

CITATION: *Inquest into the death of Peter John Bonnell*  
[2018] NTLC 002

TITLE OF COURT: Coroners Court

JURISDICTION: Darwin

FILE NO(s): D0079/2016

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HEARING DATE(s): 24, 25 October 2017

FINDING OF: Judge Greg Cavanagh

**CATCHWORDS:** **Collision by motorcycle rider with temporary traffic control devices, rider impairment, failure to install traffic control devices in accordance with Australian Standard, report to DPP**

**REPRESENTATION:**

Counsel Assisting: Kelvin Currie

Counsel for Department of Infrastructure, Planning and Logistics (DIPL): Tom Grace

Counsel for BMD Constructions Pty Ltd (ABM 59 010 126 100) (BMD) instructed by DWF: Andrew Philp QC

Judgment category classification: B  
Judgement ID number: [2018] NTLC 002  
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IN THE CORONERS COURT  
AT DARWIN IN THE NORTHERN  
TERRITORY OF AUSTRALIA

No. D0079/2016

In the matter of an Inquest into the death of

**PETER JOHN BONNELL**  
**ON 30 APRIL 2016**  
**AT TIGER BRENNAN DRIVE**

**FINDINGS**

Judge Greg Cavanagh

**Introduction**

1. Peter John Bonnell (the deceased), was born 3 November 1972 in Wondai, Queensland to Patricia and Robert Bonnell.
2. He entered into a relationship with Yasmin Szepanowski in 1994 and together they had two children, Peta and William. He worked as a sound engineer.
3. On the night of 29 April 2016 he was working at the Hotel Darwin. He arrived at 9.00pm and set up the equipment for the band. He worked the soundboard while the band was playing. At the end of the night he helped pack up the equipment.
4. During the course of the night he consumed 10 rum and cokes and is likely to have smoked cannabis on two occasions. He left for home, riding his Honda CBR250 motorcycle at about 2.14am.
5. He headed down Bennett Street. He stopped at the traffic lights at McMinn Street. When the lights changed to green he rode down Tiger Brennan Drive.
6. At that time Tiger Brennan Drive was undergoing road works in the form of the Duplication Project. The new lanes coming into the city from

Berrimah Road to Woolner Road had been completed. On the way out of town after the Woolner Road intersection the outgoing vehicles were “switched” across onto the newly completed road section while the original section of the road was being refurbished. The “Switch” as it was known was put in place on 23 April 2016.

7. I pause to note that in my view this intersection is one of the busiest entrance points to Darwin City.
8. The Switch, at the Woolner Road end, made use of a crossover taking the traffic from the old section of road across the median area and onto the new road. It was physically formed on two sides by interlocking crash barriers. Partway through the crossover there was a large sign with an illuminated flashing arrow mounted on a trailer, behind the barriers, pointing in the direction of the traffic flow. There was signage stating the maximum speed limit to be 60 kilometres per hour.
9. Mr Bonnell rode through the lights at the Woolner Road intersection at an estimated 55 kilometres per hour. The time was 2.17am. He was then heard to be accelerating for a few seconds. There was then silence before the sound of skidding that left an 8.1 metre skid mark before he hit the interlocking barriers.
10. The force of the collision moved the barriers 2.4 metres and directed the bike along them. Mr Bonnell was thrown from the motorbike hitting the trailer upon which the flashing illuminated arrow was mounted.
11. His bike continued on for another 130 metres hitting the interlinked barriers on the other side and eventually coming to rest on its side on the surface of the roadway.
12. A resident close to the road heard the bike accelerate, skid and crash. He ran to assist. A taxi driver came across the bike on the road. The resident and the taxi driver looked for the deceased but were unable to find him. The resident called ‘000’ at 2.26am.

13. Police attended and noticed blood trickling from under one of the barriers near the illuminated arrow. They found the deceased on the other side of the barrier. He still had his helmet on but was obviously deceased.
14. An autopsy found that he died from multiple injuries that included a fractured skull and complete rupture of his aorta, right kidney, adrenal gland and liver. It is likely that he died instantly. He was 43 years of age.
15. Toxicology of his blood found a blood alcohol level of 0.204% and a relatively high level of Tetrahydrocannabinol. His drug and alcohol toxicity were no doubt of significant importance in relation to the manner he rode the motorbike, his level of observation and his reaction time.

### **Australian Standards**

16. However, shortly after his death there surfaced media reports to the effect that the traffic control setup for the Switch was not compliant with Australian Standards.
17. Those aspects were investigated by the Police and an expert opinion obtained as to compliance with Australian Standards.

### **The Expert**

18. Investigating police from the Major Crash Unit of the Northern Territory Police obtained the services of Mr David Tulloch, the Managing Director of RoadSafety Training Services Pty Ltd in Queensland. He has a very extensive and impressive curriculum vitae that includes 33 years' experience, 23 of those in full time crash investigation.
19. Mr Tulloch described two major areas where the setup of the Switch did not comply with Australian Standards.

### **Poor delineation**

20. The first issue was poor delineation of the roadway and curve. He said in evidence:

“The night-time’s all about being able to visualise the path and where it goes ... so to do that, primarily we need good delineation ... for vehicles and drivers to actually negotiate that reverse curve ...”<sup>1</sup>

21. He said the barriers used to delineate the curve had no retroreflectivity and were not designed to be used at night time to delineate a curve. In the approach to the crossover, a white broken line travelled straight into the non-reflective barrier. That appears to be the path that the deceased travelled.

22. Mr Tulloch said in evidence:

“It [the white line] should have been rubbed out or blacked out and retroreflectivity stickers or cat’s eyes ... used to create a delineation for the line work or repaint it so that it was available for delineation.”<sup>2</sup>

23. Not doing so, was non-compliant with AS1742.3 clause 3.9.4(b):

“If existing markings are not appropriate or are potentially misleading, they should be removed and replaced by more suitable markings ...”

24. Subclause 3.9.4(d) was also not followed:

“Temporary lines used to guide traffic through substantial diversions or changes in direction, should be supplemented by raised retroreflective pavement markers.”

