East Anglia ONE North Offshore Windfarm

Appendix 25.4

Construction Phase Assessment

Environmental Statement
Volume 3

Applicant: East Anglia ONE North Limited
Document Reference: 6.3.25.4
SPR Reference: EA1N-DWF-ENV-REP-IBR-000362_004 Rev 01
Pursuant to APFP Regulation: 5(2)(a)

Author: Royal HaskoningDHV
Date: October 2019
Revision: Version 1

Revision Summary				
Rev	**Date**	**Prepared by**	**Checked by**	**Approved by**
01	08/10/2019	Paolo Pizzolla	Ian Mackay	Helen Walker

Description of Revisions			
Rev	**Page**	**Section**	**Description**
01	n/a	n/a	Final for Submission

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Glossary of Acronyms

AAWT	Annual Average Weekday Traffic
ATC	Automatic Traffic Count
BNL	Basic Noise Level
BS	British Standard
CoCP	Code of Construction Practice
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
ETG	Expert Topic Group
eVDV	Estimated Vibration Dose Value
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
ISO	International Standards Organisation

Glossary of Terminology

Applicant	East Anglia ONE North Limited.
Cable sealing end compound	A compound which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Cable sealing end (with circuit breaker) compound	A compound (which includes a circuit breaker) which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Construction consolidation sites	Compounds associated with the onshore works which may include elements such as hard standings, lay down and storage areas for construction materials and equipment, areas for vehicular parking, welfare facilities, wheel washing facilities, workshop facilities and temporary fencing or other means of enclosure.
dB(A)	Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) broadly agree with people's assessment of loudness. A change of 3 dB(A) is the minimum perceptible under normal conditions, and a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound. The background noise level in a living room may be about 30 dB(A); normal conversation about 60 dB(A) at 1 metre; heavy road traffic about 80 dB(A) at 10 metres; the level near a pneumatic drill about 100 dB(A).
dB(Z) (or previously Lleq)	Decibels measured on a sound level meter incorporating a flat frequency weighting (Z weighting) across the frequency range.
Decibel (dB)	A unit of noise level derived from the logarithm of the ratio between the value of a quantity and a reference value. It is used to describe the level of many different quantities. For sound pressure level the reference quantity is 20 µPa, the threshold of normal hearing is 0dB, and 140dB is the threshold of pain. A change of 1dB is only perceptible under controlled conditions. Under normal conditions a change in noise level of 3dB(A) is the smallest perceptible change.
Development area	The area comprising the onshore development area and the offshore development area (described as the 'order limits' within the Development Consent Order).
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one offshore operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia ONE North windfarm site	The offshore area within which wind turbines and offshore platforms will be located.
National electricity grid	The high voltage electricity transmission network in England and Wales owned and maintained by National Grid Electricity Transmission

European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive, as defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017 and regulation 18 of the Conservation of Offshore Marine Habitats and Species Regulations 2017. These include candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation and Special Protection Areas.
Horizontal directional drilling (HDD)	A method of cable installation where the cable is drilled beneath a feature without the need for trenching.
HDD temporary working area	Temporary compounds which will contain laydown, storage and work areas for HDD drilling works.
Jointing bay	Underground structures constructed at intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
$L_{A10, T}$	The A weighted noise level exceeded for 10% of the specified measurement period (T). L_{A10} is the index generally adopted to assess traffic noise.
$L_{A90, T}$	The A weighted noise level exceeded for 90% of the specified measurement period (T). In BS 4142:2014+A1:2019 it is used to define the 'background' noise level.
$L_{Aeq, T}$	The equivalent continuous sound level – the sound level of a notionally steady sound having the same energy as a fluctuating sound over a specified measurement period (T). $L_{Aeq,T}$ is used to describe many types of noise and can be measured directly with an integrating sound level meter.
L_{Amax}	The maximum A-weighted sound pressure level recorded during a measurement.
Landfall	The area (from Mean Low Water Springs) where the offshore export cables would make contact with land, and connect to the onshore cables.
Link boxes	Underground chambers within the onshore cable route housing electrical earthing links.
Mitigation areas	Areas captured within the onshore development area specifically for mitigating expected or anticipated impacts.
National Grid infrastructure	A National Grid substation, cable sealing end compounds, cable sealing end (with circuit breaker) compound, underground cabling and National Grid overhead line realignment works to facilitate connection to the national electricity grid, all of which will be consented as part of the proposed East Anglia ONE North project Development Consent Order but will be National Grid owned assets.
National Grid overhead line realignment works	Works required to upgrade the existing electricity pylons and overhead lines (including cable sealing end compounds and cable sealing end (with circuit breaker) compound) to transport electricity from the National Grid substation to the national electricity grid.
National Grid overhead line realignment works area	The proposed area for National Grid overhead line realignment works.
National Grid substation	The substation (including all of the electrical equipment within it) necessary to connect the electricity generated by the proposed East Anglia ONE North project to the national electricity grid which will be owned by National Grid but is being consented as part of the proposed East Anglia ONE North project Development Consent Order.

National Grid substation location	The proposed location of the National Grid substation.
Natura 2000 site	A site forming part of the network of sites made up of Special Areas of Conservation and Special Protection Areas designated respectively under the Habitats Directive and Birds Directive.
Onshore cable corridor	The corridor within which the onshore cable route will be located.
Onshore cable route	This is the construction swathe within the onshore cable corridor which would contain onshore cables as well as temporary ground required for construction which includes cable trenches, haul road and spoil storage areas.
Onshore cables	The cables which would bring electricity from landfall to the onshore substation. The onshore cable is comprised of up to six power cables (which may be laid directly within a trench, or laid in cable ducts or protective covers), up to two fibre optic cables and up to two distributed temperature sensing cables.
Onshore development area	The area in which the landfall, onshore cable corridor, onshore substation, landscaping and ecological mitigation areas, temporary construction facilities (such as access roads and construction consolidation sites), and the National Grid Infrastructure will be located.
Onshore infrastructure	The combined name for all of the onshore infrastructure associated with the proposed East Anglia ONE North project from landfall to the connection to the national electricity grid.
Onshore preparation works	Activities to be undertaken prior to formal commencement of onshore construction such as pre–planting of landscaping works, archaeological investigations, environmental and engineering surveys, diversion and laying of services, and highway alterations.
Onshore substation	The East Anglia ONE North substation and all of the electrical equipment within the onshore substation and connecting to the National Grid infrastructure.
Onshore substation location	The proposed location of the onshore substation for the proposed East Anglia ONE North project.
Transition bay	Underground structures at the landfall that house the joints between the offshore export cables and the onshore cables.

25.4 Construction Phase Assessment

25.1 Introduction

1. This appendix details the results of the proposed East Anglia ONE North project construction noise impact assessment modelling and the construction phase road traffic emissions assessment.

2. The following sections present a worst-case overview of potential noise and vibration impacts associated with construction of the proposed East Anglia ONE North project onshore infrastructure and National Grid infrastructure, including embedded mitigation.

3. ***Chapter 25 Noise and Vibration*** details the methodology, assessment criteria and assumptions relevant to the assessment of construction phase noise impacts.

4. The construction noise impact assessment modelling and the construction phase road traffic emissions assessment has been completed for three construction scenarios which are associated with the proposed East Anglia ONE North project:

   - Proposed East Anglia ONE North Project Assessment (project alone);
   - Construction Scenario 1 the proposed East Anglia ONE North project and proposed East Anglia TWO project are built simultaneously; and
   - Construction Scenario 2 the proposed East Anglia ONE North project and the proposed East Anglia TWO project are built sequentially.

5. Further details of these construction scenarios are detailed in ***section 25.6*** of ***Chapter 25 Noise and Vibration***.

6. The construction phase road traffic emissions assessment has been completed for a Baseline year of 2024 to 2030 versus 2024 to 2030 including the proposed East Anglia ONE North project. The screening using DMRB criteria and calculation of a Basic Noise Level (BNL) for each link in the proposed East Anglia ONE North project study areas are detailed.

7. As described in ***Chapter 5 EIA Methodology***, there are two co-located onshore substation locations for either the proposed East Anglia ONE North project or the proposed East Anglia TWO project. It should be noted that the draft DCOs for both the proposed East Anglia ONE North and East Anglia TWO projects have the flexibility for either project to use either onshore substation location.

8. In this appendix and in ***Chapter 25 Noise and Vibration***, the assessment is based on the intended development strategy of the proposed East Anglia ONE North project using the western onshore substation location and the proposed East Anglia TWO project using the western substation location. However, ***section 25.7.2*** of this appendix presents the impacts of constructing the proposed East Anglia TWO project onshore substation on the eastern footprint (under scenario 2). The impacts presented in ***section 25.7.2*** would also be the project alone impacts in the eventuality that the onshore substation for the proposed East Anglia ONE North project used the alternative eastern onshore substation location, as allowed for in the draft DCO.

25.2 Construction Phase Noise Modelling Approach

9. The construction phase was modelled using SoundPLAN noise modelling software. This package directly implements the calculation methods outlined in BS 5228 and other nationally and internationally recognised acoustic standards.

10. The assessment has been broken down in relation to three onshore study areas which are as below:

- Landfall study area;
- Onshore cable route study area; and
- Onshore substation / National Grid infrastructure study area.

11. The three study areas are shown on ***Figure 25.1*** and discussed further in the baseline noise survey presented in ***Appendix 25.3***.

12. ***Table A25.4.1*** breaks down the total construction period (for each of the three construction scenarios) into different construction phases upon which the assessment has been conducted against. While the full construction programme may be longer, for the construction noise assessment, the worst case phase is considered to be represented by months 1 to 24. This is therefore presented within this appendix and in ***Chapter 25 Noise and Vibration.***

Table A25.4.1 Construction Phasing

Study Area	Construction phase	Proposed East Anglia ONE North project (project alone)	Construction Scenario 1	Construction Scenario 2
Landfall location and onshore cable route (sections 1 to 4)	Month 1 to 6	✓	✓	✓
	Month 7 to 10	✓	✓	✓
	Month 11 to 12	✓	✓	✓

Study Area	Construction phase	Proposed East Anglia ONE North project (project alone)	Construction Scenario 1	Construction Scenario 2
	Month 13 to 15	✓	✓	✓
	Month 16 to 17	✓	✓	✓
	Month 18 to 20	✓	✓	✓
	Month 21 to 24	✓	✓	✓
Onshore substation and National Grid infrastructure	Month 1 to 6	✓	✓	✓
	Month 7 to 10	✓	✓	✓
	Month 11 to 12	✓	✓	✓
	Month 13 to 15	✓	✓	✓
	Month 16 to 17	✓	✓	✓
	Month 18 to 20	✓	✓	✓
	Month 21 to 24	✓	✓	✓

13. BS 5228 receptor categories have been derived from the measured baseline noise levels (***Appendix 25.3***) using the 'ABC' assessment method (detailed in ***section 25.4*** of ***Chapter 25 Noise and Vibration***).

14. Standard construction noise mitigation techniques which could be applied in order to reduce impacts by between 5dB(A) up to 10dB(A) are detailed within ***section 25.3.3*** of ***Chapter 25 Noise and Vibration***. In line with the conservative approach taken in the assessment, a 5dB(A) reduction only was applied to represent the effect of incorporating these mitigation measures (these will be delivered through the Code of Construction Practice (CoCP) required to discharge a requirement of the draft DCO prior to construction commencing.

25.3 Construction Phase Receptors

15. A total of 35 sensitive receptor locations were agreed as part of consultation at the Expert Topic Group (ETG) meetings held for the proposed East Anglia ONE North project.

16. The landfall location being considered is an area to the north of Thorpeness and south of Sizewell. The four sensitive receptors included in the noise modelling in the landfall study area are detailed in ***Table A25.4.2*** and on ***Figure 25.2***.

Table A25.4.2 Receptor Locations – Landfall Study Area

Receptor identifier	Address (NEAREST)	X	Y	Nearest postcode
LFR1	6 North End Ave, Thorpeness, Leiston IP16 4PD, UK	647541	260181	IP16 4PD
LFR2	7 Pilgrims Way, Thorpeness, Leiston IP16 4LZ, UK	647232	260055	IP16 4LZ
LFR3	Gate Cottage, Thorpeness, Leiston IP16 4LX, UK	646514	260274	IP16 4LX
LFR4	7 Shellpit Cottages, Thorpeness, Leiston IP16 4PG, UK	646692	260894	IP16 4PG

17. The 19 onshore cable route study area sensitive receptor locations are detailed within ***Table A25.4.3*** and on ***Figure 25.2***.

Table A25.4.3 Receptor Locations – Onshore Cable Route Study Area

Receptor identifier	Address (NEAREST)	X	Y	Nearest postcode
CRR1	The Court Yard Cottage, Sizewell, Leiston IP16 4UB, UK	647543	261202	IP16 4UB
CRR2	Caroline Cottage, Sizewell, Leiston IP16 4TY, UK	647105	261997	IP16 4TY
CRR3	Sizewell Gap, Leiston IP16, UK	647163	262434	IP16 4TT
CRR4	Sizewell Gap, Leiston IP16, UK	646246	262320	IP16 4TS
CRR5	Grimsey's Ln, Leiston IP16, UK	645472	261777	IP16 4LS
CRR6	Grimsey's Ln, Leiston IP16, UK	645359	262023	IP16 4LS
CRR7	5 The Follies, Aldringham, Leiston IP16 4LU, UK	645725	261244	IP16 4LU
CRR8	Ogilvie Houses, Church Ln, Leiston IP16 4QU, UK	645330	260584	IP16 4QU
CRR9	Gypsy Ln, Leiston IP16 4GL, UK	644739	260394	IP16 4GL
CRR10	Fitches Ln, Leiston IP16 4QQ, UK	644486	260353	IP16 4QQ
CRR11	Ivywood Cottage, 17 Aldeburgh Rd, Aldringham, Leiston IP16 4QH, UK	644560	260595	IP16 4QH
CRR12	Old Blacksmiths, Thorpe Rd, Aldringham, Leiston IP16 4QX, UK	644886	260920	IP16 4QX
CRR13	37 Hawthorn Cl, Saxmundham IP17 1XW, UK	643882	260544	IP17 1XW
CRR14	Sloe Ln, Saxmundham IP17 1UU, UK	643324	260245	IP17 1UU
CRR15	4 Snape Rd, Knodishall, Saxmundham IP17 1UT, UK	643034	260588	IP17 1UT

Receptor identifier	Address (NEAREST)	X	Y	Nearest postcode
CRR16	12 The Fitches, Knodishall, Saxmundham IP17 1UX, UK	643389	260620	IP17 1UX
CRR17	4 Snape Rd, Knodishall, Saxmundham IP17 1UT, UK	642668	260422	IP17 1UT
CRR18	Grove Rd, Saxmundham IP17 1TL, UK	642090	261299	IP17 1TL
CRR19	10 School Rd, Saxmundham IP17, UK	642557	261558	IP17 1TR

18. The 12 sensitive receptor locations within the onshore substation/national grid infrastructure study area are detailed within ***Table A25.4.4***. Of these 12 receptors, only nine were surveyed due to access constraints. This is also detailed in ***Table A25.4.4*** and detailed on ***Figure 25.2.***

Table A25.4.4 Receptor Locations – Onshore Substation/National Grid Infrastructure Study Area

Receptor identifier	Parish/ location	X	Y	Nearest postcode	Measurements Taken
SSR1	Grove Rd, Saxmundham IP17 1TN, UK	641720	261614	IP17 1TN	Yes
SSR2	New Haven, Friston Rd, Saxmundham IP17 1TL, UK	641841	261176	IP17 1TL	Yes
SSR3	Unnamed Road, Saxmundham IP17, UK	641231	261673	IP17 1XA	Yes
SSR4	Saxmundham Rd, Saxmundham IP17 1NJ, UK	640930	260737	IP17 1NJ	No Access granted
SSR5	Saxmundham Rd, Saxmundham IP17, UK	641157	260802	IP17 1PU	Yes
SSR5 NEW*	Woodside Farm, Saxmundham Road, Saxmundham IP17, UK	641220	260648	IP17 1PU	Yes
SSR6	3 Church Rd, Friston, Church Path, Saxmundham IP17 1PX, UK	641413	260559	IP17 1PX	No Access granted
SSR7	School Rd, Saxmundham IP17 1TN, UK	641808	261655	IP17 1TN	Yes
SSR8	Saxmundham Rd, Saxmundham IP17 1NH, UK	640338	260994	IP17 1NH	No Access granted
SSR9	Fristonmoor Ln, Saxmundham IP17, UK	640980	261693	IP17 1XD	Yes
SSR10	1 Friston Hall Cottages, Friston, Saxmundham IP17 1NQ, UK	639927	260384	IP17 1NQ	Yes
SSR11	77 Friston Hall Cottages, Friston, Saxmundham IP17 1NL, UK	640518	260309	IP17 1NL	Yes
SSR12	Unnamed Road, Saxmundham IP17 1NF, UK	640377	261580	IP17 1NF	Yes

*SSR5 and SSR5 NEW represent different buildings at the same receptor location. SSR5 NEW represents the closest residential building at the location, SSR5 an uninhabited agricultural barn building.

