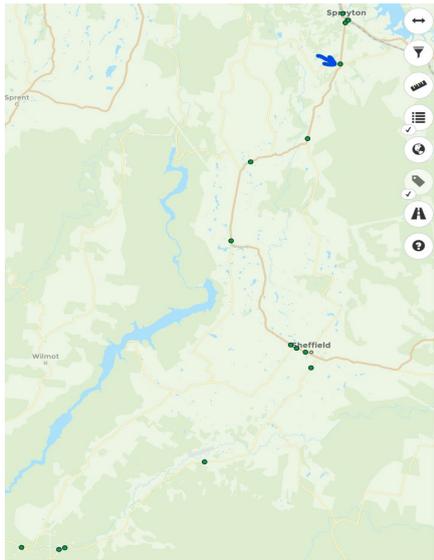


Site Name: A1031110 Site ID: 0000A1031110 Description: Sheffield Main Road 180m N Of Tarleton Rd [UTS L9 6.51 - 7.88]

2018	2018-10-15 to 2018-10-22																
Average Flow	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	TRT	UCV	%HV			
4730	4209	113	320	38	4	6	9	5	19	6	0	0	0	8.6			

**AAADT by Year**

Year	Vehicles
2018	4711



**MADT by Year**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	-	-	-	-	-	-	-	-	-	4717	-	-

Site Name: A1031100 Site ID: 0000A1031100 Description: Sheffield Main Road 185m S Of Mersey MR [UTS L9 7.88 -9.1 ]

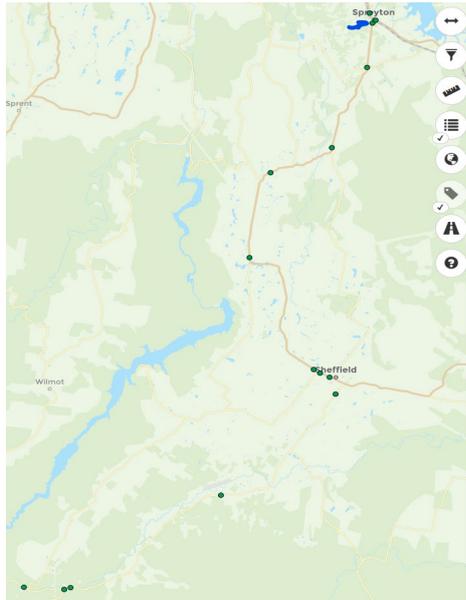
2018 2018-10-15 to 2018-10-22														
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	TRT	UCV	%HV
6550	5818	140	406	73	5	6	10	9	77	6	0	0	0	9

2021 2021-05-18 to 2021-05-25														
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	TRT	UCV	%HV
6783	5921	149	480	96	17	9	16	10	55	14	0	0	0	10.5

**AAADT by Year**

Year	All Vehicles
2018	6512



**MADT by Year**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	-	-	-	-	-	-	-	-	-	6531	-	-
2021	-	-	-	-	6800	-	-	-	-	-	-	-



Site Name: A10 171 Site ID: 0000A10 171 Description: Frank ord Main Road 920m E of Loop Rd (West Junc) [UTS L5 (2.78 - L 21/ 5.5)]

2017 2017-06-01 to 2017-06-07												
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	%HV
1813	1416	63	166	28	28	11	7	14	62	18	0	18.4

2019 2019-05-08 to 2019-05-14												
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	%HV
2030	1621	56	162	27	21	7	6	6	58	35	0	17.4

2021 2019-05-08 to 2019-05-14												
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	%HV
1847	1450	53	153	16	15	4	9	10	99	37	0	18.6

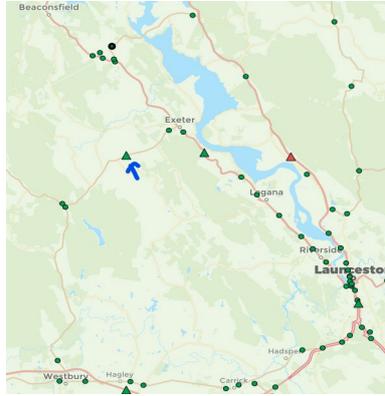
2022 2022-02-01 to 2022-02-28												
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	%HV
2318	1743	104	193	23	23	9	17	12	140	52	0	20.3

AAADT by Year

Year	Vehicles
2013	1789
2014	1725
2015	1857
2016	1755
2017	1970
2018	1983
2019	1985
2020	1779

MADT by Year

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	1974	2029	2075	1919	1751	1615	1654	1710	1855	1843	1998	2026
2017	2139	2149	2147	2058	1844	1804	1740	1788	1877	1980	2088	2027
2018	2133	2151	2104	2040	1895	1830	1769	1793	1866	2022	2078	2101
2019	2274	2239	2219	1976	1865	1827	1831	1824	1776	1839	2004	2030
2020	2029	2066	1856	1152	1421	1667	1795	1696	1791	1862	1969	2019
2021	2016	2097	2067	2030	1886	1800	1798	1817	2067	2168	2203	2232
2022	2209	2318	-	-	-	-	-	-	-	-	-	-



Site Name: A1701110 Site ID: 0000A1701110 Descript on: Birralee Main Road 315m S Of Frankford MR

2016 2016-03-04 to 2016-03-11												
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	%HV
700	507	33	33	19	2	1	2	4	59	38	0	22.8

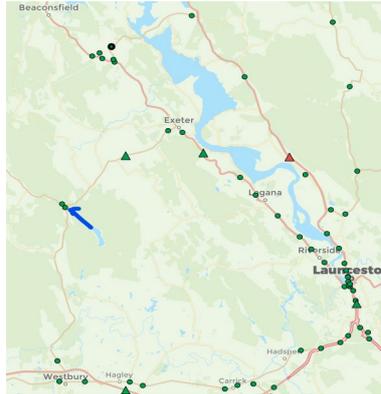
2019 2019-05-03 to 2019-05-10												
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	%HV
700	472	17	73	23	8	1	2	2	65	35	1	30.1

2021 2021-04-22 to 2021-04-29												
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	%HV
736	496	30	62	12	9	4	5	7	70	41	1	28.5

**AAADT by Year**

Year	All Vehicles
2016	654
2019	718



**MADT by Year**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	-	-	688	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	699	-	-	-	-	-	-	-
2021	-	-	-	-	737	-	-	-	-	-	-	-

Site Name: A0087 88 Site ID: 0000A0087 88 Description: Midland Highway 5050m S of Esk MR [UTS L68 2.69 12.05]

2017 2017-02-01 to 2017-02-28															
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	TRT	UCV	%HV	
6505	5101	272	471	52	11	24	48	55	242	227	1	0	0	2	17.4
2017 2017-06-01 to 2017-06-30															
5496	4350	183	391	45	11	15	34	51	291	163	0	0	0	1	17.5
2019 2019-02-01 to 2019-02-28															
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	TRT	UCV	inv/aid	%HV
6480	5045	257	491	51	14	28	48	58	273	213	1	0	0	2	18.2
2019 2019-06-01 to 2019-06-30															
5836	4445	174	419	44	14	17	34	48	240	197	2	0	0	2	18
2021 2021-02-01 to 2021-02-28															
average Flo	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT	TRT	UCV	inv/aid	%HV
6539	4966	253	590	57	17	31	58	52	295	204	13	0	0	1	20.2
2021 2021-06-01 to 2021-06-30															
6353	4895	188	599	66	19	23	47	51	295	196	14	0	0	1	20

**AADT by Year**

Year	All Vehicles
2016	5781
2017	5950
2018	5953
2019	6101
2020	5384

**MADT by Year**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	-	-	6387	5804	5555	5261	5425	5182	5698	5631	6008	4916
2017	6446	6505	6289	6165	5616	5492	5377	5351	5714	5905	6159	6351
2018	6465	6405	6405	6170	5813	5538	5503	5387	5729	5608	5867	6035
2019	6485	6480	6298	6188	5879	5649	5688	5552	5837	6106	6548	6568
2020	6805	6589	5110	2402	3207	4528	5599	5196	5644	6275	6208	6516
2021	6794	6539	6957	7065	6452	6359	6325	6093	6425	6152	6477	6781





Comments

PBS Limits				
	1	2	3	4
Stability %	≥ 15	12	10	5
Gradeability (A) %	≥ 20	15	12	8
Gradeability (B) km/h	≥ 80	70	70	60
Acceleration Capability s	≤ 20	23	26	29
Tracking Ability on a Straight Path m	≤ 2.9	3	3.1	3.3
Low-Speed Swept Path m	≤ 7.4	8.7	10.6	13.7
Frontal Swing m	≤ 0.85	0.85	0.85	0.85
MDO m	≤ 0.4	0.4	0.4	0.4
DOM m	≤ 0.2	0.2	0.2	0.2
Tail Swing m	≤ 0.3	0.35	0.35	0.5
Steer-Type Friction Demand %	≤ 80	80	80	80
Stair Rollover Threshold (Worst) g	≥ 0.35	0.35	0.35	0.35
Stair Rollover Threshold (Last unit) g	≥ 0.35	0.35	0.35	0.35
Rearward Amplification	≤ 5.7 x SRT	0.35	0.35	0.35
High-Speed Transient Offtracking m	≤ 0.6	0.8	1	1.2
Yaw Damping Coefficient	≥ 0.15	0.15	0.15	0.15

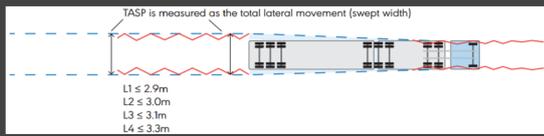
Frontal Swing limit for buses 1.5m  
SRT limit for Dangerous Goods vehicles 0.4g

Tracking Ability on a Straight Path (TASP)

TASP is the ability of the trailing units to follow along the same path as the hauling unit.

TASP is measured as the total swept width while travelling on a straight path, including any variations due to cross fall, road surface unevenness and driver steering activity. Each trailer in a combination will undergo small lateral deviations from the path of its lead unit as it responds to the driver's steering actions, road surface unevenness and other external disturbances. TASP is a practical requirement and necessary for safe operation.

The primary purpose of measuring and controlling tracking ability is to manage safety risks associated with the vehicle's ability to remain within its traffic lane when travelling at high speed on straight roads with uneven surfaces.

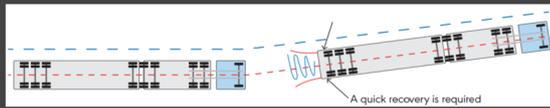


Yaw Damping Coefficient

The Yaw Damping Coefficient quantifies how quickly 'sway', or yaw oscillations settle after application of a short duration steer input at the hauling unit.

An important consideration in the stability and handling of heavy vehicles is how quickly swing or sway oscillations take to 'settle down' or decay after a severe manoeuvre has been performed. Vehicles that take a long time to settle represent a higher safety risk to other road users and to the driver.

The primary purpose of this standard is to manage safety risks by requiring acceptable attenuation of any yaw oscillations of articulated PBS vehicles.

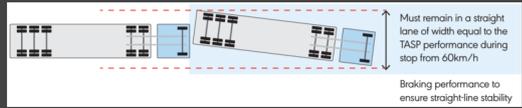


Directional Stability Under Braking

The purpose of the directional stability standard is to manage the safety risk of vehicle instability when braking in a turn or on pavement cross slopes.

A vehicle must not exhibit gross wheel lock-up behaviour in any loading condition and must remain in a straight lane of width equal to that specified in the standard 'Tracking Ability on a Straight Path' for the corresponding level of operation when it is braked from 60 km/h.

Compliance with this standard is achieved through 'deemed-to-comply provisions' (e.g. a vehicle that has a functioning anti-lock or a load proportioning brake system that effectively prevents gross wheel lock-up on each axle group is deemed to comply with the standard).

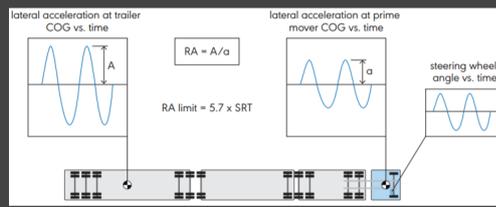


Rearward Amplification (RA)

RA is the degree to which the lateral acceleration of the hauling unit is amplified compared to the rear unit of the combination.

RA generally relates to heavy vehicles with more than one articulation point, such as truck trailers and road train combinations. These vehicles exhibit a tendency for the trailing unit/s to experience higher levels of lateral acceleration (sway) than the hauling unit. The amount of sway exhibited by the trailing units is a serious safety concern in rapid path-change manoeuvres and can lead to rear-trailer rollover.

The primary purpose of this standard is to manage safety risks by limiting the lateral directional response of multi-articulated PBS vehicles in avoidance manoeuvres performed at highway speeds without braking.

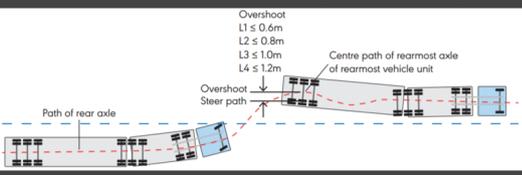


High Speed Transient Offtracking (HSTO)

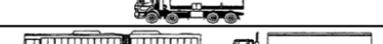
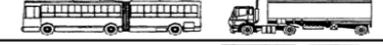
HSTO is the distance that the last axle on the rearmost trailer tracks outside the path of the steer axle in a sudden evasive manoeuvre.

In a sudden evasive manoeuvre, the sideways movement of the rear end of a vehicle may extend beyond or 'overshoot' that of the hauling unit. The amount of HSTO overshoot can be viewed as an indication of the severity of intrusion into an adjacent or opposing lane, striking a kerb or dropping off the road seal (thus precipitating rollover), or collision with a roadside object.

The primary purpose of this standard is to manage safety risks by limiting the sway of the rearmost trailers of multi-articulated PBS vehicles in avoidance manoeuvres performed at highway speeds without braking.



## AUSTRROADS Vehicle Classification System

Level 1	Level 2		Level 3	AUSTRROADS Classification				
Length (indicative)	Axles and Axle Groups		Vehicle Type					
Type	Axles	Groups	Typical Description	Class	Parameters	Typical Configuration		
Short up to 5.5m		1 or 2	<b>Short</b> Sedan, Wagon, 4WD, Utility, Light Van, Bicycle, Motorcycle, etc	1	$d(1) \leq 3.2m$ and axles = 2			
			<b>Short - Towing</b> Trailer, Caravan, Boat, etc	2	groups = 3 $d(1) \geq 2.1m$ , $d(1) \leq 3.2m$ , $d(2) \geq 2.1m$ and axles = 3, 4 or 5			
Medium 5.5m to 14.5m			<b>HEAVY VEHICLES</b>					
			2	2	<b>Two Axle Truck or Bus</b>	3	$d(1) > 3.2m$ and axles = 2	
			3	2	<b>Three Axle Truck or Bus</b>	4	axles = 3 and groups = 2	
			> 3	2	<b>Four Axle Truck</b>	5	axles > 3 and groups = 2	
Long 11.5m to 19.0m			<b>Three Axle Articulated</b> Three axle articulated vehicle, or Rigid vehicle and trailer	6	$d(1) > 3.2m$ , axles = 3 and groups = 3			
			4	> 2	<b>Four Axle Articulated</b> Four axle articulated vehicle, or Rigid vehicle and trailer	7	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 4 and groups > 2	
			5	> 2	<b>Five Axle Articulated</b> Five axle articulated vehicle, or Rigid vehicle and trailer	8	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 5 and groups > 2	
			$\geq 6$	> 2	<b>Six Axle Articulated</b> Six axle articulated vehicle, or Rigid vehicle and trailer	9	axles = 6 and groups > 2 or axles > 6 and groups = 3	
Medium Combination 17.5m to 36.5m			<b>B Double</b> B Double, or Heavy truck and trailer	10	groups = 4 and axles > 6			
			> 6	5 or 6	<b>Double Road Train</b> Double road train, or Medium articulated vehicle and one dog trailer (M.A.D.)	11	groups = 5 or 6 and axles > 6	
Large Combination Over 33.0m			<b>Triple Road Train</b> Triple road train, or Heavy truck and three trailers	12	groups > 6 and axles > 6			

**Definitions:**  
 Group: Axle group, where adjacent axles are less than 2.1m apart  
 Groups: Number of axle groups  
 Axles: Number of axles (maximum axle spacing of 10.0m)

$d(1)$ : Distance between first and second axle  
 $d(2)$ : Distance between second and third axle

Department of State Growth

22 DEC 2021

Folder No: 040314

Document No: 021/341066

Mr Gary Swain  
Commissioner for Transport Tasmania  
GPO Box 536  
Hobart Tas 7001

An open letter requesting safety changes to Birralelee Rd and related traffic movements.

Dear Mr Swain

I am writing in regard to safety on Birralelee Rd. The Birralelee Rd corridor has long been considered as safety deficient.

It's basically a route that would have been used by horse and cart originally. Yet, due to an unfortunate historical anomaly, has been nominated as a freight corridor, and somewhat perplexingly, as a route suitable for PBS/HPV heavy vehicles with greater length and mass.

Birralelee Rd does not have the features that would be expected on such a corridor, and is not in alignment with what would be expected under the "Safe System" approach. I am not sure of its Star Rating under AusRap, but my understanding is that it would not be in alignment with Austroads contemporary guides. My understanding is that it was considered some years back as meeting a "Tasmanian Standard", whatever that means, but I am unsure what that means.

There continues to be numerous unsafe incidents along the corridor, and some of these are now recorded by visual electronic means, by regular road users. I have been put at great risk, along with a passenger, on a number of occasions, despite only using the road perhaps once per month. I have also witnessed reckless behaviour by other motorists, and have been given reliable reports of other such incidents involving near-misses. Any of these incidents could have resulted in crashes, with adverse outcomes of death or serious injury, so that is all unacceptable.

The situation with Birralelee Road is already unacceptable. However, the planned development of a Northern Prison on the corridor, along with developments at Bell Bay industrial area, will exacerbate the situation with additional traffic leading to higher incident and risk levels.

There is no evidence that the planned upgrades of the corridor will be adequate to align the road with Safe System expectations. In fact, it seems clear that the additional traffic during prison construction will happen at the same time as the roadworks for the upgrades. And even with road upgrades, that will not meet the tenets aka key "pillars" of The safe System approach, without other safety actions being put into place.

It is for all those reasons, that I make the following requests of you, as Transport Commissioner:

1. Birralelee Road be speed limited to 80 kph as a matter of urgency, within the first month of 2022

2. Additional high-viz warning signs, and a 40kph speed limit for trucks (and buses) be put in place before the downhill approach to Egmont Bridge (heading towards Westbury) as a matter of urgency, with the first month of 2022
3. All side roads that connect to the corridor be audited, and advance warning signs of the junction with the Birralelee corridor be put in place by the first two months of 2022
4. Point to Point cameras be put in place along the corridor at each end, by the 3<sup>rd</sup> month of 2022.
5. Redirect as much freight traffic as possible, off the Birralelee Corridor, and onto the East Tamar Highway at least until Birralelee Road is upgraded to 4 Star Ausrap standard, and after the Northern Prison is constructed on Birralelee Rd. This redirection to begin taking place, within the first three months of 2022.
6. Redirect as much freight traffic as possible, from an intermodal exchange at Bell Bay, onto Tasrail for on-forwarding to Devonport/Burnie/Hobart, within the first 6 months of 2022.

All of these moves would assist to reduce risk along the Birralelee Rd corridor.

If you do not have the authority to implement any of these changes, can you tell me who does have that authority.

And if you choose not to implement any of the changes, but have the authority, can you please provide detailed reasons for your decision.

Thank you very much. I look forward to your response at your earliest convenience, and I would like to take the opportunity to wish you the best for Christmas and New Year, for your staff and family.

Yours sincerely

s36

s36

20<sup>th</sup> December 2021

**From:** s36  
**To:** [Transport Commission](#)  
**Subject:** Attached letter to Commissioner for Transport  
**Date:** Friday, 18 February 2022 11:32:48 AM  
**Attachments:** [BRW5CEA1DA2139C\\_009507.pdf](#)

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Mr Gary Swain  
Commissioner for Transport  
GPO Box 536  
Hobart Tas 7001

Good Morning

Attached please find a scanned letter from me to you, re Birralee Rd, with requests for various safety interventions.

I originally sent this in form a snail mail (posted letter) on 20/12/2021. I did send again last week, after not having a response.

However, I've become aware that a number of letters I have sent to various bodies, have not been received by the addressees, so I am now sending this by email.

I would really appreciate an email reply just acknowledging you have received this, please. I appreciate it will need to then go through due process before you can give a full response.

