

P e l l F r i s c h m a n n

Glentarken Wind Farm

Interim Road Safety Audit

December 2024

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Prepared for

SSE Renewables



Prepared by

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1 Project Details

Table 1: Project Details

Project Details	
Project Title:	Glentarken Wind Farm Interim Road Safety Audit
Date:	3 rd December 2024
Document and revision:	109017/IRSA/R01A
Prepared by:	Pell Frischmann
On behalf of:	SSE Renewables

2 Introduction

SSE Renewables have appointed Pell Frischmann to undertake an Interim Road Safety Audit of proposed highway alterations relating to site access arrangements for a Wind Turbine site. The extent of the Road Safety Audit is shown on **Figure 1** of this report.

The Road Safety Audit relates to proposed alterations to the A85. The alterations associated with this Road Safety Audit include kerb alterations to provide a site access for proposed Glentarken Wind Farm.

The Audit Team were appointed by SSE Renewables, via Gordon Buchan of Pell Frischmann (Edinburgh office). The Interim Road Safety Audit has been requested to provide an early audit of potential road safety-related problems, in advance of a full preliminary design, which will require a full GG 119¹ compliant Stage 1 Road Safety Audit.

This Interim Road Safety Audit has been undertaken broadly in line with the requirements of GG 119, with the exception of approval of the Audit Team and Audit Brief by the Overseeing Organisation, or carrying out a site visit. The Audit Team meet the requirements of GG 119 and have experience of auditing comparable schemes.

The Audit Team was as follows, with details of the Audit Team's qualifications and experience provided in **Appendix A**:

- Steve Bibb, MCIHT, MSoRSA
Associate, Pell Frischmann, Birmingham
Certificate of Competency in Road Safety Audit gained in 2012

- Daniel Susans, BSc (Hons) Civil Engineering, MCIHT, MSoRSA, EngTech MICE
Transport Planner, Pell Frischmann, Birmingham
Certificate of Competency in Road Safety Audit gained in 2020

The Road Safety Audit team undertook the desktop audit on Friday 15th November 2024. For this Interim Road Safety Audit no site visit has been undertaken, but will be required as part of a Stage 1 Road Safety Audit.

The Road Safety Audit comprised an examination of the information, listed in **Appendix B**. No previous Road Safety Audits were provided to the Audit Team for review.

The Road Safety Audit Team has 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 to any other criteria. All comments and recommendations are referenced to the drawings provided and the locations have been indicated on **Figure 2** of this report.

¹ Design Manual for Roads and Bridges, GG119 Road Safety Audit (Revision 2), January 2020

3 Items raised at this Interim Road Safety Audit

A1 Local Alignment

The Audit Team identified no Local Alignment related road safety problems at this Interim Road Safety Audit.

A2 General

The Audit Team identified no General related road safety problems at this Interim Road Safety Audit.

A2.1 Departures from Standards

The Audit Team have not been advised of any departures from standards.

A3 Junctions

A3.1 Visibility

A3.1.1 Problem 1

Location: A85/ proposed access.

Summary: Lateral visibility and Stopping Sight Distance to access may be obscured by existing trees and vegetation, with potential to obscure visibility between approaching traffic and emerging vehicles, with potential for side swipe and shunt collisions.

Description: Visibility splay drawings show the lateral visibility from the proposed junction impeded by existing trees and vegetation. Subsequently, visibility between vehicles travelling on the A85 and those emerging from the proposed access may be obscured and may lead to egressing vehicles pulling into the path of approaching traffic, with potential for side swipe and shunt collisions.

RECOMMENDATION

Undertake speed survey for A85 westbound approach to site access, demonstrating correspondent lateral visibility and Stopping Sight Distance in order to identify extent of trees/ vegetation to be removed in order to provide clear visibility. Where visibility requirements cannot be met, a reduced speed limit in the vicinity of the site access should be provided.

A3.2 Layout

A3.2.1 Problem 2

Location: A85/ proposed access.

Summary: Junction geometry may be unsuitable to accommodate required vehicle types, with potential for vehicle overrunning of opposing A85 lane or site access extents, with potential for head-on collisions with oncoming traffic or HGV toppling/ load spill for vehicles utilising the access.

