Fermoy, Co. Cork

Fermoy Housing Development at
Cork Rd, Fermoy Co. Cork

Stage 1 Road Safety Audit

January 2022

MHL & Associates Ltd.
Consulting Engineers

DOCUMENT CONTROL SHEET

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1. INTRODUCTION

M.H.L. & Associates Ltd. Consulting Engineers have been engaged by Cumnor Construction Ltd to prepare a Stage 1 Road Safety Audit (RSA) for junction of the residential development with the R639 at Fermoy Co. Cork. This Stage 1 Road Safety Audit will be submitted in conjunction with an SHD planning application to An Bord Pleanala consisting of 336 total units.

The proposed development is located on the R639 approx 1.5Km south of from Fermoy Town centre re and will have direct access onto the R639.

The site will be served by a single vehicular access junction onto the R639. This audit considers the development access point onto the public road and facilities on the public road and footway.

The development is to be accessed via a proposed priority junction located within the 60kph speed control of Fermoy town environs. See Figure 1.1 Site Location Map. Figure 1.2 shows the site extents on aerial photography and Figure 1.3 shows the site layout for the proposed works.

The Audit Team consists of Brian Loughrey (team leader, TII Ref No. **BL68284**), James Daly (team member, TII Ref No. **JD1351495**) of MHL Consulting Engineers.

The team made a site visit on Wednesday 26th January. The weather was dry at the time of the visit.

Information provided to assist the Audit consists of the drawings and documents listed in Appendix B. The information provided was considered adequate in terms of detail for the purpose of carrying out a Stage 1 road safety audit.

No previous Road Safety Audit report was provided in relation to the development.

No specific Road Collision data was provided to the audit team. The auditors reviewed the RSA Road Collision Statistics, in the vicinity of the applicant site. Three minor traffic collisions and two serious collisions were reported in the period 2005 – 2016.

One minor collision occurred in 2009 at a location approximately 500m to the south of the site entrance. The circumstances were a rear end, straight type collision, resulting in one minor casualty. Refer to Figure 1 in Appendix B for details

The Audit has been carried out in accordance with the relevant sections of TII Publication GE-STY-01024 (formerly NRA HD 19/15), "Road Safety Audit". The scheme has not been examined or verified for compliance with any other standards or criteria. The team drove the local road network and walked the road along the site road boundaries and compiled a list of road safety problems and associated recommendations which are presented in this report. Appendix A contains some photographs of the site.

An Audit Team Statement is included at the end of the Report. Appendix D contains the Safety Audit Feedback Form.

