



## **Stage 1 Road Safety Audit**

**Proposed Wind Farm at Inchamore Td, Coolea, Co Cork**

On behalf of Coillte CGA \ SSE Renewables Ltd

Prepared By:

**CST GROUP**

Chartered Consulting Engineers

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**April 2023**

**Civil**  
**Structural**  
**Traffic**

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## DOCUMENT CONTROL

<b>Revision</b>	R0	R1	R1						
<b>Purpose of Issue:</b> P=Preliminary PG=Progress C=Comment I=Information PL=Planning T=Tender CN=Construction	C	C	PL						
<b>Date:</b>	27 01 23	30 01 23	21 04 23						
<b>Originator:</b>	SS	SS	SS						
<b>Checked By:</b>	PJG	PJG	PJG						
<b>Approved By:</b>	SS	SS	SS						

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## 1. INTRODUCTION

1.1. This report describes a Stage 1 Road Safety Audit carried out on behalf of Coillte CGA \ SSE Renewables Ltd on proposals to upgrade an existing priority controlled 'T' junction between the development access and the N22 national grade road.

1.2. The audit was carried out between 24<sup>th</sup> – 27<sup>th</sup> January 2023.

1.3. The audit team were as follows:

**Team Leader:** Stuart Summerfield, HNC (Civil) FCIHT FSoRSA  
Certificate of Competency in Road Safety Audits (SoRSA, 2015)  
TII Auditor Ref. SS73290

**Team Member:** PJ Gallagher, BEng M.Inst.A.E.A. MITAI  
TII Auditor Ref. PG3425716

1.4. The audit comprised an examination of the drawings relating to the scheme supplied by the design office. A site visit was carried out by both Audit Team members together on 24<sup>th</sup> January 2023 between the hours of 11:30-12:00. Weather conditions during the inspection were fine and the road surface was dry. Traffic conditions were considered busy with cars, light goods and HGVs. Photographs were taken during the inspection.

1.5. This Stage 1 audit has been carried out in accordance with the relevant sections of the Transport Infrastructure Ireland (TII) Publication (Standard) GE-STY-01024 (Dec 2017) 'Road Safety Audit'. The audit team has examined only those issues within the design relating to the road safety implications of the scheme and has therefore not examined or verified the compliance of the design to any other criteria.

1.6. **Appendix A** describes the documents examined by the Audit Team.

**Appendix B** shows the location of the problems identified by the Audit Team.

**Appendix C** contains a copy of the TII's approval of the Audit Team.

**Appendix D** contains the Audit Feed Back Form. The Designer shall consider the Audit Report and prepare a Designer Response to each of the recommendations, using the Feedback Form. The response shall state clearly whether each recommendation is accepted, rejected, or whether an alternative recommendation is proposed. Copies of the Designer Response shall be sent to the Employer and the Audit Team. The Audit Team shall then consider the Designer Response and indicate on the Feedback Form whether the Designer's response to each recommendation is accepted. The completed Report contains the completed Feedback Form with signatures of all three parties involved - Designer, Audit Team Leader and Employer.

1.7. All of the problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise collision occurrence.

## 2. ITEMS RESULTING FROM PREVIOUS STAGE 1 AUDIT

No previous audit has been offered for reference.

## 3. ITEMS RESULTING FROM THIS STAGE 1 AUDIT

### 3.1 Collision Data

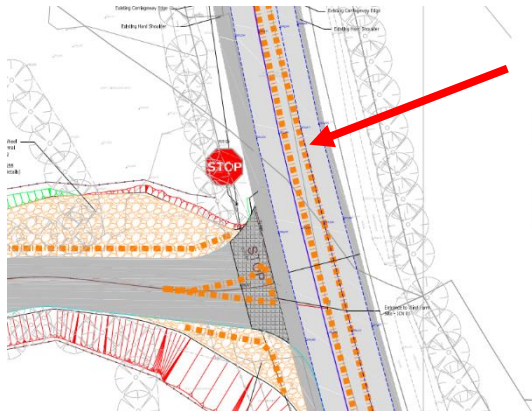
Collision data has not been supplied with this scheme.

