

APPENDIX 6.2.9.4: AIR QUALITY ROAD TRAFFIC EMISSIONS ASSESSMENT - EXISTING SENSITIVE HUMAN RECEPTOR LOCATIONS - CONSTRUCTION PHASE AND OPERATIONAL PHASE

Existing sensitive human receptor locations

Existing receptor locations were identified within close proximity of the road links detailed in Chapter 9: *Air Quality* and considered in the construction phase and operational phase road traffic emissions assessments. Concentrations of NO₂, PM₁₀ and PM_{2.5} were predicted at the identified existing receptor locations for the assessment scenarios detailed in Chapter 9: *Air Quality*. Where possible the closest receptors to those road links were considered, as these receptors are likely to experience the greatest change in pollutant concentrations as a result of the proposed development.

Receptor heights were modelled at 1.5m relative to the adjacent road height, with the exception of receptors representative of schools and nurseries which were modelled at either 0.8m or 1.0m to represent the lower than average breathing height of children.

Receptors relevant to the short term objectives were also identified. These receptors were located where members of the public could be present for a period of time comparable to the short term air quality objectives, but unlikely to be present for extended periods such as those representative of the annual mean air quality objectives. Such uses include hotels or restaurants.

Construction Phase

The identified existing sensitive human receptor locations for the construction phase are detailed in Table 4.1 and Figure 6.3.9.3.

Table 4.1: Existing sensitive human receptor locations considered during the construction phase.

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
CR1	446255	293907	Residential dwelling in Aston Firs	1.5
CR2	446187	293869	Residential dwelling in Aston Firs	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
CR3	445911	293863	Residential dwelling at Rosevale House	1.5
CR4	445441	293605	Residential dwelling off Hinckley Road	1.5
CR5	445311	293694	Residential dwelling off Smithy Lane	1.5
CR6	445019	293468	Residential dwelling on Sapcote Road	1.5
CR7	445010	293419	Residential dwelling on Sapcote Road	1.5
CR8	445496	295298	Residential dwelling at Bridge Farm	1.5
CR9	446667	293877	Residential dwelling at Averley House Farm	1.5
CR10	447922	293560	Residential dwelling off Hinckley Road	1.5
CR11	448074	293547	Residential dwelling on	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Rookery Close	
CR12	447266	295579	Residential dwelling off Stanton Road	1.5
CR13	447977	296080	Residential dwelling at Thorney Fields Farm	1.5
CR14	446004	292867	Residential dwelling on Hinckley Road	1.5
CR15	445506	292407	Residential dwelling off Lychgate Lane	1.5
CR16	444812	291720	Residential dwelling off Lutterworth Road	1.5
CR17	444726	291794	Residential dwelling on Lutterworth Road	1.5

Operational Phase

The identified existing sensitive human receptor locations for the operational phase are detailed in Table 4.2 and Figures 6.3.9.6 – 6.3.9.11.

Table 4.2: Existing sensitive human receptor locations considered during the operational phase.

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
Blaby District Council				
R1	445933	296526	Residential dwelling off Station Road	1.5
R2	446112	296412	Residential dwelling on Bridle Path Road	1.5
R3	446985	295975	Residential dwelling on Bostock Close	1.5
R4	447996	295153	Residential dwelling on Station Road	1.5
R5	448591	294898	Residential dwelling on Station Road	1.5
R6	448680	294865	Residential dwelling on Brindley Close	1.5
R7	448699	294852	Residential dwelling on Brindley Close	1.5
R8	448731	294798	Primary School on Station Road	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R9	448874	294741	Residential dwelling on New Road	1.5
R10	449087	294721	Residential dwelling on Long Street	1.5
R11	449177	294721	Residential dwelling on Broughton Road	1.5
R12	448578	293538	Residential dwelling on Frewen Drive	1.5
R13	448466	293532	Residential dwelling on Hinckley Road	1.5
R14	448878	293424	Residential dwelling on Church Street	1.5
R15	448993	293409	Residential dwelling on Leicester Road	1.5
R16	449072	293433	Residential dwelling on Grace Road	1.5
R17	449098	293425	Residential dwelling on	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Grace Road	
R18	449060	293392	Residential dwelling on Sharnford Road	1.5
R19	449087	294675	Residential dwelling on Long Street	1.5
R20	448234	291836	Residential dwelling on Leicester Road	1.5
R21	448318	291883	Residential dwelling on Leicester Road	1.5
R22	448016	291738	Residential dwelling on Leicester Road	1.5
R23	448034	291765	Nursery on Leicester Road	0.8
R24	447885	291595	Residential dwelling on Coventry Road	1.5
R25	447858	291593	Residential dwelling on Leicester Road	1.5
R26	447886	291640	Residential dwelling on	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Leicester Road	
R27	446013	289490	Farm on B4114	1.5
R28	447311	288629	Residential dwelling on Bumblebee Lane	1.5
R29	451570	297350	Residential dwelling on Main Street	1.5
R30	451720	297391	Care home on Narborough Road	1.5
R31	452067	297293	Residential dwelling on Narborough Road	1.5
R32	451838	297338	Residential dwelling on Narborough Road	1.5
R33	453408	297348	Residential dwelling on Narborough Road	1.5
R34	453466	297334	Residential dwelling on Coventry Road	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R35	453399	297380	Residential dwelling on Narborough Road	1.5
R36	454518	298144	Residential dwelling on Leicester Road	1.5
R37	454430	297993	Residential dwelling on Leicester Road	1.5
R38	454591	298202	Residential dwelling on Leicester Road	1.5
R39	453408	303595	Residential dwelling on Charnwood Drive	1.5
R40	453482	303637	Residential dwelling on Packer Avenue	1.5
R41	452164	305662	Residential dwelling on Taverner Drive	1.5
R42	454479	298621	Residential dwelling on Packhorse Drive	1.5
R43	446188	293870	Caravan Park on	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Smithy Lane	
R44	446259	293915	Caravan Park on Smithy Lane	1.5
R45	446031	293924	Caravan Park on Smithy Lane	1.5
R46	445935	293874	Residential dwelling on Smithy Lane	1.5
R47	445932	296526	Residential dwelling on Station Road	1.5
R48	445865	296628	Residential dwelling on St Marys Way	1.5
R49	446022	292877	Residential dwelling on Hinckley Road	1.5
R50	454244	298876	College located off Blaby Road	1.0
R51	454094	297750	Primary school off Thornton Drive	0.8
R52	453929	303145	Primary school on Holmefield Avenue West	0.8

