

Road Safety Audit – Clevedon Active Travel Scheme

Stage: 3

Location: B3130 Hill Road area, Clevedon, North Somerset

Site: Cycle Lanes, One-Way Roads and 20mph Speed Limit

ATSS Ref: 230507

Client Ref: NSC

Date: 25 July 2023



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Project Details

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On behalf of:	North Somerset Council

Report Control Sheet

	Name	Position	Date
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Team Member	Cath Boutwood	Team Member	
Team Member	Wendy Linham	Avon & Somerset Police	
Observer	Jonathan Gall	North Somerset Council	
Draft report issued by	Nick Jeanes	Team Leader	19 July2023
Final report issued by	Nick Jeanes	Team Leader	25 July2023
Designer's response issued by			

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Preface

Road Safety Audit is a systematic process for checking the potential road safety implications of highway improvements and new road schemes. Road Safety Auditing is a specialist process, undertaken by qualified highway professionals, that must be carried out independently of design and construction work. The objective of the process is to minimise future road collision occurrence and severity once the scheme has been built and comes into use.

The audit takes into account all road users, including vulnerable users such as pedestrians and pedal cyclists. Having identified potential road safety problems, the audit makes practical recommendations for improvement.

The recommendations of the audit team are reviewed by the design team and highway authority to consider whether adjustments should be made to the scheme or whether the potential road safety issue is considered to be acceptable when balanced against other design factors.

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1. Introduction

- 1.1 Avon Traffic & Safety Services Ltd has been commissioned by North Somerset Council, to undertake a Stage 3 Road Safety Audit, with regard to the recent works to introduce an active travel scheme in central Clevedon, in the streets south and east of the pier. The scheme was subject of a stage 2 road safety audit (ATSS ref. 210604) in July 2021, and a stage 3 road safety audit (ATSS ref. 221114) in December 2022. At the time of the stage 3 audit the proposals for The Beach (effectively the 'promenade' road along Clevedon front) had not been completed. The current audit has been arranged to cover the whole completed scheme, including the works on The Beach
- 1.2 The RSA Brief was supplied by North Somerset Council and accepted by the Audit Team. The Brief and Audit Team were approved by James Barnfield, North Somerset Council.
- 1.3 Hill Road pre introduction of the scheme was a two lane single carriageway, surrounded mostly by boutique shops, cafes/restaurants with residential above, and is on a slight downhill gradient from west to east. The road now has parking on the northern side and a contraflow cycle lane on the south side. A number of informal crossing points including buildouts within the parking area, have been introduced as part of the scheme. Before introduction of the scheme, Hill Road was subject to a 30mph speed limit, with recorded 85%ile 12h, 7-19 speeds of 22.9mph. Alexandra Road has a number of boutique shops, with the other interconnecting roads made up of quiet residential streets, with on-street parking.
- 1.4 The main focus of the Active Travel improvements is on improving access for pedestrians and cyclists to the area. On Hill Road this has been effected through: pavement widening; better crossing facilities; creating a one-way (eastbound to traffic); a segregated contra-flow cycle lane; cycle parking; loading and parking amendments; a 20mph speed limit and carriageway resurfacing. The wider area treatment includes a 20mph speed limit, the creation of 3 further one-way sections to: Bellevue Road, Seavale Road, and Woodlands Road, and a reversal of the current one-way to Gardens Road.
- 1.5 Works on The Beach include replacing 2 way working with a one way northbound lane for motor vehicles; replacement of echelon parking on the west (promenade) side with parallel parking bays; provision of a 2 way cycle lane between the west side footway and parking bays; provision of 4 informal pedestrian crossings marked by buff HFS surfacing; provision of 2 groups of on-carriageway and 2 on-footway cycle stands. At the north end of The Beach where 2 way traffic is resumed (junction with Alexandra Road/Marine Parade) a 'doughnut' junction has been created, signed as a mini-roundabout to northbound vehicles only. There are extensive footway buildouts at both ends of The Beach, where it meets Elton Road to the south and Alexandra Road to the north.