Road Collision Data is not currently available on the Road Safety Authority Database, therefore no collision trends in the immediate vicinity of the proposed site can be analysed.

### 3.2 General Problems / Problems at Multiple Locations

#### 3.2.1 National Road Climbing Lane

**Problem:** The proposals indicate barriers to be provided to close down the national road southbound offside lane, where the climbing lane exists. This area of the national road is up a steep gradient.



**Hazard:** Faster moving traffic may attempt to overtake slower moving vehicles that are particularly slow due to the road gradient, and cut back in just prior to the temporary barriers. Collisions with the barriers or side swipe collisions with the slow moving vehicle may result.

**Recommendation:**

- Retain the dual lane set up for the full extent of the climbing lane.
- Adjust the refuge island within the mouth of the development junction such that right turning into the junction is near impossible for long vehicles.
- Ensure all drivers destined for the development are instructed to approach from the south only.

### 3.2.2 National Road Signage

**Problem:** Users may attempt to turn right into the development from the national road. These users are likely to wait in the N22 offside lane for gaps in opposing traffic.

**Hazard:** The stationary vehicle may be subject to rear end shunts from through traffic.

**Recommendation:** Provide suitable signage prohibiting right turning into the development junction. Additionally, provide signage guiding development traffic to a suitable turning location further to the east.

### 3.3 Problems at Specific Locations

#### 3.3.1 Development Junction – Gradient

**Problem:** The development junction is to a steep downhill gradient. Users exiting the development may proceed towards the National Road at excessive speed and fail to stop for the junction.



**Hazard:** Overshoot incidents may result.

**Recommendation:** Provide suitable warning signage for drivers exiting the development together with advanced stop signage and also ensure suitable surface friction is provided and maintained on approach to the junction.

#### 3.3.2 Development Junction - Surfacing

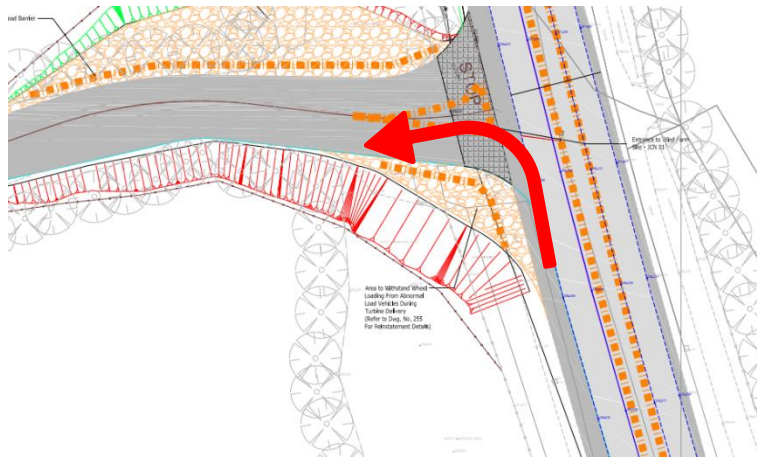
**Problem:** The development junction is made from unbound granular material. There is risk that stones may be dragged into the National Road.

**Hazard:** Loose material in the road may be thrown up into the windscreen of other vehicles, or strike cyclists.

**Recommendation:** Provide a bound surface to the access road.

### 3.3.3 Vehicle Swept Paths

**Problem:** It is not clear from the drawings if delivery vehicles have sufficient space to enter the development left from the National Road.

