



Appendix 8.7

Environmental Noise Modelling Results



APPENDIX 8.7
ENVIRONMENTAL NOISE MODELLING RESULTS



A8.7.1 Construction Phase

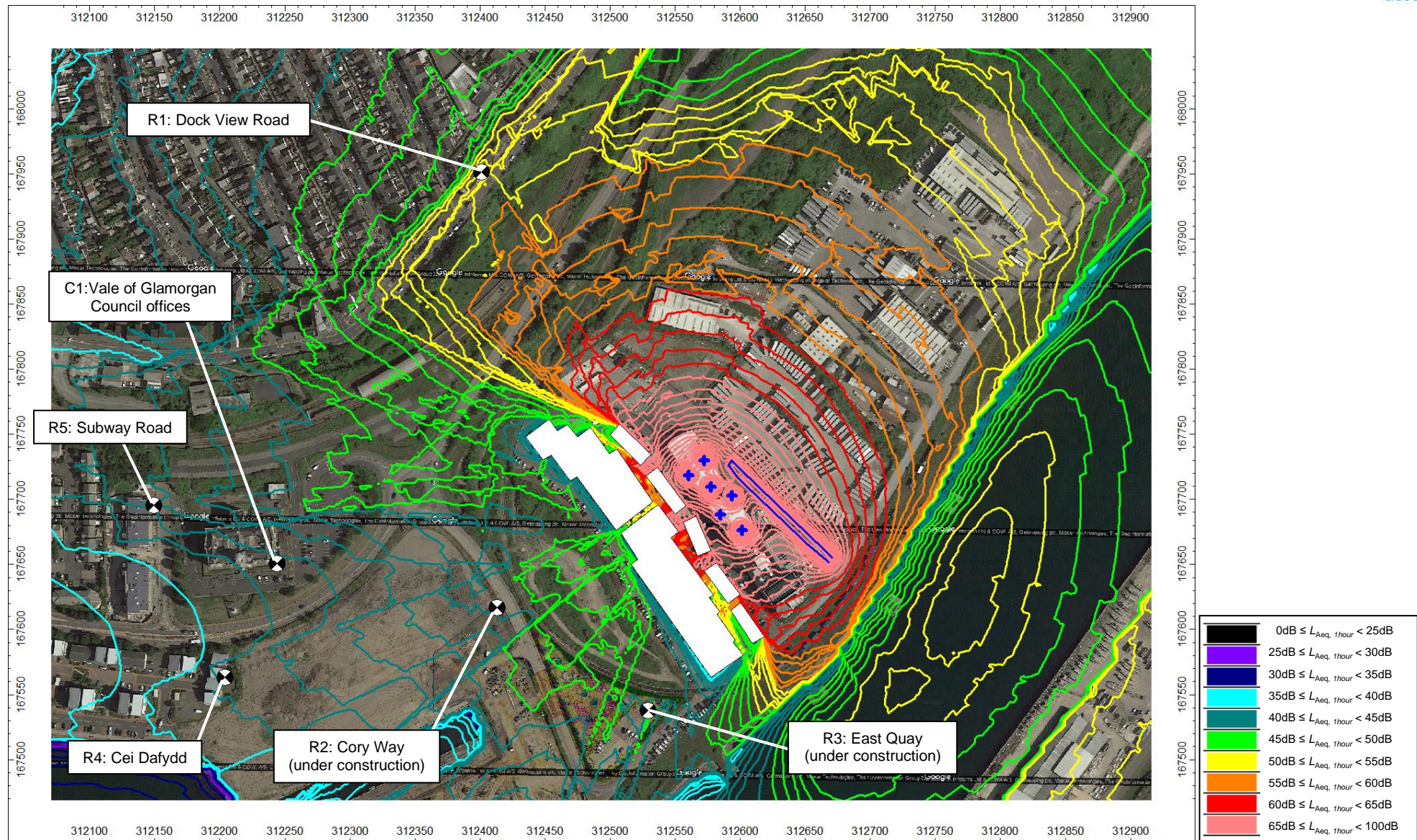


Figure A8.7.1: Predicted daytime $L_{Aeq,1hour}$ Specific Sound Level at 1.5 metre grid height (ground Floor) – Stage 1 of the Construction Phase

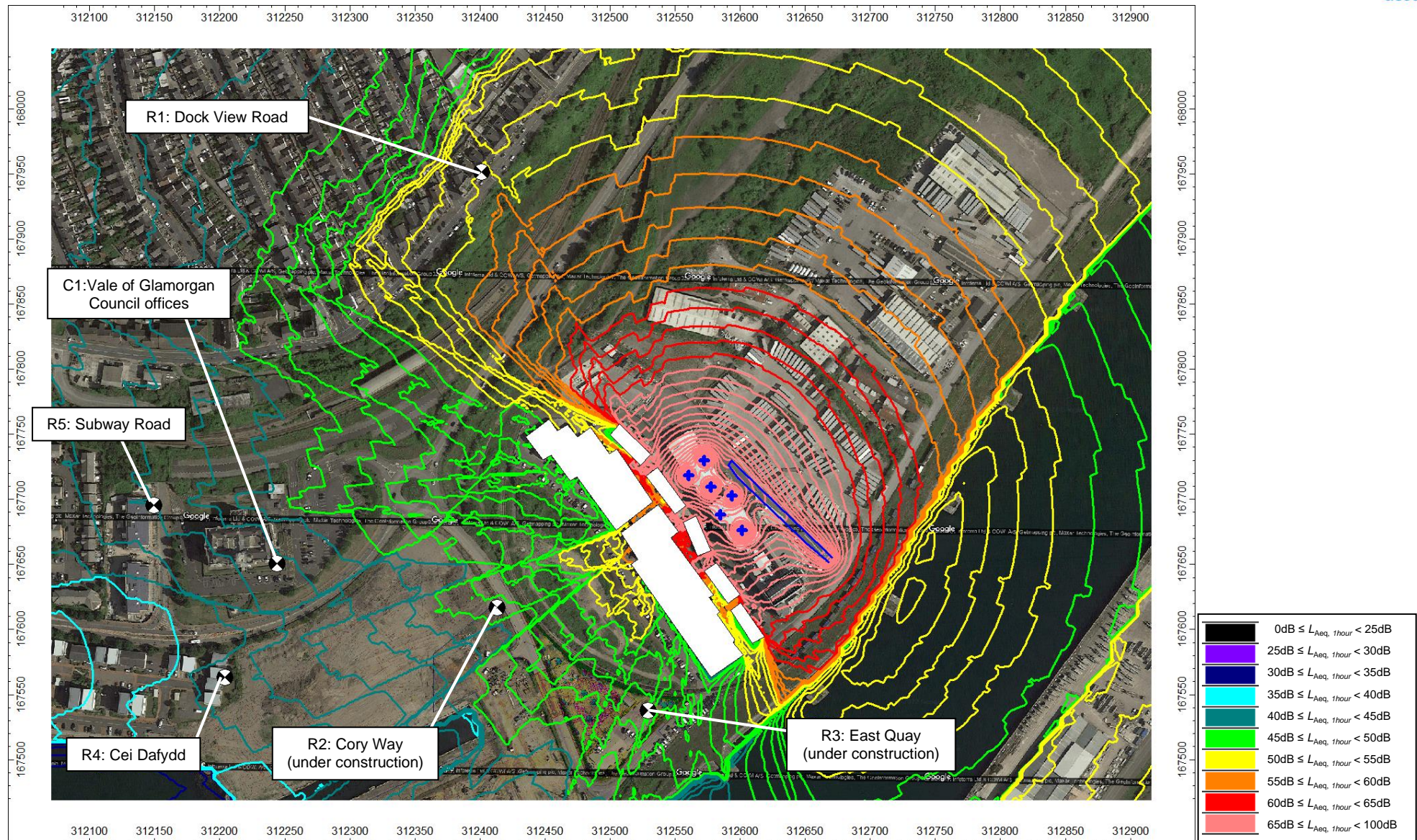


Figure A8.7.2: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 4 metre grid height (first floor) – Stage 1 of the Construction Phase

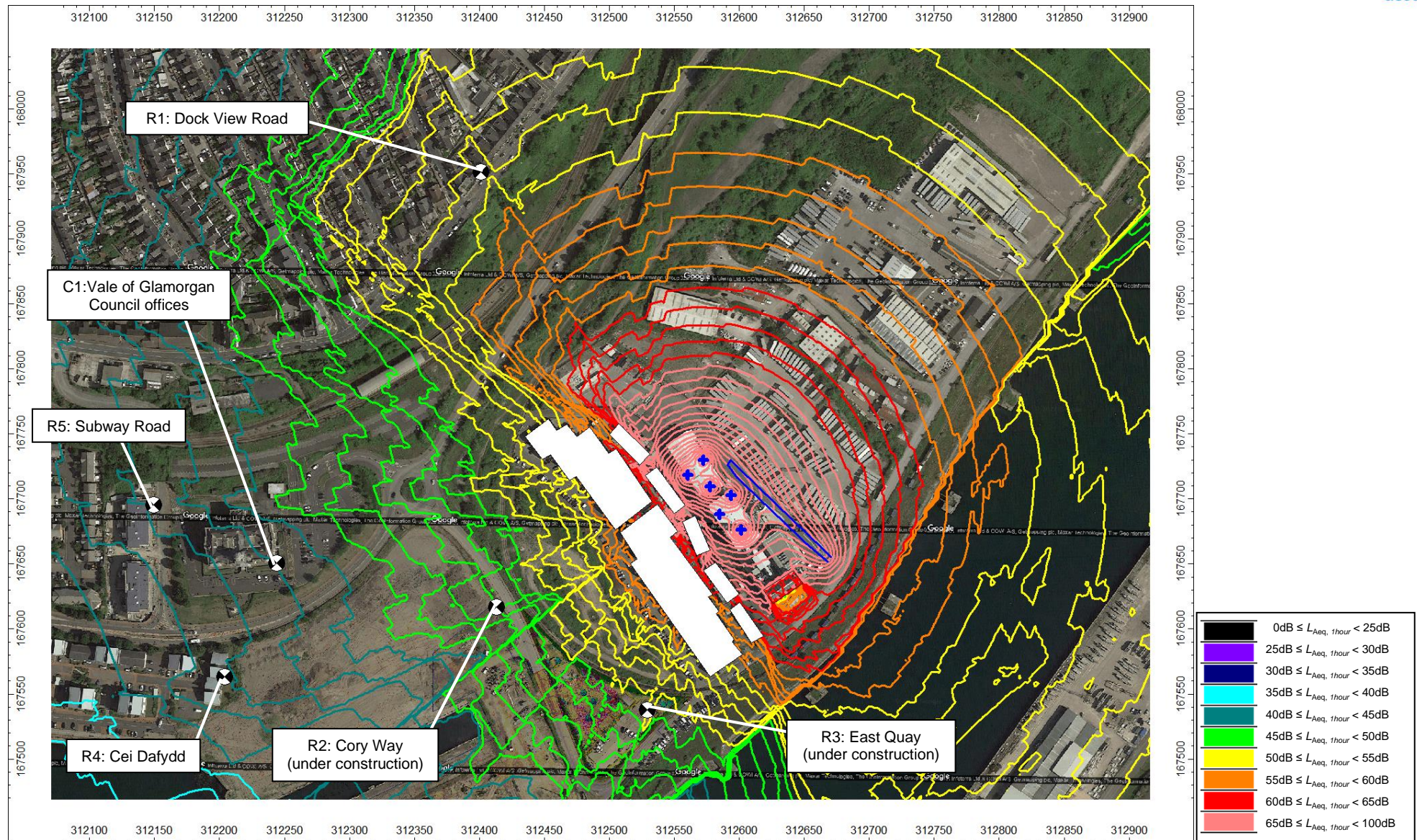


Figure A8.7.3: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 7 metre grid height (second floor) – Stage 1 of the Construction Phase

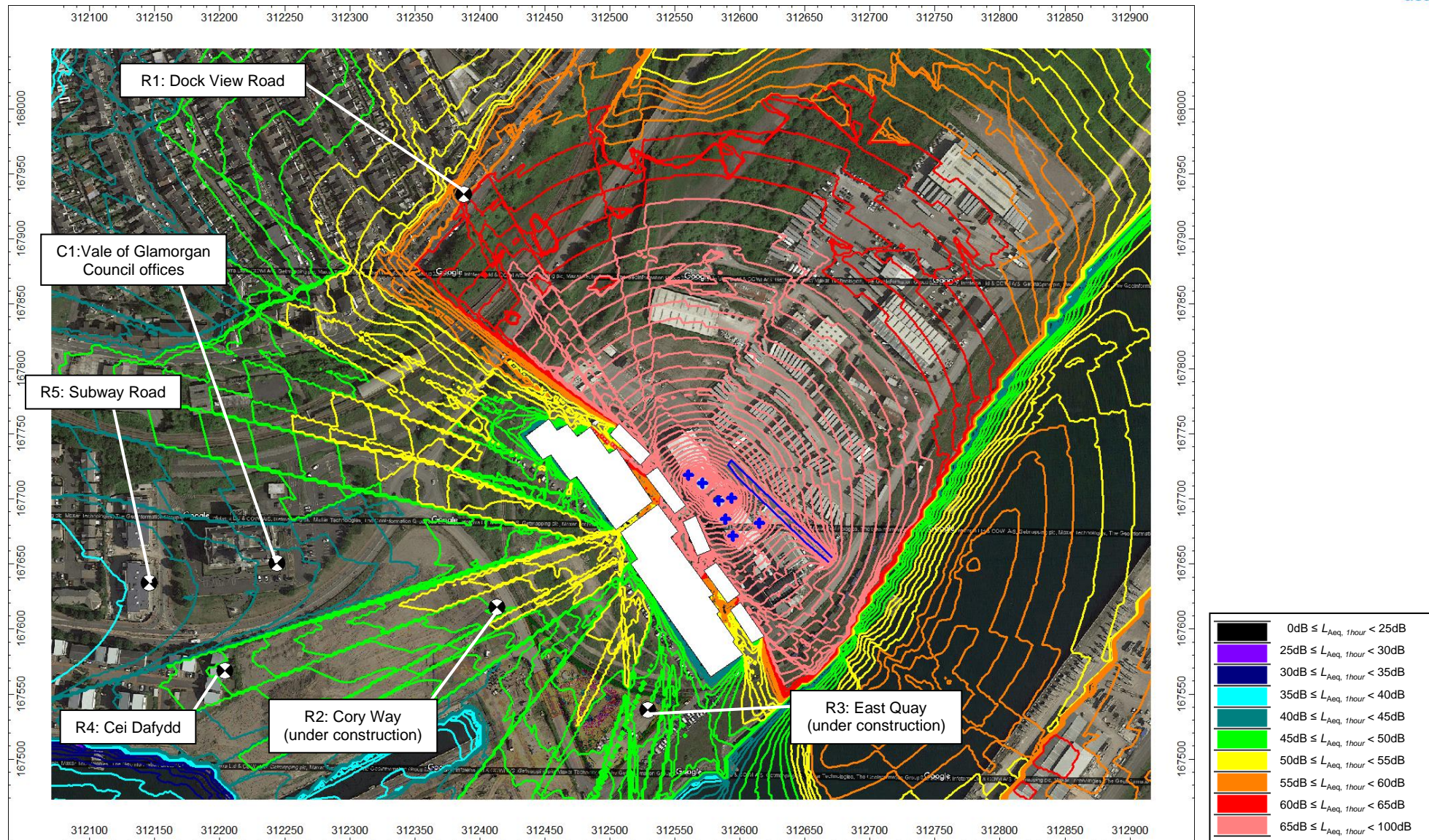


Figure A8.7.4: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 1.5 metre grid height (ground floor) – Stage 2 of the Construction Phase

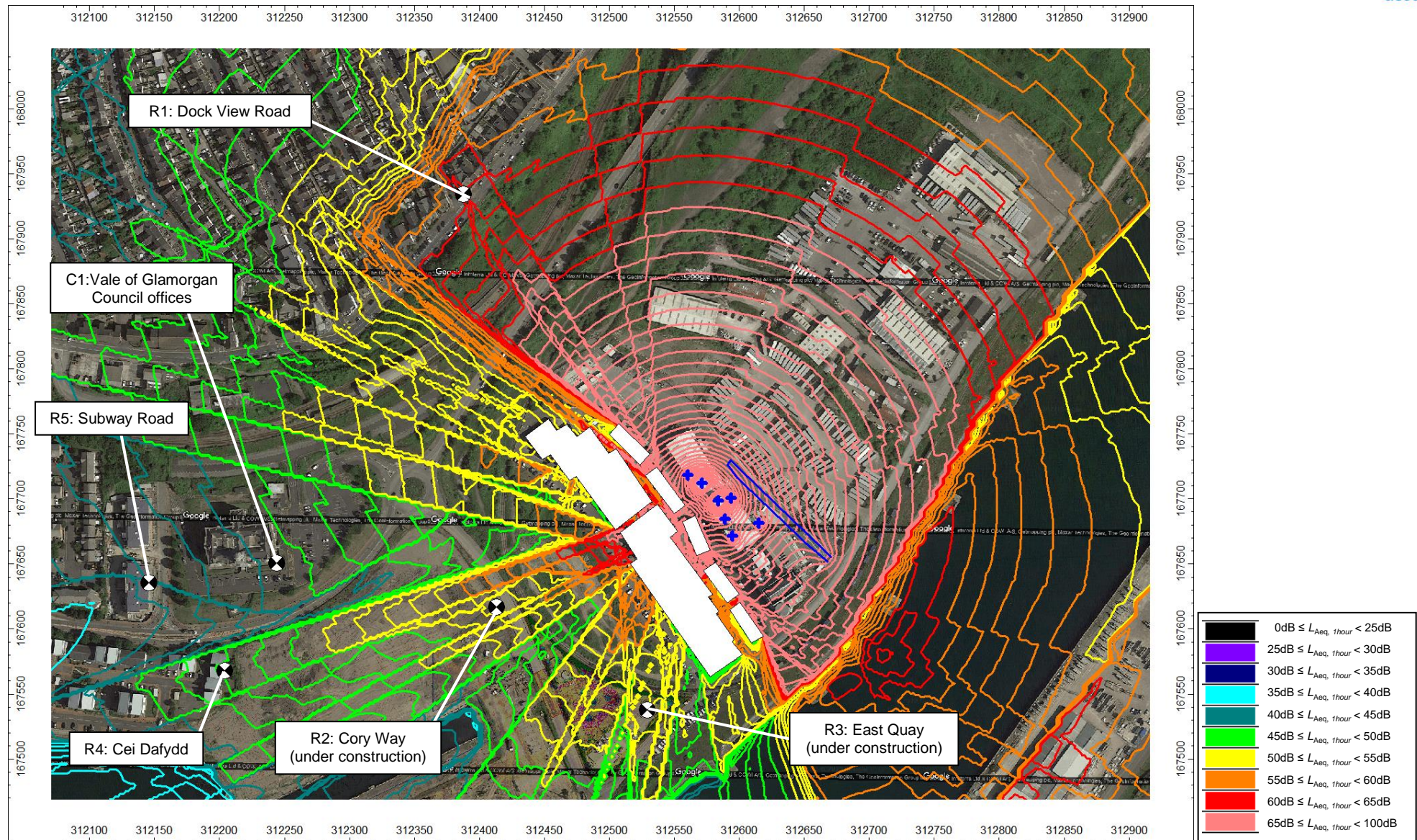


Figure A8.7.5: Predicted daytime $L_{\text{Aeq}, 1\text{hour}}$ Specific Sound Level at 4 metre grid height (first floor) – Stage 2 of the Construction Phase

