

**Michael Fitzpatrick Architects**

Mill Street, Maynooth

# Stage 1/2 Road Safety Audit



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## Document Control

<b>CLIENT</b>	Michael Fitzpatrick Architects
<b>REPORT TITLE</b>	Mill Street, Maynooth - Stage 1/2 Road Safety Audit
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### Record of Issue

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# 1. Introduction

This report results from a Stage 1 Road Safety Audit carried out on the site of a proposed residential development off Mill Street in Maynooth. The proposals include a new access road onto Mill Street, shared pedestrian and cycle linkages throughout the site and an undercroft car park. The Road Safety Audit was carried out during April 2023. The audit was requested by David Reilly of Michael Fitzpatrick Architects and has been produced in line with the DMURS Statement provided by ILTP consulting.

The Road Safety Audit Team membership was as follows:

**Mark Andrews MCIHT, MIHE**

**RSA CoC**

Principal Consultant

HyTraS Ltd

**Ludmila Santos**

Associate Consultant

HyTraS Ltd

The Road Safety Audit took place at the office of HyTraS Ltd on 14<sup>th</sup> April 2023. The Road Safety Audit was undertaken in accordance with the Road Safety Audit Brief provided by Christy O' Sullivan of ILTP. The Road Safety Audit comprised an examination of the documents provided and these are listed in the Appendix A. The documents consisted of a set of design drawings detailing the proposed layout of the public realm modifications and interface. The Audit Team visited the site of the proposed works. During the site visit the weather was fine and sunny and the existing road surface was dry. Traffic conditions were free flowing.

The terms of reference of the Road Safety Audit are as described in Road Safety Audit, GE-STY-01024, December 2017 and Road Safety Audit Guidelines, GE-STY-01027, December 2017. The Road Safety Audit Team has examined and reported only on the road safety implications of the scheme as presented. It is not an appraisal of policy or strategic issues associated with the planning of the development and it does not examine or verify the compliance of the design to any other design criteria or guidelines. The designer and all concerned stakeholders must therefore defend all actions taken on the basis that such care was taken, as was in all circumstances reasonably required, to ensure that the roadway was not unsafe for road users. It is important, therefore that where possible the recommendations in this report are acted upon.

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## 2. Items raised at previous Road Safety Audit

The audit team is aware of a previous audit at this site, however as those proposals are for a differing development that audit has not been relevant at this stage.

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## 3. Items raised at this Road Safety Audit

### ALIGNMENT AND SIGHTLINES

#### PROBLEM 1

Site egress onto Mill Street

Reduced visibility from the site proposals.

The information provided for audit and the site inspection have shown that visibility to the left (south) will be compromised for vehicles egressing the site proposals by the existing wall immediately to their left that borders the existing car park for the residential complex. This is exacerbated by the STOP line being set back some 8.5m from the edge of the main line carriageway, behind the pedestrian crossing. Reduced visibility at this location may lead to vehicles egressing the site inappropriately and the risk of collisions with other road users.

#### RECOMMENDATION

It is recommended that the design team ensure that appropriate visibility can be attained from the site in both directions to provide informed egress movements.

#### PROBLEM 2

Top of access ramp to undercroft car park

Narrowing at the turn into/out of the car park ramp

The information provided for audit shows that the carriageway narrows at the turn off the undercroft car park ramp. This narrowing will force vehicles toward the centre of the carriageway at a location where neither direction of traffic may anticipate a need to deflect into the path of an oncoming vehicle. This may result in head-on collisions.

#### RECOMMENDATION

It is recommended that the design team remove this narrowing at this location and provide a smooth transition from the car park ramp onto the access road that does not require a deflection of traffic towards the centre of the carriageway.

### OTHER

#### PROBLEM 3

Site egress and access for large/high vehicles

Overhead services may restrict safe access.

The site inspection noted that the proposed access proposal has overhead services. It is not shown in the drawings how these are to be diverted/protected. Overhead services may preclude safe access of large/high vehicles into the site, with the potential for cable strikes. Services plans are not provided as part of the audit package, although it was noted on site that the cables carry a live current and present a risk of electrocution.

#### RECOMMENDATION

It is recommended that the design team provide a diversion of these services away from the access, potentially underground.

#### PROBLEM 4

Pedestrian route across the top of the undercroft car park ramp.

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The information provided for audit shows that the pedestrians route through the site crosses the access road at the top of the access ramp for the undercroft car park. Pedestrian visibility and tactile guidance at the top of the ramp. There are details provided of tactile paving to guide pedestrians with visual impediments. Without appropriate tactile paving pedestrians may cross in an inappropriate manner into the path of oncoming traffic.

**RECOMMENDATION**

It is recommended that the design team include tactile paving at this location to guide pedestrians.

**PROBLEM 5**

The interface of the site with the existing highway network.

The information provided for audit shows the site to be provided with a network of shared cycle and pedestrian facilities. However there is no clear guidance on how cyclists are to gain access to this network from the on carriageway cycle route within the existing network, or how they will integrate with that network upon egressing the site onto the existing network. Without appropriate guidance and facilities cyclist may continue to progress, mounted, along the existing footway, bringing them into direct conflict with pedestrians. When attempting to enter the site, cyclist may undertake inappropriate movements in the path of traffic when attempting to join the new facilities or join at locations that other vulnerable road users may not be anticipating.