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
STR1	448041	291739	Restaurant on Leicester Road	1.5
STR2	450960	293807	Restaurant on Coventry Road	1.5
STR3	447110	295780	Public house on Station Road	1.5
Hinckley & Bosworth Borough Council				
R78	441838	295151	Primary school on Stoke Road	0.8
R79	443047	301160	Residential dwelling on Ashby Road	1.5
R80	443548	299295	Residential dwelling on Ashby Road	1.5
R81	443556	298557	Residential dwelling on Ashby Road	1.5
R82	443531	298575	Residential dwelling on Ashby Road	1.5
R83	444397	296981	Infant School off Townend Road	0.8

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R84	444230	297155	Residential dwelling on Stapleton Lane	1.5
R85	444236	297113	Residential dwelling on Stapleton Lane	1.5
R86	444645	296721	Residential dwelling on Chapel Street	1.5
R87	444590	296724	Residential dwelling on Chapel Street	1.5
R88	443297	296924	Farm off Ashby Road	1.5
R89	442906	296207	Hospital off Ashby Road	1.5
R90	443027	296130	Residential dwelling on Ashby Road	1.5
R91	443070	295718	Residential dwelling on Ashby Road	1.5
R92	443115	295753	Residential dwelling on Ashby Road	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R93	443129	295685	Residential dwelling on Falmouth Drive	1.5
R94	443076	295679	Residential Dwelling on Ashby Road	1.5
R95	442893	294820	Primary School on Middlefield Lane	0.8
R96	443038	294985	Residential Dwelling on Ashby Road	1.5
R97	442624	294344	Residential Dwelling on Upper Bond Street	1.5
R98	442577	294170	College on Lower Bond Street	1.5
R99	442552	294033	Residential dwelling on Mansion Street	1.5
R100	442582	294014	Residential dwelling on The Borough	1.5
R101	442385	293641	Residential dwelling on	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Rugby Road	
R102	442313	293565	Residential dwelling on Rugby Road	1.5
R103	442310	293594	Residential dwelling on Rugby Road	1.5
R104	443233	291700	Residential dwelling on Briarstead	1.5
R105	442580	292984	Residential dwelling on Rugby Road	1.5
R106	442628	292945	Residential dwelling on Rugby Road	1.5
R107	442984	292138	Primary School on Sketchley Road	0.8
R108	443051	291996	Residential dwelling on Rugby Road	1.5
R109	443083	291995	Residential dwelling on Leicester Road	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R110	445055	296032	Residential dwelling on Leicester Road	1.5
R111	444330	295342	Residential dwelling on Leicester Road	1.5
R112	443892	295099	Residential dwelling on Sutton Close	1.5
R113	443318	294399	Primary school on Leicester Road	0.8
R114	443175	294221	Residential dwelling on Leicester Road	1.5
R115	443125	294236	Residential dwelling on Leicester Road	1.5
R116	442829	294210	Primary school on Hollier's Walk	0.8
R117	442667	294093	Residential dwelling on Council Road	1.5
R118	443313	293983	College on London Road	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R119	443364	293987	Residential dwelling on London Road	1.5
R120	443802	293679	Residential dwelling on Brookside	1.5
R121	443836	293657	Residential dwelling on Brookside	1.5
R122	443842	293706	Residential dwelling on Elm Tree Drive	1.5
R123	443866	293686	Residential dwelling on Elm Tree Drive	1.5
R124	444140	293431	Residential dwelling on Burbage Road	1.5
R125	444137	293295	Nursery on Hinckley Road	0.8
R126	444116	293234	Residential dwelling on The Fairway	1.5
R127	444107	293020	Residential dwelling on Forresters Road	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R128	444115	293000	Residential dwelling on Forresters Road	1.5
R129	444133	293028	Residential dwelling on Hinckley Road	1.5
R130	444312	292479	Residential dwelling on Church Street	1.5
R131	444294	292440	Residential dwelling on Church Street	1.5
R132	444312	292304	Residential dwelling on Church Street	1.5
R133	444297	292229	Residential dwelling on Lutterworth Road	1.5
R134	444700	291765	Residential dwelling on Lutterworth Road	1.5
R135	444723	291797	Residential dwelling on Lutterworth Road	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R136	444808	291715	Residential dwelling on Lutterworth Road	1.5
R137	443487	291960	Residential dwelling on Coventry Road	1.5
R138	443487	291993	Residential dwelling on Coventry Road	1.5
R139	443195	291769	Residential dwelling on Rugby Road	1.5
R140	443184	291789	Residential dwelling on Rugby Road	1.5
R141	443242	291791	Residential dwelling on Valiant Close	1.5
R142	442877	293103	Residential dwelling on Brookside	1.5
R143	442873	293068	Residential dwelling on Brookside	1.5
