

The West Midlands Rail Freight Interchange Order 201X
Technical Appendix 13.4 - Construction Assessment
Regulation 5(2)(a)
Resound - July 2018

Technical Appendix 13.4: Construction Assessment

Table A13.4.1: Plant assumed for site preparation works

Plant Item	BS5228 Reference	L _{WA} , dB	%-on-time	Number of Plant Items
Tracked Excavator	Table C2, Item 19	105	50	10
Lorry	Table C2, Item 34	108	50	5
Wheeled Loader	Table C2, Item 28	104	50	10
Dump Truck	Table C2, Item 30	107	50	10
Diesel generator	Table C4, Item 79	92	100	3

Table A13.4.2: Plant assumed for foundation works

Plant Item	BS5228 Reference	L _{WA} , dB	%-on-time	Number of Plant Items
Poker vibrator	Table C4, Item 33	106	75	4
Concrete pump and a cement mixer truck	Table C4, Item 24	95	50	4
Concrete truck	Table C4, Item 18	103	75	10
Excavators	Table C2, Item 19	105	50	3
Dump truck	Table C2, Item 30	107	50	2
Vibratory Roller	Table C2, Item 38	101	50	4
Lorry	Table D7, Item 121	98	25	1
Vibro-displacement rig	Table C3, Item 27	108	75	4

Table A13.4.3: Plant assumed for bridge abutment piling

Plant Item	BS5228 Reference	L _{WA} , dB	%-on-time	Number of Plant Items
Driven piling rig	Table C12, Item 5	101	100	2

Table A13.4.4: Plant assumed for building erection works

Plant Item	BS5228 Reference	L _{WA} , dB	%-on-time	Number of Plant Items
Lorry - pull up	Table D7, Item 121	98	25	8
Dump truck	Table C2, Item 30	107	50	2
Diesel generator	Table C4, Item 79	92	100	2
Compressor	Table D7, Item 8	98	80	4
Tracked crane	Table C4, Item 45	82	50	2
Excavators	Table C2, Item 19	105	50	7
Hand-held nail gun	Table C4, Item 95	101	10	10

Table A13.4.5: Plant assumed for road works

Plant Item	BS5228 Reference	L _{WA} , dB	%-on-time	Number of Plant Items
Asphalt paver + tipping lorry	Table C5, Item 30	103	100	2
Road Lorry (Full)	Table C6, Item 21	108	100	2

Table A13.4.6: Plant assumed for landscaping works

Plant Item	BS5228 Reference	L _{WA} , dB	%-on-time	Number of Plant Items
Tracked Excavator	Table C5, Item 18	108	50	10
Dozer	Table C2, Item 10	108	50	10