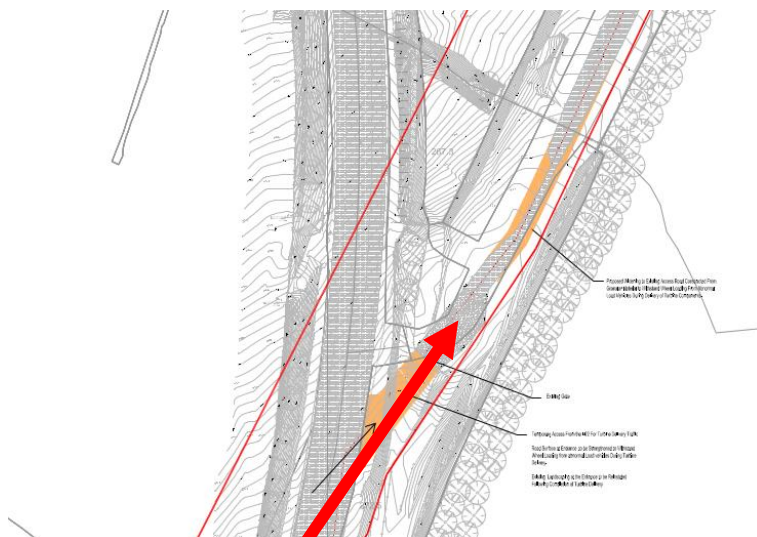


**Hazard:** Users may slow/stop with the tail of the vehicle protruding into the National Road. Rear end shunts may result.

**Recommendation:** Undertake swept path analysis and adjust the paved area accordingly.

### 3.3.4 Turning Area

**Problem:** The audit team have been advised that vehicles departing the development will turn left from the development junction and undertake a turn at a location further to the north. The formation of the inbound junction for turning may appear as a continuation of the National Road during hours of darkness.



**Hazard:** Northbound National Road drivers may errantly divert from the mainline to enter this new junction. Impact with southbound National Road traffic may result.

**Recommendation:** Ensure this junction does not appear as a continuation of the National Road under any lighting conditions.

#### 4. AUDIT TEAM STATEMENT

We certify that we have examined the drawings and other information listed in Appendix A. This examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified to improve the safety of the scheme. The problems that we have identified have been noted in the report, together with suggestions for improvement which we recommend should be studied for implementation. No one in the Audit Team has been involved with the scheme design as shown in Appendix A.

Signed  .....  
Stuart Summerfield  
Audit Team Leader

Date 27<sup>th</sup> January 2023 .....

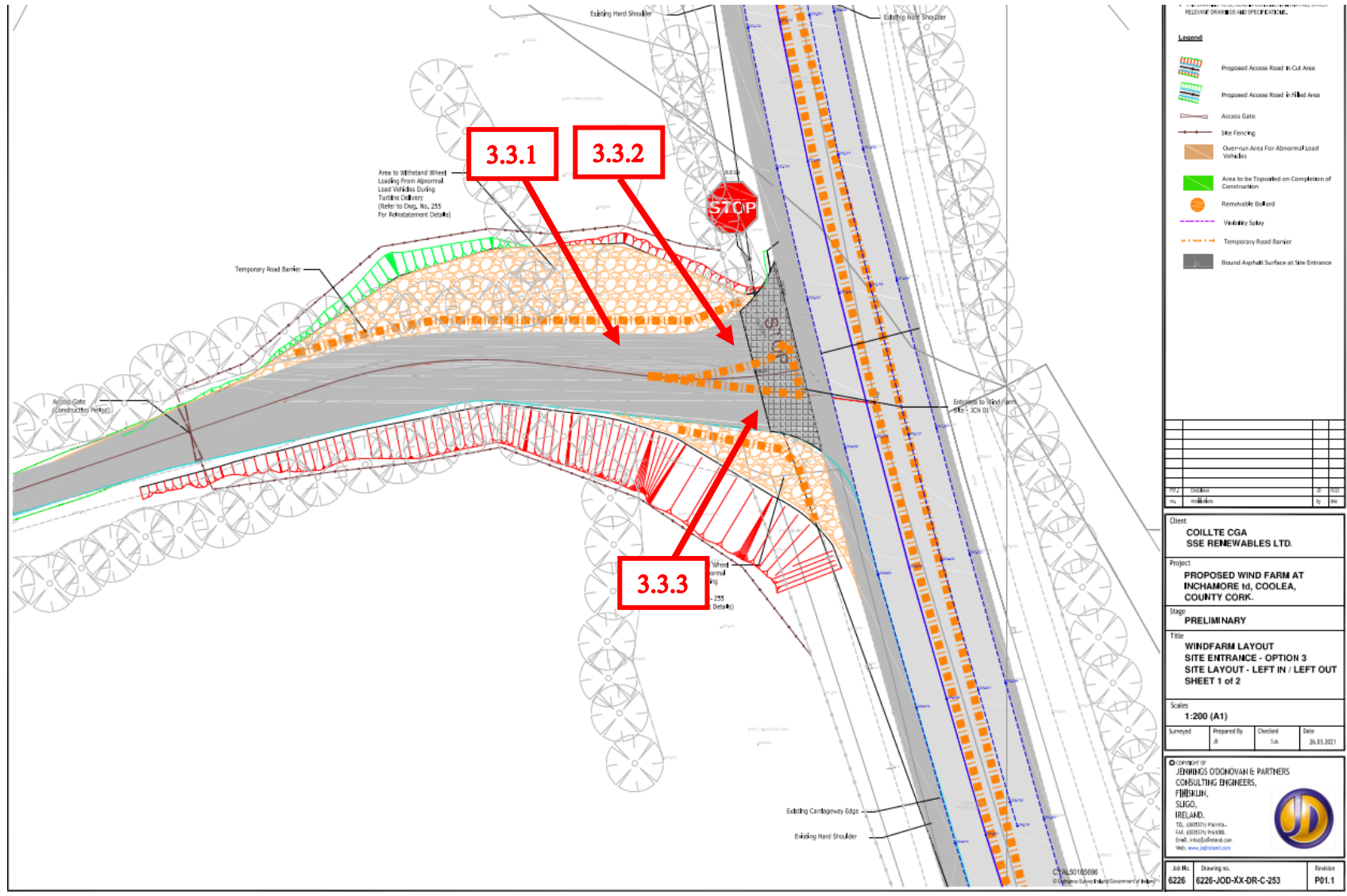
Signed  .....  
PJ Gallagher  
Audit Team Member

