QUEENSLAND COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Rebecca Louise Fenton**
TITLE OF COURT:	Coroners Court
JURISDICTION:	MACKAY
FILE NO(s):	2013/2248
DELIVERED ON:	**Friday 01 May 2015**
DELIVERED AT:	**Mackay**
HEARING DATE(s):	**19 December 2014, 4 March 2015**
FINDINGS OF:	David O'Connell, Central Coroner
CATCHWORDS:	Coroners: Inquest, Motor vehicle collision, CHR Intersection, Slip Lane, Micro-sleep, Boonal Coal Loader

REPRESENTATION:

Counsel Assisting:	Mr John Aberdeen
Department of Transport & Main Roads:	Ms Susan R Martin
Family of Rebecca Fenton:	Mr Dale Fenton and Mrs Michelle Fenton

Introduction

[1]. On 24 June 2013 Rebecca Louise Fenton was involved in a fatal traffic accident. She was the driver of a vehicle which 'rear-ended' a second vehicle which was stationary on the Capricorn Highway as it was waiting to turn right. The place where the accident occurred would be considered by many to be an intersection with a highway but due to a curious anomaly[1] this intersection had no intersection features in her direction of travel, such as a dedicated slip lane (for overtaking on the left), or a channelised right turn lane to allow turning vehicles to safely wait, and turn right.

[2]. Why I consider it curious is because the Capricorn highway is the major highway from Rockhampton to Longreach, and the intersection where the incident occurred records more than 3300 vehicle movements per day as it is the entry to a number of coal mine pits.

[3]. This inquest examines the circumstances of the traffic accident and what is appropriate to prevent its repetition.

Tasks to be performed

[4]. My primary task under the Coroners Act 2003 is to make findings as to who the deceased person is, how, when, where, and what, caused them to die[2]. In Miss Fenton's case there is no real contest as to who, when, where, or what caused her to die. The real issues are directed to how she died, and the appropriate recommendations to be made to prevent the incidents re-occurrence.

[5]. Accordingly the List of Issues for this Inquest are:-

1. The information required by section 45(2) of the *Coroners Act 2003*, namely: who, how, when, where, and what, caused Miss Fenton's death,

2. What was the reason that Miss Fenton did not slow down, or steer to the left, as she approached the intersection of the Capricorn highway and Yarrabee Haul Road?

3. Would a differently configured intersection, e.g. a CHR type intersection, reduce the risk of similar incidents occurring in the future?

4. Should the default speed limit of 100 km/h be reviewed in respect of this intersection?

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[1] whilst the Department of Transport & Main Roads would not consider it an anomaly it clearly is when the *Transport Infrastructure Act* says that is not an intersection, yet the *Transport Operations (Road Use Management) Act* definition says it is. One may think this has the makings of a plotline for an episode of the clever, and at times very perceptive, television parody show "Yes Minister".

[2] Coroners Act 2003 s. 45(2)(a) – (e) inclusive

5. Should there be increased signage, road markings, and/or warning lights installed to warn westbound traffic of the existence of the approaching intersection?

6. Could the presence of the Boonal Coal Loader affect an approaching driver's perception of a vehicle waiting to turn right at the intersection? and

7. While the intersection in its present form continues to be in use, could a broken white fog line opposite the Yarrabee Haul Road junction be more likely to alert a westbound driver to the possibility of driving to the left of a vehicle waiting to turn right?

[6]. The second task in any inquest is for the coroner to make comments on anything connected with the death investigated at an inquest that relate to public health or safety, the administration of justice, or ways to prevent deaths from happening in similar circumstances in the future[3].

[7]. The third task is that if I reasonably suspect a person has committed an offence[4], committed official misconduct[5], or contravened a person's professional or trade, standard or obligation[6], then I may refer that information to the appropriate disciplinary body for them to take any action they deem appropriate.

[8]. In these findings I address these three tasks in their usual order, section 45 Findings, section 46 Coroners Comments, and then section 48 Reporting Offences or Misconduct[7].

Factual Background & Evidence

[9]. On 24 June 2013, a little after 7:30 AM, Miss Fenton's small hatchback sedan, a Hyundai Getz, crashed into the rear end of a grey coloured Mazda trayback utility, which was then stationary on the highway waiting to turn right into the Yarrabee Haul Road.

