

APPENDIX 12.1 Residual Traffic Noise Levels

Table A12.1 Predicted Residual Noise Levels at Receptors after Mitigation

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
A00-001	55	55	55	56	47
A00-002	54	54	54	56	47
A00-003	54	55	54	56	47
A00-004	53	53	53	54	45
A00-005	54	54	54	55	47
A00-006	53	54	54	55	47
A00-007	50	53	51	54	46
A00-008	51	53	52	54	46
A00-009	51	53	52	54	46
A00-010	51	53	52	54	46
A00-011	51	52	52	53	45
A00-012	51	53	52	54	46
A00-013	52	54	53	55	47
A00-014	51	52	51	54	45
A00-015	50	53	51	54	45
A00-016	50	52	51	54	45
A00-017	51	52	51	54	45
A00-018	64	64	65	65	56
A00-019	55	54	55	56	47
A00-020	67	66	68	67	58
A00-021	55	55	55	56	47
A01-001	55	59	54	60	52
A01-002	54	57	53	58	50
A01-003	58	56	57	57	49
A01-004	52	54	52	55	47
A01-005	52	52	51	53	45
A01-006	55	53	54	54	46
A01-007	60	54	58	55	47
A01-008	57	53	56	55	46
A01-009	74	62	72	63	51
A01-011	51	54	49	56	47

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
A02 007A	55	56	53	57	49
A02-001	53	53	51	54	46
A02-002	52	54	50	56	47
A02-003	53	54	51	56	47
A02-004	50	53	48	54	46
A02-005	52	54	50	56	48
A02-006	51	54	50	56	47
A02-007B	58	56	56	57	49
A02-008	58	57	56	58	50
A02-009	66	61	64	62	53
A02-010	66	59	64	61	52
A02-011	58	54	56	55	47
A02-012	57	54	55	55	46
A02-013	57	53	55	55	47
A02-014	50	56	48	57	49
A02-015	51	54	50	55	47
A02-016	49	52	47	53	45
A02-017	56	55	54	56	48
A02-018	56	55	54	56	48
A03-001	49	53	48	54	46
A03-003	48	50	46	52	43
A03-004	67	57	65	58	48
A03-005	54	53	52	54	46
A03-006	54	55	52	56	48
A03-007	66	56	64	57	48
A04-001	55	53	54	54	46
A05-004	42	45	40	47	38
A05-005	40	48	39	50	41
A05-006	44	48	42	49	41
A05-007	39	47	37	49	41
A05-008	34	51	33	52	44
A06-001	42	49	40	50	42
A06-002	35	48	33	49	41
A06-003	35	48	33	50	41

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
A06-004	35	50	34	52	43
A06-005	35	49	33	51	42
A06-006	39	53	37	54	46
A06-007	34	53	33	55	46
A06-008	41	53	39	55	46
A07-001	36	50	34	51	43
B10-001	47	49	46	50	42
B10-002	41	47	39	48	39
B10-003	38	50	37	52	43
B11-001	53	53	51	54	46
B11-002	53	51	51	52	43
B11-003	56	50	54	51	42
B11-004	58	50	56	51	42
B11-005	59	51	57	52	43
B11-006	65	59	64	60	51
B11-007	68	58	66	59	49
B11-007A	73	61	71	62	50
B11-008	63	59	61	60	51
B11-009	61	58	60	59	49
B11-010	60	57	59	58	48
B11-011	53	50	52	51	42
B12-001	62	56	61	57	48
B12-002	56	51	54	52	43
B12-003	61	58	61	59	49
B12-004	61	58	60	59	49
B12-005	63	60	62	61	51
B12-006	61	58	60	59	49
B12-007	53	51	52	52	43
B12-008	60	57	59	58	48
B12-009	59	56	59	57	48
B12-010	59	56	58	57	48
B12-011	59	56	58	57	48
B12-012	59	56	58	57	48
B12-013	59	56	58	58	48

