

**Title: Combined Stage 1&2 Road Safety Audit
For;
Rathgowan Housing Development, Co. Westmeath.**

Client: PUNCH Consulting Engineers

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1.0 Introduction

This report was prepared in response to a request from Mr. Paul Casey, PUNCH Consulting Engineers, for a Combined Stage 1&2 Road Safety Audit of the proposed Strategic Housing Development at Rathgowan, Mullingar, Co. Westmeath.

The Road Safety Team comprised of;

Team Leader: **Norman Bruton**, BE CEng FIEI, Cert Comp RSA

TII Auditor Approval no. NB 168446

Team Member: **Owen O'Reilly**, B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil. Eng CEng MIEI

TII Auditor Approval no. OO1291756

The Road Safety Audit comprised of an examination of drawings and other material provided. A site visit was carried out by the Audit Team, on the 25th of May 2022. The weather at the time of the site visit was dry and the road surface was also dry.

This Stage 1&2 Road Safety Audit has been carried out in accordance with the requirements of TII Publication Number GE-STY-01024, dated December 2017.

The scheme has been examined and this report compiled in respect of the consideration of those matters that have an adverse effect on road safety. It has not been examined or verified for compliance with any other standards or criteria.

The problems identified in this report are considered to require action in order to improve the safety of the scheme for road users.

If any of the recommendations within this safety audit report are not accepted, a written response is required, stating reasons for non-acceptance. Comments made within the report under the heading of Observation are intended to be for information only. Written responses to Observations are not required.

The information supplied to the Audit Team is listed in **Appendix A**.

The feedback form is contained in **Appendix B**.

A plan drawing showing the problem locations is contained in **Appendix C**.

2.0 Background

It is proposed to construct a 107 unit residential development on the western side of Clonmore Link Road in Mullingar, Co. Westmeath. The vehicular access to the development will be via the existing Farran Roundabout on the Clonmore Link Road (R394).

The speed limit on the R394 is 50km/hr.

Rathgowan Park Road is a single carriageway road with a footpath on one side and with traffic calming humps.

The R394 is a single carriageway road with mandatory on-road cycle lanes on both sides and footpaths on both sides. This regional road links the N4 to the N52 to the west of Mullingar town centre.

It is proposed to provide a zebra crossing and bus layby on the R394 North of the Farran roundabout.

A cycle path and footpath is proposed through the development from the R394 to the R393. The speed limit on the R393 at the connection point is 60km/hr.

The location of the site is shown below.