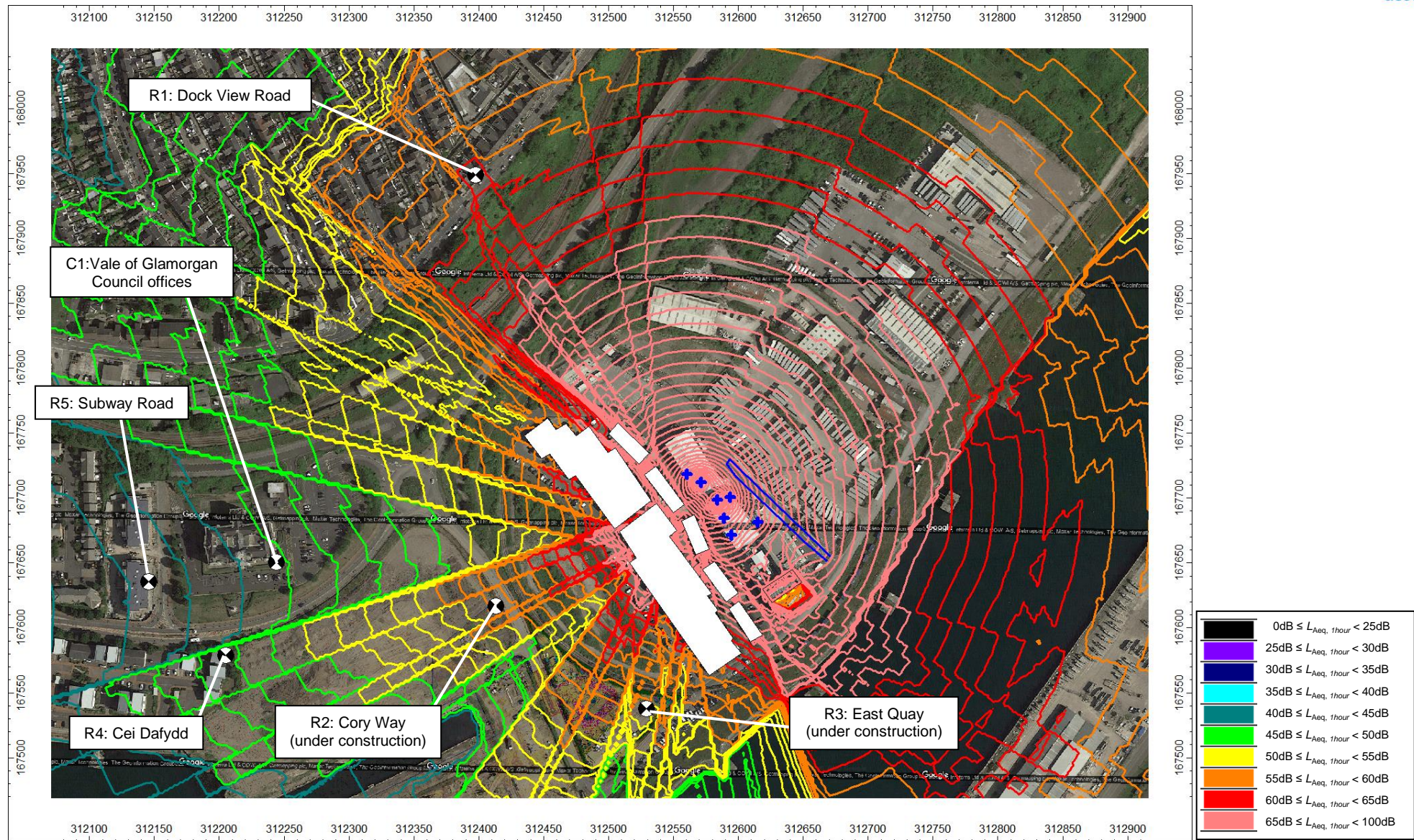


Figure A8.7.6: Predicted daytime $L_{Aeq,1hour}$ Specific Sound Level at 7 metre grid height (second floor) – Stage 2 of the Construction Phase

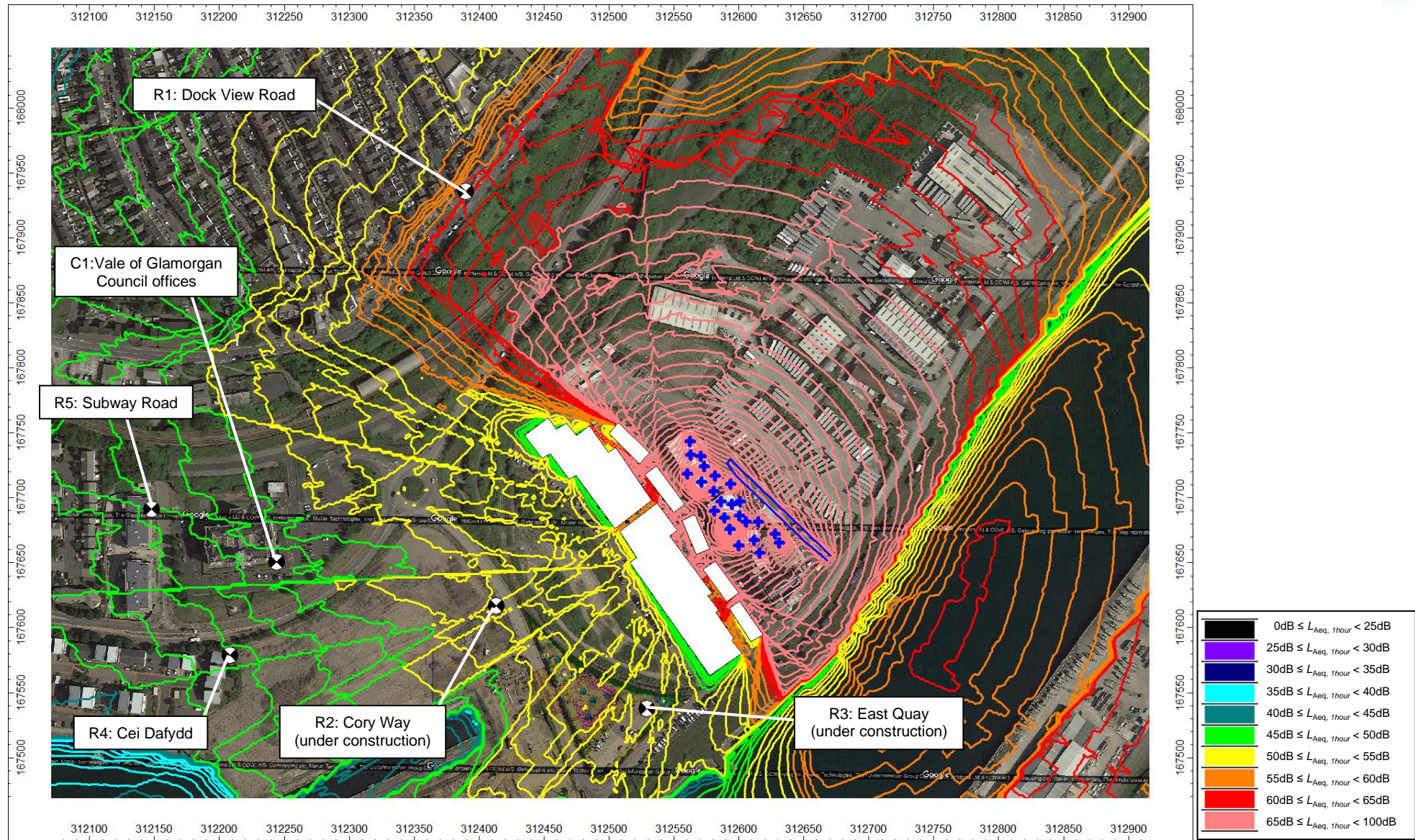


Figure A8.7.7: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 1.5 metre grid height (ground floor) – Stage 3 of the Construction Phase

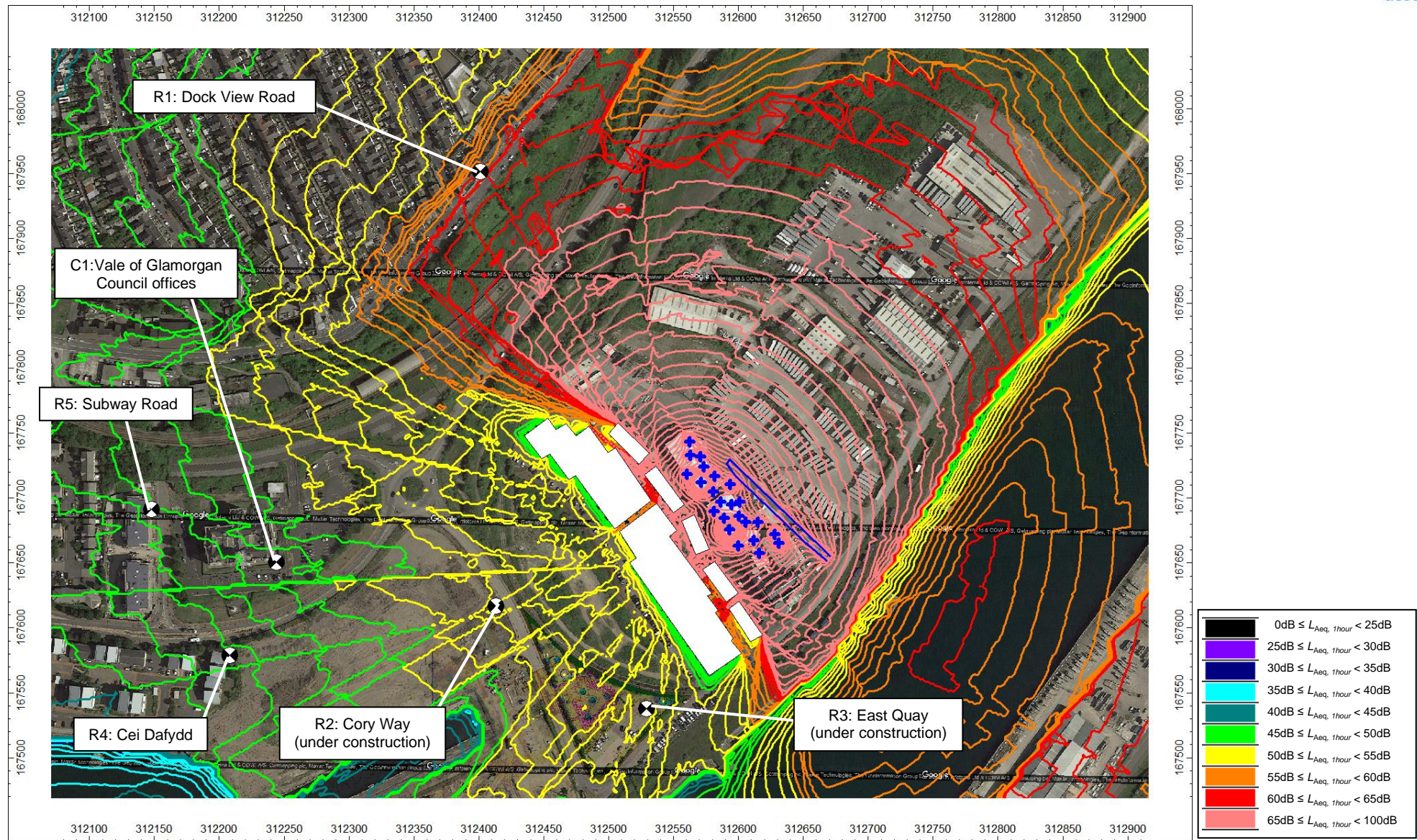


Figure A8.7.8: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 4 metre grid height (first floor) – Stage 3 of the Construction Phase

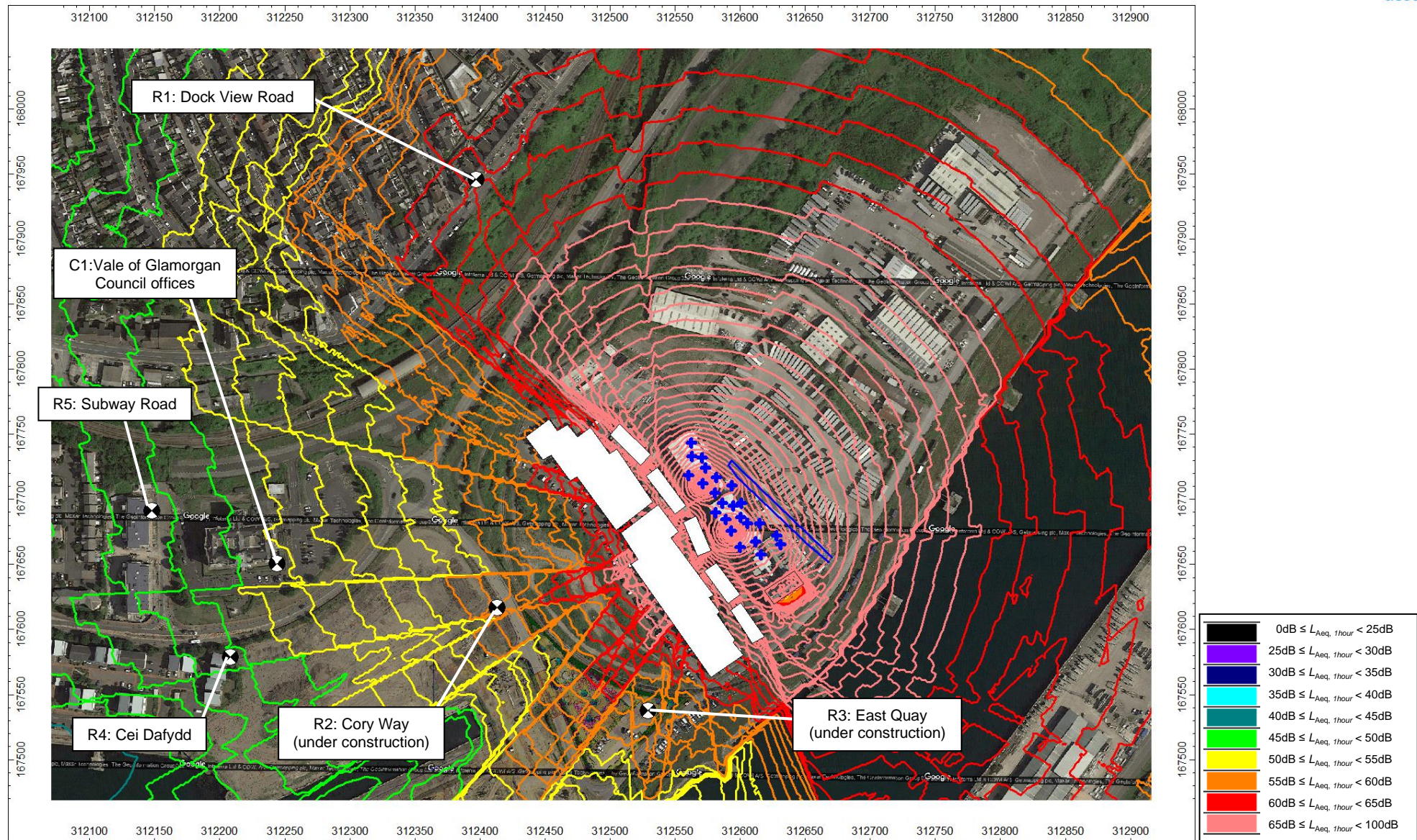


Figure A8.7.9: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 7 metre grid height (second floor) – Stage 3 of the Construction Phase

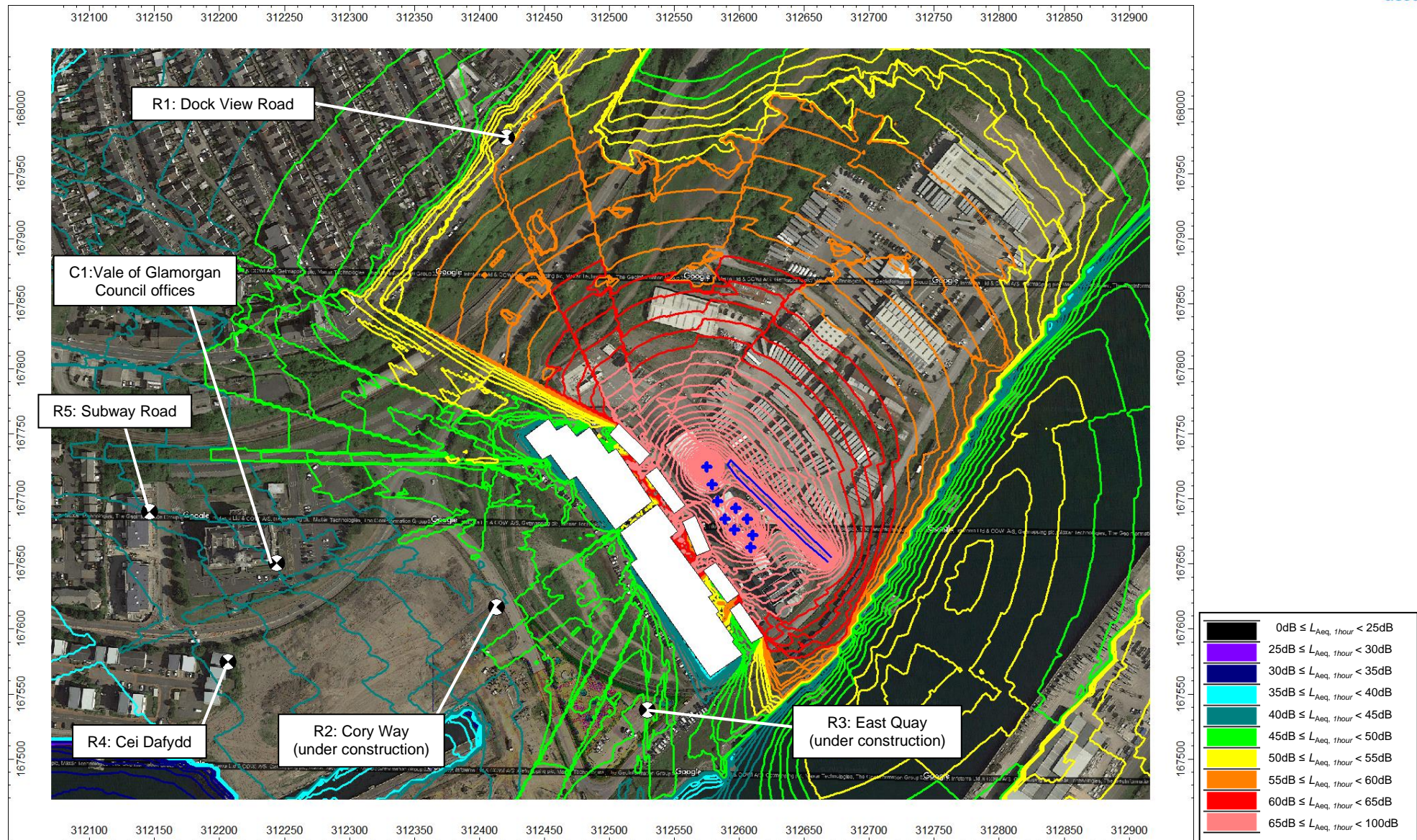


Figure A8.7.10: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 1.5 metre grid height (ground floor) – Stage 4 of the Construction Phase

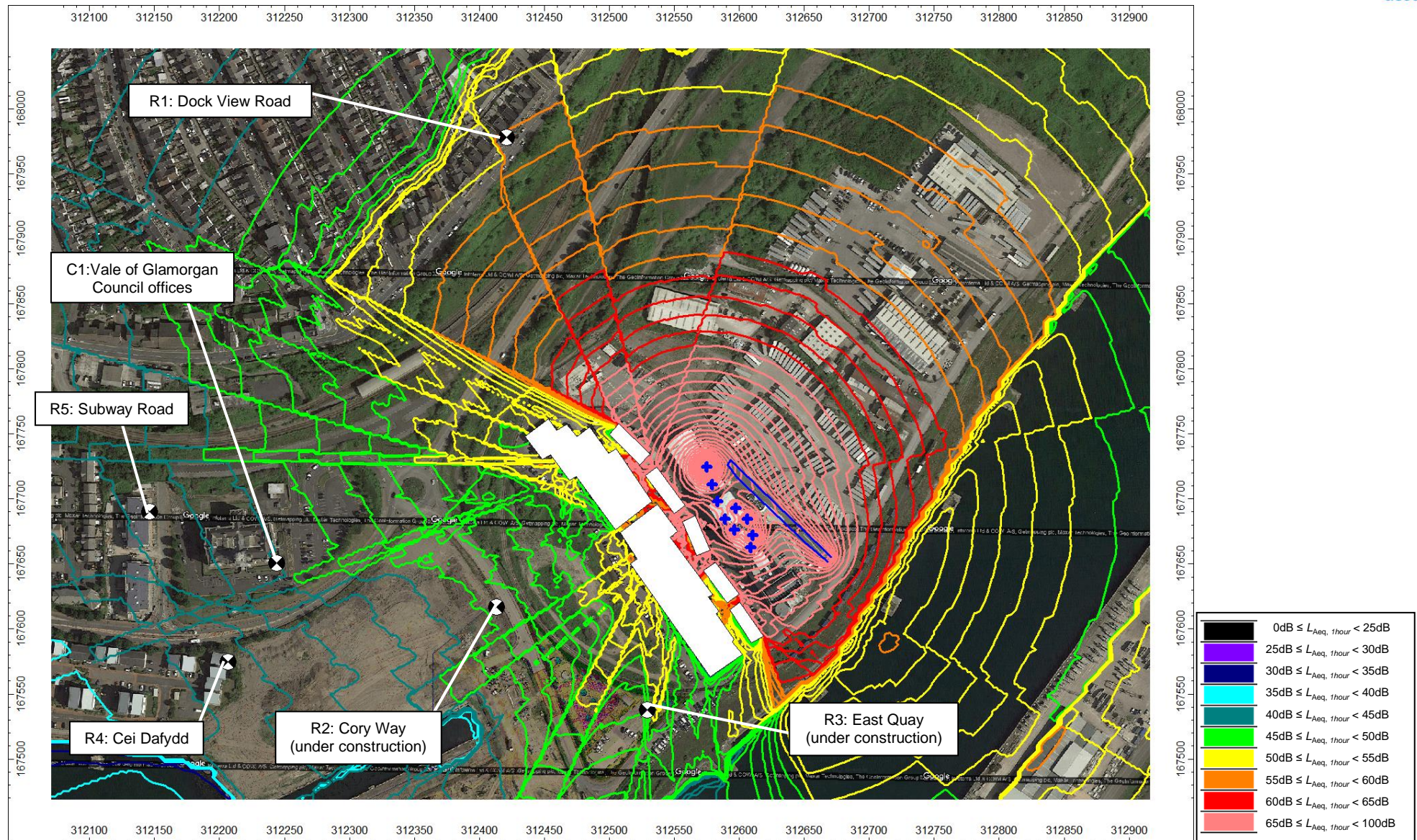


Figure A8.7.11: Predicted daytime $L_{Aeq,1hour}$ Specific Sound Level at 4 metre grid height (first floor) – Stage 4 of the Construction Phase