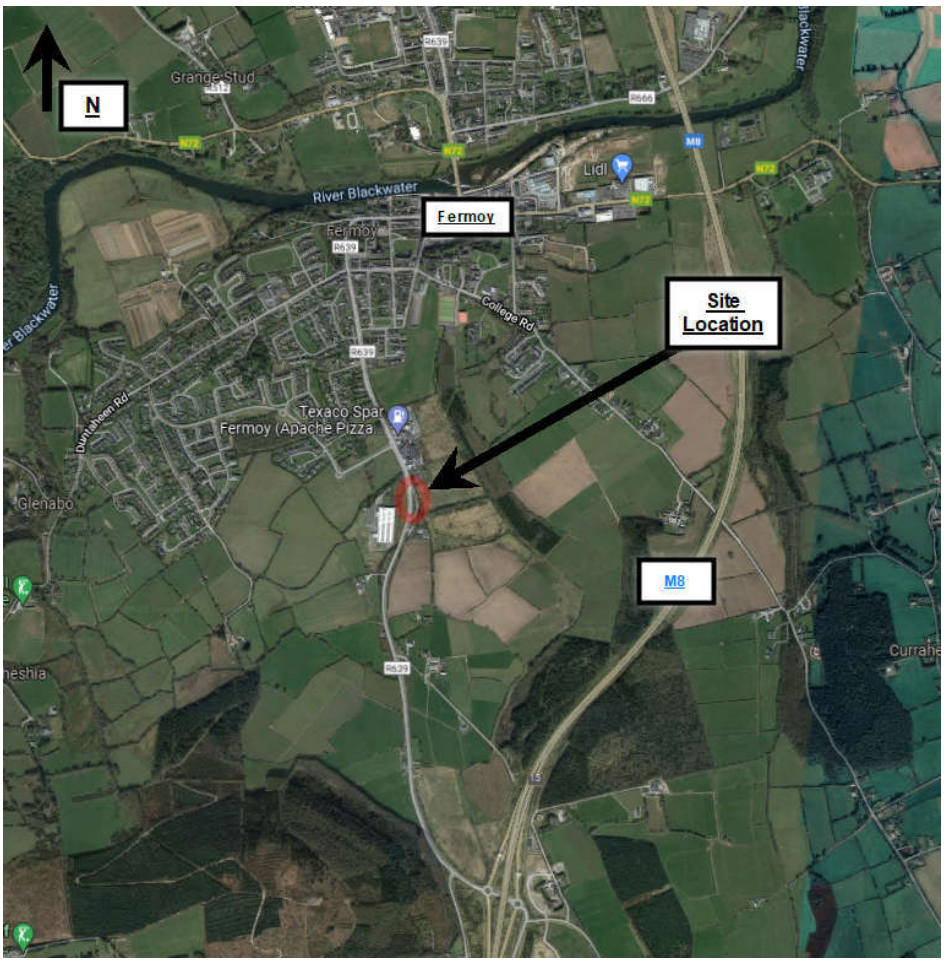


Figure 1.1 – Site Location Map

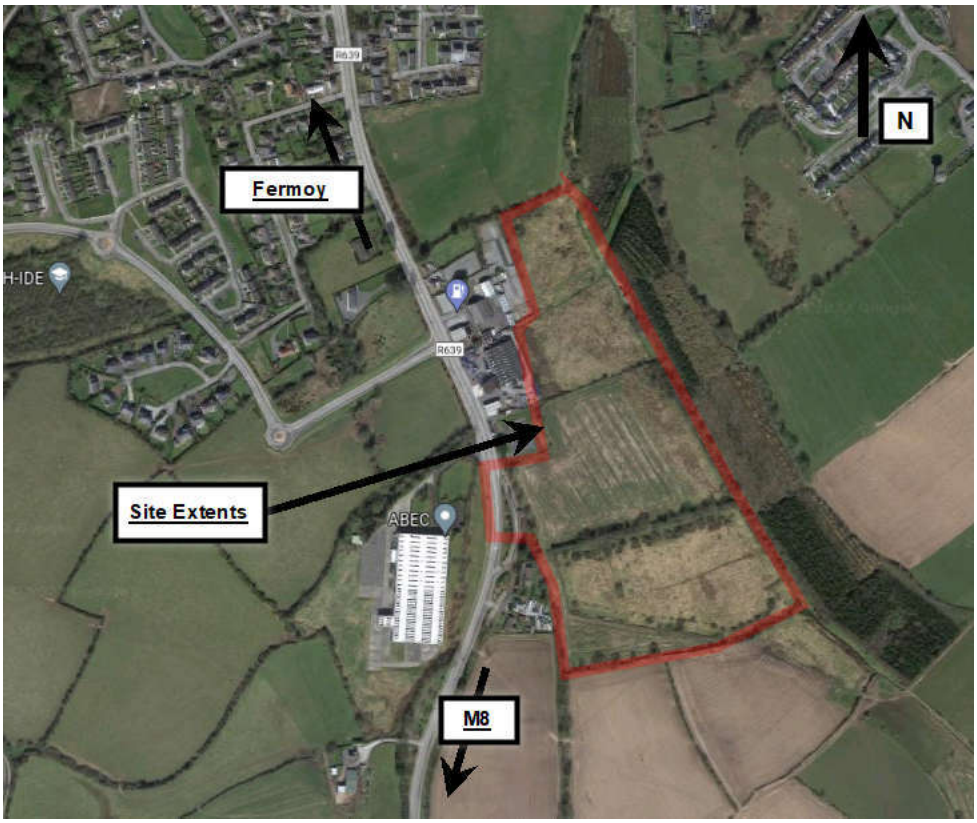


Figure 1.2 – Site Extents

Figure 1.3 –Proposed Development

2. AUDIT ISSUES

2.1.PROBLEM: CYLCE LANE BETWEEN JUNCTION AND CROSSING POINT

The proposed cycle lane as shown in Figure 2.1 could create confusion between pedestrian and cyclists at this locations. Failure to provide consistent and a streamlined design could lead to collisions and conflict between pedstrains and cyclist travelling in various directions. See Figure 2.1.