R144	442916	293081	Residential dwelling on	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Brookside	
R145	443478	293342	Residential dwelling on Brookside	1.5
R146	443513	293371	Residential dwelling on Brookside	1.5
R147	443461	293382	Residential dwelling on Brookside	1.5
R148	443454	292809	Residential dwelling on Forresters Road	1.5
R149	443449	292778	Residential dwelling on Forresters Road	1.5
R150	443474	292783	Residential dwelling on Forresters Road	1.5
R151	443748	292906	Residential dwelling on Forresters Road	1.5
R152	443721	292925	Residential dwelling on Forresters Road	1.5
R153	443745	292943	Residential	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			dwelling on Far Lash	
R154	443467	291981	Residential dwelling on Coventry Road	1.5
R155	443293	291145	Residential dwelling on Watling Street	1.5
R156	443203	291189	Residential dwelling on Watling Street	1.5
R157	443109	291155	Residential dwelling on Stretton Croft	1.5
R158	442867	291345	Residential dwelling on Rufford Close	1.5
R159	440948	292577	Nursery on Nutts Lane	0.8
R160	440156	292985	Residential dwelling on Watling Street	1.5
R161	440708	294077	Residential dwelling on Lovetts Close	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R162	440722	294108	Residential dwelling on Leysmill Close	1.5
R163	441163	295217	Residential dwelling on Turner Drive	1.5
R164	441089	295106	Residential dwelling on Springfield Park	1.5
R165	441724	300406	Residential dwelling on Main Street	1.5
R166	441776	300522	Residential dwelling on Main Street	1.5
R167	435209	297060	Residential dwelling on Old Forge Road	1.5
R168	434995	296860	Residential dwelling on Drayton Lane	1.5
R169	435000	296882	Residential dwelling on Drayton Lane	1.5
R170	446819	296840	Residential dwelling on Masefield Place	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R171	447054	296816	Farm off Breach Lane	1.5
R172	445387	289822	Residential dwelling on Smockington Lane	1.5
R173	442127	295189	Primary School on Towers Drive	0.8
R174	442644	293831	Primary School on Station Road	0.8
R175	443796	293352	Secondary School off St Catherines	1.0
R176	443745	293261	Secondary school off St Catherines	1.0
R177	444141	292397	Primary School on Grove Road	0.8
R178	443271	297853	Residential dwelling on Ashby Road	1.5
R179	444308	296656	Primary School on High Street	0.8
R180	448674	308308	Farm off Thornton Lane	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R181	448739	308404	Farm off Thornton Lane	1.5
R219	444830	295675	New traveller site off Leicester Road	1.5
STR7	442562	294002	Public house on The Borough	1.5
STR8	439860	293159	Cafe off Dodwells Road	1.5
Charnwood Borough Council				
R54	448639	320214	Residential dwelling on Woodpecker Way	1.5
R55	448563	319844	Secondary school off Forest Street	1.0
R188	448631	320734	Residential dwelling on Hathern Road	1.5
Coventry City Council				
R56	437697	282811	Residential dwelling on Woodway Lane	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R57	437866	282534	Secondary school on Wigston Road	1.0
R58	435550	284103	Secondary school on Ansell Drive	1.0
STR4	438711	282289	Hotel off Paradise Way	1.5
STR5	438911	282129	Restaurant off Gielgud Way	1.5
West Northamptonshire Council				
R59	456527	276877	Residential dwelling on Yelvertoft Road	1.5
R60	457593	273859	Farm off A428	1.5
STR6	457341	272999	Hotel off Parklands	1.5
Erewash Borough Council				
R61	447320	333923	Residential dwelling on Grampian Way	1.5
R62	447334	333552	Residential dwelling on Eaton Grange	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Drive	
R63	447167	333422	Residential dwelling on Fearn Close	1.5
Harborough District Council				
R53	452815	292700	Primary School on Station Road	0.8
R64	450926	283769	Farm off Lutterworth Road	1.5
R65	448053	287733	Residential dwelling on A5	1.5
R66	447938	287774	Residential dwelling on A5	1.5
R67	454995	282478	Farm off Swinford Road	1.5
R68	454872	286057	Residential dwelling on Gloster Road	1.5
R69	450677	290398	Residential dwelling on Main Street	1.5
R70	450698	290385	Residential dwelling on	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Main Street	
R71	450700	290409	Residential dwelling on Main Street	1.5
R72	452544	292840	Nursery on Frolesworth Road	0.8
R73	452508	292747	Residential dwelling on Frolesworth Road	1.5
R74	453920	284032	Primary school on Moorbarns Lane	0.8
R75	449049	288880	Residential dwelling on Frolesworth Lane	1.5
R76	449044	288901	Residential dwelling on Frolesworth Lane	1.5
R77	453246	284049	Residential dwelling on Leaders Way	1.5
North Warwickshire Borough Council				