25. In his report Mr Tulloch said:

“The presence of the dividing lane broken centre line creates potential night time directional confusion for traffic, as it continues into and under the barrier crossover configuration. Drivers use lane lines as a primary road direction delineation source, temporary lane direction changes such as the crossover should be setup to mitigate the potential for driver confusion.”

26. The following picture taken just after dawn on the morning of the crash shows the direction of the white line into the barriers.

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<sup>1</sup> Transcript p 26

<sup>2</sup> Transcript p 27



27. The following picture was taken on the night Mr Bonnell crashed into the barrier.



28. In relation to that photograph, Mr Tulloch commented:

“The above photograph was taken on the night of the incident, while it is poor quality and not a true representation of available ambient light or headlight illumination, it does highlight the deficiency of retroreflective delineation at the start of the right curve formed by the lateral shift crossover.”

29. He said there should have been reflective bollards on each side of the road inside the barriers. The approved Traffic Control Diagram (TCD) had retroreflective bollards on each side for the whole of the crossover. Without those the setup could not be compliant with AS1742.3 clause 4.14.6(d):

“At crossovers, the temporary diversion through the median shall be delineated with traffic cones or bollards at 2 metre spacing.”

30. He noted also that the flashing illuminated arrow was not aligned to the approach to the curve.



31. He said of this photograph:

“The above time exposure photograph provides a more realistic view of the lighting conditions present at the time of the incident, with the

trailer-mounted flashing directional arrow now visible, although it is misaligned with the approaching travel lane and may be camouflaged to some degree against the lighting plant background glare”

32. Of the position of the lighting plant he said:

“...lighting plants by their nature are very bright, glaring lights which are designed to light up a small - a relatively small radius area like a work site for localised conditions. That can cause issues particularly when there’s barriers that are also there to create shade in the light - bright light areas and then shadier area ...So with these lighting plants it’s quite critical where you locate them so that you don’t cause issues with driver’s vision, because human eyesight’s such that if you look at a glary light like that, that you look away. If something’s in the shadow it takes a while to adjust to those different lighting conditions between a bright light and a - a less bright light, so to speak.”<sup>3</sup>

33. It is likely the side of the barriers facing Mr Bonnell as he approached the crossover were in relative shadow due to the glare of the lighting plant.

34. Mr Tulloch concluded that the night time delineation setup was non-compliant with the guidance provided in AS1742.3-2009 clauses 4.14.6(d) / 3.9.4 (b), (d) “in a material aspect”.

### **Geometry of the curve**

35. The second major issue was the geometry of the curve. In essence the curve was too acute for the posted speed limit. The existing road curve radius is approximately 750 metres. Mr Tulloch said that where temporary curves are significantly substandard to the existing road curve geometry there was a requirement for “appropriate engineering judgement in terms of speed selection”.<sup>4</sup>

36. The approved TCD noted the lateral shift distance of 30 metres. The TCD provides an impression that the lateral shift was one lane width or 3.5

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<sup>3</sup> Transcript pp 27-28

<sup>4</sup> Page 16



metres. For that lateral distance a shift distance of 30 metres was appropriate as was the selected speed of 60 kilometres per hour.

37. However the actual lateral shift was 18 metres or the width of 5 lanes. The shift distance was only 45 metres. That provided a reduction in the curve radius from 750 metres to 55-70 metres.
38. Prior to the Switch being set up the speed limit was posted at 40 kilometres per hour. However, when the Switch was opened the limit was changed to 60 kilometres per hour.
39. At that speed Mr Tulloch said that the curve radius induced severe lateral acceleration up to about half a g-force, “enough to lose control in the wet or roll a truck”.
40. He concluded that the “60 kilometres per hour speed selection for the works crossover horizontal curve geometry does not comply with AS1742.2”.
41. Many of the barriers had no water in them. They were designed to contain water. However, Mr Tulloch was of the opinion that if they had been filled with water as specified by the manufacturer it would not have made any difference to the outcome.

### **Combined effect**

42. Mr Tulloch gave the following evidence:

“So when you combine poor delineation with geometry, they are probably the worst two features you could have in poor roadworks that you could think of. Those two are critical particularly at night time ...it [the crossover] would have to rate as some of the most deficient I’ve seen for a roadworks setup.”<sup>5</sup>

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<sup>5</sup> Transcript p29

43. The questions for the inquest were how it was that such a deficient roadworks setup was constructed and how it remained in place, undetected for a week before the deceased crashed.
44. That is not to say that the deficient setup was the only contributor to Mr Bonnell's death. Clearly it was not. His levels of intoxication were high.

### **Traffic Control Diagrams (TCDs)**

45. Section 12 of the *Traffic Act* states:

“A person shall not, without the consent in writing of the competent authority:

(a) erect, establish or display; or

(b) interfere with, alter or take down,

a traffic control device on a public street or public place.”

46. The consent in writing required by that section is obtained from the Road Operations area (Road Ops) of the Department of Infrastructure, Planning and Logistics (DIPL). At the commencement of the project the Department was known as the Department of Infrastructure (DOI).
47. The process to obtain that consent is through submission of a Traffic Control Diagram (TCD) to Road Ops. The TCD is prepared by a person with a Work Zone 1 Certificate.
48. In this case BMD, the contractors undertaking the management of the roadworks submitted a TCD to Road Ops. It was approved. It was compliant with Australian Standards. However the setup of the crossover was not in conformity with the TCD.
49. Mr Tulloch noted the major differences between the approved TCD and the actual setup to be:
  - Substitution of the compliant retroreflective bollards with non-reflective barrier channelization.

- Substitution of on-road lateral shift hazard markers with a trailer mounted flashing directional arrow.
  - Changes to the lateral shift configuration creating a substandard 60km/h speed zone curve radius.
  - Speed zone of 60 km/h retained for works amendments although at a later date revised to 40km/h.
50. The reasons why the crossover was not set up in accordance with the TCD requires an analysis of the relationship between DIPL and BMD.

