones and just make them sort of semi-transparent so if you can zoom down to there's yeah just down there a bit further just zoom back out sorry, so in terms of those 18 properties if we can just move ..so ...so the property I want ...if you can just select this property here and you're sharing this? This property here, 117, can you just click on that, is that, was that one of the ...was that one of the 18 properties that you..so when you're saying 18 properties you're...you're looking at just a ... you're referring to a title as a property..is that correct? Was this one of the 18 properties where you thought it might..there might be a ...well it's almost directly opposite..I would presume it's one of the 18 properties
- JH Yeah
- MHyou thought it might be...(unintelligible)
- JH Yeah it would have been. The 18 properties that I counted were those that have got um breaks in the double lines and perhaps if you wanted to see what that actually meant I could put my screen up um...
- MH Okay Well if we just...before we do that if we can just stay here cause if we just zoom out a little bit more cause that's all zoned urban residentials and that's quite a large block of land I presume that the one next to it..if we can just click on this one too...I guess that one zoned ... what number's that...that's 123A ... that's zoned urban residential...and even this one here...what's this one, I don't know whether you're..whether if this is included in you're 18 or we come back to that...so that's 125...so that's quite a large block of land but ..I mean if you look at ALL (emphasised) of that land it's sort of not dissimilar but I don't know how that....I don't...I mean...perhaps this is a question to when we get to Council in terms of Council sort of structure planning and what even (unintelligible) in terms of roads or access of driveways and future development had planned in its zone..but yeah I'm just interested to see how far your 18 properties extended so if you are able to share your..your screen and just sort of show us that
- JH Um yeah OK I'll put up...I've got NearMap....um...which I don't....if everyone is familiar with NearMap...it's um a subscription based thing um...so if I share..now how did we go with that?
- MH Yep we can see that
- JH Yeah ok I looked at what was, um, ah..ah.., it just takes a bit to regenerate here, it's a bit fuzzy still..
- MH Well we can ...we can see it

- JH Yeah okay well I... I would have gone from there...that one...
- MH Okav
- JH Ah That's two, ah..
- MH Right
- JH Three, four, five, six, seven, eight, nine, ten, eleven ah twelve see they're affected there, and then there's um now I might have gone that one too um..
- MH Okay
- JH ah but these are affected as well so there's about five there as well so that's how....
- MH There's a bit of a bell curve though where the...where the ones closer to the centre of the intersection are, sort of, a higher degree of confidence than the ones further out but then...so you're saying there's that there's every potential that at some point there's going to be some median strip there that means you can't cross across there?
- JH Ye, Yeah I think that's highly likely yeah.
- MH Yeah ok rightio fine
- JH And..and see I could have said..well..um.. the area of it that's affected because that....um... I had the zoning map as well and that whole property for example is...um...
- MH yeah so while you're talking about one property how many dwellings are affected might be significantly..given the zoning there and perhaps you can't do it because...well I don't know what...what the ... how the Council will deal with it but I presume its zoned urban residential so the intention is to have dwellings of some density on it...
- JH yeah it might..might..
- MH(unintelligible)...more dwellings
- JH and it might have... like for example the trees might be a... a constraint...um ...
- MH yeah
- JH ...so, but ...but clearly there's significant potential even if all the trees had to remain.
- MH yeah
- JH um so...so what sort of a street structure do we use um ah to deal with that um..that land and.. and ..and how does the intersection work? I mean it might be that..um, you know with a ...with a proper approach to the planning of the area that ..ah..that you know that you might want another street connection to Stony Rise Road.
- MH Yeah that's right there might need to be another road coming in which would give you another option for a roundabout but it might just create more problems cause there's.... it's on Stony Rise Road...yeah anyway so that's right I just wanted to clarify the properties that you were talking about ..
- JH Yeah
- MH Thanks
- RH Um anything arise out of that. Thank you for that. Thank you Mr Higgs for my part and I think the Commission thank you very much for your time and your evidence. Thank you Mr Higgs.