25.4 Construction Noise Modelling Plant – Project Alone

19. A proposed construction phase programme detailing duration, deliveries and equipment requirements for each phase and scenario is provided in ***Chapter 6 Project Description***. Noise modelling scenarios were derived from the proposed construction phase programme and are detailed below.

25.4.1 Assumptions and Indicative Plant List

20. Based on ***Chapter 6 Project Description***, an indicative list of construction equipment has been developed and are detailed in ***Table A25.4.5*** to ***Table A25.4.9***.

Table A25.4.5 Construction Plant – Landfall East Anglia ONE North Project

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 1 to 6 *Month 6 onwards only **Optional - assumed during Month 1 to Month 4	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	3	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	1	Point	C4.76	81.0	85
	Temporary lighting	1	Point	C4.76	81.0	85
	Skip Wagon Movements	2/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill*	1	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump*	1	Point	N/A	LwA 93	100 (24hrs/7 days)

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Power Supply*	1	Point	N/A	LwA 105	100 (24hrs/7 days)
	Hydraulic Hammer Piling Rig**	1	Point	C3.2	LwA 118.3	75
Month 7 to 10	30T Excavator	1	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Laying Tracked Crane	1	Point	C4.50	75.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	1	Point	C4.76	81.0	85
	Temporary lighting	1	Point	C4.76	81.0	85
	Pump	1	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill	1	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump	1	Point	N/A	LwA 93	100 (24hrs/7 days)

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Power Supply	1	Point	N/A	LwA 105	100 (24hrs/7 days)
Month 11 to 12	30T Excavator	1	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	1	Point	C4.76	81.0	85
	Temporary lighting	1	Point	C4.76	81.0	85
	Pump	1	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill	1	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump	1	Point	N/A	LwA 93	100 (24hrs/7 days)
	Power Supply	1	Point	N/A	LwA 105	100 (24hrs/7 days)
	D6 Dozer	1	Point	C2.11	84.0	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 13 to 15 *Up to and including Month 13 only	30T Excavator	1	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Laying Tracked Crane	1	Point	C4.50	75.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	1	Point	C4.76	81.0	85
	Temporary lighting	1	Point	C4.76	81.0	85
	Skip Wagon Movements	1/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill*	1	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump*	1	Point	N/A	LwA 93	100 (24hrs/7 days)
	Power Supply*	1	Point	N/A	LwA 105	100 (24hrs/7 days)

Table A25.4.6 Construction Plant – Cable Route Section 1 and 2 East Anglia ONE North Project

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 1 to 6	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	2	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	2	Point	C4.76	81.0	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Skip Wagon Movements	3/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 7 to 10	D6 Dozer	1	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	1	Point	C5.20	90.8	85
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	2	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	3	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	3	Point	C6.38	89.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	2	Point	C4.76	81.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 11 to 12	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cable Winch	1	Point	C4.52	78.5	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Telehandler	1	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill	2	Point	N/A	LwA 105	100 (12hrs)
	Mud Pump	2	Point	N/A	LwA 93	100 (12hrs)
	Power Supply	2	Point	N/A	LwA 105	100 (12hrs)
Month 13 to 15	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Telehandler	1	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 16 to 17	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Tractor & Soil Tiller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 18 to 20	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 21 to 24	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Soil Tiller	1	Point	C4.74	84.2	85
	Mobile Generator	1	Point	C4.76	81.0	85
	Temporary Lighting	2	Point	C4.76	81.0	85
	Skip Wagon Movements	1/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Table A25.4.7 Construction Plant – Cable Route Section 3 and 4 East Anglia ONE North Project

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 1 to 6	D6 Dozer	3	Point	C2.11	84.0	85
	30T Excavator	3	Point	C2.16	79.4	85
	20T Dumper	7	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	2	Point	C4.76	81.0	85
	Skip Wagon Movements	4/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 7 to 10	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	2	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	1/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 11 to 12	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cable Winch	1	Point	C4.52	78.5	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill	2	Point	N/A	LwA 105	100 (12hrs)

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Mud Pump	2	Point	N/A	LwA 93	100 (12hrs)
	Power Supply	3	Point	N/A	LwA 105	100 (12hrs)
Month 13 to 15	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 16 to 17	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 18 to 20	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	1 /hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 21 to 24	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Tractor & Soil Tiller	1	Point	C4.74	84.2	85
	Mobile Generator	1	Point	C4.76	81.0	85
	Temporary Lighting	2	Point	C4.76	81.0	85
	Skip Wagon Movements	1/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Table A25.4.8 Construction Plant – Onshore Substation for Proposed East Anglia ONE North Project

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 1 to 6	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	2	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Skip Wagon Movements	3/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 7 to 10 **Optional	D6 Dozer	4	Point	C2.11	84.0	85
	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	2	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Skip Wagon Movements	4/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	Hydraulic Hammer Piling Rig**	1	Point	C3.2	LwA 118.3	75
Month 11 to 12	D6 Dozer	4	Point	C2.11	84.0	85
	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	4	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Concrete Batching Plant	1	Point	C4.22	81.7	85
	Dry Mix Silos	2	Point	C3.26	85.6	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 13 to 15	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	2	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Concrete Batching Plant	1	Point	C4.22	81.7	85
	Dry Mix Silos	2	Point	C3.26	85.6	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Mobile Crane	1	Point	C4.41	77.4	85
	Pre-Cast Concrete Truck	2	Point	C4.20	84.9	85
	Mobile Concrete Pump	2	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	3t Forward Tipping Dumper	1	Point	C4.9	86.5	85
	JCB Wheeled Excavator	1	Point	C5.34	75.5	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 16 to 17	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	2	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Concrete Batching Plant	1	Point	C4.22	81.7	85
	Dry Mix Silos	2	Point	C3.26	85.6	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	2	Point	C4.41	77.4	85
	Static Crane	1	Point	C4.48	85.5	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Pre-Cast Concrete Truck	2	Point	C4.20	84.9	85
	Mobile Concrete Pump	2	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile Generator	1	Point	C4.76	81.0	85
	3t Forward Tipping Dumper	1	Point	C4.9	86.5	85
	Scissor Lift	1	Point	C4.59	83.9	85
	Mobile Aerial Platform	1	Point	C4.57	80.4	85
	JCB Wheeled Excavator	2	Point	C5.34	75.5	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 18 to 20	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	2	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Concrete Batching Plant	1	Point	C4.22	81.7	85
	Dry Mix Silos	2	Point	C3.26	85.6	85
	Cement Mixer	1	Point	C4.18	81.6	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Mobile Crane	2	Point	C4.41	77.4	85
	Mobile Crane Heavy Use	1	Point	C4.50	75.5	85
	Specialist Gantry Crane	1	Point	C4.50	75.5	85
	Static Crane	2	Point	C4.48	85.5	85
	Pre-Cast Concrete Truck	2	Point	C4.20	84.9	85
	Mobile Concrete Pump	2	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile Generator	2	Point	C4.76	81.0	85
	3t Forward Tipping Dumper	1	Point	C4.9	86.5	85
	Scissor Lift	2	Point	C4.59	83.9	85
	Mobile Aerial Platform	2	Point	C4.57	80.4	85
	JCB Wheeled Excavator	2	Point	C5.34	75.5	85
	Forklift	2	Point	N/A	LwA 75.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	1/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 21 to 24	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Mobile Crane Heavy Use	1	Point	C4.50	75.5	85
	Specialist Gantry Crane	1	Point	C4.50	75.5	85
	Static Crane	1	Point	C4.48	85.5	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Scissor Lift	2	Point	C4.59	83.9	85
	Mobile Aerial Platform	2	Point	C4.57	80.4	85

Phase	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
	Forklift	2	Point	N/A	LwA 75.0	85
	Skip Wagon Movements	1/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Table A25.4.9 Construction Plant – National Grid Infrastructure for Proposed East Anglia ONE North Project

Phase*	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
Month 1 to 6 **Optional in Month 1 to 4	D6 Dozer	1	Point	C2.11	84.0	85
	30T Excavator	3	Point	C2.16	79.4	85
	20T Dumper	3	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile Generator	1	Point	C4.76	81.0	85
	Temporary Lighting	1	Point	C4.76	81.0	85
	Skip Wagon Movements	1/hr over	Line	C8.21	87.2	Split evenly over 12

Phase*	Name	No.	Source type	BS5228 Reference	L_{Aeq} (dB) at 10m	On time correction (%)
		12hr day				hour day (7 – 19hrs)
	Hydraulic Hammer Piling Rig**	1	Point	C3.2	LwA 118.3	75
Month 7 to 10	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	2	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	3	Point	C4.76	81.0	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	1/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

*Worst case months based on currently available information

25.5 Construction Noise Modelling – Proposed East Anglia ONE North Project Alone

21. The SoundPLAN noise model used in this construction phase assessment incorporated noise sources located in each study area, nearby residential dwellings and other buildings, intervening ground cover and topographical information.

22. Noise levels for the construction phase were calculated using the methods and guidance in BS 5228-1:2009+A1:2014. This Standard provides methods for predicting receptor noise levels from construction works based on the number and type of construction plant and activities operating on site, with corrections to account for:

- The *"on-time"* of the plant, as a percentage of the assessment period;
- Distance from source to receptor;
- Acoustic screening by barriers, buildings or topography; and
- Ground type.

23. No garden fences at receptor locations have been incorporated within the model. Although BS5228:2009+A1:2014 states that, "as a working approximation, if there is a barrier or other topographic feature between the source and the receiving position, assume an approximate attenuation of 5dB when the top of the plant is just visible to the receiver over the noise barrier, and of 10dB when the noise screen completely hides the sources from the receiver".

25.5.1 Landfall Study Area

24. ***Table 25.4.10*** presents the predicted noise level at the nearest sensitive receptors at the landfall location including embedded mitigation for the proposed East Anglia ONE North project (project alone) construction phases outlined in ***Table A25.4.1***.

25. Sensitive receptors correspond to those surveyed and detailed in ***Table A25.4.2***.

Table A25.4.10 Landfall Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 1 to 24

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
LFR1	Month 1 to 6	Daytime	A (65)	50.3	No Impact	Negligible
	Month 7 to 10	Daytime	A (65)	46.5	No Impact	Negligible
		Evening	A (55)	40.4	No Impact	Negligible
		Night	B (50)	40.7	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	47.7	No Impact	Negligible
		Evening	A (55)	40.4	No Impact	Negligible
		Night	B (50)	40.7	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	48.9	No Impact	Negligible
		Evening	A (55)	40.4	No Impact	Negligible
		Night	B (50)	40.7	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	42.7	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	40.1	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	39.4	No Impact	Negligible
LFR2	Month 1 to 6	Daytime	A (65)	49.9	No Impact	Negligible
	Month 7 to 10	Daytime	A (65)	46.4	No Impact	Negligible
		Evening	A (55)	38.8	No Impact	Negligible
		Night	A (45)	38.9	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	48.2	No Impact	Negligible
		Evening	A (55)	38.8	No Impact	Negligible
		Night	A (45)	38.9	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	48.9	No Impact	Negligible
		Evening	A (55)	38.8	No Impact	Negligible
		Night	A (45)	38.9	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	43.5	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	40.7	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	40.0	No Impact	Negligible
LFR3	Month 1 to 6	Daytime	A (65)	47.7	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
	Month 7 to 10	Daytime	A (65)	45.0	No Impact	Negligible
		Evening	A (55)	35.7	No Impact	Negligible
		Night	A (45)	35.8	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	46.0	No Impact	Negligible
		Evening	A (55)	35.7	No Impact	Negligible
		Night	A (45)	35.8	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	45.8	No Impact	Negligible
		Evening	A (55)	35.7	No Impact	Negligible
		Night	A (45)	35.8	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	43.2	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	40.8	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	41.4	No Impact	Negligible
LFR4	Month 1 to 6	Daytime	A (65)	49.1	No Impact	Negligible
	Month 7 to 10	Daytime	A (65)	46.8	No Impact	Negligible
		Evening	A (55)	35.3	No Impact	Negligible
		Night	A (45)	35.7	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	48.0	No Impact	Negligible
		Evening	A (55)	35.3	No Impact	Negligible
		Night	A (45)	35.7	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	47.5	No Impact	Negligible
		Evening	A (55)	35.3	No Impact	Negligible
		Night	A (45)	35.7	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	45.5	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	43.4	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	44.4	No Impact	Negligible

25.5.2 Onshore Cable Route Study Area

26. ***Table A25.4.11*** to ***Table A25.4.17*** presents the predicted daytime noise level at the nearest sensitive receptors along the onshore cable route including embedded mitigation for the proposed East Anglia ONE North project (project alone) construction phases outlined in ***Table A25.4.1***.

27. Sensitive receptors correspond to those surveyed and detailed in ***Table A25.4.3***.

Table A25.4.11 Cable Route Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 1 to 6 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 1 to 6	Daytime	A (65)	53.7	No Impact	Negligible
CCR2		Daytime	A (65)	59.1	No Impact	Negligible
CCR3		Daytime	A (65)	48.3	No Impact	Negligible
CCR4		Daytime	A (65)	49.3	No Impact	Negligible
CCR5		Daytime	A (65)	49.6	No Impact	Negligible
CCR6		Daytime	A (65)	46.4	No Impact	Negligible
CCR7		Daytime	A (65)	46.7	No Impact	Negligible
CCR8		Daytime	A (65)	48.4	No Impact	Negligible
CCR9		Daytime	A (65)	52.9	No Impact	Negligible
CCR10		Daytime	A (65)	50.0	No Impact	Negligible
CCR11		Daytime	A (65)	52.0	No Impact	Negligible
CCR12		Daytime	A (65)	50.2	No Impact	Negligible
CCR13		Daytime	A (65)	39.9	No Impact	Negligible
CCR14		Daytime	A (65)	45.3	No Impact	Negligible
CCR15		Daytime	A (65)	50.3	No Impact	Negligible
CCR16		Daytime	A (65)	44.5	No Impact	Negligible
CCR17		Daytime	A (65)	53.4	No Impact	Negligible
CCR18		Daytime	A (65)	51.6	No Impact	Negligible
CCR19		Daytime	A (65)	46.7	No Impact	Negligible

Table A25.4.12 Cable Route Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 7 to 10 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 7 to 10	Daytime	A (65)	55.7	No Impact	Negligible
CCR2		Daytime	A (65)	64.6	No Impact	Negligible
CCR3		Daytime	A (65)	48.8	No Impact	Negligible
CCR4		Daytime	A (65)	47.7	No Impact	Negligible
CCR5		Daytime	A (65)	52.5	No Impact	Negligible
CCR6		Daytime	A (65)	47.7	No Impact	Negligible
CCR7		Daytime	A (65)	47.9	No Impact	Negligible
CCR8		Daytime	A (65)	47.6	No Impact	Negligible
CCR9		Daytime	A (65)	48.6	No Impact	Negligible
CCR10		Daytime	A (65)	52.1	No Impact	Negligible
CCR11		Daytime	A (65)	49.4	No Impact	Negligible
CCR12		Daytime	A (65)	49.3	No Impact	Negligible
CCR13		Daytime	A (65)	52.2	No Impact	Negligible
CCR14		Daytime	A (65)	54.0	No Impact	Negligible
CCR15		Daytime	A (65)	54.0	No Impact	Negligible
CCR16		Daytime	A (65)	53.3	No Impact	Negligible
CCR17		Daytime	A (65)	55.3	No Impact	Negligible
CCR18		Daytime	A (65)	51.7	No Impact	Negligible
CCR19		Daytime	A (65)	47.2	No Impact	Negligible