Description: The swept path drawings indicates that the proposed access will be utilised by HGVs (Heavy Goods Vehicles) and AILs (Abnormal Indivisible Loads). Swept path analysis for likely vehicle types have not been provided to demonstrate expected vehicle manoeuvres can be accommodated safely accessing and egressing the proposed junction. Subsequently, larger vehicles may be required to overrun the opposing A85 lane, with potential for head-on collisions with oncoming traffic, or overrun the access with potential to topple vehicles due to level difference at access, which could also lead to load spilling onto the A85 and access.

RECOMMENDATION

Designer to provide swept path analysis for all likely vehicle types and manoeuvres associated with the proposed access. Where required, access geometry should be revised to safely accommodate likely vehicle movements.

A4 Walking, Cycling and Horse Riding

The Audit Team identified no Walking, Cycling and Horse Riding related road safety problems at this Interim Road Safety Audit.

A5 Traffic Signs, Carriageway Markings and Lighting

The Audit Team identified no Traffic Signs, Carriageway Markings and Lighting related road safety problems at this Interim Road Safety Audit.

4 Audit Team Statement

Table 2: Audit Team Statement

We certify that this road safety audit has been carried out in accordance with GG 119, with the exception of prior agreement of the Audit Team and provision of an Audit Brief.	
Road Safety Audit Team Leader	
Name:	Steve Bibb, MCIHT, MSoRSA
Signed:	
Position:	Associate
Organisation:	Pell Frischmann
Date:	3 rd December 2024
Road Safety Audit Team Member	
Name:	Daniel Susans, MCIHT, MSoRSA, EngTech MICE
Signed:	
Position:	Transport Planner
Organisation:	Pell Frischmann
Date:	3 rd December 2024

Figures

Figure 1: Audit Location Plan

Figure 2: Problem Location Plan

Key
Extent of Road Safety Audit

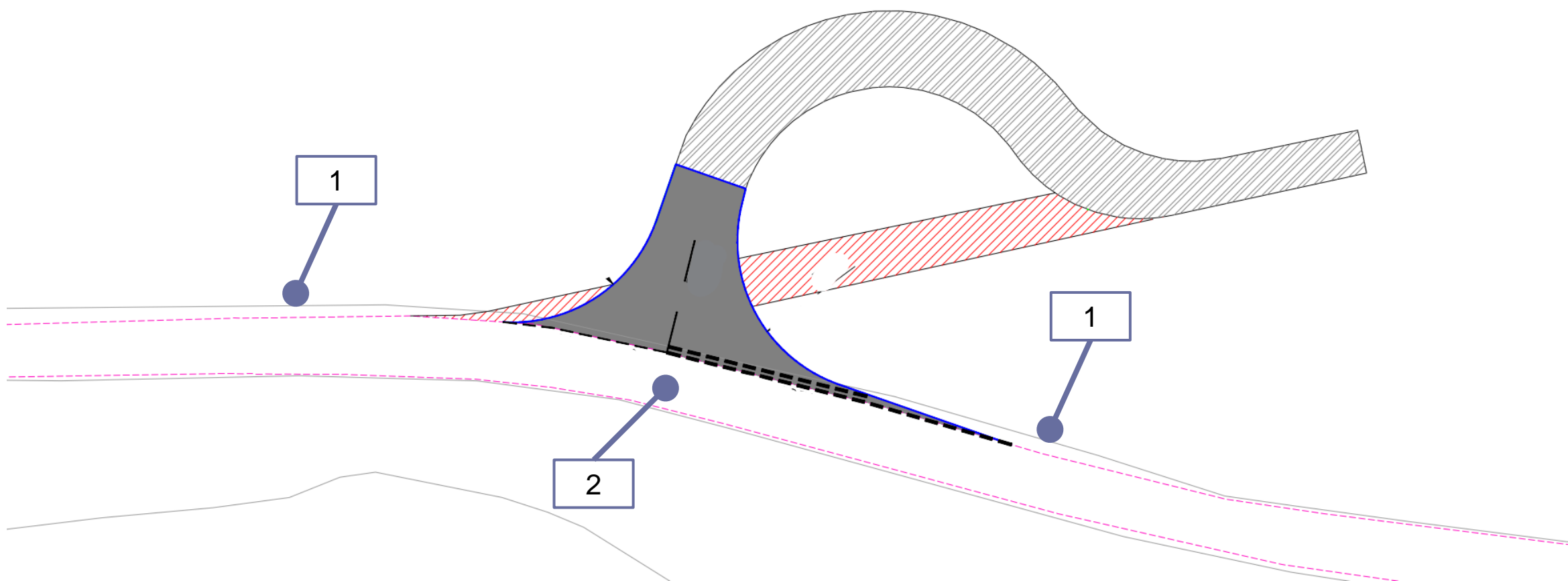


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Glentarken Wind Farm
Interim Road Safety Audit

