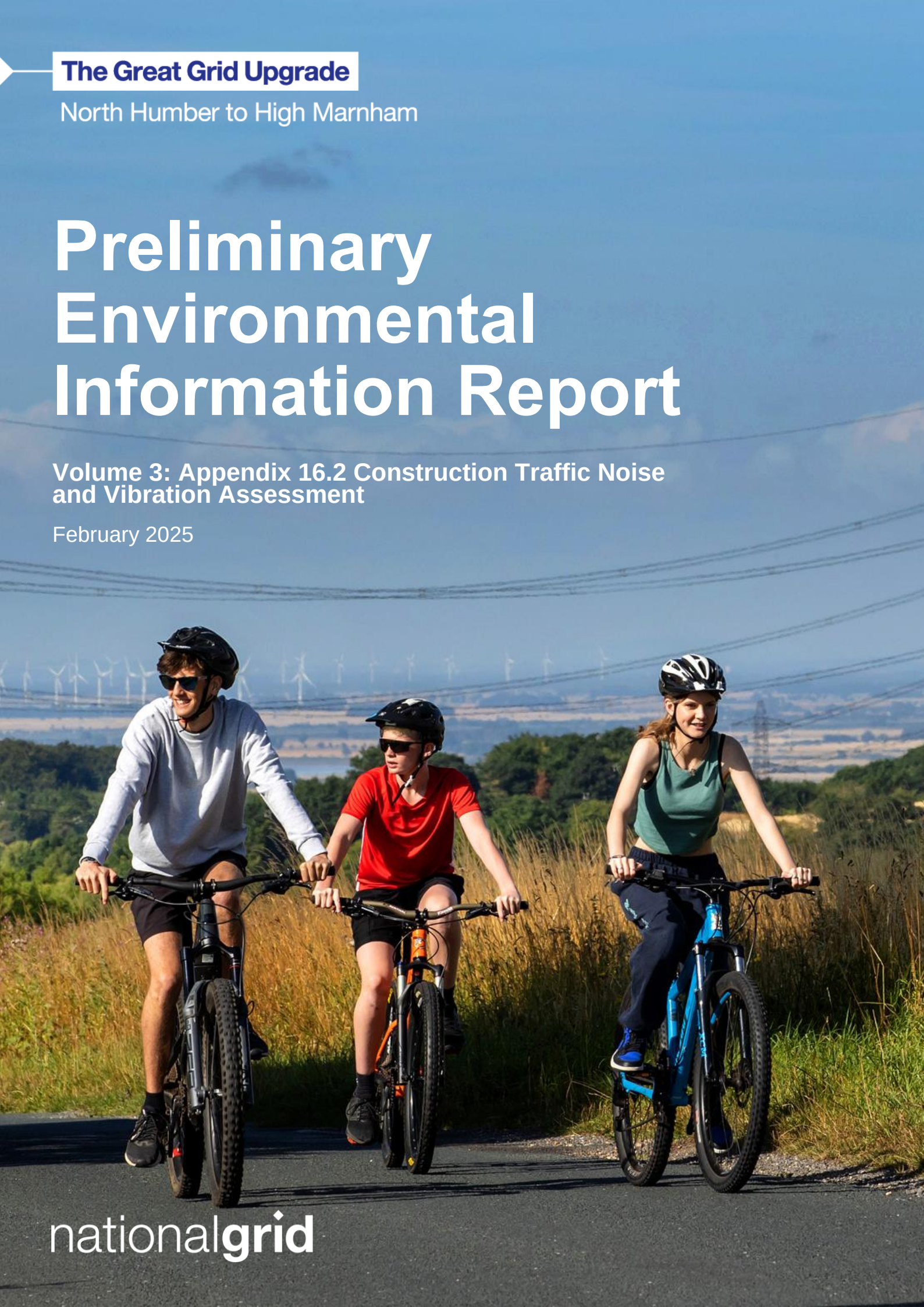
The Great Grid Upgrade

North Humber to High Marnham

Preliminary Environmental Information Report

Volume 3: Appendix 16.2 Construction Traffic Noise and Vibration Assessment

February 2025



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1. Introduction

1.1 Overview

1.1.1 This appendix has been produced to support **Chapter 16 Noise and Vibration** in Volume 1 of the Preliminary Environmental Information Report (PEIR). It sets out the assessment of construction traffic noise from the public highway and temporary access routes at noise sensitive receptors (NSR).

