Scottish & Southern Electricity Networks
TRANSMISSION

Fanellan 400 kV Substation and Converter Station

Environmental Impact Assessment Report Volume 2 | Chapter 12 – Traffic and Transport, Addendum

October 2025

CONTENTS

12. TRAFFIC AND TRANSPORT - ADDENDUM

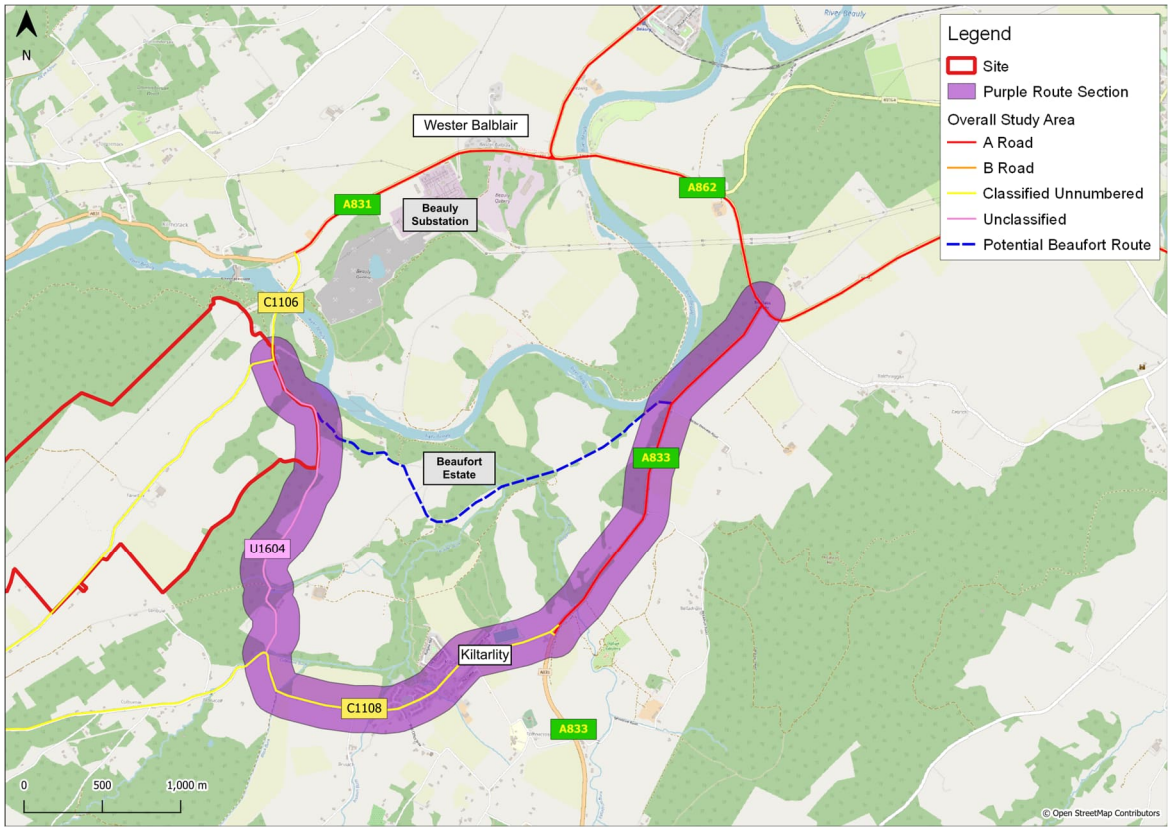
12.1 Introduction

12.1.1 This addendum to the Environmental Impact Assessment Report Volume 2 | Chapter 12 – Traffic and Transport, and accompanying Volume 4: Appendix 12.2: Transport Assessment has been prepared to address concerns raised by The Highland Council (THC) Transport Planning Team on July 4th 2025 regarding the suitability of directing HGV and AIL traffic through Kiltarlity. This Addendum should be read in conjunction with the above two reports. The accompanying Transport Assessment (TA) has since been updated as of October 2025 and includes full details of THCs consultation process, including comments and responses following 4th July 2025.

12.2 Potential Beaufort Route

12.2.1 In response to the above THC consultation discussions, a new potential construction route through Beaufort Castle (the Beaufort Route) has been developed, which is specifically intended to mitigate the impact on Kiltarlity. Further details of the potential Beaufort Route are presented in the TA and a visual representation of its alignment is shown in Figure 12.1.