1.6 The audit team members are:

Nick Jeanes	–	Team Leader
Cath Boutwood	–	Team Member
Wendy Linham	–	Avon & Somerset Police
Jonathan Gall	–	North Somerset Council (Observer)

1.7 The audit took place during July 2023 and comprised of an examination of the documents/plans listed in Appendix A. The auditors visited site together between 10.00 and 12.00 on Friday 14 July for the daylight inspection. The weather conditions were overcast with drizzle, and a wet road. Vehicle flows were light on all roads and speeds appeared commensurate with the speed limit. Many pedestrians were observed but no cycles.

1.8 The auditors returned to site between 21.30 – 22.30 on Monday 17 July for the darkness inspection. The weather conditions were dry and windy, with a dry road. Vehicle flows were very light on all roads and speeds appeared commensurate with the speed limit. Some pedestrians were observed but no cycles.

1.9 Data from Crashmap.org show that there have been three reported collisions involving injury, in the 5 years 2017-2021 inclusive, in the vicinity of the proposals. One collision occurred between a car and a cycle at the junction of Alexandra Road and the Beach, in daylight in September 2020, resulting in a serious injury. One collision occurred on Hill Road near its junction with Bellevue Road, involving 2 cars, in daylight in November 2020, resulting in a slight injury. One collision occurred at the junction of Marine Parade and Hill Road, involving 2 cars, in daylight in August 2021, resulting in a slight injury.

1.10 The audit team have not been made aware of any departures from standards or relaxations in relation to the proposed scheme.

1.11 The audit was carried out under the terms and conditions of DMRB GG 119. The team examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design with any other criteria. However, reference may be made to National/Local Guidance in order to verify a point.

1.12 Documents and drawings examined in this safety audit are listed at Appendix A.

2. Safety Issues Raised in this Stage 3 Road Safety Audit

2.1 Problem

Location – Seavale Road junction with The Beach

Summary – Risk of cycle/vehicle collisions

It is not clear to westbound cyclists emerging from Seavale Road that The Beach is one way northbound. Cyclists who turn left here towards Elton Road will be in conflict with vehicles turning from Elton Road into The Beach (especially those turning left in), increasing the risk of a head-on collision



Cyclist's view west from Seavale Road. There is nothing to prevent a cycle turning left into oncoming traffic

Recommendation – Provide a banned left turn roundel sign on the reverse of the southern 'one-way with cycle contraflow' sign at the west end of Seavale Road

2.2 Problem

Location – Seavale Road junction with The Beach

Summary – Risk of vehicles colliding with parked vehicles

It is not clear to drivers entering The Beach from Elton Road that they are on a one way street. Drivers keeping to the left to avoid potential oncoming vehicles are at risk of side-swiping parked vehicles

Recommendation – Introduce a 'straight ahead' arrow on the carriageway immediately north of the existing 20 roundel. This will also partly address Problem 2.1

2.3 Problem

Location – The Beach – cycle path

Summary – Risk of pedestrian/cycle collisions

On busy days, car passengers exiting their vehicles on the nearside (especially young children) may enter/cross the cycle lane without realising that cycles may be passing, increasing the risk of cycle/pedestrian collisions

Recommendation – Provide more cycle symbols on the path between the existing symbols, to raise awareness. Establish the level of any potential conflicts, by use a video monitor to capture long periods of activity, including busy sunny weekends, when there are likely to be many more pedestrians and cyclists. If appropriate install cycle signs on adjacent lamp columns

2.4 Problem

Location – The Beach – cycle path

Summary – Risk of cycles colliding with car doors

It was noted that some vehicles park over the buff strip which separates parked vehicles from the cycle lane. Those that do so are at risk of opening nearside doors into the path of an oncoming (southbound) cycle