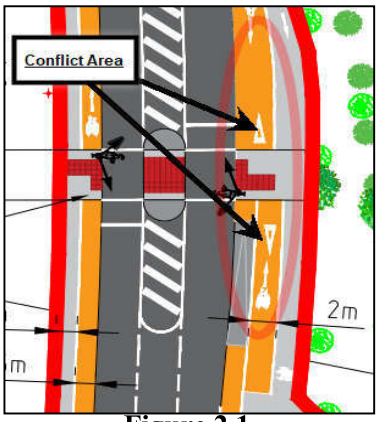


Figure 2.1.

Recommendation 1

As there are no cycling facilities proposed as part of the development, the design team should consider providing a shared facility at this location.

2.2. PROBLEM: UNCONTOLLED CROSSINGS NOT IDENTIFIED

Specific details of the proposed tactile paving and dropped kerbs at a nmber of locations have not been shown on the drawings provided to the audit team. Failure to provide an appropriate crossing point with tactile paving may lead to collision between pedestrians, visually impaired users and vehicles entering and exiting the Side roads. See Figure 2.2 & 2.3.

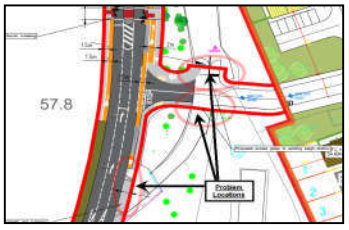


Figure 2.2

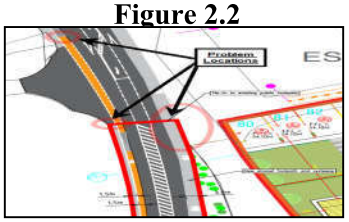


Figure 2.3

Recommendation 2

Provide the appropriate tactile paving at all locations in accordance with the relevant guidelines.

2.3.PROBLEM: ENTRY & EXIT POINTS ON CYCLE LANES

No details have been provided as to how cyclist will join and exit the proposed cyclelane to the south of the junction. Inadequate details at these locations could lead to collisions between cyclists and vehicles along R639. Refer to Figure 2.4

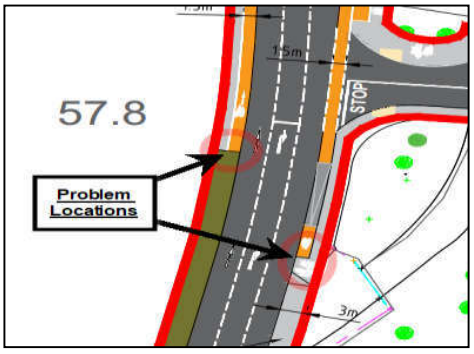


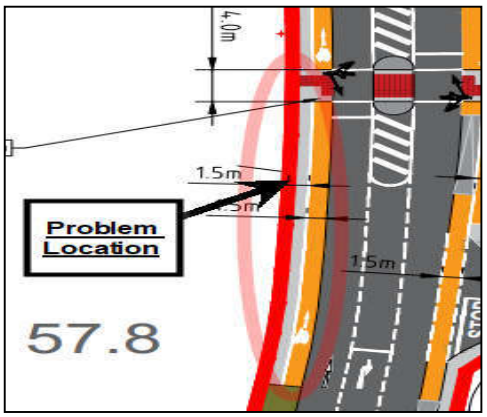
Figure 2.4

Recommendation 3

Provide connection details between the proposed cycle lanes and the R639

2.4.PROBLEM: WESTERN FOOTPATH TERMINATION POINT.

It is proposed to terminate the proposed footpath to the south of the proposed signalised pedestrian crossing on the western side of R639. This could lead to confusion for pedestrians and could cause collisions between pedestrians crossing the road at footpath end and vehicles travelling on the R639. Refer to Figure 2.5



Recommendation 4

The designed should look at the proposed termination point of the footpath.

2.5.PROBLEM: NO PUBLIC LIGHTING SHOWN.

No details have been provided of any proposed lighting scheme at the proposed junction. Failure to provide adequate public lighting presents security issues for visitors as well as being a road safety hazard for pedestrians and cyclists falling at night or not being seen by passing vehicles.

Recommendation 5

Ensure an adequately designed lighting scheme is provided for the development junction and is designed to the appropriate standards

2.6. PROBLEM: LACK OF ROAD DRAINAGE PROPOSAL

Road surface water drainage proposals are not shown on the drawings provided to the audit team. As part of the development, it is proposed to construct a footpath on both sides of the R639. Lack of road surface drainage could lead to surface water ponding on the road carriageway. This could result in collisions between vehicles or vehicles and pedestrians/Cyclists due to aquaplaning on water ponds following heavy rainfall.