### **DIPL and BMD**

51. The Tiger Brennan Duplication project was a substantial infrastructure development. In terms of monetary outlay it cost approximately \$100 million. DIPL did not believe it had the resources to manage such a project and sought tenders from interested companies to manage the project.
52. BMD was the successful tender. The contract required that BMD took over many of the duties and responsibilities of DIPL and indemnified DIPL against loss. There were requirements that key people be provided by BMD and not replaced without the consent of DIPL. There was also a requirement that traffic management be undertaken in accordance with Australian Standards. Clause 2.7 in the “Preliminary Clauses” stated:
- “Although TMPs and TCDs are appraised by DOI Officers for appropriateness, the applicant remains responsible for actual compliance with AS1742.3 and all other relevant standards. The Northern Territory Government, its agents and staff accept no responsibility for liabilities resulting from TMP’s or TCD’s appraised for appropriateness by DOI, which may later be found to be non-conforming with any relevant standard.”
53. It was the first such “managing contract” that DIPL had entered and there were a number of difficulties that arose. However, where there were breaches of the contract by BMD, DIPL acquiesced. It considered that the primary goal was completion of the project rather than fighting with BMD.

Some of the issues are said to relate to key personnel and auditing of the traffic management. DIPL believed that in large part it was the breaches by BMD that lead to the substandard crossover setup.

54. However, DIPL appreciates that the issues go deeper than that. One of the main issues was a confusion as to the role of DIPL and its staff, having sought to contract out many of its duties and responsibilities.
55. For instance, the people in Road Ops believed that it was the DIPL Project Manager that would ensure that the setup of the Switch was in accordance with the TCD. That was how it happened on other projects.
56. The Project Manager for DIPL however thought that responsibility had been contracted to BMD and so did not think it his role.
57. BMD subcontracted many of the traffic control functions and the preparation of a Traffic Management Plan (TMP) and the TCDs to a local company, Ace Traffic Control Pty Ltd. They were to be prepared in accordance with Australian Standards and BMD relied heavily on Ace Traffic Control in that regard.
58. Although BMD accepted that the contract required TCDs to comply with Australian Standards they were still required to get approval of all TCDs from Road Ops in DIPL.
59. Road Ops understood that it was one of their functions to determine whether the TCDs were in conformity with Australian Standards.
60. With Ace Traffic Control and Road Ops having responsibility to ensure compliance with Australian Standards BMD came to rely on them for advice on compliance.

### **The meetings**

61. In the lead up to implementation of the Switch the parties had numerous meetings. At those meetings were the project officers from BMD and DIPL, the traffic management people from Ace Traffic Control and BMD and the

Road Ops staff. The meetings were collaborative in nature. They were also more casual than they might have been as no minutes were taken.

62. The Switch did not only include the Woolmer Road intersection. There were 14 TCDs involved and the documents showing the preparation for the Switch indicate the complexity at the various intersections on the 9 kilometre section of road.
63. On 24 March 2016, about a month prior to the Switch, a TCD was submitted for the crossover. That TCD along with the others was resubmitted on one or two more occasions including 7 April 2016. However the relevant part of the crossover remained the same.

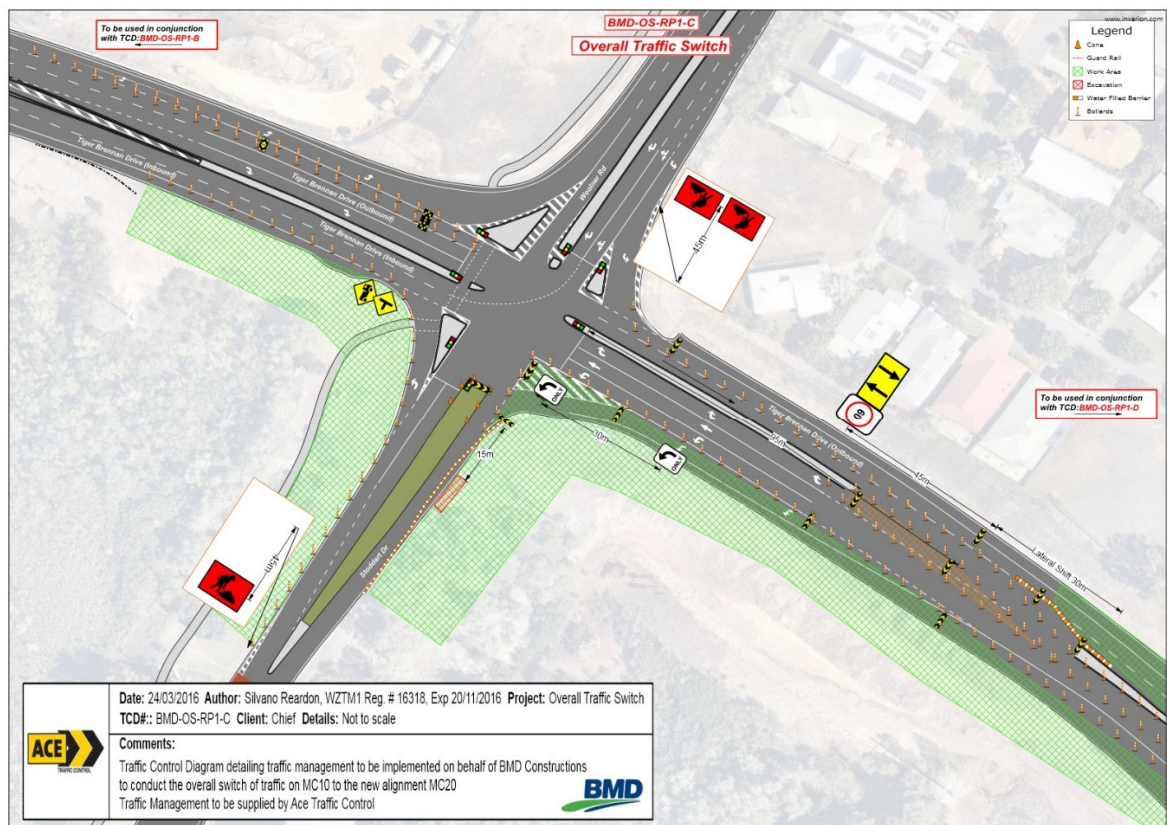


Diagram 1 showing approved TCD for Woolmer Road intersection with retroreflective bollards delineating the intended path of the traffic at commencement of crossover (right lower part of diagram)