2. Construction Traffic Noise (Public Highway)

2.1 Assessment Methodology

2.1.1 The assessment of construction traffic noise has been conducted following the guidance detailed in Design Manual for Roads and Bridges LA 111 (DMRB LA111) (Ref 1.1) which refers to Calculation of Road Traffic Noise (CRTN) (Ref 1.2) for the noise level prediction. This provides guidance for the assessment and noise and vibration impacts from road projects; however, the guidance is widely used in the assessment of construction noise and vibration impacts from other types of development, particularly with regards to construction traffic noise in lieu of other guidance.

Data Sources

2.1.2 The assessment is based on traffic data and assumptions that has been produced by National Grid to support the transport assessment, including the proposed numbers of heavy goods vehicles (HGV).

Study Area

2.1.3 Noise from construction traffic on the existing local road network has been assessed based on the proposed construction traffic routes as shown on **Figure 4.2 Construction Traffic Routes**, in Volume 2. The study area is defined following the guidance detailed in DMRB LA 111 (Ref 1.1) which states that the construction traffic study areas shall be defined to include a 50 m width from the kerb line of public roads with the potential for an increase in Basic Noise Level (BNL) of 1 dB(A) or more as a result of the addition of construction traffic to existing traffic levels.

Noise Screening Assessment Criteria

2.1.4 Noise from construction traffic on the public highway has been calculated in accordance with the CRTN (Ref 1.2)and assessed against the criteria detailed in DMRB LA 111 (Ref 1.1)The BNL from public roads used as construction traffic routes has been calculated in accordance with CRTN (Ref 1.2) for the Do-Minimum (DM, without the Project construction traffic) and Do-Something (DS, with the Project construction traffic) scenarios in the construction period. The calculated BNL values were compared to determine the magnitude of the impact.

2.1.5 The BNL is a standardised metric for determining the noise level from a road and is defined as the noise level exceeded for 10% of the time at a reference of 10 m away from the nearside carriageway edge obtained from traffic flow, speed, and is calculated in line with the methodology described in CRTN (Ref 1.2).

2.1.6 Calculations are based on the Annual Average Weekday Traffic over the 18 hour period between 06:00 and 00:00 (AAWT,18h). The standard CRTN BNL calculation is applicable where the AAWT,18h traffic flows are greater than 4000 vehicles per 18 hour day. Where flows are between 1000 and 4000 vehicles per day, a 'low flow' correction can be applied which is a function of the distance from the carriageway. For the purposes of the initial assessment, a typical worst-case distance of 10 m has been assumed (the correction reduces with increased distance, with no correction applied beyond 30 m).

2.1.7 Where there are potential changes in the BNL on roads greater than or equal to 1 dB(A) a subsequent assessment of the impacts on NSR within 50 m of routes where there are potential significant effects has been conducted. NSR include dwellings, healthcare facilities, education facilities or other buildings where noise can cause disturbance to people using the buildings.

2.1.8 Exceedance of the change in traffic noise by greater than or equal to 3.0 dB and less than 5dB is considered moderate magnitude impact, while a change in traffic noise level of greater than or equal to 5 dB is considered a major magnitude impact.

2.1.9 Construction traffic noise effects are considered to be significant where there are moderate or major magnitude impacts for a duration of ten or more days in any 15 consecutive days or for a total number of days exceeding 40 in any six consecutive months. A detailed program of works is not currently available; however, for the purpose of this preliminary assessment it is assumed that the above temporal thresholds may be exceeded, as a worst-case.

2.1.10 There are also potential significant effects were there is a minor magnitude impact at NSR located within Noise Important Areas (NIA), which are more sensitive to increases in noise. NIAs are determined via Department for Environment, Food & Rural Affairs (DEFRA) (Ref 1.3) strategic noise maps and highlight the residential areas experiencing the highest 1% of noise levels from road and rail sources in England.

Temporal scope

2.1.1 The construction traffic noise assessment considers the following scenarios:

- Baseline;
- DM: without Project construction traffic; and
- DS: with Project construction traffic.

2.1.2 The year represented by the DM and DS construction scenarios represent the peak construction year predicted to have the maximum annual average daily traffic flows during construction phase. This is anticipated to be 2028 and therefore traffic data representing this year with and without construction traffic will be used in the noise impact assessment.