Figure 1
Site Location Plan

Pell Frischmann



Appendix A Audit Team Experience

Steve Bibb

Associate Transport Planner

Years' Experience: 20+

Qualifications:

HNC Civil Engineering Studies, University of Wolverhampton, 2000
RoSPA Accident Investigation & Prevention (10 days), 2006
Highways England Approved Certificate of Competency, 2012



Memberships & Accreditations:

CIHT Member
SoRSA Member

Recent Continuing Professional Development

- Structured Reading: LTN 1/24 Bus User Priority, June 2024 (1.5 hours)
- CIHT Road Safety Insights: A Journey Through the STATS19 Update, May 2024 (1 hour)
- CIHT Disadvantage Caused by Temporary Design, April 2024 (1 hour)
- Structured Reading: Wrong Way Driving: Mitigation Toolkit, National Highways, April 2024 (1 hour)
- CIHT Inclusive Active Travel, with Insights on Neurodiversity, April 2024 (1 hour)
- Structured Reading: Pedestrian Slips, Trips and Falls, Living Streets, January 2024 (1.5 hours)
- CIHT Understanding Disability, December 2023 (1.5 hours)
- Structured Reading: Guide to Designing for Motorcyclists, National Highways, April 2023 (1 hour)
- CIHT Masterclass, Road Safety, November 2023 (1 hour)
- Active Travel – Links, crossings and minor junctions seminar, West Midlands Combined Authority, October 2023 (2 hours)
- CIHT Masterclass, Sustainable Transport, July 2023 (1 hour)

* Signed CPD Records for structured reading and webinars available upon request

Summary of Road Safety Audit Experience

Steve has eighteen years' road safety related experience spanning the areas of collision investigation and remedial engineering, in addition to some safety experience prior to this working in the public sector delivering capital works projects, design of Tamworth Town Centre Pedestrianisation, involvement with Safer Routes to School projects and implementation of signage schemes on safety camera routes identified by Staffordshire's Safety Camera Partnership.

Since joining the private sector, Steve has been involved with numerous local safety schemes, including Local Safety Schemes in Wolverhampton, and Road Safety Appraisal studies for a range of major projects, including Hinkley Point C advance works and A38 Trerulefoot to Carkeel Safety Package.

Steve has been undertaking Road Safety Audits across a range of scheme types and has subsequently taken part in over 350 Audits at Stages 1, 2 and 3 primarily in the United Kingdom, but also in Saudi Arabia. Audit experience ranges from small local authority highway schemes, residential developments, Mini Holland cycle schemes in Transport for London format and major infrastructure schemes for National Highways.

Steve joined Pell Frischmann in September 2017 and continues to lead the delivery of Road Safety Audits.

Recent Road Safety Audit Experience

Since 2010 Steve has undertaken Road Safety Audits as an Audit Team Member and Leader in accordance with the requirements of HD 19/15 and GG 119 subsequently. Steve has undertaken numerous Road Safety Audits in the last two years. A selection of these Audits, in addition to Strategic Road Network-related audits, are shown below. These audits have been carried out in accordance with the requirements of GG 119.

