



**ISG**

**PROPOSED HIGHWAYS WORKS,  
FORT ROAD, PENARTH**

**STAGE 1 - ROAD SAFETY AUDIT  
MARCH 2022**



## REPORT CONTROL

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## Appendices

**Appendix A** – List of drawings and documents supplied for audit.

**Appendix B** – Location plan of identified problems.



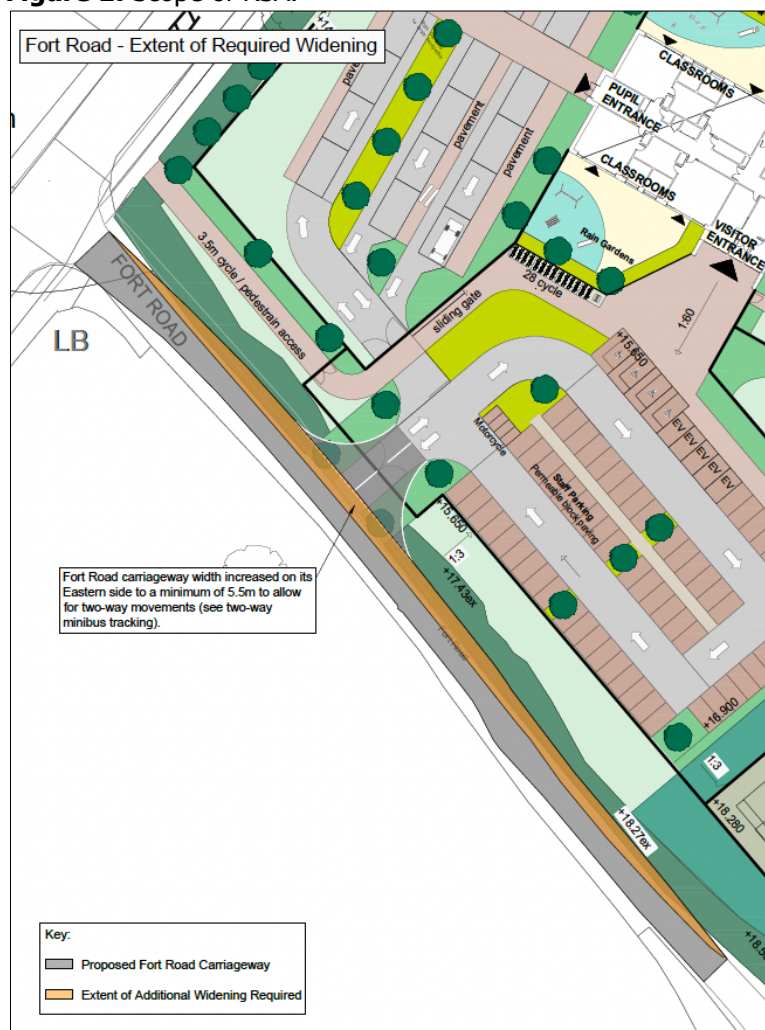
# 1 INTRODUCTION

- 1.1 This report presents the findings from a Stage 1 Road Safety Audit (RSA) undertaken on the proposed highways arrangements associated with the proposed Ysgol Y Deri expansion site, to the north-east of Fort Road, Penarth.
- 1.2 The audit was carried out by the following:
- Tristan Brooks - Road Safety Audit Team Leader  
BSc (Hons), MBA, CMILT, MCIHT, MSoRSA,  
HE RSA Cert. of Competency
  - R Lister - BSc (Hons), MSc, MRTPI, MCIHT, - Road Safety Audit Team Member  
MSoRSA
- 1.3 The RSA was commissioned by ISG who provided the audit information and although there was no formal 'audit brief' the RSA team has accepted that sufficient information has been provided to undertake the Stage 1 RSA. The scheme has been designed by Aecom.
- 1.4 The overseeing organisation is the Vale of Glamorgan Council, who have also approved the audit team.
- 1.5 The site visit was undertaken on Friday 25<sup>th</sup> March 2022 and comprised a walk and drive-throughs (where available) of the area covered by the scheme. During the site visit both the weather and road surface were dry. Traffic movements on in the vicinity of the scheme on Lavernock Road and Fort Road were moderate and light respectively. Two cyclists were observed on Lavernock Road during the site visit, no pedestrians were observed.
- 1.6 Lavernock Road in the vicinity of the scheme is subject to a 40mph speed limits and has street lighting. Fort Road in the vicinity of the scheme is subject to the national speed limit for single carriageways.
- 1.7 A review of the Personal Injury Collisions (PIC) data between June 2016 and June 2021 (based on information in the Crashmap database) has indicated that during this period there has been 1 PIC recorded in the immediate vicinity of the proposed highways works which resulted in injury that was slight in severity. A review of the collision description has indicated:
- The collision occurred in August 2018, during the hours of daylight when the carriageway and road surface were dry.;
  - The collision occurred at the junction of Lavernock Road/Fort Road;

- The collision involved a pedal cyclist and van or goods vehicle under 3.5t that was in the act of turning left at the junction.

- 1.8 The drawings and documents supplied for audit are listed in **Appendix A**. An annotated drawing showing the locations of the problems identified is provided in **Appendix B**.
- 1.9 The scope of the RSA is limited to the proposed highways works access arrangements as illustrated in **Figure 1**.