2.2 Noise Screening Assessment

2.2.1 The results of the construction traffic noise assessment are provided in Table 2.1. It is assumed that there is no change in average speed between the DM and DS. The results are colour coded as follows:

- Green – Negligible magnitude impact;
- Blue – Minor magnitude impact (no NIA);
- Orange – Moderate magnitude impact, or minor magnitude with NIA; and
- Red – Major magnitude impact.

2.2.2 The results indicate that the magnitude of impact from construction traffic noise on the public highway is negligible or minor for all the proposed Primary Access Routes (PAR) (as shown in **Figure 14.1 Primary Access Routes**, in Volume 2). As such the impact of construction traffic noise is likely to be not significant, but this is subject to review of the construction traffic flow and construction programme which will be undertaken as part of the final assessments and reported in the Environmental Statement.

Table 2.1 - Construction traffic noise assessment - public highway

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
A1079 Beverley Bypass East (Link PAR 1)	19,415	7	19,569	7	74.1	74.1	0.0	Negligible
A1079 Beverley Bypass West (Link PAR 2)	20,274	6	20,683	6	74.1	74.2	0.1	Negligible
A164 - North of A1079 (Link PAR 3)	21,232	4	21,715	4	73.9	74.0	0.1	Negligible
A164 Beverley Road - Between A1079 and Dunflat Road (Link PAR 4)	26,842	5	27,449	5	75.2	75.3	0.1	Negligible
Dunflat Road (Link PAR 5)	3,908	5	4,401	5	66.6	67.1	0.5	Negligible
A164 - Between Dunflat Road and B1233/A164 Roundabout (Link PAR 6)	27,121	5	28,122	5	75.2	75.4	0.2	Negligible
Main St (Link PAR 7)	Very low traffic flow		Very low traffic flow					Negligible
Little Weighton Rd (Link PAR 8)	Very low traffic flow		Very low traffic flow					Negligible
A164 - Between B1233/A164 Roundabout and	27,146	6	27,420	6	75.4	75.5	0.1	Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
A164/Riplingham Rd Roundabout (Link PAR 9)								
Riplingham Rd (Link PAR 10)	5,532	5	5,573	5	68.2	68.4	0.2	Negligible
Rowley Rd (Link PAR 11)	5,532	5	5,557	5	68.2	68.3	0.1	Negligible
A164 - Between A164/Riplingham Rd Roundabout and Wingfield Farm Roundabout (Link PAR 12)	19,689	8	19,891	8	74.3	74.4	0.1	Negligible
Lambwell Hill (Link PAR 13)	1,881	2	1,881	2	62.1	62.1	0.0	Negligible
Westoby Lane (Link PAR 14)	2,552	4	2,552	4	64.4	64.4	0.0	Negligible
Brick Dike Lane (Link PAR 15)	2,254	5	2,254	5	63.8	63.8	0.0	Negligible
B1230 - Hunsley Road (Link PAR 16)	9,117	6	9,117	6	70.6	70.6	0.0	Negligible
A1034 - Between Hunsley Road and A1079/A1034 Roundabout (North) (Link PAR 17)	7,444	10	7,444	10	70.4	70.4	0.0	Negligible
A1034 - Between Hunsley Road and Beverley Road (South) (Link PAR 18)	9,572	11	9,572	11	71.7	71.7	0.0	Negligible
A1034 - Beverley Road and A63 (Link PAR 19)	9,572	11	9,606	11	71.7	71.8	0.1	Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
Beverley Rd (Link PAR 20)	Very low traffic flow		Very low traffic flow					Negligible
Ellerker Rd (Link PAR 21)	652	5	887	6	Very low traffic flow	Very low traffic flow		Negligible
A63 Petuaria Way (South) (Link PAR 22)	39,287	14	39,721	14	78.3	78.4	0.1	Negligible
Brantingham Rd (Link PAR 23)	652	5	887	6	Very low traffic flow	Very low traffic flow		Negligible
Brough Road (Link PAR 24)	7,209	4	7,872	4	69.2	69.7	0.5	Negligible
A63 Petuaria Way (West) (Link PAR 25)	36,064	15	36,536	15	78.0	78.1	0.1	Negligible
Ings Ln (Link PAR 26)	359	3	411	13	Very low traffic flow	Very low traffic flow		Negligible
Carr Ln (Link PAR 27)	391	8	391	8	Very low traffic flow	Very low traffic flow		Negligible
Tongue Ln (Link PAR 28)	634	15	1,200	9	Very low traffic flow	60.3		Minor
B1230 Main Rd (Link PAR 29)	8,001	7	8,401	7	70.3	70.6	0.3	Negligible
M62 (Link PAR 30)	36,276	14	36,851	14	78.0	78.1	0.1	Negligible