Strategic Road Network and Equivalent

Date	Audit Stage	Audit Team Role	Details
March 2024 March & Dec '23 June 2020	3 3 (Interim) 2	Team Leader	M6 Junction 10, Walsall – Reconfiguration of roundabout including two new four-lane bridges, signal control, additional NMU facilities and upgrades to other nearby junctions
December 2023	1	Team Leader	A4, Necton – Temporary access to proposed Green Grid Park adjoining substation next to existing A47
April 2023 April 2021 June 2019	3 2 1	Team Leader	Etruria Valley Link Road, Stoke-on-Trent – Reconfiguration of A500 slip roads and Wolstanton dumbbell roundabouts, at interface with new adjoining link road, in addition to pedestrian provision along A500 trunk road.
February 2022 October 2021	3 3 (Interim)	Team Leader	A69/ A6079 Bridge End Roundabout, Hexham – Proposal to convert the junction to grade separated, with main A69 passing beneath the existing roundabout and existing entry/exit lanes converted to on/off slip lanes.
October 2020	1/ 2	Team Leader	M6 Junction 12, Reading - introduction of maintenance bays in order to service signal equipment on roundabout gyratory.
July 2016	1	Team Member	Eaton Leys, Milton Keynes - alterations to A5/ A4146 Kelly's Kitchen roundabout to provide additional capacity in the form of lane widening and 'through traffic' lanes across the central island of the roundabout. Development access will be gained from new traffic signal-controlled junction on the A4146.
May 2014 to December 2015	1, 1 / 2 and 2	Team Leader	Jeddah Infrastructure Projects, Saudi Arabia – Audit of Conceptual Design options to HD 19/03 standard for upgrade of two strategic intersections at King Abdul Aziz Road, 4.7km route improvements at Tahliya Street, improvements to the intersection of King Abdullah Aziz Square and it's approaches and 20 pedestrian footbridges situated across the city of Jeddah.

All Other Roads

Date	Audit Stage	Audit Team Role	Details
July 2024	1	Team Leader	Market Place, Cleethorpes – Levelling up scheme to convert existing car park and carriageway to pedestrianised public square.
July 2024	1	Team Member	Liverpool Road, Kingsfold and Middleforth, Penwortham – Three separate schemes comprising a range of public realm enhancements and active travel measures on behalf of South Ribble Borough Council
February 2024	3	Team Leader	The Spot Phase 2 (TCF): St Peters Street, Babington Lane & Gower Street – Derby town centre public realm scheme, including active travel road space reallocation, pedestrian crossing and parking reconfiguration.
February 2024	1/ 2	Team Leader	Cross City Bus Package 5: Washwood Heath Road – Providing of bus lanes on route in and out of Birmingham city centre, including parking, waiting and loading restrictions, bus signal priority and pedestrian crossing alterations.
November 2023	3	Team Leader	1000 Trades, Frederick Street, Birmingham - New Parklet including new seating area and bollards
August 2023	3	Team Leader	Birmingham Eastside Extension Section 1 - Highway alterations relating to the Section 1 proposals as part of the BEE (Birmingham Eastside Extension) tram route.
June 2023 November 2022	3 Interim Stage 3	Team Leader	Wolverhampton City Centre Extension – Metro extension along Pipers Row to Wolverhampton Railway Station.
June 2023	1/ 2	Team Leader	Church Road S106, Birmingham – Proposals relating to Section 106 highway alterations, including convert existing zebra crossing to signal control and signage and lining alterations at Church Road/ Stoney Lane/ Hob Moor Lane gyratory
May 2023	1	Team Member	Robin Hood Intermediate Option, Hall Green, Birmingham - Alterations to further signalise Robin Hood Island, including additional traffic signalling, upgraded pedestrian crossing points, formalised parking arrangements, central island redesign, gateway features, paving upgrade, cycle connections and street

Date	Audit Stage	Audit Team Role	Details
			Planting.
April 2023	3	Team Leader	Newport Lane, Stoke-on-Trent – Audit of priority junction accesses (s278) to new residential development and audit of internal residential roads (s38).
January 2023	1	Team Leader	Birmingham Eastside Metro Extension, Digbeth High Street Cycle Jug Handle – Proposed design alteration to incorporate improved LTN 1/20 compliant cycle facilities on Digbeth High St.
October 2022	3	Team Leader	Pershore Road, Edgbaston, Birmingham - Highway alterations to accommodate a new segregated cycle route. The scheme forms a connection between the existing segregated cycle route on the A38 Bristol Road and National Cycle Route 5 at Canon Hill Park.
July 2022	3 (Stg 2 Aug '21)	Team Leader	Parry Lane, Bradford – Introduction of signal controlled junction at Sticker Lane, Broad Lane with new 250 metre link road connecting to existing Parry Lane.
May 2022	3	Team Leader	Edgbaston Metro Extension, Birmingham – 2km tram extension along Broad Street from Centenary Square to Five Ways (Hagley Road), involving alteration to existing highway configuration, introduction of signal controlled junctions and crossings.
March 2022	1	Team Leader	Morledge to Rail Station, Derby - Proposed shared use footway/ cycleway between existing Lara Croft Way and Morledge bus station. Bus priority also provided at Morledge junctions with the bus station and A601 Traffic Street.
February 2022	Interim Stage 1	Team Leader	New Deal for the Bus: Cape Hill/Windmill Ln/Waterloo Rd/Shireland - Concept design of proposed highway alterations to A4092 Cape Hill/ A4092 Waterloo Road/ B4125 High Street/ B4136 Windmill Lane/ B4125 Shireland Road, including reconfiguration of lane approaches to signal-controlled crossings, their pedestrian crossings and converting A4136 Windmill Lane junction to a priority junction.
February 2022	3	Team Leader	Snow Hill Public Realm Project 1.1 - Colmore Row (east) and Livery Street - Audit of public realm areas in vicinity of Snow Hill Station, including widened footways, carriageway narrowing, traffic priority alterations and provision of a new bus lay-by