Thanks in anticipation

s36  
[Redacted]  
[Redacted]  
[Redacted]  
[Redacted]

Sent from [Mail](#) for Windows

**From:** [Transport Commission](#)  
**To:** s36  
**Subject:** RE: Attached letter to Commissioner for Transport  
**Date:** Tuesday, 22 February 2022 10:02:00 AM  
**Attachments:** [Birralee Road - Road safety and traffic movement concerns - Response to s 36](#) PDF

---

Good Morning s36

Thank you for your email.

I can confirm that both letters were received and a response was posted to you on 11 February 2022.

I have attached a copy for your reference.

Kind regards

s36  
Transport Commission | Department of State Growth  
4 Salamanca Place TAS 7000 | GPO Box 536, Hobart TAS 7001  
s36  
[www.stategrowth.tas.gov.au](http://www.stategrowth.tas.gov.au)

out of scope

# Department of State Growth

STATE ROADS DIVISION

GPO Box 536, Hobart TAS 7001 Australia

s36

@stategrowth.tas.gov.au Web www.stategrowth.tas.gov.au

Our Ref: D21/341066



Mr s36

## RE: BIRRALEE ROAD - ROAD SAFETY AND TRAFFIC MOVEMENT CONCERNS

Dear s36

I refer to your letter of 20 December 2021 to the Commissioner for Transport regarding your concerns with road safety and traffic movement on Birralelee Road between Westbury and Frankford Road. As Birralelee Road is a State road, owned and managed by the Department of State Growth, the Commissioner has asked that I respond to you directly.

As you are aware, Birralelee Road does carry a significant amount of heavy vehicle traffic. The road forms part of the important Category 2 freight corridor comprising Birralelee Road itself, sections of Frankford Road and West Tamar Highway, and the Batman Highway. This key link between the North West region and Bell Bay provides for direct freight movement without the need to pass through the Launceston city centre.

While it is understood there can often be apprehension between general road users and heavy vehicles, this is a common occurrence across the entire rural road network and generally operates safely even where there are constrained road alignments and widths. Redirecting freight traffic to other routes may result in undesirable outcomes such as additional heavy vehicles mixing with higher numbers of vulnerable road users in urban areas.

It is noted that there have been 42 police reported crashes on Birralelee Road in the last 10 years. Of these, only five crashes included a heavy vehicle, and all of these, except one, were single vehicle run-off road type incidents not involving other road users. The overall crash rate is not elevated in comparison to other roads with similar traffic function and volume.

The AusRAP star rating system is a consideration in developing road safety improvement treatments. However, there has been no rating assessment undertaken on any State roads other than those that form part of the National Highway network e.g. Midland Highway, Bass Highway and East Tamar Highway. Achieving a 4 Star rating generally requires separated carriageways, consistent road alignments, very wide sealed shoulders and grade separated intersections which is unrealistic for most of the Tasmanian road network.

Recognising the important freight function of Birralelee Road, the Department is progressing design work for road improvements along the route as part of the broader Northern Roads Package. These works will include wider traffic lanes, sealed shoulders, removing roadside hazards or shielding them with barriers and enhanced delineation treatments. Key intersections along the route will also be improved to contemporary standards with appropriate turning facilities. This will deliver users with a safe and efficient road and help meet current and future heavy vehicle needs. Construction commenced last year on the Batman Highway and the upgrades will progressively continue along Frankford Road and then Birralelee Road, with completion expected by 2024.

With respect to the speed limit, the road is essentially rural in nature with sparse direct access. This aligns with the provision of the rural default speed limit under the Tasmanian Speed Zoning Guidelines and the Department would be unable to provide justification for recommending a lower speed limit to the Transport Commissioner for approval. Additionally, the provision of lower speed limits for isolated road geometry constraints is not supported and it is noted the Egmont Bridge already has large advisory speed style signs on the approaches.

It is understood the use of point-to-point speed enforcement is being investigated by Tasmania Police in conjunction with the Department's Road Safety area, however this is more for road segments of considerably longer length than Birralee Road. The reintroduction of temporary speed enforcement devices is also being looked at in the immediate future and these may be appropriate for targeted locations where there are reported instances of regular non-compliance.

I note that no decision has been made on the location of a Northern Prison. The Department reviews any development proposals that affect the State road network and works with proponents to ensure any access or traffic related impacts are appropriately addressed and managed.

I trust this clarifies the matters you have raised.

Yours sincerely

s36



s 36



11 February 2022

**From:** s36 [redacted]  
[redacted]  
**Cc:** [State Roads Programming Team](#); s36 [redacted]  
**Subject:** Public Works Committee report - Northern Roads Package  
**Date:** Thursday, 16 September 2021 11:13:58 AM  
**Attachments:** [Northern Roads Package-final report.pdf](#)

---

Good morning s36 [redacted],

Please find attached the Public Works Committee Report approving the Northern Roads Package, which was tabled in the House of Assembly this morning.

Kind regards,

s36 [redacted]

**Parliamentary Officer**

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PARLIAMENT OF TASMANIA

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

# Northern Roads Package

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*Brought up by Mr Ellis and ordered by the House of Assembly to be printed.*

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## MEMBERS OF THE COMMITTEE

Legislative Council

House of Assembly

*Ms Rattray (Deputy Chair)*

*Mr Valentine (Chair)*

*Ms Butler*

*Mr Ellis*

*Mr Tucker*

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## 1 INTRODUCTION

The Committee has the honour to report to the House of Assembly in accordance with the provisions of the *Public Works Committee Act 1914* on the -

### Northern Roads Package

## 2 BACKGROUND

- 2.1 This reference recommended the Committee approve the Northern Roads Package which involves upgrading an existing road corridor and focuses on safety and travel time efficiency improvements. The proposed works involve upgrade works on sections of Birralee Road, Frankford Road and the Batman Highway, with the aim of improving road safety for all users and increasing freight productivity.
- 2.2 The Batman Highway – Frankford Road - Birralee Road corridor has been identified as a key regional freight route. It provides a strategic connection between the north east and north west of Tasmania. The roads included in the Package all have a significant percentage of heavy vehicles in their daily traffic volumes. The Batman Highway has an approximate traffic volume of 2,500 vehicles per day with 21 percent heavy vehicles. Frankford and Birralee Roads have traffic volumes of approximately 1,800 and 842 vehicles per day, respectively and both have in excess of 20 percent heavy vehicles daily.
- 2.3 Currently, however, many heavy vehicle operators travelling between the industrial and port precinct of Bell Bay and the Bass Highway travel via Launceston, rather than the more direct route via the Batman Highway, Frankford Main Road and Birralee Main Road. Through industry consultation, the Department of State Growth has determined this is primarily due to the safety concerns of operators travelling on these roads. The safety concerns arise from a number of factors including insufficient sealed pavement width, lack of overtaking opportunities or turn-out bays, and poor pavement quality.
- 2.4 Appropriate upgrades have been identified along the corridor to address these safety concerns and to improve safety for all road users. The measures include road widening, pavement strengthening and localised curve improvements on specific sections of the Batman Highway, Frankford Main Road, and Birralee Road. A heavy vehicle rest area is also being incorporated at Sidmouth Hall. These measures will enable the corridor to cater for an anticipated increase in heavy vehicle movements supporting business and industry and to improve safety outcomes for all road users.
- 2.5 The Northern Roads Package is expected to deliver the following benefits:
- safety improvements for all road users travelling on the Batman Highway, Frankford Main Road, and Birralee Road corridor, including a reduction in crashes;
  - improved access for freight vehicles using this route;

- freight operational cost savings due to;
  - shorter trips;
  - reductions in travel time;
  - reduced vehicle maintenance costs; and
  - enabling use of higher productivity vehicles;
- time savings for all vehicles and occupant types;
- lower road maintenance costs; and
- a reduction in the number of heavy vehicles travelling through the Launceston Central Business District (CBD), and therefore a reduction in traffic congestion.

### 3 PROJECT COSTS

3.1 Pursuant to the Message from Her Excellency the Governor-in-Council, the estimated cost of the work is \$50 million.

The following table details the current project cost estimates and have been prepared on concept design and option analysis information.

	P50 (\$m AUD)	P90 (\$m AUD)
<b>Base Cost Estimate</b>	38.4	38.4
<b>Contingency</b>	5.4	9.0
<b>Total Project Cost Estimate</b>	43.8	47.4
<b>Escalation</b>	0.5	1
<b>Total Outturn Cost Estimate</b>	44.3	48.4

## 4 EVIDENCE

4.1 The Committee commenced its inquiry on Tuesday, 3 August last with an inspection of the various locations the proposed works will be undertaken. The Committee then returned to the Committee Room, Henty House, whereupon the following witnesses appeared, made the Statutory Declaration and were examined by the Committee in public:

- Robyn Hawkins, Project Manager, Department of State Growth;
- Sven Meyer, Project Management Team Leader, Department of State Growth;
- Jane Hicks, Manager Transport Network Planning, Department of State Growth;
- Elizabeth Skirving, CEO Rural Business Tasmania.

The following Committee Members were present:

- Hon Tania Rattray MLC (Deputy-Chair);
- Ms Jen Butler MP;
- Mr Felix Ellis MP; and
- Mr John Tucker MP.

### Overview

4.2 Ms Hawkins provided an overview of the proposed works:

*Ms HAWKINS - ... Today we are seeking approval for the Northern Roads Package which consists of three roads: Birralelee Road between the Bass Highway and Frankford Main Road, approximately 18.49 kilometres in length; Frankford Main Road between Birralelee Road and the West Tamar Highway, approximately 13.53 kilometres in length; the Batman Highway between the West Tamar Highway and East Tamar Highway, approximately 10.87 kilometres in length, noting that the 5.5-kilometre section between the Batman Bridge and the East Tamar Highway commenced in early 2021. The total corridor length is 42.89 kilometres.*

*The Northern Roads package is a road upgrade aimed at increasing freight productivity and road safety for all road users. The Tasmanian Integrated Freight Strategy released in 2016 identified the Batman, Frankford, Birralelee Road corridor as a key regional freight route. It is a strategic connection between the north-east and north-west of Tasmania.*

*In April 2019, the Australian Government committed \$24 million to upgrade Birralelee Road from the Roads of Strategic Importance or ROSI initiative. In order to maximise the benefit and consistent with the 2016 Tasmanian Integrated Freight Strategy, the scope of the original Birralelee Main Road commitment was increased to include the Batman Highway and the connecting section of Frankford Road. The roads included in this package all have a significant percentage of heavy vehicles in their daily traffic volumes. The Batman Highway has approximately 2500 vehicles per day with 21 per cent heavy vehicles. Frankford and Birralelee Roads have traffic volumes of approximately 1800 and 842 vehicles per day respectively and both have in excess of 20 per cent heavy vehicles daily.*

*The recorded crash history for the Northern Roads corridor has been obtained for the last 10 years as part of project development and investigations and is as follows: 27 crashes on the Batman Highway, 37 crashes on Frankford Main Road, 34 crashes on Birralelee Road, including one fatality. The proposed improvements for this project include road widening, pavement*

strengthening and localise curb improvements for the Batman Highway, Frankford Main Road and Birralelee Road to enable the corridor to cater for increased heavy vehicles movements, supporting business and industry and to improve safety for all road users.

A heavy vehicle rest area is also being incorporated at Sidmouth hall. The Northern Roads Package will effectively open a shorter freight route in the north of Tasmania, especially providing freight vehicles a more efficient route. Non-freight vehicles will also benefit from the improved route. Major benefits include: freight operational cost savings; shorter trips and the enabling of higher productivity vehicles; time savings for all vehicles and occupant types; crash reductions and safety improvements; environmental benefits; reduced greenhouse emissions due to fuel savings and lower maintenance costs.

In terms of cost, the total project excluding the Batman Highway east of the bridge is forecast to cost \$50 million dollars at a P50 value for the corridor. Costs for the proposed improvements - based on estimates - are consistent with similar projects recently completed on a per kilometre basis. Once delivered, road users will see a consistent cross-section on each of the roads with sealed shoulders, pavement strengthening where required and curve widening to improve freight productivity and road safety for all.

The proposed improved widths for each of the roads are as follows: for the Batman Highway is a 3.5 metre lane width with 1 metre sealed shoulder and 0.5 metre unsealed verge. A total seal width of 9 metres. Currently, the average seal width on the Batman Highway is 6.3 metres.

Frankford Main Road will have a 3-metre sealed lane width with a 1 metre sealed shoulder and 0.5 metre unsealed verge. Total seal width is 8 metres. Currently Frankford Road has an average sealed width of around 6.75 metres.

Birralelee Road will have a 3-metre sealed lane width with 1 metre sealed shoulder and 0.5 metre unsealed verge. Total seal width of 8 metres. Currently the average Birralelee Road seal width is 6.1 metres.

Overall we submit this project is an important freight productivity and safety upgrade. The upgrades will provide a consistent traffic lane and shoulder width to improve safety and efficiency and curve widening. It will also provide a heavy vehicle rest area for drivers on the corridor. We have worked with stakeholders and will continue to do so to reduce convenience impacts of the project, both during and after construction.

### **Project Scoping and Concept Design**

4.3 The Committee noted that the project design was not finalised and highlighted how this made it difficult to evaluate a project. The Committee sought to understand why the Department was presenting projects when some or all of the design elements had not been finalised:

**Ms BUTLER** - Just a quick overview question. Is the concept design and scoping for Frankford, Main Road and Birralelee Road complete?

**Ms HAWKINS** - No, it is not at this stage. The concept design is currently being developed.

**Ms BUTLER** - And a subsequent question. You understand as members of the Public Works Committee, we are asked to evaluate whether it is a good use of taxpayer funds, but we do not have the concept design or scoping for those two sections. This leaves us in a difficult situation when trying to make an assessment on whether or not it is a good use of taxpayer funds.

We also had this problem in a recent project we oversaw on Illawarra Road where there was not an actual concept design. Is this going to be a new way information is presented to the Public Works Committee?

**Ms HAWKINS** - I can speak for this project. In terms of what we are actually delivering for Birralee and Frankford Road, whilst yes, we do not have a concept design at this stage, we have given you the typical cross sections of what is intended to be provided and it demonstrates a significant improvement of both freight productivity and safety. Whilst it is not at concept design stage it certainly does demonstrate what is to be provided.

**Mr MEYER** - For the last two or three years, State Roads has been actively progressing an accelerated infrastructure program. COVID-19 made that even more accelerated. A lot of these large projects are programmed and packages of works. That is why we do not necessarily have the whole program designed. We try to work through the concepts and the program delivery. At each tender season we try to release tender packages in May-June for delivering works that summer and would work up the physical components of the program to get a package of work out. We have changed how things might have been delivered five or ten years ago.

### **Cost Estimates and Project Funding**

4.4 The Committee understood the overall budget for the project was \$50 million, and also noted the p50 and p90 estimates for the project which were \$44.3 million and \$48.4 million respectively. The Committee sought further detail on these estimates and how they are used in scoping and designing the project:

**DEPUTY CHAIR** - ... .. Moving on to the really important one, which is Project Costs, 3.1, the overall project cost summary table. We do have a table and this is always the interesting one, about P50 and P90. So, I think it would be good to have that on the public record again, that difference in costings.

**Ms HAWKINS** - Yes, so basically the project funding that we have is to P50 level and we have an opportunity to request P90 funding from the Australian Government, if needed. So, we are essentially working to the P50 at the moment.

**DEPUTY CHAIR** - So, that request to go to the P90 and those additional funds from the Commonwealth. Would that be in the design stage or is it when you get into the work and then you realise that, gosh, you know, we had an assessment on that piece of pavement but that's not going to cut the mustard here and we need to upgrade? When do you decide, when do you make that decision?

**Mr MEYER** - Yes, the project is designed to the P50 and the further you go through a design phase the less contingency you have and the more accurate you are in your costings and then once you receive the tenders you have the final costs. The aim is to have all tenders delivered within the P50 budget. So, the P90 budget is the ultimate government commitment of ... funds that you might use for a project. So, generally you wouldn't access anything between P50 and P90 unless it was during construction and there was some major issue, it could be a latent condition, like it could be rock or some other aspect that no-one was aware of during the design phase that arises only during construction. And so once -

**DEPUTY CHAIR** - I think we would have noticed a bit of rock around.

**Mr MEYER** - Yes, so once you've exhausted the P50 -

**Ms BUTLER** - The dolomite.

**Mr MEYER** - You then have to seek the use of additional funds to the P90.

**DEPUTY CHAIR** - So, drilling down into those figures, it's \$44.3 million. It says, total out turn cost estimate and then it goes on to the P90 is \$48.4. So, am I to take it that these figures are just a tad out of date?

**Ms HAWKINS** - As I said, we're still working through the concept design. Obviously, we've got to work to the P50 in terms of the design.

**DEPUTY CHAIR** - Which is around \$50 million?

**Ms HAWKINS** - Fifty million is ... .. the P90.

**Mr MEYER** - So, the P50 budget is the estimate and then within the estimate there are risks identified and one risk, as an example may be a latent condition for rock. So, then they go through a risk profile assessment to work out how much would that rock potentially cost and you get an upper and a lower limit. We do that for all the risks and then the end outcome for the upper and lower limit, in this case of \$48.4. So, it is not, I guess you could go to 50, but it is based on a risk assessment process. So, it generally comes close to the ultimate budget, but not necessarily on the same dollar figure.

- 4.5 The Committee was interested to understand the process should the project require an additional commitment funds, how this might be accessed and whether this would cause any delays:

**DEPUTY CHAIR** - So, if you have to put in a request for additional funding to the Commonwealth, how long does that normally take? Does it hold up the project, if you like? Would that hold up a project or would the state just go ahead and have the request sitting there with the Commonwealth and just hope that, or just wait for the additional funding to be provided?

**Mr MEYER** - Yes, the Commonwealth does a commitment of funds. To access that you generally have to write ... .. a good submission to justify why you need to access those funds. There is no set time frame for how long it takes to access the additional funds.

**Ms HICKS** - But it is something that we look at as soon as possible and it runs concurrently while the project is going if we identify. It is not something that would stop the project.

**DEPUTY CHAIR** - Would it not stall a project?

**Ms HICKS** - Not unless it is absolutely unforeseen.

**DEPUTY CHAIR** - That was really what I was looking at, the answer. It is not going to hold it up, that it will not commence.

**Ms HICKS** - No, and we meet regularly with the Australian Government and give them updates on the projects and what milestones they are hitting. So, they are aware of where is it at and what is happening, so they are along for the journey as well... ..So, if there are issues identified, they are aware of those as we move along.

### **Use as a Freight Route**

- 4.6 The Committee noted a key driver of the Northern Roads package was to increase the use of the corridor as a freight route rather than heavy vehicles traveling through Launceston, and sought to understand why this was important:

**Mr ELLIS** - ... .. In a broader overview question, would you be able to give us a sense of who the road users of this corridor might be and why they might choose to go through this road rather than, for example, on the Tamar Highway?

**Ms HAWKINS** - Basically, as part of the Tasmanian Integrated Freight Strategy, it was identified as a more efficient link between western Tasmania to eastern Tasmania, to Bell Bay. There was an opportunity in terms of improving the roads to open up an alternate route other than going through Launceston.

**Mr ELLIS** - Maybe someone like, for example, a pine plantation or a log truck driver might take that from the north-west through to Timberlink at Bell Bay?

**Ms HAWKINS** - Yes. I cannot speak to exact users but certainly from our site visits and the information we have on the percentage of heavy vehicles, logging trucks and movements are a significant component of that heavy vehicle traffic.

**Mr ELLIS** -.... My reading of the two alternative routes going down the East Tamar or alternatively through this highway has it about 14 kilometres shorter going through Birralee Road and across the Batman Bridge. One of the interesting things, currently it goes through the East Tamar Highway, goes straight through Launceston, we pick up a number of traffic lights going through there and increased, say, peak hour congestion, as opposed to the other road which would have zero traffic lights -

**Ms HAWKINS** - Yes.

**Mr ELLIS** - - and probably unlikely to have any congestion?

**Ms HAWKINS** - Yes, so I guess that travel time would be dependent on time of the day as well in terms of peak hour, that kind of thing.

**Mr ELLIS** - So, this would give operators more consistency and certainty about road conditions and traffic conditions?

**Ms HICKS** - In the original scoping one of the benefits that was identified was that it would decrease the number of heavy vehicles travelling through Launceston, which of course would have impacts upon congestion, but also amenity.

**Mr TUCKER** - And safety as well.

**Ms HICKS** - And safety, exactly. Less interaction.

- 4.7 The Committee understood that Birralee Road may have previously been identified as having safety deficiencies. The Committee sought an explanation on the appropriateness, from a safety perspective, of using Birralee Road as a high productivity freight route:

**Ms BUTLER** - I have a question on the Birralee Road section again. Birralee Road was addressed as safety deficient by DIER in 2010, although it is now the preferred route for freight vehicles, including high productivity vehicles. At the moment, does it meet the national standard for HPVs [High Productivity Vehicles]?