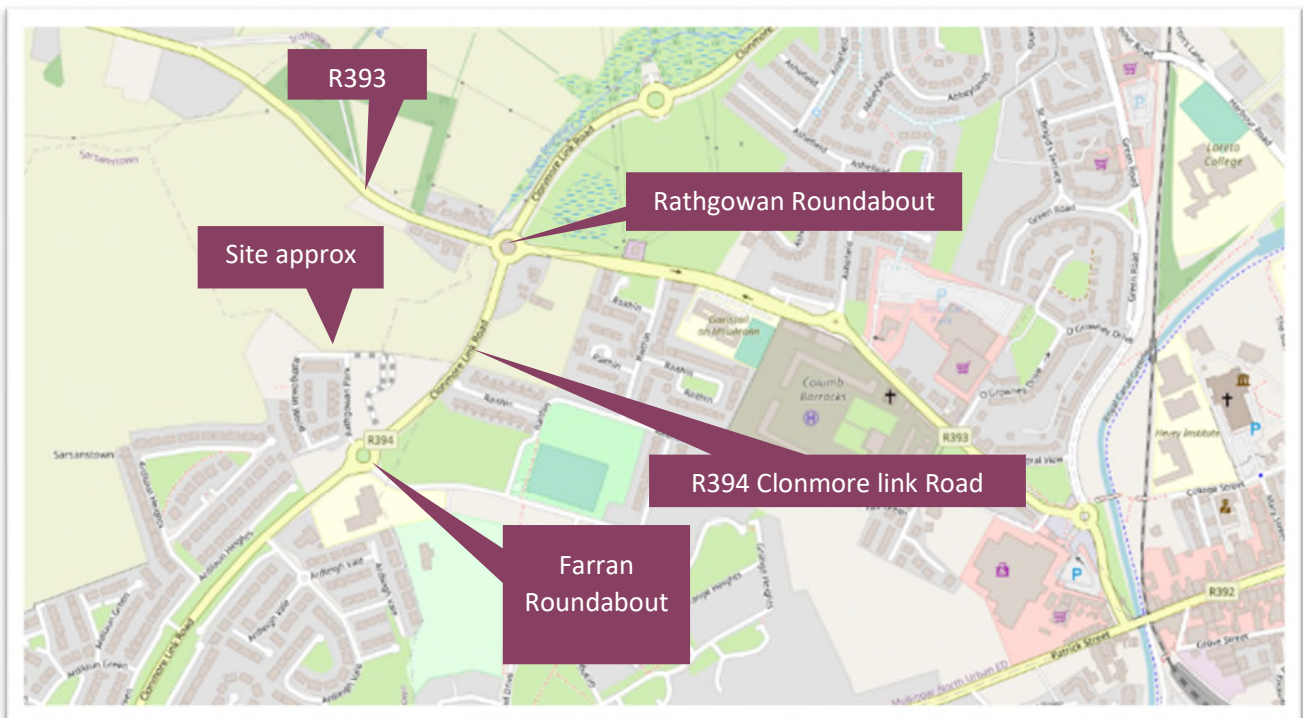
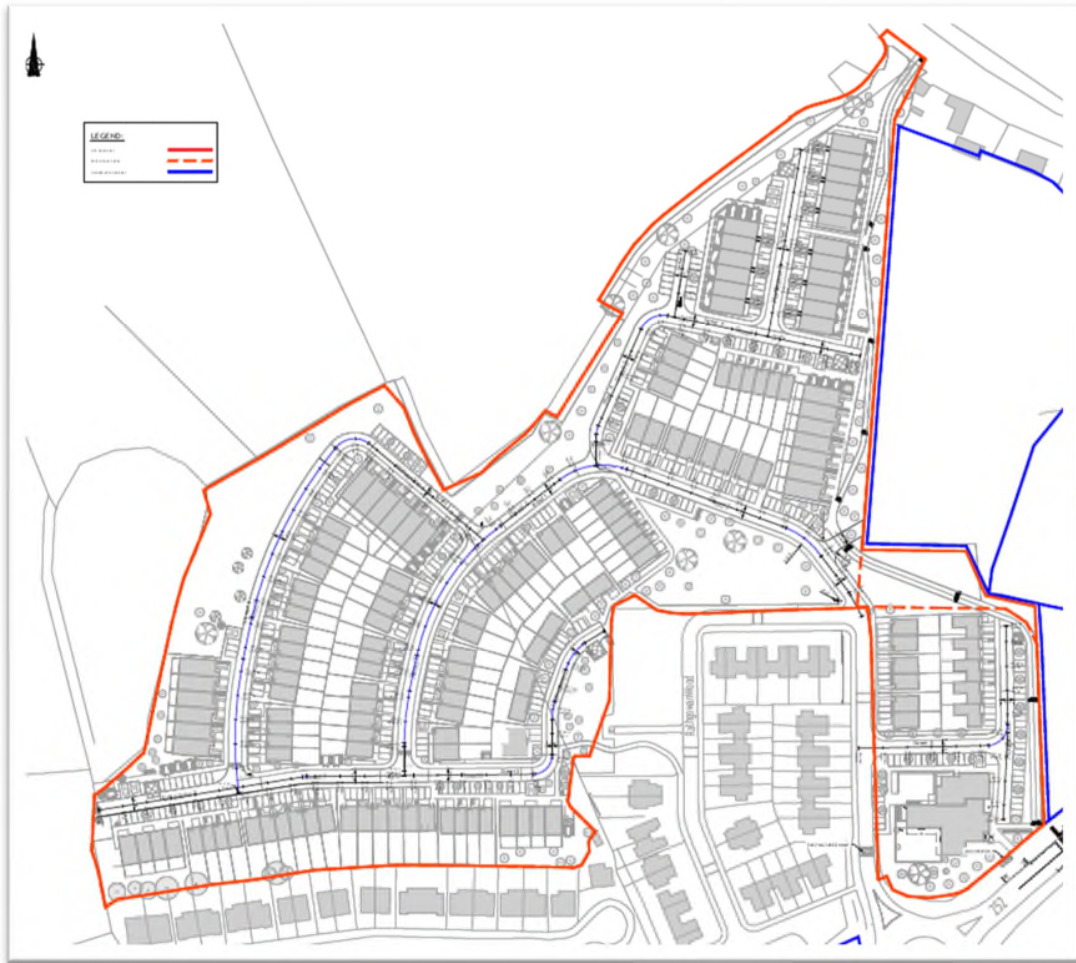


Image courtesy of openstreetmap.org

The site extents are shown within the red boundary in the drawing extract below.



