



High Grove Solar

Preliminary Environmental Information Report Appendix 11.2 Noise Assessment Results Tables

April 2025

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Appendix 11.2 Noise Assessment Results Tables

1 BS 4142 Assessment

1.1.1.1 Table 1 presents the results of the BS4142:2014 assessment at each of the assessed ESRs.

Table 1 *BS4142:2014 Assessment*

Receptor	Specific Sound Level LAeq (dB)		Acoustic Feature Correction (dB)	Rating level (dB)		Measured background level LA90 (dB)		BS 4142 Score	
	Day time	Night time		Day-time	Night-time	Day time	Night-time	Day time	Night-time
ESR1	42	42	0	42	42	45	24	-3	18
ESR2	39	39	0	39	39	45	24	-6	15
ESR3	39	39	0	39	39	38	24	1	15
ESR4	38	38	0	38	38	43	39	-5	-1
ESR5	41	41	0	41	41	43	39	-2	2
ESR6	36	36	0	36	36	43	39	-7	-3
ESR7	41	41	0	41	41	43	39	-2	2
ESR8	41	41	0	41	41	31	29	10	12
ESR9	40	40	0	40	40	31	29	9	11
ESR10	40	40	0	40	40	31	29	9	11
ESR11	40	40	0	40	40	31	29	9	11
ESR12	40	40	0	40	40	31	29	9	11
ESR13	39	39	0	39	39	31	29	8	10
ESR14	40	40	0	40	40	31	29	9	11
ESR15	36	36	0	36	36	31	29	5	7
ESR16	39	39	0	39	39	38	24	1	15
ESR17	38	38	0	38	38	38	24	0	14
ESR18	38	38	0	38	38	38	24	0	14
ESR19	38	38	0	38	38	43	39	-5	-1
ESR20	38	38	0	38	38	39	29	-1	9
ESR21	39	39	0	39	39	39	29	0	10
ESR22	38	38	0	38	38	39	29	-1	9
ESR23	38	38	0	38	38	39	29	-1	9
ESR24	41	41	0	41	41	54	25	-13	16
ESR25	46	46	0	46	46	54	25	-8	21

Receptor	Specific Sound Level LAeq (dB)		Acoustic Feature Correction (dB)	Rating level (dB)		Measured background level LA90 (dB)		BS 4142 Score	
	Day time	Night time		Day-time	Night-time	Day time	Night-time	Day time	Night-time
ESR26	43	43	0	43	43	54	25	-11	18
ESR27	39	39	0	39	39	54	25	-15	14
ESR28	40	40	0	40	40	54	25	-14	15
ESR29	45	45	0	45	45	54	25	-9	20
ESR30	36	36	0	36	36	54	25	-18	11
ESR31	41	41	0	41	41	54	25	-13	16
ESR32	38	38	0	38	38	54	25	-16	13
ESR33	42	42	0	42	42	45	33	-3	9
ESR34	40	40	0	40	40	45	33	-5	7
ESR35	39	39	0	39	39	45	33	-6	6
ESR36	42	42	0	42	42	45	33	-3	9
ESR37	41	41	0	41	41	45	33	-4	8
ESR38	40	40	0	40	40	45	33	-5	7
ESR39	39	39	0	39	39	45	33	-6	6
ESR40	39	39	0	39	39	45	33	-6	6
ESR41	38	38	0	38	38	45	33	-7	5
ESR42	39	39	0	39	39	45	33	-6	6
ESR43	36	36	0	36	36	45	33	-9	3
ESR44	39	39	0	39	39	45	33	-6	6
ESR45	38	38	0	38	38	45	33	-7	5
ESR46	44	44	0	44	44	45	33	-1	11
ESR47	40	40	0	40	40	45	33	-5	7
ESR48	39	39	0	39	39	45	33	-6	6
ESR49	47	47	0	47	47	45	33	2	14
ESR50	37	37	0	37	37	38	33	-1	4
ESR51	39	39	0	39	39	38	33	1	6
ESR52	41	41	0	41	41	38	33	3	8
ESR53	34	34	0	34	34	38	33	-4	1
ESR54	37	37	0	37	37	38	33	-1	4
ESR55	37	37	0	37	37	38	33	-1	4
ESR56	48	48	0	48	48	38	33	10	15
ESR57	41	41	0	41	41	38	33	3	8
ESR58	37	37	0	37	37	27	25	10	12
ESR59	36	36	0	36	36	27	25	9	11
ESR60	36	36	0	36	36	27	25	9	11
ESR61	38	38	0	38	38	27	25	11	13
ESR62	41	41	0	41	41	27	25	14	16
ESR63	36	36	0	36	36	27	25	9	11