Date 27<sup>th</sup> January 2023 .....

## Appendix A List of Documents Examined

DOCUMENT REF / NAME:	RECEIVED FROM:	DATE:
6226-JOD-XX-DR-C-253 P01.1 Site Entrance Option 3	Jennings O'Donovan	11.01.2023
6225-PL-256 N22 Turning Area Sheet 6 of 6	Jennings O'Donovan	11.01.2023

## **Appendix B      Problem Location Plan**



**RELEVANT DRAWINGS AND SPECIFICATIONS:**

**Legend**

- Proposed Access Road In Cut Area
- Proposed Access Road In Filled Area
- Access Gate
- Site Fencing
- Over-run Area For Abnormal Load Vehicle
- Area to be Topsoiled on Completion of Construction
- Removable Bollard
- Visibility Splay
- Temporary Road Barrier
- Bound Asphalt Surface at Site Entrance

Rev	Description	Date

**Client**  
COILLTE CGA  
SSE RENEWABLES LTD.

**Project**  
PROPOSED WIND FARM AT  
INCHAMORE ID, COOLEA,  
COUNTY CORK.

**Stage**  
PRELIMINARY

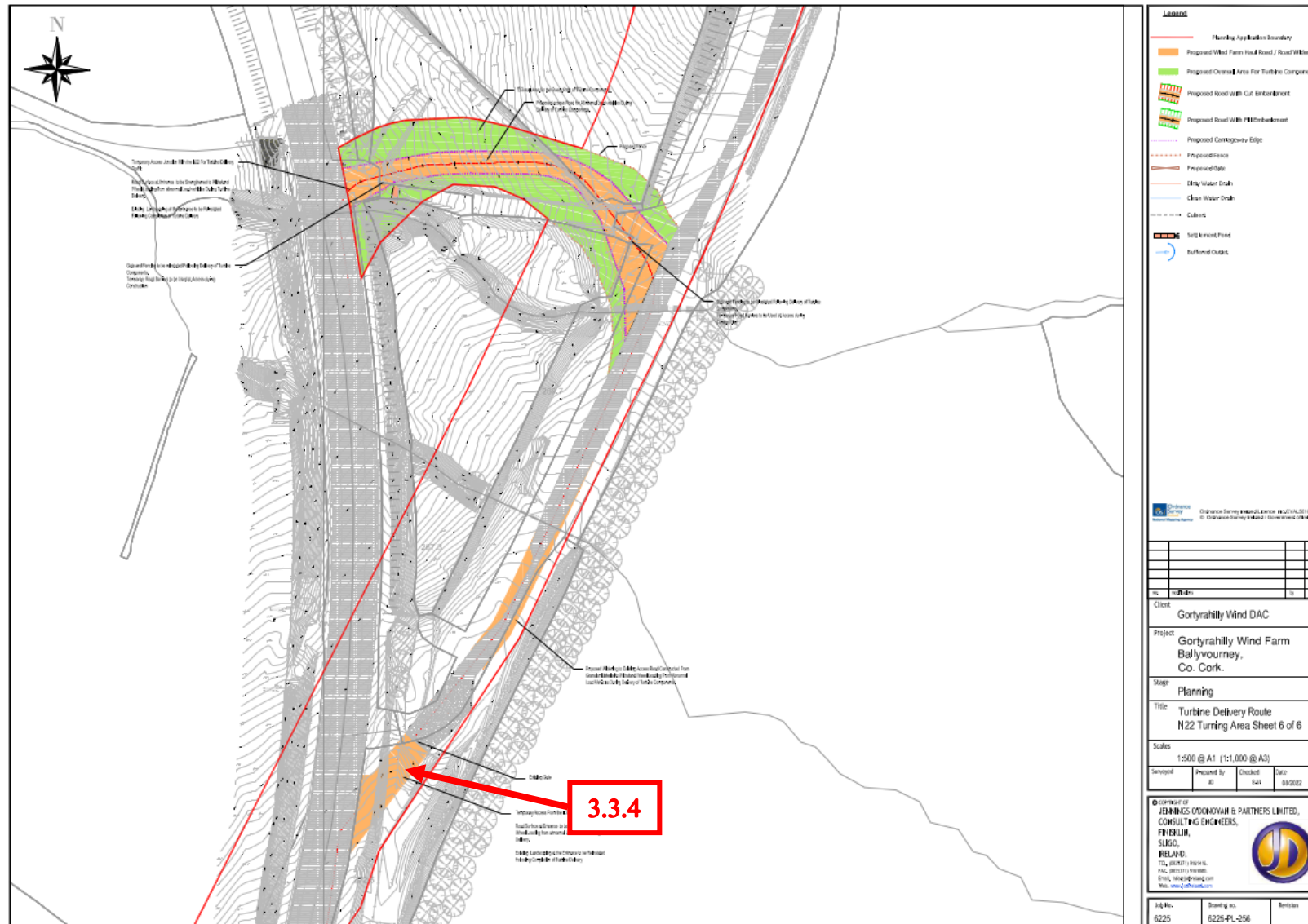
**Title**  
WINDFARM LAYOUT  
SITE ENTRANCE - OPTION 3  
SITE LAYOUT - LEFT IN / LEFT OUT  
SHEET 1 of 2

**Scales**  
1:200 (A1)

Surveyed	Prepared By	Checked	Date
			26.03.2021

**COMPANY OF**  
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**Job No.** 6226  
