

STAGE 2 ROAD SAFETY AUDIT REPORT FOR
PROPOSED NEW ACCESS JUNCTION ON A81 AT
LITTLE DRUMQUHARN, BALFRON STATION.






Report Ref 109221(2)

Issue Date 28-Apr-22

A81 / Little Drumquharn, Balfroon Station.
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Issue / Revision	Issue 1	Revision A	Revision B	Revision C
Report Title	Stage 2 Road Safety Audit Report For Proposed New Access Junction On A81 At Little Drumquharn, Balfroon Station.			
Document Ref	109221(2)			
Document Status/Remarks	Final.			
Prepared by	Wyllie Lodge Ltd, Road Safety Consultants.			
Prepared for	Stirling Council (Overseeing Organisation).			
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Signature				
Date Issued	28/04/2022			

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1. INTRODUCTION.

1.1. The objective of a Road Safety Audit (RSA) is to identify any aspects of a road design or construction scheme that could give rise to road safety concerns and, where possible, to suggest modifications that would improve the road safety of the resultant scheme. This report results from a Stage 2 RSA carried out on the proposed new access junction on A81 at Little Drumquharn near Balfron Station in Stirlingshire. The audit was instructed by Bruach Architects and was carried out by Wyllie Lodge Ltd, Independent Road Safety Consultants.

1.2. The Audit Team members were;

Audit Team Leader Blair Wyllie, I Eng, MCIHT, MSORSA.

Audit Team Member David Lodge, BSc, MSc, CMILT, MCIHT, MSORSA.

Both audit team members hold the Transport Scotland / Highways Agency Certificate of Competence in Road Safety Auditing.

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2. PROJECT DETAILS.

2.1. The project consists of a relocated access junction to Little Drumquharn Farm on the east side of the A81 near Balfroon Station. The relocation of the junction is in support of a proposal to convert a stone barn to a residential property on the farm steading. The existing access junction to the farm is poorly located and does not have safe sightlines. The A81 at this location is a rural, de-restricted, 2 lane single carriageway road with narrow verges, and has an estimated annual average daily flow of 1,752 vehicles¹. It is proposed to relocate the junction 35m northwards in order to achieve safe junction visibility splays of 2.4m x 215m. The new junction will have 6m corner radii leading to a 5.5m wide 15m long surfaced access road. The left turn entry radius will be set back 2.5m from the edge of the A81 to accommodate a 2.5m x 10m long auxiliary lane which will provide safe parking for refuse vehicles and school transport vehicles. The existing farm access junction is to be stopped up and removed. A plan of the new junction is shown in appendix A.



Location Plan.

¹ <https://roadtraffic.dft.gov.uk/manualcountpoints/1030>

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2.2. The information made available for the audit is listed below;

Drawing Ref.	Title
21091-001-	Indicative Access Arrangement with A81 Vehicle Swept Paths.
21091-002-	Indicative Access Arrangement with A81 Visibility Splays.
21091-003-	Indicative Access Arrangement with A81 Vehicle Swept Paths.
A1368-BDC-ZZ-ZZ-DR-A 0001/A	Location Plan.
A1368-BDC-ZZ-A-20005/	Existing Block Plan.
A1368-BDC-ZZ-A 20006/	Proposed Block Plan.
A1368-BDC-ZZ-ZZ-DR-A 20010.	Existing Floor Plan.
A1368-BDC-ZZ-DR-A-20015.	Existing Elevations.
A1368-BDC-ZZ-ZZ-DR-A 20020.	Proposed Floor Plan.
A1368-BDC-ZZ-ZZ-DR-A-20030.	Proposed Elevations.
A1368-BDC-ZZ-ZZ-DR-A-20035.	Proposed 3D Views

2.3. Road traffic collision information has also been retrieved from Crashmap.co.uk . See appendix B.

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3. PROCEDURE.

- 3.1. The audit was carried out following the general principles and procedures set out in GG 119 of the Design Manual for Roads and Bridges (DMRB), with adaptations to meet the requirements of the local road authority (Overseeing Organisation). The Road Safety Audit procedure is not an examination or verification of compliance to a design standard. Any notified departures from the design standard have been referenced within the report. The recommendations in this report are considered by the audit team to be appropriate and proportionate to the concerns and problems identified.
- 3.2. The audit was carried out between 19th August 2021 and 28th April 2022 at the offices of Wyllie Lodge and on site. A daytime site visit was carried out between 10:15 and 11:35 hours by both audit team members on Thursday, 19 August 2021.
- 3.3. During the site visit traffic flows were moderate and flowed without interruption. The weather was warm and sunny and the road surface was dry.
- 3.4. In accordance with GG 119, the Overseeing Organisation should consider the recommendations contained within this audit. In doing so, the Overseeing Organisation shall consult with the Design Team. The design team shall prepare a road safety audit response report that has been agreed with the Overseeing Organisation and signed by both parties indicating their agreement on the RSA actions.
- 3.5. For the purposes of this audit the following are defined as:

Organisation	Contact
Overseeing Organisation	Stirling Council.
3 rd Party Organisation /Project Promoter	Mr G. McCallum.
Design Organisation	ECS Transport Planning / Bruach Architects.
Road Safety Audit Organisation	Wyllie Lodge Limited.

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4. PREVIOUS ROAD SAFETY AUDITS.

4.1. No previous road safety audit has been carried out for this development.

5. IDENTIFIED PROBLEMS

Local Alignment.²

No local alignment road safety problems have been identified.

General.

No general road safety problems have been identified.

Junctions.

5.1 PROBLEM

Location Existing Little Drumquharn Farm access junction with A81.

Summary Risk of shunt type collisions.