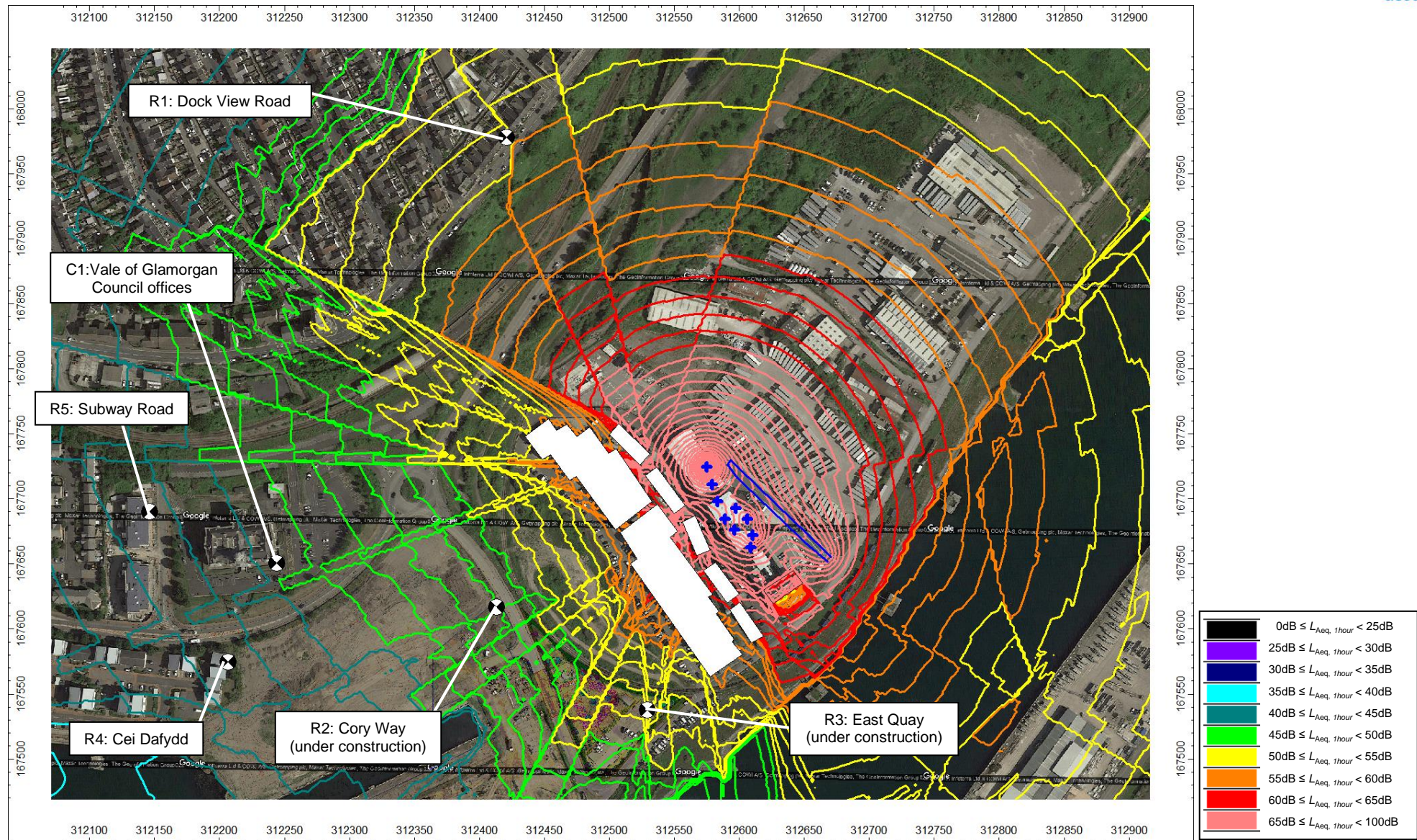


Figure A8.7.12: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 7 metre grid height (second floor) – Stage 4 of the Construction Phase



A8.7.2 Operational Phase – As Built

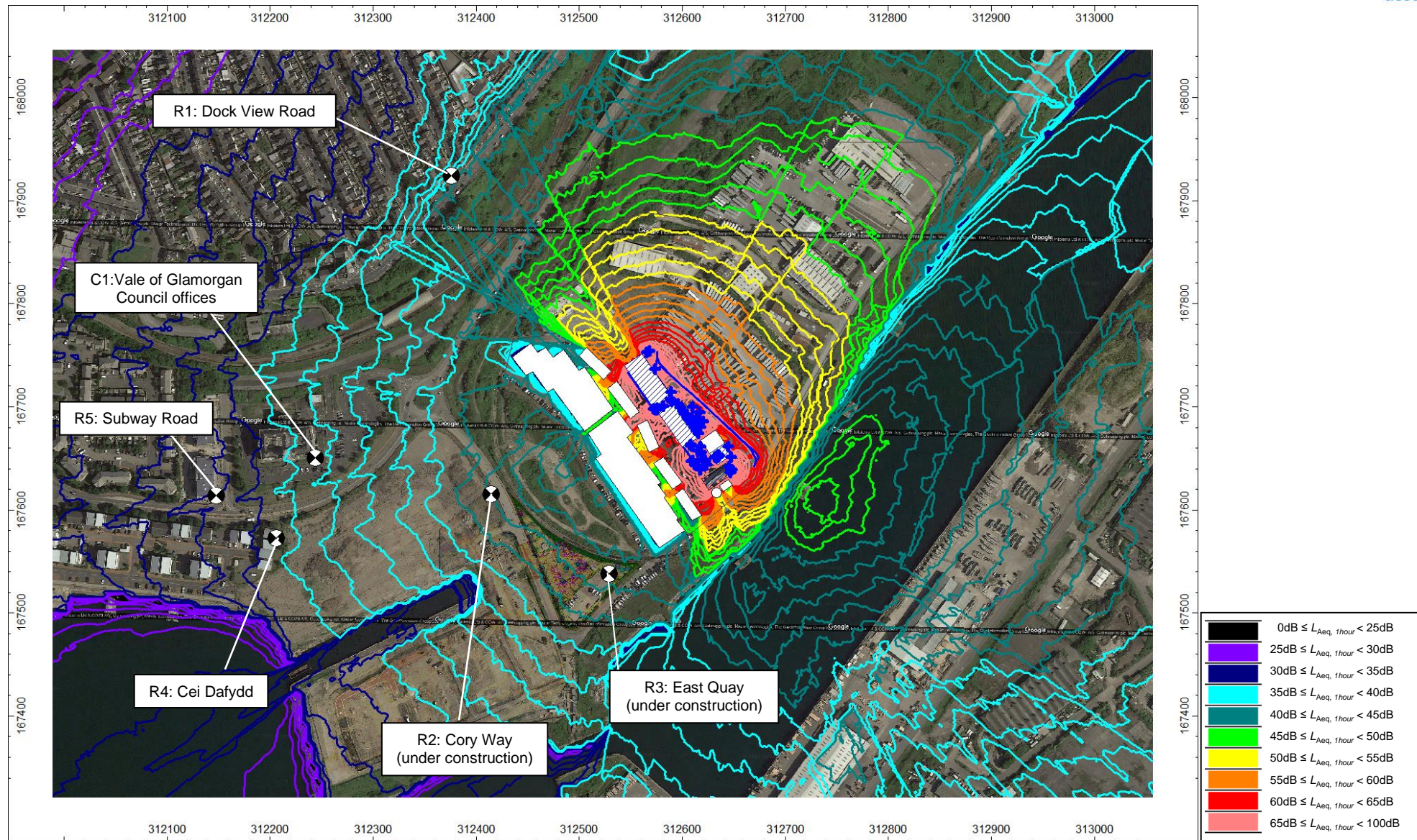


Figure A8.7.13: Predicted Operational Phase daytime $L_{Aeq,1hour}$ Specific Sound Level from the as built installation, at 1.5 metre grid height (ground floor)

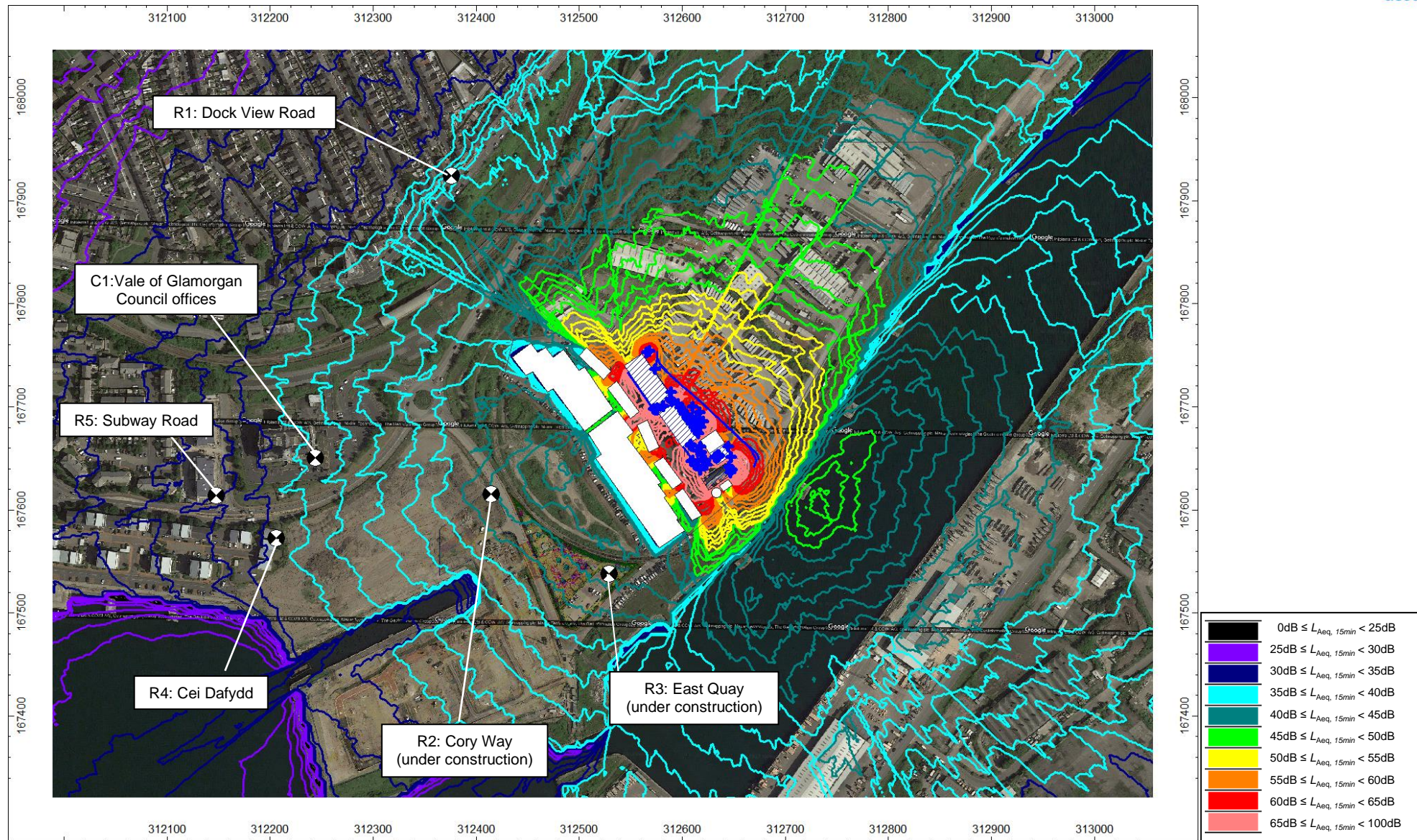


Figure A8.7.14: Predicted Operational Phase night time $L_{\text{Aeq}, 15\text{min}}$ Specific Sound Level from the as built installation, at 1.5 metre grid height (ground floor)

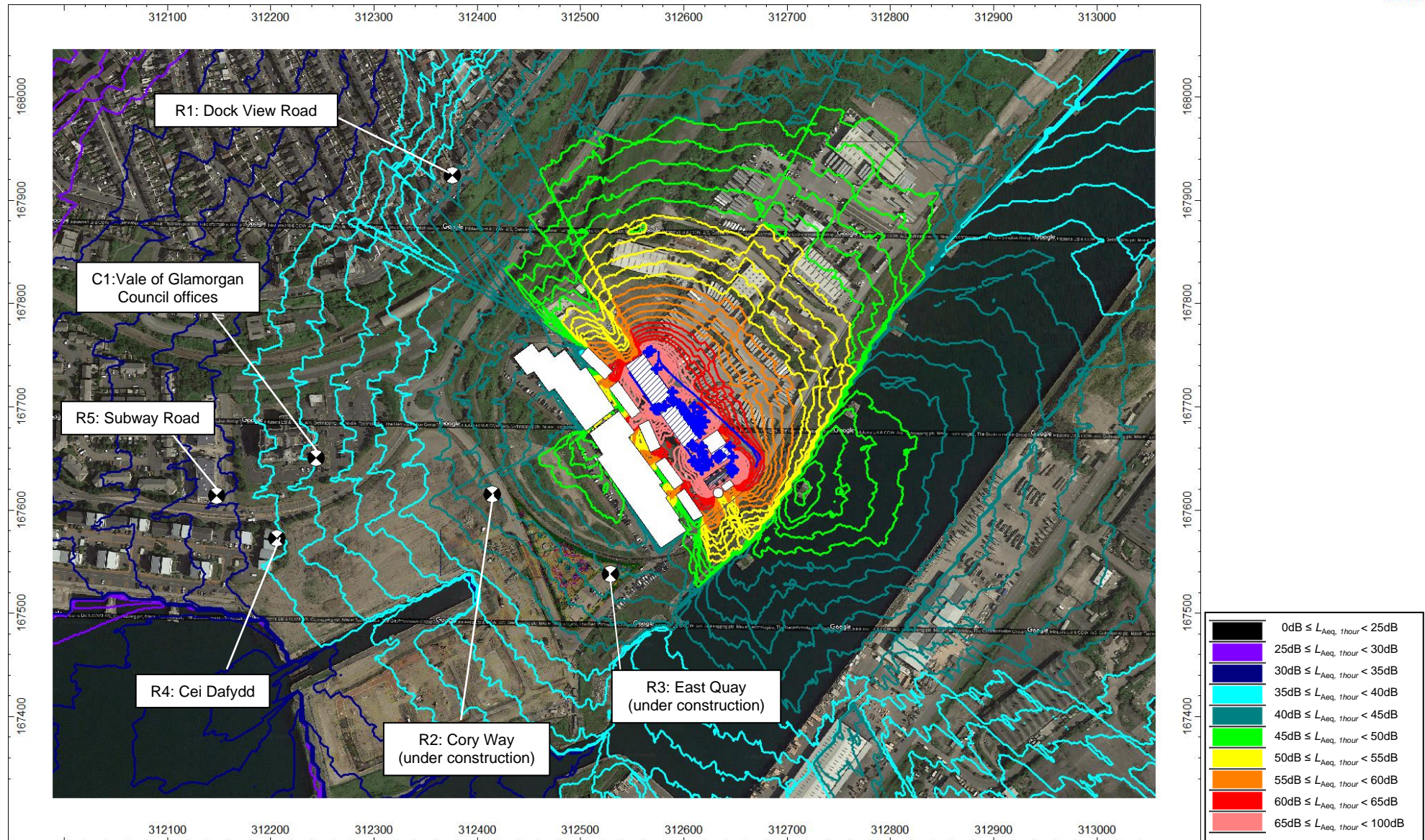


Figure A8.7.15: Predicted Operational Phase daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level from the as built installation, at 4 metre grid height (first floor)

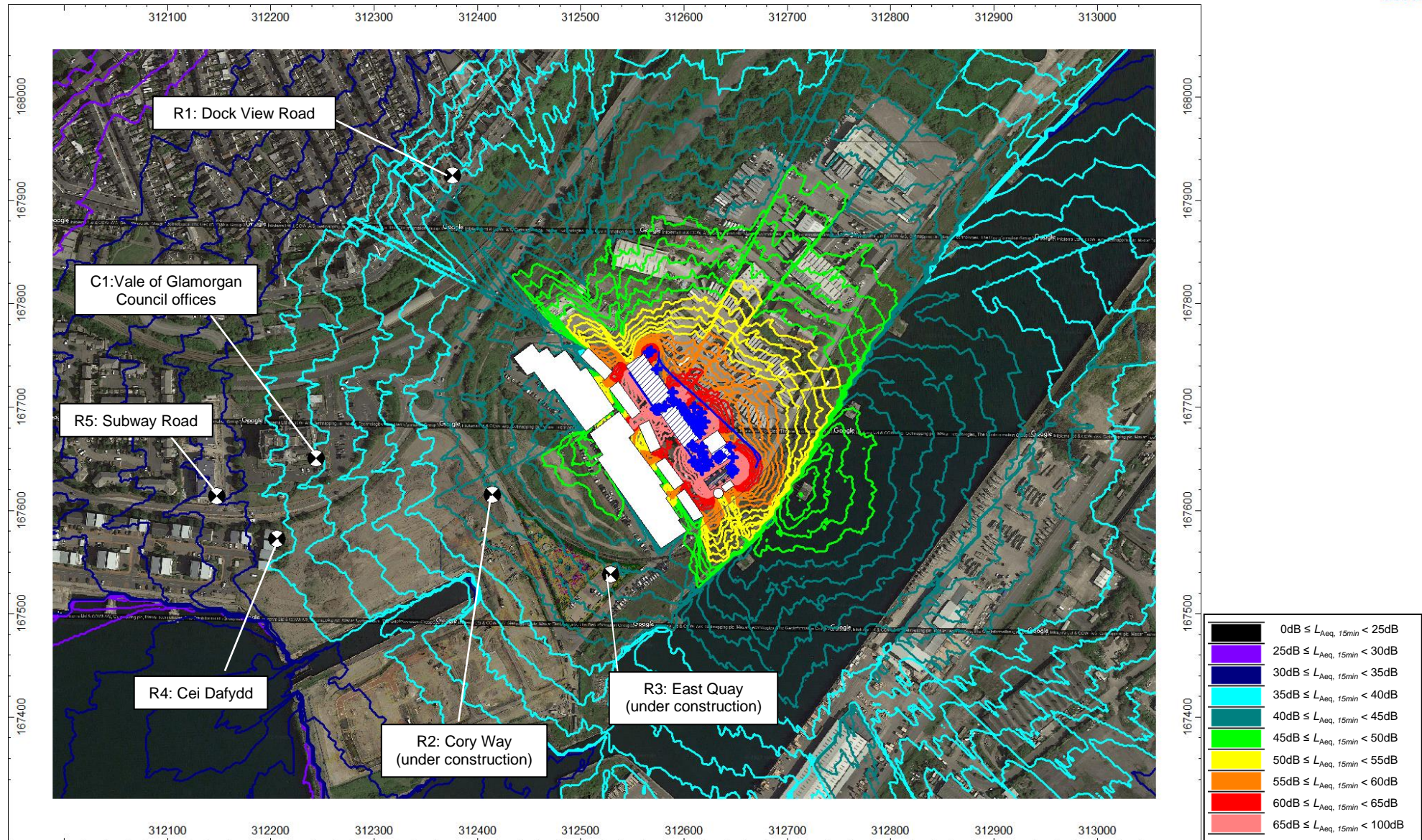


Figure A8.7.16: Predicted Operational Phase night time $L_{Aeq, 15\text{min}}$ Specific Sound Level from the as built installation, at 4 metre grid height (first floor)