**Drawing No.** 6226-JOD-XX-DR-C-253  
**Revision** P01.1



## Appendix C TII Approval of RSA Team

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**From:** TII Systems Notification <[noreply@tii.systems](mailto:noreply@tii.systems)>  
**Sent:** Tuesday 17 January 2023 16:11  
**To:** [smolloy@jodireland.com](mailto:smolloy@jodireland.com)  
**Cc:** [roadsafetyaudits@nra.ie](mailto:roadsafetyaudits@nra.ie); [Fiona.Bohane@corkrdo.ie](mailto:Fiona.Bohane@corkrdo.ie); [Alastair.DeBeer@TII.ie](mailto:Alastair.DeBeer@TII.ie); [Bryan.kennedy@TII.ie](mailto:Bryan.kennedy@TII.ie); [LCurtis@Kerrycoco.ie](mailto:LCurtis@Kerrycoco.ie); [Kevin.O'Flynn@tii.ie](mailto:Kevin.O'Flynn@tii.ie); [Frank.Healy@tii.ie](mailto:Frank.Healy@tii.ie); Stuart Summerfield | CST Group <[ssummerfield@cstgroup.ie](mailto:ssummerfield@cstgroup.ie)>; Philip Bayfield | CST Group <[pbayfield@cstgroup.ie](mailto:pbayfield@cstgroup.ie)>; [pjgallagher20@hotmail.com](mailto:pjgallagher20@hotmail.com)  
**Subject:** RSAAS - Road Safety Audit Approvals System - Audit Approval 35562363/36281/Stage 1  
**Importance:** High

