

# IN THE CORONERS COURT OF VICTORIA AT MELBOURNE

Court Reference: COR 2017 1148

## FINDING INTO DEATH WITH INQUEST

Form 37 Rule 63(1) Section 67 of the Coroners Act 2008

Findings of:	Caitlin English, Deputy State Coroner
Deceased:	Arzu Karakoc
Delivered on:	1 November 2021
Hearing date:	2, 3, 4 March 2021
Assistant to the coroner:	Senior Constable Jeff Dart
Counsel for family of Arzu Karakoc:	David O'Brien instructed by Arnold Thomas & Becker Lawyers
Counsel for Transport for Victoria:	Paul Lawrie instructed by Victorian Government Solicitor's Office
Counsel for Prabhjot Singh:	Manjot Singh instructed by Dhillon Legal Barristers & Solicitors

INTRODUCTION	3
THE CORONIAL INVESTIGATION	3
IDENTITY OF THE DECEASED	4
MEDICAL CAUSE OF DEATH	4
BACKGROUND AND CHRONOLOGY	5
Victoria Police investigation	6
CIRCUMSTANCES OF DEATH	7
Sequence of the collision	7
Conclusion	10
Telephone call between Prabhjot Singh and Gurjant Dhaliwal	10
Conclusion	14
PREVENTION OPPORTUNITIES	15
Operation of the traffic lights	15
Deaths occurring in similar circumstances	16
Submissions about prevention and safety improvement	16
Bicycle Network	17
Improved heavy vehicle standards	17
Mobile phone blocking	17
Looking for and expecting to see people on bicycles	18
Regulation amendment	18
The Amy Gillett Foundation	19
The Victorian Transport Association	19
High volume heavy vehicle area	20
The Federation Trail	20
Signage and traffic management	20
Traffic separation	20
Proposed recommendations	20
Transport for Victoria	21
Concurrent evidence at inquest	22
Previous coronial recommendations	26
CONCLUSION	27
FINDINGS	27
RECOMMENDATIONS	28
Publication	29
Change to cause of death	29

### CONTENTS

### **INTRODUCTION**

- Arzu Karakoc was born on 8 July 1981. She was 35 years old when she died on 10 March 2017 from multiple injuries when her bicycle was involved in a collision with a truck.
- 2. Mrs Karakoc lived in Moonee Ponds with her husband, Ilkay, and their two daughters.

### THE CORONIAL INVESTIGATION

- 3. Mrs Karakoc's death was reported to the Coroner as it fell within the definition of a reportable death in the *Coroners Act 2008* (the Act). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury.
- 4. Coroners independently investigate reportable deaths to find, if possible, identity, medical cause of death and with some exceptions, surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. Coroners make findings on the balance of probabilities, not proof beyond reasonable doubt.<sup>1</sup>
- 5. Under the Act, coroners also have the important functions of helping to prevent deaths and promoting public health and safety and the administration of justice through the making of comments or recommendations in appropriate cases about any matter connected to the death under investigation.
- 6. The law is clear that coroners establish facts; they do not cast blame or determine criminal or civil liability.
- 7. Victoria Police assigned an officer to be the Coroner's Investigator for the investigation into Mrs Karakoc's death. The Coroner's Investigator investigated the matter on my behalf and submitted a coronial brief of evidence.

<sup>&</sup>lt;sup>1</sup> In the coronial jurisdiction facts must be established on the balance of probabilities subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

- 8. I also obtained assistance of the Coroners Prevention Unit (CPU)<sup>2</sup> in identifying similar deaths.
- 9. As there were factual discrepancies in the evidence on the coronial brief regarding to the circumstances of the collision, as well as public interest considerations regarding the safety of bike riders, I decided to hold an inquest to examine both the evidence of the circumstances of the collision and prevention opportunities. Over three days the inquest heard evidence from nine witnesses, including concurrent evidence from three experts about bike rider safety.
- 10. The purpose and scope of the inquest was to:
  - (a) establish the factual circumstances of the collision between the truck driven by Mr Prabhjot Singh and the bike ridden by Ms Arzu Karakoc on 10 March 2017 at 5.40pm at the intersection of Whitehall Street and Sommerville Road, Yarraville; and
  - (b) to examine prevention opportunities and potential safety improvements for bike riders.

#### **IDENTITY OF THE DECEASED**

 Arzu Karakoc was visually identified by her brother, Onur Baglar, on 15 March 2017. Identity was not in issue and required no further investigation.

### MEDICAL CAUSE OF DEATH

- 12. On 14 March 2017, Dr Michael Burke, Senior Pathologist at the Victorian Institute of Forensic Medicine, conducted an external examination of the body of Mrs Karakoc and reviewed a post-mortem computed tomography scan.
- Toxicological analysis of post-mortem specimens taken from Mrs Karakoc was negative for common drugs and poisons.
- 14. After reviewing toxicology results, Dr Burke completed a report, dated 17 March 2017, in which he formulated the cause of death as '1(a) Multiple injuries in a cyclist in a motor vehicle incident'.

 $<sup>^{2}</sup>$  The role of the CPU is to assist coroners to identify opportunities to strengthen public health and safety through the formulation of feasible, evidence-based recommendations.

15. I accept Dr Burke's opinion as to the medical cause of death. However, given the incident occurred between a cyclist and a truck, being a heavy vehicle, I intend to record this in the cause of death which I re-formulate as '1(a) Multiple injuries in a cyclist in a heavy vehicle collision'.

#### BACKGROUND AND CHRONOLOGY

- 16. At approximately 5.30pm on 10 March 2017, Mrs Karakoc cycled south on a shared pedestrian/bicycle path to the left of Whitehall Street, Yarraville.
- 17. At the same time, a truck travelled south along Whitehall Street towards a container yard on Somerville Road. The truck was a 2013 Mitsubishi Fuso FV500 prime mover, towing an unladen skeleton trailer (Cim Cau VGS3 rear B-double skeletal trailer) (the truck).
- 18. At this time, it was daylight and the weather was fine.
- 19. Whitehall Street runs in a general north south direction and Somerville Road runs in a general east west direction. Whitehall Street has two southbound lanes and two northbound lanes separated by a grassed median strip. The southbound lanes of traffic are separated by a broken white painted line. A solid white painted line runs along the left (east) side of the southbound lanes, providing a parking lane. This parking lane is bounded on its left (east) side by a concrete gutter. To the left of the gutter is a grassy nature strip and the shared pedestrian/bicycle path.
- 20. Approximately 100 metres prior to the intersection of Somerville Road, the right southbound lane of Whitehall Street becomes a right turn only lane marked with right turn only arrows. The left southbound lane is for traffic proceeding straight ahead and turning left into Somerville Road. The intersection is controlled by traffic control signals, with a single light controlling the left lane and a single right turn arrow light controlling the right lane. The shared pedestrian/bicycle path is controlled by a traffic crossing signal. At the relevant time of day, this signal remains green for the duration of the southbound straight-ahead traffic control signal.
- 21. The Whitehall Street and Somerville Road intersection is free from obstructions to view, appears to be well-maintained and is heavily trafficked by cars, trucks, people riding bikes and pedestrians.

