



Teratus Ltd

**Kirkland Road, Ennerdale Bridge
Proposed Residential Development**

Combined Stage 1 and 2 Road Safety Audit



WYG
St James Gate
Newcastle upon Tyne
NE1 4AD

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1. INTRODUCTION

- 1.1. This report results from a Combined Stage 1 and 2 Road Safety Audit carried out on highway works associated with a proposed residential development of 11 units on land to the west of Kirkland Road, Ennerdale Bridge, Cumbria. The site is served by a simple priority junction off Kirkland Road providing vehicular, cycle and pedestrian access with an additional access for cyclists and pedestrians via the lane running along the south-western boundary of the site, again linking to Kirkland Road. The site lies within a 30mph speed limit but is outside the systems of footways and street lighting in Ennerdale Bridge which commence to the south.
- 1.2. The audit was requested by Eleanor Bunn of WYG on behalf of the client and the Audit Team membership was as follows: -

Kevin Nicholson BSc CMaths MCIHT FSoRSA (Holder of HE Certificate of Competency)
Associate Director, WYG, Newcastle

Nancy Sloan MCIHT
Senior Consultant, WYG, Newcastle
- 1.3. The audit took place in the offices of WYG and on site during July and August 2018. The Audit Team visited the site together during the late afternoon of Friday 27 July during which the weather was bright and warm and the road surfaces were dry. Traffic in the area was light and free flowing.
- 1.4. The terms of reference for this audit are as described in HD 19/15 in the Design Manual for Roads and Bridges. The Team has reported only on the road safety implications of the proposals and has not examined or verified the compliance of the design to any other criteria.
- 1.5. The detail provided for the audit is shown in Section 5. All comments and recommendations are referenced to the design drawings and related documents and the locations of the items raised by the audit are shown on the plan in Section 6.
- 1.6. Where relevant within this report traffic signs will be described either by their reference numbers on the drawings or by their diagram number within the Traffic Signs Regulations and General Directions 2016.
- 1.7. Within this report the generic term "pedestrians" can include walking pedestrians, wheelchair users, mobility scooter users, dismounted cyclists, the blind, partially sighted and mobility impaired. Reference may be made to specific groups where appropriate.



2. ITEMS RAISED BY PREVIOUS ROAD SAFETY AUDITS

- 2.1 The Audit Team has been informed that there have been no previous Road Safety Audits carried out on the scheme.



3. ITEMS RAISED BY THIS COMBINED STAGE 1 AND 2 ROAD SAFETY AUDIT

3.1. PROBLEM

Location: The junction of the development access road with Kirkland Road.

Summary: The existing roadside features could compromise mutual visibility at the junction.

There are high and deep hedges along the development site boundary that lie close to the lines of the visibility splays, particularly the splay to the north of the junction. The hedges are not specified for removal or relocation and if left in place could compromise mutual visibility between motorists on Kirkland Road and those on the access road, increasing the risk of turning collisions.

RECOMMENDATION

It is recommended that the drawings specify the hedges for removal or relocation where they lie close to the lines of the splays, taking into account the potential for growth.

3.2. PROBLEM

Location: The junction of the development access road with Kirkland Road.

Summary: The absence of road markings could increase the risk of a number of collision types.

There are no centreline or give way markings shown on the approach to the junction. If these are not provided, motorists turning into the development access road might be led to believe that they are entering a one-way street, increasing the risk of collisions with opposing vehicles or with pedestrians on their offside. Motorists leaving the development might fail to give way correctly with the attendant risk of overshoot or restart type collisions.

RECOMMENDATION

It is recommended that centreline, edge of carriageway and give way markings to Diagrams 1004, 1009A and 1003A respectively are installed at the junction.

3.3. PROBLEM

Location: The pedestrian routes between the development and the village footways.

Summary: The absence of footways could increase the risk of collisions.