**RECOMMENDATION**

It is recommended that the design team provide correct facilities for cyclist to leave, or join, the existing highway network that gives them clear guidance where to go, and how to use the facilities correctly.

**PROBLEM 6**

At the interface of the site with the existing highway.

The information provided for audit shows that there is to be a right turn prohibition into the site off Mill Street. The alternatives for vehicles to enter the site would be to make an ill advised 'U' turn in the carriageway, an inappropriate turn within a private access, or a near 1km detour to the nearest roundabout. With this in mind it is anticipated that motorised users may take the easier option and undertake the right turn regardless of the prohibition on doing so. This would potentially bring these vehicles into conflict with other road users who would not be anticipating such a movement.

**RECOMMENDATION**

It is recommended that the design team either:

Allow the right turn to take place and ensure that the junction is appropriately designed to allow the movement to take place.

Install measures within the highway network to allow a safe and convenient 'U' turn to made.

Design the junction in such a manner that the right turn cannot be made and the alternative approach to the site is apparent to road users.

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## 4. Comments

It is recommended that a Stage 2 Road Safety Audit is completed when the finalised detailed design is completed, and all construction drawings are available. This should be completed before any construction works take place on site.

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## 5. Audit Team Statement

We certify that the drawings and documents provided with the Audit Brief have been examined. The examination has been carried out with the sole purpose of identifying any features of the scheme that could be improved or modified in order to improve the safety of the scheme. The problems that we have identified have been noted in the report, together with suggestions for improvement, which we recommend should be considered for implementation.

### Road Safety Audit Team Leader

**Mark Andrews MCIHT MIHE**

Principal Consultant

HyTraS Ltd.

Signed:



Date: 19/04/2023

### Road Safety Audit Team Member

**Ludmila Santos**

Associate Consultant

HyTraS Ltd.

Signed:



Date: 19/04/2023

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## Appendix A – List of audited documents

Documents provided for Audit:

- 2071-DOB-XX-SI-DR-C-0450-S2.P05\_Pr. Combined Services
- 2071-DOB-XX-SI-DR-C-0600-S2.P01\_Pr. Road Mark & Sign
- 6529-L-100 Landscape Proposals REVH
- ComerMayn 008 (A) Rev 001 AutoTURN Access
- ComerMayn 008 (B) Rev 001 AutoTURN Egress
- PL-16-164-003 Site Layout Plan
- DMURS Statement - ILTP

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## Appendix B – Road Safety Audit Feedback Form

Road Safety Audit Reference 20230401 01 RSA1 Mill Street, Maynooth

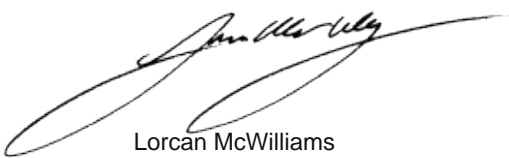
Audit Stage Stage 1

Date Road Safety Audit Completed 14<sup>th</sup> April 2023

Problem	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
1	Yes	Yes	The Engineer Designer has revised their drawings to now illustrate 49m sightlines in each direction at 2.4m set back from the road edge (refer to Figure 3 below) in accordance with Table 4.2 of DMURS for a 50kph road on a bus route.	Y
2	Yes	Yes	The Engineer / designer has provided a 7.0m wide access road at the entrance to the basement increasing in width from 5.5m locally to facilitate segregation of vehicles accessing/ egressing from the basement. Additionally, there is sufficient space for 2 vehicles to meet on the corner.	Y
3	Yes	Yes	The developer shall place all underground all over-head cables as part of the construction works which will likely be a condition of planning.	Y
4	Yes	Yes	The designer has provided a strip of tramline tactile paving at the intersection of the pedestrian zone and shared raised table top surface along with permanent planters to the top of the ramp to guide pedestrians away from walking too close to the top of the ramp.	Y

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Problem	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
5	Yes	Yes	<p>The Engineer designer has revised their drawings 2071-DOB-XX-SI-DR-C-0500 and the road markings and signage drawing 2071-DOB-XX-SI-DR-C-0600 to address this problem. Firstly, cyclists entering the development shall do so on road until they reach the raised shared tabletop crossing. At this point, they will be afforded the opportunity to assert priority over the raised shared junction to access the cycle facilities to the south-east or shared surface to the east. In accordance with DMURS, a raised shared junction is integrated where pedestrians, cyclists and vehicles share the main carriageway. The raised shared tabletop has been provided with a change in material and finish which indicates that the carriageway is an extension of the pedestrian domain to assist in lowering speeds. The tabletop is defined via a change, in surface material and vertical deflection which allows pedestrians and cyclists to informally assert a degree of priority and is used in lower speed environments. Appropriate signage has been provided to guide cyclists to the various shared surfaces.</p>	Y
6	Yes	Yes	<p>The no-right turn sign refers to the exit from the site and has been updated on the engineers drawing 2071-DOBXX-SI-DR-C-0600 for clarity.</p>	Y
<p>Signed <i>David Reilly</i></p>				
<p>Design Team Leader Date <i>28/04/2023</i> (Please Complete and return to the Auditor)</p>				

Problem	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
Employer: Ladas Property Limited. Date <u>  /  /  </u> 28/04/23 (Please Complete and return to the Auditor)			 Lorcan McWilliams	
Safety Audit Signed Off; Road Safety Audit Team Leader Date <u>  /  /  </u> 28/04/ 23			