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
B12-014	59	57	58	58	48
B12-015	60	58	59	59	49
B12-016	60	59	60	60	49
B12-017	57	56	57	57	47
B12-018	57	55	56	56	46
B12-019	55	53	55	54	45
B12-020	54	49	52	50	41
B12-021 ^{Note 1}	72	71	70	72	62
B12-022	67	62	65	63	54
B12-023	68	63	67	64	55
B12-024	58	53	57	54	45
B12-025	58	53	56	54	45
B12-026	61	57	60	57	48
B12-027	64	59	63	60	51
B12-027A	66	61	64	62	53
B12-028	68	63	66	64	55
B12-029	68	63	67	64	55
B12-030	60	55	58	56	47
C20-001	40	51	38	53	44
C20-002	37	54	35	55	47
C20-003	40	54	39	55	47
C20-004	<30	52	<30	53	45
C22 001A	38	53	37	55	46
C22-001	37	53	36	55	46
C22-002	37	52	36	54	46
C22-003	37	46	36	47	39
C22-004	41	48	39	49	41
C22-005	39	46	38	48	40
C22-006	41	47	39	48	40
C22-007	41	46	40	48	39
C22-008	42	46	40	47	39
C22-009	37	46	36	48	39
C22-010	40	45	39	46	38
C22-011	41	45	39	47	39

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
C22-012	43	46	42	47	39
C22-013	38	46	37	47	39
C22-014	38	46	36	48	40
C22-015	37	52	36	54	45
C22-016	37	50	36	52	43
C22-017	36	48	35	50	42
C22-018	35	47	34	49	41
C22-019	38	56	37	57	49
C22-020	35	48	34	50	41
C23-001	36	52	35	54	45
C23-002	30	53	30	55	46
C24-001	32	52	32	54	46
C24-001A	34	56	34	58	50
C25 003	39	50	39	52	44
C25-002	41	52	41	53	45
C26-001	51	54	51	56	47
C26-002	59	59	59	60	50
C26-003	48	54	48	55	47
C26-004	58	58	58	59	50
C26-005	47	55	47	56	48
C26-006	58	58	58	59	50
C26-007	51	54	51	56	47
C26-008 ^{Note 3}	60	59	60	61	51
C26-009	58	58	58	59	50
C26-011	59	58	59	60	49
C27-001	53	58	53	59	51
C27-002	62	61	63	63	52
C27-003	56	57	57	58	49
C27-004	55	56	56	57	48
C27-005	56	56	57	58	49
C27-006	55	55	55	56	48
C27-007	63	62	64	63	51
C27-008	58	57	58	59	49
C27-009	62	60	62	62	51

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
C27-010	62	60	62	62	50
C27-011	60	59	60	60	50
C27-012	60	58	60	60	50
C27-013	59	58	59	59	49
C27-014	60	59	61	61	50
C27-015	49	51	49	52	43
C27-016	53	54	54	55	46
C27-017	63	61	63	63	51
C27-019	43	55	44	57	48
C27-020 ^{Note 1}	46	57	46	58	50
C27-021	45	56	46	57	49
C27-022	47	49	47	51	42
C27-023	52	53	53	54	45
C27-024	62	61	62	62	51
C27-025	56	56	56	57	48
C27-026	49	52	50	53	45
C27-027	46	56	46	58	50
C27-028	45	53	45	55	46
C27-029	44	52	44	54	46
C27-030	44	52	44	53	45
C27-031	46	56	46	57	49
C27-032	44	52	45	53	45
C27-033	61	60	61	61	51
C27-034	61	60	61	61	51
C27-035	60	59	60	60	50
C27-036	48	53	49	55	46
C27-037	52	55	53	56	48
C28-002	46	53	46	54	46
C28-003	46	52	47	54	45
C28-004	45	55	46	57	48
C28-005	49	55	50	56	47
C29 003	49	55	49	56	47
C29-001	49	55	50	57	48
C29-002	50	56	51	58	49

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D49-001	53	53	54	54	45
D49-002	48	48	49	49	40
D49-003	54	53	54	55	46
D49-004	47	49	48	51	42
D49-005	55	54	55	55	46
D49-006	50	50	51	51	43
D49-007	55	54	56	55	46
D49-008	51	52	52	53	45
D49-009	57	56	57	57	48
D49-010	50	51	51	52	43
D49-011	57	56	57	57	48
D49-012	51	51	52	53	44
D49-013	57	57	58	58	49
D49-014	53	54	54	55	46
D49-015	55	54	55	55	46
D49-016	59	58	60	60	50
D49-017	64	62	64	64	52
D49-018	64	63	65	64	55
D49-019	65	63	65	64	56
D49-020	63	61	63	63	53
D49-021	63	61	63	63	53
D49-022	62	61	62	62	52
D49-023	66	64	66	65	55
D49-024	58	56	58	58	49
D49-025	66	64	67	65	56
D49-026	59	58	60	59	50
D49-027	59	58	60	59	50
D49-028	59	58	59	59	50
D49-029	59	57	59	58	49
D49-030	58	57	59	58	49
D49-031	59	57	59	59	50
D49-032	59	58	60	59	50
D49-033	59	58	60	59	50
D49-034	59	58	60	59	50