- 22. Mrs Karakoc, guided by a green bicycle traffic signal, subsequently entered the intersection of Somerville Road and Whitehall Street.
- 23. At the same time, the truck turned left (east) into Somerville Road, also proceeding on a green traffic control signal. The truck driver performed the left turn by driving halfway into the intersection before beginning to turn left.
- 24. Mrs Karakoc travelled halfway across the intersection before apparently noticing the truck starting to turn left. Mrs Karakoc subsequently stopped. However, the landing gear of the truck's trailer struck Mrs Karakoc as it completed its turn. Mrs Karakoc was knocked off her bicycle and run over by the passenger side rear wheels of the trailer.
- 25. Multiple witnesses administered first aid and contacted emergency services. However, Mrs Karakoc sustained significant injuries and passed away at the scene.
- 26. In his statement to Victoria Police, the driver of the truck stated he did not see Mrs Karakoc at the intersection and was unaware of the incident occurring. He subsequently kept driving into a nearby container yard.

#### Victoria Police investigation

- 27. Senior Constable Matthew Craine conducted an inspection of the truck and trailer. He found that at the time of the collision, both were in a roadworthy condition. He did not identify any faults that would have caused or contributed to the collision.
- 28. According to Detective Senior Constable Alex Osmelak, Coroner's Investigator, an inspection of the truck's cabin found the vision from inside the cab to be "very good". Utilisation of head checks through the windows, use of the side view mirrors, and the fact the trailer was unladen suggested the driver would have had a clear, uninterrupted view of the approach to, and through the intersection, and the left side of his truck, throughout the left turn.
- 29. According to Detective Leading Senior Constable Michael Hardiman of the Collision Reconstruction Unit, from the driver's seat of the truck, there were no obvious obstructions to vision, other than those already encountered by the driver under normal driving conditions (such as rear vision wing mirrors and pillars). He was unable to determine the speed of the truck at the time of the collision.

- 30. VicRoads confirmed the traffic light sequencing was such that Mrs Karakoc and the driver both had green lights to proceed and there were no faults with the system.
- 31. A police brief was prepared, witness statements taken, and the truck driver was interviewed. There were discrepancies in the eyewitness accounts and the driver has not been charged with any offence relating to the incident.

### CIRCUMSTANCES OF DEATH

#### Sequence of the collision

- 32. Monir Iramiyan was the first car at the red lights on Whitehall street in the right-hand lane and whilst waiting to turn right, he witnessed the collision.
- 33. He noticed Mrs Karakoc on the footpath walking her bike towards the intersection. At the intersection he saw her fiddling in her bag on her left shoulder, "*The truck rocked up after she actually got there and we were all red*".<sup>3</sup> The lights went green and Mr Iramiyan had a green arrow and the lights were green for traffic travelling straight ahead.
- 34. When the lights changed to green, he stated:

The truck took off and its front length, the truck itself, passed her and was about half way across the intersection, when the girl got on her bike and started to cross. In my opinion, I don't think she realised the truck was going to turn, because she wasn't at high speed or pedalling really hard.<sup>4</sup>

- 35. In evidence he stated as soon as the truck "took off, she jumped on her bike and started pedalling very slowly ...".<sup>5</sup>
- 36. Mr Iramiyan described Mrs Karakoc as 2.8 to three metres across the intersection when she stopped and waited as the truck began to turn left into Somerville road. He described Mrs Karakoc as "shocked"<sup>6</sup> as if she was not expecting the truck to turn, and that "she looked almost disbelieved that the truck came so quickly towards her ...".<sup>7</sup>

<sup>&</sup>lt;sup>3</sup> Transcript (**T**) 28.

<sup>&</sup>lt;sup>4</sup> Coronial brief (CB) 20.

<sup>&</sup>lt;sup>5</sup> T 32.

<sup>&</sup>lt;sup>6</sup> T 33.

<sup>&</sup>lt;sup>7</sup> CB 20.

#### 37. Mr Iramiyan stated:

About 2-3 seconds had passed by this time, the truck started to level out its turn, so it's coming in straight again, I saw the T of the trailer and the truck come very, very quickly towards her ... The trailer levelled out completely and caught her at the same time, it pulled her in and under.<sup>8</sup>

- 38. Tyse Plummer was in a sedan in the left lane of Whitehall Street behind the truck which he stated, "was turning left into Somerville Road from the middle of the right lane."<sup>9</sup> Mr Plummer recalled the truck was unloaded without a container<sup>10</sup> and the lights were green and as he approached the intersection and he followed the truck through.<sup>11</sup>
- 39. In his statement Mr Plummer stated he saw Mrs Karakoc approach the intersection riding a mountain bike on the bike path:

I noticed her crossing light was flashing red. As she came to the road (Somerville Road) she looked over her right shoulder to see if anybody was turning left. She didn't notice the truck turning left from the right lane in Whitehall Street, he was already over the left lane by then. She entered the intersection quite slowly, like a little bit more than walking pace. If she had been paying attention, she would have noticed the truck, as he was about 80% through his turn when she moved forward again.<sup>12</sup>

- 40. Mr Plummer saw Mrs Karakoc hit by the back section of the wheels of the truck, between the prime mover and the back wheels of the trailer.
- 41. In cross examination Mr Plummer stated he was behind the truck, almost at a complete stop and he followed the truck through on the green light. He estimated the truck was travelling at about 20 kilometres per hour.<sup>13</sup> He saw the truck was indicating and was further into the right lane to take the wide left turn. His evidence was that Mrs Karakoc was riding her bike against a red flashing light whilst he and the truck had a green light.

<sup>9</sup> CB 15.

<sup>&</sup>lt;sup>8</sup> CB 20.

<sup>&</sup>lt;sup>10</sup> T 8.

<sup>&</sup>lt;sup>11</sup> T 7-8. <sup>12</sup> CB 15.

<sup>&</sup>lt;sup>13</sup> T 14.

- 42. Mr Plummer's evidence was that Mrs Karakoc rode into the truck and contact was made in front of the rear three wheels. He did not think the truck driver was aware or felt a bump because, *"if he felt her, he would have stopped."* He did not see Mrs Karakoc walking her bike at any stage.<sup>14</sup>
- 43. At the same time, Rick Young was driving his crane east on Somerville Road about to turn left and head north on Whitehall Street.
- 44. He was first vehicle in the slip lane to turn left as he was waiting for a gap in the traffic. Mr Young saw the truck on Whitehall Street turning left into a container storage yard on the opposite side of the street:

I saw that the first tyre of the trailer collided with a cyclist who was travelling south on Whitehall Street. The cyclist looked to have come from the footpath and was about one metre across the driveway of the shipping container storage yard when I saw the trailer hit her.<sup>15</sup>

- 45. In evidence Mr Young stated he thought the truck was single axle and green and that it had a container on the back. The evidence supports the truck was red, not carrying a container and was a triple axel, meaning there were three sets of wheels at the back.
- 46. Mr Young stated he did not think the truck had stopped at a red light because of the speed it was turning. Mr Young stated Mrs Karakoc was riding her bike at a *"casual"* speed when she was hit, and he could not say whether Mrs Karakoc had stopped prior to the collision.
- 47. The truck driver, Mr Singh, described approaching the intersection in the left lane, the lights were green, so he checked his mirrors and used the indicator and stated the road was clear when he turned left into Somerville Road.<sup>16</sup> He estimated he was travelling at 10 to 15 kilometres per hour when he made the left turn.<sup>17</sup> He did not move into the right-hand lane to execute the left hand turn as the intersection is very wide.<sup>18</sup>

<sup>&</sup>lt;sup>14</sup> T 15-16.