Table A25.4.13 Cable Route Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 11 to 12 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 11 to 12	Daytime	A (65)	57.2	No Impact	Negligible
CCR2		Daytime	A (65)	61.0	No Impact	Negligible
CCR3		Daytime	A (65)	47.0	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR4		Daytime	A (65)	48.2	No Impact	Negligible
CCR5		Daytime	A (65)	52.5	No Impact	Negligible
CCR6		Daytime	A (65)	47.7	No Impact	Negligible
CCR7		Daytime	A (65)	47.7	No Impact	Negligible
CCR8		Daytime	A (65)	50.3	No Impact	Negligible
CCR9		Daytime	A (65)	53.3	No Impact	Negligible
CCR10		Daytime	A (65)	56.2	No Impact	Negligible
CCR11		Daytime	A (65)	55.5	No Impact	Negligible
CCR12		Daytime	A (65)	50.5	No Impact	Negligible
CCR13		Daytime	A (65)	55.0	No Impact	Negligible
CCR14		Daytime	A (65)	53.3	No Impact	Negligible
CCR15		Daytime	A (65)	50.7	No Impact	Negligible
CCR16		Daytime	A (65)	52.5	No Impact	Negligible
CCR17		Daytime	A (65)	53.0	No Impact	Negligible
CCR18		Daytime	A (65)	51.3	No Impact	Negligible
CCR19		Daytime	A (65)	46.4	No Impact	Negligible

Table A25.4.14 Cable Route Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 13 to 15 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 13 to 15	Daytime	A (65)	58.9	No Impact	Negligible
CCR2		Daytime	A (65)	58.7	No Impact	Negligible
CCR3		Daytime	A (65)	45.0	No Impact	Negligible
CCR4		Daytime	A (65)	50.2	No Impact	Negligible
CCR5		Daytime	A (65)	49.0	No Impact	Negligible
CCR6		Daytime	A (65)	46.5	No Impact	Negligible
CCR7		Daytime	A (65)	46.4	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR8		Daytime	A (65)	46.0	No Impact	Negligible
CCR9		Daytime	A (65)	54.6	No Impact	Negligible
CCR10		Daytime	A (65)	57.2	No Impact	Negligible
CCR11		Daytime	A (65)	56.5	No Impact	Negligible
CCR12		Daytime	A (65)	46.4	No Impact	Negligible
CCR13		Daytime	A (65)	54.2	No Impact	Negligible
CCR14		Daytime	A (65)	53.5	No Impact	Negligible
CCR15		Daytime	A (65)	52.1	No Impact	Negligible
CCR16		Daytime	A (65)	52.3	No Impact	Negligible
CCR17		Daytime	A (65)	54.6	No Impact	Negligible
CCR18		Daytime	A (65)	51.0	No Impact	Negligible
CCR19		Daytime	A (65)	46.0	No Impact	Negligible

Table A25.4.15 Cable Route Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 16 to 17 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 16 to 17	Daytime	A (65)	54.7	No Impact	Negligible
CCR2		Daytime	A (65)	62.3	No Impact	Negligible
CCR3		Daytime	A (65)	46.5	No Impact	Negligible
CCR4		Daytime	A (65)	46.9	No Impact	Negligible
CCR5		Daytime	A (65)	52.3	No Impact	Negligible
CCR6		Daytime	A (65)	48.2	No Impact	Negligible
CCR7		Daytime	A (65)	49.4	No Impact	Negligible
CCR8		Daytime	A (65)	48.5	No Impact	Negligible
CCR9		Daytime	A (65)	53.3	No Impact	Negligible
CCR10		Daytime	A (65)	57.8	No Impact	Negligible
CCR11		Daytime	A (65)	55.3	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR12		Daytime	A (65)	50.5	No Impact	Negligible
CCR13		Daytime	A (65)	53.5	No Impact	Negligible
CCR14		Daytime	A (65)	53.7	No Impact	Negligible
CCR15		Daytime	A (65)	53.1	No Impact	Negligible
CCR16		Daytime	A (65)	53.7	No Impact	Negligible
CCR17		Daytime	A (65)	54.9	No Impact	Negligible
CCR18		Daytime	A (65)	51.2	No Impact	Negligible
CCR19		Daytime	A (65)	46.3	No Impact	Negligible

Table A25.4.16 Cable Route Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 18 to 20 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 18 to 20	Daytime	A (65)	53.2	No Impact	Negligible
CCR2		Daytime	A (65)	56.9	No Impact	Negligible
CCR3		Daytime	A (65)	44.3	No Impact	Negligible
CCR4		Daytime	A (65)	47.3	No Impact	Negligible
CCR5		Daytime	A (65)	47.9	No Impact	Negligible
CCR6		Daytime	A (65)	44.3	No Impact	Negligible
CCR7		Daytime	A (65)	46.5	No Impact	Negligible
CCR8		Daytime	A (65)	47.6	No Impact	Negligible
CCR9		Daytime	A (65)	47.1	No Impact	Negligible
CCR10		Daytime	A (65)	53.6	No Impact	Negligible
CCR11		Daytime	A (65)	49.5	No Impact	Negligible
CCR12		Daytime	A (65)	50.7	No Impact	Negligible
CCR13		Daytime	A (65)	53.2	No Impact	Negligible
CCR14		Daytime	A (65)	50.4	No Impact	Negligible
CCR15		Daytime	A (65)	49.7	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR16		Daytime	A (65)	50.9	No Impact	Negligible
CCR17		Daytime	A (65)	54.6	No Impact	Negligible
CCR18		Daytime	A (65)	48.9	No Impact	Negligible
CCR19		Daytime	A (65)	44.7	No Impact	Negligible

Table A25.4.17 Cable Route Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 21 to 24 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 21 to 24	Daytime	A (65)	54.8	No Impact	Negligible
CCR2		Daytime	A (65)	59.2	No Impact	Negligible
CCR3		Daytime	A (65)	45.7	No Impact	Negligible
CCR4		Daytime	A (65)	48.7	No Impact	Negligible
CCR5		Daytime	A (65)	52.4	No Impact	Negligible
CCR6		Daytime	A (65)	47.4	No Impact	Negligible
CCR7		Daytime	A (65)	48.9	No Impact	Negligible
CCR8		Daytime	A (65)	46.6	No Impact	Negligible
CCR9		Daytime	A (65)	49.2	No Impact	Negligible
CCR10		Daytime	A (65)	57.5	No Impact	Negligible
CCR11		Daytime	A (65)	51.7	No Impact	Negligible
CCR12		Daytime	A (65)	48.3	No Impact	Negligible
CCR13		Daytime	A (65)	54.2	No Impact	Negligible
CCR14		Daytime	A (65)	51.9	No Impact	Negligible
CCR15		Daytime	A (65)	53.2	No Impact	Negligible
CCR16		Daytime	A (65)	52.1	No Impact	Negligible
CCR17		Daytime	A (65)	53.7	No Impact	Negligible
CCR18		Daytime	A (65)	48.1	No Impact	Negligible
CCR19		Daytime	A (65)	44.1	No Impact	Negligible

25.5.3 Onshore Substation / National Grid Infrastructure Study Area

28. ***Table A25.4.18*** to ***Table A25.4.24*** presents the predicted daytime noise level at the nearest sensitive receptors at the onshore substation and National Grid infrastructure including embedded mitigation for the proposed East Anglia ONE North project (project alone) construction phases outlined in ***Table A25.4.1***.

29. Sensitive receptors correspond to those surveyed and detailed in ***Table A25.4.4***

Table A25.4.18 Substation Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 1 to 6 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 1 to 6	Daytime	A (65)	52.7	No Impact	Negligible
SSR2		Daytime	A (65)	53.0	No Impact	Negligible
SSR3		Daytime	A (65)	55.4	No Impact	Negligible
SSR4		Daytime	A (65)	52.3	No Impact	Negligible
SSR5		Daytime	A (65)	55.1	No Impact	Negligible
SSR6		Daytime	A (65)	52.2	No Impact	Negligible
SSR7		Daytime	A (65)	51.2	No Impact	Negligible
SSR8		Daytime	A (65)	48.4	No Impact	Negligible
SSR9		Daytime	A (65)	54.5	No Impact	Negligible
SSR10		Daytime	A (65)	43.4	No Impact	Negligible
SSR11		Daytime	A (65)	46.4	No Impact	Negligible
SSR12		Daytime	A (65)	48.6	No Impact	Negligible

Table A25.4.19 Substation Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 7 to 10 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 7 to 10	Daytime	A (65)	52.2	No Impact	Negligible
SSR2		Daytime	A (65)	53.5	No Impact	Negligible
SSR3		Daytime	A (65)	53.5	No Impact	Negligible
SSR4		Daytime	A (65)	53.4	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR5		Daytime	A (65)	57.8	No Impact	Negligible
SSR6		Daytime	A (65)	52.7	No Impact	Negligible
SSR7		Daytime	A (65)	50.9	No Impact	Negligible
SSR8		Daytime	A (65)	47.9	No Impact	Negligible
SSR9		Daytime	A (65)	51.8	No Impact	Negligible
SSR10		Daytime	A (65)	43.6	No Impact	Negligible
SSR11		Daytime	A (65)	46.8	No Impact	Negligible
SSR12		Daytime	A (65)	47.3	No Impact	Negligible

Table A25.4.20 Substation Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 11 to 12 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 11 to 12	Daytime	A (65)	48.3	No Impact	Negligible
SSR2		Daytime	A (65)	51.4	No Impact	Negligible
SSR3		Daytime	A (65)	49.0	No Impact	Negligible
SSR4		Daytime	A (65)	51.3	No Impact	Negligible
SSR5		Daytime	A (65)	57.0	No Impact	Negligible
SSR6		Daytime	A (65)	51.2	No Impact	Negligible
SSR7		Daytime	A (65)	47.5	No Impact	Negligible
SSR8		Daytime	A (65)	45.1	No Impact	Negligible
SSR9		Daytime	A (65)	47.9	No Impact	Negligible
SSR10		Daytime	A (65)	41.2	No Impact	Negligible
SSR11		Daytime	A (65)	44.5	No Impact	Negligible
SSR12		Daytime	A (65)	44.2	No Impact	Negligible

Table A25.4.21 Substation Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 13 to 15 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 13 to 15	Daytime	A (65)	48.3	No Impact	Negligible
SSR2		Daytime	A (65)	51.4	No Impact	Negligible
SSR3		Daytime	A (65)	48.8	No Impact	Negligible
SSR4		Daytime	A (65)	50.6	No Impact	Negligible
SSR5		Daytime	A (65)	55.0	No Impact	Negligible
SSR6		Daytime	A (65)	52.7	No Impact	Negligible
SSR7		Daytime	A (65)	47.4	No Impact	Negligible
SSR8		Daytime	A (65)	44.8	No Impact	Negligible
SSR9		Daytime	A (65)	47.7	No Impact	Negligible
SSR10		Daytime	A (65)	41.0	No Impact	Negligible
SSR11		Daytime	A (65)	44.2	No Impact	Negligible
SSR12		Daytime	A (65)	44.0	No Impact	Negligible

Table A25.4.22 Substation Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 16 to 17 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 16 to 17	Daytime	A (65)	48.6	No Impact	Negligible
SSR2		Daytime	A (65)	51.5	No Impact	Negligible
SSR3		Daytime	A (65)	49.2	No Impact	Negligible
SSR4		Daytime	A (65)	50.7	No Impact	Negligible
SSR5		Daytime	A (65)	55.1	No Impact	Negligible
SSR6		Daytime	A (65)	52.0	No Impact	Negligible
SSR7		Daytime	A (65)	47.7	No Impact	Negligible
SSR8		Daytime	A (65)	45.0	No Impact	Negligible
SSR9		Daytime	A (65)	48.0	No Impact	Negligible
SSR10		Daytime	A (65)	41.1	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR11		Daytime	A (65)	44.3	No Impact	Negligible
SSR12		Daytime	A (65)	44.2	No Impact	Negligible

Table A25.4.23 Substation Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 18 to 20 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 18 to 20	Daytime	A (65)	48.4	No Impact	Negligible
SSR2		Daytime	A (65)	51.0	No Impact	Negligible
SSR3		Daytime	A (65)	49.3	No Impact	Negligible
SSR4		Daytime	A (65)	50.4	No Impact	Negligible
SSR5		Daytime	A (65)	54.5	No Impact	Negligible
SSR6		Daytime	A (65)	50.0	No Impact	Negligible
SSR7		Daytime	A (65)	47.4	No Impact	Negligible
SSR8		Daytime	A (65)	44.8	No Impact	Negligible
SSR9		Daytime	A (65)	48.1	No Impact	Negligible
SSR10		Daytime	A (65)	40.7	No Impact	Negligible
SSR11		Daytime	A (65)	43.9	No Impact	Negligible
SSR12		Daytime	A (65)	44.1	No Impact	Negligible

Table A25.4.24 Substation Construction Noise – Predicted Impacts for the proposed East Anglia ONE North project Month 21 to 24 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 21 to 24	Daytime	A (65)	44.5	No Impact	Negligible
SSR2		Daytime	A (65)	48.0	No Impact	Negligible
SSR3		Daytime	A (65)	44.4	No Impact	Negligible
SSR4		Daytime	A (65)	45.7	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR5		Daytime	A (65)	49.5	No Impact	Negligible
SSR6		Daytime	A (65)	48.7	No Impact	Negligible
SSR7		Daytime	A (65)	44.1	No Impact	Negligible
SSR8		Daytime	A (65)	39.9	No Impact	Negligible
SSR9		Daytime	A (65)	43.2	No Impact	Negligible
SSR10		Daytime	A (65)	37.4	No Impact	Negligible
SSR11		Daytime	A (65)	40.2	No Impact	Negligible
SSR12		Daytime	A (65)	38.9	No Impact	Negligible

25.6 Construction Noise Modelling – Construction Scenario 1

30. Based on Chapter 6 Project Description, an indicative list of construction equipment under Scenario 1 (simultaneous construction of the proposed East Anglia ONE North and proposed East Anglia TWO projects) has been developed and are detailed in ***Table A25.4.25*** to ***Table A25.4.31***.

Table A25.4.25 Construction Plant – Landfall Construction Scenario 1

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
Month 1 to 6 *Month 6 onwards only **Optional during Month 1 to Month 4	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	3	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	1	Point	C4.76	81.0	85
	Temporary lighting	1	Point	C4.76	81.0	85
	Skip Wagon Movements	4/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill*	2	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump*	2	Point	N/A	LwA 93	100 (24hrs/7 days)
	Power Supply*	2	Point	N/A	LwA 105	100 (24hrs/7 days)
	Hydraulic Hammer Piling Rig**	1	Point	C3.2	LwA 118.3	75
Month 7 to 10	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	1	Point	C4.76	81.0	85
	Pump	1	Point	C2.45	75.0	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Skip Wagon Movements	3/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill	2	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump	2	Point	N/A	LwA 93	100 (24hrs/7 days)
	Power Supply	2	Point	N/A	LwA 105	100 (24hrs/7 days)
Month 11 to 12	30T Excavator	1	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Laying Tracked Crane	1	Point	C4.50	75.5	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	1	Point	C4.76	81.0	85
	Pump	1	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr over	Line	C8.21	87.2	Split evenly over 12 hour

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
		12hr day				day (7 – 19hrs)
	HDD Drill	2	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump	2	Point	N/A	LwA 93	100 (24hrs/7 days)
	Power Supply	2	Point	N/A	LwA 105	100 (24hrs/7 days)
Month 13 to 15 *Up to and including Month 13 only	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Trench Roller	1	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Laying Tracked Crane	1	Point	C4.50	75.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	2	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill*	2	Point	N/A	LwA 105	100 (24hrs/7 days)
	Mud Pump*	2	Point	N/A	LwA 93	100 (24hrs/7 days)
	Power Supply*	2	Point	N/A	LwA 105	100 (24hrs/7 days)

Table A25.4.26 Construction Plant – Cable Route Section 1 and 2 Scenario 1

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
Month 1 to 6	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	6	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	2	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	2	Point	C4.76	81.0	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Temporary lighting	2	Point	C4.76	81.0	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Skip Wagon Movements	4/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 7 to 10	D6 Dozer	1	Point	C2.11	84.0	85
	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	5	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	1	Point	C5.20	90.8	85
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	2	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	30T Excavator	4	Point	C2.16	79.4	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
Month 11 to 12	20T Dumper	6	Point	C2.30	86.8	85
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	3	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	2	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill	2	Point	N/A	LwA 105	100 (12hrs)
	Mud Pump	2	Point	N/A	LwA 93	100 (12hrs)
	Power Supply	2	Point	N/A	LwA 105	100 (12hrs)
Month 13 to 15	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	8	Point	C2.30	86.8	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	21T excavator	2	Point	C2.3	86.0	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	5T Forward Tipping Dumper	3	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	2	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 16 to 17	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	4	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	3	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Tractor & Soil Tiller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	2	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	3/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 18 to 20	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 21 to 24	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Soil Tiller	1	Point	C4.74	84.2	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Mobile Generator	1	Point	C4.76	81.0	85
	Temporary Lighting	2	Point	C4.76	81.0	85
	Skip Wagon Movements	1/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Table A25.4.27 Construction Plant – Cable Route Section 3 and 4 Scenario 1

