



**Australian Government**

**Australian Transport Safety Bureau**

# Collision between passenger train 8070 and truck

Goornong, Victoria on 13 July 2022

**ATSB Transport Safety Report**

Rail Occurrence Investigation (Defined)

RO-2022-007

Preliminary – 19 September 2022

This investigation is being conducted under the *Transport Safety Investigation Act 2003* by the Chief Investigator, Transport Safety (Victoria) in collaboration with the Australian Transport Safety Bureau.

Released in accordance with section 25 of the *Transport Safety Investigation Act 2003*

#### Publishing information

**Published by:** Australian Transport Safety Bureau  
**Postal address:** PO Box 967, Civic Square ACT 2608  
**Office:** 12 Moore Street, Canberra, ACT 2601  
**Telephone:** 1800 020 616, from overseas +61 2 6257 2463  
Accident and incident notification: 1800 011 034 (24 hours)  
**Email:** [atsbinfo@atsb.gov.au](mailto:atsbinfo@atsb.gov.au)  
**Website:** [www.atsb.gov.au](http://www.atsb.gov.au)

© Commonwealth of Australia 2022



#### Ownership of intellectual property rights in this publication

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia.

#### Creative Commons licence

With the exception of the Coat of Arms, ATSB logo, and photos and graphics in which a third party holds copyright, this publication is licensed under a Creative Commons Attribution 3.0 Australia licence.

Creative Commons Attribution 3.0 Australia Licence is a standard form licence agreement that allows you to copy, distribute, transmit and adapt this publication provided that you attribute the work.

The ATSB's preference is that you attribute this publication (and any material sourced from it) using the following wording: *Source:* Australian Transport Safety Bureau

Copyright in material obtained from other agencies, private individuals or organisations, belongs to those agencies, individuals or organisations. Where you want to use their material you will need to contact them directly.

#### Addendum

Page	Change	Date

# Preliminary report

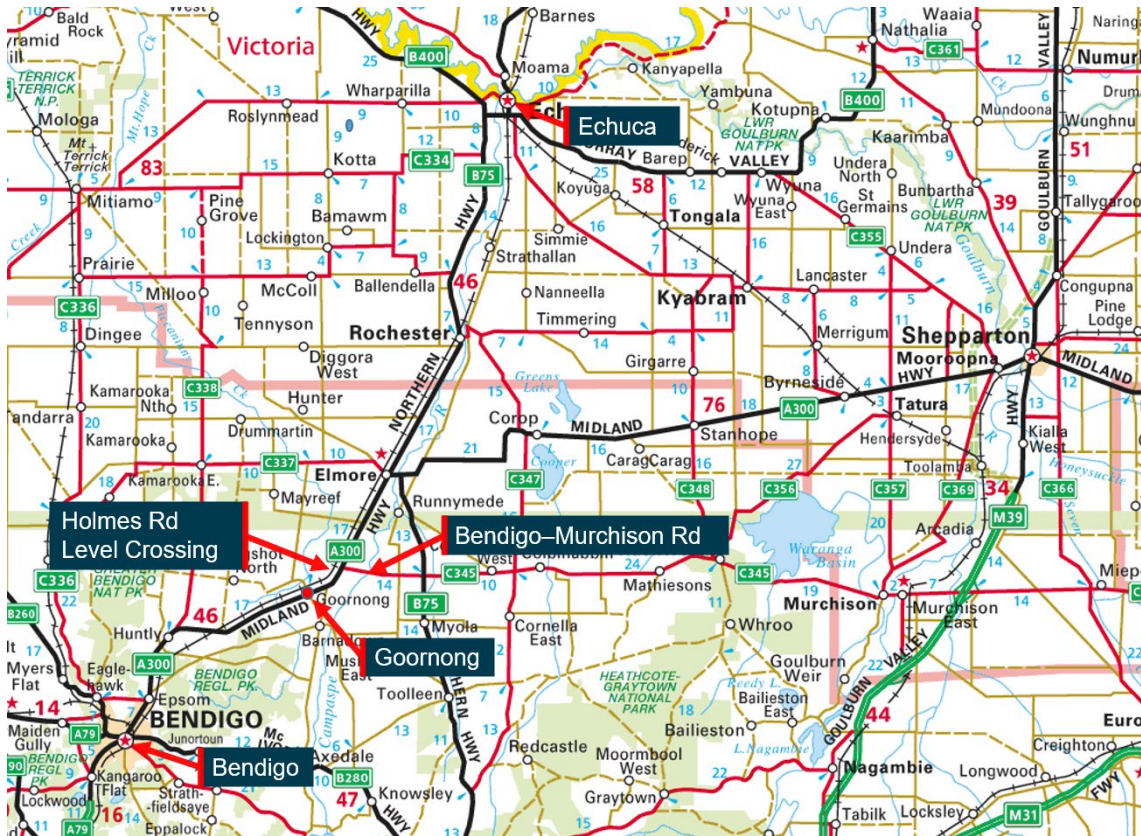
This preliminary report details factual information established in the investigation’s early evidence collection phase, and has been prepared to provide timely information to the industry and public. Preliminary reports contain no analysis or findings, which will be detailed in the investigation’s final report. The information contained in this preliminary report is released in accordance with section 25 of the *Transport Safety Investigation Act 2003*.