Figure 12.1: Potential Beaufort Route



12.2.2 The specific objectives of this addendum are to consider the changes in the Environmental Impact Assessment Report Volume 2 | Chapter 12 – Traffic and Transport as a consequence of the potential Beaufort Route, and to assess the residual effects. For the purpose of this addendum, all defined terms have the same meaning as those in the Volume 2 | Chapter 12 – Traffic and Transport chapter unless otherwise specifically stated.

12.2.3 Refer to Volume 4, Appendix 1.1: EIA Team for details on the competent experts who undertook the assessment.

12.3 Assessment of Effects – Beaufort Route Impact

Phase 1: Before Construction of Black Bridge

Future Phase 1 Baseline

12.3.1 Following the consultation with THC set out in Section 12.1 and updates made to the TA, it is now anticipated that construction of the Proposed Development could commence in early 2026 if consent is granted, with construction activities likely to take around 3 years, and commissioning to take another 2 years.

12.3.2 As stated in Section 12.3 of the EIA traffic and transport chapter, the Phase 1 assessment constitutes the 'before construction of Black Bridge' scenario, which is anticipated to take approximately 9-12 months with completion currently programmed to be by late 2028. It is necessary to assess the worst-case scenario for the purpose of the EIA, and therefore the assessment period should cover the peak of construction movements. Peak Daily Trip Generation figures for Phase 1 have been provided by the Principal Contractor which (based on the latest programme) and are anticipated to occur in March 2027 for a period of 1 month. The forecast flows are as follows:

- 68 HGV daily movements;
- 44 non-HGV movements; and
- 112 total daily movements.

12.3.3 To assess the likely effects during the construction phase, 2027 base year traffic flows were determined by applying a National Road Traffic Forecast (NRTF) low growth factor (1.0156) to the 2024, 11 and 12-hour traffic flows. The resulting 2027 11 and 12-hour base traffic flows are presented in Table 12.1.

Table 12.1 Phase 1 2027 Annual Average Daily Two-Way Traffic Flows (11 / 12-hour)

Count Site	**Location**	2027 Two-Way Flows		HGV **Proportion (%)**
		HGV (11 / 5)	Total (12 / 7)	
ATC 4	Link 10: C1108 between U1604 and A833	7	383	2%

12.3.4 The data in Table 12.1 has been used to support the updated impact assessment on Link 10.

Phase 1 Assessment of Significant Effects

12.3.5 A detailed assessment of Link 10 has been undertaken to determine the potential change in level of effect the construction traffic would have on the study network following the potential introduction of the Beaufort Route. Table 12.2 quantifies the difference in impact which construction traffic is forecast to have on the operation on Link 10 following this.

Table 12.2 Phase 1 **Construction Traffic Impact Assessment Summary**

Link	Threshold (HGV or Total)	Scenario	2027 Two-Way Flows			HGV Split	Non-HGV Split	Further Assessment Required? (Yes / No)
			HGV (11/5)	Non-HGV (12/7)	Total (Combined)			
Without Beaufort Route								
10	10%	Baseline	7	376	383	100%	100%	Yes
		Baseline + Construction Traffic	75	420	495			
		% Impact	929.96%	11.70%	29.22%			
With Beaufort Route								
10	10%	Baseline	7	376	383	3%	3%	Yes
		Baseline + Construction Traffic	9	378	387			
		% Impact	27.90%	0.35%	0.88%			

12.3.6 The Institute of Environmental Management and Assessment (IEMA) guidance[1] sets the following thresholds for assessing the impact of generated traffic on a road link:

- Rule 1: Include road links where traffic flows will increase more than 30 % (or the number of HGVs will increase by more than 30 %); and
- Rule 2: Include any other specifically sensitive areas where traffic flows have increased by 10 % or more

12.3.7 Table 12.2 shows that the level of impact on was previously forecast to trigger Rule 1 on Link 10 however, with the introduction of the Beaufort Route, Link 10 is now expected to trigger Rule 2 instead. Therefore, the impact of the Proposed Development is still considered to require assessment of Link 10.

Phase 1 Road Capacity Assessment

12.3.8 An assessment has been undertaken to determine the effects of the temporary increase in traffic flow generated by construction activities, on the capacity of the identified Links.

12.3.9 Theoretical road capacities are based on the DMRB, Volume 13, Section 1, Part 5: Speeds on Links 2002[2]. The theoretical road capacity equates to the maximum traffic volumes which a road is able to accommodate. Above this level, traffic conditions would become unstable and queuing along the road section would occur.