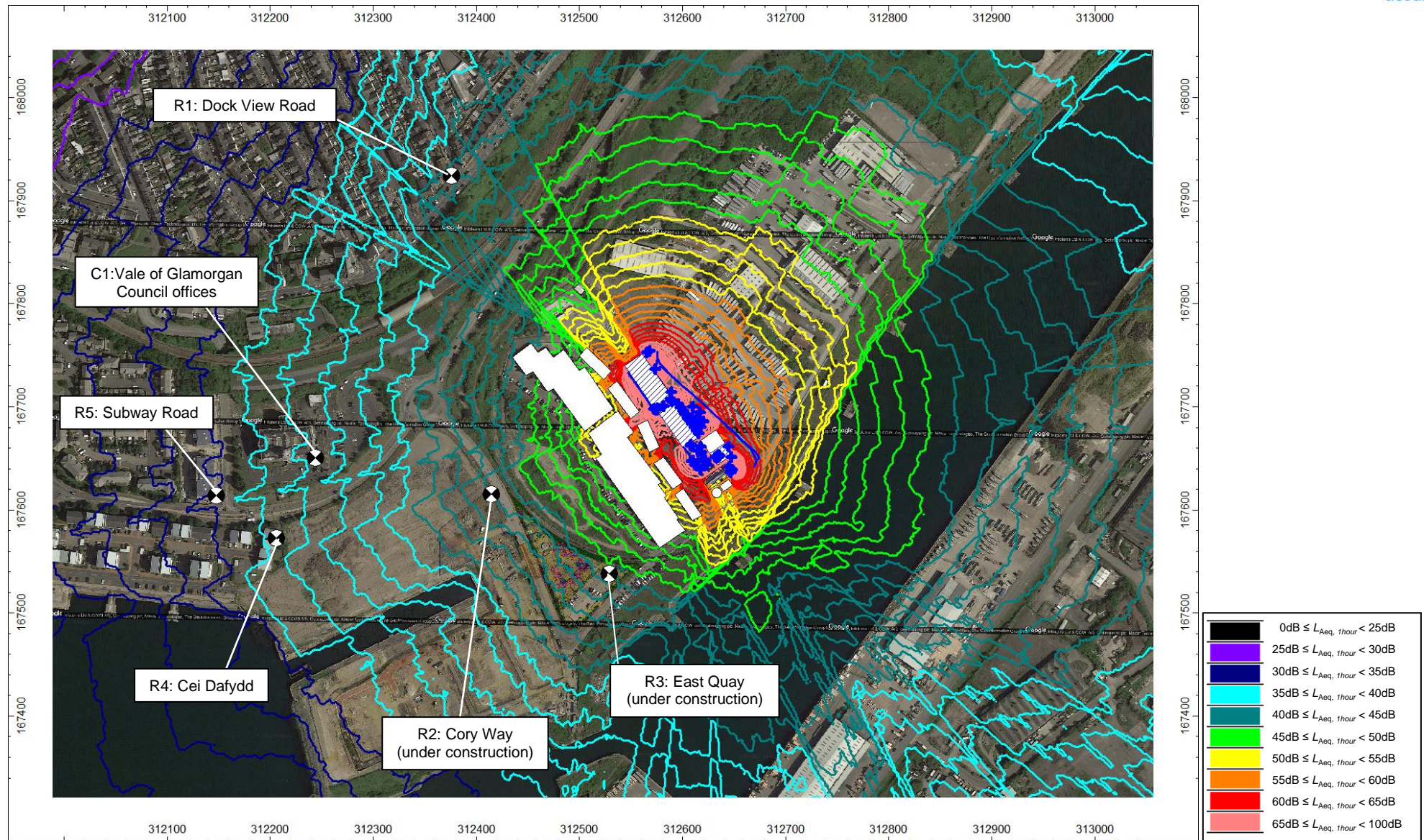


Figure A8.7.17: Predicted Operational Phase daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level from the as built installation, at 7 metre grid height (second floor)

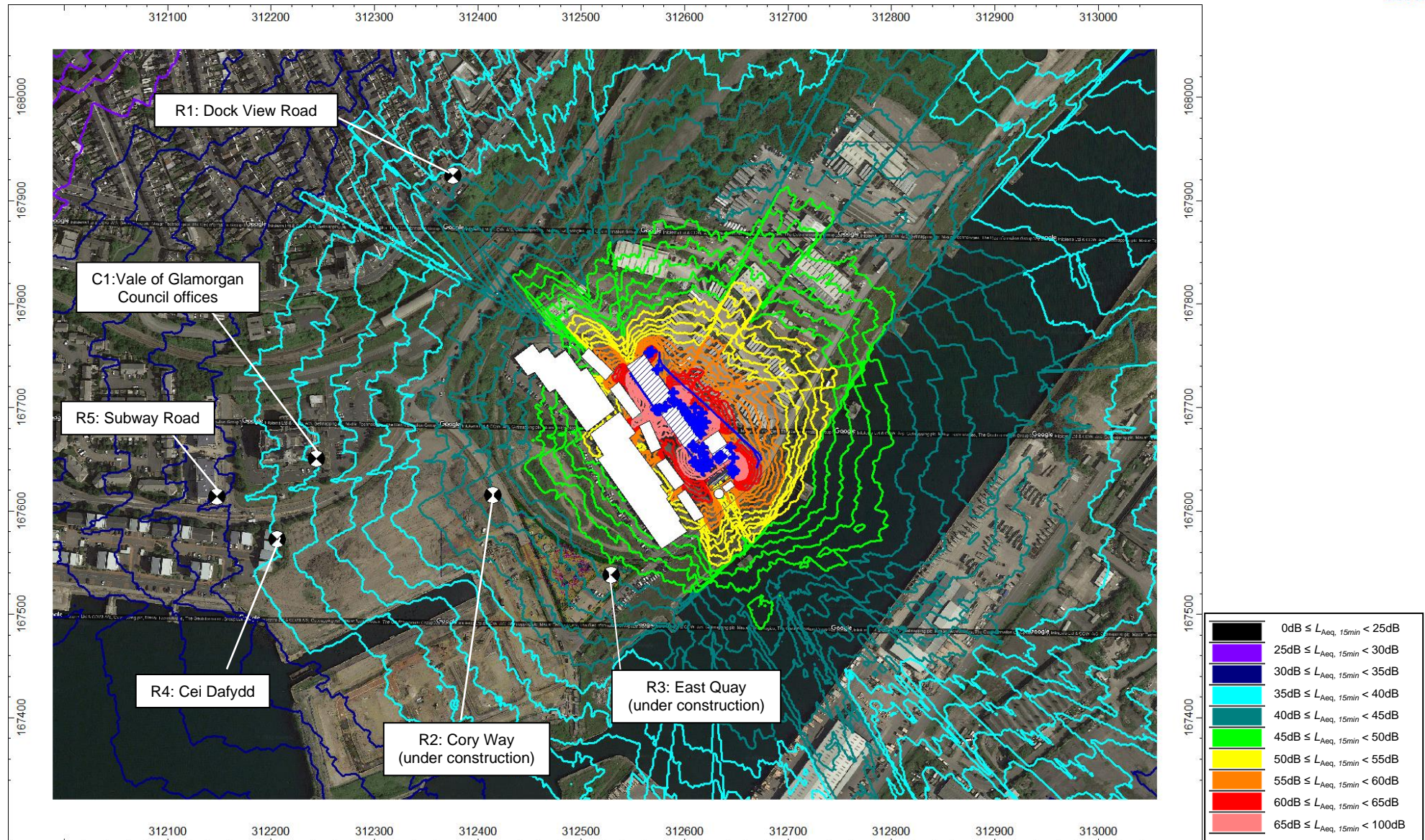


Figure A8.7.18: Predicted Operational Phase night time $L_{Aeq, 15\text{min}}$ Specific Sound Level from the as built installation, at 7 metre grid height (second floor)

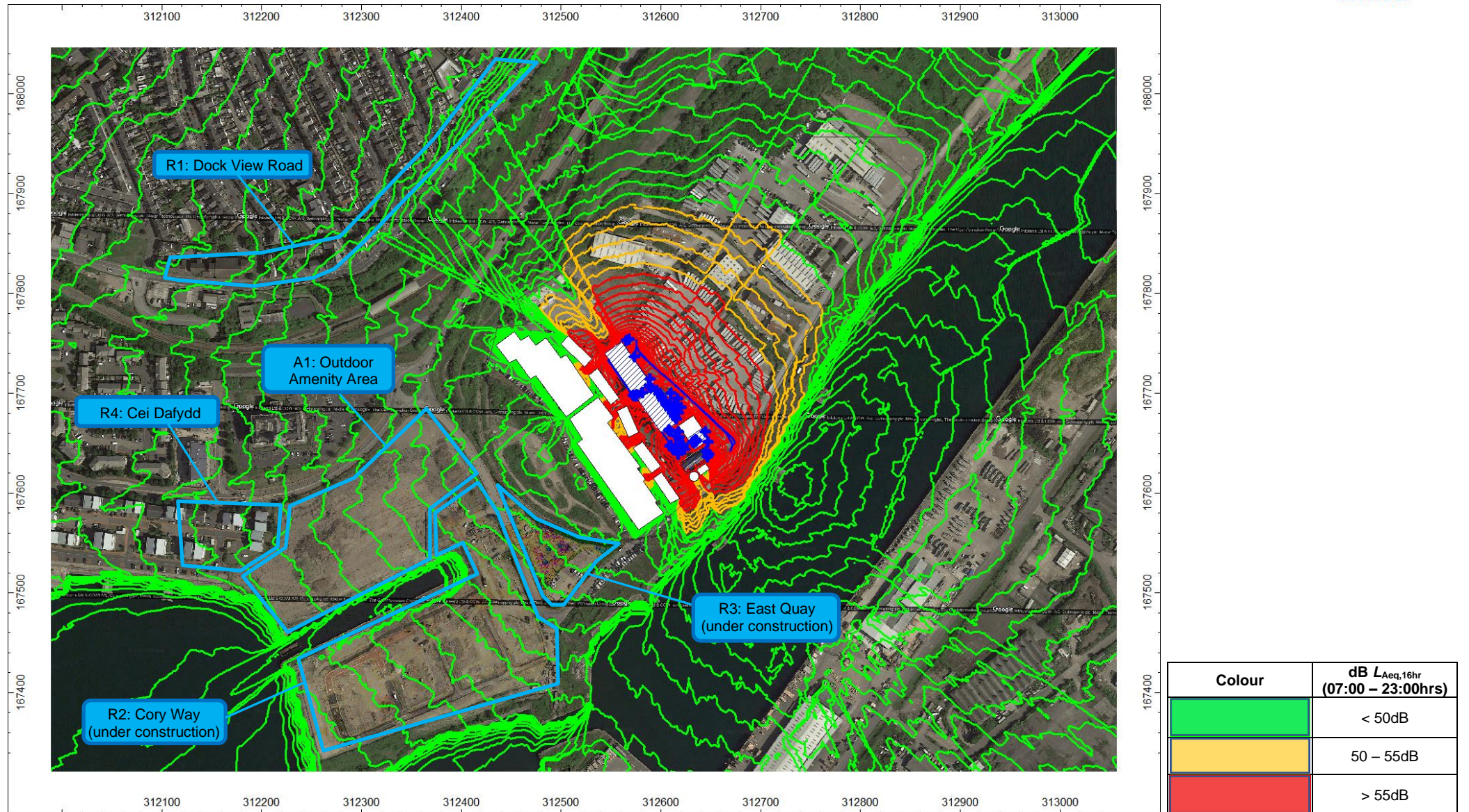


Figure A8.7.19: Predicted Operational Phase Daytime $L_{Aeq,1hour}$ Specific Sound Level from the as built installation, at 1.5 metre grid height (external amenity)

R1: Dock View Road As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Lorry Walking Floor	37.7
Aux Dry Air Blast Cooler	33.4
Collection Chain Conveyor	29.8
Lorry transit	29.1
Fresh Lime Conveying Blower	27.5
ID Stack Outlet Aperture	25.2
Reception Building - NE	24.9
4 Ladder Push floor hydraulic power pack	24.4
8 Ladder Push floor hydraulic power pack	24.2
Urea Blower	23.7
Main Processing Building - NE	23.4
Reception Building - SW	22.7
Dust Extract Outlet Grille	22.1
Reception Building - NW	22.1
Dust Extract outlet grille	21.4
ACC Fans	21.4
Turbine Building NE	20.5
Air compressor outlet	19.9
Glycol/Water Recirculation Pump	19.8
Dust Extract Fan B	19.6
Dust Extract Fan A	19.4
Ash Conditioner	18.9
Overband Magnet Conveyor	17.6
Deaerator Outlet Vent Pipe	17.4
Reception Building - Roof	16.9
Main Processing Building - SW	16.6
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
Main Processing Building - NW	15.4
Vacuum Unit start up	15.1
Main Processing Building - Roof	15.0
Steam Turbine Ventilation Fan	14.6
Drag Chain Conveyor	14.3
APCR conditioner	14.2
Weigh Belt	13.8
Collection Chain Conveyor Top Drive	13.7
ID Inlet Duct Wall	12.9
Diesel Transfer Pump	12.5
Turbine Building - Roof	12.2
PAC Enclosure	11.2
Gland Steam Condenser Fan Exhaust	10.1
Disc Screen	9.9
ST Intake Grille	9.7
ST Intake Grille	9.7
ST Exhaust Grille	9.7
ST Exhaust Grille	9.7
ID Fan Case and Motor	9.5

R1: Dock View Road As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Reception Building - SE	9.5
Main Processing Building - SE	9.1
ID Flue Gas Duct	8.9
MPB Extract ventilation	8.8
MPB Extract ventilation	8.6
MPB Extract ventilation	8.5
Air compressor outlet	8.3
Reagent recycle (APCR) conveying blower	7.9
Air compressor outlet	7.9
MPB Extract ventilation	7.9
MPB Extract ventilation	7.8
Super heated Steam outlet	7.8
ACC Vacuum Unit	7.5
MPB Extract ventilation	7.4
MPB Extract ventilation	7.3
MPB Extract ventilation	7.1
Baghouse Penthouse Ventilation Fans	6.8
MPB Extract ventilation	6.8
MPB Extract ventilation	6.7
Recycled Lime (Blower)	5.6
Baghouse Transfer Screw Conveyor	4.5
MPB lean to - NW	4.1
Baghouse Penthouse Ventilation Fans	4.0
Baghouse Gathering Screw Conveyors	3.2
Condensate Pumps	1.0
Turbine Building - SE	0.8
Reactor Feed Screw Conveyor	-0.1
Turbine Building - SW	-1.6
MPB lean to - SE	-1.8
Baghouse Gathering Screw Conveyors	-2.5
Recycled Lime (Drive)	-3.5
Reagent Recycle Conveying Blower Piping	-3.5
MPB lean to - roof	-4.2
MPB lean to - NE	-4.8
Recycle to Silo Rotary Feeder	-5.4
Hydrated Lime Metering Rotary Feeder	-7.6
LPPH Drain Pumps	-8.1
Recycled Lime (Drum)	-72.8
Total	41.5

Table A8.7.1: R1: Dock View Road
As Built Facility Predicted Specific Sound Levels
Daytime (07:00 – 23:00 hours)
Receptor Height: 4 metres (first floor)

R1: Dock View Road As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Aux Dry Air Blast Cooler	33.4
Collection Chain Conveyor	29.8
Fresh Lime Conveying Blower	27.5
ID Stack Outlet Aperture	25.2
4 Ladder Push floor hydraulic power pack	24.4
8 Ladder Push floor hydraulic power pack	24.2
Urea Blower	23.7
Main Processing Building - NE	23.4
Dust Extract Outlet Grille	22.1
Dust Extract outlet grille	21.4
ACC Fans	21.4
Turbine Building NE	20.5
Air compressor outlet	19.9
Glycol/Water Recirculation Pump	19.8
Dust Extract Fan B	19.6
Dust Extract Fan A	19.4
Reception Building - NE	18.8
Overband Magnet Conveyor	17.6
Deaerator Outlet Vent Pipe	17.4
Main Processing Building - SW	16.6
Reception Building - SW	16.6
Reception Building - NW	16.0
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
Main Processing Building - NW	15.4
Vacuum Unit start up	15.1
Main Processing Building - Roof	15.0
Steam Turbine Ventilation Fan	14.6
Drag Chain Conveyor	14.3
Weigh Belt	13.8
Collection Chain Conveyor Top Drive	13.7
ID Inlet Duct Wall	12.9
Diesel Transfer Pump	12.5
Turbine Building - Roof	12.2
PAC Enclosure	11.2
Reception Building - Roof	10.8
Gland Steam Condenser Fan Exhaust	10.1
Disc Screen	9.9
ST Intake Grille	9.7
ST Intake Grille	9.7
ST Exhaust Grille	9.7
ST Exhaust Grille	9.7
ID Fan Case and Motor	9.5
Main Processing Building - SE	9.1
ID Flue Gas Duct	8.9
MPB Extract ventilation	8.8
MPB Extract ventilation	8.6

R1: Dock View Road As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
MPB Extract ventilation	8.5
Air compressor outlet	8.3
Reagent recycle (APCR) conveying blower	7.9
Air compressor outlet	7.9
MPB Extract ventilation	7.9
MPB Extract ventilation	7.8
Super heated Steam outlet	7.8
ACC Vacuum Unit	7.5
MPB Extract ventilation	7.4
MPB Extract ventilation	7.3
MPB Extract ventilation	7.1
Baghouse Penthouse Ventilation Fans	6.8
MPB Extract ventilation	6.8
MPB Extract ventilation	6.7
Recycled Lime (Blower)	5.6
Baghouse Transfer Screw Conveyor	4.5
MPB lean to - NW	4.1
Baghouse Penthouse Ventilation Fans	4.0
Reception Building - SE	3.4
Baghouse Gathering Screw Conveyors	3.2
Condensate Pumps	1.0
Turbine Building - SE	0.8
Reactor Feed Screw Conveyor	-0.1
Turbine Building - SW	-1.6
MPB lean to - SE	-1.8
Baghouse Gathering Screw Conveyors	-2.5
Recycled Lime (Drive)	-3.5
Reagent Recycle Conveying Blower Piping	-3.5
MPB lean to - roof	-4.2
MPB lean to - NE	-4.8
Recycle to Silo Rotary Feeder	-5.4
Hydrated Lime Metering Rotary Feeder	-7.6
LPPH Drain Pumps	-8.1
Recycled Lime (Drum)	-72.8
APCR conditioner	n/a
Lorry Walking Floor	n/a
Ash Conditioner	n/a
Lorry transit	n/a
Total	38.4

Table A8.7.2: R1: Dock View Road
As Built Facility Predicted Specific Sound Levels
Night Time (23:00 – 07:00 hours)
Receptor Height: 4 metres (first floor)

R2: Cory Way As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Collection Chain Conveyor	35.3
Dust Extract Fan B	34.7
ID Stack Outlet Aperture	33.6
Dust Extract Fan A	31.3
Reagent recycle (APCR) conveying blower	30.7
Weigh Belt	30.0
Reception Building - SW	29.3
Overband Magnet Conveyor	27.0
Main Processing Building - SW	26.2
ID Fan Case and Motor	26.1
ACC Fans	26.0
Fresh Lime Conveying Blower	25.9
Drag Chain Conveyor	25.4
Dust Extract Outlet Grille	25.3
Disc Screen	24.2
Collection Chain Conveyor Top Drive	23.8
ID Inlet Duct Wall	22.7
Baghouse Gathering Screw Conveyors	22.7
Baghouse Transfer Screw Conveyor	22.7
Recycle to Silo Rotary Feeder	22.2
Steam Turbine Ventilation Fan	22.2
Steam Turbine Ventilation Fan	21.8
Recycled Lime (Blower)	21.6
Steam Turbine Ventilation Fan	21.4
Steam Turbine Ventilation Fan	21.2
Main Processing Building - NW	21.1
Super heated Steam outlet	20.6
Dust Extract outlet grille	20.5
Baghouse Penthouse Ventilation Fans	20.4
Baghouse Penthouse Ventilation Fans	20.2
Baghouse Gathering Screw Conveyors	19.8
Reactor Feed Screw Conveyor	19.2
Main Processing Building - Roof	19.2
Reception Building - SE	19.1
PAC Enclosure	18.7
ID Flue Gas Duct	18.3
Main Processing Building - SE	17.5
Reception Building - Roof	17.3
Turbine Building - Roof	17.2
Condensate Pumps	17.0
Reception Building - NW	16.5
LPPH Drain Pumps	16.4
ST Intake Grille	16.1
ST Exhaust Grille	15.9
ST Exhaust Grille	15.6
ST Intake Grille	15.4
Aux Dry Air Blast Cooler	15.0
Turbine Building - SW	14.6

R2: Cory Way As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Main Processing Building - NE	14.3
Vacuum Unit start up	14.0
Reagent Recycle Conveying Blower Piping	13.4
Hydrated Lime Metering Rotary Feeder	13.2
Lorry Walking Floor	12.7
APCR conditioner	11.3
Recycled Lime (Drive)	10.5
Lorry transit	9.9
ACC Vacuum Unit	9.0
Reception Building - NE	9.0
Ash Conditioner	8.6
Turbine Building - SE	7.9
Turbine Building NE	4.0
Glycol/Water Recirculation Pump	2.6
Deaerator Outlet Vent Pipe	1.6
MPB Extract ventilation	0.6
MPB Extract ventilation	-1.7
Air compressor outlet	-2.0
Diesel Transfer Pump	-2.4
Air compressor outlet	-2.5
MPB Extract ventilation	-2.7
MPB Extract ventilation	-2.7
8 Ladder Push floor hydraulic power pack	-3.2
MPB Extract ventilation	-3.3
Air compressor outlet	-3.6
MPB Extract ventilation	-3.7
MPB Extract ventilation	-3.7
4 Ladder Push floor hydraulic power pack	-4.0
MPB Extract ventilation	-4.0
MPB Extract ventilation	-4.1
MPB Extract ventilation	-4.1
Urea Blower	-4.9
MPB lean to - NE	-8.6
Gland Steam Condenser Fan Exhaust	-8.7
MPB lean to - NW	-10.6
MPB lean to - SE	-11.2
MPB lean to - roof	-13.7
Recycled Lime (Drum)	-55.4
Total	42.9

Table A8.7.3: R2: Cory Way
As Built Facility Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres (second floor)