<sup>&</sup>lt;sup>15</sup> CB 36.

<sup>&</sup>lt;sup>16</sup> CB 225.

<sup>&</sup>lt;sup>17</sup> CB 227.

<sup>&</sup>lt;sup>18</sup> T 134.

### Conclusion

- 48. There are discrepancies in the eyewitness accounts. Mr Iramiyan was waiting at the red traffic lights and Mr Plummer was following behind the truck and arrived at the intersection as the lights turned green. The weight of evidence supports the truck approaching the intersection as the lights turned green. The GPS data regarding the time of the collision and the sequencing evidence of the traffic signals supports Mrs Karakoc entered the intersection towards the end of the time sequence for the green signal for pedestrian and bike.
- 49. I am satisfied from the evidence that Mrs Karakoc had been walking her bike up Whitehall Street towards the intersection with Somerville Road and she stopped at the red light. As the bike/pedestrian lights changed to green there was a short delay before she proceeded to cross the road riding her bike. The truck approached the green signal indicating to turn left. Both had green lights. Mr Singh continued into the intersection to turn left and failed to see Mrs Karakoc crossing the intersection, who was slowly riding her bike. The pedestrian/cyclist light began to flash red. Mrs Karakoc did not realise the truck was turning left and stopped about halfway into the intersection, however at that position owing to the length of the truck and trailer and the turn angle, she was collected by the trailer's first set of rear wheels on the triple axle of the trailer and was pulled underneath as the truck as it completed the turn. Mr Singh did not see Mrs Karakoc and did not feel any bump and continued the turn and his journey up Somerville road to CC Containers.
- 50. I find that as both Mrs Karakoc and Mr Singh had simultaneous green traffic signals they both entered the intersection at the same time which contributed to the collision occurring. The traffic rules require vehicles turning left to give way to pedestrians and cyclists crossing on a pedestrian cyclist green light.<sup>19</sup>

### Telephone call between Prabhjot Singh and Gurjant Dhaliwal

51. One question which arose regarding the circumstances of the collision was why Mr Singh did not stop after the collision with Mrs Karakoc.

<sup>&</sup>lt;sup>19</sup> Road Safety Road Rules 2017, Reg 62.

- 52. Mr Singh gave evidence <sup>20</sup> he did not see Mrs Karakoc at the intersection of Whitehall Street and Somerville Road at approximately 5.39pm on 10 March 2017. He appears to have been completely unaware of the collision and had difficulty accepting it had occurred.
- 53. Phone records show Mr Singh's phone recorded an active phone call from 4.49pm to 5.44pm on 10 March 2017 to Gurjant Dhaliwal. Mr Dhaliwal was a work colleague at Malec Transport.
- 54. GPS data from the truck showed Mr Singh's truck at the intersection of Whitehall Street and Somerville Road at 5.39pm and 51 seconds travelling at a speed of 21 kilometres per hour.<sup>21</sup>
- 55. A recorded record of interview was conducted by police with the truck driver, Mr Singh, on 22 March 2017. Mr Singh denied any knowledge of a collision. He stated he never saw a cyclist or felt a bump when turning the corner left into Somerville Road.
- 56. He explained he had made a phone call to a friend, Gurjant Dhaliwal, when he was loading his truck in Lara, and they spoke for 10 to 15 minutes<sup>22</sup> but as he did not know how to hang up the call as he was using a friend's phone, he left the call open without talking.<sup>23</sup> Although the truck was fitted with Bluetooth, he was using headphones connected to the mobile phone which was located in the centre console of the truck. When he reached the container yard, he made further calls.
- 57. Mr Singh stated his own phone was broken, and he was using a friend's phone with his own SIM card. He stated, "So the phone was next to me. I wasn't using it".<sup>24</sup> Mr Singh agreed, "... the call was running all the way through from ... when you left your first depot and you got to CC's".<sup>25</sup>
- 58. Mr Singh was taken to evidence in the coronial brief. He agreed the phone he was using was a E2306 Xperia M4 Aqua. The user guide had an image demonstrating how to end a call with an image of a red bar with a cross through a telephone receiver.<sup>26</sup> Mr Singh could not recall seeing this image on the screen of the mobile phone, "*I just take off the headphone*

<sup>&</sup>lt;sup>20</sup> Me Singh was granted a certificate with respect to his evidence pursuant to section 57 of the *Coroners Act* (2008).

<sup>&</sup>lt;sup>21</sup> CB 9.

<sup>&</sup>lt;sup>22</sup> T 96.

<sup>&</sup>lt;sup>23</sup> CB 230.

<sup>&</sup>lt;sup>24</sup> T 231.

<sup>&</sup>lt;sup>25</sup> CB 235. <sup>26</sup> CB 488.

<sup>&</sup>lt;sup>20</sup> CB 488.

and put the phone aside".<sup>27</sup> When asked how the call ended, Mr Singh stated, "When I stop my truck there [at CC containers] I got off the truck and then I disconnect the phone".<sup>28</sup> Mr Singh was consistent in his evidence that he did not use the phone when he was driving.<sup>29</sup>

- 59. The phone records<sup>30</sup> for the phone used by Mr Singh to call Mr Dhaliwal's number show numerous calls made prior to that call of various durations. Mr Singh was asked if he disconnected those previous calls and he conceded he did, *"some I might've"* and agreed if he had hung up some of the calls then he would know how to end a call.<sup>31</sup>
- 60. In cross examination, Mr Singh confirmed he knew how to switch the friend's phone on, charge it, enter contacts of people who called him, access the internet, and make and accept calls. When he was asked if he was able to hang the phone up, his evidence seemed to suggest that the phone was faulty, *"If it was working properly, why my friend would lend me?*".<sup>32</sup>
- 61. Although his previous evidence had been that he did not know how to disconnect the call, Mr Singh stated, "*I knew how to disconnect, but it was not appearing on the screen*".<sup>33</sup>
- 62. In re-examination Mr Singh was again asked about the phone and why he said he did and did not disconnect the phone, and Mr Singh stated, "*There is on screen and another screen you cannot disconnect it. When I got off the truck and then I look that screen (sic) and then from other screen I put disconnect*".<sup>34</sup>
- 63. In a statement dated 12 December 2020,<sup>35</sup> Mr Dhaliwal confirmed he had a telephone conversation with Mr Singh on 10 March 2017, sometime in the evening at about 4.00pm or 5.00pm. He stated he spoke to him during a work break, for the entire time of the break, "Probably about half an hour to 35 minutes, maybe more, but roughly".<sup>36</sup> Mr Singh did not

<sup>&</sup>lt;sup>27</sup> T 99.