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D49-035	59	58	59	59	50
D49-036	59	58	60	59	50
D49-037	59	58	60	59	50
D49-038	59	58	60	59	50
D49-039	60	58	60	60	51
D49-040	60	59	61	60	51
D49-041	61	60	61	61	52
D49-042	66	65	66	67	58
D49-043	61	61	62	62	53
D49-044	62	61	63	63	54
D49-045	57	55	57	57	48
D49-046	56	55	57	56	47
D49-047	56	54	56	56	47
D49-048	55	54	56	55	46
D49-049	62	60	63	61	52
D49-050	67	63	67	64	56
D49-051	66	62	67	64	55
D49-052	60	57	61	58	50
D49-053	58	57	59	58	49
D49-054	57	56	58	57	48
D49-055	57	55	58	56	48
D49-056	57	55	58	56	48
D49-057	57	55	57	56	48
D49-058	57	55	57	56	48
D49-059	67	63	68	64	55
D49-060	63	59	63	60	51
D49-061	59	57	60	58	49
D49-062	60	57	61	58	50
D49-063	60	57	60	59	50
D50-001	61	59	62	60	52
D50-002	61	58	61	59	50
D50-003	59	57	60	58	49
D50-004	55	54	55	55	47
D50-005	54	54	55	55	46

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D50-006	50	52	51	53	44
D50-007	56	55	57	57	48
D50-008	54	52	55	54	45
D50-009	53	52	53	54	45
D50-010	52	51	53	52	43
D50-011	56	55	56	56	48
D50-012	55	55	55	57	48
D50-013	61	60	62	61	53
D51-001A ^{Note 2}	62	62	62	63	54
D51-001B	69	61	70	62	53
D51-002	67	57	68	58	49
D51-003	53	58	53	60	51
D51-004	45	50	46	51	43
D51-005	50	54	51	55	47
D51-006	44	57	45	58	49
D51-007	45	56	45	57	49
D51-008	54	50	55	52	43
D51-008A	63	52	64	53	45
D51-009	51	52	52	53	45
D51-010	52	52	52	53	44
D51-011	45	57	45	58	49
D51-012	47	57	48	58	50
D52-001	46	57	46	58	50
D52-002	46	53	46	54	46
D52-003	43	55	44	56	47
D52-004	45	54	46	55	47
D53-001	46	53	46	54	45
D54 012A	47	56	48	57	48
D54-001	45	53	46	54	45
D54-002	47	49	48	50	42
D54-003	53	50	54	51	42
D54-004	51	50	51	51	42
D54-005	49	49	50	50	41
D54-006	50	50	50	51	42

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D54-007	48	49	49	50	41
D54-008	48	51	49	52	44
D54-009	47	53	48	54	45
D54-010	48	53	48	54	45
D54-011	46	58	47	59	51
D54-012	47	59	48	60	52
D54-013	45	51	46	52	44
D54-014	46	52	46	53	44
D54-015	44	50	45	51	42
D54-016	44	49	45	50	42
D54-017	45	49	45	50	41
D54-014	54	50	54	51	42
D55-001	48	43	49	45	36
D55-002	60	54	60	55	46
D55-003	68	57	68	58	49
D55-004	62	54	62	55	46
D55-005	58	52	59	53	44
D55-006	56	52	57	53	44
D55-007	64	55	65	56	47
D55-008	71	58	71	60	49
D55-009	68	57	68	58	49
D55-010	61	52	61	53	44
D55-011	64	54	65	55	46
D55-012	55	50	55	52	43
D55-013	53	53	53	54	45
D55-015	46	56	46	57	48
D55-016	47	57	48	58	50
D56-001	47	52	47	54	45
D56-002	45	54	46	55	46
D56-003	46	57	46	58	49
D56-004	36	59	36	60	52
D56-005	45	58	46	59	51
D56-006	49	54	49	55	46
D56-007	45	53	46	54	46