A161 Tom Pudding Way (Link PAR 31)	7,479	12	7,642	12	70.9	71.0	0.1	Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
A161 Swinefleet Rd (Link PAR 32)	6,226	4	6,417	4	68.4	68.8	0.4	Negligible
A161 King's Causeway (Link PAR 33)	1,535	7	1,806	9	61.7	63.2	1.5	Minor
Pennyhill Cottages (Link PAR 34)	Very low traffic flow		Very low traffic flow					Negligible
Main St (Link PAR 35)	Very low traffic flow		Very low traffic flow					Negligible
Church Ln (Link PAR 36)	Very low traffic flow		Very low traffic flow					Negligible
A161 Field Lane (North of Eastoft) (Link PAR 37)	1,547	7	1,663	8	61.8	62.6	0.8	Negligible
Luddington Rd (Link PAR 38)	435	13	447	15	Very low traffic flow	Very low traffic flow		Negligible
Carr Ln (Link PAR 39)	73	5	128	31	Very low traffic flow	Very low traffic flow		Negligible
B1392 Meredyke Rd (Link PAR 40)	648	7	668	10	Very low traffic flow	Very low traffic flow		Negligible
Ox Pasture Ln (Link PAR 41)	Very low traffic flow		Very low traffic flow					Negligible
Carr Ln (Link PAR 42)	36	4	51	25	Very low traffic flow	Very low traffic flow		Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
B1392 Luddington Rd (Link PAR 43)	1,077	7	1,147	11	59.1	60.5	1.4	Minor
A161 CrowleRd/WharfRd - Between South of Eastoft to North of Ealand (Link PAR 44)	2,482	6	2,599	7	64.7	65.1	0.4	Negligible
Outgate (Link PAR 45)	730	8	919	9	Very low traffic flow	Very low traffic flow		Negligible
Bonnyhale Dale Rd (Link PAR 46)	124	8	494	3	Very low traffic flow	Very low traffic flow		Negligible
Main St (Link PAR 47)	Very low traffic flow		Very low traffic flow					Negligible
Bonnyhale Road (Link PAR 48)	109	15	109	15	Very low traffic flow	Very low traffic flow		Negligible
Keadby Power Station Internal Roads (Link PAR 49)	Very low traffic flow		Very low traffic flow					Negligible
A161 - Between Out Gate in the North to A161/A18 junctions (Link PAR 50)	10,212	6	10,518	6	71.1	71.3	0.2	Negligible
A18 Trunk Road (East) (Link PAR 51)	9,323	8	9,338	8	71.1	71.1	0.0	Negligible
A18 High Levels Bank (West) (Link PAR 52)	5,590	9	5,590	9	69.1	69.1	0.0	Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
A161 - Between A18 and M180 (Link PAR 53)	6,791	9	7,112	10	69.9	70.2	0.3	Negligible
A161 - Between M180 and Belton (Link PAR 54)	11,319	7	11,537	8	71.8	72.0	0.2	Negligible
King Edward St (Link PAR 55)	1,469	7	1,482	8	61.4	61.6	0.2	Negligible
Bracon (Link PAR 56)	1,469	7	1,482	8	61.4	61.6	0.2	Negligible
Belton Rd (Link PAR 57)	1,059	9	1,073	10	59.2	59.5	0.3	Negligible
Hollingsworth Ln (Link PAR 58)	746	11	746	11	Very low traffic flow	Very low traffic flow		Negligible
Beltoft Rd / Market Place / Queen St (Link PAR 59)	1,435	0	1,449	8	59.6	61.6	2.0	Minor
Blow Row (Link PAR 60)	2,571	5	2,597	5	64.5	64.8	0.3	Negligible
A161 High St - Between King Edward St and Blow Row (Link PAR 61)	8,867	6	9,072	7	70.6	70.9	0.3	Negligible
Rectory St (Link PAR 62)	2,412	7	2,439	8	64.7	64.9	0.2	Negligible
Melwood Hill (Link PAR 63)	1,435	8	1,462	9	61.3	61.8	0.5	Negligible
Newland Ln (Link PAR 64)	Very low traffic flow		Very low traffic flow					Negligible
A161 Epworth Rd (Link PAR 65)	6,871	8	7,049	9	69.7	70.0	0.3	Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
Burnham Rd (Link PAR 66)	Very low traffic flow		Very low traffic flow					Negligible
Church Walk (Link PAR 67)	Very low traffic flow		Very low traffic flow					Negligible
East Lound Road (Link PAR 68)	675	10	689	12	Very low traffic flow	Very low traffic flow		Negligible
Brackenhill Rd / E Lound Road (Link PAR 69)	1,063	8	1,077	9	59.1	59.4	0.3	Negligible
B1396 Tower Hill (Link PAR 70)	3,166	5	3,263	5	65.7	65.8	0.1	Negligible
A161 Haxey Lane (Link PAR 71)	4,267	10	4,432	10	68.0	68.3	0.3	Negligible