**Figure 1:** Scope of RSA.



- 1.10 It is understood that the speed limit on Fort Road in the vicinity of the proposed access arrangements will be reduced to 30mph.
- 1.11 The terms of reference of the audit are as that described in DMRB GG/119 Guidelines on Road Safety Audits. This standard has been used for guidance only. The one exception to GG/119 is the inclusion (if applicable) of a notes/observation section at the end of the



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report. The audit team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

- 1.12 The audit team have not been made aware of any previous RSA's undertaken on the scheme nor any departures or relaxations from standards within the design of the scheme.
- 1.13 The recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG/119. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

## 2 ROAD SAFETY AUDIT FINDINGS FROM RSA 1

### PROBLEM 1

**LOCATION:** Fort Road/ Lavernock Road junction.

**SUMMARY:** Insufficient intervisibility to/from the crossing point could increase the risk of vehicle collisions with pedestrians/cyclists.

- 2.1 The intervisibility splays at the Fort Road/ Lavernock Road junction is considered to be insufficient between vehicles approaching the junction from Fort Road and the shared use crossing point (Ref: **Photograph 1**). Restricted intervisibility at the crossing points could result in an increased risk of vehicle collisions with pedestrians/cyclists.

**Photograph 1:** Restricted intervisibility at the crossing point.



### RECOMMENDATION

- 2.2 It is recommended that sufficient intervisibility splays be provided at the crossing point.

### PROBLEM 2

**LOCATION:** Fort Road/ Lavernock Road junction.

**SUMMARY:** Omission of tactile paving at the uncontrolled shared use crossing may result in an increased risk of vehicle collisions with pedestrians/cyclists.

- 2.3 The drawings provided for audit do not indicate the provision of tactile paving at the existing uncontrolled shared use crossing at the Fort Road/ Lavernock Road junction. Omission of tactile paving at the uncontrolled shared use crossing may provide insufficient information to pedestrians with visual impairments of the crossing point who may inadvertently step into the carriageway which could result in pedestrian/vehicle collisions.

**RECOMMENDATION**

- 2.4 It is recommended that tactile paving be provided at the uncontrolled crossing.

**PROBLEM 3**

**LOCATION:** Lavernock Road – bus stops in close proximity of the site.

**SUMMARY:** Omission of pedestrian crossing facilities may increase the risk of pedestrian trip hazards and pedestrian/vehicle collisions.

- 2.5 The audit team would note that there is an omission of pedestrian crossing facilities between the bus stops located on Lavernock Road in close proximity to the site, where there are likely to be pedestrian desire lines to/from the bus stops as a result of the development proposals. Omission of suitable pedestrian crossing facilities could increase the risk of pedestrian trip hazards particularly for those with mobility impairments and/or pedestrian/vehicle collisions due to the absence of suitable crossing facilities.
- 2.6 It is also noted that there are no formal footway/waiting facilities at the bus stop serving north-east bound services. A lack of suitable boarding/alighting facilities at the bus stop could result in an increased risk of pedestrian/ vehicle collisions due to pedestrians crossing to use the bus stop at inappropriate locations or potentially waiting within the carriageway if using the bus stop.

**RECOMMENDATION**

- 2.7 It is recommended that suitable pedestrian crossing facilities and boarding alighting area are provided on Lavernock Road in the vicinity of the bus stops.

**PROBLEM 4**

**LOCATION:** Fort Road/ Lavernock Road junction and the proposed site access.

**SUMMARY:** Vehicle encroachment by large vehicles could potentially resulting in head-on type or side impact type collisions.

- 2.8 The vehicle swept paths provided for review indicate that a 11.2 metre refuse vehicle (or similar) would have to encroach into the opposing lane when manoeuvring to/from the Fort





Road/ Lavernock Road junction and the proposed site access. Encroachment into the opposing lanes could potentially result in head-on type or side impact type collisions.

- 2.9 It is acknowledged that it is not atypical for some minor encroachment into adjoining lanes for this or similar types of vehicles, although not to the extent as shown in the vehicle swept path drawings provided for review.

**RECOMMENDATION**

- 2.10 It is recommended that the junction geometries are revised to address this problem.

**PROBLEM 5**

**LOCATION:** Fort Road - proposed site access.

**SUMMARY:** Offset of site access gates from the edge of the carriageway could result in rear-end shunt or side impact type collisions.

- 2.11 The offset of the site access gates from the edge of the carriageway may be insufficient to permit vehicles to wait in front of the gates if the gates are shut e.g. to leave their vehicle to open/close the gates, without potentially overhanging into Fort Road, which could increase the risk of rear end shunt or side impact type collisions.

**RECOMMENDATION**

- 2.12 It is recommended that the gates are sufficiently off set from the edge of the carriageway to address this problem.



### 3 AUDIT STATEMENT

3.1 We certify that this audit has been carried out in accordance with GG/119 unless otherwise noted.

Signed:

Date: 30 March 2022

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Date: 30 March 2022

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## **APPENDIX A**

### **List of Drawings and Documents Provided for Audit**

**YYDE-HLM-00-00-DR-L-00005 – Rev P05**

Proposed Site Layout – Facing Fort Road

**60629450 - Aecom**

Fort Road Extent of Required Widening

**60629450 - Aecom**

Vehicle Swept Path Analysis

**60629450 - Aecom**

Visibility Splay Reviews

**PIC Data**

(Jan 2016 – June 2021)



## APPENDIX B

### Location of Identified Problems