Receptor	Specific Sound Level LAeq (dB)		Acoustic Feature Correction (dB)	Rating level (dB)		Measured back-ground level LA90 (dB)		BS 4142 Score	
	Day time	Night time		Day-time	Night-time	Day time	Night-time	Day time	Night-time
ESR64	39	39	0	39	39	27	25	12	14
ESR65	33	33	0	33	33	27	25	6	8
ESR66	34	34	0	34	34	35	23	-1	11
ESR67	35	35	0	35	35	35	23	0	12
ESR68	41	41	0	41	41	35	23	6	18
ESR69	39	39	0	39	39	35	23	4	16
ESR70	38	38	0	38	38	35	23	3	15

2 BS 8233 Assessment

2.1.1.1 Tables 2 and 3 present the results of the BS 8233:2014 noise intrusion assessment at each of the assessed ESRs.

Table 2 *Daytime Noise Intrusion Levels $L_{Aeq,1hr}$*

Receptor	External Specific Sound Level (dB)	Windows Open (dB)	Windows Closed (dB)	Criteria L_{Aeq}
ESR1	41.5	31.5	11.5	35.0
ESR2	38.5	28.5	8.5	35.0
ESR3	38.6	28.6	8.6	35.0
ESR4	37.1	27.1	7.1	35.0
ESR5	41.3	31.3	11.3	35.0
ESR6	36.0	26.0	6.0	35.0
ESR7	40.9	30.9	10.9	35.0
ESR8	40.3	30.3	10.3	35.0
ESR9	40.0	30.0	10.0	35.0
ESR10	39.6	29.6	9.6	35.0
ESR11	39.5	29.5	9.5	35.0
ESR12	39.6	29.6	9.6	35.0
ESR13	38.9	28.9	8.9	35.0
ESR14	40.3	30.3	10.3	35.0
ESR15	35.9	25.9	5.9	35.0
ESR16	37.6	27.6	7.6	35.0
ESR17	37.5	27.5	7.5	35.0
ESR18	37.8	27.8	7.8	35.0
ESR19	38.1	28.1	8.1	35.0
ESR20	37.5	27.5	7.5	35.0
ESR21	37.6	27.6	7.6	35.0
ESR22	37.8	27.8	7.8	35.0
ESR23	37.4	27.4	7.4	35.0
ESR24	41.2	31.2	11.2	35.0
ESR25	45.5	35.5	15.5	35.0
ESR26	42.7	32.7	12.7	35.0
ESR27	39.4	29.4	9.4	35.0
ESR28	38.1	28.1	8.1	35.0
ESR29	44.6	34.6	14.6	35.0
ESR30	36.4	26.4	6.4	35.0
ESR31	39.6	29.6	9.6	35.0
ESR32	37.3	27.3	7.3	35.0
ESR33	41.0	31.0	11.0	35.0
ESR34	39.1	29.1	9.1	35.0
ESR35	39.3	29.3	9.3	35.0
ESR36	41.1	31.1	11.1	35.0