64. During the meetings, it was determined that many of the reflective bollards used throughout the Switch would be replaced by interlocking barriers. The reasoning was that many of the bollards were being hit by vehicles (sometimes on purpose) and it was thought for both the maintenance of that 9 kilometres section and for the safety of persons (should those bollards be moved or destroyed) that barriers were preferable.
65. There was agreement to that course. The last meeting to do with the Switch was between 9.00am and 10.00am on 21 April 2016.
66. Setting up for the switch was set for Friday night the commencement of a long weekend. The Switch was to be opened on Saturday morning 23 April 2016.

### **Confusion over the need for an updated TCD**

67. The DIPL Project Manager did not think that there would need to be a fresh TCD prepared and submitted to Road Ops for the change from bollards to barriers because he thought exchanging bollards for barriers was an exchange of like for like.<sup>6</sup>
68. The Road Ops people believed they were at the meetings only for information so as to better understand the intention behind the revised TCDs when they were submitted.
69. The Traffic Manager at BMD thought that another TCD should have been submitted but said he had no time to do it.
70. The BMD Project Manager thought that the consensus at the meeting provided all the required approvals.

### **Setting up the Switch**

71. On the evening of 22 April 2016 and the early hours of 23 April 2016 the switch of the traffic was effected. At the Woolner Road end that entailed

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<sup>6</sup> Transcript pp 51-52

large interlocking barriers being put in place to create the crossover. That work was done by a team of BMD workers. It was not done by Ace Traffic Control personnel because they did not have the capacity to deal with the sheer number of barriers required throughout the Switch (approximately 800)<sup>7</sup>.

72. The Project Manager for DIPL was in attendance. At 3.26am on Saturday 23 April 2016 he wrote an email to the Project Manager of BMD saying:

“Just did one last drive through. Looks Awesome! Well done to you and team.”

### **The crossover**

73. Looking outbound from the Woolner Road intersection before the Switch was set up, traffic control was as depicted in the photograph below.



74. The next morning it had been changed as depicted in the following photograph.

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<sup>7</sup> Audio interview with Marco Gerbino p2



75. In the week that followed 59,231 vehicles travelled through the Switch, 15,544 of them at night.

**Previous Incident**

On the morning of 25 April 2016 the view showed that some of the interlocking barriers on the left had been moved out of alignment.





76. It is not known how that happened. The movement of the barriers was not known to BMD or DIPL and there appears to be no record of that being noticed during any inspection and audit. It is however likely that the movement occurred due to the barrier being hit by a vehicle.
77. Four days later correction was made. There is no note of who put the barriers back into alignment. DIPL and BMD said they had no knowledge of that either.



78. After the deceased struck the barriers they were pushed out of alignment again, as depicted in the photograph below.



79. On the day of Mr Bonnell's death (30 April 2016), Ace Traffic Control was asked to prepare a TCD reflecting the actual setup of the Switch at the Woolner Road Intersection. They did so.