**Ms HAWKINS** - I believe the national standard is not relevant to this road because it is not part of the national network.

**Ms BUTLER** - It does meet the State Growth's own guidelines for road geometry for HPVs?

**Ms HAWKINS** - It does.

**Ms BUTLER** - Is there much of a difference between the national standard and the state standard?

**Ms HICKS** - ... .. The national highway standard is usually an AusRAP 3, which is a mixture. You put into a box all the different parameters and it gives you an AusRAP star standard according to sight distance, width, use of the road and so forth. The roads are designed and have specifications according to their category. We have our road categories that talk about what the road is used for and the amount of vehicles per day on that road.

**Ms BUTLER** - Will the upgrade of this road make it safer for those vehicles? Could you explain some of the improvements that will be leading to it being a safer road?

**Ms HAWKINS** - It is known that by providing sealed shoulders it is a demonstrable safety improvement in that it gives vehicles an opportunity to recover if they happen to drift out of the lane. It reduces run-off road crashes. There is a demonstrated safety benefit in the shoulders.

From a maintenance point of view also, the increased lane width and the shoulders mean that you see less things like edge break-up from having heavy vehicles running along the edge of the seal.

**Ms BUTLER** - I am a bit stuck on the fact that DIER stated in 2010 that Birralea Road they say was safety deficient. It is now not seen as safety deficient. I am concerned about whether or not these improvements would still make it appropriate for those heavy vehicles to be using it.

**Mr MEYER** - A lot of these larger projects do have a long duration in planning. I was not actually aware of that statement but it makes logical sense then if in 2010 this was identified that it sometimes can take 10 years to progress through the planning and to secure funding commitments from the Tasmanian and Australian governments and for everything to come together to bring the projects to fruition.

Even though it was identified as a heavy vehicle freight route it does not necessarily mean that it was suitable for all heavy vehicles and I guess that statement you mentioned identified some of the deficiencies which this project will rectify.

**Mr ELLIS** – ... If a road is regarded as safety deficient, would you then have a safety upgrade to make it safety sufficient? That is sort of a point of what we are doing.

**Ms HICKS** - Safety is the underlying intent of this road and heavy vehicles are secondary.

**Ms HAWKINS** - But definitely too, the freight context for this project or this package of work is about making it efficient for the larger vehicles but also improving safety. That safety upgrade has got to be in the context of available funding as well.

## **Heavy Vehicle Rest Areas**

4.8 The Committee noted the project would provide 1 formal heavy vehicle rest area in each direction, with one of these located approximately 80 metres northeast of the Sidmouth General Store, and which would replace the informal rest area directly outside the General Store. The Committee sought an explanation from the Department's witnesses on why this location was chosen in preference to formalising the current informal rest area directly outside the General Store:

**DEPUTY CHAIR** - Part of this project, there is a heavy vehicle rest area, there are actually two in this section, aren't there? It is not just one. There is one on the same side as the Sidmouth Memorial Hall, then one on the opposite side further down, closer to the Batman Bridge. Is that correct?

**Ms HAWKINS** - No, the only heavy vehicle rest area that has been provided as part of this project is at Sidmouth hall. It is providing a parking area in both directions. .... It is considered to be one, east and west.

**DEPUTY CHAIR** - .... When that was identified as a need, has it been identified as a sleepover area, if you like, or is it more just a pit stop, like a rest area, a coffee and across the road to the hall for conveniences? I want to understand how that rest area, one either side of the road, was arrived at?

**Ms HAWKINS** - I believe the purpose of the rest area is to provide drivers with an opportunity to use facilities, for meal breaks and that kind of thing. It is more short term rather than long term.

**DEPUTY CHAIR** – .... There are already what we would probably refer to as informal areas where heavy vehicles, particularly heavy vehicles, stop around the Sidmouth shop. There is one that is quite functional at this point in time, but that is not where the formal proposed rest area is going to be. Can we have the rationale behind that, thank you?

**Ms HAWKINS** - Certainly. The design of the heavy vehicle rest area took into consideration the number of vehicles that we would need to accommodate, as in being parked on both

directions, east bound and west bound. It took into consideration sight distances for property accesses, including the store and the community hall.

Given the size of the vehicle, the parking areas were positioned to ensure that there was sufficient sight distance for people exiting those driveways, so that they could safely do so, considering the road environment at that location and the speed environment as well. To facilitate drivers' access, there is provision for drivers to walk on the passenger side of their vehicle to access both the store and the facilities.

### **Pavement Improvements**

4.9 The Committee noted that pavement improvements may be needed and sought to understand if this could be integrated with planned maintenance to ensure it was undertaken in a cost effective and timely manner:

**DEPUTY CHAIR** - One of the questions I asked when we stopped at the exit of the Visitor Information Centre related to some of the poor quality of existing road pavement and how the Department sees that as being part of an upgraded integrated approach. I would be pleased to have the response you gave me at Exeter on the record.

**Ms HAWKINS** - Sure. Part of the design development has included pavement investigations. We are looking at existing pavement strength and we are undertaking things like deflectograph and test pitting to examine the quality of the existing pavement. As the concept design is worked through we will look at widening in any areas that may need pavement strengthening as well.

**DEPUTY CHAIR** - That, in itself, could cause the project to go over its budget? Would that be fair to say?

**Ms HAWKINS** - Potentially, but there are opportunities to look at ways that we can address any pavement issues. That will be formed as part of the concept design and as it is worked through.

**DEPUTY CHAIR** - In saying that, does that mean that there could be some shoulder widening taking place? Then you would have to come back at another time and do the strengthening or would it always be done in conjunction with the works being undertaken in that particular area at any given time?

**Ms HAWKINS** - I guess it will be part as we work through the concept design and be able to fulfil the aims of the project within the budget. From a Department point of view, we would also look at opportunities to save costs if any of the roads are included on maintenance schedules.

**Ms HICKS** - We try and integrate where we can any existing known maintenance issues and build them into the project at the same time, so we are not coming back and reworking. Sometimes, if it does not fit within the scope the maintenance budget will cover some of those pavement items and helps us to stay within the budget. We integrate it where we can.

### **Potential Reduction in Maintenance Costs**

4.10 The Committee noted that one of the potential benefits attributed to the project was a reduction in maintenance costs. The Committee sought to understand what type of maintenance costs might reduce and why this might occur:

**Ms BUTLER** - ... .. I have a quick question about the major benefits and the lower maintenance costs. Can you run through or give us some examples of how this infrastructure will reduce maintenance costs?

**Ms HAWKINS** - I previously mentioned, the increased sealed width will mean that you will not have these larger vehicles running on the edge of the seal, which is a saving in terms of edge

break. That is a significant saving considering how wide the seal is at the moment, so if you think about the larger vehicles that are operating on these roads, they would be running quite close to the edge of the seal at the moment. As the committee mentioned, they drove east of the Batman Bridge, you would have seen if you happen to follow a truck or a truck coming the other way, what a difference the increased seal width and the sealed shoulder makes.

**DEPUTY CHAIR** - It means I can give them more room on the road and suits me fine.

**Ms HICKS** - As we discussed, we are also strengthening some of the pavement as we go along, which actually gives the pavement a longer life and another added benefit.

**Mr MEYER** - I am not sure if it relates specifically to this project, but quite often with the freight efficiency route upgrades, lower maintenance costs also relates to the trucks themselves. With a wider cross section they can generally be more efficient in their speed environments. Rather than slam down for corners and those sorts of things, they might be able to sit closer to a consistent speed, which is probably around 90 for those ones.

**DEPUTY CHAIR** - That is reducing the fuel consumption.

**Ms HAWKINS** - And also wear and tear on the pavement itself.

**Mr MEYER** - Freight is looking at a consistent speed environment from A to B as the main driver.

**Ms HICKS** - There is also benefit of when it is wider, of different truck configurations are being used by, say, logging and so forth, that often runs better on the pavement than some of the other configurations.

### **Staging and Traffic Management during Construction**

4.11 The Committee recognised that interruptions to traffic were unavoidable during roadworks. The Committee sought confirmation from the Department's representatives that appropriate measures would be taken to minimise any inconvenience to the travelling public:

**Ms BUTLER** - ... .. Could you run through what the plans are on sequenced works which would make it more user-friendly for vehicles on that road?

**Ms HAWKINS** - In terms of letting tenders and constructions packages, the Department would be looking to consider overall delays for works happening concurrently to try and reduce inconvenience to the travelling public, noting with road works, unfortunately there is some inconvenience which cannot be avoided.

**Ms BUTLER** - There will be public notifications about road changes, won't there?

**Ms HAWKINS** - Definitely. The Department is proactive in terms of keeping the project pages on our website up-to-date and obviously, advertising in the Roadworks Roundup when there are going to be road work, the duration and what the impact is likely to be on the community.

### **Birrilee Road Speed Limit**

4.12 The Committee understood there may have been some discussion amongst the local community about reducing the speed limit on Birrilee Road from the current 100km/h. The Committee sought to understand if the Department had received any feedback from the community about reducing the speed limit and if there was any intention to do so:

**DEPUTY CHAIR** - .....it is guaranteed that the speed limit on the Birrilee Road for all traffic, once these improvements are made, will be at the 100 kilometres per hour? Is that correct? Has there been a conversation around reducing the speed limit on that road?

**Ms HAWKINS** - ..... Not as part of this project but we would be happy to take that on notice to confirm if there have been any other discussions with any different areas of the Department.

**Mr MEYER** - Generally, with highways we don't encourage reduction of speeds for freight routes but during the community consultation phase if that arises as a particular concern then that is something that can be forwarded on to the Transport Commissioner for further review.

**DEPUTY CHAIR** - I certainly understand that there has been a community conversation, amongst the community who drive the road to and from their destinations. I am interested to know.

**Mr MEYER** - I wasn't aware if anything came up in the community consultations. Are you aware, Robyn?

**Ms HAWKINS** - Obviously there was discussions about some of the corners on Birralee Road and the heavy vehicles using them. That was some of the commentary coming back from the community.

### **Stakeholder Consultation**

4.13 The Committee noted the community consultation the Department had undertaken on the project, and sought further information on the consultation process and the feedback that had been received:

**DEPUTY CHAIR** - ..... Stakeholder engagement is one of the most important aspects of any project that we do on behalf of our communities and so, 7.1 is the Public and Stakeholder Participation Consultation. I note from the booklet that was provided that about 47 members of the community attended a session at Sidmouth community hall on their section of the road. Can you talk about that feedback because we don't have any real information about what was said there? You indicated earlier that it was well supported. Also, the Birralee community, about their consultation process.

**Ms HAWKINS** - Yes, the public drop-in session at Sidmouth was for the entire project.

We did have people visit the consultation session from ..... Birralee Road and Frankford Road and the Batman Highway. To support that session we also had two static displays, one at West Tamar Council's offices in Riverside and one at Meander Valley in Westbury, which were up for basically a month. So, it gave an opportunity to people who couldn't actually come in person to the drop-in sessions to provide comment.

Overwhelmingly the feedback that we received from the consultation session and from the consultation more generally is that the community sees this as a worthwhile project.

4.14 The Committee also noted consultation was undertaken with a list of identified key stakeholders, including asset owners with infrastructure located within the project boundaries. The Committee sought further information on how the Department worked with these asset owners to manage the service relocation:

**DEPUTY CHAIR** - Moving onto 7.2 and the stakeholder consultation. There is a significant list there of about 12 including TasWater, Telstra, TasNetworks and the like. So, the engagement with TasNetworks about removing or replacing poles, is that done at the time when you do the design, or have you already had a conversation with them, given that they are part of your stakeholder consultation group?

**Ms HAWKINS** - It needs to be done concurrently with the design. Basically, once the design identifies that there is a need to remove or relocate a service asset, we will contact the service owner and start to discuss how we might do that. Where possible, the design may be adjusted to avoid an impact on services but sometimes that is not possible.

**Ms BUTLER** - ... ..Is there a set timeframe dealing with any other stakeholders from your Department, that each Department has to meet deadlines? Is there a month or is there a two-week kind of deadline? Can things sit in people's in-trays and hold up the process or is there a systems approach?

**Ms HAWKINS** - Yes, it probably varies depending on the activity.

**Mr MEYERS** - ... ..It depends on the authority. Development applications have a set timeframe. TasWater has legislation, they have set timeframes for responses. Not every acquisition has set timeframes.

**Ms HAWKINS** - Sometimes we are a bit reliant on ministerial approval for acquisitions. TasNetworks do their own thing.

**Mr MEYER** - TasNetworks generally do their own thing. They are very responsive. We work quite consensually with TasNetworks.

**Ms BUTLER** - There are no penalties that apply to not meeting deadlines from stakeholders or anything in place?

**Mr MEYERS** - There are no deadlines.

### **Impacts on Adjacent Landowners**

4.15 The Committee had earlier driven along the route of the proposed works and noted that a number of residences were quite close to the road. The Committee was keen to understand how these residences would be impacted by the works and the measures that might be taken to minimise any impacts:

**DEPUTY CHAIR** - ... .. Obviously, that will be a one to one conversation with landowners. I did notice there were quite a few landowners who are very close to the road. I am sure, if you went into their bedroom, you would probably be able to work out how much rumbling was on the road. They were very close. They will need quite a conversation, I expect.

**Ms HAWKINS** - As I mentioned, in terms of the whole road corridor, we have been in contact with every landowner and will continue to do so as the project develops.

**Mr ELLIS** - What sort of property are we talking? Is it likely to be homes or rural properties on their land? What is the typical person we are dealing with in this situation?

**Ms HAWKINS** - The nature of Birralee and Frankford Road, even the Batman Highway, it is not an urban kind of environment. They are typically rural with commercial properties also. There is an orchard on the Batman Highway we have been dealing with as the project has developed. It can vary, and farming.

**Mr MEYERS** - Generally, with these rural types of shoulder-widening projects you are talking about taking maybe five metres off each side.

**DEPUTY CHAIR** - That would put you in a couple of bedrooms in a couple of places.

**Mr MEYER** - We generally avoid houses in these sorts of environments. I am not aware of any house implications.

**Ms HAWKINS** - I am not aware either at the moment. We have opportunity to go to the other side.

### **Drainage Issues**

- 4.16 The Committee understood that drainage issues on the Batman Highway, in particular north of the Sidmouth General Store, had been raised during the community consultation process. The Committee questioned the Departmental representatives on measures that could be taken to mitigate drainage issues:

**DEPUTY CHAIR** - Do you want to talk about the drainage issues ... ..?

**Ms HAWKINS** - Regarding the project on the Batman Highway west of the bridge, and indeed works that we will be doing on Frankford and Berrilee roads, we do consider impacts of the project on drainage and any drainage issues that are happening in the project area. We take them on in terms of the project scope and available budget and the issues that are around to determine if they are included or not.

**DEPUTY CHAIR** - If there is a drainage issue and it is going to compromise the project, then it does not matter how much it costs it is going to have to be addressed, isn't it? Otherwise, the project will not be worthwhile in that particular area.

**Ms HAWKINS** - Yes, that is right.

**DEPUTY CHAIR** - So, you will not make an assessment on whether you can afford it. It would just have to be afforded, wouldn't it?

**Ms HAWKINS** - We would make an assessment of the drainage issue and how we might deal with it.

... .. I guess to add to that are the opportunities that may be available in planned maintenance works and how they may be incorporated into the project.

#### **Matters Raised in Submissions to the Committee on the Northern Roads Package**

- 4.17 Ms Elizabeth Skirving, the Chief Executive Officer of Rural Business Tasmania, made a written submission to the Committee outlining that organisation's concerns, as expressed by local rural communities. These concerns related to ensuring that road upgrades were undertaken in a manner that recognised local needs and practicalities.

- 4.18 The key concern presented was that road upgrade works should ensure that the road pavement has shoulders that are sufficiently wide and flat enough to safely accommodate the movement of large agricultural machinery, to ensure the safe and efficient interaction with other road users. The submission highlighted other recent road upgrades that had upgraded the road pavement, but, while the pavement may also have been widened, the height of the new pavement had resulted in a loss of useable space. This had created a larger drop off at roadside verges, affecting the ability for all vehicles to pullover to the left to accommodate the movement of large machinery:

*Local citizens are understanding of the movements and are comfortable with pulling to the side of rural roads to let large equipment to pass. With recent design this option has been removed and the only alternative is reversing, sometimes for significant distance, of the vehicles to a gate way.*

Whilst observing speed limits, lead time may still compromise a driver's ability to determine space for passing when meeting oncoming traffic on narrow country roads with no readily accessible alternative, particularly on rises and corners.<sup>1</sup>

Current design of roads that have been built in the last 12 – 18 months in at least two regional areas (Northern Midlands and Dorset) have not incorporated areas to safely pull off in a timely manner. Deep ditches either side of road edges have removed safe access to road verges. Road design has decreased usable road area in some instances. Although bitumen road area may have been widened by some 30 cm, the loss of verge has impacted on movement. Design has roads at considerable height with up to 200 – 500 cm ditches either side.

The key concern raised has been in safe passing opportunities. Large farm and transport machinery movement on these roads is common with harvesters for example taking over 4 metres of the road with full road approx. 6.2metres.

A passing driver may see oncoming traffic and look to pull to the side. They may not be aware of ditches in the side area or the built-up nature of the road and when on steep slope there is potential for rollover (as occurred recently with a delivery truck). No thought has been given to access for emergency situations and verge/curb requirements – e.g., tyre blowout, cyclist access, medical emergency, rubbish bins.

Compromised or hesitant drivers who are faced with oncoming traffic with little room to move to the side are impacted in their confidence to even utilize these roads or are more prone to accident when trying to traverse this newly designed roads. Rural landholder access and safety where a road intersects and is part of daily farm work is hazardous, does not enable smooth flow of traffic and has already resulted in accident.<sup>2</sup>

#### 4.19 Ms Skirving expanded on these concerns at the hearing:

**Ms SKIRVING** - .....The submission came about with the fact we have a number of clients. Rural Business Tasmania looks after the financial and business management of clients, around 200 in rural and regional Tasmania. So, forest, fishers, farmers and small businesses that are affected. We also involve - and are engaged with - rural stakeholders, about 15 of those rural stakeholders and have a bi-monthly discussion group. As part of that and as ongoing feedback from our clients and stakeholders, we see the benefits of the increased work on the roads and acknowledge the input and the money that is being spent on that.

Our concerns that we've heard through a number of different parties have been about some of the practicalities of the roads, particularly for large slow-moving vehicles; for harvesters which are over 4 metres in width. Some of the informal lay-bys and areas that are being used that may be compromised through deep drains and the table drains as you spoke of earlier.

They're the main concerns that we're looking at. It's about the practical use, about those slow-moving vehicles and how they may impact, particularly in this instance in the Birralee Road where they are talking about increased freight. How a tractor or a harvester that might be slow moving, 4 metres in width, not on a float, but a float would be a similar sort of situation in width. It might be moving a little bit quicker, particularly through peak periods of seeding and harvesting through the September period, potato harvesting for the Birralee-Batman Highway corridor where potatoes might be harvested in the Scottsdale area, your background.

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<sup>1</sup> Rural Business Tasmania, Submission to Parliamentary Standing Committee on Public Works-Northern Roads Package, page 4.

<sup>2</sup> Ibid, page 5.

.....And moved through to Ulverstone or Smithton processing factories. That's a key corridor. You've got multiple trucks coming through and if there are slow-moving vehicles, such as tractors, in that Birralelee area that are moving from one paddock to another, going 30-40 kilometres an hour, and you have two trucks that would regularly move and just - it is a regular use of heavy vehicles and those slow-moving vehicles. So, how that would impact to make sure that where traditionally there have been informal areas that are unsealed that they would be still available for use, rather than that deep drainage that will help with the drainage. And that's really good that we don't have the water over the road from a safety point of view, but are there still sufficient areas for passing?

- 4.20 The Committee questioned Ms Skirving about her view on the width of Birralelee Road and whether the new cross-section would adequately cater for the movement of large rural machinery:

**DEPUTY CHAIR** - It is a significant growing area and also a transport area for the state. Do you have any concerns about what has been proposed and whether that road pavement width on the Birralelee Road particularly, which is a metre less than it is on the other part of the reference today, that that won't be wide enough to manage those vehicle movements?