Collision Investigation and Safety Engineering/ Road Design Experience

Date	Context of Study	Details
March 2023	Design Options Appraisal	A4540 Ring Road Birmingham, Birmingham City Council – Review of five years collision data on eastern section of Ring Road (Dartmouth Circus to Haden Circus) to determine baseline safety conditions and collision patterns, particularly for pedestrians and cyclists where the route creates severance. Data will inform Options Appraisal (underway) relating to three design packages to improve reliability and safety, whilst reducing severance for buses and NMUs crossing the route.
February 2021	Safety Appraisal	A38 Carkeel to Trerulefoot Safety Package, Highways England – Collision data (five year) and traffic flows for six mile section of A38 in Cornwall were analysed to determine the baseline safety conditions through link analysis (KSI, Severity Ratio and Accident Rate) and clusters. Collision patterns and causation were reviewed and a potential mitigation measures were identified and used to inform potential design options.
Sep 2017	Transport Assessment	Midland Metro, East Birmingham to Solihull Extension – Analysis and Review of Collisions along proposed 17.5km EBS Route between Digbeth, Birmingham and Birmingham International/ Birmingham Airport, Solihull
February 2014	Transport Statement	Walney Extension Offshore Wind Farm – Prepared Transport Statement associated with construction movements for onshore cabling and movements of materials. The TS considered impacts at the potential construction ports of Barrow, Heysham and Fleetwood. This included high level collision analysis of routes to each port, identifying a total of 919 collisions and 30 cluster sites. Further analysis would be required to determine suitable mitigations once the construction port had been selected.
April 2011	Environmental Statement	Hinkley Point C Preliminary Works, Somerset – Preparation of safety section for ES Transport chapter assessing impacts of Hinkley Point C Preliminary Works, including preparatory earthworks and construction of a temporary jetty to support main construction works. Investigation of 379 collisions on approach routes including strategic routes such as the M5, A38 & A39 to determine baseline safety conditions, relationships to national averages and accident rate to determine predicted collision numbers using future year traffic flows. Mitigation measures identified included funding for road safety monitoring and delivery of road safety schemes by Somerset County Council in accordance with their requirements.

Daniel Susans

Transport Planner

Years' Experience: 7

Qualifications:

RoSPA Road Safety Engineering (Modular) (10 days), 2019
Level 3 BTEC Diploma Civil Engineering & Built Environment, 2017-2019
NH approved Certificate of Competency, 2020
BSc (Hons) Civil Engineering, 2021-2024



Memberships & Accreditations:

ICE Member and EngTech
CIHT Member
SoRSA Member

Recent Continuing Professional Development

Accident Causations and Evaluation of Road Safety Measures, CIHT (1 hour), March 2024
ATE Engagement Webinar: Spotlight on Bus Stop Bypasses, DfT (1 hour), May 2024
Road Safety Insights: A Journey Through the STATS19 Update, CIHT (1 hour), May 2024
Survey Types and Emerging Technologies Lunch and Learn, Tracsis (1 hour), May 2024
Designing Highways and Transport for People with Dementia, CIHT (2 hours), June 2024
Structured Reading: CD123 Geometric design of at-grade priority and signal-controlled junctions, National Highways (1 hour), June 2024
Road Safety & Personal Security Webinar, CIHT (1 hour), July 2024
Seminar: Pod Point and EV Chargers (1 hour) September 2024
Seminar: Asphalt Ravelling Mitigation with Cellular Materials (CIHT) (1 hour) October 2024
Structured Reading: Traffic Signs Manual Chapter 8, Department for Transport (2 hours), November 2024

* Signed CPD Records for structured reading and webinars available upon request

Summary of Road Safety Audit Experience

Dan joined Pell Frischmann's Traffic and Transportation team in September 2017 as an Apprentice Engineer. He has since been involved in a range of transport planning and traffic and road safety engineering projects for public sector clients and private developers.