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D56-008	45	56	46	57	48
D56-009	44	59	45	60	52
D56-010	42	56	43	57	48
D56-011	44	55	44	57	48
D56-012	43	57	43	58	49
D56-013	36	55	37	56	47
D56-014	43	56	44	57	48
D56-015	44	56	45	57	49
D56-016	43	52	43	53	45
D57 009A	36	57	37	59	50
D57-001	41	57	42	58	50
D57-002	41	52	42	53	45
D57-003	38	52	39	53	45
D57-004	37	54	38	55	46
D57-005	37	54	37	55	46
D57-006	35	56	36	57	48
D57-007	35	59	36	60	51
D57-008	34	58	35	59	50
D57-009	36	59	36	60	51
D57-010	34	53	35	54	46
D57-011	33	52	34	53	44
D57-012	35	58	36	59	50
D57-013	34	56	34	57	48
D57-014	31	55	32	56	48
D57-015	33	55	34	56	47
D57-016	31	54	32	55	46
D57-017	34	57	35	58	49
D58-001	<30	54	<30	56	47
D58-002	35	58	36	60	51
D58-003	35	57	35	58	49
D58-004	<30	55	<30	57	48
D58-005	34	55	35	56	48
D59-001	35	58	36	59	50
D59-002	31	56	32	57	49

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D59-004	34	56	35	57	49
D59-005	34	52	35	53	44
D59-006	34	55	35	56	48
D59-007	35	55	36	56	47
D59-008	31	53	32	54	45
D59-009	32	56	33	57	48
D59-010	33	54	34	55	47
D59-011	32	56	33	57	48
D59-012	35	53	36	55	46
D60-001	41	57	42	59	50
D60-001	38	54	38	55	46
D60-003	39	59	39	60	51
D60-004	34	59	35	60	52
D60-005	36	56	37	58	49
D60-006	36	53	37	55	46
D60-007	37	57	38	59	50
D60-008	37	57	38	59	50
D60-009	35	58	36	60	51
D60-010	43	55	44	57	48
D60-011	41	58	42	59	51
D60-012	38	57	39	59	50
D60-013	40	59	40	60	52
D61-002 ^{Note 1}	43	74	44	75	66
D61-003	41	58	42	60	51
D61-004	41	57	42	59	50
D61-005	42	56	43	58	49
D61-006	42	55	43	57	48
D61-007	43	55	44	56	47
D61-008	46	57	47	58	50
D61-009	47	57	47	58	49
D61-010	50	56	51	58	49
D61-011	62	57	63	59	50
D61-012	61	56	61	57	48

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D61-013	56	55	57	57	48
D61-014	56	55	57	56	48
D61-015	57	58	58	59	50
D62 006A	49	58	50	59	50
D62-001	51	54	52	55	46
D62-002 ^{Note 1}	51	76	52	78	69
D62-003 ^{Note 1}	51	62	51	63	54
D62-004	47	57	48	58	50
D62-005	47	57	48	58	50
D62-006	48	56	49	57	48
D62-007	48	56	48	57	48
D62-008	48	56	49	57	49
D62-009	48	56	48	57	48
D62-010	48	55	48	57	48
D62-011	48	56	49	57	48
D62-012	56	58	56	59	50
D62-013	50	53	51	54	45
D62-014	48	51	48	52	43
D62-015	62	57	63	59	50
D62-016	47	54	48	55	47
D62-017	47	54	48	55	47
D62-018	47	54	48	55	46
D62-019	46	53	47	54	46
D62-020	45	52	46	53	44
D62-021	45	52	46	53	44
D62-022	45	52	46	53	44
D62-023	45	51	46	52	44
D62-024	45	53	46	55	46
D63-001	47	54	47	55	46
D63-002	68	62	69	63	54
D63-003	56	57	57	59	50
D63-004	50	59	51	60	51
D63-005	55	57	56	59	50
D63-006	53	56	54	57	49

Receiver Location Reference	Opening Year 2024		Design Year 2039		
	Predicted Noise Level		Predicted Noise Level		
	Do Minimum	Do Something	Do Minimum	Do Something	L _{night} (dB)
	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	L _{den} (dB)	
D63-007	54	58	55	60	51
D64-001 ^{Note 3}	60	60	60	61	52
D64-002	54	57	55	58	50
D64-003	53	58	54	60	51
D64-004	55	58	56	59	50
D64-005	52	58	53	60	51
D64-006	54	56	55	57	49
D64-007	54	55	54	57	48
D64-008	54	56	55	57	48
D64-009	54	56	55	57	48
D64-010	53	55	54	56	47
D64-011	54	55	55	57	48
D64-012	55	57	56	59	51
D65-001A ^{Note 3}	71	71	71	72	63
D66-001	61	61	62	62	54
D66-002	50	51	51	53	44
D66-002A	54	55	55	56	47

Note 1: Residential property likely to be demolished as part of proposed road

Note 2: Difference in noise level is 1dB between Do Nothing and Do Something scenario, reduction to front of property

Note 3: Difference in noise level is less than 1dB between Do Nothing and Do Something scenario