Receptor	External Specific Sound Level (dB)	Windows Open (dB)	Windows Closed (dB)	Criteria L _{Aeq}
ESR37	39.2	29.2	9.2	35.0
ESR38	38.6	28.6	8.6	35.0
ESR39	36.5	26.5	6.5	35.0
ESR40	36.9	26.9	6.9	35.0
ESR41	35.8	25.8	5.8	35.0
ESR42	39.0	29.0	9.0	35.0
ESR43	35.5	25.5	5.5	35.0
ESR44	38.9	28.9	8.9	35.0
ESR45	38.1	28.1	8.1	35.0
ESR46	43.8	33.8	13.8	35.0
ESR47	39.3	29.3	9.3	35.0
ESR48	38.4	28.4	8.4	35.0
ESR49	46.6	36.6	16.6	35.0
ESR50	35.4	25.4	5.4	35.0
ESR51	38.6	28.6	8.6	35.0
ESR52	40.4	30.4	10.4	35.0
ESR53	33.1	23.1	3.1	35.0
ESR54	36.7	26.7	6.7	35.0
ESR55	36.8	26.8	6.8	35.0
ESR56	47.9	37.9	17.9	35.0
ESR57	39.6	29.6	9.6	35.0
ESR58	36.4	26.4	6.4	35.0
ESR59	32.2	22.2	2.2	35.0
ESR60	35.9	25.9	5.9	35.0
ESR61	37.8	27.8	7.8	35.0
ESR62	36.7	26.7	6.7	35.0
ESR63	35.5	25.5	5.5	35.0
ESR64	29.1	19.1	0.0	35.0
ESR65	32.1	22.1	2.1	35.0
ESR66	33.3	23.3	3.3	35.0
ESR67	35.3	25.3	5.3	35.0
ESR68	38.3	28.3	8.3	35.0
ESR69	38.6	28.6	8.6	35.0
ESR70	37.8	27.8	7.8	35.0

Table 3 *Night-time Noise Intrusion Levels $L_{Aeq, 15mins}$*

Receptor	External Specific Sound Level (dB)	Windows Open (dB)	Windows Closed (dB)	Criteria L_{Aeq}
ESR1	41.5	31.5	11.5	30.0
ESR2	38.5	28.5	8.5	30.0
ESR3	38.6	28.6	8.6	30.0
ESR4	37.1	27.1	7.1	30.0
ESR5	41.3	31.3	11.3	30.0
ESR6	36.0	26.0	6.0	30.0
ESR7	40.9	30.9	10.9	30.0
ESR8	40.3	30.3	10.3	30.0
ESR9	40.0	30.0	10.0	30.0
ESR10	39.6	29.6	9.6	30.0
ESR11	39.5	29.5	9.5	30.0
ESR12	39.6	29.6	9.6	30.0
ESR13	38.9	28.9	8.9	30.0
ESR14	40.3	30.3	10.3	30.0
ESR15	35.9	25.9	5.9	30.0
ESR16	37.6	27.6	7.6	30.0
ESR17	37.5	27.5	7.5	30.0
ESR18	37.8	27.8	7.8	30.0
ESR19	38.1	28.1	8.1	30.0
ESR20	37.5	27.5	7.5	30.0
ESR21	37.6	27.6	7.6	30.0
ESR22	37.8	27.8	7.8	30.0
ESR23	37.4	27.4	7.4	30.0
ESR24	41.2	31.2	11.2	30.0
ESR25	45.5	35.5	15.5	30.0
ESR26	42.7	32.7	12.7	30.0
ESR27	39.4	29.4	9.4	30.0
ESR28	38.1	28.1	8.1	30.0
ESR29	44.6	34.6	14.6	30.0
ESR30	36.4	26.4	6.4	30.0
ESR31	39.6	29.6	9.6	30.0
ESR32	37.3	27.3	7.3	30.0
ESR33	41.0	31.0	11.0	30.0
ESR34	39.1	29.1	9.1	30.0
ESR35	39.3	29.3	9.3	30.0
ESR36	41.1	31.1	11.1	30.0
ESR37	39.2	29.2	9.2	30.0
ESR38	38.6	28.6	8.6	30.0
ESR39	36.5	26.5	6.5	30.0