R2: Cory Way As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Collection Chain Conveyor	35.3
Dust Extract Fan B	34.7
ID Stack Outlet Aperture	33.6
Dust Extract Fan A	31.3
Reagent recycle (APCR) conveying blower	30.7
Weigh Belt	30.0
Overband Magnet Conveyor	27.0
Main Processing Building - SW	26.2
ID Fan Case and Motor	26.1
ACC Fans	26.0
Fresh Lime Conveying Blower	25.9
Drag Chain Conveyor	25.4
Dust Extract Outlet Grille	25.3
Disc Screen	24.2
Collection Chain Conveyor Top Drive	23.8
Reception Building - SW	23.2
ID Inlet Duct Wall	22.7
Baghouse Gathering Screw Conveyors	22.7
Baghouse Transfer Screw Conveyor	22.7
Recycle to Silo Rotary Feeder	22.2
Steam Turbine Ventilation Fan	22.2
Steam Turbine Ventilation Fan	21.8
Recycled Lime (Blower)	21.6
Steam Turbine Ventilation Fan	21.4
Steam Turbine Ventilation Fan	21.2
Main Processing Building - NW	21.1
Super heated Steam outlet	20.6
Dust Extract outlet grille	20.5
Baghouse Penthouse Ventilation Fans	20.4
Baghouse Penthouse Ventilation Fans	20.2
Baghouse Gathering Screw Conveyors	19.8
Reactor Feed Screw Conveyor	19.2
Main Processing Building - Roof	19.2
PAC Enclosure	18.7
ID Flue Gas Duct	18.3
Main Processing Building - SE	17.5
Turbine Building - Roof	17.2
Condensate Pumps	17.0
LPPH Drain Pumps	16.4
ST Intake Grille	16.1
ST Exhaust Grille	15.9
ST Exhaust Grille	15.6
ST Intake Grille	15.4
Aux Dry Air Blast Cooler	15.0
Turbine Building - SW	14.6
Main Processing Building - NE	14.3
Vacuum Unit start up	14.0
Reagent Recycle Conveying Blower Piping	13.4

R2: Cory Way As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Hydrated Lime Metering Rotary Feeder	13.2
Reception Building - SE	13.0
Reception Building - Roof	11.2
Recycled Lime (Drive)	10.5
Reception Building - NW	10.4
ACC Vacuum Unit	9.0
Turbine Building - SE	7.9
Turbine Building NE	4.0
Reception Building - NE	2.9
Glycol/Water Recirculation Pump	2.6
Deaerator Outlet Vent Pipe	1.6
MPB Extract ventilation	0.6
MPB Extract ventilation	-1.7
Air compressor outlet	-2.0
Diesel Transfer Pump	-2.4
Air compressor outlet	-2.5
MPB Extract ventilation	-2.7
MPB Extract ventilation	-2.7
8 Ladder Push floor hydraulic power pack	-3.2
MPB Extract ventilation	-3.3
Air compressor outlet	-3.6
MPB Extract ventilation	-3.7
MPB Extract ventilation	-3.7
4 Ladder Push floor hydraulic power pack	-4.0
MPB Extract ventilation	-4.0
MPB Extract ventilation	-4.1
MPB Extract ventilation	-4.1
Urea Blower	-4.9
MPB lean to - NE	-8.6
Gland Steam Condenser Fan Exhaust	-8.7
MPB lean to - NW	-10.6
MPB lean to - SE	-11.2
MPB lean to - roof	-13.7
Recycled Lime (Drum)	-55.4
APCR conditioner	n/a
Lorry Walking Floor	n/a
Ash Conditioner	n/a
Lorry transit	n/a
Total	42.7

Table A8.7.4: R2: Cory Way
As Built Facility Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)

R3: East Quay As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 metres	
Source Description	Day time dB $L_{Aeq,1hour}$
ID Stack Outlet Aperture	37.1
Collection Chain Conveyor	35.5
Dust Extract Fan B	33.2
Fresh Lime Conveying Blower	31.5
Reagent recycle (APCR) conveying blower	31.1
ACC Fans	30.1
ID Fan Case and Motor	29.6
Recycled Lime (Blower)	29.5
Reception Building - SW	29.0
Main Processing Building - SW	27.9
Overband Magnet Conveyor	27.4
Baghouse Gathering Screw Conveyors	27.3
Baghouse Transfer Screw Conveyor	26.7
Weigh Belt	26.5
ID Inlet Duct Wall	26.1
Disc Screen	25.9
Dust Extract Fan A	25.8
Drag Chain Conveyor	25.0
Collection Chain Conveyor Top Drive	24.4
Main Processing Building - SE	24.3
Baghouse Penthouse Ventilation Fans	23.6
Recycle to Silo Rotary Feeder	23.5
Baghouse Penthouse Ventilation Fans	23.4
Steam Turbine Ventilation Fan	23.4
ID Flue Gas Duct	23.4
Baghouse Gathering Screw Conveyors	23.1
Steam Turbine Ventilation Fan	23.0
Dust Extract outlet grille	22.9
Steam Turbine Ventilation Fan	22.6
Steam Turbine Ventilation Fan	22.4
PAC Enclosure	21.9
Reactor Feed Screw Conveyor	21.9
Dust Extract Outlet Grille	21.6
Super heated Steam outlet	20.7
Recycled Lime (Drive)	20.5
Aux Dry Air Blast Cooler	20.5
Main Processing Building - Roof	20.4
Reagent Recycle Conveying Blower Piping	20.2
Condensate Pumps	20.1
Reception Building - SE	19.9
Hydrated Lime Metering Rotary Feeder	17.9
Lorry transit	17.9
LPPH Drain Pumps	17.6
ST Intake Grille	17.6
Turbine Building - SW	17.6
ST Exhaust Grille	17.3
Main Processing Building - NW	17.2
Turbine Building - Roof	17.1

R3: East Quay As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 metres	
Source Description	Day time dB $L_{Aeq,1hour}$
ST Exhaust Grille	17.0
Reception Building - Roof	16.9
ST Intake Grille	16.8
Main Processing Building - NE	16.2
Vacuum Unit start up	14.9
Turbine Building - SE	14.6
Lorry Walking Floor	13.3
Ash Conditioner	11.8
APCR conditioner	11.7
Air compressor outlet	9.5
ACC Vacuum Unit	9.2
Reception Building - NW	7.7
Reception Building - NE	7.4
Air compressor outlet	6.8
Turbine Building NE	6.7
Air compressor outlet	5.8
Glycol/Water Recirculation Pump	5.7
MPB Extract ventilation	4.3
Deaerator Outlet Vent Pipe	4.2
MPB Extract ventilation	1.8
Diesel Transfer Pump	0.6
MPB Extract ventilation	0.2
MPB Extract ventilation	-0.7
Urea Blower	-0.9
MPB Extract ventilation	-1.3
MPB Extract ventilation	-1.7
MPB Extract ventilation	-1.7
MPB Extract ventilation	-2.0
MPB Extract ventilation	-2.1
MPB Extract ventilation	-2.1
Gland Steam Condenser Fan Exhaust	-2.5
8 Ladder Push floor hydraulic power pack	-3.0
4 Ladder Push floor hydraulic power pack	-3.9
MPB lean to - NE	-5.4
MPB lean to - SE	-6.2
MPB lean to - NW	-11.4
MPB lean to - roof	-12.2
Recycled Lime (Drum)	-47.3
Total	44.1

Table A8.7.5: R3: East Quay
As Built Facility Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres

R3: East Quay As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
ID Stack Outlet Aperture	37.1
Collection Chain Conveyor	35.5
Dust Extract Fan B	33.2
Fresh Lime Conveying Blower	31.5
Reagent recycle (APCR) conveying blower	31.1
ACC Fans	30.1
ID Fan Case and Motor	29.6
Recycled Lime (Blower)	29.5
Main Processing Building - SW	27.9
Overband Magnet Conveyor	27.4
Baghouse Gathering Screw Conveyors	27.3
Baghouse Transfer Screw Conveyor	26.7
Weigh Belt	26.5
ID Inlet Duct Wall	26.1
Disc Screen	25.9
Dust Extract Fan A	25.8
Drag Chain Conveyor	25.0
Collection Chain Conveyor Top Drive	24.4
Main Processing Building - SE	24.3
Baghouse Penthouse Ventilation Fans	23.6
Recycle to Silo Rotary Feeder	23.5
Baghouse Penthouse Ventilation Fans	23.4
Steam Turbine Ventilation Fan	23.4
ID Flue Gas Duct	23.4
Baghouse Gathering Screw Conveyors	23.1
Steam Turbine Ventilation Fan	23.0
Reception Building - SW	22.9
Dust Extract outlet grille	22.9
Steam Turbine Ventilation Fan	22.6
Steam Turbine Ventilation Fan	22.4
PAC Enclosure	21.9
Reactor Feed Screw Conveyor	21.9
Dust Extract Outlet Grille	21.6
Super heated Steam outlet	20.7
Recycled Lime (Drive)	20.5
Aux Dry Air Blast Cooler	20.5
Main Processing Building - Roof	20.4
Reagent Recycle Conveying Blower Piping	20.2
Condensate Pumps	20.1
Hydrated Lime Metering Rotary Feeder	17.9
LPPH Drain Pumps	17.6
ST Intake Grille	17.6
Turbine Building - SW	17.6
ST Exhaust Grille	17.3
Main Processing Building - NW	17.2
Turbine Building - Roof	17.1
ST Exhaust Grille	17.0
ST Intake Grille	16.8

R3: East Quay As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Main Processing Building - NE	16.2
Vacuum Unit start up	14.9
Turbine Building - SE	14.6
Reception Building - SE	13.8
Reception Building - Roof	10.8
Air compressor outlet	9.5
ACC Vacuum Unit	9.2
Air compressor outlet	6.8
Turbine Building NE	6.7
Air compressor outlet	5.8
Glycol/Water Recirculation Pump	5.7
MPB Extract ventilation	4.3
Deaerator Outlet Vent Pipe	4.2
MPB Extract ventilation	1.8
Reception Building - NW	1.6
Reception Building - NE	1.3
Diesel Transfer Pump	0.6
MPB Extract ventilation	0.2
MPB Extract ventilation	-0.7
Urea Blower	-0.9
MPB Extract ventilation	-1.3
MPB Extract ventilation	-1.7
MPB Extract ventilation	-1.7
MPB Extract ventilation	-2.0
MPB Extract ventilation	-2.1
MPB Extract ventilation	-2.1
Gland Steam Condenser Fan Exhaust	-2.5
8 Ladder Push floor hydraulic power pack	-3.0
4 Ladder Push floor hydraulic power pack	-3.9
MPB lean to - NE	-5.4
MPB lean to - SE	-6.2
MPB lean to - NW	-11.4
MPB lean to - roof	-12.2
Recycled Lime (Drum)	-47.3
APCR conditioner	n/a
Lorry Walking Floor	n/a
Ash Conditioner	n/a
Lorry transit	n/a
Total	44.0

Table A8.7.6: R3: East Quay
As Built Facility Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)

R4: Cei Dafydd As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Collection Chain Conveyor	28.2
Reagent recycle (APCR) conveying blower	25.0
ID Stack Outlet Aperture	24.6
Dust Extract Fan B	23.6
Weigh Belt	22.2
Reception Building - SW	22.1
ACC Fans	21.9
Fresh Lime Conveying Blower	21.4
ID Fan Case and Motor	20.4
Overband Magnet Conveyor	19.5
Main Processing Building - SW	19.4
Dust Extract Fan A	19.2
Drag Chain Conveyor	19.1
Dust Extract Outlet Grille	17.2
ID Inlet Duct Wall	16.6
Collection Chain Conveyor Top Drive	16.4
Baghouse Gathering Screw Conveyors	16.0
Baghouse Transfer Screw Conveyor	15.9
Recycle to Silo Rotary Feeder	15.7
Steam Turbine Ventilation Fan	15.4
Disc Screen	14.9
Steam Turbine Ventilation Fan	14.9
Steam Turbine Ventilation Fan	14.8
Baghouse Gathering Screw Conveyors	14.7
Main Processing Building - NW	14.6
Steam Turbine Ventilation Fan	14.5
Baghouse Penthouse Ventilation Fans	13.7
Baghouse Penthouse Ventilation Fans	13.6
Reception Building - NW	13.5
Recycled Lime (Blower)	13.4
Main Processing Building - Roof	13.2
Condensate Pumps	13.0
Dust Extract outlet grille	13.0
PAC Enclosure	12.6
ID Flue Gas Duct	11.9
LPPH Drain Pumps	11.4
Reactor Feed Screw Conveyor	11.1
Turbine Building - Roof	10.9
Reception Building - Roof	10.8
Main Processing Building - SE	10.4
ST Intake Grille	9.0
ST Exhaust Grille	8.7
Super heated Steam outlet	8.7
ST Exhaust Grille	8.6
ST Intake Grille	8.4
Reception Building - SE	8.4
Vacuum Unit start up	7.9
Turbine Building - SW	7.8

R4: Cei Dafydd As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Main Processing Building - NE	7.5
APCR conditioner	6.4
Aux Dry Air Blast Cooler	5.8
Lorry Walking Floor	5.7
Reagent Recycle Conveying Blower Piping	5.3
Hydrated Lime Metering Rotary Feeder	4.6
Lorry transit	4.6
Ash Conditioner	4.1
Reception Building - NE	3.2
Recycled Lime (Drive)	2.4
Turbine Building - SE	2.2
ACC Vacuum Unit	2.0
Turbine Building NE	-2.4
Deaerator Outlet Vent Pipe	-4.5
MPB Extract ventilation	-5.7
8 Ladder Push floor hydraulic power pack	-7.1
Glycol/Water Recirculation Pump	-7.1
4 Ladder Push floor hydraulic power pack	-7.9
Diesel Transfer Pump	-7.9
Air compressor outlet	-8.1
MPB Extract ventilation	-8.1
Air compressor outlet	-8.8
MPB Extract ventilation	-9.1
MPB Extract ventilation	-9.4
MPB Extract ventilation	-9.7
Air compressor outlet	-9.8
MPB Extract ventilation	-10.1
MPB Extract ventilation	-10.2
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.4
MPB Extract ventilation	-10.5
Urea Blower	-10.8
Gland Steam Condenser Fan Exhaust	-14.8
MPB lean to - NE	-17.5
MPB lean to - NW	-18.7
MPB lean to - SE	-19.2
MPB lean to - roof	-19.7
Recycled Lime (Drum)	-63.8
Total	35.3

Table A8.7.7: R4: Cei Dafydd
As Built Facility Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres (second floor)

R4: Cei Dafydd As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Collection Chain Conveyor	28.2
Reagent recycle (APCR) conveying blower	25.0
ID Stack Outlet Aperture	24.6
Dust Extract Fan B	23.6
Weigh Belt	22.2
ACC Fans	21.9
Fresh Lime Conveying Blower	21.4
ID Fan Case and Motor	20.4
Overband Magnet Conveyor	19.5
Main Processing Building - SW	19.4
Dust Extract Fan A	19.2
Drag Chain Conveyor	19.1
Dust Extract Outlet Grille	17.2
ID Inlet Duct Wall	16.6
Collection Chain Conveyor Top Drive	16.4
Reception Building - SW	16.0
Baghouse Gathering Screw Conveyors	16.0
Baghouse Transfer Screw Conveyor	15.9
Recycle to Silo Rotary Feeder	15.7
Steam Turbine Ventilation Fan	15.4
Disc Screen	14.9
Steam Turbine Ventilation Fan	14.9
Steam Turbine Ventilation Fan	14.8
Baghouse Gathering Screw Conveyors	14.7
Main Processing Building - NW	14.6
Steam Turbine Ventilation Fan	14.5
Baghouse Penthouse Ventilation Fans	13.7
Baghouse Penthouse Ventilation Fans	13.6
Recycled Lime (Blower)	13.4
Main Processing Building - Roof	13.2
Condensate Pumps	13.0
Dust Extract outlet grille	13.0
PAC Enclosure	12.6
ID Flue Gas Duct	11.9
LPPH Drain Pumps	11.4
Reactor Feed Screw Conveyor	11.1
Turbine Building - Roof	10.9
Main Processing Building - SE	10.4
ST Intake Grille	9.0
ST Exhaust Grille	8.7
Super heated Steam outlet	8.7
ST Exhaust Grille	8.6
ST Intake Grille	8.4
Vacuum Unit start up	7.9
Turbine Building - SW	7.8
Main Processing Building - NE	7.5
Reception Building - NW	7.4
Aux Dry Air Blast Cooler	5.8

R4: Cei Dafydd As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Reagent Recycle Conveying Blower Piping	5.3
Reception Building - Roof	4.7
Hydrated Lime Metering Rotary Feeder	4.6
Recycled Lime (Drive)	2.4
Reception Building - SE	2.3
Turbine Building - SE	2.2
ACC Vacuum Unit	2.0
Turbine Building NE	-2.4
Reception Building - NE	-2.9
Deaerator Outlet Vent Pipe	-4.5
MPB Extract ventilation	-5.7
8 Ladder Push floor hydraulic power pack	-7.1
Glycol/Water Recirculation Pump	-7.1
4 Ladder Push floor hydraulic power pack	-7.9
Diesel Transfer Pump	-7.9
Air compressor outlet	-8.1
MPB Extract ventilation	-8.1
Air compressor outlet	-8.8
MPB Extract ventilation	-9.1
MPB Extract ventilation	-9.4
MPB Extract ventilation	-9.7
Air compressor outlet	-9.8
MPB Extract ventilation	-10.1
MPB Extract ventilation	-10.2
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.4
MPB Extract ventilation	-10.5
Urea Blower	-10.8
Gland Steam Condenser Fan Exhaust	-14.8
MPB lean to - NE	-17.5
MPB lean to - NW	-18.7
MPB lean to - SE	-19.2
MPB lean to - roof	-19.7
Recycled Lime (Drum)	-63.8
APCR conditioner	n/a
Lorry Walking Floor	n/a
Ash Conditioner	n/a
Lorry transit	n/a
Total	35.1

Table A8.7.8: R4: Cei Dafydd
As Built Facility Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)

R5: Subway Road As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB LAeq,1hour
Collection Chain Conveyor	27.0
Dust Extract Fan B	26.2
Reagent recycle (APCR) conveying blower	24.5
ID Stack Outlet Aperture	23.6
Reception Building - SW	21.0
ACC Fans	20.5
ID Fan Case and Motor	19.6
Weigh Belt	18.7
Drag Chain Conveyor	18.7
Overband Magnet Conveyor	18.3
Main Processing Building - SW	18.2
Fresh Lime Conveying Blower	17.2
Dust Extract Fan A	16.9
Baghouse Gathering Screw Conveyors	16.7
Dust Extract Outlet Grille	15.6
ID Inlet Duct Wall	15.3
Collection Chain Conveyor Top Drive	15.2
Baghouse Gathering Screw Conveyors	14.8
Baghouse Transfer Screw Conveyor	14.7
Steam Turbine Ventilation Fan	14.2
Disc Screen	13.9
Steam Turbine Ventilation Fan	13.7
Steam Turbine Ventilation Fan	13.6
Steam Turbine Ventilation Fan	13.3
Main Processing Building - NW	13.2
Baghouse Penthouse Ventilation Fans	12.6
Reception Building - NW	12.6
Baghouse Penthouse Ventilation Fans	12.4
PAC Enclosure	12.2
Main Processing Building - Roof	12.1
ID Flue Gas Duct	12.0
Dust Extract outlet grille	11.4
Reactor Feed Screw Conveyor	10.5
LPPH Drain Pumps	10.4
Turbine Building - Roof	10.3
Recycle to Silo Rotary Feeder	10.2
Reception Building - Roof	10.0
Recycled Lime (Blower)	8.7
8 Ladder Push floor hydraulic power pack	8.5
Condensate Pumps	8.0
Main Processing Building - SE	8.0
ST Intake Grille	7.7
Turbine Building - SW	7.5
ST Exhaust Grille	7.4
ST Exhaust Grille	7.3
ST Intake Grille	7.1
Super heated Steam outlet	6.5
Reception Building - SE	6.5

R5: Subway Road As Built Facility Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB LAeq,1hour
APCR conditioner	6.3
Main Processing Building - NE	6.2
Lorry Walking Floor	5.1
Hydrated Lime Metering Rotary Feeder	4.9
Aux Dry Air Blast Cooler	4.7
Ash Conditioner	3.7
Lorry transit	2.5
Reception Building - NE	2.4
Reagent Recycle Conveying Blower Piping	1.9
Vacuum Unit start up	1.8
Turbine Building - SE	0.6
Recycled Lime (Drive)	-2.2
Turbine Building NE	-2.5
ACC Vacuum Unit	-5.5
4 Ladder Push floor hydraulic power pack	-6.0
MPB Extract ventilation	-6.0
Glycol/Water Recirculation Pump	-8.0
Deaerator Outlet Vent Pipe	-8.2
MPB Extract ventilation	-8.5
Diesel Transfer Pump	-8.7
Air compressor outlet	-9.2
MPB Extract ventilation	-9.6
Air compressor outlet	-9.8
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.6
Air compressor outlet	-10.8
MPB Extract ventilation	-10.8
MPB Extract ventilation	-11.1
MPB Extract ventilation	-11.2
MPB Extract ventilation	-11.2
MPB Extract ventilation	-11.3
Urea Blower	-11.4
Gland Steam Condenser Fan Exhaust	-15.9
MPB lean to - NE	-17.7
MPB lean to - NW	-19.4
MPB lean to - SE	-19.8
MPB lean to - roof	-20.9
Recycled Lime (Drum)	-68.7
Total	34.4

