



## **Miepol Pty Ltd**

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### **TWO BUS STOPS ON TOWNSEND STREET, WHITTINGTON**

#### **Existing Condition Road Safety Audit Rev A**

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#### **HDS Australia Pty Ltd**

Waverley Business Centre  
21-23 Aristoc Road  
Glen Waverley VIC 3150

**telephone** +61 3 9550 1858  
**email** vic@hdsaustralia.com.au

**www.hdsaustralia.com.au**

**April 2020**

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## 1.0 INTRODUCTION

Miepol Pty Ltd has requested that HDS Australia Pty Ltd conduct an existing condition stage road safety audit of two bus stops and shelters on Townsend Road, Whittington.

This report is a Road Safety Audit conducted in accordance with the Austroads Road Safety Audit Guidelines.

### 1.1 The Auditors

The audit was carried out by:

33(1)

– Senior Road Safety Auditor, HDS Australia Pty Ltd.

33(1)

The audit was reviewed by:

33(1)

– Senior Engineer and Road Safety Auditor, HDS Australia Pty Ltd.

33(1)

### 1.2 Site Inspections

Daytime site inspection was undertaken on Thursday 9 April 2021. The weather was fine, and the road surface was dry.

### 1.3 Audit Process

The road safety audit identifies issues that may affect road user safety however, the auditors point out that no guarantee can be made that every deficiency has been identified. Further, if all the recommendations in this report were to be followed, this would not guarantee that the proposed works are “safe”. Rather, adoption of the recommendations should improve the level of safety on the road.

### 1.4 Responding to the Audit

As set out in the Austroads guide, responsibility for any works rests with the project manager. The project manager is under no obligation to accept the recommendations of the road safety audit. Also, it is not the role of the auditor to agree to or approve of the project manager’s response to this road safety audit.

The road safety audit provides the opportunity to highlight potential problems and have them formally considered by the project manager, in conjunction with all other considerations. The table in Section 3.0 of this report provides a means for the project manager to document responses to each of the issues identified during the road safety audit.

## 1.5 Classification of Concerns

The safety concerns identified from the audit and recommended actions have been graded into five classes:

- **INTOLERABLE** – Must be corrected;
- **HIGH** – Should be corrected or the risk significantly reduced, even if the treatment cost is high;
- **MEDIUM** – Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high;
- **LOW** – Should be corrected or the risk reduced, if the treatment cost is low;
- **NOTED** – Other items.

*These classifications are based on the following risk level matrix:*

	Frequent (once or more a week)	Probable (once or more a year)	Occasional (once or more in 10 years)	Improbable (less often than every 10 years)
Catastrophic (Likely multiple deaths)	Intolerable	Intolerable	Intolerable	High
Serious (likely death or serious injury)	Intolerable	Intolerable	High	Medium
Minor (likely minor injury)	Intolerable	High	Medium	Low
Limited damage (property)	High	Medium	Low	Low

## 1.6 Safe System Approach

The Safe System (SS) approach is a recent development in road safety and network management. It focuses on the elimination of fatal and serious injury crashes, in line with the Vision Zero and Towards Zero campaigns. Key to the SS approach is a recognition that human error is inevitable, and that the road system needs to make allowance for this and minimise the consequences when errors do occur.

The SS approach emphasises the need to keep the physical forces that road users are exposed to during a crash to below the thresholds of human tolerance. This is achieved through a combination of safer speeds, safer vehicles and safer roads with roadsides that are more forgiving of human error. Further details of the SS approach are provided in:

- Austroads (2019) Guide to Road Safety Part 6: Managing Road Safety Audits, Section 3;
- Austroads (2019) Guide to Road Safety Part 6A: Implementing Road Safety Audits, Section 1.3; and
- Austroads (2018) Towards Safe System Infrastructure: A Compendium of Current Knowledge.

