

Residential Development at Rathmullan, Drogheda

Quality Audit

Earlsfort Developments Drogheda Limited

July 2025

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Notice

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1. Introduction

1.1 Report Context

This report describes the findings of a Quality Audit associated with the proposed large scale Residential Development at Rathmullan, Drogheda.

The Audit has been completed by Traffico Ltd. on behalf of Earlsfort Developments Drogheda Limited.

1.2 Details of Site Inspection

Date	Daylight / Darkness	Weather & Road Conditions
Friday 7 th March 2025	Daylight	Overcast with dry road pavements.

Table 1.1 – Site Inspection Details

1.3 The Road Safety Audit Team

The members of the Road Safety Audit Team have been listed following:

Status	Name / Qualifications	TII Auditor Reference No:
Audit Team Leader (ATL)	Martin Deegan BEng(Hons) MSc CEng MIEI	MD101312
Audit Team Member (ATM)	Norman Bruton BE CEng FIEI	NB168446

Table 1.2 – Audit Team Details

1.4 Drawings Examined as Part of the Audit Process

The following drawings and were examined as part of the Audit process:

Drawing No.	Drawing / Document Title	Revision
RAT WMX PH2 00 DR C P405	Proposed Road Layout & Levels Sheet 1 of 2	NA
RAT WMX PH2 00 DR C P406	Proposed Road Layout & Levels Sheet 2 of 2	NA
RAT WMX PH2 00 DR C P412	Proposed Road Upgrade Works	NA
RAT WMX PH2 00 DR C P413	Autotrack Swept Path Analysis Refuse Vehicle	NA
RAT WMX PH2 00 DR C P414	Autotrack Swept Path Analysis Fire Tender	NA
RAT WMX PH2 00 DR C P430	Proposed Sightlines	NA
RAT WMX PH2 00 DR C P405	Proposed Road Markings & Sightlines	NA

Table 1.3 – Designers Drawing List

1.5 Quality Audit Content and Compliance

Procedure and Scope for Quality Audit

This Quality Audit is undertaken in accordance with Section 5.4.2 of the Design Manual for Urban Roads and Streets. The UK Department for Transport Traffic Advisory Leaflet (TAL) 5/11 has also been referred to for guidance.

This Quality Audit consists of the following audit sections:

- Walking, Cycling and Access Audit – focusing on accessibility requirements of vulnerable road users (and in particular, those with visual or mobility impairments), and on the movement and place function requirements of pedestrians and cyclists
- Road Safety Audit – focusing on issues relating directly to road safety

Procedure and Scope Specific to the Road Safety Audit

The Road Safety Audit has been carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 - Road Safety Audit.

As part of the road safety audit process, the Audit Team have examined only those issues within the design which relate directly to road safety.

Compliance with Design Standards

The road safety audit process is not a design check, therefore verification or compliance with design standards has not formed part of the audit process.

Minimizing Risk of Collision Occurrence

Any potential problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise the risk of collision occurrence.

2. Walking, Cycling and Access Audit

2.1 Best Practice Guidance

This Quality Audit has been carried out in accordance with general best practice guidance set out within the following documents:

- The Disability Act 2005
- Technical Guidance Document M 2022 – Access and Use
- Buildings for Everyone Access and use for all citizens (National Disability Authority)
- Access Auditing of the Built Environment Guidelines (National Disability Authority)
- DMURS Advice Note 4 – Quality Audits
- Traffic Management Guidelines (Irish Government Publications 2003)
- Cycle Design Manual
- Guidance on the use of Tactile Paving Surfaces: UK Department for Transport.

2.2 Objectives of the Walking, Cycling and Access Audit

The objectives of this Walking, Cycling and Access Audit are as follows:

- To ensure a high level of accessibility to the proposed development site for all vulnerable road users and in particular, for visually and mobility impaired users
- To ensure that the current and future access needs within the scheme are recognised and developed
- To ensure that advantage is afforded to walkers and cyclists at every opportunity.

2.3 General Accessibility Recommendations

Following delivery of the Walking, Cycling and Access Audit, the design team should consider all issues raised herein for inclusion into the final design. It is less costly to make the changes now, pre-construction, than later after the scheme has been commissioned.

The client should consider setting up a dedicated access team for the project, responsible for the long-term management of universal access throughout the development.

This process should be facilitated by an Access Plan, which is a strategy for improving accessibility developed from the Audit and can ensure that access is an on-going concern and help identify opportunities for change.