Receptor	External Specific Sound Level (dB)	Windows Open (dB)	Windows Closed (dB)	Criteria L _{Aeq}
ESR40	36.9	26.9	6.9	30.0
ESR41	35.8	25.8	5.8	30.0
ESR42	39.0	29.0	9.0	30.0
ESR43	35.5	25.5	5.5	30.0
ESR44	38.9	28.9	8.9	30.0
ESR45	38.1	28.1	8.1	30.0
ESR46	43.8	33.8	13.8	30.0
ESR47	39.3	29.3	9.3	30.0
ESR48	38.4	28.4	8.4	30.0
ESR49	46.6	36.6	16.6	30.0
ESR50	35.4	25.4	5.4	30.0
ESR51	38.6	28.6	8.6	30.0
ESR52	40.4	30.4	10.4	30.0
ESR53	33.1	23.1	3.1	30.0
ESR54	36.7	26.7	6.7	30.0
ESR55	36.8	26.8	6.8	30.0
ESR56	47.9	37.9	17.9	30.0
ESR57	39.6	29.6	9.6	30.0
ESR58	36.4	26.4	6.4	30.0
ESR59	32.2	22.2	2.2	30.0
ESR60	35.9	25.9	5.9	30.0
ESR61	37.8	27.8	7.8	30.0
ESR62	36.7	26.7	6.7	30.0
ESR63	35.5	25.5	5.5	30.0
ESR64	29.1	19.1	0.0	30.0
ESR65	32.1	22.1	2.1	30.0
ESR66	33.3	23.3	3.3	30.0
ESR67	35.3	25.3	5.3	30.0
ESR68	38.3	28.3	8.3	30.0
ESR69	38.6	28.6	8.6	30.0
ESR70	37.8	27.8	7.8	30.0

3 Change In Noise Level Assessment

3.1.1.1 Tables 4 and 5 present the change in noise level assessment results at each of the assessed ESRs.

Table 4 *Change in Noise Level - Daytime*

Receptor	Measured Baseline (dB)	Combine Sound Level (all sources) (dB)	Change in Sound Level (dB)
ESR1	60.0	60.1	0.1
ESR2	60.0	60.0	0.0
ESR3	44.0	45.1	1.1
ESR4	58.0	58.0	0.0
ESR5	58.0	58.1	0.1
ESR6	58.0	58.0	0.0
ESR7	58.0	58.1	0.1
ESR8	56.0	56.1	0.1
ESR9	56.0	56.1	0.1
ESR10	56.0	56.1	0.1
ESR11	56.0	56.1	0.1
ESR12	56.0	56.1	0.1
ESR13	56.0	56.1	0.1
ESR14	56.0	56.1	0.1
ESR15	56.0	56.0	0.0
ESR16	44.0	44.9	0.9
ESR17	44.0	44.9	0.9
ESR18	44.0	44.9	0.9
ESR19	58.0	58.0	0.0
ESR20	49.0	49.3	0.3
ESR21	49.0	49.3	0.3
ESR22	49.0	49.3	0.3
ESR23	49.0	49.3	0.3
ESR24	66.0	66.0	0.0
ESR25	66.0	66.0	0.0
ESR26	66.0	66.0	0.0
ESR27	66.0	66.0	0.0
ESR28	66.0	66.0	0.0
ESR29	66.0	66.0	0.0
ESR30	66.0	66.0	0.0
ESR31	66.0	66.0	0.0
ESR32	66.0	66.0	0.0

Receptor	Measured Baseline (dB)	Combine Sound Level (all sources) (dB)	Change in Sound Level (dB)
ESR33	48.0	48.8	0.8
ESR34	48.0	48.5	0.5
ESR35	48.0	48.5	0.5
ESR36	48.0	48.8	0.8
ESR37	48.0	48.5	0.5
ESR38	48.0	48.5	0.5
ESR39	48.0	48.3	0.3
ESR40	48.0	48.3	0.3
ESR41	48.0	48.3	0.3
ESR42	48.0	48.5	0.5
ESR43	48.0	48.2	0.2
ESR44	48.0	48.5	0.5
ESR45	48.0	48.4	0.4
ESR46	48.0	49.4	1.4
ESR47	48.0	48.5	0.5
ESR48	48.0	48.5	0.5
ESR49	48.0	50.4	2.4
ESR50	43.0	43.7	0.7
ESR51	43.0	44.3	1.3
ESR52	43.0	44.9	1.9
ESR53	43.0	43.4	0.4
ESR54	43.0	43.9	0.9
ESR55	43.0	43.9	0.9
ESR56	43.0	49.1	6.1
ESR57	43.0	44.6	1.6
ESR58	38.0	40.3	2.3
ESR59	38.0	39.0	1.0
ESR60	38.0	40.1	2.1
ESR61	38.0	40.9	2.9
ESR62	38.0	40.4	2.4
ESR63	38.0	39.9	1.9
ESR64	38.0	38.5	0.5
ESR65	38.0	39.0	1.0
ESR66	46.0	46.2	0.2
ESR67	46.0	46.4	0.4
ESR68	46.0	46.7	0.7
ESR69	46.0	46.7	0.7
ESR70	46.0	46.6	0.6