In his time with Pell Frischmann, Dan has developed his competency in development of preliminary highway design associated with transport planning projects and is conversant with overarching design standards including, Manual for Streets, Design Manual for Roads and Bridges and Traffic Signs Manuals.

Dan has been undertaking Road Safety Audits since 2018 and has undertaken audits at multiple stages in relation to both the Strategic Road Network and the wider highway network. Dan has also been undertaking multiple Road Safety Audits of various tram schemes during his time at Pell Frischmann.

Dan is a competent user of AutoCAD, AutoDesk Vehicle Tracking and SignPlot. Dan also has experience in modelling tools, including Junctions 9 and LinSig. He has also presented a range of geographical based data using GIS software and has carried out data analysis using Excel.

Recent Road Safety Audit Experience

Dan is a Road Safety Audit Team Member in accordance with GG 119, having gained experience of highways design, appropriate design standards and completing the RoSPA Road Safety Engineering course in 2019. Dan achieved his National Highways approved Certificate of Competency in 2020, allowing him to undertake Audits on the Strategic Road Network.

Since 2019 Dan has undertaken Road Safety Audits as an Audit Team Member and Leader in accordance with the requirements GG 119. Dan has undertaken numerous Road Safety Audits in the last two years. A selection of these Audits, in addition to Strategic Road Network-related audits, are shown below.

Strategic Road Network and Equivalent

Date	Audit Stage	Audit Team Role	Details
December 2023 March 2023	3 3 (Interim)	Team Member	M6 Junction 10 - The proposed scheme provides two new, curved four-lane bridges replacing the existing two-lane M6 overbridges to the north and south of the roundabout. Provision to accommodate a 5th M6 lane in the future, widening to four quadrants of the junction. Widening of Black Country Route, improvement to A454 Wolverhampton Road/ Bloxwich Lane junction and improved drainage and gantry signage.
April 2023	3	Team Member	Etruria Valley Link Road, Stoke-on-Trent - Highway alterations at the A527 Wolstanton dumbbell roundabouts, the adjoining A500 slip roads and new road providing a link between the A500 at Wolstanton and Festival Way.
October 2021 and February 2022	3 (Interim) & 3	Team Member	A69/ A6079 Bridge End Roundabout, Hexham – Proposal to convert the junction to grade separated, with the main A69 passing beneath the existing roundabout and existing entry/exit lanes converted to on/off slip lanes.
April 2021	2	Team Member	Etruria Valley Link Road, Stoke-on-Trent – Reconfiguration of A500 slip roads and Wolstanton Roundabouts, at interface with new adjoining link road, in addition to pedestrian provision along A500 trunk road.
January 2021	1/ 2	Team Member	M40 Junctions 7, 9 and 10 – Proposed vehicle restraint systems and amendments to signage on junction slip roads.
October 2020	1/ 2	Team Member	M4 Junction 12 Maintenance Bays, Reading – Proposed maintenance bays associated with traffic signal upgrade scheme for Highways England.
June 2020	2 (Interim)	Team Member	M6 Junction 10, Walsall – Reconfiguration of roundabout including two new four-lane bridges, signal control, additional NMU facilities and upgrades to other nearby junctions.
November 2019	1/ 2	Team Member	M27 Junction 7 Maintenance Bays, Hedge End – Proposed maintenance bays associated with traffic signal upgrade scheme for Highways England.