The access plan should incorporate planned maintenance programmes, a schedule of works that has been devised to take into account the priority information in the Audit, processes to allow regular updating of the Audit information and links to maintenance and management procedures.



It should also set out procedures to ensure that when opportunities for access improvement arise, they are recognised.

2.4 Specific Walking, Cycling and Accessibility Recommendations

A summary of the design features, together with recommended actions to be taken during the relevant stage of the design or operation of the scheme have been detailed in the following table.

Table 2.1 - Walking, Cycling and Access Audit Summary Table

I.D.	Location	Feature	Action	When
 Recommendations to Encourage Walking				
W1	Footpaths within Rathmullan Residential Development	Pedestrian provision and universal access	Ensure pedestrian environments are logical, continuous, easy to understand and consistent throughout the development.	Design Stage
W2	Footpaths within Rathmullan Residential Development	Pedestrian provision and universal access	Ensure continuity for pedestrians is provided at crossing points, and that crossing points are located with good forward stopping sight distance for approaching vehicles.	Design Stage
W3	Pedestrian linkage to external Public Roads serving Rathmullan Residential Development	Pedestrian provision and connections to external public roads	Provide seamless connections onto Rathmullan Road to encourage uptake for car sharing and public transport, including existing and future bus routes.	Design Stage
W4	Footpaths serving Rathmullan Residential Development	Street furniture positioning	Ensure street furniture is carefully positioned to avoid obstructions in footways and to maximise the effective width.	Design & Operational Stages
W5	Footpaths serving Rathmullan Residential Development	Footpaths and crossing points	Ensure footpaths and crossing points are located on all significant desire lines, where they are safe and convenient to use for all vulnerable road users.	Design Stage
W6	Footpaths serving Rathmullan Residential Development	Pedestrian provision and universal access	Ensure continuity for pedestrians is provided at crossing points, and that crossing points are located with good forward stopping sight distance for approaching vehicles.	Design Stage
W7	Footpaths serving Rathmullan Residential Development	Pedestrian provision and universal access	At access points through the site boundaries which connect with existing public thoroughfares, all internal footpaths should link seamlessly with external footpaths / walking opportunities to accommodate universal access and facilitate pedestrian progression.	Design Stage

I.D.	Location	Feature	Action	When
 Recommendations to Encourage Cycling				
C1	Shared cycling and walking areas within Rathmullan Residential Development	Pedestrian and cyclist facilities.	Conflicts can arise where different modes of transport share the same space. Ensure cycle environments are logical, continuous, and legible throughout the development. Where cyclists are encouraged to share with pedestrians, ensure that sufficient width and end user information are provided.	Design Stage
C2	Formal Road Crossings within Rathmullan Residential Development	Continuity and crossing.	Ensure continuity for cyclists and pedestrians are provided at key crossing points, and that crossing points are located with good forward stopping sight distance for approaching vehicles (these should not be obscured with landscaping).	Design Stage
C3	All dedicated cycling provisions within Tully Residential Application 5	Street furniture positioning.	Ensure street furniture is carefully positioned to avoid obstruction in cycle paths and to maximise the effective width available to cyclists.	Design & Operational Stages
C4	Dedicated cycle tracks within Rathmullan Residential Development	Commencements and terminations	Where cycle tracks commence, measures to allow ease of access for cyclists should be included. Where cycle tracks terminate, then termination points should be carefully designed to optimise cycle safety.	Design Stage
C5	Cycle Parking Areas within Rathmullan Residential Development	Cycle parking	Ensure appropriate cycle parking is provided within the development to encourage uptake of cycling. Ensure it is comfortable and safe for cyclists to access the parking.	Design Stage
C6	Cycle Parking Areas within Rathmullan Residential Development	Cycle parking and security	To encourage use and safeguard security, position cycle parking away from isolated areas and close to building entrances which are well lit and have natural passive surveillance. Consider providing cover over the cycle parking to protect cyclists from the elements where possible.	Design Stage
 Recommendations to Provide for Universal Access & Accessibility				
A1	Footpaths serving Rathmullan Residential Development	Dropped kerbs and tactile paving	Ensure appropriate dropped kerbs and tactile paving are provided at key crossing points.	Design Stage
A2	Footpaths serving Rathmullan Residential Development	Universal access – footpath types and finishes	Ensure consistency in the types of footpath surface utilised and ensure that the surface provides appropriate contrast with the adjacent road pavement.	Design Stage