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
Month 1 to 6	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	2	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Telehandler	1	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	2	Point	C4.76	81.0	85
	Road surface paver & roller	1	Point	C5.30	82.2	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Skip Wagon Movements	4/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 7 to 10	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	3	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	2	Point	C6.38	89.6	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile generator	4	Point	C4.76	81.0	85
	Temporary lighting	16	Point	C4.76	81.0	85
	Pump	4	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 11 to 12	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	3	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	2	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	HDD Drill	2	Point	N/A	LwA 105	100 (12hrs)
	Mud Pump	2	Point	N/A	LwA 93	100 (12hrs)
	Power Supply	3	Point	N/A	LwA 105	100 (12hrs)
Month 13 to 15	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	3	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Trench Roller	12	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	2	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 16 to 17	30T Excavator	4	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	21T excavator	3	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	3	Point	C4.7	91.6	85
	Loading shovel	3	Point	C10.4	91.5	85
	Trench Roller	2	Point	C10.23	60.4	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	2	Point	C4.43	82.0	85
	Mobile generator	2	Point	C4.76	81.0	85
	Temporary lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 18 to 20	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Cable Drum Roller	1	Point	C4.74	84.2	85
	Cement Mixer	1	Point	C4.18	81.6	85
	Mobile Crane	1	Point	C4.41	77.4	85
	Cable Winch	1	Point	C4.52	78.5	85
	Pre-Cast Concrete Truck	1	Point	C4.20	84.9	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Mobile Concrete Pump	1	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	3	Point	C4.76	81.0	85
	Pump	2	Point	C2.45	75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 21 to 24	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Tractor & Soil Tiller	1	Point	C4.74	84.2	85
	Mobile Generator	1	Point	C4.76	81.0	85
	Temporary Lighting	2	Point	C4.76	81.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Table A25.4.28 Construction Plant – Onshore Substation Scenario 1

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
Month 1 to 6	D6 Dozer	6	Point	C2.11	84.0	85
	30T Excavator	6	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	4	Point	C5.20	90.8	85
	21T excavator	6	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	6	Point	C4.7	91.6	85
	Loading shovel	4	Point	C10.4	91.5	85
	Tractor & trailer	2	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	2	Point	C6.38	89.6	85
	Grader	4	Point	C6.31	92.4	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Skip Wagon Movements	5/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 7 to 10 **Optional	D6 Dozer	4	Point	C2.11	84.0	85
	30T Excavator	6	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	4	Point	C5.20	90.8	85
	21T excavator	6	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	6	Point	C4.7	91.6	85
	Loading shovel	4	Point	C10.4	91.5	85
	Tractor & trailer	2	Point	C4.75	94.0	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	2	Point	C6.38	89.6	85
	Grader	4	Point	C6.31	92.4	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Road surface paver & roller	2	Point	C5.30	82.2	85
	Concrete Batching Plant	2	Point	C4.22	81.7	85
	Dry Mix Silos	4	Point	C3.26	85.6	85
	Pre-Cast Concrete Truck	2	Point	C4.20	84.9	85
	Mobile Concrete Pump	2	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Pump	4	Point	C2.45	75.0	85
	Temporary Lighting	4	Point	C4.76	81.0	85
	Trench Roller	2	Point	C10.23	60.4	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Skip Wagon Movements	5/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	Hydraulic Hammer Piling Rig**	2	Point	C3.2	LwA 118.3	75
Month 11 to 12	D6 Dozer	4	Point	C2.11	84.0	85
	30T Excavator	6	Point	C2.16	79.4	85
	20T Dumper	6	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	4	Point	C5.20	90.8	85
	21T excavator	6	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	6	Point	C4.7	91.6	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Loading shovel	4	Point	C10.4	91.5	85
	Tractor & trailer	2	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	2	Point	C6.38	89.6	85
	Grader	4	Point	C6.31	92.4	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Road surface paver & roller	2	Point	C5.30	82.2	85
	Concrete Batching Plant	2	Point	C4.22	81.7	85
	Dry Mix Silos	4	Point	C3.26	85.6	85
	Pre-Cast Concrete Truck	2	Point	C4.20	84.9	85
	Mobile Concrete Pump	2	Point	C3.26	85.6	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Pump	4	Point	C2.45	75.0	85
	Skip Wagon Movements	5/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 13 to 15	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	2	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	2	Point	C4.75	94.0	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	2	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Road surface paver & roller	2	Point	C5.30	82.2	85
	Concrete Batching Plant	2	Point	C4.22	81.7	85
	Dry Mix Silos	4	Point	C3.26	85.6	85
	Mobile Crane	2	Point	C4.41	77.4	85
	Pre-Cast Concrete Truck	4	Point	C4.20	84.9	85
	Mobile Concrete Pump	4	Point	C3.26	85.6	85
	Telehandler	4	Point	C2.35	86.2	85
	3t Forward Tipping Dumper	2	Point	C4.9	86.5	85
	JCB Wheeled Excavator	2	Point	C5.34	75.5	85
	Pump	4	Point	C2.45	75.0	85
	Skip Wagon Movements	5/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 16 to 17	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	2	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	2	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	2	Point	C6.38	89.6	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Grader	2	Point	C6.31	92.4	85
	Road surface paver & roller	2	Point	C5.30	82.2	85
	Concrete Batching Plant	2	Point	C4.22	81.7	85
	Dry Mix Silos	4	Point	C3.26	85.6	85
	Cement Mixer	2	Point	C4.18	81.6	85
	Mobile Crane	4	Point	C4.41	77.4	85
	Static Crane	2	Point	C4.48	85.5	85
	Pre-Cast Concrete Truck	4	Point	C4.20	84.9	85
	Mobile Concrete Pump	4	Point	C3.26	85.6	85
	Telehandler	4	Point	C2.35	86.2	85
	Mobile Generator	2	Point	C4.76	81.0	85
	3t Forward Tipping Dumper	2	Point	C4.9	86.5	85
	Scissor Lift	2	Point	C4.59	83.9	85
	Mobile Aerial Platform	2	Point	C4.57	80.4	85
	JCB Wheeled Excavator	4	Point	C5.34	75.5	85
	Pump	4	Point	C2.45	75.0	85
	Skip Wagon Movements	5/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 18 to 20	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibrio road roller	2	Point	C5.20	90.8	85
	21T excavator	4	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	4	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	2	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Tractor & Water bowser (for dust suppression)	2	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Road surface paver & roller	2	Point	C5.30	82.2	85
	Concrete Batching Plant	2	Point	C4.22	81.7	85
	Dry Mix Silos	4	Point	C3.26	85.6	85
	Cement Mixer	2	Point	C4.18	81.6	85
	Mobile Crane	4	Point	C4.41	77.4	85
	Mobile Crane Heavy Use	2	Point	C4.50	75.5	85
	Specialist Gantry Crane	2	Point	C4.50	75.5	85
	Static Crane	4	Point	C4.48	85.5	85
	Pre-Cast Concrete Truck	4	Point	C4.20	84.9	85
	Mobile Concrete Pump	4	Point	C3.26	85.6	85
	Telehandler	4	Point	C2.35	86.2	85
	Mobile Generator	4	Point	C4.76	81.0	85
	3t Forward Tipping Dumper	2	Point	C4.9	86.5	85
	Scissor Lift	4	Point	C4.59	83.9	85
	Mobile Aerial Platform	4	Point	C4.57	80.4	85
	JCB Wheeled Excavator	4	Point	C5.34	75.5	85
	Forklift	4	Point	N/A	LwA 75.0	85
	Pump	4	Point	C2.45	75.0	85
	Skip Wagon Movements	7/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
Month 21 to 24	Tractor & trailer	2	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	2	Point	C6.38	89.6	85
	Mobile Crane	2	Point	C4.41	77.4	85
	Mobile Crane Heavy Use	2	Point	C4.50	75.5	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Specialist Gantry Crane	2	Point	C4.50	75.5	85
	Static Crane	2	Point	C4.48	85.5	85
	Telehandler	4	Point	C2.35	86.2	85
	Mobile Generator	4	Point	C4.76	81.0	85
	Scissor Lift	4	Point	C4.59	83.9	85
	Mobile Aerial Platform	4	Point	C4.57	80.4	85
	Forklift	4	Point	N/A	LwA 75.0	85
	Skip Wagon Movements	2/hr every hour	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

Table A25.4.29 Construction Plant – National Grid Infrastructure for Proposed Scenario 1

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
Month 1 to 6 **Optional	D6 Dozer	1	Point	C2.11	84.0	85
	30T Excavator	3	Point	C2.16	79.4	85
	20T Dumper	3	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	1	Point	C5.20	90.8	85
	21T excavator	1	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	1	Point	C4.7	91.6	85
	Loading shovel	1	Point	C10.4	91.5	85
	Tractor & fencing kit	1	Point	C4.74	84.2	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	1	Point	C6.31	92.4	85
	Telehandler	1	Point	C2.35	86.2	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Mobile self-contained welfare unit	1	Point	N/A SoundPLAN Library	LwA 68.2	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	2	Point	C4.76	81.0	85
	Skip Wagon Movements	1/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)
	Hydraulic Hammer Piling Rig**	2	Point	C3.2	LwA 118.3	75
Month 7 to 10	D6 Dozer	2	Point	C2.11	84.0	85
	30T Excavator	2	Point	C2.16	79.4	85
	20T Dumper	2	Point	C2.30	86.8	85
	Smooth Drum vibro road roller	2	Point	C5.20	90.8	85
	21T excavator	2	Point	C2.3	86.0	85
	5T Forward Tipping Dumper	2	Point	C4.7	91.6	85
	Loading shovel	2	Point	C10.4	91.5	85
	Tractor & trailer	1	Point	C4.75	94.0	85
	Tractor & Fuel bowser (or self-propelled)	1	Point	C6.38	89.6	85
	Tractor & Water bowser (for dust suppression)	1	Point	C6.38	89.6	85
	Grader	2	Point	C6.31	92.4	85
	Telehandler	2	Point	C2.35	86.2	85
	Mobile self-contained welfare unit	2	Point	N/A SoundPLAN Library	LwA 68.2	85
	Crawler Crane	1	Point	C4.43	82.0	85
	Mobile Generator	2	Point	C4.76	81.0	85
	Temporary Lighting	2	Point	C4.76	81.0	85
	Road surface paver & roller	1	Point	C5.30	82.2	85
	Pump	2	Point	C2.45	75.0	85

Phase	Name	No.	Source type	BS5228 Reference	LAeq (dB) at 10m	On time correction (%)
	Skip Wagon Movements	1/hr over 12hr day	Line	C8.21	87.2	Split evenly over 12 hour day (7 – 19hrs)

25.6.1 Landfall Study Area

31. ***Table A25.4.30*** presents the predicted noise level at the nearest sensitive receptors at the landfall including embedded mitigation for the Scenario 1 project construction phases outlined in ***Table A25.4.1.***

32. Sensitive receptors correspond to those surveyed and detailed in ***Table A25.4.2.***

Table A25.4.30 Landfall Construction Noise Scenario 1 – Predicted Impacts Month 1 to 24

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
LFR1	Month 1 to 6	Daytime	A (65)	50.4	No Impact	Negligible
	Month 7 to 10	Daytime	A (65)	47.8	No Impact	Negligible
		Evening	A (55)	40.4	No Impact	Negligible
		Night	B (50)	40.7	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	47.6	No Impact	Negligible
		Evening	A (55)	40.4	No Impact	Negligible
		Night	B (50)	40.7	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	48.2	No Impact	Negligible
		Evening	A (55)	40.4	No Impact	Negligible
		Night	B (50)	40.7	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	44.0	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	40.2	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	39.3	No Impact	Negligible
LFR2	Month 1 to 6	Daytime	A (65)	50.0	No Impact	Negligible
	Month 7 to 10	Daytime	A (65)	48.4	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
		Evening	A (55)	38.8	No Impact	Negligible
		Night	A (45)	38.9	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	48.7	No Impact	Negligible
		Evening	A (55)	38.8	No Impact	Negligible
		Night	A (45)	38.9	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	52.3	No Impact	Negligible
		Evening	A (55)	38.8	No Impact	Negligible
		Night	A (45)	38.9	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	44.8	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	40.8	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	40.0	No Impact	Negligible
LFR3	Month 1 to 6	Daytime	A (65)	47.9	No Impact	Negligible
	Month 7 to 10	Daytime	A (65)	45.8	No Impact	Negligible
		Evening	A (55)	35.7	No Impact	Negligible
		Night	A (45)	35.8	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	47.5	No Impact	Negligible
		Evening	A (55)	35.7	No Impact	Negligible
		Night	A (45)	35.8	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	48.4	No Impact	Negligible
		Evening	A (55)	35.7	No Impact	Negligible
		Night	A (45)	35.8	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	44.5	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	40.8	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	41.4	No Impact	Negligible
LFR4	Month 1 to 6	Daytime	A (65)	49.4	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
	Month 7 to 10	Daytime	A (65)	46.8	No Impact	Negligible
		Evening	A (55)	35.3	No Impact	Negligible
		Night	A (45)	35.7	No Impact	Negligible
	Month 11 to 12	Daytime	A (65)	48.5	No Impact	Negligible
		Evening	A (55)	35.3	No Impact	Negligible
		Night	A (45)	35.7	No Impact	Negligible
	Month 13 to 15	Daytime	A (65)	48.2	No Impact	Negligible
		Evening	A (55)	35.3	No Impact	Negligible
		Night	A (45)	35.7	No Impact	Negligible
	Month 16 to 17	Daytime	A (65)	46.5	No Impact	Negligible
	Month 18 to 20	Daytime	A (65)	43.4	No Impact	Negligible
	Month 21 to 24	Daytime	A (65)	44.4	No Impact	Negligible

25.6.2 Onshore Cable Route Study Area

33. ***Table A25.4.31*** to ***Table A25.4.37*** presents the predicted daytime noise level at the nearest sensitive receptors along the onshore cable route including embedded mitigation for the scenario 1 construction phases outlined in ***Table A25.4.1***.