3.0 Issues Raised in this Road Safety Audit.

3.1 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, R393 pedestrian and cyclist connection.

PROBLEM

The tie-in details of the footpath and cycle track at the R393 have not been provided. There are no existing dedicated pedestrian and cycling facilities and no crossing facilities. The new footpath and cycle track will lead to vulnerable road users crossing the carriageway where the speed limit is 60km/hr. If drivers do not expect to encounter crossing pedestrians and cyclists they may fail to slow resulting in collisions.



RECOMMENDATION

It is recommended that a crossing facility be provided with suitable dwell area, adequate lighting and with adequate warning for approaching drivers.

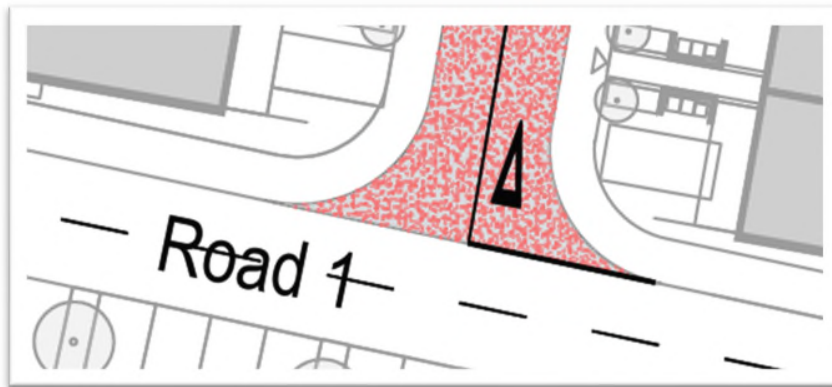
3.2 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, Corner radii.

PROBLEM

Some of the corner radii at homezones and other local streets appear to have relatively large corner radii. This could lead to higher turning speeds, greater distances for pedestrians to have to cross and greater risk of cyclists being in the blind spot of turning vehicles.



Example only

RECOMMENDATION

It is recommended that corner radii be minimized in line with the guidance provided in DMURS.

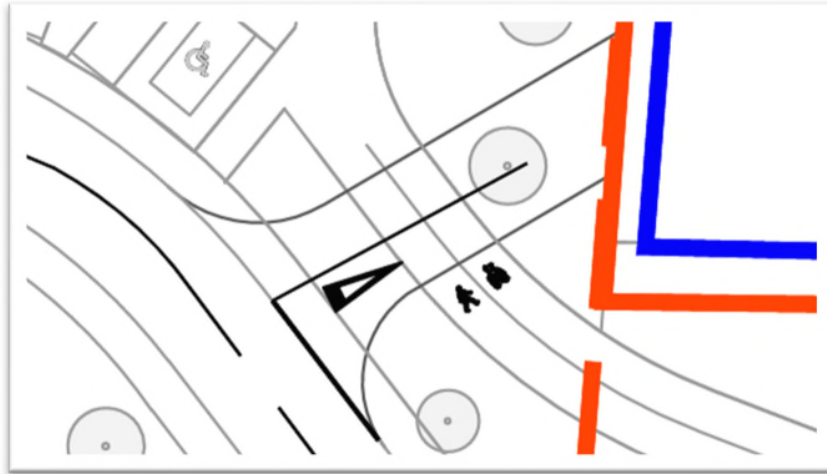
3.3 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, Spur road off Road 3.

PROBLEM

There is a spur road off Road 3 which is presumed to be able to serve possible future development. It is unclear if the road or the cycle track and footpath which cross it will have priority. A lack of clear priority would lead to collisions.



RECOMMENDATION

It is recommended that the footpath and cyclist crossing be raised and provided in a different colour surfacing to the carriageway so that approaching drivers will know to beware of oncoming cyclists and pedestrians.