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
R182	431361	298057	Primary school on Ratcliffe Road	0.8
R183	428505	298918	Residential dwelling on Watling Street	1.5
R184	428503	298957	Residential dwelling on Watling Street	1.5
R185	431138	298105	Residential dwelling on Windmill Road	1.5
R186	431159	298178	Care home on Sanders Close	1.5
R213	423465	301254	Residential dwelling on Lakeside Drive	1.5
North West Leicestershire District Council				
R187	433015	312791	Residential dwelling on New Street	1.5
R193	447362	326077	Farm off Kegworth Bypass	1.5
R194	446284	323895	Farm off The	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Green	
R195	441153	322197	Farm off Doctor's Lane	1.5
R196	440970	322364	Residential dwelling on Doctor's Lane	1.5
R197	436322	315753	Residential dwelling on Chapmans Meadows	1.5
R198	433185	312769	Residential dwelling on Windsor Way	1.5
R199	446953	323745	Residential dwelling on West End	1.5
R200	446858	323737	Residential dwelling on West End	1.5
STR11	447437	327871	Hotel off Hitlen Hotel Lane	1.5
STR12	437456	317167	Cafe off Lountside	1.5
STR13	430631	310092	Cafe off Atherstone	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			Road	
Nuneaton and Bedworth Borough Council				
R189	435157	284611	Residential dwelling on Longford Road	1.5
R190	434817	284836	Care home on McDonnel Drive	1.5
R191	439392	293391	Residential dwelling on Watling Street	1.5
R192	439428	293414	Residential dwelling on Watling Street	1.5
STR10	439432	293354	Public house on Watling Street	1.5
Rugby Borough Council				
R201	439812	284574	Residential dwelling on Wood Lane	1.5
R202	440212	285490	Residential dwelling on Kiln Way	1.5
R203	441237	282210	Residential dwelling on	1.5

Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
			B4029	
R204	440162	282486	Farm off Main Road	1.5
R205	452876	280698	Residential dwelling on Gibbet Lane	1.5
R206	452753	280733	Residential dwelling on A426	1.5
R207	443312	290658	Residential dwelling off Hinckley Road	1.5
R208	443162	288923	Residential dwelling on Hinckley Road	1.5
R209	443125	288910	Residential dwelling on Hinckley Road	1.5
R210	443395	288806	Residential dwelling on Lutterworth Road	1.5
R211	454656	277267	Farm off A5	1.5
R212	454738	277338	Residential dwelling on A5	1.5

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Receptor	Grid Reference		Details	Height Modelled (m)
	X	Y		
Tamworth Borough Council				
R214	423633	301185	Residential dwelling on Tanhill	1.5
R215	422849	302063	Secondary school off Deltic	1.0
R216	422496	302154	Secondary school off Birds Bush Road	1.0
R217	421343	302811	Residential dwelling on Nethergate Court	1.5
R218	422112	302628	Residential dwelling on Irwell	1.5
STR9	424380	300865	Services off Relay Drive	1.5