34. Sensitive receptors correspond to those surveyed and detailed in ***Table A25.4.3***.

Table A25.4.31 Cable Route Noise – Predicted Impacts Scenario 1 Month 1 to 6 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 1 to 6	Daytime	A (65)	54.0	No Impact	Negligible
CCR2		Daytime	A (65)	59.5	No Impact	Negligible
CCR3		Daytime	A (65)	48.4	No Impact	Negligible
CCR4		Daytime	A (65)	49.4	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR5		Daytime	A (65)	49.8	No Impact	Negligible
CCR6		Daytime	A (65)	46.7	No Impact	Negligible
CCR7		Daytime	A (65)	47.1	No Impact	Negligible
CCR8		Daytime	A (65)	49.5	No Impact	Negligible
CCR9		Daytime	A (65)	53.4	No Impact	Negligible
CCR10		Daytime	A (65)	50.7	No Impact	Negligible
CCR11		Daytime	A (65)	52.6	No Impact	Negligible
CCR12		Daytime	A (65)	51.8	No Impact	Negligible
CCR13		Daytime	A (65)	40.0	No Impact	Negligible
CCR14		Daytime	A (65)	45.7	No Impact	Negligible
CCR15		Daytime	A (65)	50.5	No Impact	Negligible
CCR16		Daytime	A (65)	44.7	No Impact	Negligible
CCR17		Daytime	A (65)	53.5	No Impact	Negligible
CCR18		Daytime	A (65)	52.7	No Impact	Negligible
CCR19		Daytime	A (65)	47.5	No Impact	Negligible

Table A25.4.32 Cable Route Noise – Predicted Impacts Scenario 1 Month 7 to 10 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 7 to 10	Daytime	A (65)	55.1	No Impact	Negligible
CCR2		Daytime	A (65)	63.1	No Impact	Negligible
CCR3		Daytime	A (65)	46.7	No Impact	Negligible
CCR4		Daytime	A (65)	48.0	No Impact	Negligible
CCR5		Daytime	A (65)	52.7	No Impact	Negligible
CCR6		Daytime	A (65)	48.0	No Impact	Negligible
CCR7		Daytime	A (65)	48.6	No Impact	Negligible
CCR8		Daytime	A (65)	48.6	No Impact	Negligible
CCR9		Daytime	A (65)	49.0	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR10		Daytime	A (65)	52.3	No Impact	Negligible
CCR11		Daytime	A (65)	49.6	No Impact	Negligible
CCR12		Daytime	A (65)	51.0	No Impact	Negligible
CCR13		Daytime	A (65)	52.4	No Impact	Negligible
CCR14		Daytime	A (65)	55.1	No Impact	Negligible
CCR15		Daytime	A (65)	54.3	No Impact	Negligible
CCR16		Daytime	A (65)	54.1	No Impact	Negligible
CCR17		Daytime	A (65)	54.0	No Impact	Negligible
CCR18		Daytime	A (65)	54.4	No Impact	Negligible
CCR19		Daytime	A (65)	48.7	No Impact	Negligible

Table A25.4.33 Cable Route Noise – Predicted Impacts Scenario 1 Month 11 to 12 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 11 to 12	Daytime	A (65)	59.2	No Impact	Negligible
CCR2		Daytime	A (65)	61.7	No Impact	Negligible
CCR3		Daytime	A (65)	47.8	No Impact	Negligible
CCR4		Daytime	A (65)	48.4	No Impact	Negligible
CCR5		Daytime	A (65)	51.8	No Impact	Negligible
CCR6		Daytime	A (65)	47.3	No Impact	Negligible
CCR7		Daytime	A (65)	46.9	No Impact	Negligible
CCR8		Daytime	A (65)	51.1	No Impact	Negligible
CCR9		Daytime	A (65)	53.3	No Impact	Negligible
CCR10		Daytime	A (65)	58.0	No Impact	Negligible
CCR11		Daytime	A (65)	55.8	No Impact	Negligible
CCR12		Daytime	A (65)	51.6	No Impact	Negligible
CCR13		Daytime	A (65)	54.2	No Impact	Negligible
CCR14		Daytime	A (65)	55.5	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR15		Daytime	A (65)	57.1	No Impact	Negligible
CCR16		Daytime	A (65)	54.6	No Impact	Negligible
CCR17		Daytime	A (65)	56.4	No Impact	Negligible
CCR18		Daytime	A (65)	52.5	No Impact	Negligible
CCR19		Daytime	A (65)	47.6	No Impact	Negligible

Table A25.4.34 Cable Route Noise – Predicted Impacts Scenario 1 Month 13 to 15 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 13 to 15	Daytime	A (65)	59.2	No Impact	Negligible
CCR2		Daytime	A (65)	61.6	No Impact	Negligible
CCR3		Daytime	A (65)	46.8	No Impact	Negligible
CCR4		Daytime	A (65)	48.1	No Impact	Negligible
CCR5		Daytime	A (65)	51.5	No Impact	Negligible
CCR6		Daytime	A (65)	47.1	No Impact	Negligible
CCR7		Daytime	A (65)	46.5	No Impact	Negligible
CCR8		Daytime	A (65)	50.3	No Impact	Negligible
CCR9		Daytime	A (65)	53.6	No Impact	Negligible
CCR10		Daytime	A (65)	59.4	No Impact	Negligible
CCR11		Daytime	A (65)	56.6	No Impact	Negligible
CCR12		Daytime	A (65)	51.3	No Impact	Negligible
CCR13		Daytime	A (65)	54.9	No Impact	Negligible
CCR14		Daytime	A (65)	53.1	No Impact	Negligible
CCR15		Daytime	A (65)	54.0	No Impact	Negligible
CCR16		Daytime	A (65)	53.1	No Impact	Negligible
CCR17		Daytime	A (65)	55.5	No Impact	Negligible
CCR18		Daytime	A (65)	51.9	No Impact	Negligible
CCR19		Daytime	A (65)	47.2	No Impact	Negligible

Table A25.35 Cable Route Noise – Predicted Impacts Scenario 1 Month 16 to 17 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 16 to 17	Daytime	A (65)	55.5	No Impact	Negligible
CCR2		Daytime	A (65)	62.4	No Impact	Negligible
CCR3		Daytime	A (65)	48.4	No Impact	Negligible
CCR4		Daytime	A (65)	49.7	No Impact	Negligible
CCR5		Daytime	A (65)	52.1	No Impact	Negligible
CCR6		Daytime	A (65)	48.3	No Impact	Negligible
CCR7		Daytime	A (65)	49.8	No Impact	Negligible
CCR8		Daytime	A (65)	51.3	No Impact	Negligible
CCR9		Daytime	A (65)	52.5	No Impact	Negligible
CCR10		Daytime	A (65)	60.8	No Impact	Negligible
CCR11		Daytime	A (65)	57.1	No Impact	Negligible
CCR12		Daytime	A (65)	54.2	No Impact	Negligible
CCR13		Daytime	A (65)	54.9	No Impact	Negligible
CCR14		Daytime	A (65)	53.2	No Impact	Negligible
CCR15		Daytime	A (65)	53.0	No Impact	Negligible
CCR16		Daytime	A (65)	53.2	No Impact	Negligible
CCR17		Daytime	A (65)	56.3	No Impact	Negligible
CCR18		Daytime	A (65)	51.9	No Impact	Negligible
CCR19		Daytime	A (65)	47.3	No Impact	Negligible

Table A25.4.36 Cable Route Noise – Predicted Impacts Scenario 1 Month 18 to 20 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 18 to 20	Daytime	A (65)	53.2	No Impact	Negligible
CCR2		Daytime	A (65)	57.0	No Impact	Negligible
CCR3		Daytime	A (65)	44.4	No Impact	Negligible
CCR4		Daytime	A (65)	47.4	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR5		Daytime	A (65)	48.0	No Impact	Negligible
CCR6		Daytime	A (65)	44.4	No Impact	Negligible
CCR7		Daytime	A (65)	46.6	No Impact	Negligible
CCR8		Daytime	A (65)	47.7	No Impact	Negligible
CCR9		Daytime	A (65)	47.4	No Impact	Negligible
CCR10		Daytime	A (65)	54.9	No Impact	Negligible
CCR11		Daytime	A (65)	50.0	No Impact	Negligible
CCR12		Daytime	A (65)	50.7	No Impact	Negligible
CCR13		Daytime	A (65)	53.2	No Impact	Negligible
CCR14		Daytime	A (65)	50.5	No Impact	Negligible
CCR15		Daytime	A (65)	49.9	No Impact	Negligible
CCR16		Daytime	A (65)	50.9	No Impact	Negligible
CCR17		Daytime	A (65)	54.7	No Impact	Negligible
CCR18		Daytime	A (65)	51.4	No Impact	Negligible
CCR19		Daytime	A (65)	46.1	No Impact	Negligible

Table A25.4.37 Cable Route Noise – Predicted Impacts Scenario 1 Month 21 to 24 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR1	Month 21 to 24	Daytime	A (65)	54.8	No Impact	Negligible
CCR2		Daytime	A (65)	59.2	No Impact	Negligible
CCR3		Daytime	A (65)	45.7	No Impact	Negligible
CCR4		Daytime	A (65)	48.7	No Impact	Negligible
CCR5		Daytime	A (65)	52.5	No Impact	Negligible
CCR6		Daytime	A (65)	47.4	No Impact	Negligible
CCR7		Daytime	A (65)	48.9	No Impact	Negligible
CCR8		Daytime	A (65)	46.6	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
CCR9		Daytime	A (65)	49.2	No Impact	Negligible
CCR10		Daytime	A (65)	57.5	No Impact	Negligible
CCR11		Daytime	A (65)	51.7	No Impact	Negligible
CCR12		Daytime	A (65)	48.3	No Impact	Negligible
CCR13		Daytime	A (65)	54.2	No Impact	Negligible
CCR14		Daytime	A (65)	51.9	No Impact	Negligible
CCR15		Daytime	A (65)	53.2	No Impact	Negligible
CCR16		Daytime	A (65)	52.1	No Impact	Negligible
CCR17		Daytime	A (65)	53.7	No Impact	Negligible
CCR18		Daytime	A (65)	48.6	No Impact	Negligible
CCR19		Daytime	A (65)	44.3	No Impact	Negligible

25.6.3 Onshore Substation / National Grid Infrastructure Study Area

35. ***Table A25.4.38*** to ***Table A25.4.44*** presents the predicted daytime noise level at the nearest sensitive receptors at the onshore substation and National Grid infrastructure including embedded mitigation for the Scenario 1 construction phases outlined in ***Table A25.4.1***.

36. Sensitive receptors correspond to those surveyed and detailed in ***Table A25.4.4***

Table A25.4.38 Substation Construction Noise – Predicted Impacts Scenario 1 Month 1 to 6 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 1 to 6	Daytime	A (65)	53.9	No Impact	Negligible
SSR2		Daytime	A (65)	55.8	No Impact	Negligible
SSR3		Daytime	A (65)	55.9	No Impact	Negligible
SSR4		Daytime	A (65)	53.4	No Impact	Negligible
SSR5		Daytime	A (65)	56.9	No Impact	Negligible
SSR6		Daytime	A (65)	53.3	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR7		Daytime	A (65)	52.5	No Impact	Negligible
SSR8		Daytime	A (65)	49.1	No Impact	Negligible
SSR9		Daytime	A (65)	54.9	No Impact	Negligible
SSR10		Daytime	A (65)	44.4	No Impact	Negligible
SSR11		Daytime	A (65)	47.4	No Impact	Negligible
SSR12		Daytime	A (65)	49.2	No Impact	Negligible

Table A25.4.39 Substation Construction Noise – Predicted Impacts Scenario 1 Month 7 to 10 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 7 to 10	Daytime	A (65)	55.1	No Impact	Negligible
SSR2		Daytime	A (65)	57.8	No Impact	Negligible
SSR3		Daytime	A (65)	55.0	No Impact	Negligible
SSR4		Daytime	A (65)	54.1	No Impact	Negligible
SSR5		Daytime	A (65)	58.2	No Impact	Negligible
SSR6		Daytime	A (65)	54.3	No Impact	Negligible
SSR7		Daytime	A (65)	53.6	No Impact	Negligible
SSR8		Daytime	A (65)	49.0	No Impact	Negligible
SSR9		Daytime	A (65)	53.1	No Impact	Negligible
SSR10		Daytime	A (65)	44.9	No Impact	Negligible
SSR11		Daytime	A (65)	48.0	No Impact	Negligible
SSR12		Daytime	A (65)	48.4	No Impact	Negligible

Table A25.4.40 Substation Construction Noise – Predicted Impacts Scenario 1 Month 11 to 12 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 11 to 12	Daytime	A (65)	52.3	No Impact	Negligible
SSR2		Daytime	A (65)	55.6	No Impact	Negligible
SSR3		Daytime	A (65)	51.7	No Impact	Negligible
SSR4		Daytime	A (65)	52.6	No Impact	Negligible
SSR5		Daytime	A (65)	57.6	No Impact	Negligible
SSR6		Daytime	A (65)	54.8	No Impact	Negligible
SSR7		Daytime	A (65)	51.1	No Impact	Negligible
SSR8		Daytime	A (65)	46.8	No Impact	Negligible
SSR9		Daytime	A (65)	50.1	No Impact	Negligible
SSR10		Daytime	A (65)	43.1	No Impact	Negligible
SSR11		Daytime	A (65)	46.3	No Impact	Negligible
SSR12		Daytime	A (65)	46.0	No Impact	Negligible

Table A25.4.41 Substation Construction Noise – Predicted Impacts Scenario 1 Month 13 to 15 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 13 to 15	Daytime	A (65)	51.4	No Impact	Negligible
SSR2		Daytime	A (65)	54.1	No Impact	Negligible
SSR3		Daytime	A (65)	50.9	No Impact	Negligible
SSR4		Daytime	A (65)	51.1	No Impact	Negligible
SSR5		Daytime	A (65)	54.9	No Impact	Negligible
SSR6		Daytime	A (65)	52.4	No Impact	Negligible
SSR7		Daytime	A (65)	50.2	No Impact	Negligible
SSR8		Daytime	A (65)	45.9	No Impact	Negligible
SSR9		Daytime	A (65)	49.3	No Impact	Negligible
SSR10		Daytime	A (65)	42.2	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR11		Daytime	A (65)	45.2	No Impact	Negligible
SSR12		Daytime	A (65)	45.1	No Impact	Negligible

Table A25.4.42 Substation Construction Noise – Predicted Impacts Scenario 1 Month 16 to 17 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 16 to 17	Daytime	A (65)	51.7	No Impact	Negligible
SSR2		Daytime	A (65)	54.6	No Impact	Negligible
SSR3		Daytime	A (65)	51.3	No Impact	Negligible
SSR4		Daytime	A (65)	51.3	No Impact	Negligible
SSR5		Daytime	A (65)	55.0	No Impact	Negligible
SSR6		Daytime	A (65)	52.5	No Impact	Negligible
SSR7		Daytime	A (65)	50.4	No Impact	Negligible
SSR8		Daytime	A (65)	46.1	No Impact	Negligible
SSR9		Daytime	A (65)	49.7	No Impact	Negligible
SSR10		Daytime	A (65)	42.3	No Impact	Negligible
SSR11		Daytime	A (65)	45.4	No Impact	Negligible
SSR12		Daytime	A (65)	45.4	No Impact	Negligible

Table A25.4.43 Substation Construction Noise – Predicted Impacts Scenario 1 Month 18 to 20 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 18 to 20	Daytime	A (65)	51.8	No Impact	Negligible
SSR2		Daytime	A (65)	55.0	No Impact	Negligible
SSR3		Daytime	A (65)	51.3	No Impact	Negligible
SSR4		Daytime	A (65)	51.2	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR5		Daytime	A (65)	55.2	No Impact	Negligible
SSR6		Daytime	A (65)	51.0	No Impact	Negligible
SSR7		Daytime	A (65)	50.4	No Impact	Negligible
SSR8		Daytime	A (65)	45.9	No Impact	Negligible
SSR9		Daytime	A (65)	49.6	No Impact	Negligible
SSR10		Daytime	A (65)	41.9	No Impact	Negligible
SSR11		Daytime	A (65)	45.0	No Impact	Negligible
SSR12		Daytime	A (65)	45.3	No Impact	Negligible

Table A25.4.44 Substation Construction Noise – Predicted Impacts Scenario 1 Month 21 to 24 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise level dBA	Impact Magnitude	Impact Significance
SSR1	Month 21 to 24	Daytime	A (65)	48.0	No Impact	Negligible
SSR2		Daytime	A (65)	50.7	No Impact	Negligible
SSR3		Daytime	A (65)	47.1	No Impact	Negligible
SSR4		Daytime	A (65)	46.0	No Impact	Negligible
SSR5		Daytime	A (65)	49.1	No Impact	Negligible
SSR6		Daytime	A (65)	49.0	No Impact	Negligible
SSR7		Daytime	A (65)	46.9	No Impact	Negligible
SSR8		Daytime	A (65)	42.2	No Impact	Negligible
SSR9		Daytime	A (65)	45.5	No Impact	Negligible
SSR10		Daytime	A (65)	38.8	No Impact	Negligible
SSR11		Daytime	A (65)	41.3	No Impact	Negligible
SSR12		Daytime	A (65)	41.4	No Impact	Negligible

25.7 Construction Noise Modelling – Construction Scenario 2

25.7.1 Landfall and Onshore Cable Route Study Area

37. Scenario 2 represents the worst-case scenario in the eventuality that the proposed East Anglia ONE North project and proposed East Anglia TWO project are built sequentially. From a temporal view point this is the worst-case scenario.

38. Under scenario 2, either the proposed East Anglia ONE North project or the proposed East Anglia TWO project could be constructed first. However, there will be no difference in impact regardless of which project is constructed first. The CIA presented below uses the intended development strategy of the proposed East Anglia ONE North project being constructed first. However, in the eventuality that the proposed East Anglia TWO project is constructed first, the impacts presented would be the same. The impact significance during construction of the proposed East Anglia ONE North project alone at landfall and along the onshore cable route (assessment in ***section 25.5.1 and 25.5.2*** of this appendix) will then be the same for construction of the proposed East Anglia TWO project alone. Therefore, under scenario 2, the cumulative impact with the proposed East Anglia TWO project is as presented in ***section 25.5.1 and 25.5.2***.

25.7.2 Onshore Substation / National Grid Infrastructure Study Area

39. ***Table A25.4.45*** to ***Table A25.4.51*** presents the predicted daytime noise level at the nearest sensitive receptors at the onshore substation and National Grid infrastructure including embedded mitigation for the proposed Scenario 2 (proposed East Anglia TWO project) construction phases outlined in ***Table A25.1***. As the proposed East Anglia TWO project has a different onshore substation footprint location, the construction impacts are different to those of the proposed East Anglia ONE North project alone (***section 25.5.3***) and are therefore presented below.