Ferry Rd / Main St (Link PAR 72)	588	10	601	12	Very low traffic flow	Very low traffic flow		Negligible
Stockwith Rd (Link PAR 73)	Very low traffic flow		Very low traffic flow					Negligible
A161 Station Rd (Link PAR 74)	4,998	8	5,481	9	68.5	68.9	0.4	Negligible
Tindale Bank Rd (Link PAR 75)	Very low traffic flow		Very low traffic flow					Negligible
A161 Haxey Rd (Link PAR 76)	4,962	6	5,348	7	68.1	68.5	0.4	Negligible
Cornley Rd (Link PAR 77)	138	9	192	27	Very low traffic flow	Very low traffic flow		Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
Carr Ln (Link PAR 78)	230	13	452	16	Very low traffic flow	Very low traffic flow		Negligible
B1403 Church St (Link PAR 79)	2,447	6	2,669	7	64.6	65.3	0.7	Negligible
Cattle Rd (Link PAR 80)	138	9	306	4	Very low traffic flow	Very low traffic flow		Negligible
A161 High St to A161/A631 Roundabout (Link PAR 81)	Very low traffic flow		Very low traffic flow					Negligible
B1403 Gringley Rd (Link PAR 82)	2,743	8	2,743	8	65.5	65.5	0.0	Negligible
B1403 Fountain Hill (Link PAR 83)	2,743	8	2,743	8	65.5	65.5	0.0	Negligible
Walkeringham Rd (Link PAR 84)	229	6	316	4	Very low traffic flow	Very low traffic flow		Negligible
B1403 Walkeringham Rd (Link PAR 85)	2,743	8	2,830	8	65.5	65.7	0.2	Negligible
A631 (Gringley on the Hill West) (Link PAR 86)	10,082	10	10,355	10	71.8	71.9	0.1	Negligible
A631 (Gringley on the Hill East) (Link PAR 87)	8,475	11	8,712	12	71.2	71.4	0.2	Negligible
A631 - Between A161/A631 Roundabout and Wood Ln (Link PAR 88)	Very low traffic flow		Very low traffic flow					Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
A631 - Between Wood Ln and A620/A631 Roundabout (Link PAR 89)	Very low traffic flow		Very low traffic flow					Negligible
Wood Ln (Link PAR 90)	Very low traffic flow		Very low traffic flow					Negligible
A620 - Between A620/A631 Roundabout to Saundby/Sturton/Gainsborough Road Roundabout (Link PAR 91)	7,349	6	7,386	7	69.8	69.9	0.1	Negligible
Sturton Rd (Link PAR 92)	2,790	12	2,806	12	66.3	66.4	0.1	Negligible
Gainsborough Rd (Link PAR 93)	2,790	12	2,806	12	66.3	66.4	0.1	Negligible
Station Rd (Link PAR 94)	839	9	855	10	Very low traffic flow	Very low traffic flow		Negligible
Wheatley Rd (Link PAR 95)	839	9	839	9	Very low traffic flow	Very low traffic flow		Negligible
Sturton Rd (Link PAR 96)	1,084	7	1,084	7	59.0	59.0	0.0	Negligible
Low St (Link PAR 97)	1,084	7	1,084	7	59.0	59.0	0.0	Negligible
A620 - Gainsborough Rd (Link PAR 98)	4,912	9	4,933	9	68.4	68.5	0.1	Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
A620 - Between Low St in North Wheatley to Spital Hill in Retford (Link PAR 99)	5,503	8	5,503	8	68.8	68.8	0.0	Negligible
A620 Amcott Way (Link PAR 100)	20,016	4	20,241	4	73.7	73.8	0.1	Negligible
Cross St (Link PAR 101)	Very low traffic flow		Very low traffic flow					Negligible
Springs Ln (Link PAR 102)	Very low traffic flow		Very low traffic flow					Negligible
Retford Rd (Link PAR 103)	3,778	6	4,027	7	66.9	67.2	0.3	Negligible
Leverton Rd / Spital Hill (Link PAR 104)	3,702	6	3,951	6	66.6	67.0	0.4	Negligible
A638 Arlington Way/London Road (Link PAR 105)	13,566	5	13,621	5	72.1	72.2	0.1	Negligible
A638 Great North Road - To the A1 (Link PAR 106)	10,370	7	10,425	7	71.3	71.4	0.1	Negligible
Cocking Ln (Link PAR 107)	Very low traffic flow		Very low traffic flow					
Town St / Forewood Ln (Link PAR 108)	Very low traffic flow		Very low traffic flow					Negligible
Wood Ln / Main St (Link PAR 109)	Very low traffic flow		Very low traffic flow					Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
Grove Rd (Link PAR 110)	2,008	5	2,038	7	63.2	63.6	0.4	Negligible
Lady Well Ln (Link PAR 111)	2,008	5	2,038	7	63.2	63.6	0.4	Negligible
Main St (Link PAR 112)	515	8	530	10	Very low traffic flow	Very low traffic flow		Negligible