**Ms SKIRVING** - I am certainly encouraged by what I've heard today with regard to the consideration of that. I think it's still going to be tight in some areas if you have a large harvester that's in that four metres, if two; or you have a truck that is actually passing there, particularly if you've got small vehicles following that perhaps aren't used to the rural roads. We are seeing an increased prevalence of drivers who perhaps aren't used to those rural conditions. So, if they're meeting a harvester and then there's a truck behind them, that metre less would actually put a little bit more pressure on that.

Certainly, the ability to have some unsealed area to continue to that pull-off would be very useful and to ensure that the road surface is at a level to provide access easily for those larger vehicles in gateways and those sorts of areas.

**Ms BUTLER** - .... I wanted to have a quick chat to you about the design with Birralelee Road. We know that there is not a set design at this stage. It is about widening. With the research you have done - and thank you again for the submission. I read that prior to our last hearing and found it really useful, so thank you. Do you think an overtaking lane or some kind of capacity on Birralelee Road would provide some form of relief if you were, say for instance, trying to get through a harvester or a heavy vehicle?

**Ms SKIRVING** - It may be useful. Probably also to consider - and something you see a lot on European roads - are those informal passing bays where someone can actually pull over. It may be a little bit wider more frequently rather than an overtaking lane that would be only one section.

**DEPUTY CHAIR** - Slow-moving vehicle turnouts.

**Ms BUTLER** - There are some on the Tasman Highway and they seem to work quite effectively.

**Ms SKIRVING** - Yes.

**DEPUTY CHAIR** - That is a really good suggestion and it would be worth asking the Department, when we come back, if there might be an opportunity. They only need to be appropriately signed and people are not so anxious and in a hurry.

- 4.21 The Committee sought a response from the Department's representatives to the matters raised by Ms Skirving relating to the movement of agricultural machinery on Birralelee Road:

**DEPUTY CHAIR** - .... You obviously heard the suggestion by Elizabeth. I absolutely endorse that.... Is there an opportunity - without saying yes or no right now - to look at something like that when we know heavy machinery is going to be used on that road?

**Ms HAWKINS** - I appreciate the submission and the information provided by Ms Skirving. One thing I would like to make the committee aware of and they obviously are, is the Northern Roads Package is a significant length of road. We have in our discussions today identified some issues that need to happen such as road widening and also pavement strengthening. Any additions to the scope would have to be considered in terms of the available budget, given we are currently working through concept design to look at areas of pavement strengthening.

The overall widening we are going to undertake on the Batman Highway, Frankford main road and Birralea Road is going to significantly improve safety and usability for larger vehicles. As was mentioned, there is an 8-metre seal width on Birralea Road plus an extra half metre on either side of the road, so 9 metres overall in terms of width, which will make it much more usable for those larger vehicles. Any additional work would have to be considered in terms of the available budget.

.....Also be aware as part of this corridor, the committee mentioned the West Tamar Highway is part of the corridor, and I accept it is not near the Birralea, but there is actually going to be an overtaking lane that will form part of this corridor which will be completed in the coming summer on the West Tamar Highway. I think probably it can be considered, but has to be taken into the context of the available budget and the primary objectives of the project.

**DEPUTY CHAIR** - I know I am not speaking for the committee, but I am asking for that consideration. And it only has to be factored in, if it is somewhere on that Birralea road stretch where you could have a slow-moving vehicle turnout on either side of the road, that would elevate the safety aspect to the next level.

**Ms HAWKINS** - Yes, but that is an individual view and obviously must take into consideration where it might be located and impact on property owners and environment.

**DEPUTY CHAIR** - But we do that every day.

**Ms HAWKINS** - Certainly.

**Ms BUTLER** - ..... To confirm if that could be looked at and investigated? I agree it could assist with safety when frustrated drivers making silly rash decisions, pull out, and also provide a lot more comfort to drivers of large vehicles that there is a place they know along there and they do not have to do 15 kms at a really slow pace holding up a lot of traffic.

If there is to be a prison built there would be increasing traffic and I imagine an increase of heavy vehicles also. I would appreciate that being considered.

**Ms HAWKINS** - Certainly.

#### 4.22 The Committee also questioned the Department's witnesses on the steepness of the roadside verges, as highlighted by Ms Skirving:

**DEPUTY CHAIR** - ..... about 4 kilometres coming towards the Exeter township there are very steep road verges with a lot of water laying in those table drains. How are those wide heavy vehicles that meet where a vehicle has actually had to pull off the road but they cannot get right off the road accommodated? Mr Tucker can explain a lot better than I can, when large vehicles meet and there is also something parked on the side of the road which has very deep edges. Can we have some understanding of how that situation is going to be addressed through these road works?

**Ms HAWKINS** - With the increased seal width, if you take into consideration for example, on Birralea Road where a current seal width is a bit over 6 metres will be increased to 8 metres plus an extra metre of unsealed verge, half a metre on each side. You are talking about an emergency kind of situation, not an everyday parking kind of arrangement and with that alone you have a significant increase in terms of area for vehicles to be able to manoeuvre around maybe a vehicle broken down or that kind of thing. In terms of batters and the table drains, obviously, the Department in the design development tries to work within the available road

corridor space. Things like acquisition do come into this and the steepness of those batters. But they are certainly designed within Austroads requirements and Department standards.

4.23 Mr Terry Eaton also made a written submission to the Committee in support of the proposed works:

*My understanding is the Northern Roads Package works refer to upgrades on the preferred heavy vehicle route between East of Scottsdale and the Bass Highway at Westbury as outlined as a category 2 Regional Freight Route in the DSG [Department of State Growth] – State Road Hierarchy. Please note, as a road planning concept the DSG Road Hierarchy is supported as a realistic framework to cater for heavy vehicle freight movements around the state and as such supports economic activity in regional areas.*

*The northern road package route with extensions via the Bass Highway and East Tamar Highway provides an ideal heavy vehicle link between the agricultural production and resource extraction from the north east of the state to the major ports at Bell Bay, Devonport and Burnie. Upgrading substandard construction links on this route as this proposal addresses is considered as an ideal candidate for road construction funding.<sup>3</sup>*

**Does the Project Meet Identified Needs and Provide Value for Money?**

4.24 In assessing any proposed public work, the Committee seeks assurance that each project is a good use of public funds and meets identified needs. Ms Hawkins confirmed that the project was the best solution to address the identified needs and delivered value for money in using public funds:

**DEPUTY CHAIR** - ... .. Does the proposed works meet and identify need or needs or solve a recognised problem?

**Ms HAWKINS** - Yes, it does.

**DEPUTY CHAIR** - Are the proposed works the best solution to meet identified needs or solve a recognised problem within the allocated budget?

**Ms HAWKINS** - Yes.

**DEPUTY CHAIR** - Are the proposed works fit for purpose?

**Ms HAWKINS** - Yes.

**DEPUTY CHAIR** - Do the proposed works provide value for money? We don't know yet, do we?

**Ms HAWKINS** - We believe so.

**DEPUTY CHAIR** - Are the proposed works a good use of public funds?

**Ms HAWKINS** - I believe so.

**Ms HAWKINS** - ... .. The per kilometre costs are appropriate and in conclusion this project is a good use of tax payer's money..

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<sup>3</sup> Submission from Mr Terry Eaton, page 1.

## 5 DOCUMENTS TAKEN INTO EVIDENCE

5.1 The following documents were taken into evidence and considered by the Committee:

- *Northern Roads Package*, Submission to the Parliamentary Standing Committee on Public Works, Department of State Growth, June 2021;
- Submission from Mr Terry Eaton;
- Submission from Elizabeth Skirving CEO, on behalf of Rural Business Tasmania; and
- Submission from Mrs Jill Skirving.

## **6 CONCLUSION AND RECOMMENDATION**

- 6.1 The Committee considers the inclusion of a slow vehicle turnout in each direction on Birralea Road would be a welcome addition to the project scope and improve the safety outcomes of the project, by providing a safe opportunity to pass large slow-moving vehicles, thereby reducing high-risk driver behaviour caused by driver frustration. The Committee notes the commitment made at the hearing by the Department of State Growth representatives that the opportunity to include a slow vehicle turnout lane in each direction on Birralea Road will be considered as part of the continuing project scoping task.
- 6.2 However, the Committee is satisfied that the need for the proposed works has been established. Once completed, the proposed works will improve road safety outcomes for all road users on the Batman Highway - Frankford Road - Birralea Road corridor and will improve freight transport efficiency.
- 6.3 The proposed works will employ a number of measures to improve safety and freight productivity. These include providing a wider sealed road cross-section, pavement strengthening, localised curve alignment improvements where necessary and provision of a safe, formalised, heavy vehicle rest area.
- 6.4 The Northern Roads Package is expected to deliver a more safe and efficient freight route in the North of Tasmania, by providing a shorter route with improved travel times, the ability to use higher productivity vehicles, reduced fuel and vehicle maintenance costs and providing the opportunity to improve current traffic congestion issues in the City of Launceston. Non-freight vehicles should also benefit from a more efficient and safe travel experience along this route.
- 6.5 Accordingly, the Committee recommends the Northern Roads package, at an estimated cost of \$50 million, in accordance with the documentation submitted.

**Parliament House  
Hobart  
15 September 2021**

**Hon Rob Valentine MLC  
Chair**



**pitt&sherry**

**Northern Roads Package Stage 2  
Frankford Main Road and Birralee  
Main Road**

Options Analysis – Concept Design

Prepared for  
**Department of State Growth**

Client representative

**s36**

Date  
**14 December 2021**

Rev00



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- Appendix D** — Crash History Data
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# 1. Introduction

## 1.1 Background

The Australian Government is implementing the Roads of Strategic Importance (ROSI) initiative to help connect regional businesses to local and international markets, and better connect regional communities. As part of the ROSI initiative and in conjunction with the Tasmanian State Government, the Department of State Growth (Department) has identified the road corridor encompassing the Batman Highway (A0278), Frankford Main Road (A1044) (between the West Tamar Highway and Birralee Main Road only), and Birralee Main Road (A1701) for an upgrade, with the provision of road widening and pavement rehabilitation. The project is to be known as the Northern Roads Package. The anticipated total project P90 budget for these proposed works is \$55M.

Currently many heavy vehicle operators travelling between Bell Bay and the Bass Highway choose to travel via Launceston, rather than the more direct route forming the Northern Roads Package. Through industry consultation, the Department has determined this is due to the safety concerns for operators travelling on the Batman Highway, Frankford Main Road, and Birralee Main Road. These safety concerns arise from factors including insufficient sealed pavement width, lack of overtaking opportunities or turn-out bays, and poor pavement quality.

Consequently, the Department has identified this road corridor for road widening and pavement rehabilitation works in order to encourage heavy vehicle operators to use this route to reduce the number of heavy vehicles travelling through the Launceston CBD. This project will also result in safety improvements to all road users travelling on the Batman Highway, Frankford Main Road, and Birralee Main Road.

The Department's initial brief for the Northern Roads Package involved shoulder widening and junction upgrades where required for the Batman Highway, shoulder widening for Frankford Main Road, and pavement rehabilitation and localised curve widening (both where required) on Birralee Main Road. This initial brief was based on the Department's order of priority for each road and what was anticipated to be achievable within the project budget.

An initial Scoping Phase Options Analysis Report has been developed which investigates the different combinations of options for shoulder widening and pavement rehabilitation to maximise the benefit to the road corridor; not exceeding the proposed budget; and prioritising work on the Batman Highway, then Frankford Main Road and finally Birralee Main Road

In order to facilitate the delivery of the project, the Northern Roads Package has been broken down into two stages, with Stage 1 being the Batman Highway portion, and Stage 2 incorporating Frankford Main Road and Birralee Main Road.

Stage 1 was split into two packages and at the time of writing, is under construction. The first package involved works from the Batman Bridge to the East Tamar Highway, and the second package involved works from the West Tamar Highway to the Batman Bridge. No works on the Batman Bridge itself form part of this project.

## 1.2 Purposes of this report

The purpose of this Options Analysis report is to document considered options for Stage 2 - Frankford Main Road and Birralee Main Road in order to maximise the benefits to each road within the remaining budget available.

Alignment improvements do not form part of the scope for this project. However, it is important to document the existing deficiencies which will likely remain at the completion of the project.

### 1.3 Road locations and description

The sections of road considered are shown in Table 1.

Table 1: Site locations

Road	Site No	Start Link/Chainage	End Link/Chainage
Frankford Main Road (A1044)	1	5/0.00	5/8.06
	2	21/0.00	21/5.47
Birrallee Main Road (A1701)	3	8/0.00	8/8.32
	4	94/0.00	94/10.17

The relevant link maps are attached in Appendix A. Figure 1 and Figure 2 show the locations and extents of each road.

Both roads are Category 2 roads under the Department’s ‘State Road Hierarchy’ and are Higher Mass Limit (HML) 26 metre B-Double routes.

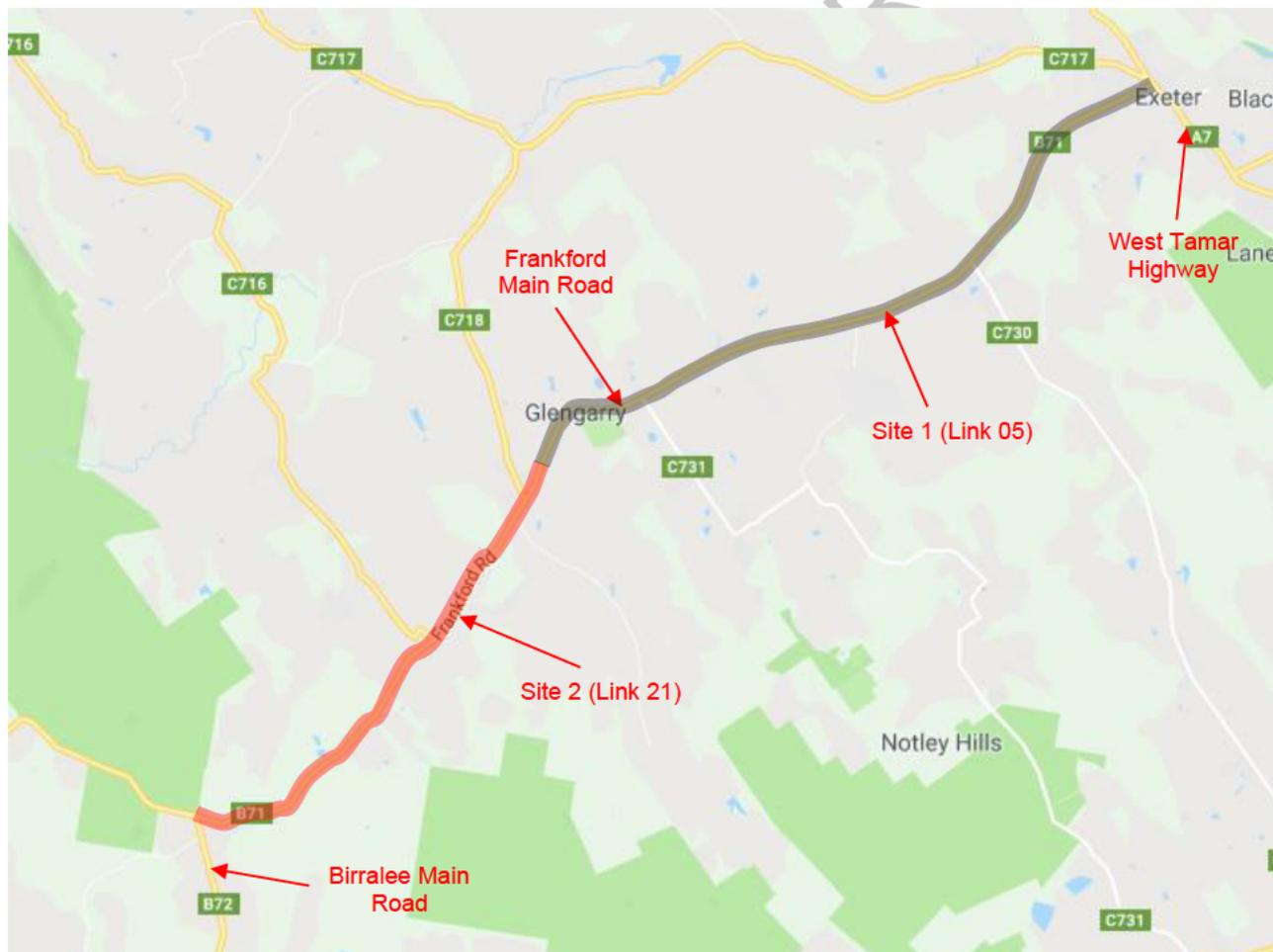


Figure 1: Frankford Main Road (A1044) (Google Map Data ©2021)

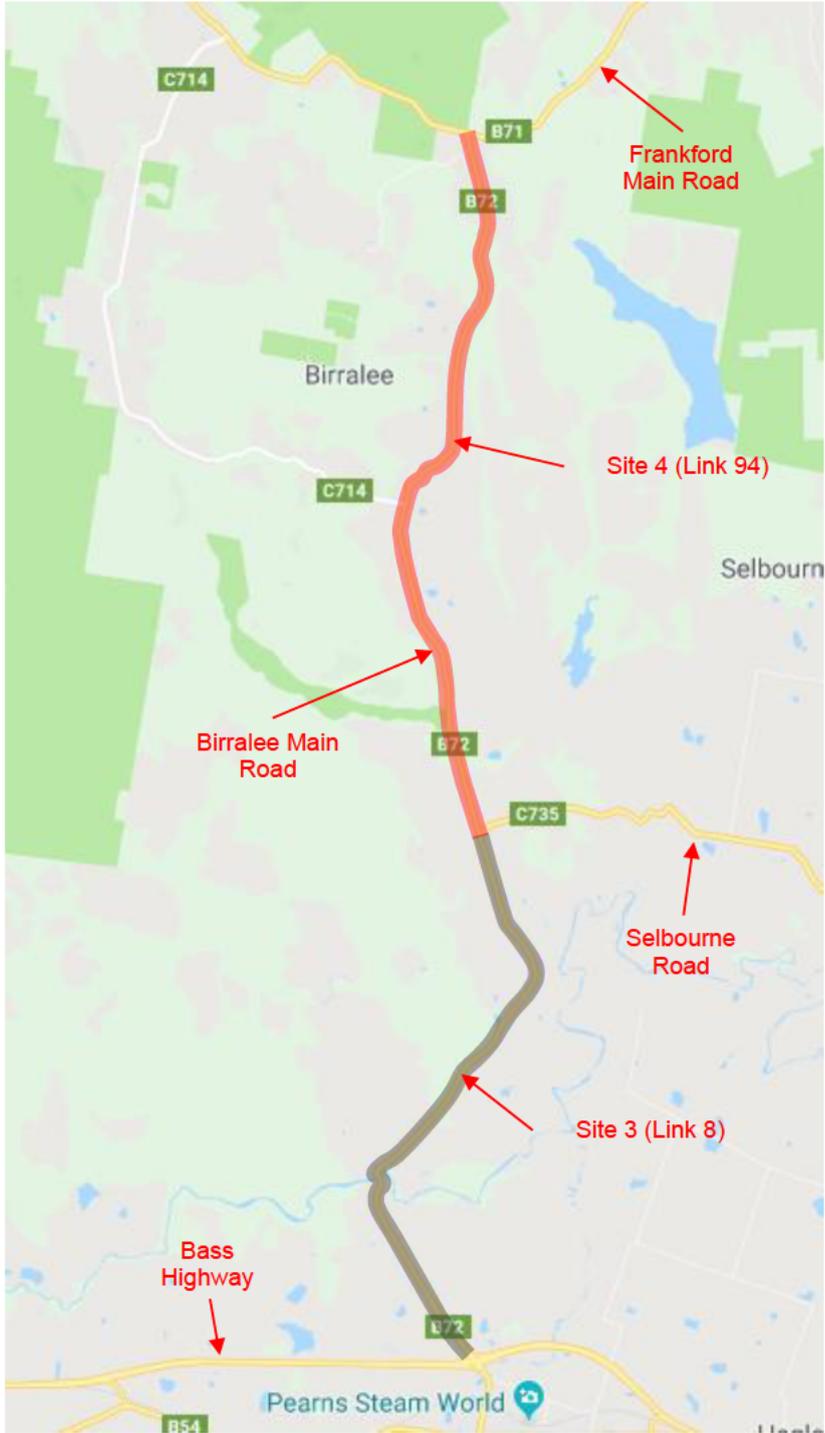


Figure 2: Birralee Main Road (A1701) (Google Map Data ©2021)

## 1.4 Key benefits of the project

Works proposed for this project include road widening, pavement strengthening and localised curve improvements to enable the corridor to meet the Department's objective to cater for the increased heavy vehicle movements.