40. Sensitive receptors correspond to those surveyed and detailed in ***Table A25.4.***

Table A25.4.45 Substation Construction Noise – Scenario 2 (proposed East Anglia TWO project) Month 1 to 6 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR1	Month 1 to 6	Daytime	A (65)	53.0	No Impact	Negligible
SSR2		Daytime	A (65)	54.4	No Impact	Negligible
SSR3		Daytime	A (65)	55.4	No Impact	Negligible
SSR4		Daytime	A (65)	51.8	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR5		Daytime	A (65)	54.2	No Impact	Negligible
SSR6		Daytime	A (65)	52.1	No Impact	Negligible
SSR7		Daytime	A (65)	51.6	No Impact	Negligible
SSR8		Daytime	A (65)	48.2	No Impact	Negligible
SSR9		Daytime	A (65)	54.5	No Impact	Negligible
SSR10		Daytime	A (65)	43.4	No Impact	Negligible
SSR11		Daytime	A (65)	46.2	No Impact	Negligible
SSR12		Daytime	A (65)	48.5	No Impact	Negligible

Table A25.4.46 Substation Construction Noise – Scenario 2 (proposed East Anglia TWO project) Month 7 to 10 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR1	Month 7 to 10	Daytime	A (65)	54.7	No Impact	Negligible
SSR2		Daytime	A (65)	58.0	No Impact	Negligible
SSR3		Daytime	A (65)	53.9	No Impact	Negligible
SSR4		Daytime	A (65)	50.7	No Impact	Negligible
SSR5		Daytime	A (65)	53.3	No Impact	Negligible
SSR6		Daytime	A (65)	51.6	No Impact	Negligible
SSR7		Daytime	A (65)	53.1	No Impact	Negligible
SSR8		Daytime	A (65)	46.8	No Impact	Negligible
SSR9		Daytime	A (65)	51.6	No Impact	Negligible
SSR10		Daytime	A (65)	43.0	No Impact	Negligible
SSR11		Daytime	A (65)	45.8	No Impact	Negligible
SSR12		Daytime	A (65)	46.6	No Impact	Negligible

Table A25.4.47 Substation Construction Noise – Scenario 2 (proposed East Anglia TWO project) Month 11 to 12 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR1	Month 11 to 12	Daytime	A (65)	51.5	No Impact	Negligible
SSR2		Daytime	A (65)	55.9	No Impact	Negligible
SSR3		Daytime	A (65)	49.8	No Impact	Negligible
SSR4		Daytime	A (65)	48.0	No Impact	Negligible
SSR5		Daytime	A (65)	50.6	No Impact	Negligible
SSR6		Daytime	A (65)	50.1	No Impact	Negligible
SSR7		Daytime	A (65)	50.1	No Impact	Negligible
SSR8		Daytime	A (65)	43.5	No Impact	Negligible
SSR9		Daytime	A (65)	47.8	No Impact	Negligible
SSR10		Daytime	A (65)	40.5	No Impact	Negligible
SSR11		Daytime	A (65)	43.3	No Impact	Negligible
SSR12		Daytime	A (65)	43.4	No Impact	Negligible

Table A25.4.48 Substation Construction Noise – Scenario 2 (proposed East Anglia TWO project) Month 13 to 15 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR1	Month 13 to 15	Daytime	A (65)	51.0	No Impact	Negligible
SSR2		Daytime	A (65)	54.5	No Impact	Negligible
SSR3		Daytime	A (65)	49.4	No Impact	Negligible
SSR4		Daytime	A (65)	48.2	No Impact	Negligible
SSR5		Daytime	A (65)	50.8	No Impact	Negligible
SSR6		Daytime	A (65)	52.2	No Impact	Negligible
SSR7		Daytime	A (65)	49.6	No Impact	Negligible
SSR8		Daytime	A (65)	43.8	No Impact	Negligible
SSR9		Daytime	A (65)	47.5	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR10		Daytime	A (65)	40.5	No Impact	Negligible
SSR11		Daytime	A (65)	43.3	No Impact	Negligible
SSR12		Daytime	A (65)	43.2	No Impact	Negligible

Table A25.4.49 Substation Construction Noise – Scenario 2 (proposed East Anglia TWO project) Month 16 to 17 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR1	Month 16 to 17	Daytime	A (65)	51.4	No Impact	Negligible
SSR2		Daytime	A (65)	54.5	No Impact	Negligible
SSR3		Daytime	A (65)	49.9	No Impact	Negligible
SSR4		Daytime	A (65)	48.2	No Impact	Negligible
SSR5		Daytime	A (65)	50.6	No Impact	Negligible
SSR6		Daytime	A (65)	51.3	No Impact	Negligible
SSR7		Daytime	A (65)	49.9	No Impact	Negligible
SSR8		Daytime	A (65)	44.0	No Impact	Negligible
SSR9		Daytime	A (65)	47.9	No Impact	Negligible
SSR10		Daytime	A (65)	40.6	No Impact	Negligible
SSR11		Daytime	A (65)	43.4	No Impact	Negligible
SSR12		Daytime	A (65)	43.5	No Impact	Negligible

Table A25.4.50 Substation Construction Noise – Scenario 2 (proposed East Anglia TWO project) Month 18 to 20 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR1	Month 18 to 20	Daytime	A (65)	51.7	No Impact	Negligible
SSR2		Daytime	A (65)	54.6	No Impact	Negligible
SSR3		Daytime	A (65)	50.2	No Impact	Negligible
SSR4		Daytime	A (65)	47.3	No Impact	Negligible
SSR5		Daytime	A (65)	49.5	No Impact	Negligible
SSR6		Daytime	A (65)	48.7	No Impact	Negligible
SSR7		Daytime	A (65)	50.0	No Impact	Negligible
SSR8		Daytime	A (65)	43.6	No Impact	Negligible
SSR9		Daytime	A (65)	48.1	No Impact	Negligible
SSR10		Daytime	A (65)	40.0	No Impact	Negligible
SSR11		Daytime	A (65)	42.7	No Impact	Negligible
SSR12		Daytime	A (65)	43.3	No Impact	Negligible

Table A25.4.51 Substation Construction Noise – Scenario 2 (proposed East Anglia TWO project) Month 21 to 24 Daytime

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR1	Month 21 to 24	Daytime	A (65)	46.5	No Impact	Negligible
SSR2		Daytime	A (65)	49.8	No Impact	Negligible
SSR3		Daytime	A (65)	44.8	No Impact	Negligible
SSR4		Daytime	A (65)	43.3	No Impact	Negligible
SSR5		Daytime	A (65)	45.9	No Impact	Negligible
SSR6		Daytime	A (65)	48.1	No Impact	Negligible
SSR7		Daytime	A (65)	45.6	No Impact	Negligible
SSR8		Daytime	A (65)	39.8	No Impact	Negligible
SSR9		Daytime	A (65)	42.8	No Impact	Negligible

Receptor Identifier	Construction Period	BS5228 Reference Period	BS5228 Derived Threshold Category dBA	Predicted Receptor Noise Level Range dBA	Impact Magnitude	Impact Significance
SSR10		Daytime	A (65)	37.0	No Impact	Negligible
SSR11		Daytime	A (65)	39.4	No Impact	Negligible
SSR12		Daytime	A (65)	39.1	No Impact	Negligible

25.8 Construction Phase Road Traffic Emissions Scenarios

41. Details of the road links assessed for proposed East Anglia ONE North project are provided in this section.

42. The construction phase road traffic emissions assessment was completed for a Baseline year of 2023 to 2030 versus 2023 to 2030 including the proposed East Anglia development scenarios. The screening using DMRB criteria and the calculation of a Basic Noise Level (BNL) for each link in the proposed East Anglia ONE North project study areas are detailed.

25.8.1 Increased Noise on Residential Receptors from Off-Site Construction Traffic Noise (Proposed East Anglia ONE North Project Alone and Scenario 2)

43. The assessment presented in this section (***section 25.8.1***) is applicable for the construction of the proposed East Anglia ONE North project alone and also construction of the proposed East Anglia TWO project under scenario 2.

44. Under scenario 2, each project is constructed individually. Therefore, in relation to construction traffic noise, the impact significance during construction of the proposed East Anglia ONE North project alone will then be the same for construction of the proposed East Anglia TWO project alone.

45. Assessments of construction commencing in later years (2024, 2026, 2028 and 2030) are also included.

46. ***Table A25.4.54*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2023 based on the 18hr Annual Average Weekday Traffic (AAWT) flows.

Table A25.4.52 Construction Road Traffic Flows – 2023 Baseline vs. 2023 Baseline plus Development (the proposed East Anglia ONE North project)

Link ID	Description	2023 Baseline flows AAWT		2023 Baseline + Development		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	13,740	1,275	14,089	1,485	2.5	16.5
2	A12 between the B1122 and A1094	11,677	1,146	11,962	1,356	2.4	18.3
3	A12 south of the A1094	18,612	1,114	18,968	1,324	1.9	18.9
4	B1122 from the A12 to Lover's Lane	2,980	253	3,256	368	9.3	45.4
5	B1121 from the A12 to Friston	1,310	60	1,376	60	5.1	0.0
6	A1094 from the A12 to the B1121/B1069	8,051	511	8,391	717	4.2	40.2
7	B1122 from Friston to the A1094	1,318	69	1,355	69	2.8	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	5,799	261	5,869	269	1.2	2.8
9	B1069 from the A1094 to Coldfair Green	4,292	198	4,816	411	12.2	107.2
10	B1122 from Aldeburgh to the B1353	3,586	179	3,655	186	1.9	4.0
11	Lover's Lane	2,111	168	2,382	283	12.8	68.4
12	Sizewell Gap	3,267	114	3,538	229	8.3	100.6
13	Aldringham Lane	2,667	117	2,667	117	0.0	0.0
14	B1069 from Lovers Lane to B1119	2,980	253	3,131	253	5.1	0.0
15	B1069 from Coldfair Green to B1119	4,292	198	4,425	198	3.1	0.0

47. All road links were assessed further by undertaking a basic noise level (BNL) calculations.

Table A25.4.53 Calculated BNL – 2023 Baseline vs. 2023 Baseline plus Development (the proposed East Anglia ONE North project Traffic)

Link ID	Description	Speed (mph)	2023 Baseline BNL, dBA $L_{10,18hr}$	2023 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.4	70.8	0.4	Negligible
		40.0	71.7	72.0	0.3	Negligible
2	A12 between the B1122 and A1094	30.0	69.8	70.3	0.5	Negligible
		50.0	72.4	72.8	0.4	Negligible
		60.0	73.8	74.1	0.3	Negligible
3	A12 south of the A1094	30.0	70.9	71.2	0.3	Negligible
		50.0	73.8	74.0	0.2	Negligible
4	B1122 from the A12 to Lover's Lane	30.0	63.6	64.6	1.0	Minor
		40.0	64.9	65.8	0.9	Negligible
		60.0	67.6	68.4	0.8	Negligible
5	B1121 from the A12 to Friston	30.0	59.0	59.1	0.1	Negligible
		40.0	60.4	60.6	0.2	Negligible
		60.0	63.4	63.6	0.2	Negligible
6	A1094 from the A12 to the B1121/B1069	30.0	67.4	68.1	0.7	Negligible
		40.0	68.7	69.4	0.7	Negligible
7	B1122 from Friston to the A1094	30.0	59.2	59.3	0.1	Negligible
		60.0	63.5	63.6	0.1	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.4	65.5	0.1	Negligible
		60.0	69.8	69.9	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.1	65.7	1.6	Minor
		40.0	65.6	67.0	1.4	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.5	63.6	0.1	Negligible
		40.0	64.9	65.0	0.1	Negligible
		60.0	67.8	67.9	0.1	Negligible
11	Lover's Lane	60.0	66.0	67.2	1.2	Minor
12	Sizewell Gap	60.0	67.2	68.0	0.8	Negligible
13	Aldringham Lane	30.0	62.0	62.0	0.0	No change

Link ID	Description	Speed (mph)	2023 Baseline BNL, dBA $L_{10,18hr}$	2023 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
		40.0	63.5	63.5	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.6	63.7	0.1	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.1	64.2	0.1	Negligible
		40.0	65.6	65.7	0.1	Negligible

48. ***Table A25.4.55*** shows that predicted impacts are at worst of a minor adverse impact magnitude at a medium sensitivity receptor resulting in a **minor adverse** significance.

49. ***Table A25.4.54*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2024 based on the 18hr Annual Average Weekday Traffic (AAWT) flows.

Table A25.4.54 Construction Road Traffic Flows – 2024 Baseline vs. 2024 Baseline plus Development (the proposed East Anglia ONE North project)

Link ID	Description	2024 Baseline flows AAWT		2024 Baseline + Development		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	13,976	1,290	14,325	1,500	2.5	16.3
2	A12 between the B1122 and A1094	11,876	1,159	12,162	1,369	2.4	18.1
3	A12 south of the A1094	18,934	1,126	19,291	1,336	1.9	18.6
4	B1122 from the A12 to Lover's Lane	3,029	256	3,305	371	9.1	44.9
5	B1121 from the A12 to Friston	1,332	61	1,398	61	5.0	0.0
6	A1094 from the A12 to the B1121/B1069	8,191	517	8,530	722	4.1	39.8
7	B1122 from Friston to the A1094	1,340	70	1,378	70	2.8	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	5,900	264	5,970	272	1.2	2.7
9	B1069 from the A1094 to Coldfair Green	4,364	201	4,888	413	12.0	106.0

Link ID	Description	2024 Baseline flows AAWT		2024 Baseline + Development		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
10	B1122 from Aldeburgh to the B1353	3,646	181	3,715	188	1.9	4.0
11	Lover's Lane	2,150	170	2,421	285	12.6	67.6
12	Sizewell Gap	3,322	116	3,593	231	8.2	99.5
13	Aldringham Lane	2,712	118	2,712	118	0.0	0.0
14	B1069 from Lovers Lane to B1119	3,029	256	3,180	256	5.0	0.0
15	B1069 from Coldfair Green to B1119	4,364	201	4,497	201	3.0	0.0

50. All road links were assessed further by undertaking a basic noise level (BNL) calculations.

Table A25.4.55 Calculated BNL – 2024 Baseline vs. 2024 Baseline plus Development (the proposed East Anglia ONE North project Traffic)

Link ID	Description	Speed (mph)	2024 Baseline BNL, dBA $L_{10,18hr}$	2024 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.5	70.9	0.4	Negligible
		40.0	71.7	72.1	0.4	Negligible
2	A12 between the B1122 and A1094	30.0	69.9	70.3	0.4	Negligible
		50.0	72.5	72.8	0.3	Negligible
		60.0	73.8	74.1	0.3	Negligible
3	A12 south of the A1094	30.0	71.0	71.3	0.3	Negligible
		50.0	73.8	74.1	0.3	Negligible
4	B1122 from the A12 to Lover's Lane	30.0	63.6	64.6	1.0	Minor
		40.0	64.9	65.9	1.0	Minor
		60.0	67.7	68.5	0.8	Negligible
5	B1121 from the A12 to Friston	30.0	59.0	59.2	0.2	Negligible
		40.0	60.5	60.7	0.2	Negligible
		60.0	63.5	63.6	0.1	Negligible
6		30.0	67.4	68.1	0.7	Negligible

Link ID	Description	Speed (mph)	2024 Baseline BNL, dBA $L_{10,18hr}$	2024 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
	A1094 from the A12 to the B1121/B1069	40.0	68.8	69.4	0.6	Negligible
7	B1122 from Friston to the A1094	30.0	59.2	59.3	0.1	Negligible
		60.0	63.6	63.7	0.1	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.5	65.5	0.0	No change
		60.0	69.9	70.0	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.2	65.7	1.5	Minor
		40.0	65.7	67.0	1.3	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.5	63.6	0.1	Negligible
		40.0	65.0	65.1	0.1	Negligible
		60.0	67.9	68.0	0.1	Negligible
11	Lover's Lane	60.0	66.1	67.2	1.1	Minor
12	Sizewell Gap	60.0	67.2	68.1	0.9	Negligible
13	Aldringham Lane	30.0	62.1	62.1	0.0	No change
		40.0	63.5	63.5	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.6	63.8	0.2	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.2	64.3	0.1	Negligible
		40.0	65.7	65.8	0.1	Negligible

51. ***Table A25.4.55*** shows that predicted impacts are at worst of a minor adverse impact magnitude at a medium sensitivity receptor resulting in a **minor adverse** significance.

52. ***Table A25.4.56*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2026. This is based on the 18hr-AAWT and is the latest proposed start date for the proposed East Anglia TWO project.