Table A8.7.9: R5: Subway Road
As Built Facility Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres (second floor)

R5: Subway Road As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Collection Chain Conveyor	27.0
Dust Extract Fan B	26.2
Reagent recycle (APCR) conveying blower	24.5
ID Stack Outlet Aperture	23.6
ACC Fans	20.5
ID Fan Case and Motor	19.6
Weigh Belt	18.7
Drag Chain Conveyor	18.7
Overband Magnet Conveyor	18.3
Main Processing Building - SW	18.2
Fresh Lime Conveying Blower	17.2
Dust Extract Fan A	16.9
Baghouse Gathering Screw Conveyors	16.7
Dust Extract Outlet Grille	15.6
ID Inlet Duct Wall	15.3
Collection Chain Conveyor Top Drive	15.2
Reception Building - SW	14.9
Baghouse Gathering Screw Conveyors	14.8
Baghouse Transfer Screw Conveyor	14.7
Steam Turbine Ventilation Fan	14.2
Disc Screen	13.9
Steam Turbine Ventilation Fan	13.7
Steam Turbine Ventilation Fan	13.6
Steam Turbine Ventilation Fan	13.3
Main Processing Building - NW	13.2
Baghouse Penthouse Ventilation Fans	12.6
Baghouse Penthouse Ventilation Fans	12.4
PAC Enclosure	12.2
Main Processing Building - Roof	12.1
ID Flue Gas Duct	12.0
Dust Extract outlet grille	11.4
Reactor Feed Screw Conveyor	10.5
LPPH Drain Pumps	10.4
Turbine Building - Roof	10.3
Recycle to Silo Rotary Feeder	10.2
Recycled Lime (Blower)	8.7
8 Ladder Push floor hydraulic power pack	8.5
Condensate Pumps	8.0
Main Processing Building - SE	8.0
ST Intake Grille	7.7
Turbine Building - SW	7.5
ST Exhaust Grille	7.4
ST Exhaust Grille	7.3
ST Intake Grille	7.1
Reception Building - NW	6.5
Super heated Steam outlet	6.5
Main Processing Building - NE	6.2
Hydrated Lime Metering Rotary Feeder	4.9

R5: Subway Road As Built Facility Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Aux Dry Air Blast Cooler	4.7
Reception Building - Roof	3.9
Reagent Recycle Conveying Blower Piping	1.9
Vacuum Unit start up	1.8
Turbine Building - SE	0.6
Reception Building - SE	0.4
Recycled Lime (Drive)	-2.2
Turbine Building NE	-2.5
Reception Building - NE	-3.7
ACC Vacuum Unit	-5.5
4 Ladder Push floor hydraulic power pack	-6.0
MPB Extract ventilation	-6.0
Glycol/Water Recirculation Pump	-8.0
Deaerator Outlet Vent Pipe	-8.2
MPB Extract ventilation	-8.5
Diesel Transfer Pump	-8.7
Air compressor outlet	-9.2
MPB Extract ventilation	-9.6
Air compressor outlet	-9.8
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.6
Air compressor outlet	-10.8
MPB Extract ventilation	-10.8
MPB Extract ventilation	-11.1
MPB Extract ventilation	-11.2
MPB Extract ventilation	-11.2
MPB Extract ventilation	-11.3
Urea Blower	-11.4
Gland Steam Condenser Fan Exhaust	-15.9
MPB lean to - NE	-17.7
MPB lean to - NW	-19.4
MPB lean to - SE	-19.8
MPB lean to - roof	-20.9
Recycled Lime (Drum)	-68.7
APCR conditioner	n/a
Lorry Walking Floor	n/a
Ash Conditioner	n/a
Lorry transit	n/a
Total	34.2

Table A8.7.10: R5: Subway Road
As Built Facility Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)

A8.7.3 Operational Phase – Full Noise Mitigation Measures Implemented

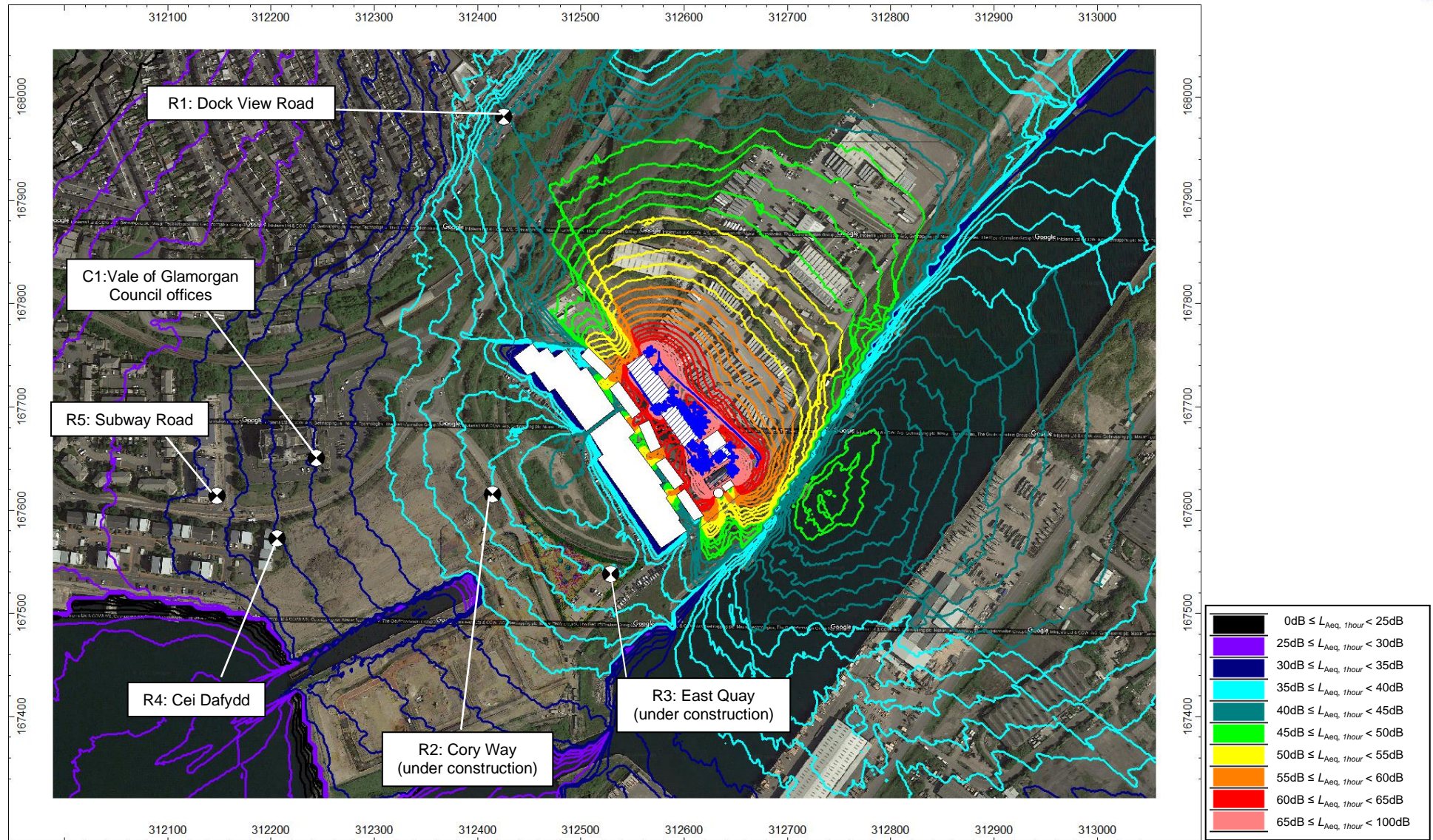


Figure A8.7.20: Predicted operational phase daytime $L_{Aeq,1hour}$ Specific Sound Level from the installation with all proposed noise mitigation measures duly implemented, at 1.5 metre grid height (ground floor)

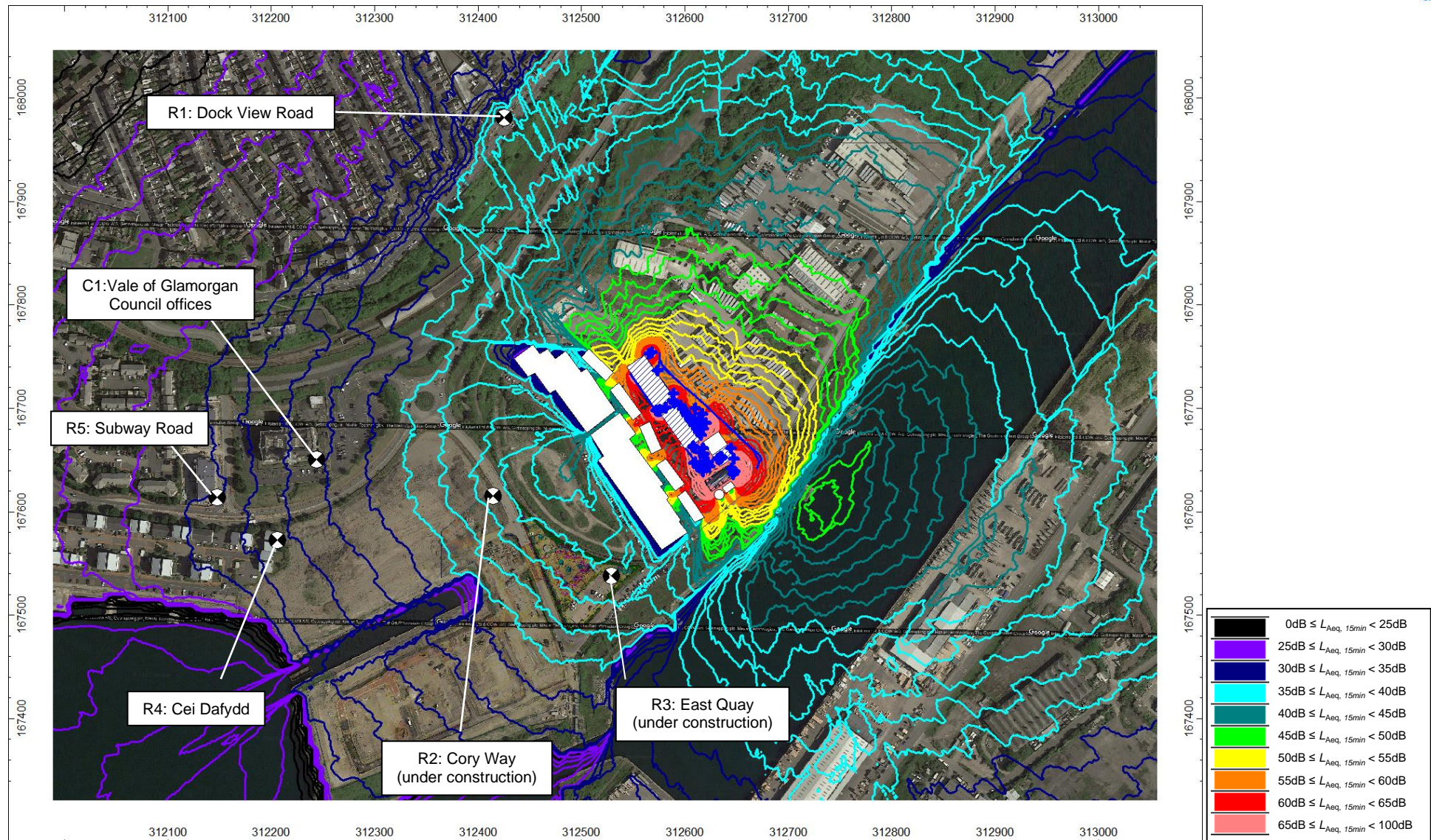
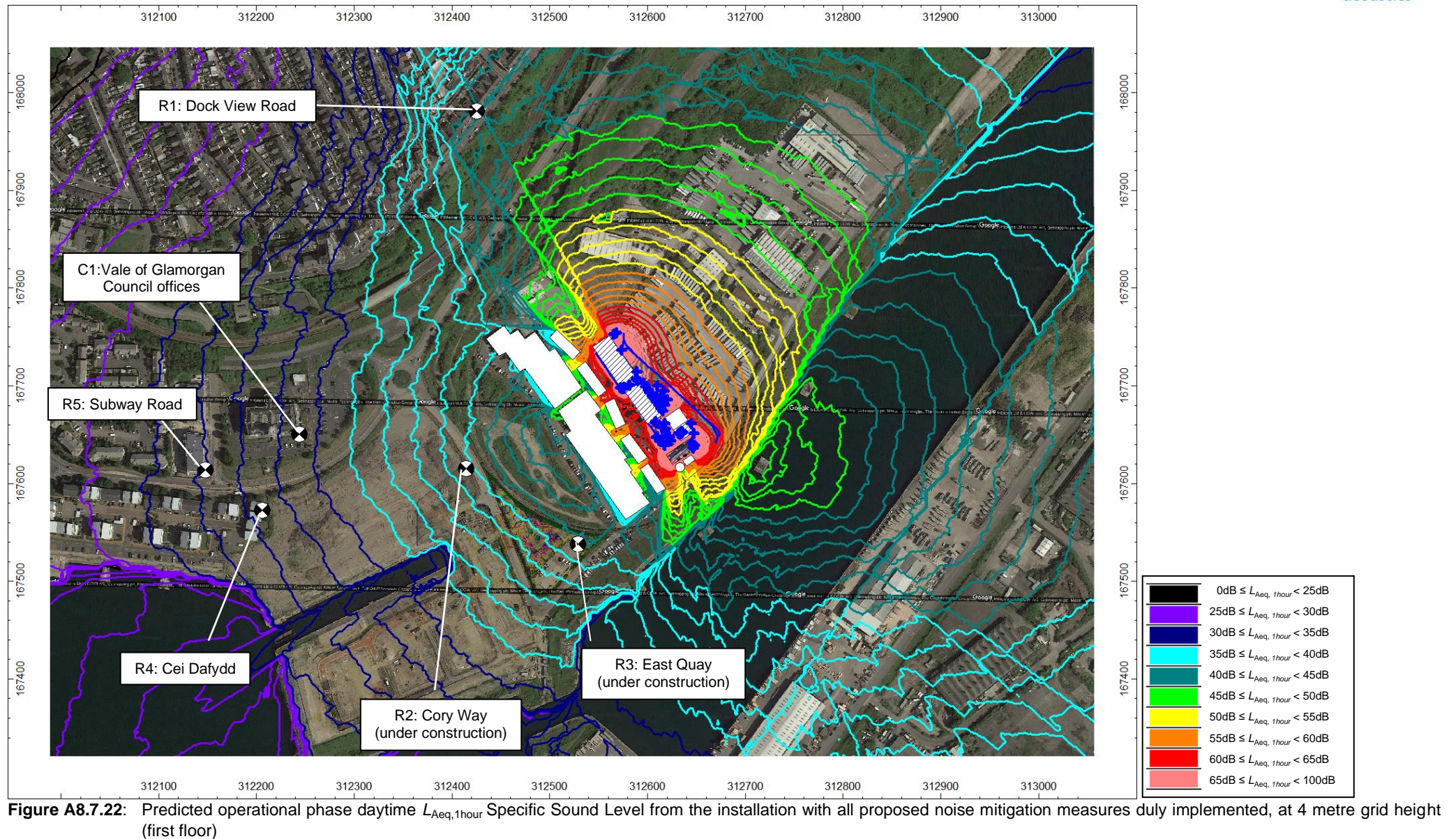


Figure A8.7.21: Predicted operational phase night time $L_{Aeq,15min}$ Specific Sound Level from the installation with all proposed noise mitigation measures duly implemented, at 1.5 metre grid height (ground floor)



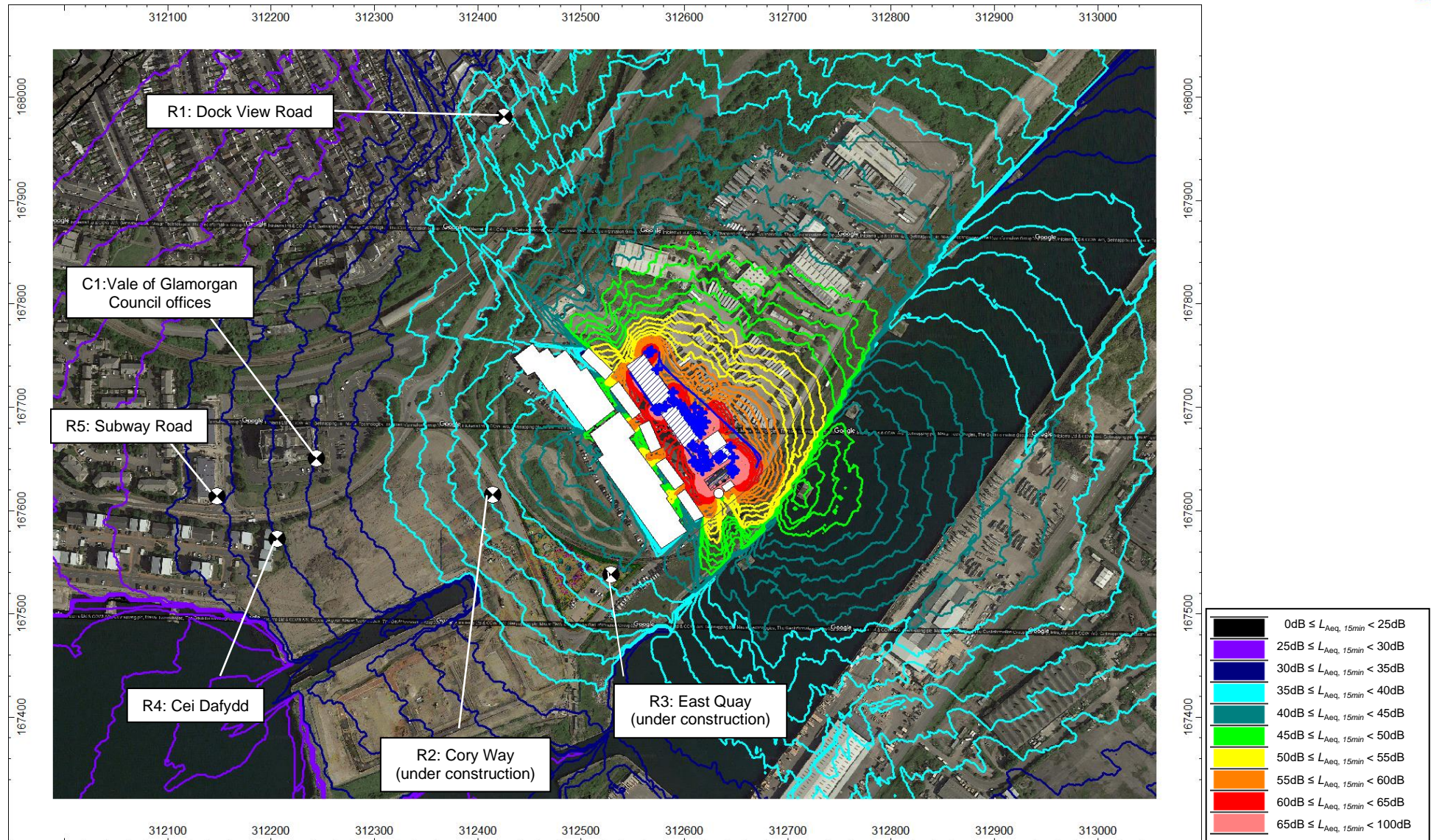


Figure A8.7.23: Predicted operational phase night time $L_{Aeq,15min}$ Specific Sound Level from the installation with all proposed noise mitigation measures duly implemented, at 4 metre grid height (first floor)