Safe System Assessment (SSA) is a tool for examining how well road improvement proposals and projects align with the Safe System approach and principles. These can complement road safety audits, but involve a different assessment methodology and process. Importantly, **this report is NOT a SSA.**

However, SS principles are relevant in road safety audits. The most recent Austroads guides provide details on how to embed SS principles into road safety audits. Key to this is to identify potential safety hazards or risks where there is the potential for crash types to exceed threshold impact speeds as shown below:

Figure

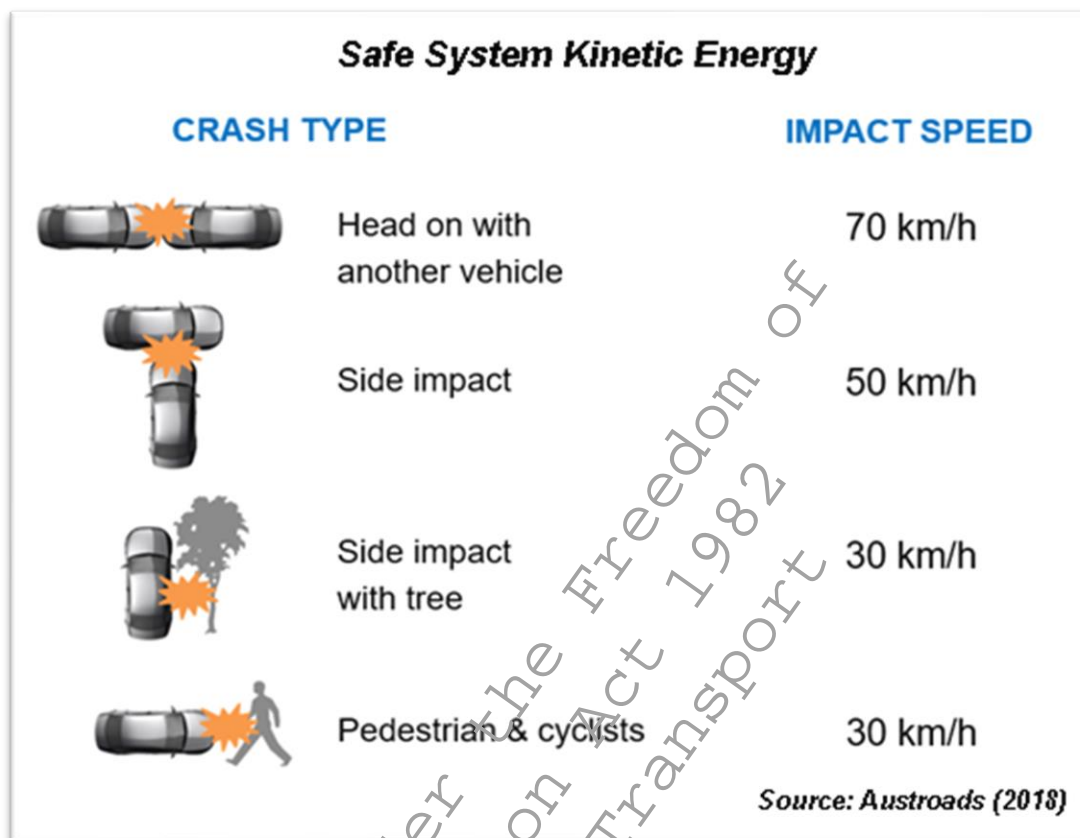


Figure 2 – Intolerable crash types

The crash types shown in Figure 2 are likely to result in forces beyond human tolerance, and therefore the potential for a fatal or serious injury outcome in the event of a crash. Road safety audit findings that relate to these crash types are highlighted with **IMPORTANT**, in addition to the classifications of concerns described above in Section 1.5 (noted, low, medium, high or intolerable). This annotation is included to emphasise potential issues where features of the road environment may not be in alignment with SS principles.

## 1.7 Reference Documents Used in the Audit

- AS1428.4.1:2009: Means to assist the orientation of people with vision impairment - TGSi;
- VicRoads Supplement to AS1742.12:2000;
- Austroads Guide to Road Design;
- Austroads Guide to Road Safety Part 6: Managing Road Safety Audits;
- Austroads Guide to Road Safety Part 6A: Implementing Road Safety Audits; and
- Relevant VicRoads supplements.