*Sean Molloy*  
*Finisklin Business Park*  
*Sligo*

Date: 17/01/2023

Our Ref: 35562363/36281/Stage 1

**re: N22 Inchamore Wind Farm**

### **APPROVAL OF ROAD SAFETY AUDIT TEAM, Stage 1**

Dear Sean Molloy,

The following members of the proposed road safety audit team are approved to carry out the Stage 1 road safety audit of N22 Inchamore Wind Farm .

1. Stuart Summerfield - CST Group Consulting Engineers - Leader
2. Philip Bayfield - CST Group Consulting Engineers - Member
3. PJ Gallagher - CST Consulting Engineers - Member

A copy of all audit reports, design team response and exception reports must be uploaded through RSAAS. Successful upload of these reports and completion of the audit approval process is necessary for any further audit approval on this scheme.

Yours sincerely,

Lucy Curtis

*Regional Road Safety Engineer*  
[roadsafetyaudits@tii.ie](mailto:roadsafetyaudits@tii.ie)

## Appendix D      RSA Feedback Form

# ROAD SAFETY AUDIT FEEDBACK FORM

CST Group Chartered Consulting Engineers  
1, O'Connell Street, Sligo, F91 W7YV, Ireland

Scheme: Proposed Wind Farm at Inchamore Td, Coolea, Co Cork – Coillte CGA \ SSE Renewables Ltd

Audit Stage: 1 Date Audit Completed: 27/01/2023 Route No. \_\_\_\_\_ Our Ref: 122359|R1

TO BE COMPLETED BY DESIGNER				TO BE COMPLETED BY AUDIT TEAM LEADER
Paragraph No. in Safety Audit Report	Problem accepted (Yes/No)	Recommended measure accepted (Yes/No)	Describe alternative measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted.	Alternative measures or reasons accepted by Auditors (Yes/No)
3.2.1	Yes	Yes		
3.2.2	Yes	Yes		
3.3.1	Yes	Yes		
3.3.2	Yes	Yes		
3.3.3	Yes	Yes		
3.3.4	Yes	Yes		

Signed: Sean Molloy Design Team Leader Date: 21/04/2023

Sean Molloy  
Jennings O'Donovan

Signed: Stuart Summerfield Audit Team Leader Date: 21/04/2023

Stuart Summerfield  
CST Group Chartered Consulting Engineers

Signed: David Heelan Employer Date: 21/04/2023

For FEI \ SSE Renewables Ltd

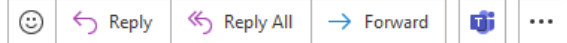
RE: 122357: Inchamore RSA



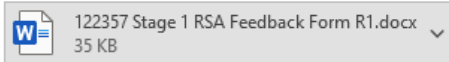
David Heelan <David.Heelan@futureenergyi

To: Sean Molloy

Cc: Shirley Bradley; Stuart Summerfield | CST Group; Caitriona Keaveney | CST Group



Fri 21/04/2023 11:58



Hi Sean, Caitriona,

As attached

---

**From:** Sean Molloy <[smolloy@jodireland.com](mailto:smolloy@jodireland.com)>

**Sent:** Friday, April 21, 2023 7:33 AM

**To:** David Heelan <[David.Heelan@futureenergyireland.ie](mailto:David.Heelan@futureenergyireland.ie)>

**Cc:** Shirley Bradley <[sbradley@jodireland.com](mailto:sbradley@jodireland.com)>; Stuart Summerfield | CST Group <[ssummerfield@cstgroup.ie](mailto:ssummerfield@cstgroup.ie)>; Caitriona Keaveney | CST Group <[ckeaveney@cstgroup.ie](mailto:ckeaveney@cstgroup.ie)>

**Subject:** RE: 122357: Inchamore RSA

Hi David,

Could you please sign the attached Feedback Form and then send it to Caitriona, thanks.

Kind Regards,

Sean Molloy.

B. Eng. M. Sc. CEng MIEI Dip. PM



**Head Office**

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