Recommendation 6

Provide road surface water drainage provisions for the site.

2.7.PROBLEM: TIGHTENING OF JUNCTION RADII AT WEIGHBRIDGE EXIT AND ENTRY

It is unclear to the audit team if any works are proposed at the entry/exit from the weighbridge to the R639. Excessively wide junction splays can lead to collisions between pedestrians using the footpath and vehicles exiting and entering the weighbridge.

Recommendation 7

The design team should ensure any proposed junction radii are in accordance with the relevant standards.

2.8. PROBLEM: GATE OPENING

No details have been provided at the entrance from the weigh bridge and the development access road and R639 as to the type of barrier/gate that will be installed. A barrier/gate arrangement without adequate room for a vehicle to pull off the development road may lead to vehicles stopping in the lane of traffic. This could lead to "Rear-end" Shunt type collisions involving vehicles entering the weighbridge and vehicles travelling along the route.

Recommendation 8

Provide details as to the type of entrance barrier/gate proposed at an adequate location to provide an area for vehicles to pull off the road. If a gate is proposed, provide details of the swing direction of the gate.

2.9. PROBLEM: TIGHTENING OF JUNCTION RADII AT ABEC JUNCTION

It is unclear to the audit team if any works are proposed at the Junction of ABEC and the R639. Excessively wide junction splays can lead to collisions between pedestrians/cyclists and vehicles exiting and entering ABEC.

Recommendation 9

The design team should ensure any proposed junction radii are in accordance with the relevant standards.

2.10. PROBLEM: SIGNING AND LINING

Some of the road marking and signage details have not been provided at the junction onto the regional road and at the right-hand turn lane. Inadequate road marking and signage could lead to collisions between vehicles and pedestrians using the proposed development.

Recommendation 10

Provide adequate Signing and Lining at the junction with the R639. All signs should be located outside of sightline splays area.

3. AUDIT TEAM STATEMENT

We certify that we have examined the drawings and documents listed in the Appendix to this Report. The examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified in order to improve the safety of the scheme. The problems identified have been noted in this report, together with associated safety improvement suggestions, which we recommend should be studied for implementation. The Auditors have not been involved with the scheme design.

Mr Brian Loughrey BE CEng MIEI

Signed:  ……..

Date: 01/03/2022

Mr James Daly, BEng MIEI

Signed:  ……..

Date: 01/03/2022

Appendix A – Site Photographs

Figure A.1: Existing cycling lane present on northern side of ABEC entrance junction

Figure A.2: Existing weigh-station gate to north of proposed entrance junction

Figure A.3: Existing weigh-station gate to south of proposed entrance junction

Figure A.4: Location of 60 kph signpost located to the south of the proposed entrance junction

Figure A.5: Sightlines at the proposed entrance junction when looking to the right

Figure A.6: Sightlines at the proposed entrance junction when looking to the left

Figure A.7: Image of the approximate location of proposed entrance junction

Figure A.8: Image at other angle of the approximate location of proposed entrance junction