It is anticipated that the Northern Roads Package will encourage heavy vehicle operators to use this route, reducing the number of heavy vehicles travelling through the Launceston CBD. The project will also result in safety improvements for all road users travelling on the Batman Highway, Frankford Main Road, and Birralee Main Road, and provide a higher efficiency route for freight vehicles.

A Cost Benefit Analysis (CBA) has been developed in accordance with the Australian Transport Assessment and Planning framework (ATAP). The analysis compares the costs and benefits against a base case where the road remains in its current state over a 30-year period.

The major benefits included in the CBA are:

- Freight Operational Cost Savings – shorter trips and the enabling of higher productivity vehicles
- Time savings – all vehicle and occupant types
- Accident reductions
- Environmental benefits – reduced greenhouse gas emissions due to fuel savings; and
- Lower road maintenance costs.

## 2. Existing road information

### 2.1 Traffic volumes

The current traffic volumes have been obtained from the Department's RoadsTas Traffic Stats website. These traffic volumes and percentage of commercial vehicles (%CV) have been used to inform the target design lane and shoulder widths from reference documents as outlined in Section 2.2, as well as the pavement design.

The traffic volumes are summarised in Table 2.

Table 2: Current traffic volumes (<http://geocounts.com/traffic/au/stategrowth>)

Counter	Road	Location	Year	AADT	%CV
A1044150	Frankford MR Link 21	A short-term counter located at a two-way road [E/W] in Frankford, West Tamar on A1044, 193m W of Birralee MR [UTS L21/ 5.5 - 10.02]	2017	1064	21.3%
A1044190	Frankford MR Link 5	A short-term counter located at a two-way road [E/W] in Exeter, West Tamar on A1044, 860m W of West Tamar Hwy [UTS L5/0 - 2.78]	2017	2440	19.7%
A1701100	Birralee MR Link 94	A short-term counter located at a two-way road [S/N] in Westbury, Meander Valley on A1701, 340m N of Roxford Ave	2019	960	24.9%
A1701110	Birralee MR Link 8	A short-term counter located at a two-way road [S/N] in Birralee, West Tamar on A1701, 315m S of Frankford MR	2019	724	30.1%

### 2.2 Pavement data

Refer to the Pavement Design Report for all details regarding the existing pavement condition in addition to the rehabilitation and widening pavement designs.

### 2.3 Existing and target road widths

Detailed feature survey has been provided by Jacobs along Frankford Main Road and Birralee Main Road, from which the existing seal width data has been extracted and plotted against chainage to provide a diagrammatic representation of the existing width.

Using the traffic volume data shown in Section 2.2, target lane and shoulder widths were calculated for each road with reference to Austroads Guide to Road Design (AGRD), the National Transport Commission (NTC) and VicRoads Supplement to AGRD. Along with the seal widths recommended by these guidelines, the Department has also provided their target seal widths for each road, based on discussions around each of these guidelines.

These target seal widths do not account for any potential turn-out bays or curve widening where deemed warranted and sufficient budget is available.

Dedicated cyclist routes also require certain sealed shoulder widths under the guidelines. Information provided by the Department shows the section of Frankford Main Road between the West Tamar Highway and Long Plains Road is a high use recreational/training cyclist route (refer to Appendix B for high use cycling route map). A 'Pass Cyclists Safely' sign was also observed while on site near the intersection of Long Plains Road. This should be investigated further during the Development phase.

### 2.3.1 Frankford Main Road (A1044)

Analysis of the feature survey data for Frankford Main Road found the total seal width generally varies between approximately 6.2 m and 7.5 m, with some localised sections of curve widening. This is shown plotted against chainage in Figure 3 and Figure 4.

As discussed in Section 2.2, the recommended sealed lane and shoulder widths have been calculated from a number of reference guidelines. These are tabulated along with the Department's nominated targets and relevant assumptions in Table 3.

The Department's nominated target total seal width for Frankford Main Road of 8 m has also been plotted against the existing seal width in Figure 3 and Figure 4. The target will need to be increased where required to allow for curve widening in accordance with *AGRD Part 3: Geometric Design*.

Table 3: Target road widths from multiple guidelines – Frankford Main Road

	The Department	Austrroads <sup>1</sup>	NTC <sup>2</sup>	VicRoads <sup>3</sup>
Total Sealed Lanes 2 No. (m)	6	7	6.6	7
Total Sealed Shoulders (m)	2	2	2	0
Total Unsealed Shoulders (m)	1	2	1	2
Total Seal Width (m)	8	9	8.6	7
Total Carriageway Width (m)	9	11	9.6	9

<sup>1</sup> Assuming AADT 1500 – 3000

<sup>2</sup> Assuming Road Class L3 and AADT 1500 – 3000

<sup>3</sup> Assuming Class C and AADT >1500

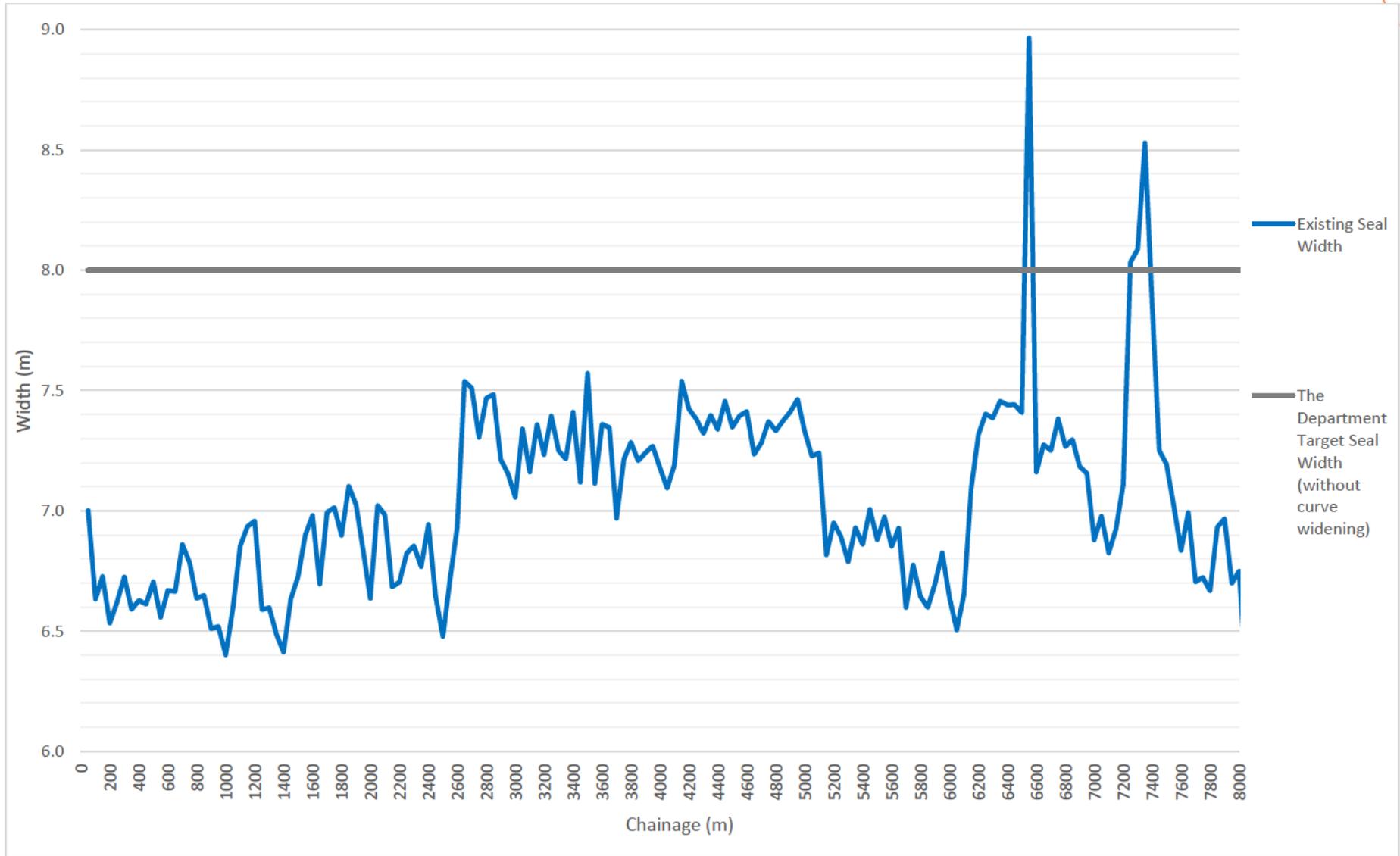


Figure 3: Existing and target total seal width – Frankford Main Road (A1044) Link 05

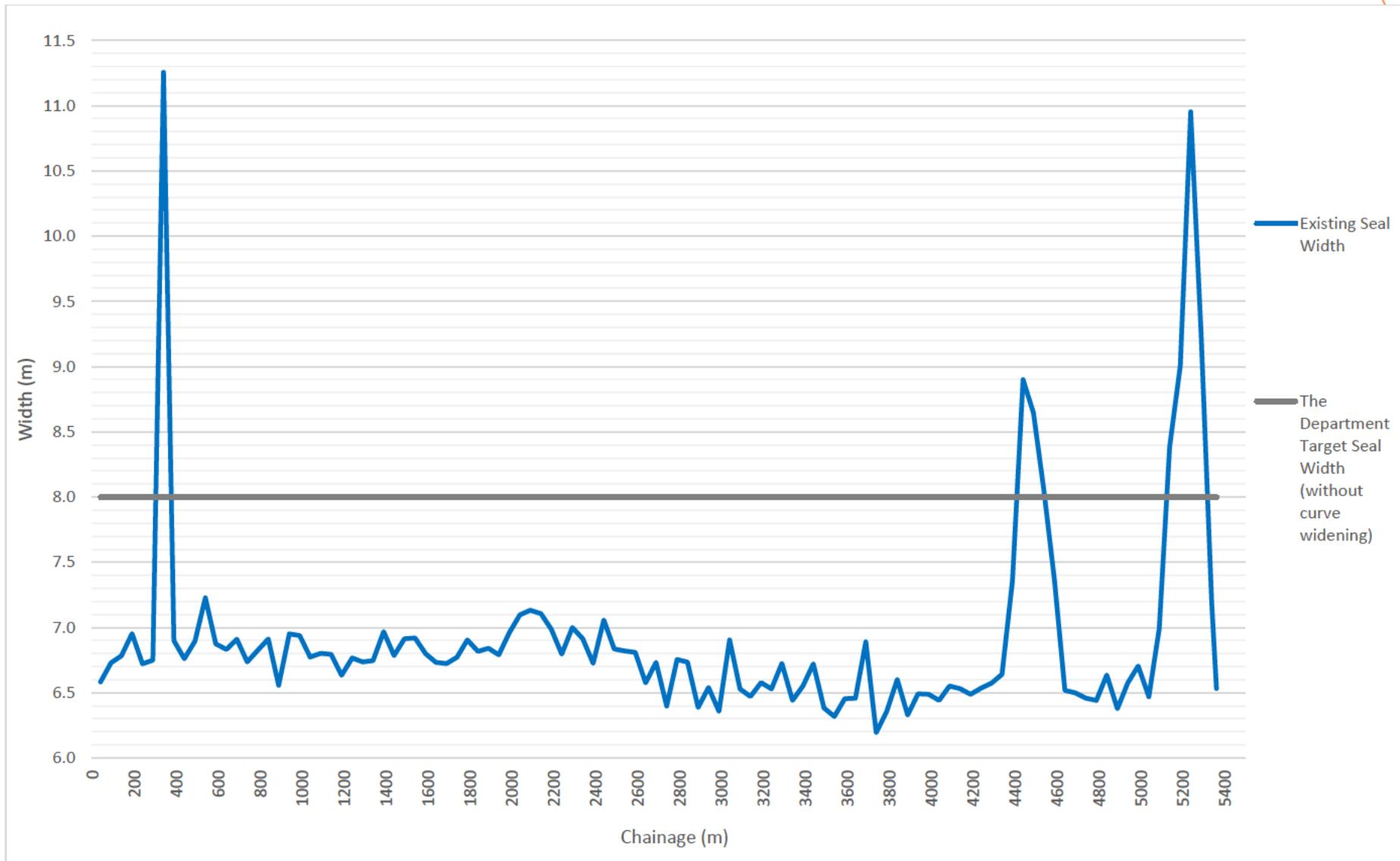


Figure 4: Existing and target total seal width – Frankford Main Road (A1044) Link 21

### 2.3.2 Birralee Main Road (A1701)

Analysis of the feature survey data for Birralee Main Road found the total seal width generally varies between approximately 5.7 m and 7 m, with some localised sections of curve widening. This is shown plotted against chainage in Figure 5 and Figure 6

As discussed in Section 2.2, the recommended sealed lane and shoulder widths have been calculated from a number of reference guidelines. These are tabulated along with the Department's nominated targets and relevant assumptions in Table 4.

The Department's nominated target total seal width for Birralee Main Road of 8 m has also been plotted against the existing seal width in Figure 5 and Figure 6. The target in will need to be increased where required to allow for curve widening in accordance with *AGRD Part 3: Geometric Design*.

Table 4: Target road widths from multiple guidelines – Birralee Main Road

	The Department	Austrroads <sup>1</sup>	NTC <sup>2</sup>	VicRoads <sup>3</sup>
<b>Total Sealed Lanes 2 No. (m)</b>	6	7	6.4	6.2
<b>Total Sealed Shoulders (m)</b>	2	2	1.2	0
<b>Total Unsealed Shoulders (m)</b>	1	2	1.2	2
<b>Total Seal Width (m)</b>	8	9	7.6	6.2
<b>Total Carriageway Width (m)</b>	9	11	8.8	8.2

<sup>1</sup> Assuming AADT 1000 – 3000

<sup>2</sup> Assuming Road Class L3 and AADT 500 – 1500

<sup>3</sup> Assuming Class C and AADT <1500

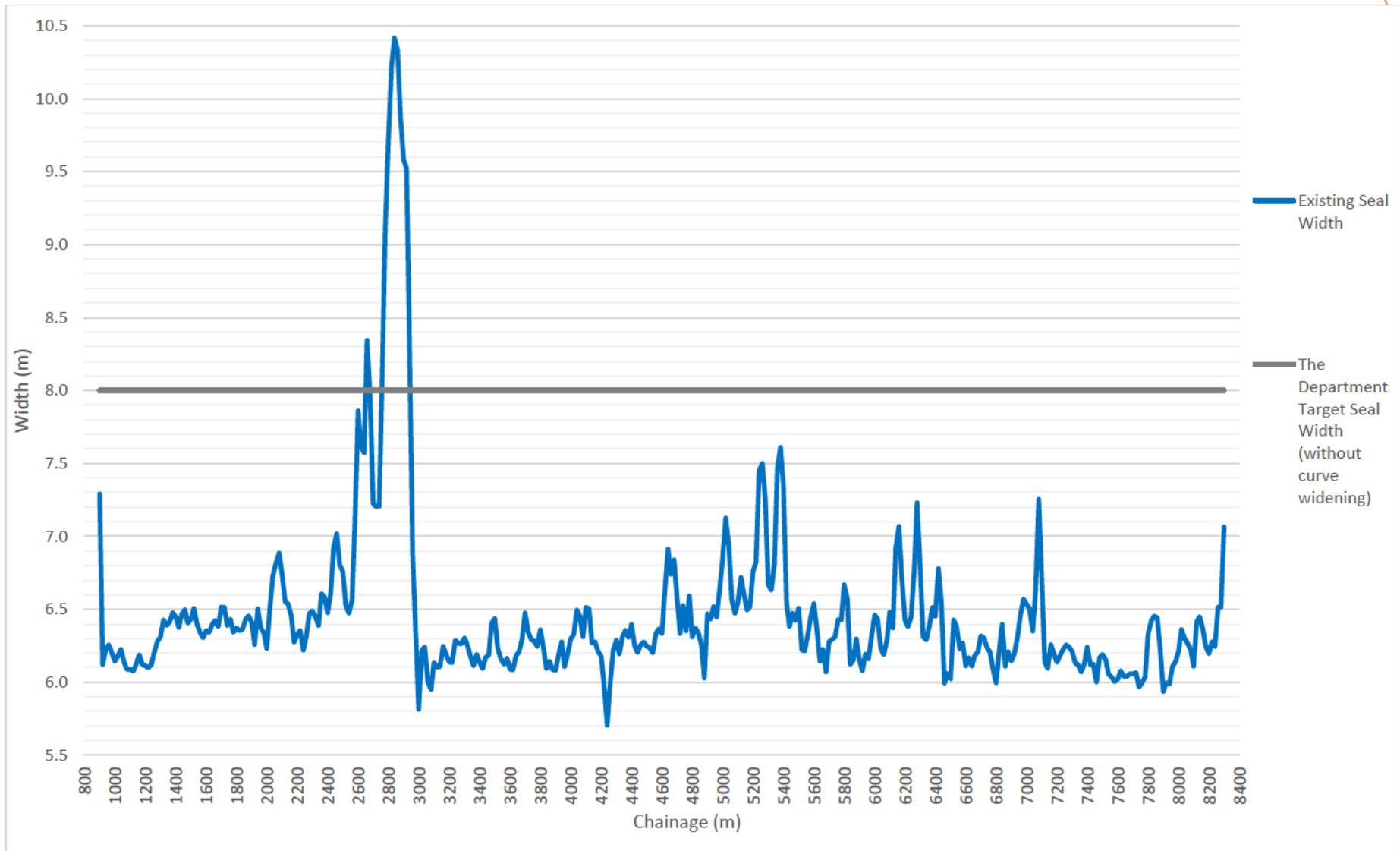


Figure 5: Existing and target total seal width – Birralee Main Road (A1701) Link 08

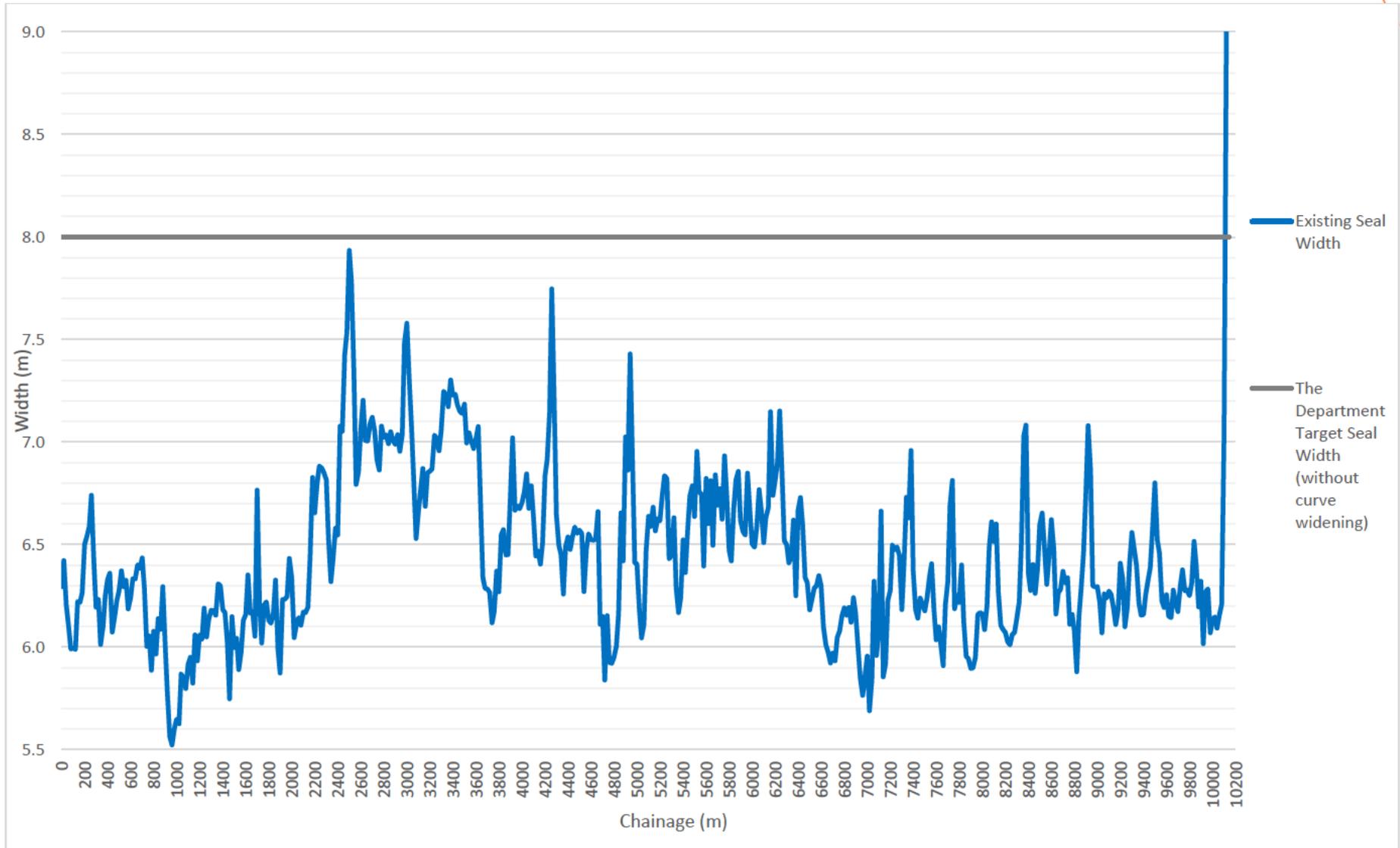


Figure 6: Existing and target total seal width – Birralee Main Road (A1701) Link 94

## 2.4 Operating speed – OSRoad

An assessment of the operating speed along Frankford Main Road and Birralelee Main Road has been undertaken using the OSRoad. OSRoad is software developed by Queensland Department of Transport that applies the Operating Speed Model defined in AGRD Part 3.