Table 5 *Change in Noise Level – Night-time*

Receptor	Measured Baseline (dB)	Combine Sound Level (all sources) (dB)	Change in Sound Level (dB)
ESR1	53.0	53.3	0.3
ESR2	53.0	53.2	0.2
ESR3	33.0	39.7	6.7
ESR4	58.0	58.0	0.0
ESR5	58.0	58.1	0.1
ESR6	58.0	58.0	0.0
ESR7	58.0	58.1	0.1
ESR8	32.0	40.9	8.9
ESR9	32.0	40.6	8.6
ESR10	32.0	40.3	8.3
ESR11	32.0	40.2	8.2
ESR12	32.0	40.3	8.3
ESR13	32.0	39.7	7.7
ESR14	32.0	40.9	8.9
ESR15	32.0	37.4	5.4
ESR16	33.0	38.9	5.9
ESR17	33.0	38.8	5.8
ESR18	33.0	39.0	6.0
ESR19	58.0	58.0	0.0
ESR20	41.0	42.6	1.6
ESR21	41.0	42.6	1.6
ESR22	41.0	42.7	1.7
ESR23	41.0	42.6	1.6
ESR24	60.0	60.1	0.1
ESR25	60.0	60.2	0.2
ESR26	60.0	60.1	0.1
ESR27	60.0	60.0	0.0
ESR28	60.0	60.0	0.0
ESR29	60.0	60.1	0.1
ESR30	60.0	60.0	0.0
ESR31	60.0	60.0	0.0
ESR32	60.0	60.0	0.0
ESR33	46.0	47.2	1.2
ESR34	46.0	46.8	0.8
ESR35	46.0	46.8	0.8
ESR36	46.0	47.2	1.2
ESR37	46.0	46.8	0.8
ESR38	46.0	46.7	0.7
ESR39	46.0	46.5	0.5

Receptor	Measured Baseline (dB)	Combine Sound Level (all sources) (dB)	Change in Sound Level (dB)
ESR40	46.0	46.5	0.5
ESR41	46.0	46.4	0.4
ESR42	46.0	46.8	0.8
ESR43	46.0	46.4	0.4
ESR44	46.0	46.8	0.8
ESR45	46.0	46.7	0.7
ESR46	46.0	48.0	2.0
ESR47	46.0	46.8	0.8
ESR48	46.0	46.7	0.7
ESR49	46.0	49.3	3.3
ESR50	38.0	39.9	1.9
ESR51	38.0	41.3	3.3
ESR52	38.0	42.4	4.4
ESR53	38.0	39.2	1.2
ESR54	38.0	40.4	2.4
ESR55	38.0	40.5	2.5
ESR56	38.0	48.3	10.3
ESR57	38.0	41.9	3.9
ESR58	30.0	37.3	7.3
ESR59	30.0	34.2	4.2
ESR60	30.0	36.9	6.9
ESR61	30.0	38.5	8.5
ESR62	30.0	37.5	7.5
ESR63	30.0	36.6	6.6
ESR64	30.0	32.6	2.6
ESR65	30.0	34.2	4.2
ESR66	48.0	48.1	0.1
ESR67	48.0	48.2	0.2
ESR68	48.0	48.4	0.4
ESR69	48.0	48.5	0.5
ESR70	48.0	48.4	0.4