Table A25.4.56 Construction Road Traffic Flows – 2026 Baseline vs. 2026 Baseline plus Development (the proposed East Anglia ONE North project)

Link ID	Description	2026 Baseline flows AAWT		2026 Baseline plus development flows AAWT		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	14,326	1,320	14,675	1,530	2.4	15.9
2	A12 between the B1122 and A1094	12,174	1,187	12,459	1,397	2.3	17.7
3	A12 south of the A1094	19,195	1,153	19,551	1,363	1.9	18.2
4	B1122 from the A12 to Lover's Lane	3,103	262	3,379	377	8.9	43.9
5	B1121 from the A12 to Friston	1,364	62	1,431	62	4.9	0.0
6	A1094 from the A12 to the B1121/B1069	8,396	529	8,735	735	4.0	38.8
7	B1122 from Friston to the A1094	1,373	71	1,410	71	2.7	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	6,048	271	6,118	278	1.1	2.7
9	B1069 from the A1094 to Coldfair Green	4,433	205	4,957	418	11.8	103.6
10	B1122 from Aldeburgh to the B1353	3,734	185	3,804	192	1.9	3.9
11	Lover’s Lane	2,202	174	2,473	289	12.3	66.1
12	Sizewell Gap	3,403	118	3,674	233	8.0	97.1
13	Aldringham Lane	2,778	121	2,778	121	0.0	0.0
14	B1069 from Lovers Lane to B1119	3,103	262	3,254	262	4.9	0.0
15	B1069 from Coldfair Green to B1119	4,433	205	4,565	205	3.0	0.0

53. All road links were assessed further by undertaking a basic noise level (BNL) calculation.

Table A25.4.57 Calculated BNL – 2026 Baseline vs. 2026 Baseline plus Development (the proposed East Anglia ONE North project Traffic)

Link ID	Description	Speed (mph)	2026 Baseline BNL, dBA $L_{10,18hr}$	2026 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.6	70.9	0.3	Negligible
		40.0	71.8	72.2	0.4	Negligible
2	A12 between the B1122 and A1094	30.0	70.0	70.4	0.4	Negligible
		50.0	72.6	72.9	0.3	Negligible
		60.0	73.9	74.2	0.3	Negligible
3	A12 south of the A1094	30.0	71.0	71.4	0.4	Negligible
		50.0	73.9	74.2	0.3	Negligible
4	B1122 from the A12 to Lover's Lane	30.0	63.8	64.7	0.9	Negligible
		40.0	65.1	65.9	0.8	Negligible
		60.0	67.8	68.6	0.8	Negligible
5	B1121 from the A12 to Friston	30.0	59.1	59.3	0.2	Negligible
		40.0	60.6	60.8	0.2	Negligible
		60.0	63.6	63.7	0.1	Negligible
6	A1094 from the A12 to the B1121/B1069	30.0	67.5	68.2	0.7	Negligible
		40.0	68.9	69.5	0.6	Negligible
7	B1122 from Friston to the A1094	30.0	59.4	59.4	0.0	No change
		60.0	63.7	63.8	0.1	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.6	65.6	0.0	No change
		60.0	70.0	70.1	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.3	65.8	1.5	Minor
		40.0	65.7	67.1	1.4	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.6	63.7	0.1	Negligible
		40.0	65.1	65.2	0.1	Negligible
		60.0	68.0	68.1	0.1	Negligible
11	Lover's Lane	60.0	66.2	67.3	1.1	Minor

Link ID	Description	Speed (mph)	2026 Baseline BNL, dBA $L_{10,18hr}$	2026 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
12	Sizewell Gap	60.0	67.3	68.2	0.9	Negligible
13	Aldringham Lane	30.0	62.2	62.2	0.0	No change
		40.0	63.6	63.6	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.8	63.9	0.1	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.3	64.4	0.1	Negligible
		40.0	65.7	65.8	0.1	Negligible

54. ***Table A25.4.57*** shows that predicted impacts are at worst of a minor adverse impact magnitude at a medium sensitivity receptor resulting in a **minor adverse** significance.

55. ***Table A25.4.58*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic *(see **Chapter 26 Traffic and Transport**)* for the year 2028.

Table A25.4.58 Construction Road Traffic Flows – 2028 Baseline vs. 2028 Baseline plus Development (the proposed East Anglia ONE North project)

Link ID	Description	2028 Baseline flows AAWT		2028 Baseline plus development flows AAWT		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	14,542	1,354	14,891	1,564	2.4	15.5
2	A12 between the B1122 and A1094	12,359	1,217	12,644	1,427	2.3	17.3
3	A12 south of the A1094	19,696	1,182	20,052	1,392	1.8	17.8
4	B1122 from the A12 to Lover's Lane	3,149	269	3,425	384	8.8	42.8
5	B1121 from the A12 to Friston	1,384	64	1,450	64	4.8	0.0
6	A1094 from the A12 to the B1121/B1069	8,520	543	8,860	748	4.0	37.9
7	B1122 from Friston to the A1094	1,393	73	1,430	73	2.7	0.0

Link ID	Description	2028 Baseline flows AAWT		2028 Baseline plus development flows AAWT		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
8	A1094 from the B1121/B1069 to Aldeburgh	6,137	278	6,206	285	1.1	2.6
9	B1069 from the A1094 to Coldfair Green	4,535	211	5,059	423	11.6	101.0
10	B1122 from Aldeburgh to the B1353	3,788	190	3,858	197	1.8	3.8
11	Lover's Lane	2,232	178	2,503	293	12.1	64.4
12	Sizewell Gap	3,451	121	3,722	236	7.9	94.8
13	Aldringham Lane	2,818	124	2,818	124	0.0	0.0
14	B1069 from Lovers Lane to B1119	3,149	269	3,300	269	4.8	0.0
15	B1069 from Coldfair Green to B1119	4,535	211	4,667	211	2.9	0.0

56. All road links were assessed further by undertaking calculations of BNL (***Table A25.4.59***, 2028 Baseline versus a 2028 Baseline plus scenario 2 Development Traffic).

Table A25.4.59 Calculated BNL – 2028 Baseline vs. 2028 Baseline plus Development (the proposed East Anglia ONE North project Traffic)

Link ID	Description	Speed (mph)	2028 Baseline BNL, dBA $L_{10,18hr}$	2028 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.7	71.0	0.3	Negligible
		40.0	71.9	72.3	0.4	Negligible
2	A12 between the B1122 and A1094	30.0	70.1	70.5	0.4	Negligible
		50.0	72.7	73.0	0.3	Negligible
		60.0	74.0	74.3	0.3	Negligible
3	A12 south of the A1094	30.0	71.1	71.5	0.4	Negligible
		50.0	74.0	74.3	0.3	Negligible
4		30.0	63.8	64.8	1.0	Minor

Link ID	Description	Speed (mph)	2028 Baseline BNL, dBA $L_{10,18hr}$	2028 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
	B1122 from the A12 to Lover's Lane	40.0	65.1	66.0	0.9	Negligible
		60.0	67.9	68.6	0.7	Negligible
5	B1121 from the A12 to Friston	30.0	59.2	59.3	0.1	Negligible
		40.0	60.7	60.8	0.1	Negligible
		60.0	63.6	63.8	0.2	Negligible
6	A1094 from the A12 to the B1121/B1069	30.0	67.6	68.3	0.7	Negligible
		40.0	69.0	69.6	0.6	Negligible
7	B1122 from Friston to the A1094	30.0	59.4	59.5	0.1	Negligible
		60.0	63.8	63.9	0.1	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.7	65.7	0.0	No change
		60.0	70.1	70.2	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.4	65.9	1.5	Minor
		40.0	65.8	67.2	1.4	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.7	63.8	0.1	Negligible
		40.0	65.2	65.3	0.1	Negligible
		60.0	68.1	68.2	0.1	Negligible
11	Lover's Lane	60.0	66.3	67.3	1.0	Minor
12	Sizewell Gap	60.0	67.4	68.2	0.8	Negligible
13	Aldringham Lane	30.0	62.2	62.2	0.0	No change
		40.0	63.7	63.7	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.8	63.9	0.1	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.4	64.5	0.1	Negligible
		40.0	65.8	65.9	0.1	Negligible

57. ***Table A25.4.59*** shows that predicted impacts are at worst of a minor adverse magnitude at a medium sensitivity receptor and therefore of **minor adverse** significance.

58. ***Table A25.4.60*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2030 under scenario 2.

Table A25.4.60 Construction Road Traffic Flows – 2030 Baseline vs. 2030 Baseline plus Development (the proposed East Anglia ONE North project)

Link ID	Description	2030 Baseline flows AAWT		2030 Baseline plus development flows AAWT		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	14,761	1,389	15,110	1,599	2.4	15.1
2	A12 between the B1122 and A1094	12,545	1,248	12,830	1,458	2.3	16.8
3	A12 south of the A1094	19,983	1,213	20,340	1,423	1.8	17.3
4	B1122 from the A12 to Lover's Lane	3,195	276	3,472	391	8.6	41.7
5	B1121 from the A12 to Friston	1,404	65	1,470	65	4.7	0.0
6	A1094 from the A12 to the B1121/B1069	8,645	557	8,985	762	3.9	36.9
7	B1122 from Friston to the A1094	1,413	75	1,450	75	2.6	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	6,225	285	6,295	292	1.1	2.5
9	B1069 from the A1094 to Coldfair Green	4,600	216	5,124	429	11.4	98.5
10	B1122 from Aldeburgh to the B1353	3,843	195	3,912	202	1.8	3.7
11	Lover's Lane	2,263	183	2,534	298	12.0	62.8
12	Sizewell Gap	3,500	124	3,771	239	7.7	92.4
13	Aldringham Lane	2,858	127	2,858	127	0.0	0.0
14	B1069 from Lovers Lane to B1119	3,195	276	3,346	276	4.7	0.0
15	B1069 from Coldfair Green to B1119	4,600	216	4,732	216	2.9	0.0

59. All road links were assessed further by undertaking calculations of BNL (***Table A25.4.61***, the 2030 Baseline versus a 2030 Baseline plus scenario 2).

Table A25.4.61 Calculated BNL – 2030 Baseline vs. 2030 Baseline plus Development (the proposed East Anglia ONE North project Traffic)

Link ID	Description	Speed (mph)	2030 Baseline BNL, dBA $L_{10,18hr}$	2030 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.7	71.1	0.4	Negligible
		40.0	72.0	72.3	0.3	Negligible
2	A12 between the B1122 and A1094	30.0	70.2	70.6	0.4	Negligible
		50.0	72.8	73.1	0.3	Negligible
		60.0	74.1	74.4	0.3	Negligible
3	A12 south of the A1094	30.0	71.2	71.6	0.4	Negligible
		50.0	74.1	74.3	0.2	Negligible
4	B1122 from the A12 to Lover's Lane	30.0	63.9	64.9	1.0	Minor
		40.0	65.2	66.1	0.9	Negligible
		60.0	67.9	68.7	0.8	Negligible
5	B1121 from the A12 to Friston	30.0	59.3	59.4	0.1	Negligible
		40.0	60.8	60.9	0.1	Negligible
		60.0	63.7	63.9	0.2	Negligible
6	A1094 from the A12 to the B1121/B1069	30.0	67.7	68.4	0.7	Negligible
		40.0	69.1	69.7	0.6	Negligible
7	B1122 from Friston to the A1094	30.0	59.5	59.6	0.1	Negligible
		60.0	63.9	63.9	0.0	No change
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.7	65.8	0.1	Negligible
		60.0	70.2	70.2	0.0	No change
9	B1069 from the A1094 to Coldfair Green	30.0	64.5	65.9	1.4	Minor
		40.0	65.9	67.2	1.3	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.8	63.9	0.1	Negligible
		40.0	65.2	65.3	0.1	Negligible
		60.0	68.2	68.3	0.1	Negligible
11	Lover's Lane	60.0	66.4	67.4	1.0	Minor
12	Sizewell Gap	60.0	67.5	68.3	0.8	Negligible

Link ID	Description	Speed (mph)	2030 Baseline BNL, dBA $L_{10,18hr}$	2030 Baseline plus development BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
13	Aldringham Lane	30.0	62.3	62.3	0.0	No change
		40.0	63.8	63.8	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.9	64.0	0.1	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.5	64.5	0.0	No change
		40.0	65.9	66.0	0.1	Negligible

60. ***Table A25.4.61*** shows that predicted impacts are at worst of a minor adverse magnitude at a medium sensitivity receptor and therefore of **minor adverse** significance.

25.8.2 Increased Noise on Residential Receptors from Off-Site Construction Traffic Noise Scenario 1

61. Details of the road links assessed for proposed East Anglia ONE North and proposed East Anglia TWO projects under scenario 1 are provided in this section.

62. ***Table A25.4.62*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2023 under scenario 1.

Table A25.4.62 Construction Road Traffic Flows – 2023 Scenario 1

Link ID	Description	2023 Baseline flows AAWT		2023 Baseline + Scenario 1		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	13,740	1,275	14,183	1,545	3.2	21.2
2	A12 between the B1122 and A1094	11,677	1,146	12,034	1,416	3.1	23.6
3	A12 south of the A1094	18,612	1,114	19,063	1,384	2.4	24.2
4	B1122 from the A12 to Lover's Lane	2,980	253	3,335	406	11.9	60.4
5	B1121 from the A12 to Friston	1,310	60	1,385	60	5.7	0.0

Link ID	Description	2023 Baseline flows AAWT		2023 Baseline + Scenario 1		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
6	A1094 from the A12 to the B1121/B1069	8,051	511	8,477	768	5.3	50.2
7	B1122 from Friston to the A1094	1,318	69	1,364	69	3.5	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	5,799	261	5,885	270	1.5	3.4
9	B1069 from the A1094 to Coldfair Green	4,292	198	4,955	464	15.4	133.8
10	B1122 from Aldeburgh to the B1353	3,586	179	3,671	187	2.4	4.9
11	Lover's Lane	2,111	168	2,452	321	16.2	91.0
12	Sizewell Gap	3,267	114	3,608	267	10.4	133.8
13	Aldringham Lane	2,667	117	2,667	117	0.0	0.0
14	B1069 from Lovers Lane to B1119	2,980	253	3,177	253	6.6	0.0
15	B1069 from Coldfair Green to B1119	4,292	198	4,467	198	4.1	0.0

63. All road links were assessed further by undertaking a BNL calculation (***Table A25.4.63***, under the 2023 Baseline versus a 2023 Baseline plus scenario 1).

Table A25.4.63 Calculated BNL – 2023 Baseline vs. 2023 Baseline + Scenario 1 Traffic

Link ID	Description	Speed (mph)	2023 Baseline BNL, dBA $L_{10,18hr}$	2023 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.4	70.9	0.5	Negligible
		40.0	71.7	72.1	0.4	Negligible
2	A12 between the B1122 and A1094	30.0	69.8	70.4	0.6	Negligible
		50.0	72.4	72.9	0.5	Negligible
		60.0	73.8	74.2	0.4	Negligible
3	A12 south of the A1094	30.0	70.9	71.3	0.4	Negligible
		50.0	73.8	74.1	0.3	Negligible

Link ID	Description	Speed (mph)	2023 Baseline BNL, dBA $L_{10,18hr}$	2023 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
4	B1122 from the A12 to Lover's Lane	30.0	63.6	64.9	1.3	Minor
		40.0	64.9	66.1	1.2	Minor
		60.0	67.6	68.7	1.1	Minor
5	B1121 from the A12 to Friston	30.0	59.0	59.1	0.1	Negligible
		40.0	60.4	60.6	0.2	Negligible
		60.0	63.4	63.6	0.2	Negligible
6	A1094 from the A12 to the B1121/B1069	30.0	67.4	68.3	0.9	Negligible
		40.0	68.7	69.5	0.8	Negligible
7	B1122 from Friston to the A1094	30.0	59.2	59.3	0.1	Negligible
		60.0	63.5	63.7	0.2	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.4	65.5	0.1	Negligible
		60.0	69.8	69.9	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.1	66.0	1.9	Minor
		40.0	65.6	67.3	1.7	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.5	63.6	0.1	Negligible
		40.0	64.9	65.0	0.1	Negligible
		60.0	67.8	68.0	0.2	Negligible
11	Lover's Lane	60.0	66.0	67.4	1.4	Minor
12	Sizewell Gap	60.0	67.2	68.3	1.1	Minor
13	Aldringham Lane	30.0	62.0	62.0	0.0	No change
		40.0	63.5	63.5	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.6	63.7	0.1	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.1	64.2	0.1	Negligible
		40.0	65.6	65.7	0.1	Negligible

64. ***Table A25.4.63*** shows that predicted impacts are at worst a minor adverse magnitude and therefore at all medium sensitivity receptors of **minor adverse** significance.