The Operating Speed Model is used to predict the 85<sup>th</sup> percentile operating speeds of cars in each direction along the road where speeds are largely controlled by the horizontal curvature. The model does not consider vertical geometry, as it considers horizontal curves as the primary determinant of speeds on intermediate and low speed roads.

For the purpose of this options analysis, the results of this Operating Speed Model may give an indication of sections of each road which have deficient horizontal geometry for the 100 km/h speed environment along both Frankford and Birralelee Main Roads.

Figure 7 to Figure 10 show the results of the Operating Speed Model along each road, both in the prescribed direction (PD) and counter direction (CD).

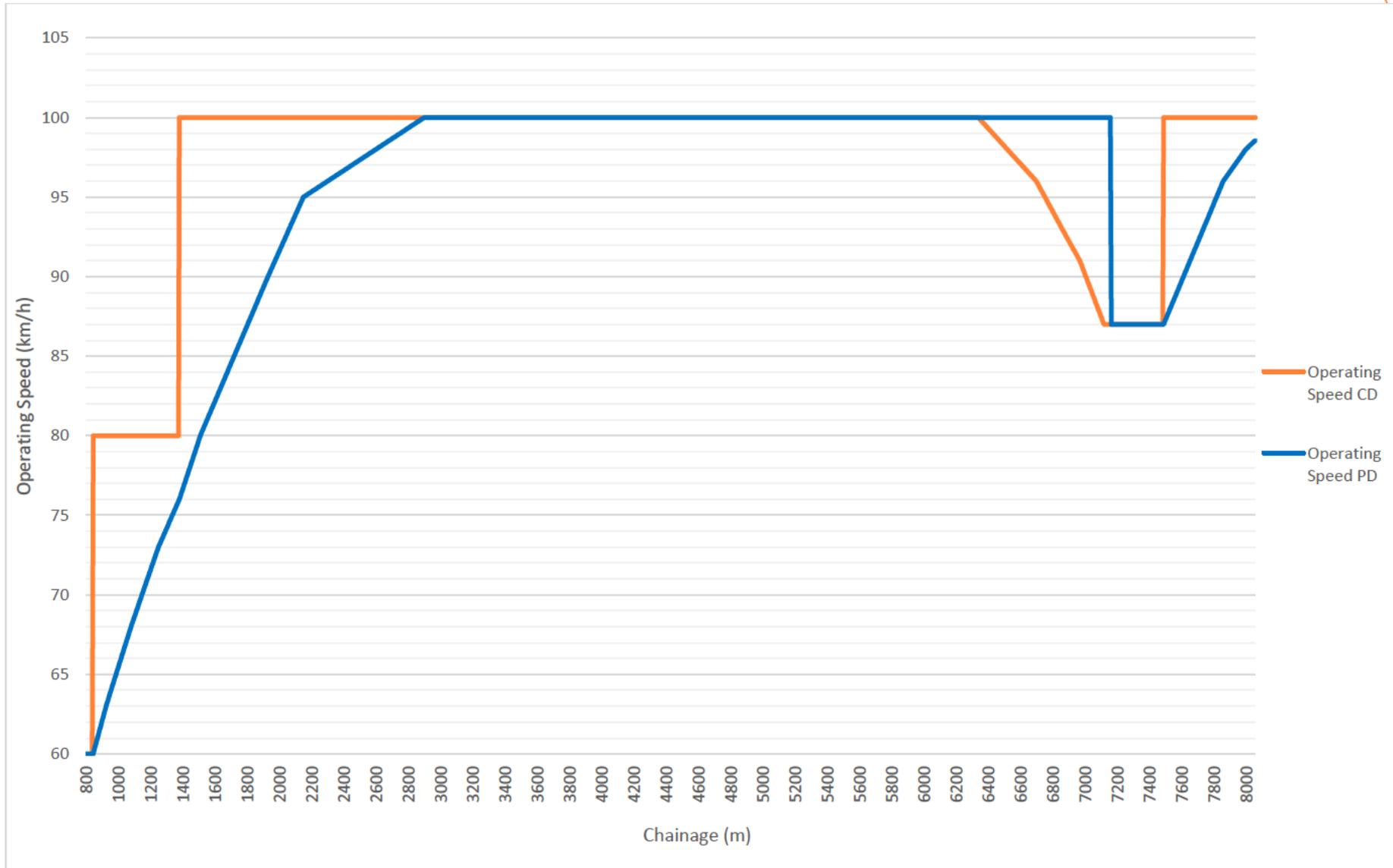


Figure 7: Operating speed - Frankford Main Road (A1044) Link 05

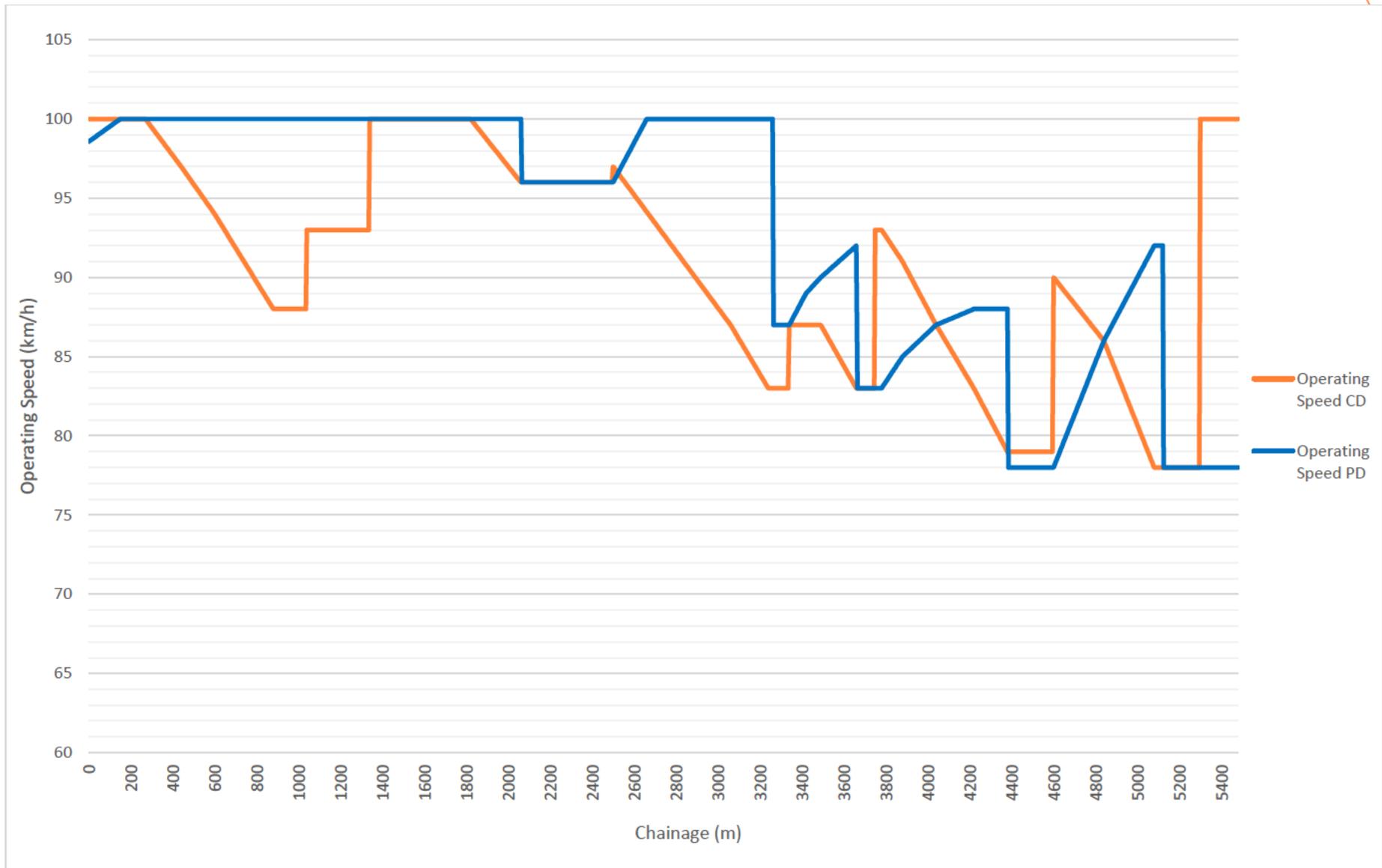


Figure 8: Operating speed - Frankford Main Road (A1044) Link 21

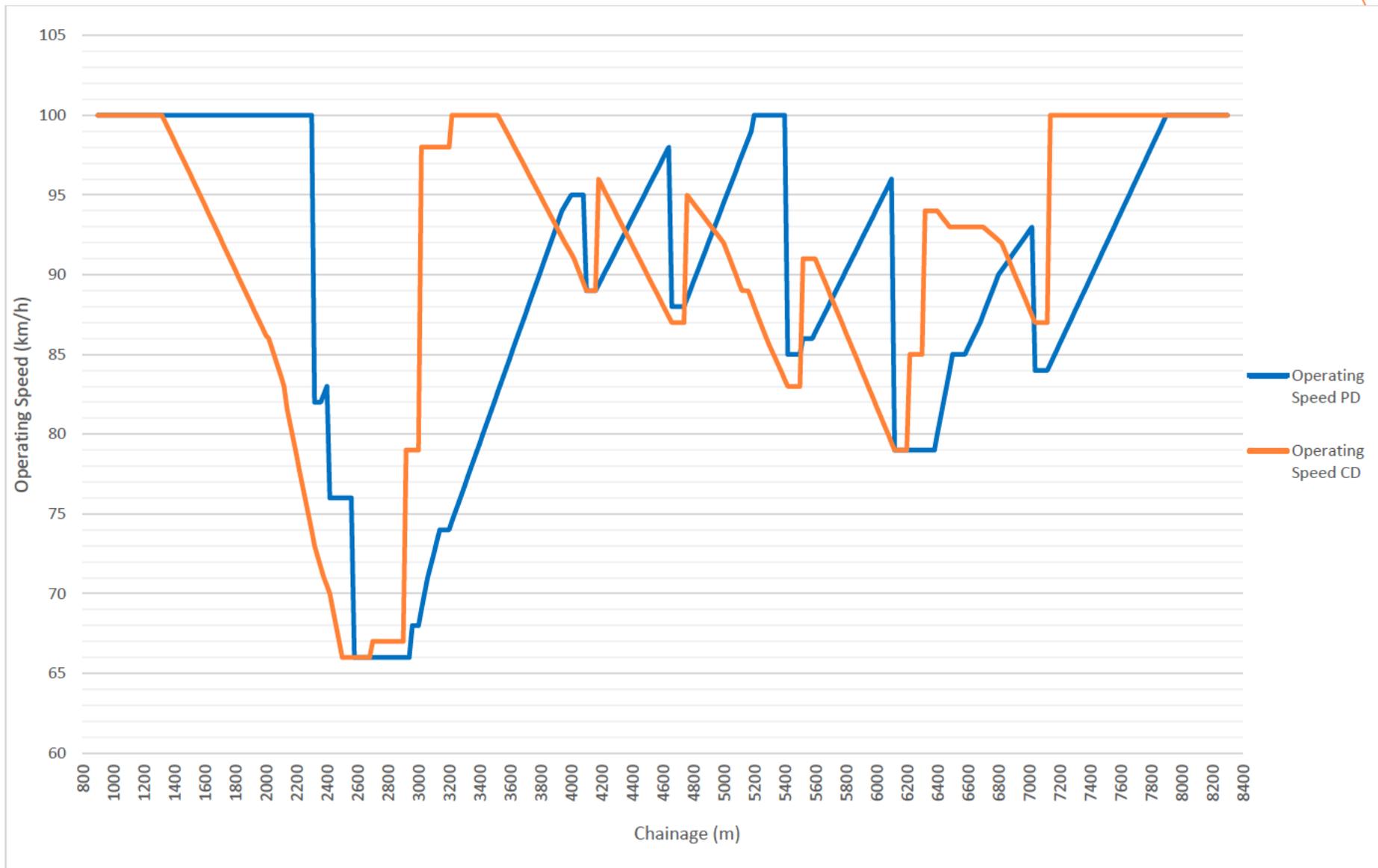


Figure 9: Operating speed - Birralee Main Road (A1701) Link 08

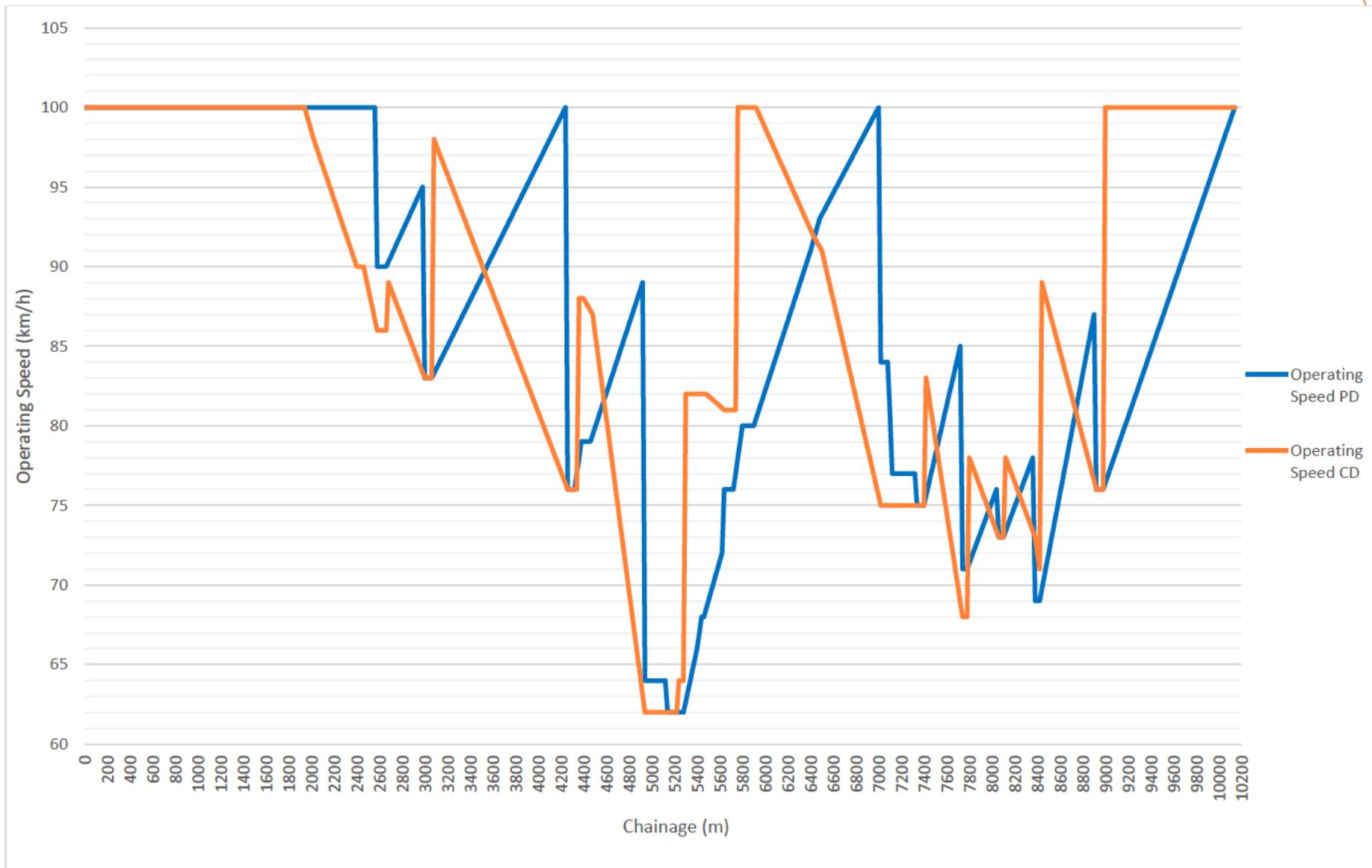


Figure 10: Operating speed - Birralee Main Road (A1701) Link 21

## 2.5 Stopping sight distance

An assessment of the existing Stopping Sight Distance (SSD) along Frankford Main Road and Birralee Main Road has been undertaken in accordance with *AGRD Part 3: Geometric Design*, adopting the Extended Design Domain (EDD) allowances of *Appendix A.3*.

For these checks, a design speed of 100 km/h has been used, along with a car driver eye height of 1.10 m, and object heights of 0.2 m and 0.8 m. The 0.2 m object height represents a stationary object on the road, and 0.8 m represents a car taillight/stop light/indicator.

Figure 12 and Figure 14 show the equivalent design speed for the SSD available, for a 1.1 m car driver height and 0.8 m object height scenario. Refer to Appendix C for full details of both the 0.2 m and 0.8 m object height scenarios.

There are numerous sections which are significantly deficient in terms of SSD for a 100km/h speed environment, some of which also tend to align with some crash clusters discussed in Section 2.6. Given alignment improvements do not form part of the scope for this project, these deficiencies are unlikely to be improved significantly through shoulder widening alone.