<sup>&</sup>lt;sup>28</sup> T 132.

<sup>&</sup>lt;sup>29</sup> T 127, 128, 131, 157.

<sup>&</sup>lt;sup>30</sup> Exhibit 11.

<sup>&</sup>lt;sup>31</sup> T 101-2.

<sup>&</sup>lt;sup>32</sup> T 119. <sup>33</sup> T 132.

<sup>&</sup>lt;sup>35</sup> T 132. <sup>34</sup> T 156.

<sup>&</sup>lt;sup>35</sup> Exhibit 8.

<sup>&</sup>lt;sup>36</sup> CB 66.

say how he was using his phone, "but normally we use headphones or Bluetooth".<sup>37</sup> He stated the:

... phone call probably ended between 4 to 5.30 pm", and "I can't remember who hung up the phone. Sometimes we get calls on the other line and answer. Maybe he got another call or I got another call. I can't remember what happened and who hung up the phone.<sup>38</sup>

- 64. In evidence Mr Dhaliwal denied it was common for him to have telephone conversations whilst on the road with Mr Singh.<sup>39</sup>
- 65. Mr Singh did not agree the reason that he did not see Mrs Karakoc because he was distracted, and had difficulty accepting that his truck was involved in the collision with Mrs Karakoc,<sup>40</sup> "According to my knowledge it's very hard for me to believe it, that that's what happened".<sup>41</sup>
- 66. When Mr Singh was asked to explain how he did not see Mrs Karakoc at the intersection, he stated, *"Nobody was at that intersection. No one was waiting and no one was crossing"*.<sup>42</sup>
- 67. He denied on a number of occasions that any one was at the intersection.<sup>43</sup> After some discussion with the interpreter, as Mr Singh noted English is not his first language, he was asked again why he thought he did not see Mrs Karakoc. He replied, "*There was no-one, how could I*?".<sup>44</sup> When asked what he meant he stated, "*When I went to the intersection, the light was green, there was no one there*".<sup>45</sup>
- 68. When it was put to Mr Singh he was talking on the phone and distracted, he stated:

- <sup>38</sup> CB 67.
- <sup>39</sup> T 78.
- <sup>40</sup> T 137.
- <sup>41</sup> T 138. <sup>42</sup> T 105.
- <sup>43</sup> T 105.
- <sup>44</sup> T 106.
- <sup>45</sup> T 106.

<sup>&</sup>lt;sup>37</sup> CB 67.

First of all, I was not talking on the phone. So secondly, when I turned the truck, I look at the indicator and look at the mirror, I didn't hit - hit the curb. It was totally safe and then I turn it.<sup>46</sup>

69. When asked if he felt the truck hit a bump, Mr Singh stated: "If something hit it, I would have stopped. It was normal, nothing happened".<sup>47</sup>

### Conclusion

- 70. The telephone records indicate Mr Singh's phone was on an open call on 10 March 2017 from 4.49pm to 5.54pm with Mr Dhaliwal's number. The GPS data confirms the time of the collision with Mrs Karakoc occurred at approximately 5.39pm.
- 71. Mr Dhaliwal confirmed he was on a call with Mr Singh and estimated the call with Mr Singh was for 30 to 35 minutes, maybe longer. Mr Singh estimated it was for 10 to 15 minutes. Mr Singh stated he made the call when he stationary at the Lara depot but stopped the call by taking off his headphones prior to driving. Mr Singh was consistent in his evidence that he did not drive his truck whilst he was on a telephone call.
- 72. In his interview with police Mr Singh stated did not know how to disconnect the phone call.
- 73. In evidence he conceded he had hung up on some other calls made prior to the call to Mr Dhaliwal and so was aware of how to hang up a call. He also stated he knew how to make calls, add contacts, and use the internet. He also seemed to suggest the borrowed phone may have been faulty.
- 74. Despite Mr Singh's consistent evidence that he was not on a telephone call whilst he was driving his truck at the time of the collision with Mrs Karakoc on 10 March 2016, I find this to be inherently unlikely. In addition to his consistent position that he was not on the telephone, he also gave repeated evidence that there was no one at the intersection, and he was reluctant to acknowledge Mrs Karakoc's death had occurred. His immutable position diminished his credibility overall, as did his varied explanations about the phone call.
- 75. The phone records, GPS evidence, and Mr Dhaliwal's evidence confirm there was a telephone call at the time of the collision. I have formed the view it is very likely Mr Singh

<sup>&</sup>lt;sup>46</sup> T 106.

<sup>&</sup>lt;sup>47</sup> T 108.

was on a telephone call at the time of the collision and he was distracted. This explains why he did not see Mrs Karakoc crossing the road, did not feel a bump, and did not stop his truck. The footage of the view from his cabin is clear and unobstructed<sup>48</sup> and I am of the view that driver distraction is the most likely explanation for his failure to see Mrs Karakoc.

76. Whilst regulation 141(2) of the Road Safety Rules 2017 states that a bike rider must not ride past or overtake to the left of a vehicle that is indicating and turning left, regulation 62(1)(b) requires turning vehicles must give way to "any rider of a bicycle at or near the intersection with bicycle crossing lights who is crossing the road the driver is entering if they have a green traffic signal to cross".

#### **PREVENTION OPPORTUNITIES**

#### **Operation of the traffic lights**

- 77. Martin Chelini gave evidence on behalf of the Department of Transport. The traffic signals applicable at the intersection of Whitehall Street and Somerville Road were operating without reported fault in accordance with the sequences described in Mr Chelini's statement, attachments, and a table.<sup>49</sup>
- 78. Mr Chelini described the lights at the time of the collision as in Phase A, and the traffic lights applicable to Mr Singh and the pedestrian/bike lights applicable to Mrs Karakoc were both green.
- 79. With respect to coronial recommendations, Mr Chelini sated it would not be possible to have a red left turn arrow at the north approach of this intersection because the intersection is not wide enough to provide the required number of lanes.<sup>50</sup> He stated:

... to implement ... you would need to have an exclusive left-turn lane, a through lane and a right -turn lane, but the width of that north approach only provides two and a bit lanes, which is not wide enough.<sup>51</sup>

80. This would result in stopping south bound traffic for part of the lights cycle.

<sup>&</sup>lt;sup>48</sup> Exhibit 12.

<sup>&</sup>lt;sup>49</sup> Exhibits 15 & 16.

<sup>&</sup>lt;sup>50</sup> T 182.

<sup>&</sup>lt;sup>51</sup> T 182.