Appendix B – RSA Collision Statistics

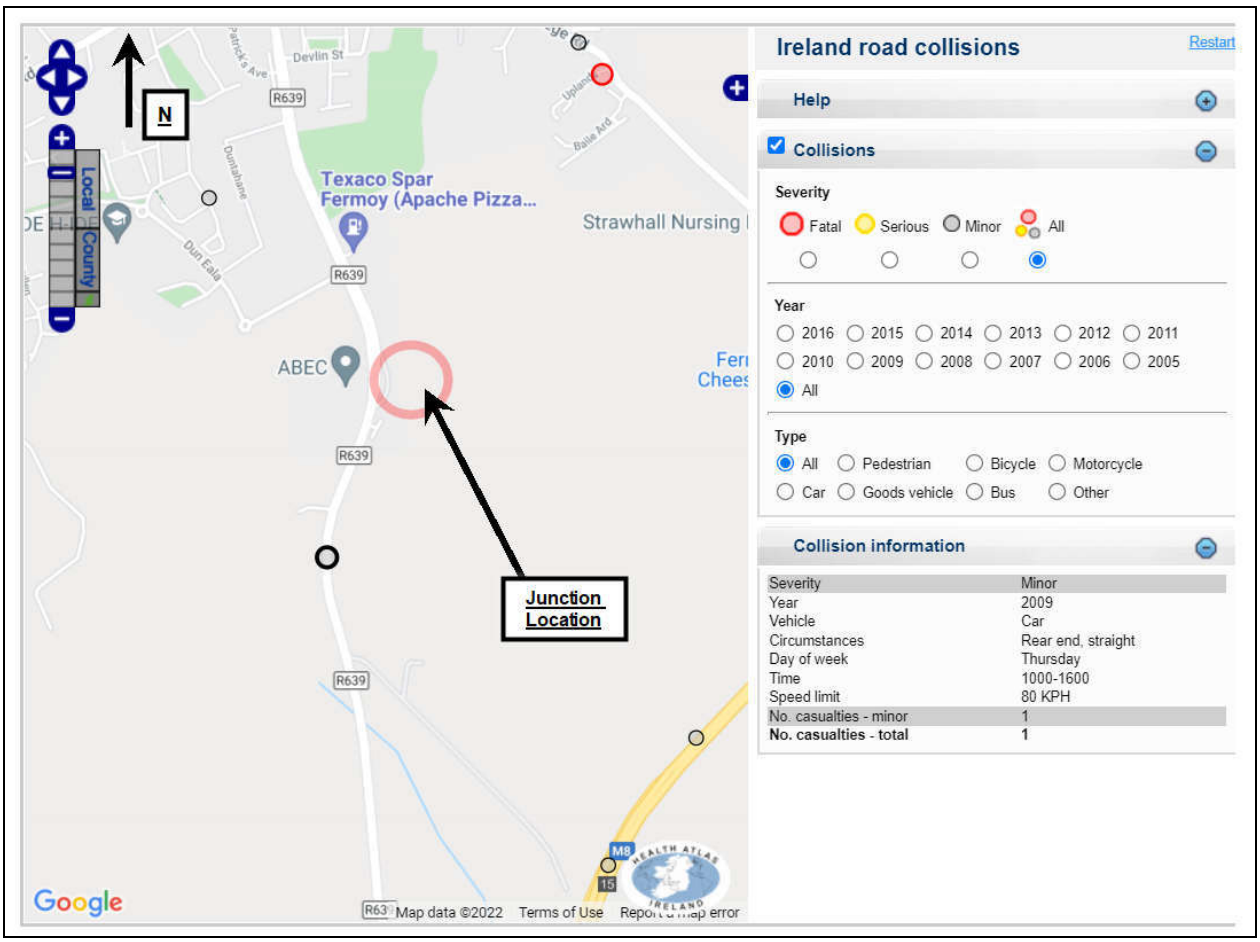


Fig 1 RSA Collision Statistics for Site Location

Appendix C – Drawings & Documents Submitted for Information

Drawings AND DOCUMENTS submitted for information

DRAWINGS BY: MHL & Associates Ltd			
Ref.	**Date**	**Drawing Title**	**Scale**
Layout Drawings			
19099TT-EJL-P01	Jan 2022	Entrance Junction Layout Sheet 1 of 2	1/500 @ A3
19099TT-EJL-P02	Jan 2022	Entrance Junction Layout Sheet 2 of 2	1/500 @ A3

Appendix D– RSA Feedback Form

Road Safety Audit Feedback Form

Scheme: Proposed Housing Development, Fermoy, Co. Cork
Audit Stage: 1
Date Audit Completed: 26/01/2022

	To be completed by the Designer			To be Completed by Audit Team Leader
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Describe alternative measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted	Alternative measures or reasons accepted by auditors (yes/no)
2.1	Yes	Yes		
2.2	Yes	Yes		
2.3	Yes	Yes		
2.4	Yes	No	Proposed toucan crossing will be moved to the south of the development entrance junction and link into this length of footpath.	Yes
2.5	Yes	Yes		
2.6	Yes	No	Proposed road upgrades will include appropriate water drainage measures to be detailed in detailed design stage.	Yes
2.7	No	No	Exit and entry junctions to weighbridge are outside the scope of the proposed scheme. Dropped kerbing will be utilized at weighbridge junctions where appropriate	Yes
2.8	Yes	Yes		
2.9	No	No	ABEC junction is outside the scope of the proposed scheme.	Yes
2.10	Yes	Yes		

Signed: Shane Moriarty **Designer** **Date** 25-02-2022

Signed: Brian Loughrey **Audit Team Leader** **Date** 01-03-2022

Signed: E&W Mahony **Employer** **Date** 1st March 2022.