[10]. Miss Fenton received serious injuries in the traffic accident and was pronounced deceased at the scene. The police were tasked to investigate the circumstances of the traffic accident.

Investigations into the incident:

[11]. The police produced a comprehensive investigation report. Their report established that there were no circumstances, such as environmental factors, rain

[3] ibid s.46(1)
[4] Ibid s.48(2)
[5] Ibid s.48(3)
[6] Ibid s.48(4)
[7] I have used headings, for convenience only, for each of these in my findings.

or direct sunlight, nor road surface defects such as a pothole or pooled surface water, nor third motor vehicle or other road user, involved in the traffic accident other than Miss Fenton's vehicle and the utility.

[12]. Their further investigations established that all times the driver of the grey utility had been driving appropriately and was stationary on the highway whilst waiting to turn into the Yarrabee Haul Road which the driver was permitted to do. Further investigations into the accident established that there was no defect in relation to either vehicle and it appeared that Miss Fenton had been driving at all times within the posted speed limit of 100 km/h. For some reason she had failed to see the stationary utility until at the last moment, as it was found she had applied her brakes heavily, and had begun to steer to the left to go around the utility. Tragically she commenced this manoeuvre too late and struck at speed the rear of the utility.

[13]. The result of the police investigation focused on driver inattention, driver distraction by surrounding features, and the configuration of the intersection, as possible causes of the accident.

[14]. I should state at this time that in no way is it considered that the driver of the grey utility was in any way responsible for the accident. That driver was simply performing a turn at the intersection which they were entitled to.

[15]. In respect of driver distraction the police noted that the Boonal coal loader appeared in the driver's field of vision past the intersection. It may have been that the grey coloured stationary vehicle was in some way silhouetted on the coal loader located in the background. This phenomena is commonly known as 'inattentional background' distraction. Due to the thoroughness of the police investigation they re-created the driving circumstances approximately one year later and conducted a number of drive-throughs at the intersection to replicate the circumstances. I appreciate this was not a scientific exercise and so not entirely precise, it is merely indicative[8]. The recreation did assist to establish that at approximately 7:30 AM, the time of her accident, it is possible that a vehicle situated in the position that the utility was can become partly 'obscured', and by this I mean it appears to fade into the background of the coal loader, which is a few hundred metres further up the road (the coal loader passes entirely across the highway at that point).

[16]. The police thought it possible that Miss Fenton may not have seen, or been able to precisely distinguish, the stationery utility in the foreground due to it merging into the background item.

[17]. I should note that as the utility was certified to be used on a mine site, and this vehicle specifically in the mine site pits, it had fitted to it additional, high mounted, 'stop' and 'turn' lights, and these lights had their operation checked weekly. Even though the utility had these extra features, which I find were operational at the time, Miss Fenton did not recognise the vehicle in sufficient time to avoid the accident.

[8] And accordingly I only give it the appropriate due weight in those circumstances

[18]. The police investigation established that prior to the accident Miss Fenton had slept well the night before. While she and her partner departed their accommodation at approximately 4:30 AM, her partner drove most of that morning while she rested in the passenger seat. She only commenced driving at a location known as Black Hill pit approximately 15 minutes before the incident. Black Hill pit is located just east of the township of Bluff and here they stopped for a short time. Just prior to the incident occurring Miss Fenton, responsibly, asked her partner to send a text message to her mother. While she dictated the text message her partner entered it on her mobile telephone and then sent it. A short while after it was sent she asked her partner to check if the message had been sent, which is not an uncommon thing to do when travelling through rural areas of limited mobile telephone reception. Her partner confirmed that the message was sent and he then placed the mobile telephone back in the centre console. Clearly Miss Fenton was not distracted by the mobile telephone at the time of the accident as she purposely did not use it[9].

[19]. It was suggested to me that Miss Fenton may have experienced the phenomena known as a 'micro-sleep' which caused her inattention to the task of driving. Of course it is not possible to examine at autopsy if a micro-sleep occurred but one can look to the whole of the circumstantial evidence to consider if it is likely or unlikely to have occurred. I note that she had slept well the night prior, and whilst she rose early she had rested in the car on the way to the location and had only been driving for just 15 minutes prior to the incident occurring. The circumstances surrounding the text message indicated that her mind was active at that time. In Miss Fenton's case, considering all the circumstances that occurred that day, particularly as her mind was directed to the enquiry she was making of her mother, I consider it very unlikely that she suffered a micro-sleep just prior to the incident occurring. Accordingly I reject any suggestion that she suffered a micro-sleep.