12.3.10 Capacity assessments have been conducted under the worst-case construction traffic levels that are forecast to occur on the future base year of 2027 as identified in *paragraph 12.3.2*, and the results of the assessment can be seen in Table 12.3.

[1] IEMA, (2023) *Environmental Assessment of Traffic and Movement* (online). Available at: https://www.iema.net/media/5mrmquib/iema-report-environmental-assessment-of-traffic-and-movement-rev07-july-2023.pdf

[2] DMRB, (2002). *Volume 13, Section 1, Part 5: Speeds on Links - May 2002.* (online). Available at: http://www2.westsussex.gov.uk/handt/poe/n.pdf [Accessed February 2025].

Table 12.3 Phase 1 Road Capacity Assessment – Beaufort Route Impact

Study Network Route Section	2027 Two-Way Hourly Flows			
	Total Base Traffic Flows	**Theoretical Road** Capacity (12-hour period)	Base + **Construction** Traffic Flows	Spare Capacity
Without Beaufort Route				
Link 10: C1108 between U1604 and A833	383	10800	493	95%
With Beaufort Route				
Link 10: C1108 between U1604 and A833	383	10800	387	96%

12.3.11 The results presented in Table 12.3 show that with the addition of the worst-case construction traffic levels, there will be significant spare capacity on all of the links with and without the introduction of Beaufort Route.

12.3.12 Therefore, based on the results of the road capacity assessment, during the Phase 1 construction phase it is considered that the sensitivity of the capacity of Link 10 to changes in traffic flows is negligible and the magnitude of impact is predicted to be negligible compared to the link capacities. Therefore, it is likely that the greatest impact is to have temporary, short term, negligible and not significant transport effects.

Phase 1 Severance Assessment

12.3.13 The predicted change in severance on the links has been evaluated based on the percentage increase in total traffic levels expected during the construction phase, in line with IEMA guidance[1].

12.3.14 Table 12.4 sets out the sensitivity grading of receptors, as per the EIA Traffic Chapter referenced above, and the change in magnitude of impact due to the introduction of the Beaufort Route, on severance.

Table 12.4 Phase 1 Severance Assessment - Beaufort Route Impact

Link (#)	2027 Two-Way AADT flows						
	Total Base Traffic Flows	Base + **Construction** Traffic Flows	Percentage Traffic Increase	Percentage HGV Traffic Increase	**Sensitivity of Reception to** Change	Magnitude of Change	Significance of Adverse Change in Severance
Without Beaufort Route							
10	383	493	29.36%	934.51%	Medium	High	Minor, Not Significant
With Beaufort Route							
10	383	387	0.88%	27.90%	Medium	Low	Negligible, Not Significant

12.3.15 Whilst the assessment suggests that all links could experience an impact on severance, the IEMA guidelines[1] note that the original 30, 60, 90 % DfT thresholds for assessment do not take into account instances where there are low baseline flows and the local context of the link. The thresholds are therefore applied above as a starting point for the assessment.

12.3.16 The following assessment explains the significance of the construction traffic impact on Link 10:

- Link 10: The C1108 through Kiltarlity Village is predominantly rural residential with a reduced speed limit of 30 mph and with one footway on the northern side of the carriageway throughout the urban extents. There is a zebra crossing near Kiltarlity Hall which indicates the desirability of crossing in this location. Table 12.4 indicates a 'High' severance as per the DfT

count thresholds without the Beaufort Route however, this is now reduced to 'Low' following the introduction of the Beaufort Route. This village is now expected to experience an average of 4 total vehicles, including 2 HGV movement per day. The addition of 4 total construction movements every day (including 1 HGV movement) upon a baseline average of 1 vehicles every 2 minutes will not result in any significant severance given there is a zebra crossing. Therefore, the is impact is negligible, and this is considered to be not signi**fi**cant.

12.3.17 Taking into account the the introduction of the Beaufort Route, it is anticipated that the overall magnitude of impact on Link 10 is reduced to have temporary, short term, negligible and not signi**fi**cant transport effects.

Phase 1 Road vehicle driver and passenger delay

12.3.18 The proposed form of the Site access junction will result in minimal driver delay being generated when vehicles are accessing the construction Site. The IEMA guidance[1] states that driver delay is only likely to be significant when traffic on the network surrounding the Proposed Development is already at, or close to, the capacity of the system. As established in Table 12.3, Link 10 is not forecast to operate close to capacity with or without the introduction of the Beaufort Route. With significant spare capacity available, the change in driver delay is considered to be remain negligible, and not signi**fi**cant.