## 2.0 SITE DESCRIPTION

### 2.1 General

The assessment involves the review of two bus stops and shelters at two locations, namely:

- Bus stop ID 30632 at 125 Townsend Rd, Whittington; and
- Bus stop ID 50722 at 118 Townsend Rd, Whittington.

The locations of these stops are shown in Figure 1 below.



Figure 1 – Locality Plan.  
(Image courtesy of Nearmap)


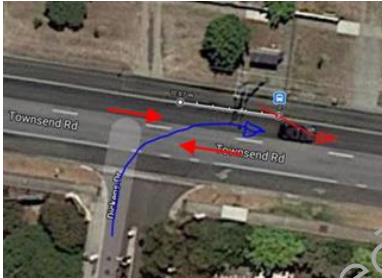
### 2.2 Previous Audits


HDS Australia is not aware of any previous audits at this location.


3.0      **TABLE OF AUDIT FINDINGS**

The findings of the audit are detailed in the following table.


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Item	Audit Findings	Recommendations	Risk Level	Project Manager	
				Accept Yes/No	Responses
1	<p>When a bus is stationary at bus stop ID 50722 the sight lines for vehicles exiting Dickens Drive to turn either left or right is not acceptable (about 55m) for the speed environment.</p>  <p>It should be noted that there is a bus stop (ID 30632) on the northern side of Townsend Road also which exacerbates the situation for vehicles wishing to turn right out of Dickens Drive, should there be a bus at both stops (30632 and 50722). This situation would require the driver exiting to turn right from Dickens Drive to consider three potential points of conflict simultaneously, i.e. (i) the westbound traffic, (ii) eastbound traffic and the (iii) bus on the northern side of Townsend Road departing and merging. This level of complexity could overwhelm the driver exiting Dickens Drive to perform an ill-considered and unsafe manoeuvre, which may lead to either a side impact or rear-end crash.</p>	 <p>Consider changing to left turn only on Dickens Drive.</p>	Medium		


Item	Audit Findings	Recommendations	Risk Level	Project Manager	
				Accept Yes/No	Responses
2	<p>The bus zone on the southern side of Townsend Road and west of Dickens Drive is still signposted. This bus zone has an Australia Post box located within it also.</p> 	<p>If this bus zone is now redundant, consider removing this bus zone.</p>	Low		

Item	Audit Findings	Recommendations	Risk Level	Project Manager	
				Accept Yes/No	Responses
3	<p>Tactile indicators for the visually impaired are a dark grey and should be more visible e.g., bright yellow as per current DDA requirements.</p> 	Consider replacing tactile indicators.	Low		

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Item	Audit Findings	Recommendations	Risk Level	Project Manager	
				Accept Yes/No	Responses
4	<p>Yellow bus bay linemarking is faded.</p> 	<p>Consider remarking both bus zones to coincide with the bus zone signposting.</p>	<p><b>Comment</b></p>		

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Item	Audit Findings	Recommendations	Risk Level	Project Manager	
				Accept Yes/No	Responses
5	<p>The BUS ZONE (R) sign on the approach side of the bus stop (ID 50722) is missing therefore making the bus zone nonconforming.</p> 	<p>Install a BUS ZONE (R) sign on the approach to the bus stop to clearly define the limits of the bus zone.</p>	Comment		

Corrective Action Report:

Responsible Officer's Name: .....

Agency and Department: .....

Signed: ..... Date: .....

## 4.0 CONCLUSION

This Road Safety Audit has been conducted in accordance with the procedures set out in the Austroads Guide to Road Safety Part 6: Managing Road Safety Audits (2019) and Austroads Guide to Road Safety Part 6A: Implementing Road Safety Audits (2019). The site has been inspected and the supporting documentation has been examined. The findings and recommendations shown in Section 3.0 should be addressed to improve the safety of the road environment.

Audited by:

33(1)

33(1)

Senior Road Safety Auditor  
HDS Australia Pty Ltd

Reviewed by:

33(1)

33(1)

Senior Road Safety Auditor  
HDS Australia Pty Ltd

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