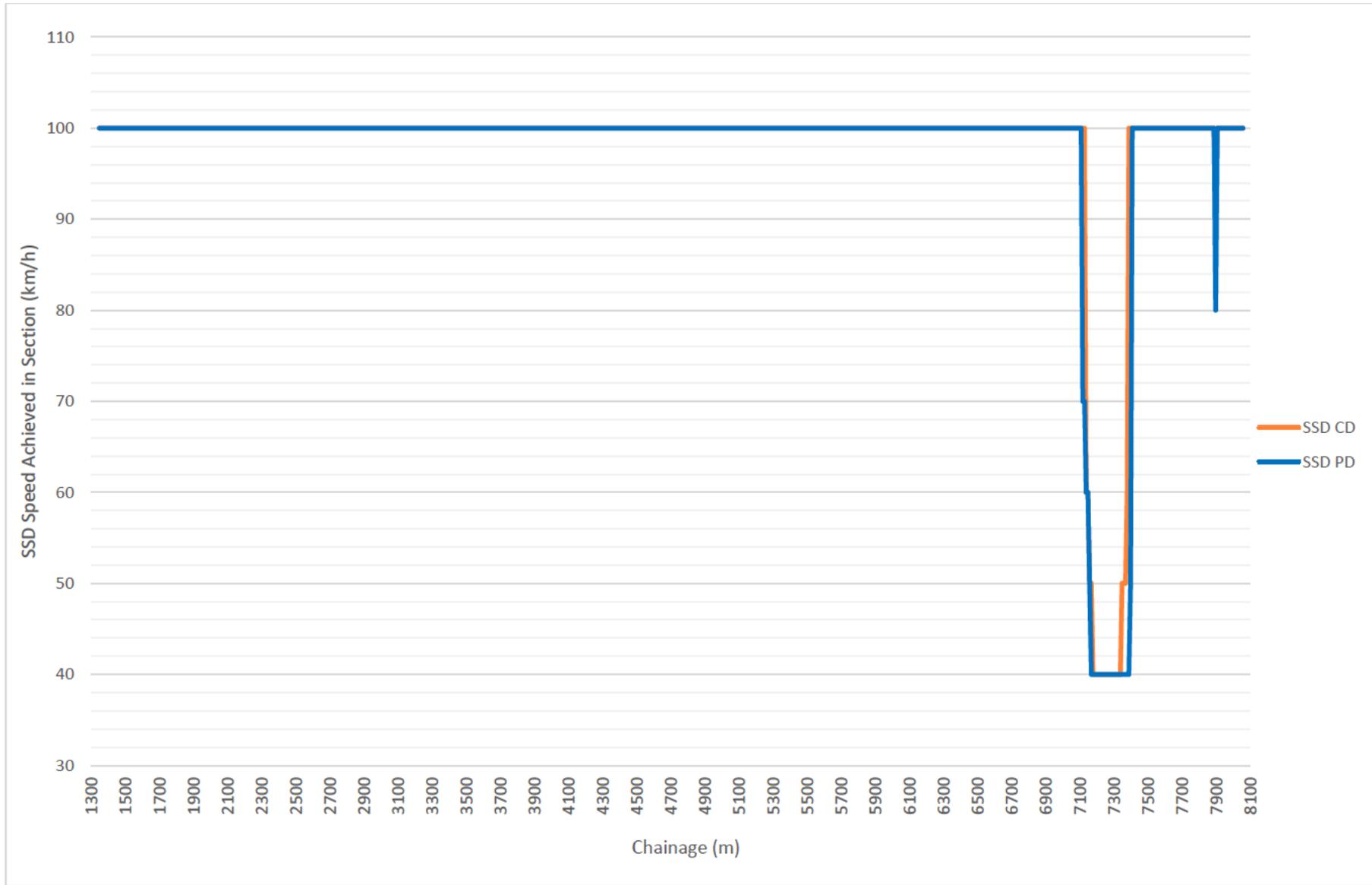


Figure 11: Equivalent speed stopping sight distance – 1.10m to 0.8m object height – Frankford Main Road (A1044) Link 05

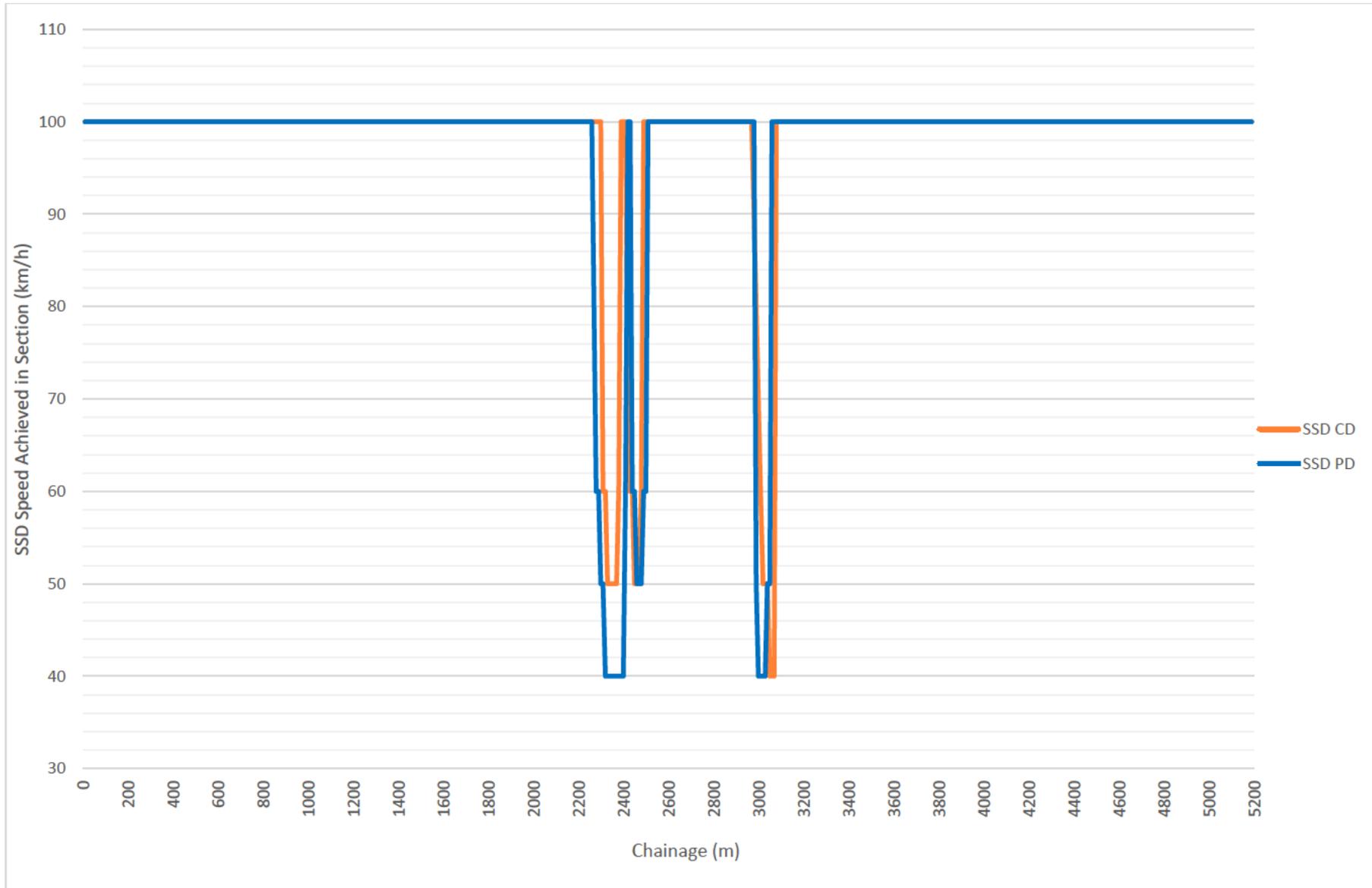


Figure 12: Equivalent speed stopping sight distance – 1.10m to 0.8m object height – Frankford Main Road (A1044) Link 21

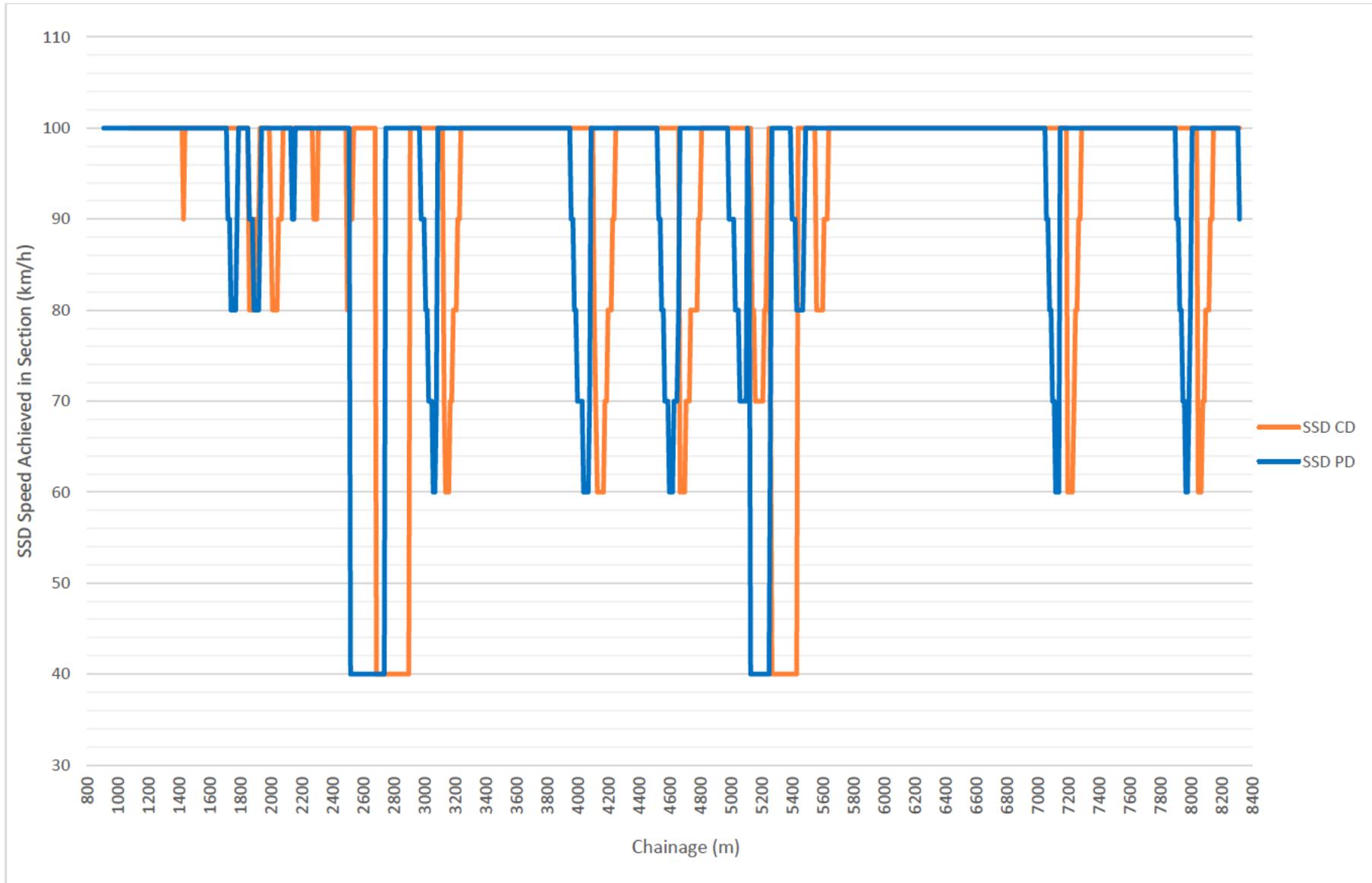


Figure 13: Equivalent speed stopping sight distance – 1.10m to 0.8m object height – Birralee Main Road (A1701) Link 08

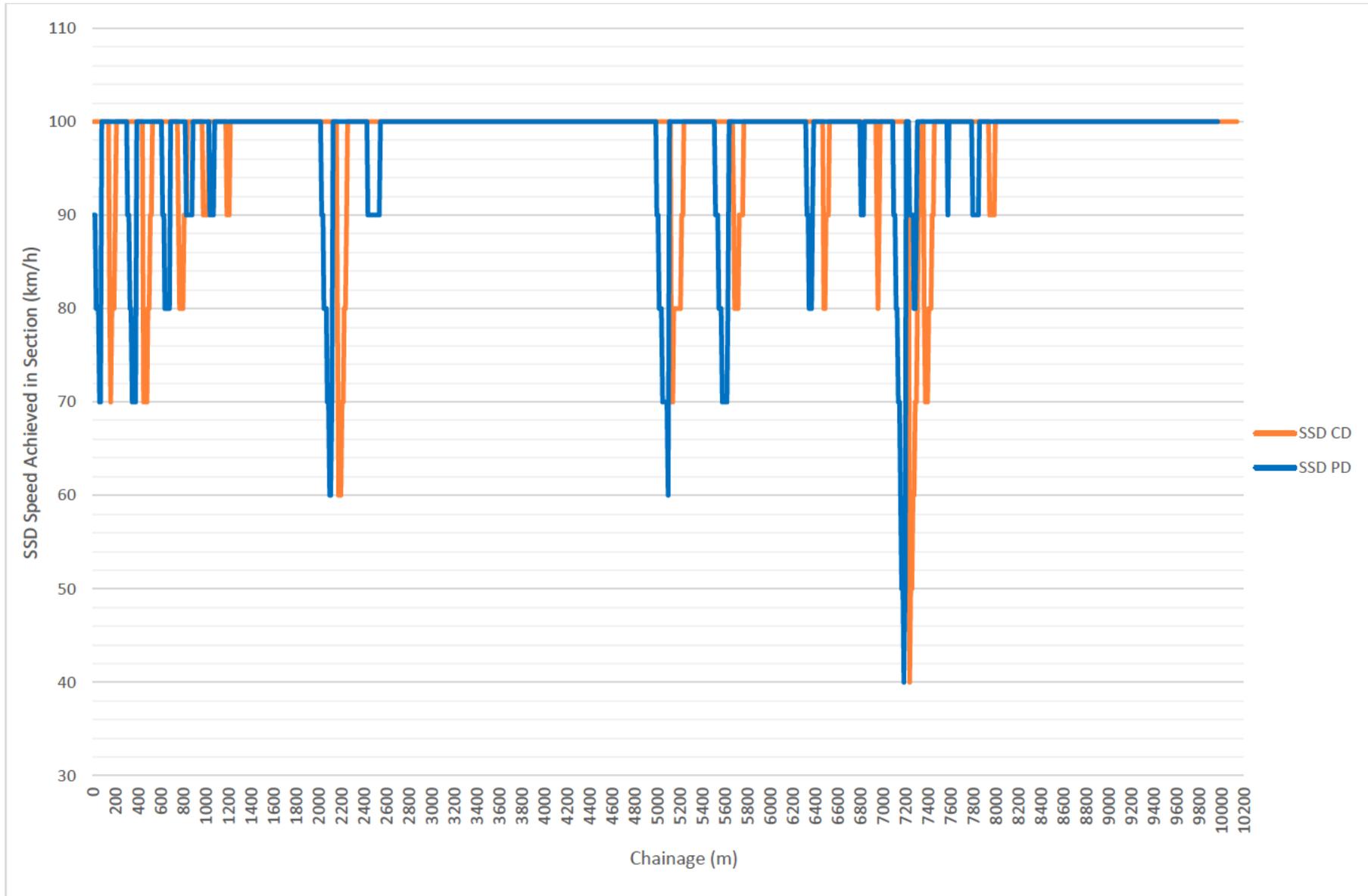


Figure 14: Equivalent speed stopping sight distance – 1.10m to 0.8m object height – Birralee Main Road (A1701) Link 94

## 2.6 Crash history

Crash history data has been obtained from the Department for the most recent ten year period (January 2011 to April 2021). The raw crash history data is attached in Appendix D. A summary of the crash history data is included in Table 5 to Table 7, and Figure 15 to Figure 19.

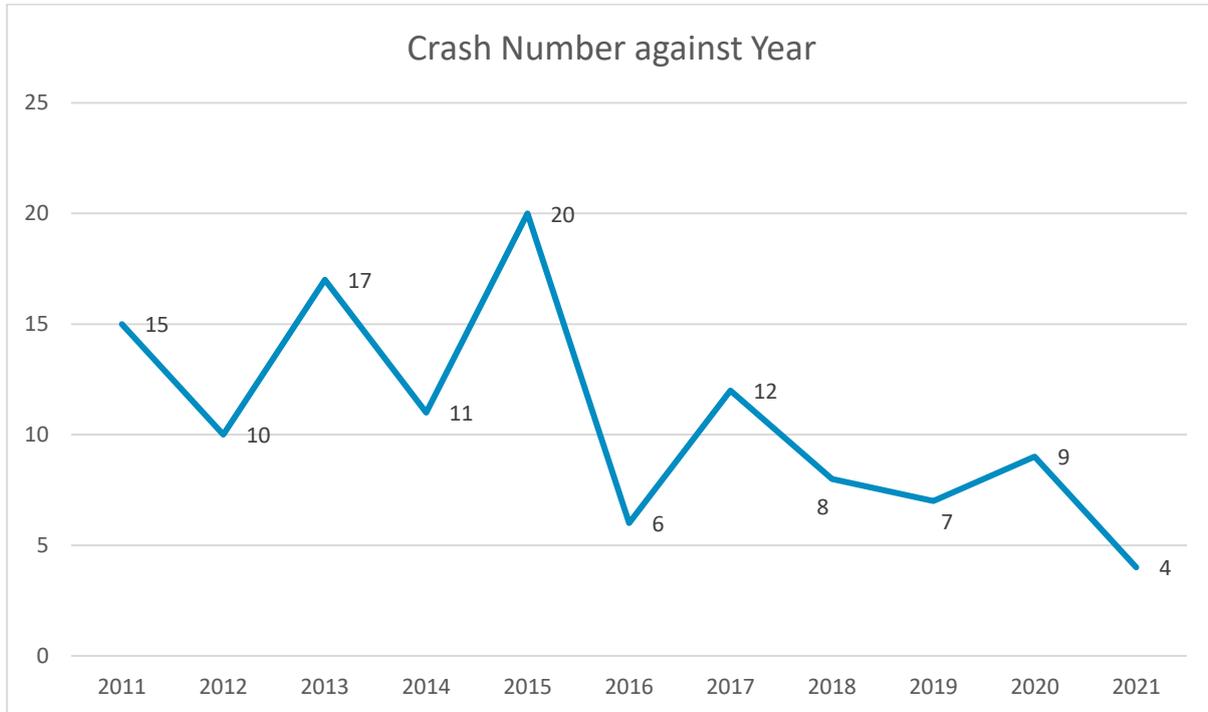


Figure 15: Crash numbers by year

Two key areas of concern regarding crash history were raised at the public information session held on Wednesday 31 March 2021, one on Frankford Main Road (Link 05 CH 7.1 to 7.55), and one on Birralee Main Road (Link 94 CH 8.4). The anecdotal evidence is supported by the crash history at these locations (five crashes including one fatality on the Frankford Main Road curve, and five crashes including one “serious” on the Birralee Main Road curve). Refer to Section 2.10 for further discussion on these areas of concern.

## 2.6.1 Crash data by severity

Table 5: Crash severity summary and key

Severity	Number	Colour Key
Fatal	3	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>
Serious	7	<span style="display:inline-block; width:15px; height:15px; background-color:orange;"></span>
First Aid	10	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>
Minor	37	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>
Property Damage Only	62	<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen;"></span>
Total	119	

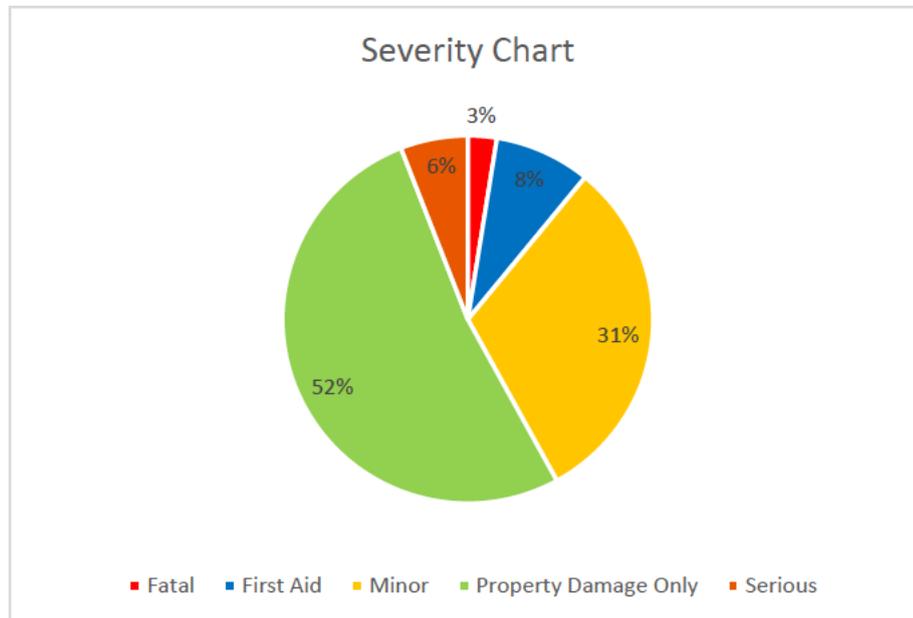


Figure 16: Crash severity proportions

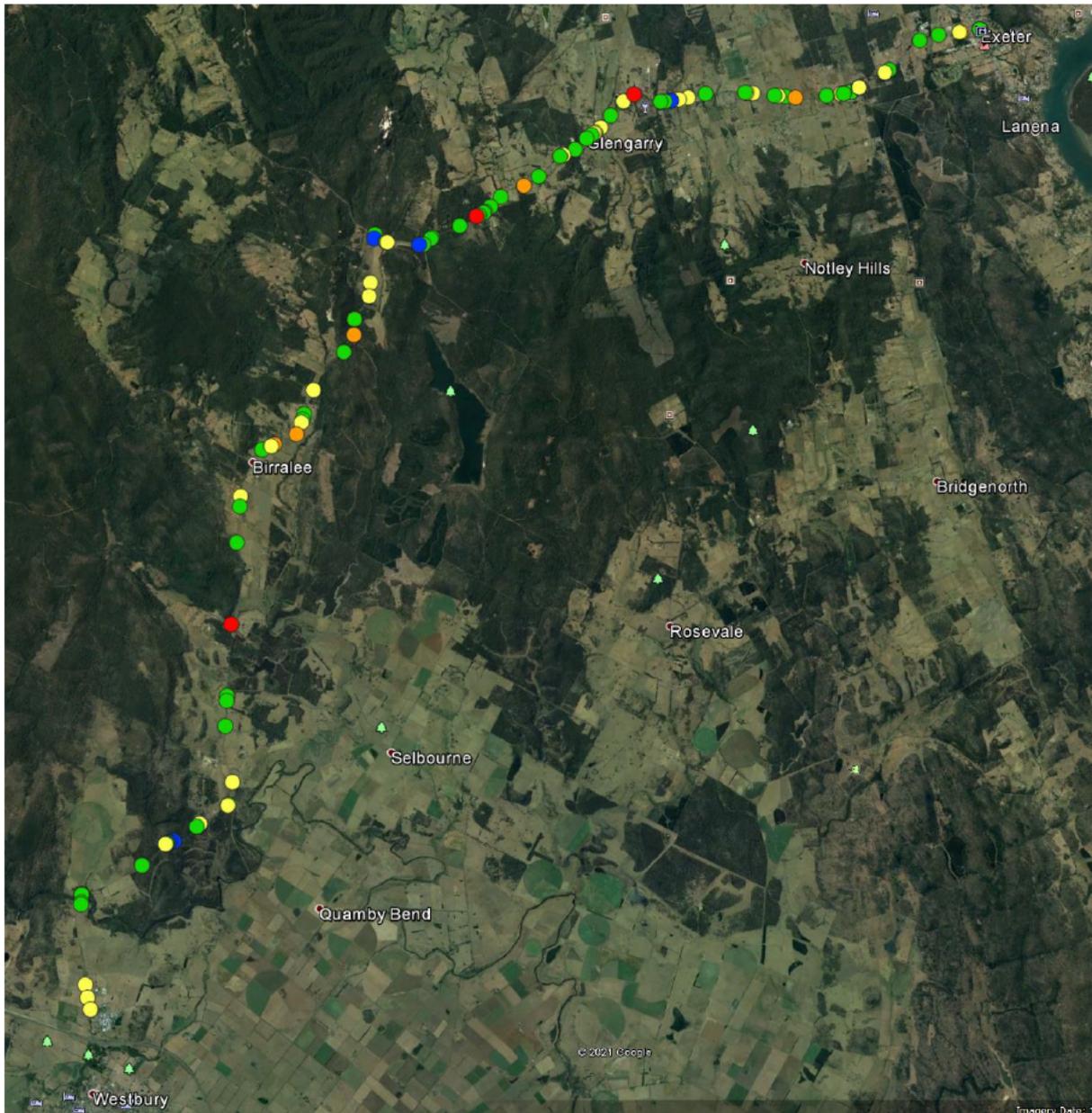


Figure 17: Crash locations by severity

## 2.6.2 Crash data by type

Table 6: Crash types key

DCA Code – Crash Type	Colour Key
Vehicles from Adjacent Directions (Intersections Only)	Dark Red
Vehicles from Opposing Direction	Yellow
Vehicles from Same Direction	Orange
Manoeuvring	Red
Overtaking	Magenta
On Path	Green
Off Path on Straight	Cyan
Off Path on Curve	Blue
N/A	