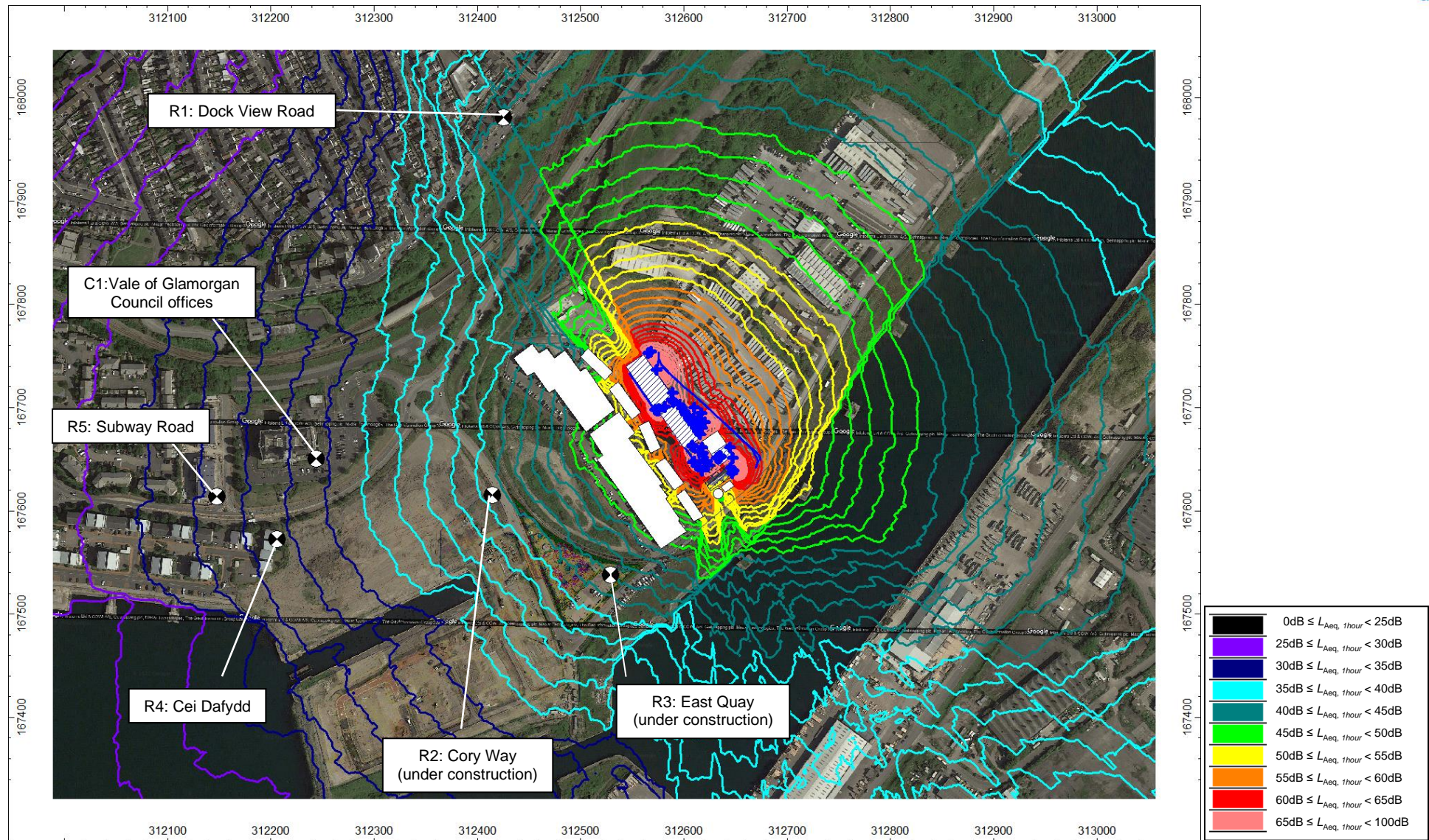


Figure A8.7.24: Predicted operational phase daytime $L_{Aeq,1hour}$ Specific Sound Level from the installation with all proposed noise mitigation measures duly implemented, at 7 metre grid height (second floor)

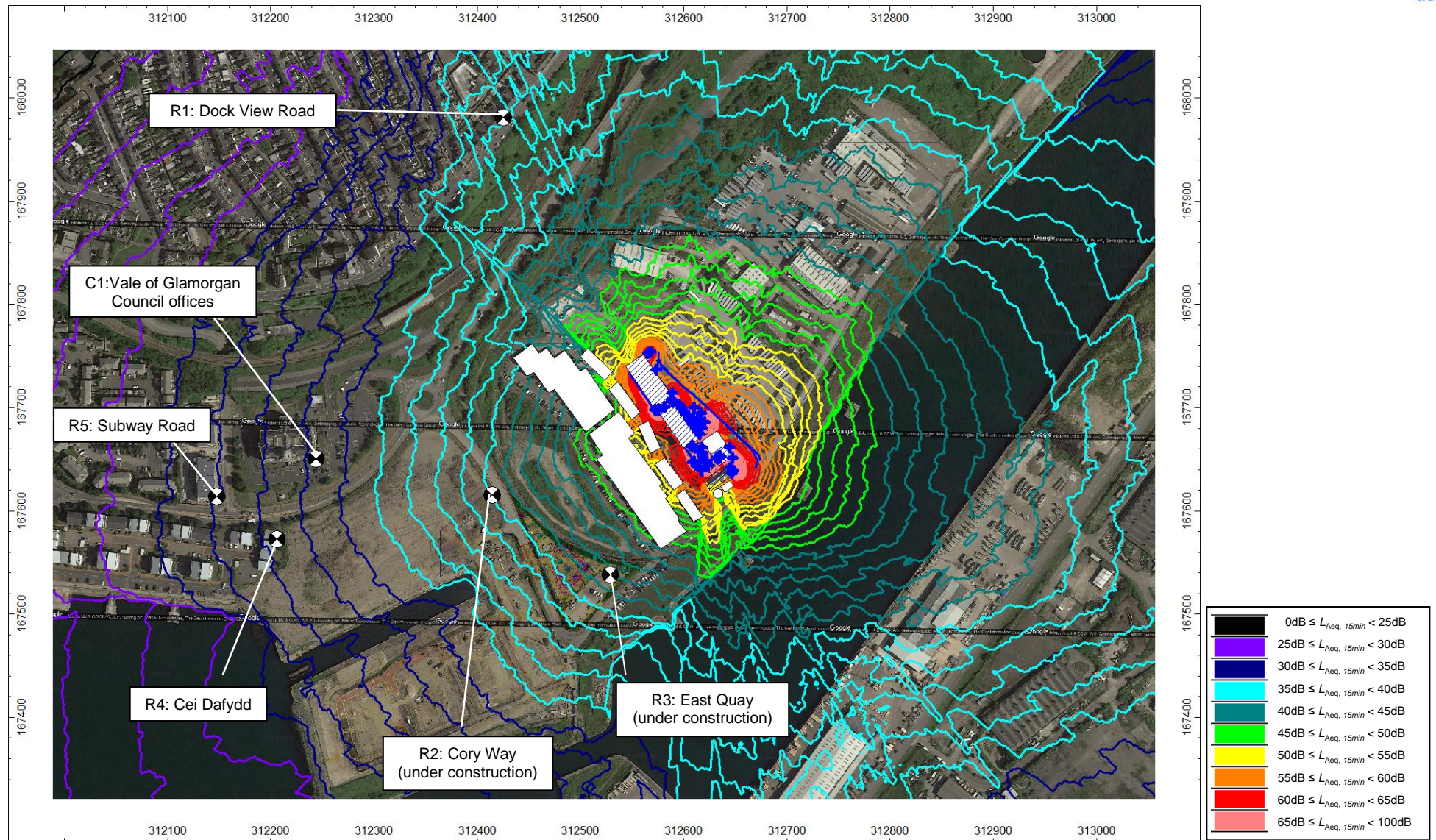


Figure A8.7.25: Predicted operational phase night time $L_{Aeq,15min}$ Specific Sound Level from the installation with all proposed noise mitigation measures duly implemented, at 7 metre grid height (second floor)

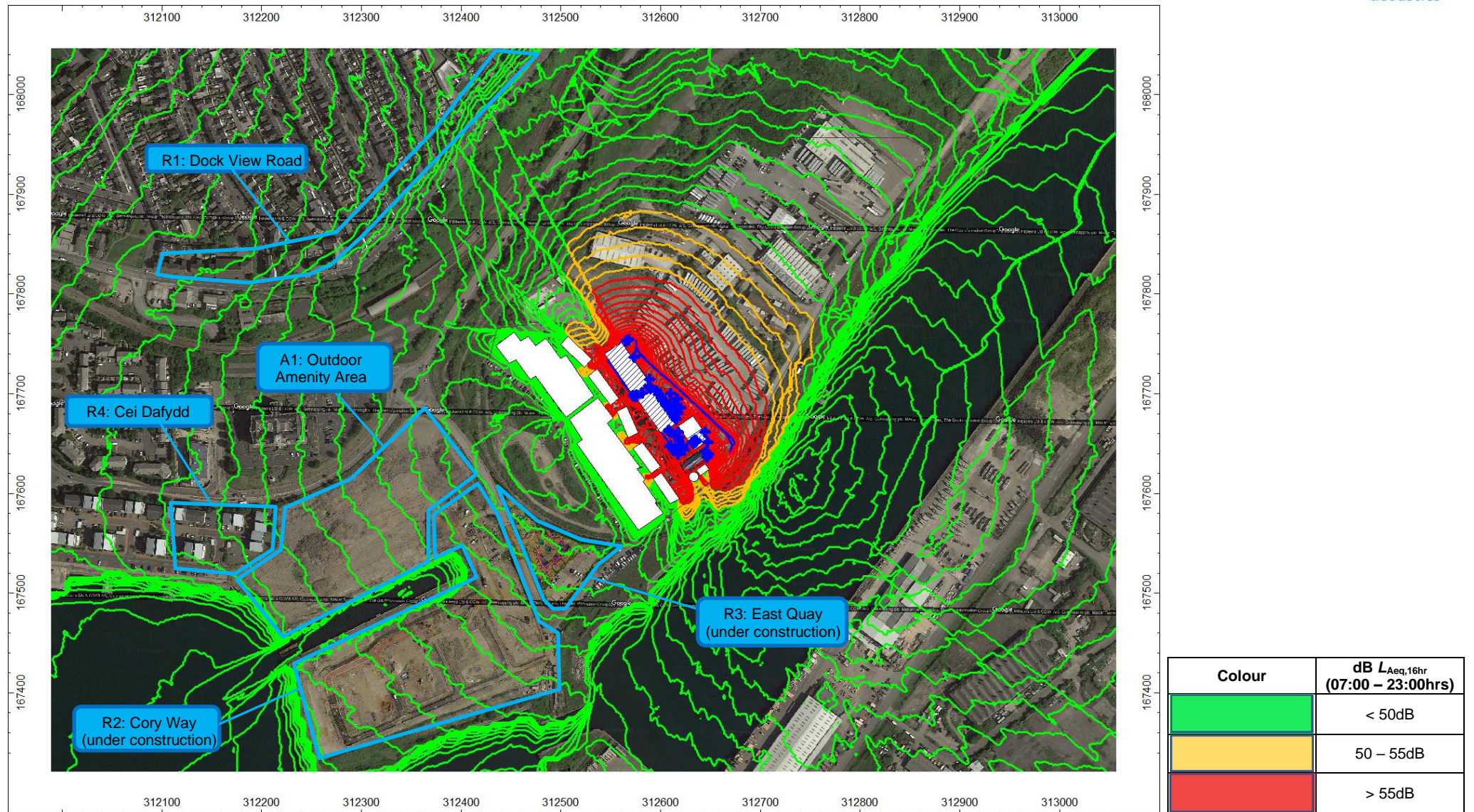


Figure A8.7.26: Predicted Operational Phase Daytime $L_{Aeq,16hr}$ Specific Sound Level from the installation with all proposed noise mitigation measures duly implemented, at 1.5 metre grid height (external amenity)

R1: Dock View Road Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Lorry Walking Floor	37.7
Aux Dry Air Blast Cooler	33.4
Lorry transit	29.1
Reception Building - NE	27.6
4 Ladder Push floor hydraulic power pack	24.4
8 Ladder Push floor hydraulic power pack	24.2
Urea Blower	23.7
Main Processing Building - NE	23.6
Turbine Building NE	23.3
Collection Chain Conveyor	22.8
Reception Building - NW	22.1
Reception Building - SW	21.8
ACC Fans	21.4
Air compressor outlet	19.9
Glycol/Water Recirculation Pump	19.8
Ash Conditioner	18.9
Overband Magnet Conveyor	17.6
Deaerator Outlet Vent Pipe	17.4
Main Processing Building - SW	16.7
Reception Building - Roof	16.3
Main Processing Building - NW	16.0
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
ID Stack Outlet Aperture	15.3
Dust Extract Outlet Grille	15.1
Vacuum Unit start up	15.1
Main Processing Building - Roof	15.0
Steam Turbine Ventilation Fan	14.6
Dust Extract outlet grille	14.4
Drag Chain Conveyor	14.3
APCR conditioner	14.2
Weigh Belt	13.8
Collection Chain Conveyor Top Drive	13.7
ID Inlet Duct Wall	12.9
Diesel Transfer Pump	12.5
Turbine Building - Roof	12.2
PAC Enclosure	11.2
Gland Steam Condenser Fan Exhaust	10.1
Disc Screen	9.9
ST Intake Grille	9.7
ST Intake Grille	9.7
ST Exhaust Grille	9.7
ST Exhaust Grille	9.7
ID Fan Case and Motor	9.5
Main Processing Building - SE	9.2
ID Flue Gas Duct	8.9
MPB Extract ventilation	8.8

R1: Dock View Road Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
MPB Extract ventilation	8.6
MPB Extract ventilation	8.5
Air compressor outlet	8.3
Air compressor outlet	7.9
MPB Extract ventilation	7.9
Reception Building - SE	7.9
MPB Extract ventilation	7.8
Super heated Steam outlet	7.8
Fresh Lime Conveying Blower	7.5
ACC Vacuum Unit	7.5
MPB Extract ventilation	7.4
Dust Extract Fan A	7.4
MPB Extract ventilation	7.3
MPB Extract ventilation	7.1
Baghouse Penthouse Ventilation Fans	6.8
MPB Extract ventilation	6.8
MPB Extract ventilation	6.7
Baghouse Transfer Screw Conveyor	4.5
MPB lean to - NW	4.1
Baghouse Penthouse Ventilation Fans	4.0
Reagent recycle (APCR) conveying blower	3.9
Dust Extract Fan B	3.6
Baghouse Gathering Screw Conveyors	3.2
Condensate Pumps	1.0
Turbine Building - SE	0.8
Reactor Feed Screw Conveyor	-0.1
Turbine Building - SW	-0.8
MPB lean to - SE	-1.9
Baghouse Gathering Screw Conveyors	-2.5
Recycled Lime (Drive)	-3.5
Reagent Recycle Conveying Blower Piping	-3.5
MPB lean to - NE	-4.8
Recycle to Silo Rotary Feeder	-5.4
MPB lean to - roof	-6.9
Hydrated Lime Metering Rotary Feeder	-7.6
LPPH Drain Pumps	-8.1
Recycled Lime (Blower)	-14.4
Recycled Lime (Drum)	-72.8
Total	41.0

Table A8.7.11: R1: Dock View Road
Full NMP Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 4 metres (first floor)

R1: Dock View Road Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Aux Dry Air Blast Cooler	33.4
4 Ladder Push floor hydraulic power pack	24.4
8 Ladder Push floor hydraulic power pack	24.2
Urea Blower	23.7
Main Processing Building - NE	23.6
Turbine Building NE	23.3
Collection Chain Conveyor	22.8
Reception Building - NE	21.5
ACC Fans	21.4
Air compressor outlet	19.9
Glycol/Water Recirculation Pump	19.8
Overband Magnet Conveyor	17.6
Deaerator Outlet Vent Pipe	17.4
Main Processing Building - SW	16.7
Reception Building - NW	16.0
Main Processing Building - NW	16.0
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
Steam Turbine Ventilation Fan	15.9
Reception Building - SW	15.7
ID Stack Outlet Aperture	15.3
Dust Extract Outlet Grille	15.1
Vacuum Unit start up	15.1
Main Processing Building - Roof	15.0
Steam Turbine Ventilation Fan	14.6
Dust Extract outlet grille	14.4
Drag Chain Conveyor	14.3
Weigh Belt	13.8
Collection Chain Conveyor Top Drive	13.7
ID Inlet Duct Wall	12.9
Diesel Transfer Pump	12.5
Turbine Building - Roof	12.2
PAC Enclosure	11.2
Reception Building - Roof	10.2
Gland Steam Condenser Fan Exhaust	10.1
Disc Screen	9.9
ST Intake Grille	9.7
ST Intake Grille	9.7
ST Exhaust Grille	9.7
ST Exhaust Grille	9.7
ID Fan Case and Motor	9.5
Main Processing Building - SE	9.2
ID Flue Gas Duct	8.9
MPB Extract ventilation	8.8
MPB Extract ventilation	8.6
MPB Extract ventilation	8.5
Air compressor outlet	8.3
Air compressor outlet	7.9

R1: Dock View Road Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 4 Metres (First Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
MPB Extract ventilation	7.9
MPB Extract ventilation	7.8
Super heated Steam outlet	7.8
Fresh Lime Conveying Blower	7.5
ACC Vacuum Unit	7.5
MPB Extract ventilation	7.4
Dust Extract Fan A	7.4
MPB Extract ventilation	7.3
MPB Extract ventilation	7.1
Baghouse Penthouse Ventilation Fans	6.8
MPB Extract ventilation	6.8
MPB Extract ventilation	6.7
Baghouse Transfer Screw Conveyor	4.5
MPB lean to - NW	4.1
Baghouse Penthouse Ventilation Fans	4.0
Reagent recycle (APCR) conveying blower	3.9
Dust Extract Fan B	3.6
Baghouse Gathering Screw Conveyors	3.2
Reception Building - SE	1.8
Condensate Pumps	1.0
Turbine Building - SE	0.8
Reactor Feed Screw Conveyor	-0.1
Turbine Building - SW	-0.8
MPB lean to - SE	-1.9
Baghouse Gathering Screw Conveyors	-2.5
Recycled Lime (Drive)	-3.5
Reagent Recycle Conveying Blower Piping	-3.5
MPB lean to - NE	-4.8
Recycle to Silo Rotary Feeder	-5.4
MPB lean to - roof	-6.9
Hydrated Lime Metering Rotary Feeder	-7.6
LPPH Drain Pumps	-8.1
Recycled Lime (Blower)	-14.4
Recycled Lime (Drum)	-72.8
Ash Conditioner	n/a
Lorry Walking Floor	n/a
Lorry transit	n/a
APCR conditioner	n/a
Total	37.0

Table A8.7.12: R1: Dock View Road
Full NMP Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 4 metres (first floor)

R2: Cory Way Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Weigh Belt	30.0
Reception Building - SW	28.5
Collection Chain Conveyor	28.3
Overband Magnet Conveyor	27.0
Reagent recycle (APCR) conveying blower	26.7
Main Processing Building - SW	26.3
ID Fan Case and Motor	26.1
ACC Fans	26.0
Drag Chain Conveyor	25.4
Disc Screen	24.2
Collection Chain Conveyor Top Drive	23.8
ID Inlet Duct Wall	22.7
Baghouse Gathering Screw Conveyors	22.7
Baghouse Transfer Screw Conveyor	22.7
ID Stack Outlet Aperture	22.5
Recycle to Silo Rotary Feeder	22.2
Steam Turbine Ventilation Fan	22.2
Steam Turbine Ventilation Fan	21.8
Main Processing Building - NW	21.7
Steam Turbine Ventilation Fan	21.4
Steam Turbine Ventilation Fan	21.2
Super heated Steam outlet	20.6
Baghouse Penthouse Ventilation Fans	20.4
Baghouse Penthouse Ventilation Fans	20.2
Baghouse Gathering Screw Conveyors	19.8
Dust Extract Fan A	19.3
Reactor Feed Screw Conveyor	19.2
Main Processing Building - Roof	19.2
PAC Enclosure	18.7
Dust Extract Fan B	18.7
Dust Extract Outlet Grille	18.3
ID Flue Gas Duct	18.3
Main Processing Building - SE	17.6
Reception Building - SE	17.3
Turbine Building - Roof	17.2
Turbine Building - SW	17.2
Condensate Pumps	17.0
Reception Building - Roof	16.5
Reception Building - NW	16.5
LPPH Drain Pumps	16.4
ST Intake Grille	16.1
ST Exhaust Grille	15.9
ST Exhaust Grille	15.6
ST Intake Grille	15.4
Aux Dry Air Blast Cooler	15.0
Main Processing Building - NE	14.3
Vacuum Unit start up	14.0
Dust Extract outlet grille	13.5

R2: Cory Way Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Reagent Recycle Conveying Blower Piping	13.4
Hydrated Lime Metering Rotary Feeder	13.2
Lorry Walking Floor	12.7
APCR conditioner	11.3
Recycled Lime (Drive)	10.5
Lorry transit	9.9
Reception Building - NE	9.8
ACC Vacuum Unit	9.0
Ash Conditioner	8.6
Turbine Building - SE	7.9
Turbine Building NE	6.0
Fresh Lime Conveying Blower	5.9
Glycol/Water Recirculation Pump	2.6
Recycled Lime (Blower)	1.6
Deaerator Outlet Vent Pipe	1.6
MPB Extract ventilation	0.6
MPB Extract ventilation	-1.7
Air compressor outlet	-2.0
Diesel Transfer Pump	-2.4
Air compressor outlet	-2.5
MPB Extract ventilation	-2.7
MPB Extract ventilation	-2.7
8 Ladder Push floor hydraulic power pack	-3.2
MPB Extract ventilation	-3.3
Air compressor outlet	-3.6
MPB Extract ventilation	-3.7
MPB Extract ventilation	-3.7
4 Ladder Push floor hydraulic power pack	-4.0
MPB Extract ventilation	-4.0
MPB Extract ventilation	-4.1
MPB Extract ventilation	-4.1
Urea Blower	-4.9
MPB lean to - NE	-8.6
Gland Steam Condenser Fan Exhaust	-8.7
MPB lean to - NW	-10.6
MPB lean to - SE	-11.2
MPB lean to - roof	-16.6
Recycled Lime (Drum)	-55.4
Total	39.5

Table A8.7.13: R2: Cory Way
Full NMP Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres (second floor)