Recommendation – Introduce individual parking bay markings to increase driver understanding of the layout, and encourage drivers to park away from the buffer zone. Establish the level of any potential conflicts, by use a video monitor to capture long periods of activity, including busy sunny weekends, when there are likely to be many more pedestrians and cyclists



Looking north along The Beach, showing vehicles parked over buff strip, and frequency of existing cycle symbols

2.5 Problem

Location – The Beach - Informal pedestrian crossing points and other areas outside formal parking bays

Summary – Risk of vehicle/pedestrian collisions

Vehicles were observed parking in the buff areas outside the formal parking bays, in some cases physically obstructing the crossing area, or in others restricting a northbound driver's forward visibility of pedestrians crossing west to east, increasing the risk of vehicle/pedestrian collisions



Vehicles parked on crossing point (left) and on buff area outside of parking bays (right)

Recommendation – Introduce formal waiting and loading restrictions marked by yellow lines and kerbside tics, and follow up with enforcement

2.6 Problem

Location – The Beach – vehicle access to Sailing Club/Ice Cream Van bay

Summary – Risk of vehicle/vehicle, vehicle/cycle and/or vehicle/pedestrian collisions

Vehicles parked across the vehicle dropped kerb providing access to the sailing club/ice cream van bay will cause problems for vehicles accessing or exiting this area, resulting in possible dangerous manoeuvres increasing the risk of collisions



Poorly parked vehicle obstructing access to sailing club/ice cream van bay

Recommendation – Introduce formal waiting and loading restrictions marked by yellow lines and kerbside tics, and follow up with enforcement

2.7 Problem

Location – The Beach - Informal pedestrian crossing point adjacent to Clarence House

Summary – Risk of vehicle/pedestrian collisions

Vehicles parked immediately to the south of the crossing point obstruct intervisibility between northbound drivers and pedestrians crossing west to east, increasing the risk of vehicle/pedestrian collisions



Recommendation – Remove one parking bay (where the red car is in the above photo) and install waiting restrictions

2.8 Problem

Location – Beach Road – eastern kerblines/in-carriageway cycle stands

Summary – Risk of northbound vehicles colliding with cycle stands

The cycle stands are out of the path of northbound vehicles, however reports of vehicles mounting the eastern kerb to unload (rather than using the marked loading bays) suggest northbound vehicles will need to swerve to their left to avoid them, risking collision with the cycle stands

Recommendation – Introduce formal loading restrictions marked by yellow kerbside tics, and follow up with enforcement

2.9 Problem

Location – ‘Doughnut’ junction at north end of The Beach

Summary – Risk of head-on collisions

There is evidence that vehicles southbound on Marine Parade have entered, or tried to enter, The Beach, in contravention of the No Entry signs. Site observations suggested that the current signs are too small, and too widely spaced, making the No Entry less clear than it could be. The darkness inspection also showed that these signs are quite inconspicuous in darkness, even when viewed with a vehicle’s headlights, especially against a background of the promenade illuminations



View south towards The Beach from Marine Parade

Recommendation – Provide larger No Entry signs and move the eastern sign to the western nose of the buildout (as arrowed above) to form a gateway. Provide illumination to both signs. Provide Turn Left and Turn Right arrows on Marine Parade and Alexandra Road approaches to the ‘doughnut’ respectively. Introduce a ‘No Entry’ legend, or a 20 roundel facing northbound traffic, on The Beach between the No Entry signs

2.10 Problem

Location – Copse Road/Hill Road junction

Summary – Risk of head-on collisions

To the west of Copse Road there is no centre line on Hill Road, which may suggest to eastbound drivers that they are on a one way eastbound road. Eastbound drivers were seen to drive along the centre of the road, where they would be in conflict with a vehicle turning left out of Copse Road, increasing the risk of head-on collisions



Looking west on Hill Road from the Copse Road junction

Recommendation – Extend the existing centre line on Hill Road to a point opposite the centre line of Copse Road

2.11 Problem

Location – Hill Road supermarket loading bay

Summary – Risk of collisions between passing buses and stationary loading vehicles