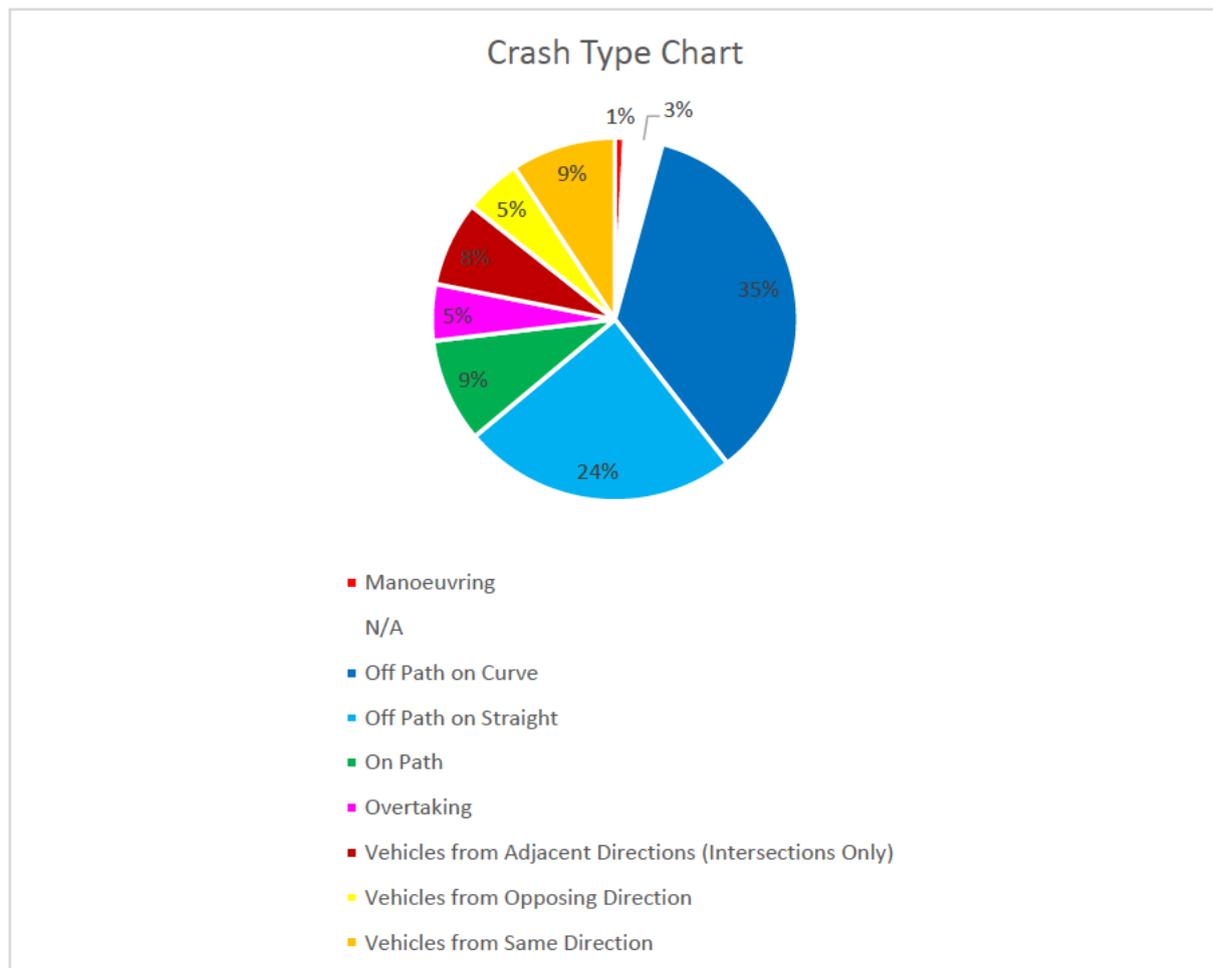


Figure 18: Crash severity

Table 7: Crash types summary

DCA Code – Crash Type	Severity			Total Number
	Fatal	Serious	Other	
Vehicles from Adjacent Directions (Intersections Only)	-	-	9	9
110 - Cross traffic	-	-	1	1
111 - Right far	-	-	2	2
113 - Right near	-	-	3	3
116 - Left near	-	-	1	1
117 - Left/right far	-	-	1	1
118 - Two left turn	-	-	1	1
Vehicles from Opposing Direction	1	-	5	6
120 - Wrong side/other head on (not overtaking)	1	-	3	4
121 - Right through	-	-	1	1
129 - Other opposing	-	-	1	1
Vehicles from Same Direction	-	2	9	11
130 - Vehicles in same lane/ rear end	-	-	3	3
131 - Vehicles in same lane/ left rear	-	1	2	3
132 - Vehicles in same lane/ right rear	-	1	3	4
139 - Other same direction (including vehicle rolling backwards)	-	-	1	1
Manoeuvring	1	-	-	1
140 - U turn	1	-	-	1
Overtaking	-	-	6	6
152 - Pulling out	-	-	5	5
159 - Other overtaking	-	-	1	1
On Path	-	-	11	11
166 - Struck object on carriageway	-	-	1	1
167 - Animal (not ridden)	-	-	10	10
Off Path on Straight	-	1	28	29
170 - Off carriageway to left	-	-	6	6
171 - Left off carriageway into object or parked vehicle	-	-	7	7
172 - Off carriageway to right	-	1	1	2
173 - Right off carriageway into object or parked vehicle	-	-	5	5

DCA Code – Crash Type	Severity			Total Number
	Fatal	Serious	Other	
<i>174 - Out of control on carriageway</i>	-	-	2	2
<i>179 - Other straight</i>	-	-	7	7
Off Path on Curve	1	4	37	42
<i>180 - Off carriageway right bend</i>	-	-	5	5
<i>181 - Off right bend into object/parked vehicle</i>	1	1	8	10
<i>182 - Off carriageway left bend</i>	-	-	1	1
<i>183 - Off left bend into object/parked vehicle</i>	-	-	7	7
<i>184 - Out of control on carriageway</i>	-	1	2	3
<i>189 - Other curve</i>	-	2	14	16
N/A	-	-	4	4
N/A	-	-	4	4
Grand Total	3	7	109	119

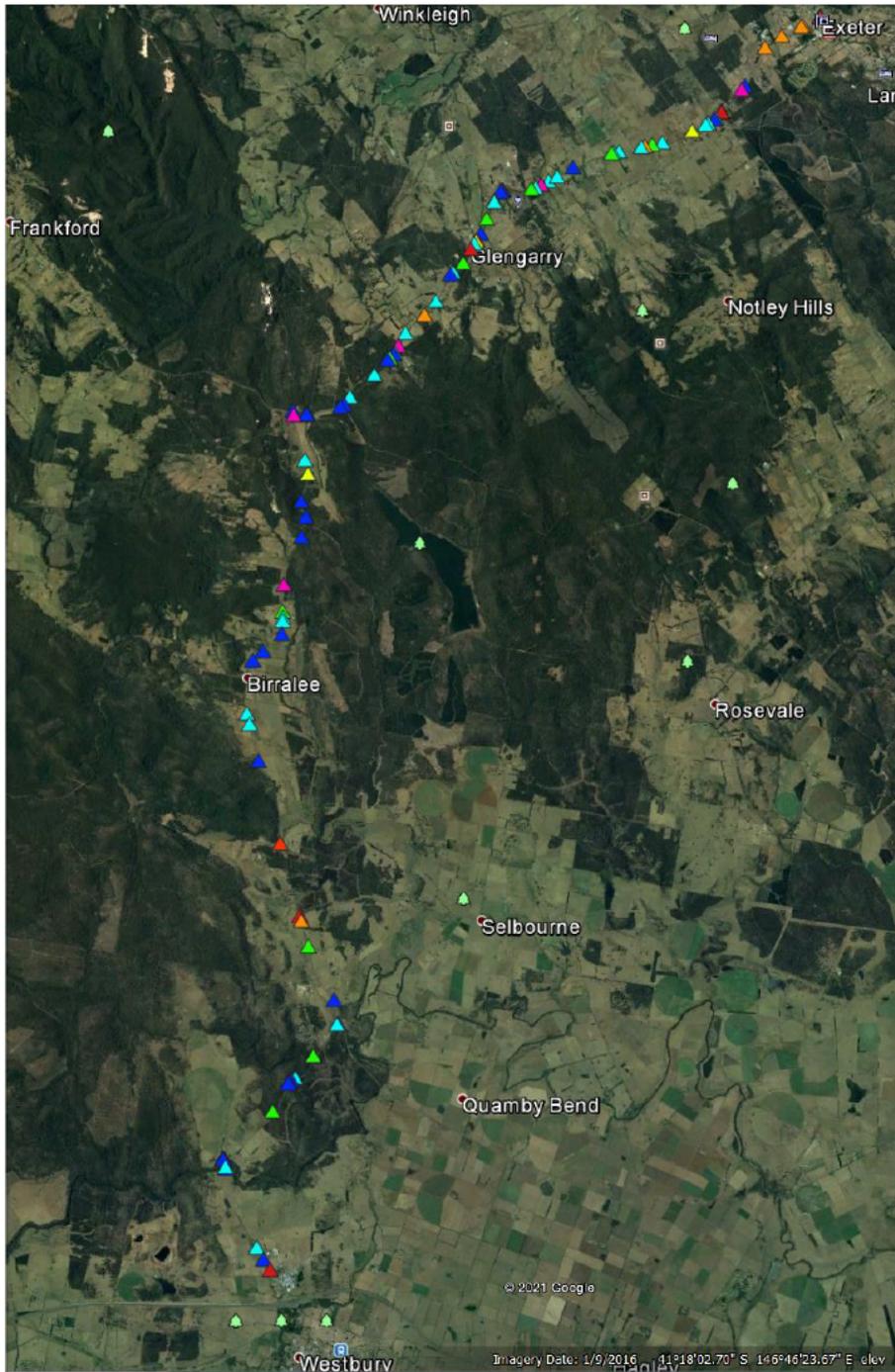


Figure 19: Crash locations by type

## 2.7 Services

A dial before you dig (DBYD) enquiry has been conducted on the extents of the road corridor. These services are summarised in Table 8 and Table 9. The detailed survey confirmed the exact location of these services.

Table 8: Frankford Main Road DBYD summary

<b>Frankford Main Road (A1044)</b>				
<b>Service Provider</b>	<b>Service</b>	<b>Link</b>	<b>Approximate Chainage (km)</b>	<b>Comment</b>
Tasmanian Gas Pipeline	Natural Gas Pipeline	5	1.33	Gas pipeline crosses Batman Highway
TasWater	100 AC and 150 AC Water Main (Critical)	5	0 - 6.87	Water main parallel with Frankford MR up to Kerrisons Road intersection, with spurs at both 'Loop Road's and Long Plains Road
TasNetworks	Poles	5	0 - 8.06	Power poles generally follow the road corridor.
TasNetworks	Poles	21	0 - 5.47	Power poles generally follow the road corridor
TasNetworks	HV and LV Cable	21	0.3 - 0.4	HV and LV cables alongside road at Post Office and Pony Club
NBN	NBN Cable	5	-	Appears to be limited to Exeter region, most likely unaffected

Table 9: Birralee Main Road DBYD summary

<b>Birralee Main Road (A1701)</b>				
<b>Service Provider</b>	<b>Service</b>	<b>Link</b>	<b>Approximate Chainage (km)</b>	<b>Comment</b>
TasWater	225 PVC-U Sewer Main	8	0.25	Sewer main crosses Birralee Road near Tas Alkaloids
TasWater	150 PVC-M Water Main	8	0.72	Water main crosses Birralee Road at Roxford Avenue
TasWater	63 and 25 PE100 Water Main	8	0.72 - 2.71	Water main parallel with Birralee Road up to Meander River
TasGas	Gas Main	8	0.25 - 0.72	Gas main parallel with Birralee Road in vicinity of Tas Alkaloids and industrial region. Crosses Birralee Road at Roxford Avenue.
TasNetworks	Fibre Optic Cable	8	0.36	Fibre optic cable (buried) crosses Birralee Road
TasNetworks	HV and LV Cable	8	0.44 and 0.72	HV and LV cables cross Birralee Road
TasNetworks	LV Cable	8	0.44 - 0.72	LV cable alongside Birralee Road

<b>Birralee Main Road (A1701)</b>				
<b>Service Provider</b>	<b>Service</b>	<b>Link</b>	<b>Approximate Chainage (km)</b>	<b>Comment</b>
TasNetworks	Poles	8	0 - 3.16 5.27 - 6.93	Power poles generally follow the road corridor
TasNetworks	Poles	8	8.32	Power poles following Selbourne Road cross Birralee Road
TasNetworks	Poles	94	3.97 - 6.35 9.17 - 10.17	Power poles generally follow the road corridor
NBN	NBN Cable	8	-	Appears to be limited to the Tas Alkaloids/industrial area, most likely unaffected
Telstra	Cable	94	0 - 2.5	Cable parallel with road in this region.
Telstra	Cable	94	4.68 - 10.17	Cable parallel with road in this region.
Telstra	Cable	94	0.26 4.68 5.49 5.8 5.98 6.19 6.41	Cable crosses Birralee Road at these locations
Telstra	Exchange and Road Crossings	94	10.17	Road crossings at Frankford and Birralee Road intersection. Exchange building across road from intersection.

## 2.8 Aboriginal heritage

The DBYD enquiry conducted along both Frankford Main Road and Birralee Main Road revealed that there may be Aboriginal relics or a risk of impacting Aboriginal relics. An Aboriginal Heritage Tasmania desktop review needs to be conducted to confirm details. An Unanticipated Discovery Plan is required to be on hand during construction works.

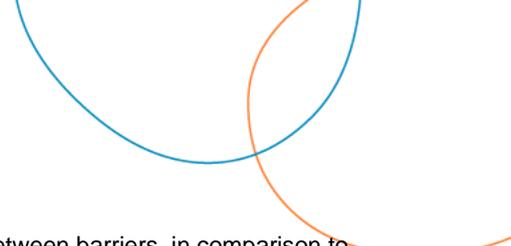
## 2.9 Structures

The Department's database for bridge and box culvert structures (excluding pipe culverts) was utilised to identify all structures on each of the roads. An assessment on the available road width (traffic lanes plus shoulders) between barriers on each structure was undertaken to identify where these structures may restrict potential road widening options within their vicinity. These structures and their widths are summarised in Table 10.

The widening of major structures is not proposed to form part of the scope of this project and are to generally be accepted as a constraint. The structural capacity of each of these structures is also to be accepted as a constraint.

Table 10: Northern roads package stage 2 structures

Section	Link No.	Chainage (km)	Bridge Number	Bridge Name	Bridge Type	Traffic Width (Lanes + Shoulders) from Drawings (m)	Target Traffic Width Lanes + Sealed Shoulders (m)	Width Variance (m)
Frankford Main Road (A1044)	5	0.97	708	Stoney Brook Bridge	U-Beams with Deck Overlay	7.315	8	-0.685
	5	3.13	5527	Stoney Brook Culvert	Box Culvert	9.144	8	1.144
	5	3.75	5526	Frankford Main Road Culvert	Box Culvert	8.534	8	0.534
	5	4.46	5528	Frankford Main Road Culvert	Box Culvert	9.144	8	1.144
	5	5.64	1427	Aintrees Creek Culvert	Box Culvert	9.144	8	1.144
	5	6.5	1460	Cash's Creek Culvert	Box Culvert	8.534	8	0.534
	21	0	2244	Tunks Creek Bridge	Stiffened Kerb Slab	6.705	8	-1.295
Birrallee Main Road (A1701)	8	2.71	5950	Meander River Bridge	Super-T	7.6	8	-0.4
	8	5.27	517	Brushy Rivulet Bridge	Super-T	8	8	0
	94	1.71	3016	Black Sugarloaf Creek Bridge	Reinforced Precast Planks	8	8	0
	94	7.14	4851	Reids Creek Bridge	Reinforced Precast Planks	8	8	0



Three structures have been identified as being deficient in available roadway width between barriers, in comparison to the Department's target roadway width. Stoney Brook Bridge and Meander River Bridge are not significantly deficient in width, and it is likely the Department will accept these deficiencies.

Tunks Creek Bridge is significantly deficient in width for the proposed new road widening and will therefore present a restriction if not addressed. This is a stiffened kerb slab bridge which relies on the structural capacity of the kerbs to resist heavy vehicle loads. It has also been found in the assessment of similar structures that these bridges are generally deficient in capacity for contemporary heavy vehicle loads. Widening and strengthening of such bridges has been problematic and it is possible that a bridge replacement would be the most efficient option.

## 2.10 Safety issues

Through consultation with stakeholders, two specific sections have been identified as a significant safety concern by road users. These are summarised in the following sections.

The options analysis has found there is insufficient budget to address these concerns as they were not identified in the initial scope. It is recommended that the Department investigate whether additional funding can be sourced to address these concerns.

### 2.10.1 Glengarry Hills – Frankford Main Road – Link 05 chainage 7.3

A long horizontal and vertical curve on Frankford Main Road at Glengarry from approximately Link 05 CH 7.1 to CH 7.55, was anecdotally described as a dangerous section of road with a bad crash history by a member of the local fire brigade and numerous other stakeholders. There is also an informal bus stop area on this curve with no room for the bus to fully pull off the road. One stakeholder requested reducing the speed limit from 100 km/h to 80 km/h in this region. This anecdotal evidence is supported by the crash history data with five crashes on this curve in the last ten years, including one fatality. There have been an additional three crashes on the approach/exit to the curve at CH 7.6. Refer to Section 2.6 for the crash history data.

Given the strong stakeholder interest in this particular section of the road, it is important this is considered during design. Refer to Figure 20 for a plan highlighting the curve in question.

Section 2.4 shows the operating speed and stopping sight distance respectively for this section of Frankford Main Road. The operating speed through this section is approximately 85 km/h, which is lower than the target 100 km/h. Of particular note though is the SSD is significantly deficient for approximately 300 m around the curve and is only acceptable for a 40 km/h or lower speed environment. The crash history data presented in Section 2.6 also identifies a cluster of crashes along this corner in the past ten years.