### Deaths occurring in similar circumstances

- 81. As part of my investigation, I obtained advice from the CPU regarding deaths occurring in similar circumstances between 2000 and 2018.
- 82. The CPU identified nine people riding bikes who died after being struck by a motor vehicle turning left where the driver did not see the cyclist before the incident. In eight of these, a heavy vehicle was identified as the counterpart.
- 83. It is well recognised that people riding bikes are vulnerable road users and are often travelling with heavy and motor vehicles on the road network.<sup>52</sup> Intersections have been identified as a risk for people riding bikes as they may not be seen.<sup>53</sup>
- 84. In a systematic literature review, Johnson et al. found that the most commonly reported error that contributes to cyclist fatality crashes was failure to see with attributed factors including drivers' low expectancy of people riding bikes and them being in drivers' blind spots.<sup>54</sup>
- 85. Reducing heavy vehicle underrun crashes, such as in this case, when a bike rider, motor cyclist or pedestrian slides underneath the front, side, or rear end of a heavy vehicle, is a focus for many countries. Significant improvement in safety outcomes for cyclist interactions with heavy vehicles have been achieved in northern Europe and Japan by improved visibility and underrun protection.<sup>55</sup>

### Submissions about prevention and safety improvement

- 86. In light of the CPU advice and considering potential recommendations, for example to improved visibility and underrun protection, at the Directions Hearing on 9 October 2020, I invited submissions from relevant peak organisations, namely Bicycle Network, the Amy Gillett Foundation, and the Victorian Transport Association about potential recommendations to reduce the number of preventable cyclist deaths.
- 87. The submissions are summarised as follows.

<sup>&</sup>lt;sup>52</sup> World Health Organisation, 'Global status report on road safety 2015' http://www.who.int/violence\_injury\_prevention/road\_safety\_status/2015/en/, accessed 29 May 2018.

<sup>&</sup>lt;sup>53</sup> Pattinson, W, Thompson, R, 'Trucks and Bikes: Sharing the Roads', Procedia - Social and Behavioural Sciences, 2014, pp.251-261.

<sup>&</sup>lt;sup>54</sup> Johnson, M, Bugeja, L, Mulvilhill, C, 'Factors that contribute to cyclist fatality crashes: a systematic literature review', Australasian Road Safety Conference, 2015, Gold Coast, Queensland, Australia, 2015.

<sup>&</sup>lt;sup>55</sup> Pattinson, W, Thompson, R, 'Trucks and Bikes: Sharing the Roads', Procedia - Social and Behavioural Sciences, 2014, pp.251-261.

### **Bicycle** Network

88. Bicycle Network is Australia's largest cycling advocacy body. Its submission dated 6 June 2020 detailed three areas for consideration, namely, improving vehicle standards, mobile phone blocking and raising awareness about looking for and expecting to see people on bicycles.<sup>56</sup> Bicycle Network submitted that coronial recommendations should consider reducing the risk of a heavy vehicle hitting a bike rider, whereas side underrun protections do not prevent the crash in the first place, only minimise the damage. Bicycle Network also provided a 2019 submission it made to the National Transport Commission.

### Improved heavy vehicle standards

- 89. With respect to left turning heavy vehicles, Bicycle Network recommended mandatory equipment and standards that include blind spot reduction designs, including:
  - (a) lowering the driver cab, more windows and mirrors and reconfiguring passenger and driver doors;
  - (b) driver assist technology that takes out human error such as left turn warning systems, brake assist and lane keep; and
  - (c) side underrun protection rails.
- 90. This submission repeats recommendation 6 of the Bicycle Network bike rider fatality report from March 2018 to introduce mandatory equipment and design standards on all new trucks from 1 July 2018 and all trucks from 1 July 2025. Of relevance to this inquest were Recommendation 7, which recommends vulnerable road user training for all drivers of heavy vehicles, and Recommendation 12, which recommends the introduction of an Australia wide behaviour change program aimed at reducing the number of motor vehicles during peak hours and increasing the number of bike riders.

### Mobile phone blocking

91. Bicycle Network submitted more should be done to prevent drivers being able to use their mobile phones. It submitted mandated blocking technologies should be introduced to remove driver temptation. It made two recommendations, to fast track in-vehicle mobile

<sup>&</sup>lt;sup>56</sup> CB 255-307.

phone blocking technologies and mandate for all new vehicles sold in Australia, and to in build an opt-out '*Do not disturb while driving*' app automatically activated in all smart phones sold in Australia.

#### Looking for and expecting to see people on bicycles

92. This submission focused on recommending that a behaviour change program be implemented to increase driver awareness, with a focus on drivers of heavy vehicles, to look for bike riders. An example provided is '*The moon walking bear campaign*' run by Transport for London in 2008, which illustrates the point you do not see what you do not *expect* to see.

#### Regulation amendment

93. In a further submission dated 6 February 2021, Bicycle Network submitted clarification was required regarding Road Safety Rules 2017, regulation 141(2), which states:

The rider of a bicycle must not ride past, or overtake, to the left of a vehicle that is turning left and is giving a left change of direction signal.

94. The Bicycle Network submitted:

The regulation, in particular the words 'that is turning' is unclear. In practice it appears that many people are unclear who has right of way ...<sup>57</sup>

95. The Bicycle Network recommended an amendment so that any left turning vehicle must give way to any bicycle continuing straight ahead:

The simple rationale for the bike rider having right of way is the potential adverse consequences for the person driving the vehicle is the loss of a few seconds, while for the bike rider the potential adverse consequences is the loss of a life time.<sup>58</sup>

96. The submission also referenced people riding bicycles whilst wearing earphones and noted that the suggestion wearing earphones whilst riding a bicycle increases the prospects of being involved in a crash is not supported by the evidence.<sup>59</sup>

<sup>&</sup>lt;sup>57</sup> Letter from Bicycle Network, dated 6 February 2021.

<sup>&</sup>lt;sup>58</sup> CB 306.

<sup>&</sup>lt;sup>59</sup> CB 306.

#### The Amy Gillett Foundation

- 97. The Amy Gillett Foundation, a national organisation which supports cyclist safety research with a mission to reduce the incidence of serious injury and death of cyclists, made a submission dated 12 June 2020.<sup>60</sup>
- 98. The Amy Gillett Foundation supported mandating side underrun protection on all heavy vehicles and encouraged me consider broader countermeasures that can reduce the risk of cyclist fatalities involving heavy vehicles.
- 99. The submission also referred to *Sharing Roads Safely*, a driver training program to increase truck driver knowledge and awareness about safely sharing the roads with cyclists, motor cyclists and pedestrians. They submitted that, as is the case in the UK, this course should be mandatory for all heavy vehicle drivers and recommended the course, which includes an onroad component to increase drivers' understanding and empathy for vulnerable road users, be compulsory for all heavy vehicle drivers in Victoria.
- 100. In 2019 the Amy Gillett Foundation's submission to the Senate Standing Committee on the Importance of a viable, safe sustainable and efficient road transport industry, recommended the Sharing Roads Safely program be a mandatory requirement for all government projects and for all new heavy vehicle driver licensing.<sup>61</sup>

#### The Victorian Transport Association

- 101. The Victorian Transport Association (VTA) serves "all sectors of the transport and logistics industry," as "Australia's pre-eminent multimodal prime contractor and employer organisation in transport and logistics".<sup>62</sup> The VTA made a submission dated 30 October 2020.<sup>63</sup>
- 102. The submission pointed out the dangers and risks of combining shared access for cyclists and heavy vehicles, which it stated should be reflected in the traffic management system, standards and processes, and included four points for consideration:

<sup>&</sup>lt;sup>60</sup> CB 308-347.