[20]. The police reconstruction of the incident approximately one year later is of some interest[10]. What they re-created, and did show, was that at around 7:30 AM a vehicle stopped at the intersection may be seen as partly obscured, or perhaps more properly stated, becomes superimposed, on the background structure of the Boonal coal loader which is located quite some distance away from the intersection. The Coal Loader is shown in the below photo:-

[9] She also wore a pendant which read 'Arrive Alive, don't text and drive' (see exhibit A3), although this in incidental, and not determinative of the use of her mobile telephone, it does demonstrate her approach to its' use

[10] I am able to receive it in evidence, see s. 37(1) Coroners Act

Photo 1. [11]

[21]. In addition the fact that the vehicle in front of her was grey in colour would not have assisted in its' differentiation against the Boonal coal loader background. Accordingly whilst I cannot say that she suffered from inattentional background distraction I am unable to exclude it as a possible cause of the incident.

[22]. The next aspect of a possible cause is the intersection itself. I appreciate that the Department of Transport & Main Roads refers to it as a road junction, which it is when considering the definition in the *Transport Infrastructure Act*. That is the highway is a state-controlled road which has at that location a permitted private access road. What adds confusion to the matter is that under the *Transport Operations (Road Use Management) Act* the meeting of two roads, whether they be state controlled or private access, constitutes an 'intersection' which this clearly is. My coronial function is to assess what occurred at this traffic accident between road users, and I am not looking at the issue of who is responsible for issues such as any upgrade, or contributions, to the intersection, so I adopt the understanding that it is an intersection and will use that term throughout.

[23]. At the inquest the Department of Transport & Main Roads conceded that the intersection should be upgraded to a CHR intersection for westbound traffic. Their position is changed from their earlier position advised to the Office of the State Coroner. Clearly the Department gave the matter further consideration, and or received very good advice, such that they now support the intersection upgrade.

[11] See exhibit B.1 photo 44 page 3

[24]. They are to be commended on taking that approach. This approach also saved considerable time and consideration of whether the intersection justifies[12] a CHR intersection treatment.

[25]. What a CHR intersection achieves is to provide a dedicated right turn lane for vehicles which need to stop on the road and give way to other traffic before turning right. An example of a CHR intersection treatment is shown below:-

Photo 2. [13]

[26]. The driver of the grey utility gave evidence that he used this intersection regularly. He described the present right turn from the highway, where one needs to stop on the highway, as leaving the driver "feeling awkward", like a "sitting duck", and "vulnerable", which were the expressions he used in his evidence. This is an entirely reasonable apprehension to have in the circumstances. Why this is significant is that the intersection has approximately 3325 vehicle movements per day[14]. It is certainly not, on any view, a minor intersection[15] with that volume of vehicle movements.

[27]. There was a great deal of evidence suggesting that the intersection already has a 'slip-lane' to allow vehicles to pass to the left of any vehicle stopped and turning

[12] The terminology is 'warrants', i.e. exceeds certain thresholds, and on the most recent traffic study by Cardno (see exhibit F2) clearly it does meet, indeed exceeds, the required warrants
[13] See exhibit B.1 Google Image page 18
[14] See exhibit F2, and this was as at 2011, and growth in traffic numbers has steadily increased each year, indeed as at 2012 the count suggests it now exceeds 3500 vehicle movements per day through that point of the highway. In addition the volumes clearly 'warrants' a CHR turn treatment based on the documented traffic studies (again see exhibit F2, particularly appendix B). Exhibit B4 refers to 3270 vehicles as at 2013.
[15] Although the local Department of Main Roads manager had difficulty advising what is the precise delineation point based on a traffic count between a 'major' and 'minor' intersection but it appears the traffic count or use merely needs to exceed the required point of the curve of the 'Warrants' for a particular intersection treatment type

right. A photograph of this 'alleged' slip-lane is shown in Photo 1 in these Inquest Findings.