Hazelwood Ln (Link PAR 113)	1,715	4	1,731	5	61.9	62.1	0.2	Negligible
Ashley Ln (Link PAR 114)	80	8	80	8	Very low traffic flow	Very low traffic flow		Negligible
Retford Rd (North of Rampton Hospital) (Link PAR 115)	1,631	5	1,646	6	61.7	62.0	0.3	Negligible
Laneham Rd (Link PAR 116)	2,605	9	2,605	9	65.4	65.4	0.0	Negligible
A57 Broad Gate - To A57 junction with the A1 (Link PAR 117)	9,558	10	9,697	10	71.5	71.7	0.2	Negligible
A57 - Between Darlton Rd and BM 127 (Link PAR 118)	9,482	10	9,593	11	71.6	71.7	0.1	Negligible
A57 - Between BM 127 and BM 126 (Option 3) (Link PAR 119)	9,634	8	9,745	8	71.3	71.4	0.1	Negligible
A57 - Between BM 126 and A57/Main St Junction (Link PAR 120)	9,634	8	9,690	8	71.3	71.3	0.0	Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
A57 - Between A57/Main St Junction East (Link PAR 121)	9,469	10	9,546	10	71.5	71.6	0.1	Negligible
Main St (Link PAR 122)	1,322	12	1,385	13	61.5	62.0	0.5	Negligible
Retford Rd (East Drayton) (Link PAR 123)	Very low traffic flow		Very low traffic flow					Negligible
Top St / Darlton Rd (Link PAR 124)	Very low traffic flow		Very low traffic flow					Negligible
Leverton Rd (south of Sturton Le Steeple) (Link PAR 125)	Very low traffic flow		Very low traffic flow					Negligible
Retford Rd (10.3) (Link PAR 126)	5,054	4	5,118	5	67.7	68.0	0.3	Negligible
Main St (Link PAR 127)	5,054	4	5,106	5	67.7	67.9	0.2	Negligible
Main St/Habblesthorpe Rd (Link PAR 128)	522	7	574	15	Very low traffic flow	Very low traffic flow		Negligible
Northfield Rd (Link PAR 129)	391	8	391	8	Very low traffic flow	Very low traffic flow		Negligible
Church St (Link PAR 130)	693	9	693	9	Very low traffic flow	Very low traffic flow		Negligible
Broad Ln (Link PAR 131)	Very low traffic flow		Very low traffic flow					Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
Westbrecks Lane (Link PAR 132)	Very low traffic flow		Very low traffic flow					Negligible
Cottam Rd (Link PAR 133)	73	5	73	5	Very low traffic flow	Very low traffic flow		Negligible
Rampton Rd (Link PAR 134)	Very low traffic flow		Very low traffic flow					Negligible
Torksey Ferry Rd (Link PAR 135)	648	7	703	13	Very low traffic flow	Very low traffic flow		Negligible
Main St/Laneham St (Link PAR 136)	1,056	7	1,107	10	58.8	60.0	1.2	Minor
Helenship Ln (Link PAR 137)	124		132		Very low traffic flow	Very low traffic flow		Negligible
Rampton Rd / Main St (Link PAR 138)	Very low traffic flow		Very low traffic flow					Negligible
Long Ln (Link PAR 139)	1,264	13	1,332	6	61.3	61.8	0.5	Negligible
Fledborough Road (Link PAR 140)	Very low traffic flow		Very low traffic flow					Negligible
A63 (From A15 Interchange to A1079) (Link PAR 141)	Very low traffic flow		Very low traffic flow					Negligible
M62 (From A614 Interchange to M18 Interchange) (Link PAR 142)	Very low traffic flow		Very low traffic flow					Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
M180 (Between M18 Interchange and A161) (Link PAR 143)	Very low traffic flow		Very low traffic flow					Negligible
M180 (Between A161 and M181) (Link PAR 144)	Very low traffic flow		Very low traffic flow					Negligible
M181(Link PAR 145)	Very low traffic flow		Very low traffic flow					Negligible
M180 (Between M181 Interchange and A15) (Link PAR 146)	Very low traffic flow		Very low traffic flow					Negligible
M180 (Between A15 Interchange and A180) (Link PAR 147)	Very low traffic flow		Very low traffic flow					Negligible
Hollingsworth Lane / Queen St (Link PAR 148)	Very low traffic flow		Very low traffic flow					Negligible
Epworth Road North (Link PAR 149)	1,435	8	1,449	9	61.3	61.6	0.3	Negligible
Epworth Road South (Link PAR 150)	Very low traffic flow		Very low traffic flow					Negligible
Burnham Road EaSt (Link PAR 151)	Very low traffic flow		Very low traffic flow					Negligible