<sup>&</sup>lt;sup>61</sup> CB 330.

<sup>&</sup>lt;sup>62</sup> CB 349.

<sup>&</sup>lt;sup>63</sup> CB 349-352.

### High volume heavy vehicle area

103. Whitehall Street and Sommerville Road, Yarraville, are used as major thoroughfares by the heavy vehicle industry, with approximately 8,000 to 10,000 heavy vehicles on Whitehall Street every day. On a daily basis, the intersection has 1,100 to 1,200 vehicles accessing the industrial area on Somerville Road: "*The location of the accident is well known to be a high volume heavy vehicle area and has been for over fifty years and more*".<sup>64</sup>

### The Federation Trail

104. The Federation Trail, a shared pathway for cyclists and pedestrians, currently tracks along the original footpath on Whitehall Street until it reaches Somerville Road. It then turns west along Somerville Road for one block and continues south on Hyde Street.

### Signage and traffic management

- 105. There are two sets of electronic messaging at the intersection, one for cyclists and other traffic. If both simultaneously green, then the propensity for accidents will increase.
- 106. There are no warnings to cyclists to beware of heavy vehicles, and no equivalent warning to heavy vehicle drivers about the Federation Trail.
- 107. Cyclists are not instructed to dismount to cross the road, and the cycle lane on Whitehall Street ends without warning or direction.

### Traffic separation

108. The VTA submission recommended that the Federation trail should track down Hyde Street from Napier Street as heavy vehicles are banned from Hyde Street at all times. The cycle path on Whitehall Street duplicated the cycle path on the footpath and places cyclists within a meter of heavy vehicle drivers.

### Proposed recommendations

109. The proposed recommendations include:

<sup>&</sup>lt;sup>64</sup> CB 349.

- (a) separate the traffic signalling at separate times for bikes and traffic at the corner of Whitehall Street and Somerville Road;
- (b) redirect the Federation trail to Hyde Street;
- (c) remove the bike lane on Whitehall Street and increase warning signage for cyclists;
- (d) review road policy regarding planning and implementation of cycle ways in high volume heavy vehicle transit areas; and
- (e) encourage education programs for the transport industry and cyclists about the dangers of travelling within major heavy vehicle transit areas and the blind spots of heavy vehicles.

### Transport for Victoria

- 110. Shortly prior to the inquest, Andrew Sharp made a statement on behalf of Head, Transport for Victoria, dated 19 February 2021.<sup>65</sup> Following Mrs Karakoc's death, Transport for Victoria investigated the fatality to consider the contribution, if any, of road design or other factors. An investigation and assessment by Victoria Police, Maribyrnong City Council, and the Department of Transport considered options to reduce the risk of conflict between heavy vehicles turning left from Whitehall Street into Somerville Road to cyclists and pedestrians.
- 111. As part of the West Gate Tunnel Project, which is expected to be completed in 2024, there is a proposal to build a new cycling and pedestrian bridge over Whitehall Street linking the Yarraville Gardens and Maribyrnong River, taking cyclists off Whitehall Street.
- 112. There is a plan to upgrade cycling facilities along Hyde Street from Somerville Road.
- 113. Other proposals considered and rejected were a fully controlled left turn, an early green signal start for pedestrians and cyclists, and increasing the set back of pedestrian and cycling crossing from the intersection.
- 114. An interim upgrade introduced 3 June 2020 is the requirement for pedestrians and cyclists to push the button in order to activate the green walk phase. Other interim upgrades scheduled to be in place by April 2021 include a holding rail, a truck trailer warning sign, relocation of

<sup>&</sup>lt;sup>65</sup> Exhibit 17, CB 157-162.

the pedestrian push button, vegetation trimming and removal, and bollards between the traffic lane and the pedestrian/cyclist path.

### Concurrent evidence at inquest

- 115. Peter Anderson from Victorian Transport Association, Craig Richards from Bicycle Network, and Dr Marilyn Johnson on behalf of the Amy Gillett Foundation gave evidence at the inquest. They were asked a series of questions which included consideration of left turning arrows, aids to minimise truck blind spots, lowering the cab to enhance visibility, left turn audible devices, mobile phone blocking, behavioural change programs, licence training programs, turning left regulations, and re-directed bike path aimed at potential recommendations.
- 116. Simultaneous green lights for the truck and the cyclist were seen as contributing to Mrs Karakoc and Mr Singh going forward into the intersection at the same time. There was support for an early green light sequence or advanced phase lighting for pedestrians and people riding bikes by the three witnesses.
- 117. The suggestion to redesign Federation trail along Hyde Street where trucks are not permitted was not opposed, however it was noted there is a proposed plan to redirect the Federation trail by way of a pedestrian bridge by 2024.
- 118. Mr Richard's proposal on behalf of Bicycle Network to amend regulation 141(2), so that the bike rider has right of way when other vehicles are turning left, was not supported.
- 119. With respect to reducing blind spots, Dr Johnson noted low cab trucks had made the most significant difference to reducing blind spots. She described these as *"the standard in London"*. The alternative is to retro fit the old truck fleet with better mirrors and cameras to improve indirect vision.<sup>66</sup> There was discussion and support for class 4, 5, and 6 mirrors to reduce blind spots, as well as left side blind spot cameras which are positioned on wheel hubs.
- 120. Michael Chan's statement dated 19 February 2021 on behalf of Head, Transport for Victoria at 9.4 was supported for its position regarding blind spot detection technology. In summary, Victoria has requested the Commonwealth to prioritise mandatory fitment of blind spot

<sup>&</sup>lt;sup>66</sup> T 211.

technology in new heavy vehicles, as part of the next National Road Safety Strategy and Action Plan. Further, the Heavy Vehicle National Law is to be amended to allow for retro fitting of indirect vision devices and blind spot information systems on heavy vehicles to alert drivers to the presence of a vehicle and vulnerable road users.<sup>67</sup>

- 121. There was unanimous support for under-run protection to prevent cyclists, pedestrians, and motor cyclists from being dragged under a truck. These have been widely adopted in Australia, with Coles being the first supermarket chain to make them standard in all their trucks. Mr Anderson confirmed their prevalence, and that they were a precursor to many tenders, especially for work in metropolitan regions where at the supermarkets there is more close contact between trucks and vulnerable road users.<sup>68</sup> He stated, it is not "fixed regulation but it is increasing in its acceptance within industry and we certainly support side under run on trailers".<sup>69</sup>
- 122. The value of side underrun protection in improving the safety of road users such as car occupants, motorcyclists, cyclists, and pedestrians, has been recognised for a considerable period of time.
- 123. The *Regulation Impact Statement for Underrun Protection* released by the Australian Government in July 2009 included the decision not to mandate side underrun protection for heavy vehicles on a cost-benefit basis. Despite this outcome, the uptake of side underrun guarding among heavy vehicles in Australia should continue to be promoted. The evidence in this inquest shows it is supported by those supporting vulnerable road users and the transport industry.
- 124. On 30 April 2012, Coroner John Olle recommended in his finding into the death of Stuart Bullas<sup>70</sup> that the Department of Infrastructure and Transport (Commonwealth) further investigate and adopt appropriate measures to improve the uptake of side underrun protection among commercial heavy vehicles in Australia to reduce the incidence of road trauma resulting from side underrun events. The Department of Infrastructure and Transport advised that front underrun protection was required to be fitted to all new vehicle models beginning January 2011. At the time, side and rear underrun protection was not able to be

<sup>&</sup>lt;sup>67</sup> Exhibit 18, CB 153.