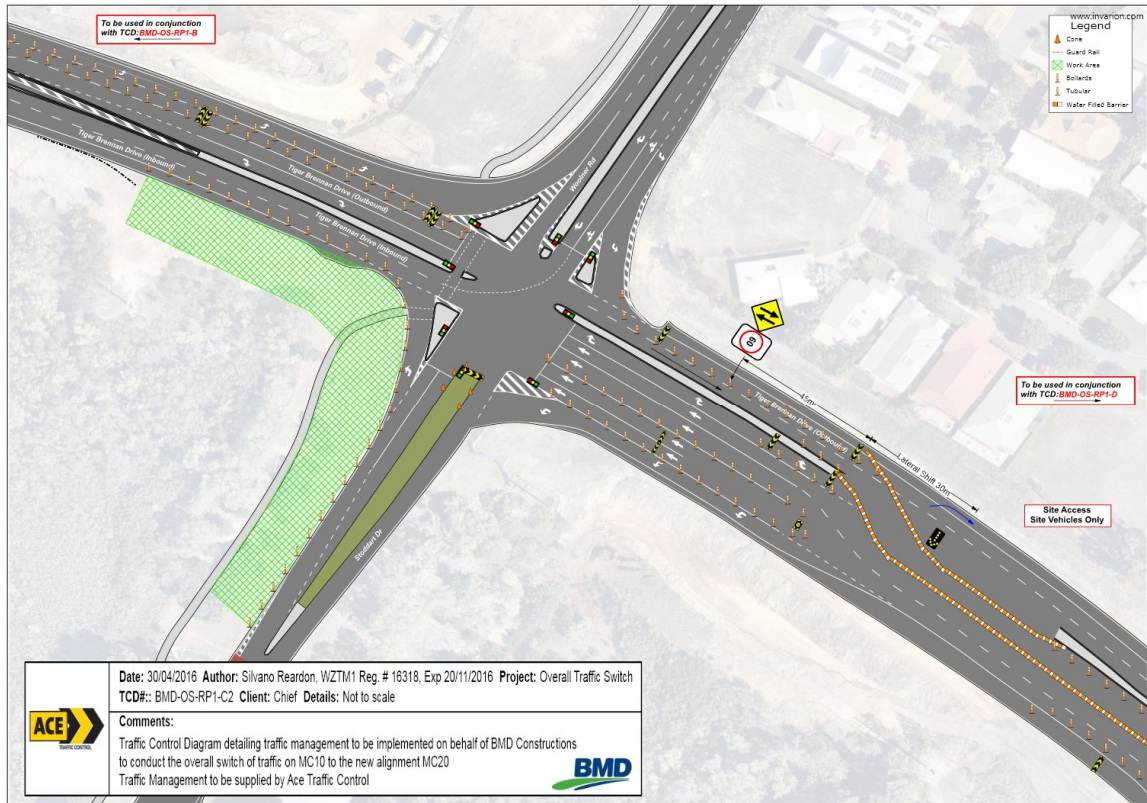


Diagram 2 showing TCD prepared on 30 April 2016 illustrating actual setup

80. In the days that followed the speed limit was reduced to 40 kilometres per hour.
81. A comparison of the actual set up and the approved TCD was undertaken by Bradley Statham of Road Ops. In a report dated 3 August 2016 he noted 12 variances:
  - Line of bollards on the left hand side travelled path edge differed from TCD.
  - Bollards were not placed on the edge of the original centre line markings.
  - Bollards were not placed on the inside of the left hand side of the water filled barriers.

- Chevrons were not placed on the left hand side between line of bollards and water filled barriers.
- Water filled barriers on the left hand side were empty.
- Water filled barriers were set up on the right hand side of the road and not depicted on the TCD.
- A trailer mounted arrow board was situated directly behind the empty water filled barriers. No arrow board was depicted on the TCD at that location.
- Lateral shift on the TCD appeared less severe than actual setup.
- No clearance between traffic and water filled barriers on the left side of the travelled path as per the TCD.
- Water filled barriers on the right side were hard up against the median kerbing which adjusted the travelled path alignment which extended the lateral shift.
- Keep left sign installed on the front of the water filled barriers on the right hand side of the travelled path and was not on the TCD.
- Lateral shift on site was 16.4 metres over 60 metres.

82. The report also provided a heading titled, “ Non-conformance of standards with the use of the Armour Zone modules for longitudinal channelizing (if applicable):

- The impact of the motorcycle moved the modules 2.4 metres. Would this have satisfied the requirements of impact tests 70 and 71 of NCHRP 350 as per 3.10.2 AS1742.3?
- No barriers were marked NOT A SAFETY BARRIER as per 3.10.2 AS1742.3.

- Barriers used are rated at 50kph. Speed through the site was 60kph.
- The edge clearance to traffic was not maintained as per 4.13.4, AS1742.3.
- No containment fencing installed behind the barriers used indicating the limit of the work area as per 4.2, AS1742.3.
- The area behind the longitudinal channelizing was a work zone. With these modules not meeting the requirements mentioned above water filled design they potentially would not have kept an out of control vehicle or truck out of the works site.”

### **Ace Traffic Control Review**

83. As a result of the death of Mr Bonnell, BMD requested its contractor, Ace Traffic Control, to review the management traffic system for the Switch “including but not limited to:

- Speeds within the whole section including intersections and crossovers
- Delineation
- Signage and how its displayed
- Reflection of delineation for hours of darkness
- Lighting
- VMS and displays
- Linemarking.”

84. Peter Eurell, the manager of Ace Traffic Control, completed the review on 4 May 2016. In his opinion everything was compliant with the Australian Standards. During his evidence he was asked whether he saw anything

wrong with the white broken line running straight into the barriers. He said, “No. I hadn’t. I didn’t pick that up.”<sup>8</sup>

85. When he was asked about the lack of reflectivity on the barriers. He said, “there was”, although he said he would have used bollards:

“Bollards on the inside would have been what I would have done myself, but I did notice that they do have reflectors on the barriers and they were about – there’s one on every one. I think it was towards the right-hand side of each one and it’s about 50 mm by 40 mm, a yellow reflector.”<sup>9</sup>

86. He later said:

“I honestly would find it very hard to believe there would be that many barriers without that little reflector on them. Like I said, I hadn’t looked at it at night, but I have noticed them. Any of that brand, they’ve always got – and there’s actually a number in the centre of it written there”.

87. I asked him whether they get dirty and scuffed. He said they did and “they could fall off too”.<sup>10</sup> He went on to repeat that he believed there should have been bollards there for delineation.

88. The picture below was taken on 12 May 2016. It shows just two small reflectors on the barriers. One on the second barrier and one on the thirteenth barrier (five barriers past the point of contact).

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<sup>8</sup> Transcript p 66

<sup>9</sup> Transcript p 66

<sup>10</sup> Transcript p 68



Photo 8 showing reflectors on barriers (taken a week later)

89. Mr Eurell did not think the trailer with the illuminated arrow should have been here if it wasn't on the diagram.
90. As to the lighting and the work light at the end of the crossover Mr Eurell said:

“I never noticed that as inappropriate. Like I said, I was there on that morning and there was streetlights on. There was a streetlight just prior to it, which did reflect onto the barriers. Because I do remember watching the police leaning on the barrier, writing on their notepads and then any of the work behind, they used a torch. It was very dark.”<sup>11</sup>

### **BMD Review**

91. An Incident Investigation Report was prepared by BMD on 12 May 2016. It concluded:

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<sup>11</sup> Transcript p 67

“Pre and post incident audits have confirmed that at all material times the Traffic Management System in place complied with the system designed by Ace Traffic Control, and agreed to by the various stakeholders prior to this incident occurring. This system was also in compliance with the MUTCD [Manual of Uniform Traffic Control Devices – AS1742.3].

Therefore, whilst the Traffic Management System was involved in the incident, it is not considered that any defect in the Traffic Management System caused or contributed to the incident.”

### **Major Crash Report**

92. Sergeant Mark Casey of the Police Major Crash Unit prepared a *Crash Analysis Report* on 19 January 2017. At the time of preparing his report he had access to the expert report of Mr Tulloch.
93. He was of the opinion that the motorcycle had its high beam on at the time of the crash although, due to the use of aftermarket globes, he was of the opinion that the illumination from that beam was only equal to normal low beam. He calculated the illumination from the beam to be 33.23 metres.
94. He noted two skid marks about 35 metres past the commencement of the barriers. “The first skid mark was 2.6 metres in length and the second following it 3.8 metres. The skid marks ended at the crash point.
95. At figures 6 and 7 of his report Sergeant Casey provided scale diagrams of the crash barriers before and after impact.