[28]. Whilst the Department of Transport & Main Roads personnel might consider it a slip lane, I am an experienced road user and merely view it as a widened road shoulder because there is no dedicated slip-lane indicated by any line markings. In fact the fog-line is marked as a continuous, or unbroken, white line and even has audible lane markers[16], which two features clearly do not direct a driver to go to the left of any driver turning right. Further the road shoulder is just 3.0 metres wide before reaching the grass verge, whereas a proper traffic lane is 3.6 metres wide. It is only too easy to see a calamity occurring if a B-double semi-trailer configuration travelling at 100 km/h attempted to try and thread its' way through on the road shoulder to try and pass a stationary vehicle turning right[17].

[29]. Accordingly I find that the present configuration of the intersection did contribute to the accident occurring because its present configuration does not direct a driver to the left, to move around the driver who is stationary and turning right.

[30]. Accordingly I find that the cause of the accident was the configuration of the intersection, together with momentary driver inattention. The source of that driver inattention I am unable to precisely determine but I can specifically exclude factors such as alcohol, excessive speed, inappropriate driving behaviour or what is more commonly termed 'hooning' or reckless driving, the use of a mobile telephone whilst driving, fatigue or micro-sleep (as was submitted to me by one party), illicit drugs, or prescription medication, as a cause or contributing circumstance of the incident.

List of Inquest Issues Answers

Coroners Act s. 45(2): 'Findings'

[31]. Dealing with the list of issues for this inquest my findings are as follows.

[32]. Issue 1. My primary task is the information required by section 45(2) of the *Coroners Act 2003*, namely:

a. Who the deceased person is - Rebecca Louise Fenton[18],
b. How the person died – Ms Fenton died due to a combination of her own momentary driver inattention, the precise reason for which I am unable to determine, and the inadequate intersection treatment at the scene where the incident occurred.

[16] Audible line markers are raised markers applied to a lane's extremities, common on rural roads, to cause noise and steering wheel vibration to alert a driver that their vehicle is straying from their marked lane

[17] And the present vehicle count (as at 2013) for that intersection shows more than 22% of all vehicles are trucks of some description, which reflects the industrial activity in the area generated by the nearby coal mine pits, see exhibit B4

[18] See exhibit A1 QPS Form 1

c. When the person died – 24 June 2013 [19],
d. Where the person died – Capricorn Highway, approximately 9 km east of Blackwater, Queensland[20], and
e. what caused the person to die – Multiple injuries, due to motor vehicle trauma[21]

[33]. Issue 2. What was the reason that Miss Fenton did not slow down, or steer to the left, as she approached the intersection of the Capricorn Highway and Yarrabee Haul Road?

[34]. The cause of the accident was the configuration of the intersection, which I find to be inadequate, together with momentary driver inattention, although the source of that driver inattention I am unable to precisely determine.

[35]. Issue 3. Would a differently configured intersection, e.g. a CHR type intersection, reduce the risk of similar incidents occurring in the future?

[36]. Clearly a differently configured intersection, namely a CHR type intersection, would reduce the risk of similar accidents in the future[22].

[37]. Issue 4. Should the default speed limit of 100 km/h be reviewed in respect of this intersection?

[38]. Once a CHR type intersection is created there is no issue in retaining the 100 km/h speed limit. Whether the speed limit should be reduced until that CHR intersection is created is a decision for the Department of Main Roads to consider.

[39]. Issue 5. Should there be increased signage, road markings, and/or warning lights installed to warn westbound traffic of the existence of the approaching intersection?

[40]. Increased signage and road markings are not the solution to the issue. The solution is a CHR intersection. I note that the Department of Transport & Main Roads has already commenced the process to install increased signage for westbound traffic, which is simply an interim measure, and appropriate, until the proper intersection treatment solution is completed.

[41]. Issue 6. Could the presence of the Boonal Coal Loader affect an approaching driver's perception of a vehicle waiting to turn right at the intersection?

[42]. I find that at certain times of the day the presence of the Coal Loader may affect a driver's perception, or recognition, of a vehicle waiting to turn right at the intersection. The CHR intersection treatment removes the waiting vehicle from the vulnerable lane of through traffic, thereby removing the effect of inattentional distraction for a driver.

[19] See exhibit A2 Life Extinct Form
[20] See exhibit A2 Life Extinct Form
[21] See exhibit A3, Form 3 Autopsy Certificate
[22] And the studies show by a factor of 52:1

[43]. Issue 7. While the intersection in its present form continues to be in use, could a broken white fogline opposite the Yarrabee Haul Road junction be more likely to alert a westbound driver to the possibility of driving to the left of a vehicle waiting to turn right?