<sup>&</sup>lt;sup>68</sup> T 225-6.

<sup>&</sup>lt;sup>69</sup> T 226.

<sup>&</sup>lt;sup>70</sup> Finding into death without Inquest of Stuart Bullas COR 2011 1465.

justified. The Department advised they would continue to monitor the need for a change to the regulation.

- 125. I endorse Coroner Olle's recommendation and given the effluxion of time since, I intend to make a recommendation regarding side underrun protection in heavy vehicles.
- 126. The panel discussed audible left turn devices, a safety feature which had community amenity implications and unintended consequences. Mr Anderson explained that the noise of reversing beepers has led the City of Melbourne to prohibit garbage trucks entering the city before 7.00 am which "means those heavy vehicles are now reversing back up laneways *in peak hour pedestrian traffic*".<sup>71</sup>
- 127. Mr Richards supported mobile phone blocking technology in truck cabins to prevent the mobile phone signal. There was general consensus for a zero-tolerance policy for those workplaces which message staff or allow call-taking when driving. Mr Anderson stated, "... those companies that are using phone technology for communication without a handsfree system are circumventing those safety obligations ...".<sup>72</sup> As Mr Singh's truck had Bluetooth technology, which was not used but is a permissible way to use a telephone whilst driving, I do not intend to make a recommendation regarding blocking mobile phone technology in truck cabins.
- 128. With respect to behaviour change and the Sharing Roads Safely program, Dr Johnson indicated modules 1 and 2 and vulnerable road user awareness training is compulsory for companies involved with Big Build Projects for the Victorian government.<sup>73</sup> She supported vulnerable road user awareness training being part of the driver licencing program. Mr Anderson also noted a huge deficit in the minimisation of risk in licensing drivers of heavy vehicles and was critical of the current licensing system, which is a graduated system for different sized vehicles, with a limited training regime attached to a heavy vehicle licence. He stated:

... we believe that we're allowing people on the road to drive heavy vehicles that don't have the experience, knowledge and skill to be able to do that ... the course we're doing [the Driver Delivery program] at the moment is supported by the

<sup>&</sup>lt;sup>71</sup> T 230. <sup>72</sup> T 235.

<sup>&</sup>lt;sup>73</sup> T 237.

*Victorian government ... we're working very hard to try and change the law in terms of licensing ... the current system doesn't teach the heavy vehicle driver or the motorist for that matter, about other road users. There's not enough information.*<sup>74</sup>

- 129. Mr Richards agreed the training of people driving heavy vehicles is vitally important and supported education aimed at specific behaviour change. I intend to make a recommendation which mandates vulnerable road user awareness training in driver licensing programs for heavy vehicles.
- 130. Recommendation 4 in the Bicycle Network submission focussed on state and federal government projects employing trucking companies who comply with safety improvements, such as class 5 mirrors, reversing blind spot cameras and side underrun protection and audible left turn warnings. Dr Johnson and Mr Anderson agreed that major projects by the state government is an opportunity to raise industry standards across driver training and enhanced vehicle safety.<sup>75</sup> I intend to make a recommendation that state and federal governments give preference in tenders to companies whose fleets comply with safety improvements such as class 5 mirrors, reversing blind spot cameras and side under run protection.
- 131. In this case a large advertising sticker with the word 'MALEC' was placed on the lower glass panel of the truck passenger door. <sup>76</sup> This had the effect of obscuring visibility. I intend to make a recommendation prohibiting the placement of stickers or advertising material on glass panels on vehicle doors as they inhibit visibility. It is unclear whether this is covered by the State regulations in relation to tinting windows, or the Heavy Vehicle National Law (QLD) (Vehicle Standards) apply at regulation 20 which state transparent material used in a windscreen, window or interior partition of a heavy motor vehicle must be of approved material.

<sup>&</sup>lt;sup>74</sup> T 239-40.

<sup>&</sup>lt;sup>75</sup> T 245.

<sup>&</sup>lt;sup>76</sup> CB photographs 37 & 48

#### **Previous coronial recommendations**

- 132. This Court has made a number of recommendations connected with deaths involving heavy vehicles and pedestrians.<sup>77</sup>
- 133. In addition to the finding into the death of Stuart Bullas,<sup>78</sup> which recommended the uptake of side underrun protection among commercial heavy vehicles in Australia, on 20 September 2017, Coroner Paresa Spanos recommended in her finding into the death of Josephine Edden<sup>79</sup> that VicRoads convene a working group to examine technological solutions to improve pedestrian visibility to heavy vehicle operators.
- 134. On 20 October 2017, VicRoads advised it was participating in a truck standard working group to improve safety for vulnerable road users. The aim of the group was to increase the safety standards of heavy vehicles being used on major Victorian transport construction projects. The working group comprised of regulators, major contract holders, industry and other stakeholders with an aim to increase road safety, including standards for heavy vehicles working on major Victorian construction projects.
- 135. This truck standard working group identified a number of truck design features and technologies that may be effective and assessed these measures to potentially improve truck drivers' visibility of vulnerable road users. The group works with a number of organisations, including the Amy Gillet Foundation, in the Construction Logistics and Community Safety in Australia (CLOCS-A), which works with the National Heavy Vehicle regulator to bring change at a national level, in four areas of driver education, driver standards, route designation, and site safety.<sup>80</sup>
- 136. The statement on the Coronial Brief by Michael Chan from Transport for Victoria<sup>81</sup> indicated CLOCS-A works with major infrastructure project contract holders to implement safety requirements into Victorian contracts. This has led to contract inclusion of improved warning signs, truck visual aids to minimise blind spots, side under run protection and left hand turn audible warnings, known as 'enhanced safety features' for suppliers awarded work on Victorian major transport projects. The Major Transport Infrastructure Authority is a

<sup>&</sup>lt;sup>77</sup> See for example *Finding into death without inquest of James Sawbridgeworth* COR 2014 5064 and *Finding into death without inquest of Constantinos Bekiaris* COR 2016 1102.

<sup>&</sup>lt;sup>78</sup> Finding into death without Inquest of Stuart Bullas COR 2011 1465.

<sup>&</sup>lt;sup>79</sup> Finding into death without Inquest of Josephine Edden COR 2015 0794.

<sup>&</sup>lt;sup>80</sup> T 247-8.

<sup>&</sup>lt;sup>81</sup> CB 151-156

member of CLOCS-A and requires heavy vehicles working on its projects to have these enhanced safety features.