All Other Roads

Date	Audit Stage	Audit Team Role	Details
August 2024	1	Team Leader	Cross City Bus Package 4 - Alterations to Cross City Bus Package 4 corridor between Longbridge and Castle Vale. The scope of the project consists of a series of general highway alterations related measures which aim to improve bus priority across the Birmingham conurbation.
July 2024	1	Team Member	Cleethorpes Levelling Up Fund - Conversion of an existing car park and carriageway into a pedestrianised public square, that will also serve as a marketplace on certain days.
July 2024	3	Team Leader	Church Lane, Stoke-on-Trent - New mini roundabout at the junction of Church Lane/ Grange Lane, Stoke-on-Trent. The scheme also provides two new toucan crossings, one on Church Lane (southern arm) and one on Grange Lane.
February 2024	2, 3	Team Leader	Lozells Places for People - Alterations to an implemented scheme, with amendments including alterations to one-way streets, contraflow cycling measures and the removal of bollards.
November 2023	3	Team Member	1000 Trades, Frederick Street, Birmingham - New Parklet including new seating area and bollards.
August 2023	3	Team Member	Birmingham Eastside Extension Section 1 - Highway alterations relating to the Section 1 proposals as part of the BEE (Birmingham Eastside Extension) tram route.
June 2023	3	Team Member	Wolverhampton City Centre Extension - Highway alterations of constructed highway works associated with the Wolverhampton City Centre Extension (WCCE) of the Midland Metro tram route, from Wolverhampton railway station to Bilston Street.
June 2023	1, 2	Team Leader	TCF Derby Road, Derby - Proposed pedestrian/ cycle facility improvements along Derby Road which connects proposed Nottingham Road cycle scheme in the north-west, to Spondon Roundabout in the south-east.
June 2023	1/ 2	Team Member	The Victoria & Albert Public Realm Scheme, Derby - Proposed highway alterations relating to public realm improvements on Corporation Street, Albert Street and Victoria Street, Derby.

May 2023	1	Team Leader	Hall Green, Birmingham - Proposed alterations to the further signalisation of Robin Hood Island. The works include additional traffic signalling, upgraded pedestrian crossing points, formalised parking arrangements, central island redesign, gateway features, paving upgrade, cycle connections, and street planting.
February 2023	1	Team Leader	A45 to Acorn Way, Derby - Proposed highway alterations to improve cycling/ pedestrian facility improvements, relating to corridor improvements on Derby Road from Spondon Roundabout to Raynesway.
October 2022	1	Team Leader	Corridor Improvements, Chaddesden: Park Road to Raynesway (Nottingham Road), Derby – Pedestrian and cycle infrastructure improvement scheme, including segregated and shared-use facilities.
September 2022	2	Team Leader	Etruria Valley Link Road Spitfire, Stoke-on-Trent – Spitfire statue within scheme’s internal roundabout and associated trief kerbing.
September 2022	2	Team Leader	Monmouth Drive, Sutton Coldfield – Safety scheme providing trief kerbing, guard railing and uncontrolled pedestrian crossings.
March 2022	1, 1/ 2, 2 & 3	Team Member	Portsmouth PFI – Resurfacing schemes and zebra crossing in ground illumination.
March 2022	1	Team Member	Public Realm, Derby - Proposed public realm on Victoria Street, Albert Street and Corporation Street. Provision of contraflow cycle lane with one-way westbound on Victoria Street.
February 2022	3	Team Member	Snow Hill Public Realm Project 1.1 - Colmore Row (east) and Livery Street - Audit of public realm areas in vicinity of Snow Hill Station, including widened footways, carriageway narrowing, traffic priority alterations and provision of a new bus lay-by.