## The occurrence

### Prior to the incident

On 13 July 2022 at about 0716, V/Line passenger train 8070 departed Echuca on a scheduled service to Southern Cross Station in Melbourne via Bendigo (Figure 1). The three-car VLocity Diesel Multiple Unit (DMU) was operating on the regional broad gauge line. Onboard were the driver, conductor and 40 passengers.

**Figure 1: Broad gauge rail route from Echuca to Bendigo**



Source: e-way street directory, Melway 2017, annotated by Chief Investigator, Transport Safety (Victoria)

That same morning, a property owner (farmer) north of Bendigo and near Goornong was expecting a truck to collect and transport a load of hay. The farmer had engaged a local transport company and arrangements were made for the truck to use the Holmes Road level crossing that was near the farm. Use of this crossing provided a route between the Midland Highway and Railway Road on which the farm was located.

The Holmes Road level crossing was a gated, passive level crossing that was not available for normal public access. The gates on both sides of the crossing were fitted with locks, and keys had been provided to authorised property owners.

The farmer reported attending the Holmes Road level crossing shortly before the expected arrival of the truck, unlocking and opening the gates and then returning to the hay shed on their property.

**The incident**

The truck driver had been instructed to proceed to the farm to load hay for delivery to Mansfield. They travelled north along the Midland Highway from a nearby transport depot and turned left at the access road to the Holmes Road level crossing. Arriving at the level crossing, they found the gates open, and proceeded onto the crossing.

Train 8070 was scheduled to arrive at Goornong Railway Station at 0808. The train driver reported that, on approaching the level crossing, they could see the truck turning off the Midland Highway towards the crossing. With the train travelling at about 70 km/h, the train driver sounded the horn and expected the truck to stop. When it did not, the train driver made an emergency brake application and was in the process of turning their seat away, when the train impacted the truck.

The impact resulted in the derailment of both bogies on the leading car of the train. The lead rail car and the track infrastructure were extensively damaged. The train driver sustained minor injuries. There were no injuries to the passengers on the train.

The truck driver was seriously injured in the collision. The truck was severely damaged, with the semi-trailer separating from the prime mover (Figure 2).

**Figure 2: Rear of train, prime mover and semi-trailer of truck after collision**



Source: Chief Investigator, Transport Safety (Victoria)

## Context

### Location

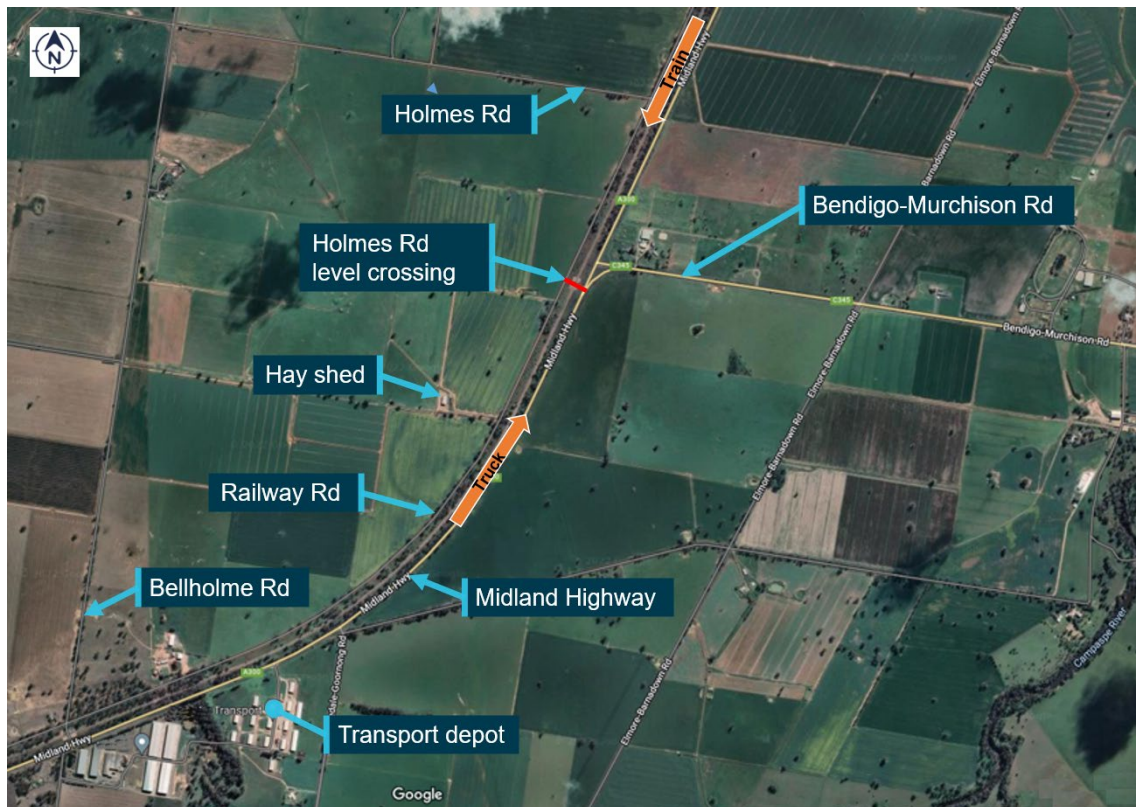
Goornong is about 28 km north of the city of Bendigo in Victoria and the Holmes Road level crossing is about 5 rail-km north of the Goornong Railway Station (Figure 1).