I.D.	Location	Feature	Action	When
A3	Footpaths serving Rathmullan Residential Development	Universal access – material contrast	Ensure contrasting colours/materials are used to define areas which are meant for sole use by vulnerable road users.	Design Stage
A4	Footpaths serving Rathmullan Residential Development	Universal access – footpaths	Ensure that measures are taken to actively maintain and police errant car parking on footpaths which might impact negatively upon pedestrian progression.	Design Stage & Operational Stage
A5	Footpaths serving Rathmullan Residential Development	Definition of footpath edges and terminations	Ensure footpath edges are clearly defined and ensure that appropriate termination details are provided when footpaths end.	Design Stage
A6	Footpaths serving Rathmullan Residential Development	Steps - legibility	Ensure steps are legible and easy to define by providing step nosings with contrasting colour.	Design Stage
A7	Building structures – Rathmullan Residential Development	Building entrances	Ensure that dwelling entrances are well defined and by employing colours and material finishes which contrast with the rest of the building façade.	Design Stage
A8	Building structures – Rathmullan Residential Development	Building entrances	Ensure clear sight lines to house entrances are provided from all approaches. Trees, planting or street furniture should not block these.	Design Stage
A9	Footpaths serving Rathmullan Residential Development	Street lighting	Ensure public lighting is located where pedestrian movement decisions are required (i.e. at crossing points, entrances and in shared street areas).	Design Stage
A10	External Landscaped areas serving Rathmullan Residential Development	Drainage gaps	Ensure any break in surface or gap (such as a drainage gully) is no greater than 10mm and is perpendicular to line of travel. Locate drainage features both away from (and up gradient from) crossing points.	Design Stage
A11	External Landscaped areas serving Rathmullan Residential Development	Drainage and pavement gradients	Ensure access routes are constructed with even and gentle falls to allow proper drainage and prevent the formation of puddles. The cross-fall gradient to any access route should not exceed 1 in 50, except when associated with a dropped-kerb.	Design Stage

I.D.	Location	Feature	Action	When
A12	External Landscaped areas serving Rathmullan Residential Development	Obstructions from street furniture or landscaping	Ensure street furniture / landscaping do not encroach on the clear width of pathways.	Design Stage
A13	External Landscaped areas Rathmullan Residential Development	Street furniture – visually impaired	Ensure street furniture contrasts in colour with the surrounding pavement surfaces.	Design Stage
A14	Car Parking Areas within Rathmullan Residential Development	Universal access to parking	Ensure car parking is accessible, easy to use, and sufficient parking spaces are provided within a well-designed environment to meet the needs of all end users who might (reasonably) be expected to use them.	Design Stage
A15	Car Parking Areas within Rathmullan Residential Development	Disabled parking	Ensure the location of designated spaces for car users with disabilities are located as close as possible to the building access points.	Design Stage
A16	Car Parking Areas within Rathmullan Residential Development	Car park and boundary treatment	Ensure that access to/from parked vehicles are not inhibited by boundary treatments, trees, hedges, street furniture or structural features.	Design Stage
A17	Bin storage within Rathmullan Residential Development	Bin storage	Bin storage and collection can lead to obstruction of the footpaths and cycle facilities. The Designer should ensure that refuse truck access and turning, bin storage and bin collection are all considered and comprehensively catered for within the development proposals.	Design Stage

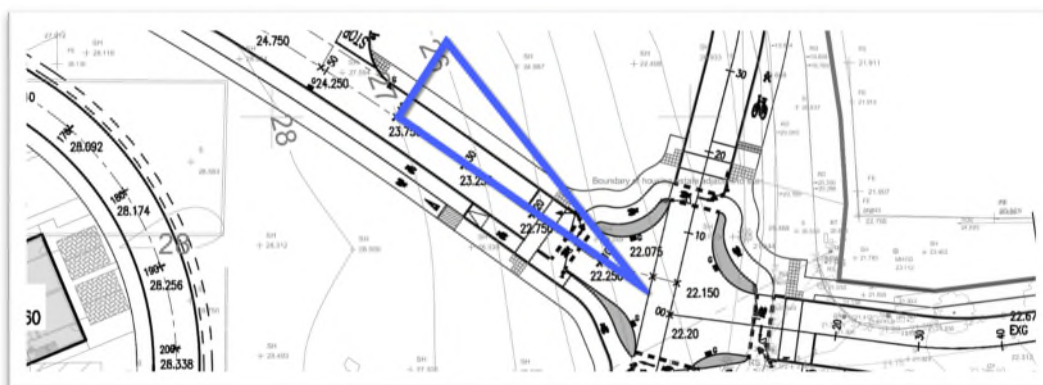
3. Stage 1 Road Safety Audit Problems

3.1 Problem: Gradients on Approach to Junction

Location: Internal Street Approach to Protected Cycle Access Junction

Drivers travelling downhill may maintain inappropriate speeds on approach to the traffic signals. This could lead to them over-shooting the stop line, increasing the risk of conflict with vulnerable road users.