137. Mr Chan also pointed out the federal/state divide and that a state-imposed condition regarding safety is unenforceable unless it is adopted into the Australian Design Rules or the Heavy Vehicle National Law.

### CONCLUSION

- 138. A heavy vehicle driver failing to see a cyclist can be due to a number of reasons including vehicle design, road/intersection design, driver inattention, or visibility of cyclist.
- 139. The National Road Safety Action Plan 2018-2020 outlined the need to implement safety treatments to reduce trauma from crashes at urban intersections. The Transport and Infrastructure Council found that pedestrians, cyclists and motorcyclists are particularly vulnerable at intersections and make up over half of the fatalities.<sup>82</sup>
- 140. Specifically relevant to this case, Transport for Victoria Department of Economic Development, Jobs, Transport and Resources recently released the Victorian Cycling Strategy 2018-28, which outlined:

... a new bridge over Whitehall Street will take cyclists and pedestrians away from the dangerous Somerville Road-Whitehall Street intersection.<sup>83</sup>

141. This work forms part of the construction of the West Gate Tunnel. Construction commenced in early 2018, with the works to be completed by the end of 2022. Once constructed, the bridge will allow pedestrians and cyclists to avoid this intersection. The completion of this bridge will prevent similar deaths at this intersection; however, the expected completion date is now 2024.

### FINDINGS

Pursuant to section 67(1) of the *Coroners Act 2008* I find as follows:

(a) the identity of the deceased was Arzu Karakoc, born 8 July 1981;

<sup>&</sup>lt;sup>82</sup> Transport and Infrastructure Council, 'National Road Safety Action Plan 2018-2020', p.7.

<sup>&</sup>lt;sup>83</sup> Transport for Victoria Department of Economic Development, Jobs, Transport and Resources, 'Victorian Cycling Strategy 2018-28: Increasing cycling for transport', p.27.

- (b) Mrs Karakoc died on 10 March 2017 at 2 Somerville Road, Yarraville, Victoria, from multiple injuries in a cyclist in a heavy vehicle collision; and
- (c) the death occurred in the circumstances described above.

### RECOMMENDATIONS

At the conclusion of the inquest, Mrs Karakoc's husband, Ilkay Karakoc, spoke to the court about the enormity of the impact that her death and loss has had on himself and their two children. The following recommendations aim to reduce the number of preventable deaths of people riding bikes and other vulnerable road users in Victoria and Australia.<sup>84</sup>

Pursuant to section 72(2) of the *Coroners Act 2008*, I make the following recommendations connected with the death:

- 1. I recommend to the Secretary, Department of Transport (Victoria) that consideration be given to the Federation trail being re-directed away from Whitehall Road as a temporary measure until the completion of the crossover bridge.
- 2. I recommend that **Secretary, Department of Transport (Victoria)** review the risk and therefore appropriateness of the two sets of electronic messaging systems at the intersection of Whitehall Street and Somerville Road, which apply to pedestrians/people riding bikes and other traffic, given that if both are simultaneously green, the risk for accidents is increased.
- 3. I recommend that the Secretary, Department of Infrastructure, Transport, Regional Development and Communications (Commonwealth) adopt appropriate vehicle standards to mandate side underrun protection among commercial heavy vehicles in Australia to reduce the incidence of road trauma resulting from side underrun events.
- 4. I recommend that the Secretary, Department of Infrastructure, Transport, Regional Development and Communications (Commonwealth) recommend heavy vehicle standards for blind spot technology and for the retro fitting of indirect vision devices and blind spot information systems, such as class 5 mirrors and reversing blind spot cameras.
- 5. I recommend to the Secretary, Department of Infrastructure, Transport, Regional Development and Communications (Commonwealth), the Secretary, Department of

<sup>&</sup>lt;sup>84</sup> Following the conclusion of the evidence and submissions I sought input from the interested parties and experts regarding some of the proposed recommendations, namely 3, 4 & 5.

**Transport (Victoria), and the Minister for Local Government (Victoria)** that they recommend and pursue changes in government tender processes so that all levels of government prescribe preference in tender specifications for contracts for those transport and logistics companies whose heavy vehicle fleet comply with safety improvements in blind spot technology such as class 5 mirrors and reversing blind spot cameras either directly or through schemes such as CLOCS-A.

- 6. With a view to further increase the safety of commercial heavy vehicles, I recommend that the Secretary, Department of Infrastructure, Transport, Regional Development and Communications (Commonwealth) consider adopting a direct vision standard for trucks such as the London Direct Vision Standard.
- 7. I recommend that Secretary, Department of Transport (Victoria) mandate vulnerable road user awareness training in driver licensing programs for heavy vehicles. I note two such relevant programs already exist, *Sharing Roads Safely* program run by the Amy Gillett Foundation and the *Driver Delivery* program, an initiative of the Victorian Transport Association.
- 8. I recommend that **Secretary, Department of Transport (Victoria)** encourage and support driver behaviour change programs by way of a public campaign to increase heavy vehicle driver awareness to look for bike riders.
- 9. I recommend the Secretary, Department of Transport (Victoria) enacts a rule or regulation prohibiting the placement of any stickers or advertising material on door or window glass panels on heavy vehicles which inhibit visibility.

#### Publication

Given that I have made recommendations following an Inquest, I direct that this finding be published on the internet pursuant to section 73(1A) of the *Coroners Act 2008*.

#### Change to cause of death

Pursuant to section 49(2) of the Act, I direct the Registrar of Births, Deaths and Marriages to amend the cause of death to "1(a) Multiple injuries in a cyclist in a heavy vehicle collision".

I convey my sincere condolences to Mrs Karakoc's family.

I direct that a copy of this finding be provided to the following:

Mr Ilkay Karakoc, Senior Next of Kin (care of Arnold Thomas & Becker Lawyers) Mr Prabhjot Singh (care of Dhillon Legal Barristers & Solicitors) Transport for Victoria, Department of Transport (care of the Victorian Government Solicitor's Office) Mr Paul Younis, Secretary, Department of Transport (Victoria) Mr Simon Atkinson, Secretary, Department of Infrastructure, Transport, Regional Development and Communications (Commonwealth) The Hon Shaun Leane, Minister for Local Government The Hon Darren Chester, Chair, Inquiry into Road Safety The Hon Matt Thistlewaite, Deputy Chair, Inquiry into Road Safety Mr Joe Calafiore, Chief Executive Officer, Transport Accident Commission Mr Sal Petroccitto, Chief Executive Officer, National Heavy Vehicle Regulator Dr Gillian Miles, Chief Executive Officer and Commissioner, National Transport Commission Mr Dan Kneipp, Chief Executive Officer, The Amy Gillett Foundation Ms Prita Jobling-Baker, President, Bicycle Network Mr Peter Anderson, Chief Executive Officer, Victorian Transport Association Detective Senior Constable Alex Osmelak, Coroner's Investigator, Victoria Police Senior Constable Jeff Dart, Police Coronial Support Unit, Victoria Police

Signature:

C.n. GA.

CAITLIN ENGLISH DEPUTY STATE CORONER Date: 1 November 2021