Pedestrians travelling between the development and the village will have a choice of using the link to the lane between Plots 5 and 6 or Kirkland Road itself. Both choices will result in them crossing the bridge over Croasdale Beck to reach the existing footway on the east side of Kirkland Road.

RECOMMENDATIONS

It is recommended that –

- a) a section of footway is installed on one side of the bridge with a crossing point between the east and west sides of Kirkland Road (the position of which will depend on which side of the bridge the footway is located);
- b) to address the reduced carriageway width, a vehicle priority system is installed over the bridge in line with that in place on the River Ehen bridge to the south;
- c) either, or both of the following are provided -
 - 1) the lane along the south-western boundary of the site, between Kirkland Road and the link into the site, is surfaced to a standard suitable for pedestrian use and/or
 - 2) a footway is installed on the west side of Kirkland Road between the development access road junction and the bridge. If this recommendation is taken up, ensure that the remaining carriageway width is sufficient for two-way traffic (this could involve building the footway either fully or partially outside the existing carriageway).

3.4. PROBLEM

Location: The access track to the Treatment Plant.

Summary: The absence of a turning area could increase the risk of collisions.

The arrangements for maintenance vehicles to turn at the end of the access track are not clear. If turning facilities are not present, the maintenance operative could be forced to reverse onto the shared surface road with the attendant risk of collisions with street furniture, pedestrians or other vehicles.

RECOMMENDATIONS

It is recommended that a turning area is provided at the end of the access track.



3.5. PROBLEM

Location: Kirkland Road and the shared surface roads within the development.

Summary: The absence of street lighting could result in pedestrians tripping or slipping and being struck by vehicles.

Street lighting has not been shown on the drawings submitted for audit. If lighting is not provided within the development, there will be an increased risk of pedestrian trips and slips. In addition, because there will be some pedestrian movements along Kirkland Road between the development and the village, the likelihood of collisions with vehicles will increase in the absence of lighting.

RECOMMENDATIONS

It is recommended that -

- a) an appropriate system of lighting is specified for the development and
- b) the existing system of lighting on Kirkland Road is extended northwards to the junction with the development access road.

3.6. PROBLEM

Location: The shared surface roads within the development.

Summary: The absence of drainage could result in pedestrians slipping and falling.

Drainage has not been shown on the drawings submitted for audit and it is not clear if it is to be provided in the form of gullies. If drainage is not provided within the development, there will be an increased risk of ponding and of pedestrian slips and falls, particularly in freezing conditions.

RECOMMENDATIONS

It is recommended that an appropriate system of drainage is provided for the development.



4. AUDIT TEAM STATEMENT

We certify that this Road Safety Audit has been carried out in accordance with HD 19/15.

ROAD SAFETY AUDIT TEAM LEADER

Kevin Nicholson
Associate Director
WYG
St James Gate
Newcastle upon Tyne

Signed:

A black rectangular box redacting the signature of Kevin Nicholson.

Date: 15 August 2018

ROAD SAFETY AUDIT TEAM MEMBER

Nancy Sloan
Senior Consultant
WYG
St James Gate
Newcastle upon Tyne

Signed:

A black rectangular box redacting the signature of Nancy Sloan.

Date: 15 August 2018



5. DRAWINGS AND DOCUMENTS SUBMITTED FOR AUDIT

DRAWING OR DOCUMENT NUMBER	PROJECT AND DRAWING TITLE	DATE
1722-PL201 REVISION C	PROPOSED HOUSING DEVELOPMENT KIRKLAND ROAD, ENNERDALE BRIDGE SITE PLAN AS PROPOSED	25.05.18
A103748-C001 REVISION -	LAND OFF KIRKLAND ROAD, ENNERDALE BRIDGE PROPOSED SITE ACCESS ARRANGEMENT	01.09.17
A103748	LAND OFF KIRKLAND ROAD, ENNERDALE BRIDGE TRANSPORT STATEMENT	01.18
1722	TOPOGRAPHICAL SURVEY	-

6. LOCATION PLAN OF ITEMS RAISED BY THIS AUDIT