Figure 3.1 – Steep Gradient on the Access Road Could Lead to Drivers ‘Overshooting’ the Stop Line



Recommendation

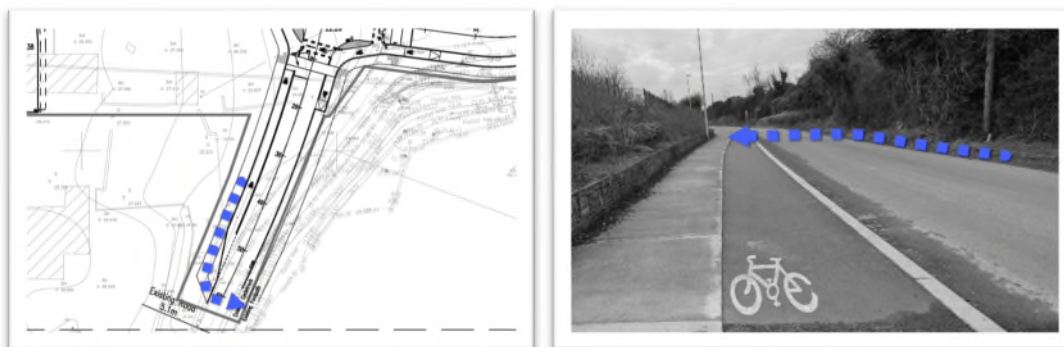
A suitable dwell area should be provided on approach to the stop line.

3.2 Problem: Pedestrian Continuity at New Footpath Termination

Location: Rathmullan Road (South)

Pedestrians reaching the end of the footpath may step into the road suddenly, placing them at risk of being struck by a vehicle.

Figure 3.2 – Location Where Southbound Pedestrians Will Reach the End of the New Footpath



Recommendation

An appropriate crossing facility should be provided at the footpath termination, to connect it with the existing footpath on the opposite side of the road.

3.3 Problem: Pedestrian Desire Lines Across Grassed Areas

Location: Between New Protected Cycle Junction to Dwellings to East

Pedestrians (including people who have mobility impairments) are likely to walk across the grass at these locations, placing them at risk of slips, trips and falls.

Figure 3.3 – Pedestrian Walking Desire Lines Across Grassed Areas



Recommendation

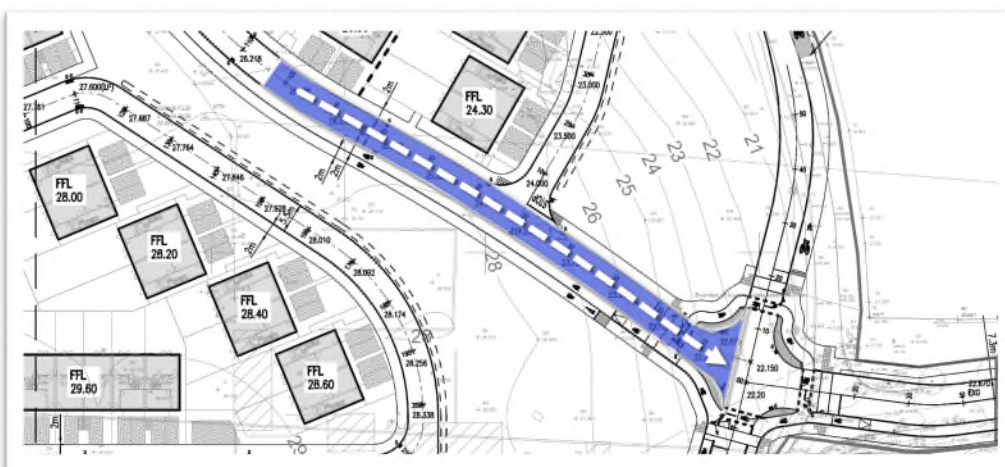
Appropriate footpath facilities should be provided to serve these pedestrian desire lines.