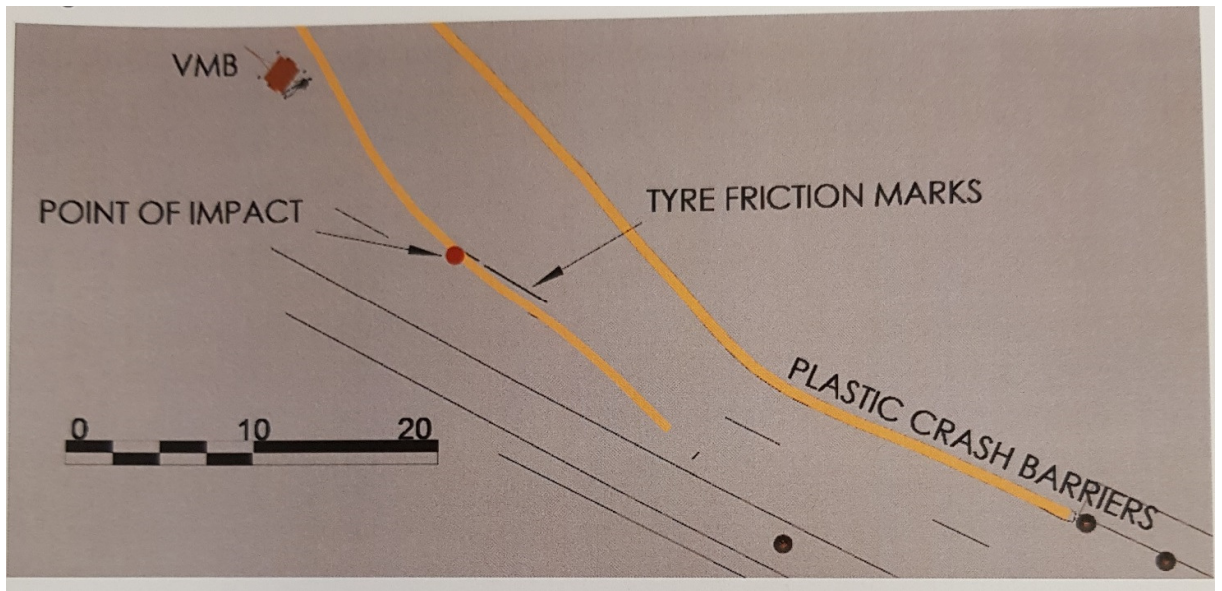


Diagram 3 showing the crash barriers before impact as well as tyre friction marks, position of the VMB (illuminated flashing arrow on trailer) and position where the deceased was located after impact

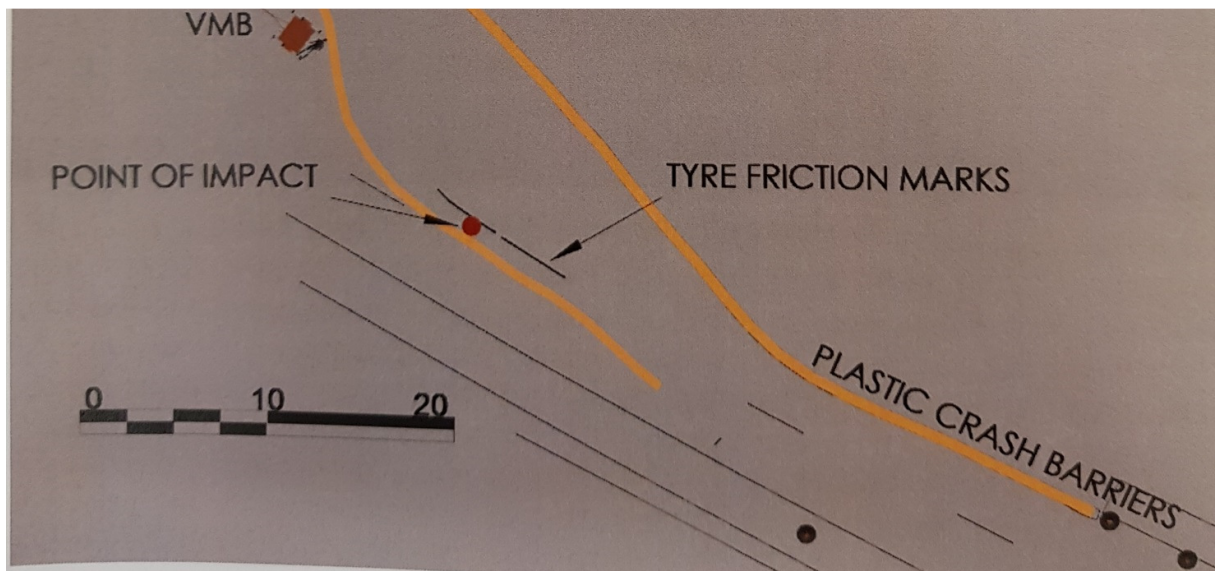


Diagram 4 showing the crash barriers after impact as well as tyre friction marks, position of the VMB (illuminated flashing arrow on trailer) and position where the deceased was located

96. He calculated the speed of the deceased when going through the intersection at 55 kilometres per hour from the CCTV images at the intersection. On the basis of that speed and the presumption that the

deceased reacted when his headlight illuminated the barrier ahead he calculated the response time of Mr Bonnell to be at about 2.05 seconds which he said was an average response time of 85% of the sample population.

97. That was calculated on the basis of the speed of 55 kilometres per hour. If Mr Bonnell accelerated to a greater speed, as seems likely, and Sergeant Casey's assumptions are correct then the reaction time of Mr Bonnell would have potentially been above average. Given his high levels of intoxication that seems unlikely. It would therefore appear more likely that it was not the illumination of his headlights that caused him to apply his brakes.
98. At pages 10 and 11 of his report he quoted Mr Tulloch including the conclusions from that report. The last of those was:

“The circumstances of the traffic incident indicate the road works crossover substandard horizontal curve and night-time delineation deficiency, was likely to be a primary road related factor in the crash event.”