Various roadside features give drivers advanced indication of a junction. These include breaks in roadside hedgerows or fencing, lack of grass verge and intermittent edge of carriageway road markings. If these features remain at the existing access after it has been stopped up it could mislead drivers into slowing and attempt a turning manoeuvre from the A81 at the wrong location, which could contribute to shunt type collisions.

Recommendation

It is recommended that the stopping up of the existing access includes for;

1. The existing junction surface is grubbed up and a verge of a minimum 2m width provided across the junction.
2. A boundary fence or hedge is provided at the rear of the verge.
3. Utility / toby covers within the mouth of the existing junction are raised to the level of the new verge and their location identified with marker posts.
4. The existing broken line edge of carriageway road marking across the existing farm access is changed to a solid edge of carriageway marking.

² DMRB GG-119 standard list

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Walking, Cycling and Horse Riding.

No walking, cycling or horse riding road safety problems have been identified.

Traffic Signs, Carriageway Markings and Lighting.

See item 5.1 above.

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6. AUDIT TEAM STATEMENT

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We certify that we have examined the works listed in this report. The examination has been carried out with the sole purpose of identifying any features of design or construction that can be modified in order to improve the safety of the scheme. The problems identified have been noted in this report together with recommendations, which should be studied for implementation.

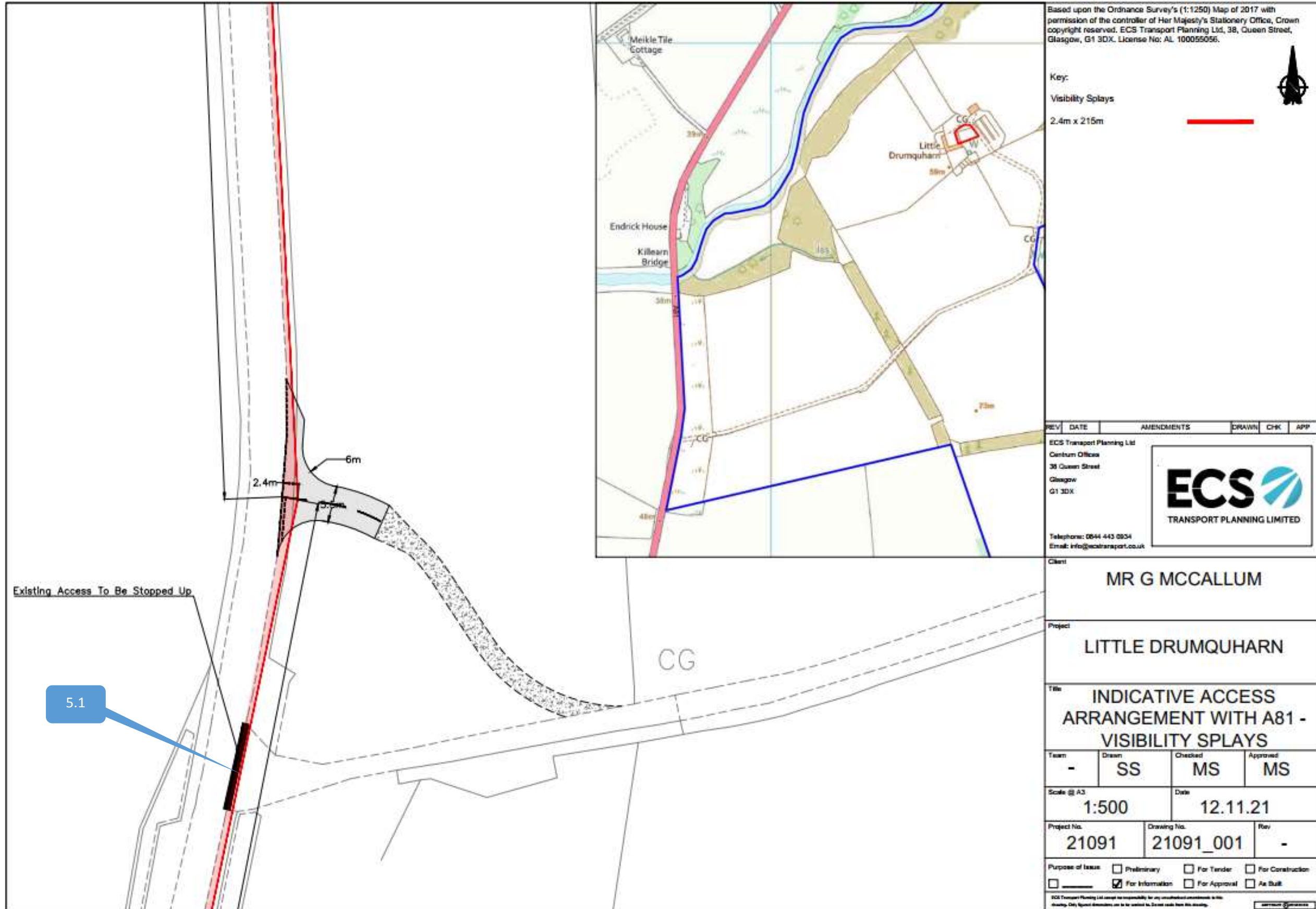
We certify that this Road Safety Audit has been carried out in accordance with GG 119.

Signed.....*Blair Wyllie*.....Audit Team Leader Date 28 April 2022.
Blair Wyllie, I Eng, MCIHT, MSoRSA.

Signed.....*David J Lodge*.....Audit Team Member Date 28 April 2022.
David Lodge, BSc, MSc, CMILT, MCIHT, MSoRSA.

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Appendix A. Location Plan of Problems



Appendix B. Location of Recorded Collisions.