3.4 Problem: Higher Vehicle Speeds on Downhill Section of Street

Location: Internal Street on Approach to the Main Access Junction

The straight and downhill road alignment could result in higher vehicle speeds on the internal street. This could increase both the likelihood and the severity of a collision occurring at the access junction.

Figure 3.4 – Downhill Section of Street with Straight Alignment – Higher Vehicle Speeds Likely Here



Recommendation

Appropriate traffic calming measures should be installed to manage vehicle speeds on approach to the access junction.

4. Audit Team Statement

4.1 Certification & Purpose

We certify that we have examined the drawing listed in Chapter 1 of this Report.

Sole Purpose of the Road Safety Audit

The Road Safety Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified to improve the road safety aspects of the scheme.

4.2 Implementation of RSA Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for road safety improvements.

We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

Audit Team's Independence to the Design Process

No member of the Audit Team has been otherwise involved with the design of the measures audited.

4.3 Road Safety Audit Team Sign-Off

Martin Deegan

Audit Team Leader

Road Safety Engineering Team

traffico

Signed:



Date:

15th April 2025

Norman Bruton

Audit Team Member

Road Safety Engineering Team

traffico

Signed:



Date:

15th April 2025

5. Responding to the Road Safety Audit

5.1 How the Designer Should Respond to the Road Safety Audit

The Designer should prepare an Audit Response for each of the recommendations using the Road Safety Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team for consideration. See flow-chart following for further description.



Figure 5.1 – Road Safety Audit Sign-Off and Completion Process

5.2 Returning the Completed Feedback Form

The Designer should return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email address:

- Email address: martin@traffico.ie

The Audit Team will consider the Designer's response and reply indicating acceptance or otherwise of the Designers response to each recommendation.

Triggering the Need for an Exception Report

Where the Designer and the Audit Team cannot agree on an appropriate means of addressing an underlying safety issue identified as part of the audit process, an Exception Report must be prepared by the Designer on each disputed item listed in the audit report.

Appendix A

A.1 Road Safety Audit Feedback Form

Road Safety Audit Feedback Form



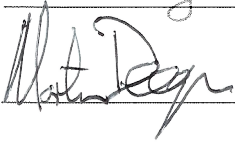
Scheme: Residential Development at Rathmullan, Drogheda

Audit Stage: Stage 1 Road Safety Audit

Audit Date: 15th April 2025

Problem Reference (Section 3)	Designer Response Section			Audit Team Response Section
	Problem Accepted (yes / no)	Recommended Measure Accepted (yes / no)	Alternative Measures or Comments	Alternative Measures Accepted (yes / no)
3.1	Yes	Yes	In order to achieve the suitable dwell area, first 7 meters starting from the stop line now has a gradient of 1:40. Updated levels can be seen in attached RAT-WMX-PH2-00-DR-C-P405 - P406 Proposed Road Layout & Levels	Comment noted.
3.2	Yes	No	The proposed pedestrian road along the southeast boundary line will not be provided as part of the proposed development. Pedestrians will now have to cross the road at the proposed upgraded signalised junction at the site entrance point to the footpath provided on opposite side of road. Please refer to RAT-WMX-PH2-00-DR-C-P416 - Proposed Junction Layout for details	Yes
3.3	Yes	Yes	Layout has been updated, internal path has been provided on the greenfield for residents/ pedestrians to cross over. Please refer to drawing no. RAT-WMX-PH2-00-DR-C-P405 - P406 Proposed Road Layout & Levels for the paths layout.	Comment noted.
3.4	Yes	Yes	In order to restrict the vehicle speed on approach to the access junction, ramps are provided forcing the drivers to slow down. Appropriate sign, F403, has been placed along the long straight road, warning people that the proposed road is within a 30km/hr slow zone. Please see attached drawing no. RAT-WMX-PH2-00-DR-C-P435 - Proposed Road Markings & Signage.	Comment noted.

**The Designer should complete the Designer Response Section above, then fill out the designer details below and return the completed form to the Road Safety Audit Team for consideration and signing.*

Designer's Name:	Brendan Gallagher	Designer's Signature:		Date:	2025-06-12
Employer's Name:	Louis Song	Employer's Signature:		Date:	2025-06-12
Audit Team's Name:	Martin Deegan	Audit Team's Signature:		Date:	29/08/25



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