99. Nevertheless, Sergeant Casey concluded, “The roadway is not considered to be a contributory factor in relation to this crash which will be discussed later in this report”.<sup>12</sup>
100. Sergeant Casey stated that there was sufficient street lighting illuminating the roadway barriers to observe without the assistance of headlights. That along with the illuminated arrow and the roadside chevron signs prior to the channelization suggested to Sergeant Casey that there was no need for an emergency response and accordingly concluded that the crash occurred because of Mr Bonnell's levels of intoxication.

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<sup>12</sup> Page 11

101. He found comfort in that opinion because of the 15,544 other vehicles that had negotiated that chicane at night during the last week.<sup>13</sup>

102. Sergeant Casey formed the following conclusions:

- The motorcycle was travelling at 55 k/h about 4 seconds prior to the crash;
- The cause of this crash is due to the rider of the motorcycle failing to discern the change in roadway alignment.
- The failure to discern the roadway alignment change is likely to be due to the rider's level of intoxication.

103. When Sergeant Casey gave evidence he told me that he didn't go to the scene the morning or day of the crash. He went about a week later. When asked about where he got his information on the lighting he said:

“When I re-attended the scene a week after, all the street lights had been removed and there was another supplementary trailer that had been installed there and it was partially based on the information that I gathered on that night, my observations of what I could see at the scene, and discussions with the members that attended at the crash scene that night.”<sup>14</sup>

104. When shown the photographs of the movement of the barriers on 25 April 2016 he provided the opinion that the most likely explanation was that another vehicle had struck the barrier. He said he had not been aware of that evidence at the time he prepared his report and if he had he “probably would have given more consideration to doing some further testing or research to determine what that was and why it had happened”.

105. When asked why he rejected Mr Tulloch's opinion, Sergeant Casey said:

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<sup>13</sup> Page 27

<sup>14</sup> Transcript p 15

“I wouldn’t say I rejected Mr Tulloch’s opinion. I think there’s two possible causes. Just I believe that the most likely cause is the level of intoxication.”

106. The question was then asked, “So why is it you believe there must be only one cause?” The following exchange then took place:

**“Sergeant Casey:** That is a good question

**Coroner:** Might it be a combination?

**Sergeant Casey:** Yes, certainly. It certainly could be your Honour.

**Coroner:** I don’t want to put words in your mouth, so I want you to give some considered thought to it.

**Sergeant Casey:** Yes. No, the roadway geometry certainly had probably a significant contribution too.”

107. During the inquest, BMD accepted that the setup was substandard and accepted the opinions of Mr Tulloch. The Traffic Manager of BMD agreed that there appeared to have been an ad hoc approach that night in setting up the Switch near the Woolner Road intersection.<sup>15</sup>

108. The Project Manager for BMD agreed that the setup was “very poor”. She agreed that although she felt they had agreement at the meetings they did not have a diagram of what was to be set up.<sup>16</sup>

109. When asked where she thought systems failed she responded:

“The lack of documentation of these meetings, without doubt, and I guess that formal submission of the TCD. Those two systems ... are the biggies”.

110. I asked her the question, “What caused all those things to go wrong? She said, “Miscommunication and I guess a lack of understanding of really, I guess, our roles and expectations, I guess”.<sup>17</sup>

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<sup>15</sup> Transcript p72

<sup>16</sup> Transcript p77

<sup>17</sup> Transcript p 78

111. At this point I should state that both the Traffic Manager and the Project Manager of BMD impressed me with their candour and willingness to learn. They were both very impressive witnesses.

### **Issues**

112. A comprehensive institutional response from DIPL was received prior to the inquest and followed up after the inquest with written submissions. In those submissions a number of points were made.

### **Managing Contractor Model**

113. DIPL has recognised that the managing contractor contract model used for the Tiger Brennan Duplication project is not suitable for use on road projects due to the issues identified “with project interfaces and responsibilities for managing the risk at interface”.<sup>18</sup>

114. I agree entirely. It left BMD with a contractual responsibility that they did not and perhaps were discouraged from fully realising because the Department was still required to approve compliance with among other things Australian Standards.

115. At the same time it left the Department in a position where they didn’t fully monitor compliance because it was thought to have been delegated. It was confused at best.

116. As I said during the evidence of the institutional witness for DIPL:

“In my view, the government, through the Department, has an obvious duty to the public to ensure safety on the roads ... the Department cannot and should not be allowed to completely absolve itself of this duty of care to the public, by delegating or contracting-out completely that duty.”

### **Auditing Compliance**

117. In the case of the crossover, there was no effective auditing. BMD were required under the contract to conduct audits. Some were done but they

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<sup>18</sup> Paragraph 7

were of limited effectiveness. For instance, there was a video drive through inspection at about 5.30 on 29 April 2016. It was with other traffic and the highest speed achieved while negotiating the crossover was 43 kilometres an hour. It was therefore not realised that the indicated speed of 60 kilometres an hour was inappropriate. There was no video drive through at night.

118. Even after the death of Mr Bonnell, reviews by both BMD and their contractor, Ace Traffic Control, failed to identify any non-compliance. Given the significant non-compliance of the setup that is troubling.
119. DIPL has realised that there should be an independent means of auditing TCD's and their implementation on major projects. Accordingly DIPL has made the decision to establish a panel of independent auditors with relevant qualifications and expertise. The panel members will audit such sites to ensure compliance.