Collision Investigation and Safety Engineering/ Road Design Experience

Date	Context of Study	Details
August 2023	Local Safety Scheme Review	Heybarnes Road Local Safety Scheme – 19 collisions along a 0.65 mile stretch of carriageway on the outskirts of Birmingham City Council. Three key areas requiring mitigation were identified, two locations of fatalities and one cluster of collisions at the junction with Coventry Road. Dan undertook the collision analysis and is overseeing the delivery of the scheme.
May 2023	Local Safety Scheme Review	Washwood Heath Road Local Safety Scheme – 67 collisions along a 0.8 mile stretch of carriageway on the outskirts of Birmingham City Centre. The collision analysis was split into three sections, based on nature of the road space. Dan undertook the collision analysis and is overseeing the delivery of the scheme.
November 2022	Local Safety Scheme Review	Coventry Road Local Safety Scheme – 57 collisions along a 1.65 mile stretch of carriageway on the outskirts of Birmingham City Centre. Four clusters of collisions were identified, one of nine collisions, one of four collisions, one of 18 collisions and one of eleven collisions. Dan wrote the technical note following the collision analysis summarising the findings and proposals to reduce the collision numbers.
August 2022	Local Safety Scheme Review	Rednal Road Local Safety Scheme – Sixteen collisions along a 2.14km stretch of carriageway over a three year period. Two clusters of collisions were identified, one of five collisions and one of four collisions. Although, two cluster of collisions were identified, there was no pattern of collisions and therefore no safety scheme was proposed.
December 2021	Safety Measures in Designs	Kings Heath LTN Wider Impacts Study – A transport study of Kings Heath and the surrounding area to consider current and historic network performance, and the impacts of the Places for People scheme, with a view to identifying further interventions that would contribute singly or cumulatively to improving and managing the flow of traffic through Kings Heath.
August 2021	Access Strategy	Southside Access Strategy – Measures to provide a safer and pedestrians and cyclists, particularly through pedestrian zones, raised junctions/ crossings, wheelchair friendly paving and parking alterations to promote sustainable modes of transport.
February 2021	Pedestrian Safety Measure	A New Deal for The Bus Package 3 – The project was looking at design and appraisal of six-cross city bus packages in Birmingham, Sandwell and Dudley, to improve reliability and journey times. This element looked at a pedestrian crossing raised by the council as a safety risk given its close proximity to a roundabout.
January 2021	Safety Appraisal Report for National Highways	A38 Carkeel to Trerulefoot Safety Package – Study seeking to introduce improvements to the A38 in Cornwall, between Trerulefoot and Carkeel to improve safety conditions in response to a relatively high number of KSI collisions. Collision cluster identification was undertaken to scope potential mitigation measures along the route.
December 2019 to August 2021	Bus Corridor Improvements	New Deal for the Bus – A Transport for West Midlands project looking at design and appraisal of six cross-city bus packages in Birmingham, to improve reliability and journey times. Dan has supported the development of measures at preliminary and detailed design, which include bus lanes, bus gates, traffic signal bus priority, parking management and other traffic restrictions.

Appendix B Incoming Audit Information

Document/ Drawing No.	Rev	Title/ Description	Scale	Date
10109017_SK_0002	P01	Proposed Site Access Junction General Arrangement & Visibility Splay	1:250 @ A1	12.11.24
10109017_SK_0003	P01	Proposed Site Access Junction Swept Path Analysis	1:250 @ A1	12.11.24

Interim Road Safety Audit: Designer Response

Project Summary

Date:	03/12/2024
Prepared by:	Pell Frischmann
Project:	Glentarken Wind Farm
Report title:	Interim Stage 1 RSA
Prepared By	Stephen Cochrane

Introduction

The designer response supplements the report results from an Interim Stage 1 Road Safety Audit (RSA) carried out by Pell Frischmann on the proposed site access junction for the proposed Glentarken Wind Farm, which is located within the Drummond Estate in the Perth and Kinross Council (PKC) and Stirling Council (SC) administrative areas. The proposed site access junction is located on the A85 trunk road to the west of St Fillans.

The designer response was produced by Pell Frischmann Consultants Limited, the designers of the proposed road scheme.

Road Safety Audit Log

RSA Issue	RSA Recommendation	Designer Response
A3.1.1	Undertake speed survey for A85 westbound approach to site access, demonstrating correspondent lateral visibility and Stopping Sight Distance in order to identify extent of trees / vegetation to be removed in order to provide clear visibility. Where visibility requirements cannot be met, a reduced speed limit in the vicinity of the site access should be provided.	SSE Renewables Wind Farms UK Ltd. (the Applicant) has control of the area required for the 160 metre (m) visibility splay to both the east and west of the proposed junction. All obstructions within the required visibility splays will be cleared as necessary to suit both the vertical and horizontal visibility. No speed reduction is considered necessary to accommodate visibility is proposed, unless this is a specific request of Transport Scotland.
A3.2.1	Designer to provide swept path analysis for all likely vehicle types and manoeuvres associated with the proposed access. Where required, access geometry should be revised to safely accommodate likely vehicle movements.	Swept path drawings for both Abnormal Indivisible Loads (AILs) and the largest general construction vehicle to be used during the construction phase have been undertaken on OS base data. At the detail design stage, the proposed junction arrangement will be undertaken on site specific topographical survey data and any minor amendments made to ensure all vehicles can enter and exit the site in a safe and efficient manner.

Summary

A series of further RSAs will be undertaken should the access proposals progress through the planning stage. The detail design of the junction will be undertaken on topographical survey data and amended to accord with the recommendations of the RSA where necessary.