Table A13.4.7: Construction traffic flows

Road	2016 baseline	2021 With construction
M6 between Junction 13 and 14 (northbound)	64,931 (20.2)	65,014 (20.3)
M6 between Junction 13 and 14 (southbound)	64,322 (21.3)	64,405 (21.4)
A449 between M6 J13 and Pinfold Lane	13,794 (2.9)	13,799 (2.9)
Teddesley Road between Marsh Lane and Penkridge Road	3,371 (0.6)	3,371 (0.6)
Cannock Road between Wolgarston Way and A34	11,626 (1.3)	11,626 (1.3)
A5 between M6 Junction 12 and Proposed Site Access	20,898 (12.4)	21,208 (13.4)
A5 between Vicarage Road and M6 J12	18,795 (21.5)	18,836 (21.6)
M6 between Junction 9 and 10 (northbound)	89,882 (18.6)	89,953 (18.7)
M6 between Junction 9 and 10 (southbound)	82,497 (15)	82,568 (15)
A5 between Vicarage Road and A4061 Wolverhampton Road	20,468 (15.6)	20,509 (15.7)
A5 between A449 and Proposed Site Access	20,239 (15.1)	20,263 (15.2)
A5 between A449 and A41	14,047 (4.3)	14,055 (4.3)
A5 between A41 and A4640 Redhill Way	8,447 (4.3)	8,455 (4.4)
A449 between A5 and Gravelly Way (northbound)	9,228 (16.2)	9,246 (16.3)
A449 between A5 and Gravelly Way (southbound)	9,695 (15.2)	9,713 (15.3)
A449 between Gravelly Way and Station Drive (northbound)	9,888 (8)	9,940 (8.3)
A449 between Gravelly Way and Station Drive (southbound)	9,652 (9)	9,704 (9.4)
Vicarage Road between Site Access and A5	6,594 (6.8)	6,594 (6.8)
Straight Mile between Vicarage Road and Oak Lane	1,719 (0.6)	1,719 (0.6)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	8,217 (5.3)	8,217 (5.3)
Station Drive between A449 and Enterprise Drive	9,604 (2.5)	9,604 (2.5)
Four Ashes Road between A449 and Claygates Road	2,048 (0.5)	2,048 (0.5)
A449 between Station Drive and Brewood Road (northbound)	13,987 (4.6)	14,039 (4.9)
A449 between Station Drive and Brewood Road (southbound)	15,129 (4.8)	15,181 (5)
Old Stafford Road between A449 and New Road	2,483 (2.4)	2,483 (2.4)
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	3,612 (0.5)	3,612 (0.5)
Poplars Farm Way between A449 and Lawn Lane	9,143 (0.6)	9,143 (0.6)
Lawn Lane between Brewood Road and Wobaston Road	4,860 (0.9)	4,860 (0.9)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	11,535 (17.7)	11,587 (18)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	11,637 (16.5)	11,689 (16.7)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	15,413 (14.9)	15,431 (15)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	17,901 (13.9)	17,920 (13.9)
Wobaston Road between Stafford Road and The Drove	21,284 (6.4)	21,284 (6.4)
A449 Stafford Road between Wobaston Road and A460	29,281 (13.7)	29,319 (13.8)
Church Road between A449 Stafford Road and Three Tuns Lane	959 (0.4)	959 (0.4)
Bargate Street, Brewood	2,772 (0.8)	2,772 (0.8)

Road	2016 baseline	2021 With construction
Sandy Lane / The Pavement, Brewood	3,275 (0.6)	3,275 (0.6)
Coven Road, Brewood between The Pavement and Tinkers Lane	5,089 (0.6)	5,089 (0.6)
B5012 Wolgarston Way between Cannock Road and A449	9,298 (1.5)	9,298 (1.5)
A449 between B5012 Boscomoor Lane and Pinfold Lane	17,751 (4.2)	17,756 (4.2)
A449 between B5012 Boscomoor Lane and A5	20,929 (2.4)	20,934 (2.4)
Camp Road between Penkridge Bank Road and A34	3,796 (0.5)	3,796 (0.5)
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	5,329 (2.1)	5,329 (2.1)
A5 between A4601 Wolverhampton Road and M6 Toll	21,509 (7.1)	21,541 (7.2)
A4601 Wolverhampton Road between A5 and M6 Toll	16,151 (3.1)	16,155 (3.1)
A4601 Wolverhampton Road between A5 and Longford Road	15,995 (1.4)	16,,000 (1.4)
Bursnips Road	9,295 (7.8)	9295 (7.8)
M6 between Junction 10 and 10a (northbound)	65,938 (15)	66,009 (15)
M6 between Junction 10 and 10a (southbound)	65,319 (15.7)	65,390 (15.8)
M6 between Junction 12 and 13 (northbound)	55,282 (13.9)	55,363 (14.1)
M6 between Junction 12 and 13 (southbound)	54,763 (14.7)	54,844 (14.8)
M6 between Junction 11a and 12 (northbound)	61,415 (16.3)	61,469 (16.4)
M6 between Junction 11a and 12 (southbound)	60,839 (17.2)	60,892 (17.2)
M6 between Junction 10a and 11 (northbound)	47,615 (18.5)	47,669 (18.5)
M6 between Junction 10a and 11 (southbound)	47,169 (19.5)	47,222 (19.5)
A5 between A34 and B4154	27,668 (12.2)	27,699 (12.3)
Notes: All roads are two-way, unless stated otherwise. Data presented in the form of 18 hour AAWT flows with the percentage of HGVs in brackets		

Table 13.4.8: Calculated changes due to construction traffic noise, free-field L_{A10,18hrs} dB