3.4 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, Cycle track from R394 to R393.

PROBLEM

The cycle track through the proposed development linking the R394 and R393 will cater for two way cycling. It is unclear if the proposed width is enough to cater for cyclists travelling in opposite directions. Without adequate space cyclists will travel along the footpath where the risk of colliding with pedestrians would be increased.

RECOMMENDATION

It is recommended that a suitable width cycle track be provided to cater for two-way cyclists.

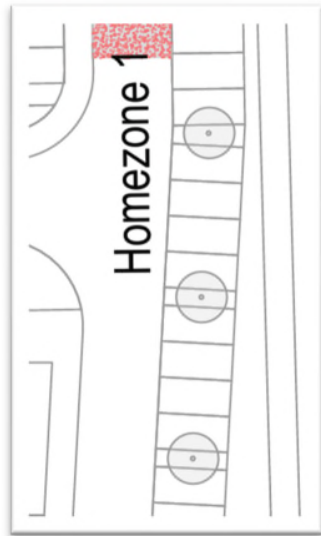
3.5 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, perpendicular parking spaces along Homezone 1 and other roads.

PROBLEM

It is unclear if there is sufficient space for drivers to enter/egress from the perpendicular parking spaces on homezone 1 due to the narrow carriageway width. A lack of space could lead to material damage of other vehicles. There is also a lack of space for larger or emergency vehicles to turn at the ends of Homezone 1.



RECOMMENDATION

It is recommended that a swept path analysis be carried out to ensure that the parking manoeuvres can easily be carried in Homezone 1 and other similar dimensioned areas. Guidance on carriageway width/parking space width/buffer zones is provided in DMURS. Turning heads should be provided at the ends of the Homezone to avoid excessive lengths of reversing manoeuvres.

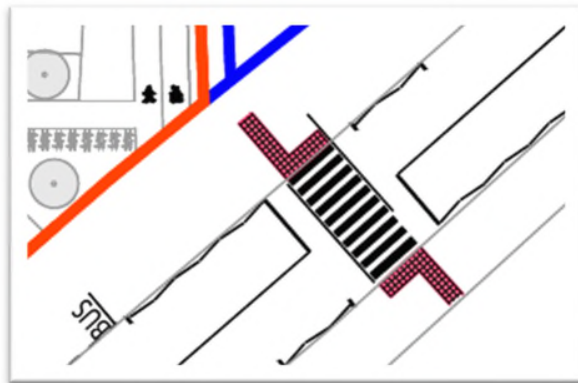
3.6 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, R494 toucan crossing

PROBLEM

It is proposed to provide a toucan crossing on the R394. The cycle lanes on the R394 are however on-road. There are no facilities for cyclists to access the push buttons. This could lead to collisions with passing vehicles and waiting cyclists.



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PUNCH*RECOMMENDATION*

It is recommended that the on-road cycle lane be split onto a shared use area with suitable tactile paving at both sides of the toucan crossing.

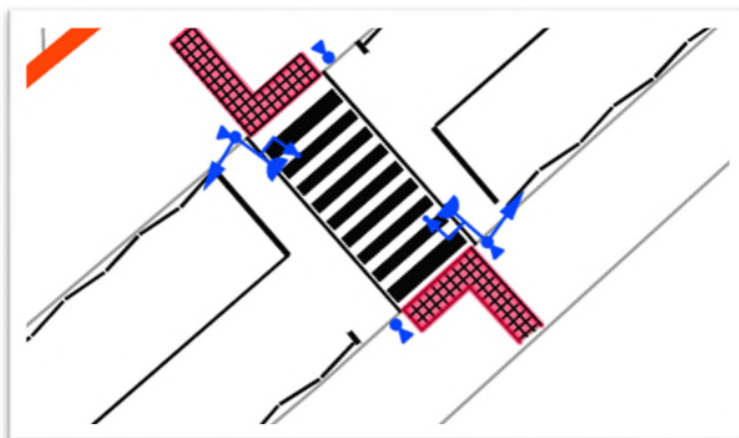
3.7 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, R494 toucan crossing.

PROBLEM

It is proposed to provide only primary signal heads at the toucan crossing. A driver's visibility may be obscured to the single head by a high-sided vehicle or bus and this may lead to failure to stop when pedestrians or cyclists are crossing.