### **Enforcing compliance with Australian Standards**

120. Another issue was the acquiescence of DIPL in relation to breaches of the contract by BMD. Where those breaches can compromise the safety of the public that becomes an issue of significant importance. DIPL argued that it is not always easy to enforce contractual provisions. At least not without significant time, resources and potential dislocation of a project.
121. Although the contract provides for indemnification of losses, that is no comfort to the public who may be injured or killed due to such breaches.
122. DIPL has suggested a means by which that might be remedied. The suggested solution is legislation requiring compliance with the Australian Standards (in traffic matters) and an offence for failure to comply.
123. I was provided with an analysis of similar provisions in other jurisdictions. I set that analysis out below:

| <b>State/Territory</b> | <b>Act/Regulation</b>  | <b>Section</b> | <b>Penalty</b>                            | <b>Other measures</b>  |
|------------------------|--|----------------|---|--|
| Western Australia      | <i>Road Traffic Code 2000 (WA)</i>                                   | 297(4a)        | 1 penalty unit <sup>8</sup>               | -  |
| New South Wales        | <i>Road Transport Act 2013 (NSW)</i>                                 | 123(1)         | Up to 20 penalty units                    | Section 125: a traffic control authority may recover the costs of removing unauthorized traffic control devices in court as a debt from the person who installed them. |
| Queensland             | <i>Transport Operations (Road Use Management) Act 1995 (QLD)</i>     | 75(1)          | 40 penalty units or 6 months imprisonment | Section 75(2): a further penalty may be imposed for the costs of removing the sign, light, marking or device   |
| South Australia        | <i>Road Traffic Act 1961 (SA)</i>                                    | 21(1)          | \$5,000 or 1 years imprisonment           |  |
| Victoria               | -  | -              | -   | -  |
| ACT                    | <i>Road Transport (Safety and Traffic Management) Act 1999 (ACT)</i> | 19(1)          | 20 penalty units <sup>11</sup>            | Section 20(4): the road transport authority may recover the cost of removing the device as a debt payable by the person to the Territory.                              |
| Tasmania               | -  | -              | -   | -  |

124. DIPL has also updated the conditions of the permit to undertake work on government road reserves and identified another 30 potential improvements that may assist in ensuring that road work sites are made safer.

125. I commend DIPL on their efforts to improve their practices, their significant efforts to improve their process and procedures and their obvious willingness to assist in finding appropriate solutions to the issues highlighted by the death of Mr Bonnell.

## **BMD**

126. The submissions from the lawyers for BMD were primarily to do with causation. In effect the lawyers sought to argue that there was no evidence that Mr Bonnell died due to any cause other than his own intoxication.
127. It is not necessary that I make a formal finding on causation. However, it is obvious that the failure to use appropriate night time delineation obviously contributed to Mr Bonnell's failure to identify the curve. Leaving the white broken line (leading directly into the barriers) as a form of delineation was clearly confusing and happened to be the path Mr Bonnell took.
128. His level of intoxication no doubt played a significant role. Although that is based on assumptions made from the toxicological results. Clearly, the sub-standard setup of the crossover also played a significant role. In my opinion the sub-standard set up of the crossover was a causal factor in the death of Mr Bonnell.
129. The other concern in the submissions of BMD was to counter the suggestion that the performance of BMD in setting up the crossover was exceedingly poor. Counsel Assisting used the word "woeful". The lawyers argued that was not an appropriate description.
130. They argued that as the deficiencies were not picked up by others, including DIPL and their own traffic management contractor, Ace Traffic Control, the deficiencies were much more subtle than suggested.
131. I disagree. In my view leaving the white line on the road that ran straight into the barriers and the failure to identify the almost total lack of retroreflectivity in the crossover was not a subtle issue.
132. Not using a TCD to set up such significant temporary control devices on one of the busiest intersections in Darwin is also not an insignificant issue. It was wrong. It should not have happened that way.



133. It is also difficult for BMD to overcome the opinion of the expert, Mr Tulloch that the setup of the crossover would rate as one of the most deficient he has seen in his 33 year career.

### **Formal Findings**

134. Pursuant to section 34 of the *Coroner's Act*, I find as follows:

- (i) The identity of the deceased was Peter John Bonnell born 3 November 1972 in Wondai, Queensland.
- (ii) The time of death was 2.17am on 30 April 2016. The place of death was Tiger Brennan Drive, Darwin.
- (iii) The cause of death was multiple injuries from a motorcycle collision where he was the rider. Other significant conditions contributing to death but not related to the condition causing death were acute alcohol toxicity and substandard temporary traffic management devices.
- (iv) The particulars required to register the death:
  - 1. The deceased was Peter John Bonnell.
  - 2. The deceased was not of Aboriginal descent.
  - 3. The deceased was employed as a sound engineer at the time of his death.
  - 4. The death was reported to the Coroner by Police.
  - 5. The cause of death was confirmed by Forensic Pathologist, Dr Terence John Sinton.
  - 6. The deceased's mother was Patricia Bonnell and his father was Robert Bonnell.

### **Comment**

135. It is obvious the setup of the crossover was unsafe. My office was advised by WorkSafe in the weeks leading up to the inquest that in their view offences had been committed under the *Work Health and Safety (National Uniform Legislation) Act*.

136. However to this date no action has been taken in relation to any such breach. In four months' time it will be two years since Mr Bonnell died.
137. There is no valid reason for WorkSafe to await the outcome of this inquest before taking action. Indeed, if action had been taken expeditiously the reasons for exercising my discretion to hold this inquest may not have existed.
138. Section 35(3) *Coroners Act* is in the following terms:

A coroner may report to the Commissioner of Police and the Director of Public Prosecutions appointed under the *Director of Public Prosecutions Act* if the coroner believes that an offence may have been committed in connection with a death or disaster investigated by the coroner.

### **Recommendations and Report**

139. I **recommend** that DIPL establish the proposed panel of experts to audit compliance of implementation of Traffic Control Diagrams and compliance with Australian Standards at major or high risk roadworks.
140. I **recommend** that the government consider legislating to require compliance with the Australian Standards when using traffic control devices and provide an offence for failure to do so.
141. I believe that offences may have been committed in connection with the death of Peter John Bonnell and in accordance with section 35(3) I **report** my belief to the Commissioner of Police and the Director of Public Prosecutions.

Dated this 11th day of January 2018.

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GREG CAVANAGH  
TERRITORY CORONER