12.3.19 Construction activities will also be supported by AIL deliveries which will be generated at the beginning on construction in delivering plant to Site. It is not currently known where movements will originate from, however at present and as suggested in the CTMP which is included in Volume **4, Appendix 12.1: Outline Construction Traffic Management Plan**, it is now considered that abnormal loads associated with plant deliveries will take place in Phase 2, avoiding the need to route through Kiltarlity.

Phase 1 Pedestrian and Non-Motorised User Delay and Amenity

12.3.20 Pedestrian facilities along Link 10 include:

- Pedestrian facilities provided on one side of the C1108 carriageway between Allarburn Drive and Post Office Brae.

12.3.21 Following the introduction of the Beaufort Route, the change in composition of traffic along Link 10 is not expected to generate any significant impact to pedestrian delay and amenity. It is considered that pedestrian delay and amenity is negated with use of the pedestrian crossing facilities found along C1108.

12.3.22 The assessment of severance is closely linked to pedestrian delay, and shows that the magnitude of impact appears to be 'Low' compared to the baseline for Link 10. The severance assessment of Link 10 with the Beaufort Route concludes that the impact of construction traffic is expected to remain not significant when compared to the baseline.

12.3.23 Therefore, it is considered that with the introduction of the Beaufort Route, Link 10 will have temporary, short term, negligible and not signi**fi**cant transport effects in regards to delay and amenity.

Phase 1 Fear and Intimidation

12.3.24 To assess fear and intimidation, IEMA guidelines[1] suggest thresholds based on 18-hour daily flow and vehicle speeds, indicating that an average traffic 18-hr flow of over 1800 vehicles and 1,000 HGVs per hour using a road subject to a 60 mph speed limit would be considered a great degree of hazard.

12.3.25 The peak construction phase is expected to generate a maximum of with 68 HGV daily movements and 112 total daily movements within the 11 and 12-hour period when construction traffic movements are expected to be generated. Table 12.5 summarises the comparison of the 18-hour baseline with a threshold for level of fear score assigned to Link 10 and the difference in magnitude of impact with and without the introduction of the Beaufort Route.

Table 12.5 **Phase 1 Fear and Intimidation Assessment** - Beaufort Route Impact

Link (#)	18 hr Base – Daily Trips		Speed Limit	DoH Score	LoFI	18hr Base + Peak Construction Daily Trips		DoH Score	LoFI	Magnitude of Impact
	Vehicles	HGVs				Vehicles	HGVs			
Without Beaufort Route										
10	436	9	30	20	Small	548	76	20	Small	Negligible
With Beaufort Route										
10	436	9	30	20	Small	440	11	20	Small	Negligible

12.3.26 The results of the assessment presented in Table 12.5 shows that with the introduction of the Beaufort Route, there will be no step changes in the level of fear and intimidation on Link 10. Therefore, the magnitude of impact is considered to remain negligible, not significant.

Phase 1 Road User and Pedestrian Safety

12.3.27 There is no requirement to introduce specific casualty reduction measures as injury accidents have been reported along Link 10 in the most recently available five year period. Construction activities are forecast to generate a maximum of 4 total trips per day along Link 10 with the introduction of the Beaufort Route and it is therefore considered that the magnitude of impact is negligible and the overall significance of effect to be temporary, short term, minor and not significant.

Phase 1 Summary of Likely Effects Generated by Construction Traffic

12.3.28 As shown in the above comparison, the introduction of the Beaufort Route will result in similar or reduced impact on the seven key criteria. The greatest significance of the effect generated by construction traffic is considered to have temporary, short term, negligible and not significant transport effects and it is not intended to assess the construction impacts further as part of this EIA.

12.3.29 All of the impacts will be generated at a local level.

12.4 Beaufort Route Impact Conclusion

12.4.1 In response to THC comments questioning the suitability of routing traffic along the C1108 through Kiltarlity, a potential Beaufort Route has been introduced as a mitigation which would allow for a significant portion of construction traffic to avoid Kiltarlity for Phase 1. This is anticipated to reduce the environmental impact from construction traffic on Kiltarlity. This addendum has therefore been prepared to demonstrate the impact on the seven key characteristics following the introduction of the Beaufort Route.

12.4.2 As demonstrated above, it is considered that the potential Beaufort Route will result in effects that are similar or lower than those identified in the EIA Traffic Chapter.