*RECOMMENDATION*

It is recommended that secondary signal heads be provided.

3.8 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, R494 toucan crossing.

PROBLEM

Drivers on the R394 may not expect the toucan crossing and may not slow sufficiently on approach. This could lead to collisions with crossing pedestrians or cyclists.

RECOMMENDATION

It is recommended that warning signage for the toucan crossing be provided on the R394.

3.9 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, R394 toucan crossing.

PROBLEM

It is unclear if crossing specific lighting is proposed at the toucan crossing on the R394. Without crossing specific lighting the lighting levels from the existing public lighting may not be sufficient for drivers to see pedestrians or cyclists with dark coloured clothes at night. This could lead to collisions.



RECOMMENDATION

It is recommended that crossing specific lighting be provided.

3.10 Problem

LOCATION

Drawing 202215-PUNCH-XX-XX-DR-C-0460 – C03, Farran Roundabout.

PROBLEM

The existing Rathgowan Park Road arm of the Farran roundabout has a splitter island defined by road markings only. This arm of the roundabout will become much busier when the development is occupied and crossing pedestrians on the R394 will have fewer gaps in traffic and the likelihood of a collision will be increased. The hatched area will provide little refuge for those crossing pedestrians.



RECOMMENDATION

It is recommended that a solid splitter island be provided to give refuge for crossing pedestrians. The island should have dropped kerbs and tactile paving as appropriate.

4.0 Observations

4.1 Observation

Dropped kerbs, tactile paving, public lighting and swept paths for emergency and refuse vehicles have not been provided.

4.2 Observation

Black and white stripes associated with a zebra crossing should not be used at a toucan crossing.

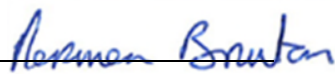
4.3 Observation

The bus stop layby design on the R394 has not been shown on the drawings.

5.0 Audit Statement

We certify that we have examined the material provided. The examination has been carried out with the sole purpose of identifying any aspects of the design which could be added, 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 would recommend should be studied for implementation. The audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Norman Bruton Signed: 
(Audit Team Leader) Dated: 16/6/2022

Owen O'Reilly Signed: 
(Audit Team Member) Dated: 16/6/2022

Appendix A

List of Material Supplied for this Audit;

- Landscape Drawings 1564-Rev C1- Rathgowan Mullingar-RMDA
- BKD Architects Landscape Drawing.
- Drawing 202215-PUNCH-XX-XX-DR-C-0400
- Drawing 202215-PUNCH-XX-XX-DR-C-0460
- Drawing 202215-PUNCH-XX-XX-DR-C-0480
- Drawing 202215-PUNCH-XX-XX-DR-C-0481
- Drawing 202215-PUNCH-XX-XX-DR-C-0100
- Drawing 202215-PUNCH-XX-XX-DR-C-0101
- Drawing 202215-PUNCH-XX-XX-DR-C-0175
- Drawing 202215-PUNCH-XX-XX-DR-C-0176
- Drawing 202215-PUNCH-XX-XX-DR-C-0177
- Drawing 202215-PUNCH-XX-XX-DR-C-0300

For Information

- Traffic & Transport Assessment – Draft – PL1 RSA.
- Audit Brief.

Appendix B

Feedback Form

ROAD SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: Rathgowan SHD
 Stage: Stage 1&2 Road Safety Audit
 Date Audit (Site Visit) Completed: 25-5-2022

Paragraph No. in Quality Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	Yes	Yes*	*Beyond client’s scope due to land ownership – to be reviewed by Westmeath Co Co	Yes
3.2	Yes	Yes		
3.3	Yes	Yes		
3.4	Yes	Yes		
3.5	Yes	Yes		
3.6	Yes	Yes		
3.7	Yes	Yes		
3.8	Yes	Yes		
3.9	Yes	Yes*	*Beyond client’s scope due to land ownership – to be reviewed by Westmeath Co Co	Yes
3.10	Yes	Yes*	*Beyond client’s scope due to land ownership – to be reviewed by Westmeath Co Co	Yes

Signed *Paul Casey*
 Design Team Leader

Date 09/06/2022

Signed *Norman Bruton*
 Audit Team Leader

Date 16/6/2022

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PUNCH



Signed.....
Employer/Developer

Date.....

Appendix C

Problem Location Plan.