There is evidence that normal sized service buses are finding it difficult to pass loading vehicles, with a risk of a bus striking the stationary vehicle, due to the lack of space to pass



Recommendation – Remove one upstream parking bay and move the loading bay a short distance westwards

2.12 Problem

Location – Gardens Road junction with Bellevue Road

Summary – Risk of head-on collisions

The sign to diagram 616 (turn right only) opposite Gardens Road is partly obscured by vegetation, increasing the risk of a driver turning left into oncoming traffic



Recommendation – Remove vegetation in this area

2.13 Problem

Location – Gardens Road junction with Bellevue Road

Summary – Risk of head-on collisions

The No Entry signs on Gardens Road are set back a fair way, so that it is not immediately apparent to a driver southbound on Bellevue Road that they cannot turn right into Gardens Road. Following recommendations in the previous stage 3 audit, a 'No Right Turn' sign has been erected prior to the junction, however there is a possibility that drivers may miss this sign and turn right, increasing the risk of a head-on collision



View south on Bellevue Road with Gardens Road on right

Recommendation – Introduce a 'Straight Ahead' arrow on Bellevue Road opposite Gardens Road

2.14 Problem

Location – Alexandra Road junction with Woodlands Road

Summary – Risk of head-on collisions

Complaints from residents of Woodlands Road suggest drivers are contravening the No Entry signs at the junction with Alexandra Road, increasing the risk of head-on collisions with oncoming vehicles



Looking into Woodlands Road from Alexandra Road

Recommendation – Install 'NO ENTRY' carriageway markings across the mouth of Woodlands Road

2.15 Problem

Location – Alexandra Road junction with Woodlands Road

Summary – Risk of head-on collisions

It was noted during the darkness inspection that the offside (western) No Entry sign luminaire was not operative

Recommendation – Ensure luminaire is operative

2.16 Problem

Location – Bellevue Road junction with 6 Ways roundabout

Summary – Risk of head-on collisions

The No Entry signs here are very widely spaced, such that drivers may mistakenly turn into Bellevue Road against the flow of traffic, increasing the risk of head-on collisions



Recommendation – Install 'NO ENTRY' carriageway markings across the mouth of Bellevue Road

2.17 Problem

Location – The Beach – whole length

Summary – Risk of head-on collisions

During the darkness inspection, a car was observed leaving a parking space, carrying out a three-point turn, and exiting The Beach in a southbound direction, i.e. contravening the one-way restriction. The auditors noted that there were no carriageway markings or signs along the whole length of The Beach, to indicate that it is one-way

Recommendation – Install 'Straight Ahead' arrow carriageway markings at regular intervals along The Beach traffic lane, and one-way plates on the east side lamp columns

2.18 Problem

Location – Throughout the scheme 20 mph speed limit

Summary – Risk of inappropriate speeds

There do not appear to be enough 20 mph repeater signs throughout the scheme. If repeater signs are not sited at the regulation interval, the 20 mph limit will be unenforceable

Recommendation – Review the siting of 20 mph repeater signs, and ensure they comply with the signage regulations, installing extra signs if and where necessary

3. Audit Team Statement

We certify that this audit has been carried out in accordance with DMRB GG 119

Audit Team Leader:

Name: Nick Jeanes MCIHT; MSoRSA; NH Cert. Comp.
Director

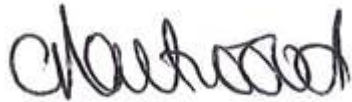


Signed:

Date: 25/7/2023

Audit Team Member:

Name: Cath Boutwood MCIHT; MSoRSA
Senior Auditor



Signed:

Date: 25/7/2023

Appendix A: Information Utilised in this Stage 3 Road Safety Audit

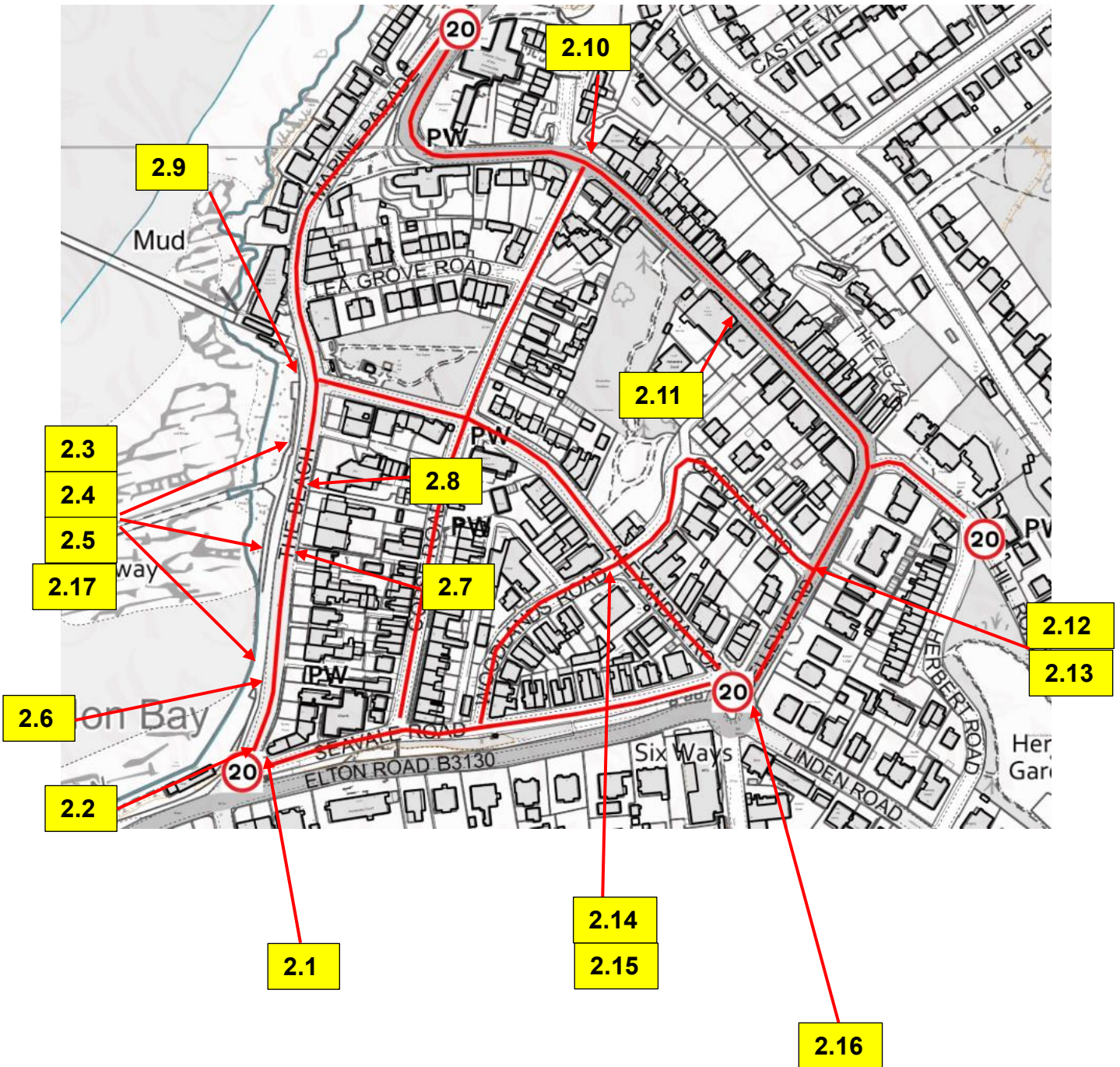
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Stage 2 road safety audit (ATSS ref 210604, July 2021) and Designer's Response

Stage 3 road safety audit (ATSS ref 221114, December 2022)

Appendix B: Key Plan showing issues raised at this Stage 3 Audit



Appendix C – Site location plan