### Level crossing

The Holmes Road level crossing connected the Midland Highway and an unsealed local road named Railway Road that ran parallel to the rail track on its western side. Although Holmes Road was about 950 metres north of the level crossing and did not intersect the rail track or the Midland Highway, the crossing was designated the Holmes Road level crossing for V/Line identification purposes.

The Holmes Road level crossing was located about 2.4 km from the transport depot and about 700 m from the hay shed access road that was on the opposite side of the railway (Figure 3).

**Figure 3: Location of Holmes Road level crossing**



Source: Google maps, annotated by Chief Investigator, Transport Safety (Victoria)

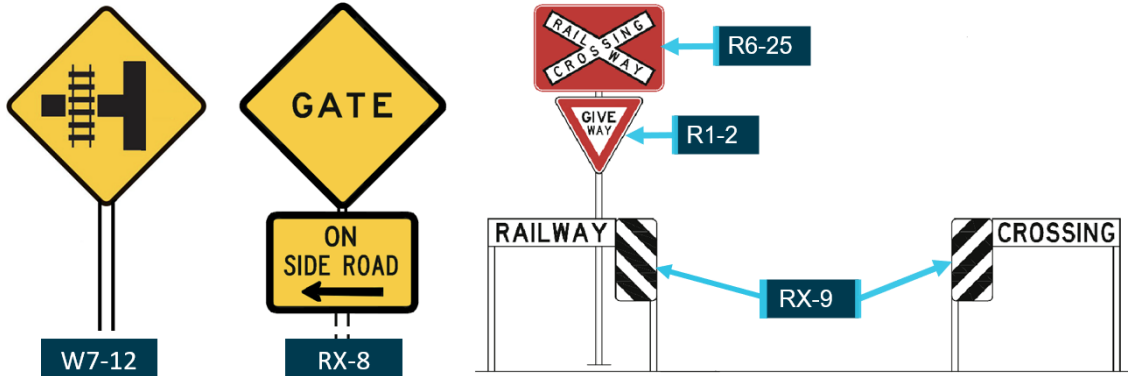
### Crossing protection

In 2013, V/Line equipped the level crossing with lockable gates. To provide limited access to the level crossing, V/Line had a formal agreement with local property owners. The agreement provided authorised users access to the level crossing under conditions set out in the agreement, and keys to the gates of the crossing were provided to those authorised users.

The crossing road was about 6 m wide and a single swing gate was installed across the road on either side of the railway. The gates were fitted with signage that included a notice with a telephone number to call before transferring livestock or heavy machinery, a reference number for the level crossing and to advise train control when the crossing was clear.

The level crossing was also fitted with signage typical of a passive (give way) level crossing. The Australian Standard 1742.7<sup>1</sup> specified the signage requirements. W7-12<sup>2</sup> and RX-8<sup>3</sup> signs were located on the Midland Highway before the turn-off to the level crossing (Figure 4).

**Figure 4: Signage on approach to and at the level crossing**



Source: AS1742.7:2016, annotated by Chief Investigator, Transport Safety (Victoria)

On either side of the crossing, R6-25,<sup>4</sup> R1-2<sup>5</sup> and RX-9<sup>6</sup> signs were installed (Figures 5 and 6).