Location	2016 baseline	2021 With construction ⁽¹⁾
M6 between Junction 13 and 14 (northbound)	82.6	82.6 (0)
M6 between Junction 13 and 14 (southbound)	82.6	82.7 (+0.1)
A449 between M6 J13 and Pinfold Lane	72.5	72.5 (0)
Teddesley Road between Marsh Lane and Penkridge Road	65.1	65.1 (0)
Cannock Road between Wolgarston Way and A34	68.6	68.6 (0)
A5 between M6 Junction 12 and Proposed Site Access	73.5	73.7 (+0.2)
A5 between Vicarage Road and M6 J12	74.3	74.4 (+0.1)
M6 between Junction 9 and 10 (northbound)	83.8	83.8 (0)
M6 between Junction 9 and 10 (southbound)	83.0	83.0 (0)
A5 between Vicarage Road and A4061 Wolverhampton Road	73.9	74.0 (+0.1)
A5 between A449 and Proposed Site Access	73.8	73.8 (0)
A5 between A449 and A41	72.2	72.2 (0)
A5 between A41 and A4640 Redhill Way	70.0	70.1 (+0.1)
A449 between A5 and Gravelly Way (northbound)	73.6	73.6 (0)

Location	2016 baseline	2021 With construction ⁽¹⁾
A449 between A5 and Gravelly Way (southbound)	73.7	73.7 (0)
A449 between Gravelly Way and Station Drive (northbound)	72.8	72.9 (+0.1)
A449 between Gravelly Way and Station Drive (southbound)	72.8	72.9 (+0.1)
Vicarage Road between Site Access and A5	67.5	67.5 (0)
Straight Mile between Vicarage Road and Oak Lane	61.5	61.5 (0)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	68.1	68.1 (0)
Station Drive between A449 and Enterprise Drive	66.1	66.1 (0)
Four Ashes Road between A449 and Claygates Road	62.5	62.5 (0)
A449 between Station Drive and Brewood Road (northbound)	73.7	73.8 (+0.1)
A449 between Station Drive and Brewood Road (southbound)	74.1	74.1 (0)
Old Stafford Road between A449 and New Road	64.0	64.0 (0)
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	61.1	61.1 (0)
Poplars Farm Way between A449 and Lawn Lane	65.2	65.2 (0)
Lawn Lane between Brewood Road and Wobaston Road	66.8	66.8 (0)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	74.8	74.8 (0)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	74.7	74.7 (0)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	71.8	71.9 (+0.1)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	72.3	72.3 (0)
Wobaston Road between Stafford Road and The Droveaway	70.7	70.7 (0)
A449 Stafford Road between Wobaston Road and A460	74.4	74.4 (0)
Church Road between A449 Stafford Road and Three Tuns Lane	Unreliable ⁽¹⁾	Unreliable ⁽¹⁾
Bargate Street, Brewood	59.9	59.9 (0)
Sandy Lane / The Pavement, Brewood	60.7	60.7 (0)
Coven Road, Brewood between The Pavement and Tinkers Lane	62.6	62.6 (0)
B5012 Wolgarston Way between Cannock Road and A449	65.6	65.6 (0)
A449 between B5012 Boscomoor Lane and Pinfold Lane	69.3	69.3 (0)
A449 between B5012 Boscomoor Lane and A5	69.4	69.4 (0)
Camp Road between Penkrudge Bank Road and A34	65.7	65.7 (0)
Penkrudge Bank Road between Broadhurst Green Road and Marquis Drive	67.5	67.5 (0)
A5 between A4601 Wolverhampton Road and M6 Toll	72.7	72.7 (0)
A4601 Wolverhampton Road between A5 and M6 Toll	68.6	68.6 (0)
A4601 Wolverhampton Road between A5 and Longford Road	67.9	67.9 (0)
Bursnips Road	71.1	71.1 (0)
M6 between Junction 10 and 10a (northbound)	82.0	82.0 (0)
M6 between Junction 10 and 10a (southbound)	82.1	82.1 (0)

Location	2016 baseline	2021 With construction ⁽¹⁾
M6 between Junction 12 and 13 (northbound)	81.1	81.1 (0)
M6 between Junction 12 and 13 (southbound)	81.2	81.2 (0)
M6 between Junction 11a and 12 (northbound)	81.9	81.9 (0)
M6 between Junction 11a and 12 (southbound)	81.9	81.9 (0)
M6 between Junction 10a and 11 (northbound)	81	81 (0)
M6 between Junction 10a and 11 (southbound)	81.1	81.1 (0)
A5 between A34 and B4154	74.7	74.7 (0)
Notes: ⁽¹⁾ the bracketed value is the change in noise level between the 2016 baseline and 2021 with construction traffic scenario ⁽²⁾ Traffic flow below validity of CRTN		