[44]. Certainly the use of a broken white fog line opposite the intersection, in conjunction with a painted left passing lane, would assist a westbound driver to consider driving to the left of a vehicle waiting to turn right. I set out below why such an interim measure is not preferred, as opposed to the appropriate CHR type treatment.

Coroners Act s. 46: 'Coroners Comments' (Recommendations)

[45]. This incident does provide the opportunity to recommend important improvements aimed at reducing the risk to road users of that intersection.

[46]. The present situation is that for westbound traffic there is just a number of warning signs to notify of the intersection ahead. In the westbound direction there is no line markings whatsoever which one expects with an intersection, indeed at present there is a broken centreline which even allows overtaking in a westbound direction through the intersection.

[47]. It was recommended to me, and was supported by the Department of Transport & Main Roads, which was a very sensible position to take, that for westbound traffic the intersection should be altered to be a CHR style intersection. This type of intersection will allow the through traffic to be guided to the left of a dedicated lane where motorists turning right can be stationary awaiting their opportunity to turn right without being exposed to a rear-end collision. The present intersection treatment is 5200%[23] more likely to result in a rear end collision than a CHR style intersection. The intersection treatment has already had detailed design work undertaken, and is costed in the order of $800,000. For an intersection on a highway it is not a cost prohibitive solution.

[48]. It is noted that the joint-venture of mines which utilise the Yarrabee Haul Road have undertaken extensive preliminary work to implement the CHR intersection. The Department of Transport & Main Roads agreed that they would do all that they could to assist that upgrade to occur. It would be beneficial for the Department to nominate a dedicated contact person within the Department to ensure the upgrade proceeds quickly. I will recommend the Department to do this and, in turn, advise the joint-venture.

[49]. The intersection's proximity to the rail corridor (on its' southern side) means that the rail operator, Aurizon Limited, will also need to be involved. Whilst I am not an engineer, nor road designer, it appears painfully obvious to me from viewing the scene that the necessary approximately 1 metre of additional roadway could

[23] tragically that figure of 5200% is accurate, that is it is 52 times more likely that a rear end incident occurs with the present road configuration of no dedicated turn lane treatment than if it is altered to a CHR intersection

easily be accommodated in this area without impacting the rail line operations, particularly as there is a wide buffer to the Capricorn Highway, the rail lines run at a slightly higher elevation than the roadway, and if necessary an appropriate barrier between the road and the rail line can be installed. Whether that barrier is needed, and whether it is an Armco guardrail[24] or a concrete barrier will be for engineers to decide. I encourage the Department to do whatever is necessary to assist in the prompt implementation of the appropriate CHR intersection. If that necessitates the compulsory acquisition of land from the rail corridor to ensure it occurs, then that should be undertaken.

[50]. Of course there is the possibility of a temporary treatment to the intersection by the establishing of a marked left side overtaking lane, but I am concerned that any temporary measures may work to postpone the appropriate solution, the CHR intersection, so I discount any temporary linemarking being undertaken, although of course the Department's additional signage is already progressing[25].

Recommendations made

[51]. Accordingly the recommendations I make are:

a. that the intersection be upgraded to a CHR (channelised right-hand turn) style intersection for westbound traffic;

b. that the Department of Transport & Main Roads take all steps necessary to assist in the early implementation of the CHR intersection upgrade; and

c. that the Department of Transport & Main Roads nominate for the benefit of external parties, a single, dedicated, contact person, within the Department, to co-ordinate and progress, the intersection upgrade.

Coroners Act s. 48: 'Reporting Offences or Misconduct'

[52]. The Coroners Act section 48 imposes an obligation to report offences or misconduct.

[53]. It was not suggested, nor recommended, to me by any party at the inquest that any further person or entity should be referred for investigation of an indictable or other offence. Accordingly I make no such referrals under section 48.

Magistrate O'Connell
Central Coroner
Mackay
1 May 2015

[24] the very familiar curved '3' style steel barrier or safety rail seen along roads, particularly on bends, or bridges
[25] I was advised by the Department of Transport & Main Roads that the placement of additional signage warning of the intersection was already well advanced