**Figure 5: Holmes Road level crossing access from east of the rail track**



Holmes Road level crossing shown from the east side, the approach side of the truck. At the time of incident, the gate was open. R6-25, R1-2 and RX-9 assemblies to the left of the road were knocked to the ground during the collision.  
Source: Chief Investigator, Transport Safety (Victoria)

**Figure 6: Holmes Road level crossing access from west of the rail track**



Holmes Road level crossing shown from the west side with all signage intact.  
Source: Chief Investigator, Transport Safety (Victoria)

- 1 AS1742.7:2016, Manual of uniform traffic control devices, Part 7: Railway crossings.
- 2 Railway Crossing on Side Road.
- 3 Railway Gate on Side Road.
- 4 Railway Crossing.
- 5 Give Way.
- 6 Railway Crossing width marker assembly.

**Train 8070**

Train 8070 was a three-car VLocity set numbered 3VL35, consisting of car 1135 (DMD), 1335 (TM), and 1235 (DM).<sup>7</sup>

In addition to its derailment, the impact with the truck caused damage to the front of the leading car. The laminated safety glass of the windscreen and side windows were shattered, but all windows remained within their frames (Figure 7). The driver’s cab floor was pushed up and the underside of the control desk was deformed.

**Figure 7: Damage to the front of the train**



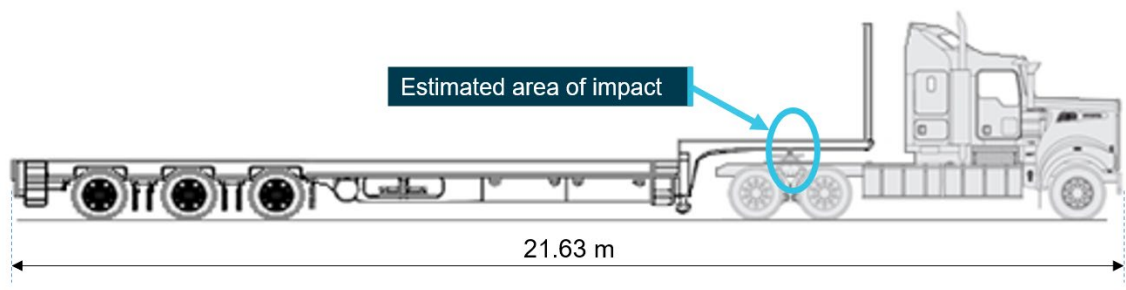
Source: Chief Investigator, Transport Safety (Victoria)

<sup>7</sup> DMD - Driving Motor (Disability toilet), TM - Trailing Motor, DM - Driving Motor

### **The truck**

The truck consisted of a 2013 Kenworth T909 prime mover, coupled to a 45-ft drop-deck semi-trailer (Figure 8).

**Figure 8: Drop-deck semi-trailer**



Source: Chief Investigator, Transport Safety (Victoria)

### **Further investigation**

To date, the ATSB has:

- inspected the location of the occurrence
- examined train operational information
- examined truck operational information
- interviewed a number of parties
- commenced collection of other relevant information

The investigation is continuing and will include review and examination of:

- the arrangements for the use of the Holmes Road level crossing
- the use of the level crossing by property owners
- the operation of the truck and train
- the configuration of the level crossing

Should a critical safety issue be identified during the course of the investigation, the ATSB will immediately notify relevant parties so appropriate and timely safety action can be taken.

A final report will be released at the conclusion of the investigation.



# General details

## Occurrence details

Date and time:	13 July 2022 – 0806 AEST	
Occurrence class:	Serious incident	
Occurrence categories:	Collision	
Location:	North of Goornong, about 33 km from the city of Bendigo, Victoria	
	Latitude: 36° 35.409' S	Longitude: 144° 32.909' E

## Train details

Track operator:	V/Line Corporation	
Train operator:	V/Line Corporation	
Train number:	8070	
Type of operation:	Passenger	
Consist:	VLocity 3VL35, consisting of passenger cars 1135, 1335, and 1235.	
Departure:	Echuca	
Destination:	Melbourne	
Persons on board:	Crew – 2	Passengers – 40
Injuries:	Crew – 1	Passengers – Nil
Damage:	Significant damage to lead car	

## Truck details

Truck prime mover:	2013 Kenworth T909	
Truck semi-trailer:	Drop-deck semi-trailer	
Type of operation:	Haulage	
Departure:	North of Goornong	
Destination:	North of Goornong	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – 1	Passengers – Nil
Damage:	Substantial	