Access Route Name/ID	Baseline data 2028 (Do-Minimum)		Baseline data 2028 plus construction traffic (Do-Something)		dB $L_{A10,18h}$		Change, dB	Outcome magnitude of impact
	AAWT*	% HGV	AAWT	% HGV	Baseline	Baseline plus construction traffic		
Church Street (Link PAR 152)	675	675	675		Very low traffic flow		Very low traffic flow	Negligible
Leverton Rd (Link PAR 153)	3,101	6	3,116	7	65.9	66.0	0.1	Negligible
Main St (Link PAR 154)	2,261	131	2,273	6	63.9	64.1	0.2	Negligible
Retford Road East (Link PAR 155)	2,261	135	2,277	6	63.9	64.1	0.2	Negligible
B1230 Main Road WeSt (Link PAR 156)	8,001	612	8,018	8	70.3	70.4	0.1	Negligible
A18 Althorpe Byp (Link PAR 157)	9,323	744	9,338	8	71.1	71.1	0.0	Negligible

*AAWT stands for annual average weekday traffic. For some access routes they are referenced as “Very low traffic flow” which represents 18-hour flow below 1000 vehicles. The calculation of noise from such low traffic flow is out of the scope of CRTN. The impact from these routes are likely to be negligible.

3. References

Ref 1.1 National Highways (2020). DMRB LA 111: Noise and Vibration. [Online]. Available at: https://www.standardsforhighways.co.uk/tses/attachments/cc8cfcf7-c235-4052-8d32-d5398796b364?inline=true [Accessed: October 2024].

Ref 1.2 Department of Transport (1988). Calculation of Road Traffic Noise (CRTN). [Online]. Available at: https://www.bradford.gov.uk/Documents/Hard%20Ings%20Road%20improvement%20scheme/2b%20Compulsory%20Purchase%20Order%20and%20Side%20Road%20Order/5%20Supporting%20documents/Calculation%20of%20Road%20Traffic%20Noise%201988.pdf [Accessed: October 2024].

Ref 1.3 Department for Environment, Food & Rural Affairs – Data Services Platform (2019). Noise Action Planning Important Areas Round 3 England (2019). [Online]. Available at: https://environment.data.gov.uk/dataset/55cdd950-fd18-421a-affd-130d659dc6fd [Accessed: November 2024].

National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com