65. ***Table A25.4.64*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2024 under scenario 1.

Table A25.4.64 Construction Road Traffic Flows – 2024 Scenario 1

Link ID	Description	2024 Baseline flows AAWT		2024 Baseline + Scenario 1		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	13,976	1,290	14,418	1,560	3.2	20.9
2	A12 between the B1122 and A1094	11,876	1,159	12,234	1,429	3.0	23.3
3	A12 south of the A1094	18,934	1,126	19,386	1,396	2.4	24.0
4	B1122 from the A12 to Lover's Lane	3,029	256	3,384	409	11.7	59.7
5	B1121 from the A12 to Friston	1,332	61	1,406	61	5.6	0.0
6	A1094 from the A12 to the B1121/B1069	8,191	517	8,616	773	5.2	49.6
7	B1122 from Friston to the A1094	1,340	70	1,386	70	3.4	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	5,900	264	5,986	273	1.5	3.3
9	B1069 from the A1094 to Coldfair Green	4,364	201	5,027	466	15.2	132.3
10	B1122 from Aldeburgh to the B1353	3,646	181	3,731	190	2.3	4.9
11	Lover's Lane	2,150	170	2,491	323	15.9	90.0
12	Sizewell Gap	3,322	116	3,663	269	10.3	132.3
13	Aldringham Lane	2,712	118	2,712	118	0.0	0.0
14	B1069 from Lovers Lane to B1119	3,029	256	3,226	256	6.5	0.0
15	B1069 from Coldfair Green to B1119	4,364	201	4,539	201	4.0	0.0

66. All road links were assessed further by undertaking a BNL calculation (***Table A25.4.65***, under the 2024 Baseline versus a 2024 Baseline plus scenario 1).

Table A25.4.65 Calculated BNL – 2024 Baseline vs. 2024 Baseline + Scenario 1 Traffic

Link ID	Description	Speed (mph)	2024 Baseline BNL, dBA $L_{10,18hr}$	2024 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.5	71.0	0.5	Negligible
		40.0	71.7	72.2	0.5	Negligible
2	A12 between the B1122 and A1094	30.0	69.9	70.4	0.5	Negligible
		50.0	72.5	72.9	0.4	Negligible
		60.0	73.8	74.2	0.4	Negligible
3	A12 south of the A1094	30.0	71.0	71.4	0.4	Negligible
		50.0	73.8	74.2	0.4	Negligible
4	B1122 from the A12 to Lover's Lane	30.0	63.6	64.9	1.3	Minor
		40.0	64.9	66.1	1.2	Minor
		60.0	67.7	68.7	1.0	Minor
5	B1121 from the A12 to Friston	30.0	59.0	59.2	0.2	Negligible
		40.0	60.5	60.7	0.2	Negligible
		60.0	63.5	63.7	0.2	Negligible
6	A1094 from the A12 to the B1121/B1069	30.0	67.4	68.3	0.9	Negligible
		40.0	68.8	69.6	0.8	Negligible
7	B1122 from Friston to the A1094	30.0	59.2	59.3	0.1	Negligible
		60.0	63.6	63.7	0.1	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.5	65.6	0.1	Negligible
		60.0	69.9	70.0	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.2	66.0	1.8	Minor
		40.0	65.7	67.3	1.6	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.5	63.7	0.2	Negligible
		40.0	65.0	65.1	0.1	Negligible
		60.0	67.9	68.0	0.1	Negligible
11	Lover's Lane	60.0	66.1	67.5	1.4	Minor
12	Sizewell Gap	60.0	67.2	68.3	1.1	Minor
13	Aldringham Lane	30.0	62.1	62.1	0.0	No change

Link ID	Description	Speed (mph)	2024 Baseline BNL, dBA $L_{10,18hr}$	2024 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
		40.0	63.5	63.5	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.6	63.8	0.2	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.2	64.3	0.1	Negligible
		40.0	65.7	65.8	0.1	Negligible

67. ***Table A25.4.65*** shows that predicted impacts are at worst a minor adverse magnitude and therefore at all medium sensitivity receptors of **minor adverse** significance.

68. ***Table A25.4.66*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2026 under scenario 1.

Table A25.4.66 Construction Road Traffic Flows – 2026 Scenario 1

Link ID	Description	2026 Baseline flows AAWT		2026 Baseline + Scenario 1		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	14,326	1,320	14,768	1,590	3.1	20.4
2	A12 between the B1122 and A1094	12,174	1,187	12,531	1,457	2.9	22.8
3	A12 south of the A1094	19,195	1,153	19,646	1,423	2.4	23.4
4	B1122 from the A12 to Lover's Lane	3,103	262	3,458	415	11.4	58.4
5	B1121 from the A12 to Friston	1,364	62	1,439	62	5.5	0.0
6	A1094 from the A12 to the B1121/B1069	8,396	529	8,821	786	5.1	48.5
7	B1122 from Friston to the A1094	1,373	71	1,419	71	3.3	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	6,048	271	6,134	280	1.4	3.3
9	B1069 from the A1094 to Coldfair Green	4,433	205	5,095	471	15.0	129.2

Link ID	Description	2026 Baseline flows AAWT		2026 Baseline + Scenario 1		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
10	B1122 from Aldeburgh to the B1353	3,734	185	3,820	194	2.3	4.8
11	Lover's Lane	2,202	174	2,543	327	15.5	87.9
12	Sizewell Gap	3,403	118	3,744	271	10.0	129.3
13	Aldringham Lane	2,778	121	2,778	121	0.0	0.0
14	B1069 from Lovers Lane to B1119	3,103	262	3,300	262	6.4	0.0
15	B1069 from Coldfair Green to B1119	4,433	205	4,607	205	3.9	0.0

69. All road links were assessed further by undertaking calculations of BNL (***Table A25.4.67*** 2026 Baseline versus a 2026 Baseline plus scenario 1).

Table A25.4.67 Calculated BNL – 2026 Baseline vs. 2026 Baseline + Scenario 1 Traffic

Link ID	Description	Speed (mph)	2026 Baseline BNL, dBA $L_{10,18hr}$	2026 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.6	71.0	0.4	Negligible
		40.0	71.8	72.3	0.5	Negligible
2	A12 between the B1122 and A1094	30.0	70.0	70.5	0.5	Negligible
		50.0	72.6	73.0	0.4	Negligible
		60.0	73.9	74.3	0.4	Negligible
3	A12 south of the A1094	30.0	71.0	71.5	0.5	Negligible
		50.0	73.9	74.2	0.3	Negligible
4	B1122 from the A12 to Lover's Lane	30.0	63.8	65.0	1.2	Minor
		40.0	65.1	66.2	1.1	Minor
		60.0	67.8	68.8	1.0	Minor
5	B1121 from the A12 to Friston	30.0	59.1	59.3	0.2	Negligible
		40.0	60.6	60.8	0.2	Negligible
		60.0	63.6	63.8	0.2	Negligible

Link ID	Description	Speed (mph)	2026 Baseline BNL, dBA $L_{10,18hr}$	2026 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
6	A1094 from the A12 to the B1121/B1069	30.0	67.5	68.4	0.9	Negligible
		40.0	68.9	69.7	0.8	Negligible
7	B1122 from Friston to the A1094	30.0	59.4	59.4	0.0	No change
		60.0	63.7	63.8	0.1	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.6	65.7	0.1	Negligible
		60.0	70.0	70.1	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.3	66.1	1.8	Minor
		40.0	65.7	67.4	1.7	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.6	63.8	0.2	Negligible
		40.0	65.1	65.2	0.1	Negligible
		60.0	68.0	68.1	0.1	Negligible
11	Lover's Lane	60.0	66.2	67.6	1.4	Minor
12	Sizewell Gap	60.0	67.3	68.4	1.1	Minor
13	Aldringham Lane	30.0	62.2	62.2	0.0	No change
		40.0	63.6	63.6	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.8	63.9	0.1	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.3	64.4	0.1	Negligible
		40.0	65.7	65.9	0.2	Negligible

70. ***Table A25.4.67*** shows that predicted impacts are at worst of a minor adverse magnitude at a medium sensitivity receptor and therefore of **minor adverse** significance.

71. ***Table A25.4.68*** shows the calculated change in traffic flow on the road links identified by the transport assessment as carrying construction traffic (see ***Chapter 26 Traffic and Transport***) for the year 2028 under scenario 1.

Table A25.4.68 Construction Road Traffic Flows – 2028 Scenario 1

Link ID	Description	2028 Baseline flows AAWT		2028 Baseline + Scenario 1		Overall Change (%)	
		Total Vehicles	Total HGVs	Total Vehicles	Total HGVs	Total Vehicles	Total HGVs
1	A12 north of the B1122	14,542	1,354	14,985	1,624	3.0	19.9
2	A12 between the B1122 and A1094	12,359	1,217	12,716	1,487	2.9	22.2
3	A12 south of the A1094	19,696	1,182	20,147	1,452	2.3	22.8
4	B1122 from the A12 to Lover's Lane	3,149	269	3,504	422	11.3	56.9
5	B1121 from the A12 to Friston	1,384	64	1,459	64	5.4	0.0
6	A1094 from the A12 to the B1121/B1069	8,520	543	8,946	799	5.0	47.3
7	B1122 from Friston to the A1094	1,393	73	1,438	73	3.3	0.0
8	A1094 from the B1121/B1069 to Aldeburgh	6,137	278	6,222	286	1.4	3.2
9	B1069 from the A1094 to Coldfair Green	4,535	211	5,198	476	14.6	126.0
10	B1122 from Aldeburgh to the B1353	3,788	190	3,874	198	2.3	4.6
11	Lover's Lane	2,232	178	2,573	331	15.3	85.7
12	Sizewell Gap	3,451	121	3,792	274	9.9	126.1
13	Aldringham Lane	2,818	124	2,818	124	0.0	0.0
14	B1069 from Lovers Lane to B1119	3,149	269	3,346	269	6.3	0.0
15	B1069 from Coldfair Green to B1119	4,535	211	4,710	211	3.9	0.0

72. All road links were assessed further by undertaking calculations of BNL (***Table A25.4.69***, 2028 Baseline versus a 2028 Baseline plus scenario 1).

Table A25.4.69 Calculated BNL – 2028 Baseline vs. 2028 Baseline + Scenario 1 Traffic

Link ID	Description	Speed (mph)	2028 Baseline BNL, dBA $L_{10,18hr}$	2028 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
1	A12 north of the B1122	30.0	70.7	71.1	0.4	Negligible
		40.0	71.9	72.4	0.5	Negligible
2	A12 between the B1122 and A1094	30.0	70.1	70.6	0.5	Negligible
		50.0	72.7	73.1	0.4	Negligible
		60.0	74.0	74.4	0.4	Negligible
3	A12 south of the A1094	30.0	71.1	71.6	0.5	Negligible
		50.0	74.0	74.3	0.3	Negligible
4	B1122 from the A12 to Lover's Lane	30.0	63.8	65.1	1.3	Minor
		40.0	65.1	66.3	1.2	Minor
		60.0	67.9	68.8	0.9	Negligible
5	B1121 from the A12 to Friston	30.0	59.2	59.4	0.2	Negligible
		40.0	60.7	60.8	0.1	Negligible
		60.0	63.6	63.8	0.2	Negligible
6	A1094 from the A12 to the B1121/B1069	30.0	67.6	68.5	0.9	Negligible
		40.0	69.0	69.7	0.7	Negligible
7	B1122 from Friston to the A1094	30.0	59.4	59.5	0.1	Negligible
		60.0	63.8	63.9	0.1	Negligible
8	A1094 from the B1121/B1069 to Aldeburgh	30.0	65.7	65.7	0.0	No change
		60.0	70.1	70.2	0.1	Negligible
9	B1069 from the A1094 to Coldfair Green	30.0	64.4	66.2	1.8	Minor
		40.0	65.8	67.4	1.6	Minor
10	B1122 from Aldeburgh to the B1353	30.0	63.7	63.8	0.1	Negligible
		40.0	65.2	65.3	0.1	Negligible
		60.0	68.1	68.2	0.1	Negligible
11	Lover's Lane	60.0	66.3	67.6	1.3	Minor
12	Sizewell Gap	60.0	67.4	68.5	1.1	Minor

Link ID	Description	Speed (mph)	2028 Baseline BNL, dBA $L_{10,18hr}$	2028 Baseline + Development Scenario 1 BNL, dBA, $L_{10,18hr}$	Overall Change dBA	Impact Magnitude
13	Aldringham Lane	30.0	62.2	62.2	0.0	No change
		40.0	63.7	63.7	0.0	No change
14	B1069 from Lovers Lane to B1119	30.0	63.8	64.0	0.2	Negligible
15	B1069 from Coldfair Green to B1119	30.0	64.4	64.5	0.1	Negligible
		40.0	65.8	66.0	0.2	Negligible

73. ***Table A25.4.69*** shows that predicted impacts are at worst of a minor adverse magnitude at a medium sensitivity receptor and therefore of **minor adverse** significance.

25.9 Cumulative Construction Phase Road Traffic Emissions with Scenario 1 and Sizewell C New Nuclear Power Station

74. EDF Energy is proposing to build and operate a new nuclear power station, Sizewell C New Nuclear Power Station, on the Suffolk coast, on land immediately to the north of the existing station, Sizewell B.

75. EDF Energy have embarked upon a Stage 4 consultation exercise scheduled to run from 18 July to 27 September 2019. This Stage 4 consultation document does not contain sufficient information in terms of a freight management strategy to facilitate a quantitative assessment, therefore it is unable to be incorporated into the proposed East Anglia ONE North project cumulative assessment.

76. Recognising that Stage 3 information released by EDF Energy is out of date, a detailed quantitative CIA cannot be provided at this stage because a detailed CIA alone would potentially be based upon out of date and incorrect information.

77. Therefore, it has not been possible to undertake a quantitative assessment of the cumulative construction phase road traffic emissions with Sizewell C New Nuclear Power Station. This CIA presented recognises the potential for cumulative impacts but recognising the low magnitude of effects from the proposed East Anglia TWO and East Anglia ONE North projects relative to the Sizewell C New Nuclear Power Station.

25.9.1 Mitigation

78. Prior to construction, the proposed East Anglia ONE North project will produce a CoCP, including a Construction Phase Noise and Vibration Management Plan, and CTMP that will be submitted to the Local Planning Authority for approval to discharge requirements of the draft DCO. It is anticipated the Sizewell C New Nuclear Power Station will also produce a CTMP prior to construction.

25.9.2 Residual Impact

79. It is anticipated that any cumulative impacts from construction activities (plant) with Sizewell C New Nuclear Power Station will be **not significant** due to distance between the onshore development area and the Sizewell C New Nuclear Power Station development area and mitigation included within the CoCP.

80. When considering the mitigation that will form part of the CoCP and CTMP**,** residual impacts of increased noise on from off-site construction traffic are predicted to be **minor adverse.**

25.10 Conclusion

81. For the assessed proposed East Anglia ONE North project (and proposed East Anglia TWO under scenario 2) construction phases, daytime impacts are predicted to be of **negligible** significance at all sensitive receptors.

82. Under the proposed East Anglia ONE North project (and proposed East Anglia TWO under scenario 2), construction traffic impacts for the year 2023 (worst case relative change) are predicted for link 4, link 9 and link 11, with a maximum 1.6dBA change (during 2023) in noise level (link 9); therefore, at a medium sensitivity receptor is of a **minor adverse** impact significance.

83. For the assessed scenario 1 (construction of the proposed East Anglia ONE North project and proposed East Anglia TWO project simultaneously) construction phases, daytime impacts are predicted to be of **negligible** at all sensitive receptors.

84. Under scenario 1, construction traffic impacts for the year 2023 (worst case scenario) are predicted for links 4, 9, 11 and 12, with a maximum $L_{10,18hr}$ 1.9dBA change in noise level (link 9); therefore, at a medium sensitivity receptor is of a **minor adverse** impact significance.

25.11References

BSI, (2014) British Standards Institution [BS] 5228-1:2009+A1:2014 “Code of practice for noise and vibration control on construction and open sites – Part 1: Noise”.

BSI, (2014) British Standards Institution [BS] 5228-2: 2009+A1:2014 “Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration”.

Department of Transport, Welsh Office, (1988) Calculation of Road Traffic Noise HMSO, London.

Highways Agency, (2011) Design Manual for Roads and Bridges, Volume 11, Section 3, Part 7: Noise and Vibration. The Highways Agency.