R2: Cory Way Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Weigh Belt	30.0
Collection Chain Conveyor	28.3
Overband Magnet Conveyor	27.0
Reagent recycle (APCR) conveying blower	26.7
Main Processing Building - SW	26.3
ID Fan Case and Motor	26.1
ACC Fans	26.0
Drag Chain Conveyor	25.4
Disc Screen	24.2
Collection Chain Conveyor Top Drive	23.8
ID Inlet Duct Wall	22.7
Baghouse Gathering Screw Conveyors	22.7
Baghouse Transfer Screw Conveyor	22.7
ID Stack Outlet Aperture	22.5
Reception Building - SW	22.4
Recycle to Silo Rotary Feeder	22.2
Steam Turbine Ventilation Fan	22.2
Steam Turbine Ventilation Fan	21.8
Main Processing Building - NW	21.7
Steam Turbine Ventilation Fan	21.4
Steam Turbine Ventilation Fan	21.2
Super heated Steam outlet	20.6
Baghouse Penthouse Ventilation Fans	20.4
Baghouse Penthouse Ventilation Fans	20.2
Baghouse Gathering Screw Conveyors	19.8
Dust Extract Fan A	19.3
Reactor Feed Screw Conveyor	19.2
Main Processing Building - Roof	19.2
PAC Enclosure	18.7
Dust Extract Fan B	18.7
Dust Extract Outlet Grille	18.3
ID Flue Gas Duct	18.3
Main Processing Building - SE	17.6
Turbine Building - Roof	17.2
Turbine Building - SW	17.2
Condensate Pumps	17.0
LPPH Drain Pumps	16.4
ST Intake Grille	16.1
ST Exhaust Grille	15.9
ST Exhaust Grille	15.6
ST Intake Grille	15.4
Aux Dry Air Blast Cooler	15.0
Main Processing Building - NE	14.3
Vacuum Unit start up	14.0
Dust Extract outlet grille	13.5
Reagent Recycle Conveying Blower Piping	13.4
Hydrated Lime Metering Rotary Feeder	13.2
Reception Building - SE	11.2

R2: Cory Way Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Recycled Lime (Drive)	10.5
Reception Building - Roof	10.4
Reception Building - NW	10.4
ACC Vacuum Unit	9.0
Turbine Building - SE	7.9
Turbine Building NE	6.0
Fresh Lime Conveying Blower	5.9
Reception Building - NE	3.7
Glycol/Water Recirculation Pump	2.6
Recycled Lime (Blower)	1.6
Deaerator Outlet Vent Pipe	1.6
MPB Extract ventilation	0.6
MPB Extract ventilation	-1.7
Air compressor outlet	-2.0
Diesel Transfer Pump	-2.4
Air compressor outlet	-2.5
MPB Extract ventilation	-2.7
MPB Extract ventilation	-2.7
8 Ladder Push floor hydraulic power pack	-3.2
MPB Extract ventilation	-3.3
Air compressor outlet	-3.6
MPB Extract ventilation	-3.7
MPB Extract ventilation	-3.7
4 Ladder Push floor hydraulic power pack	-4.0
MPB Extract ventilation	-4.0
MPB Extract ventilation	-4.1
MPB Extract ventilation	-4.1
Urea Blower	-4.9
MPB lean to - NE	-8.6
Gland Steam Condenser Fan Exhaust	-8.7
MPB lean to - NW	-10.6
MPB lean to - SE	-11.2
MPB lean to - roof	-16.6
Recycled Lime (Drum)	-55.4
Ash Conditioner	n/a
Lorry Walking Floor	n/a
Lorry transit	n/a
APCR conditioner	n/a
Total	39.1

Table A8.7.14: R2: Cory Way
Full NMP Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)

R3: East Quay Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
ACC Fans	30.1
ID Fan Case and Motor	29.6
Collection Chain Conveyor	28.5
Reception Building - SW	28.2
Main Processing Building - SW	28.0
Overband Magnet Conveyor	27.4
Baghouse Gathering Screw Conveyors	27.3
Reagent recycle (APCR) conveying blower	27.1
Baghouse Transfer Screw Conveyor	26.7
Weigh Belt	26.5
ID Inlet Duct Wall	26.1
Disc Screen	25.9
ID Stack Outlet Aperture	25.8
Drag Chain Conveyor	25.0
Main Processing Building - SE	24.6
Collection Chain Conveyor Top Drive	24.4
Baghouse Penthouse Ventilation Fans	23.6
Recycle to Silo Rotary Feeder	23.5
Baghouse Penthouse Ventilation Fans	23.4
Steam Turbine Ventilation Fan	23.4
ID Flue Gas Duct	23.4
Baghouse Gathering Screw Conveyors	23.1
Steam Turbine Ventilation Fan	23.0
Steam Turbine Ventilation Fan	22.6
Steam Turbine Ventilation Fan	22.4
PAC Enclosure	21.9
Reactor Feed Screw Conveyor	21.9
Super heated Steam outlet	20.7
Recycled Lime (Drive)	20.5
Aux Dry Air Blast Cooler	20.5
Main Processing Building - Roof	20.4
Reagent Recycle Conveying Blower Piping	20.2
Condensate Pumps	20.1
Turbine Building - SW	20.1
Reception Building - SE	18.1
Hydrated Lime Metering Rotary Feeder	17.9
Lorry transit	17.9
Main Processing Building - NW	17.7
LPPH Drain Pumps	17.6
ST Intake Grille	17.6
ST Exhaust Grille	17.3
Dust Extract Fan B	17.2
Turbine Building - Roof	17.1
ST Exhaust Grille	17.0
ST Intake Grille	16.8
Main Processing Building - NE	16.2
Reception Building - Roof	16.1
Dust Extract outlet grille	15.9

R3: East Quay Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB $L_{Aeq,1hour}$
Vacuum Unit start up	14.9
Dust Extract Outlet Grille	14.6
Turbine Building - SE	14.6
Dust Extract Fan A	13.8
Lorry Walking Floor	13.3
Ash Conditioner	11.8
APCR conditioner	11.7
Fresh Lime Conveying Blower	11.5
Recycled Lime (Blower)	9.5
Air compressor outlet	9.5
ACC Vacuum Unit	9.2
Turbine Building NE	8.7
Reception Building - NE	8.3
Reception Building - NW	7.7
Air compressor outlet	6.8
Air compressor outlet	5.8
Glycol/Water Recirculation Pump	5.7
MPB Extract ventilation	4.3
Deaerator Outlet Vent Pipe	4.2
MPB Extract ventilation	1.8
Diesel Transfer Pump	0.6
MPB Extract ventilation	0.2
MPB Extract ventilation	-0.7
Urea Blower	-0.9
MPB Extract ventilation	-1.3
MPB Extract ventilation	-1.7
MPB Extract ventilation	-1.7
MPB Extract ventilation	-2.0
MPB Extract ventilation	-2.1
MPB Extract ventilation	-2.1
Gland Steam Condenser Fan Exhaust	-2.5
8 Ladder Push floor hydraulic power pack	-3.0
4 Ladder Push floor hydraulic power pack	-3.9
MPB lean to - NE	-5.4
MPB lean to - SE	-6.2
MPB lean to - NW	-11.4
MPB lean to - roof	-15.1
Recycled Lime (Drum)	-47.3
Total	40.9

Table A8.7.25: R3: East Quay
Full NMP Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres (second floor)

R3: East Quay Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
ACC Fans	30.1
ID Fan Case and Motor	29.6
Collection Chain Conveyor	28.5
Main Processing Building - SW	28.0
Overband Magnet Conveyor	27.4
Baghouse Gathering Screw Conveyors	27.3
Reagent recycle (APCR) conveying blower	27.1
Baghouse Transfer Screw Conveyor	26.7
Weigh Belt	26.5
ID Inlet Duct Wall	26.1
Disc Screen	25.9
ID Stack Outlet Aperture	25.8
Drag Chain Conveyor	25.0
Main Processing Building - SE	24.6
Collection Chain Conveyor Top Drive	24.4
Baghouse Penthouse Ventilation Fans	23.6
Recycle to Silo Rotary Feeder	23.5
Baghouse Penthouse Ventilation Fans	23.4
Steam Turbine Ventilation Fan	23.4
ID Flue Gas Duct	23.4
Baghouse Gathering Screw Conveyors	23.1
Steam Turbine Ventilation Fan	23.0
Steam Turbine Ventilation Fan	22.6
Steam Turbine Ventilation Fan	22.4
Reception Building - SW	22.1
PAC Enclosure	21.9
Reactor Feed Screw Conveyor	21.9
Super heated Steam outlet	20.7
Recycled Lime (Drive)	20.5
Aux Dry Air Blast Cooler	20.5
Main Processing Building - Roof	20.4
Reagent Recycle Conveying Blower Piping	20.2
Condensate Pumps	20.1
Turbine Building - SW	20.1
Hydrated Lime Metering Rotary Feeder	17.9
Main Processing Building - NW	17.7
LPPH Drain Pumps	17.6
ST Intake Grille	17.6
ST Exhaust Grille	17.3
Dust Extract Fan B	17.2
Turbine Building - Roof	17.1
ST Exhaust Grille	17.0
ST Intake Grille	16.8
Main Processing Building - NE	16.2
Dust Extract outlet grille	15.9
Vacuum Unit start up	14.9
Dust Extract Outlet Grille	14.6
Turbine Building - SE	14.6

R3: East Quay Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Dust Extract Fan A	13.8
Reception Building - SE	12.0
Fresh Lime Conveying Blower	11.5
Reception Building - Roof	10.0
Recycled Lime (Blower)	9.5
Air compressor outlet	9.5
ACC Vacuum Unit	9.2
Turbine Building NE	8.7
Air compressor outlet	6.8
Air compressor outlet	5.8
Glycol/Water Recirculation Pump	5.7
MPB Extract ventilation	4.3
Deaerator Outlet Vent Pipe	4.2
Reception Building - NE	2.2
MPB Extract ventilation	1.8
Reception Building - NW	1.6
Diesel Transfer Pump	0.6
MPB Extract ventilation	0.2
MPB Extract ventilation	-0.7
Urea Blower	-0.9
MPB Extract ventilation	-1.3
MPB Extract ventilation	-1.7
MPB Extract ventilation	-1.7
MPB Extract ventilation	-2.0
MPB Extract ventilation	-2.1
MPB Extract ventilation	-2.1
Gland Steam Condenser Fan Exhaust	-2.5
8 Ladder Push floor hydraulic power pack	-3.0
4 Ladder Push floor hydraulic power pack	-3.9
MPB lean to - NE	-5.4
MPB lean to - SE	-6.2
MPB lean to - NW	-11.4
MPB lean to - roof	-15.1
Recycled Lime (Drum)	-47.3
Ash Conditioner	n/a
Lorry Walking Floor	n/a
Lorry transit	n/a
APCR conditioner	n/a
Total	40.7

Table A8.7.16: R3: East Quay
Full NMP Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)

R4: Cei Dafydd Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB LAeq,1hour
Weigh Belt	22.2
ACC Fans	21.9
Collection Chain Conveyor	21.2
Reception Building - SW	21.2
Reagent recycle (APCR) conveying blower	21.0
ID Fan Case and Motor	20.4
Overband Magnet Conveyor	19.5
Main Processing Building - SW	19.5
Drag Chain Conveyor	19.1
ID Inlet Duct Wall	16.6
Collection Chain Conveyor Top Drive	16.4
Baghouse Gathering Screw Conveyors	16.0
Baghouse Transfer Screw Conveyor	15.9
Recycle to Silo Rotary Feeder	15.7
Steam Turbine Ventilation Fan	15.4
Main Processing Building - NW	15.2
Disc Screen	14.9
Steam Turbine Ventilation Fan	14.9
Steam Turbine Ventilation Fan	14.8
Baghouse Gathering Screw Conveyors	14.7
ID Stack Outlet Aperture	14.6
Steam Turbine Ventilation Fan	14.5
Baghouse Penthouse Ventilation Fans	13.7
Baghouse Penthouse Ventilation Fans	13.6
Reception Building - NW	13.5
Main Processing Building - Roof	13.2
Condensate Pumps	13.0
PAC Enclosure	12.6
ID Flue Gas Duct	11.9
LPPH Drain Pumps	11.4
Reactor Feed Screw Conveyor	11.1
Turbine Building - Roof	10.9
Main Processing Building - SE	10.5
Dust Extract Outlet Grille	10.2
Reception Building - Roof	10.0
Turbine Building - SW	10.0
ST Intake Grille	9.0
ST Exhaust Grille	8.7
Super heated Steam outlet	8.7
ST Exhaust Grille	8.6
ST Intake Grille	8.4
Vacuum Unit start up	7.9
Dust Extract Fan B	7.6
Main Processing Building - NE	7.5
Dust Extract Fan A	7.2
Reception Building - SE	6.9
APCR conditioner	6.4
Dust Extract outlet grille	6.0

R4: Cei Dafydd Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB LAeq,1hour
Aux Dry Air Blast Cooler	5.8
Lorry Walking Floor	5.7
Reagent Recycle Conveying Blower Piping	5.3
Hydrated Lime Metering Rotary Feeder	4.6
Lorry transit	4.6
Ash Conditioner	4.1
Reception Building - NE	3.9
Recycled Lime (Drive)	2.4
Turbine Building - SE	2.2
ACC Vacuum Unit	2.0
Fresh Lime Conveying Blower	1.4
Turbine Building NE	-0.4
Deaerator Outlet Vent Pipe	-4.5
MPB Extract ventilation	-5.7
Recycled Lime (Blower)	-6.6
8 Ladder Push floor hydraulic power pack	-7.1
Glycol/Water Recirculation Pump	-7.1
4 Ladder Push floor hydraulic power pack	-7.9
Diesel Transfer Pump	-7.9
Air compressor outlet	-8.1
MPB Extract ventilation	-8.1
Air compressor outlet	-8.8
MPB Extract ventilation	-9.1
MPB Extract ventilation	-9.4
MPB Extract ventilation	-9.7
Air compressor outlet	-9.8
MPB Extract ventilation	-10.1
MPB Extract ventilation	-10.2
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.4
MPB Extract ventilation	-10.5
Urea Blower	-10.8
Gland Steam Condenser Fan Exhaust	-14.8
MPB lean to - NE	-17.5
MPB lean to - NW	-18.7
MPB lean to - SE	-19.2
MPB lean to - roof	-22.6
Recycled Lime (Drum)	-63.8
Total	32.7

Table A8.7.17: R4: Cei Dafydd
Full NMP Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres (second floor)

R4: Cei Dafydd Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Weigh Belt	22.2
ACC Fans	21.9
Collection Chain Conveyor	21.2
Reagent recycle (APCR) conveying blower	21.0
ID Fan Case and Motor	20.4
Overband Magnet Conveyor	19.5
Main Processing Building - SW	19.5
Drag Chain Conveyor	19.1
ID Inlet Duct Wall	16.6
Collection Chain Conveyor Top Drive	16.4
Baghouse Gathering Screw Conveyors	16.0
Baghouse Transfer Screw Conveyor	15.9
Recycle to Silo Rotary Feeder	15.7
Steam Turbine Ventilation Fan	15.4
Main Processing Building - NW	15.2
Reception Building - SW	15.1
Disc Screen	14.9
Steam Turbine Ventilation Fan	14.9
Steam Turbine Ventilation Fan	14.8
Baghouse Gathering Screw Conveyors	14.7
ID Stack Outlet Aperture	14.6
Steam Turbine Ventilation Fan	14.5
Baghouse Penthouse Ventilation Fans	13.7
Baghouse Penthouse Ventilation Fans	13.6
Main Processing Building - Roof	13.2
Condensate Pumps	13.0
PAC Enclosure	12.6
ID Flue Gas Duct	11.9
LPPH Drain Pumps	11.4
Reactor Feed Screw Conveyor	11.1
Turbine Building - Roof	10.9
Main Processing Building - SE	10.5
Dust Extract Outlet Grille	10.2
Turbine Building - SW	10.0
ST Intake Grille	9.0
ST Exhaust Grille	8.7
Super heated Steam outlet	8.7
ST Exhaust Grille	8.6
ST Intake Grille	8.4
Vacuum Unit start up	7.9
Dust Extract Fan B	7.6
Main Processing Building - NE	7.5
Reception Building - NW	7.4
Dust Extract Fan A	7.2
Dust Extract outlet grille	6.0
Aux Dry Air Blast Cooler	5.8
Reagent Recycle Conveying Blower Piping	5.3
Hydrated Lime Metering Rotary Feeder	4.6

R4: Cei Dafydd Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Reception Building - Roof	3.9
Recycled Lime (Drive)	2.4
Turbine Building - SE	2.2
ACC Vacuum Unit	2.0
Fresh Lime Conveying Blower	1.4
Reception Building - SE	0.8
Turbine Building NE	-0.4
Reception Building - NE	-2.2
Deaerator Outlet Vent Pipe	-4.5
MPB Extract ventilation	-5.7
Recycled Lime (Blower)	-6.6
8 Ladder Push floor hydraulic power pack	-7.1
Glycol/Water Recirculation Pump	-7.1
4 Ladder Push floor hydraulic power pack	-7.9
Diesel Transfer Pump	-7.9
Air compressor outlet	-8.1
MPB Extract ventilation	-8.1
Air compressor outlet	-8.8
MPB Extract ventilation	-9.1
MPB Extract ventilation	-9.4
MPB Extract ventilation	-9.7
Air compressor outlet	-9.8
MPB Extract ventilation	-10.1
MPB Extract ventilation	-10.2
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.4
MPB Extract ventilation	-10.5
Urea Blower	-10.8
Gland Steam Condenser Fan Exhaust	-14.8
MPB lean to - NE	-17.5
MPB lean to - NW	-18.7
MPB lean to - SE	-19.2
MPB lean to - roof	-22.6
Recycled Lime (Drum)	-63.8
APCR conditioner	n/a
Lorry Walking Floor	n/a
Lorry transit	n/a
Ash Conditioner	n/a
Total	32.3

Table A8.7.18: R4: Cei Dafydd
Full NMP Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)

R5: Subway Road Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB LAeq,1hour
Reagent recycle (APCR) conveying blower	20.5
ACC Fans	20.5
Reception Building - SW	20.1
Collection Chain Conveyor	20.0
ID Fan Case and Motor	19.6
Weigh Belt	18.7
Drag Chain Conveyor	18.7
Overband Magnet Conveyor	18.3
Main Processing Building - SW	18.3
Baghouse Gathering Screw Conveyors	16.7
ID Inlet Duct Wall	15.3
Collection Chain Conveyor Top Drive	15.2
Baghouse Gathering Screw Conveyors	14.8
Baghouse Transfer Screw Conveyor	14.7
Steam Turbine Ventilation Fan	14.2
Disc Screen	13.9
Main Processing Building - NW	13.8
Steam Turbine Ventilation Fan	13.7
Steam Turbine Ventilation Fan	13.6
ID Stack Outlet Aperture	13.5
Steam Turbine Ventilation Fan	13.3
Baghouse Penthouse Ventilation Fans	12.6
Reception Building - NW	12.6
Baghouse Penthouse Ventilation Fans	12.4
PAC Enclosure	12.2
Main Processing Building - Roof	12.1
ID Flue Gas Duct	12.0
Reactor Feed Screw Conveyor	10.5
LPPH Drain Pumps	10.4
Turbine Building - Roof	10.3
Recycle to Silo Rotary Feeder	10.2
Dust Extract Fan B	10.2
Turbine Building - SW	9.8
Reception Building - Roof	9.1
Dust Extract Outlet Grille	8.6
8 Ladder Push floor hydraulic power pack	8.5
Main Processing Building - SE	8.1
Condensate Pumps	8.0
ST Intake Grille	7.7
ST Exhaust Grille	7.4
ST Exhaust Grille	7.3
ST Intake Grille	7.1
Super heated Steam outlet	6.5
APCR conditioner	6.3
Main Processing Building - NE	6.2
Lorry Walking Floor	5.1
Hydrated Lime Metering Rotary Feeder	4.9
Dust Extract Fan A	4.9

R5: Subway Road Full NMP Predicted Specific Sound Levels Daytime (07:00 – 23:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Day time dB LAeq,1hour
Reception Building - SE	4.9
Aux Dry Air Blast Cooler	4.7
Dust Extract outlet grille	4.4
Ash Conditioner	3.7
Reception Building - NE	3.1
Lorry transit	2.5
Reagent Recycle Conveying Blower Piping	1.9
Vacuum Unit start up	1.8
Turbine Building - SE	0.6
Turbine Building NE	-0.6
Recycled Lime (Drive)	-2.2
Fresh Lime Conveying Blower	-2.8
ACC Vacuum Unit	-5.5
4 Ladder Push floor hydraulic power pack	-6.0
MPB Extract ventilation	-6.0
Glycol/Water Recirculation Pump	-8.0
Deaerator Outlet Vent Pipe	-8.2
MPB Extract ventilation	-8.5
Diesel Transfer Pump	-8.7
Air compressor outlet	-9.2
MPB Extract ventilation	-9.6
Air compressor outlet	-9.8
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.6
Air compressor outlet	-10.8
MPB Extract ventilation	-10.8
MPB Extract ventilation	-11.1
MPB Extract ventilation	-11.2
MPB Extract ventilation	-11.2
Recycled Lime (Blower)	-11.3
MPB Extract ventilation	-11.3
Urea Blower	-11.4
Gland Steam Condenser Fan Exhaust	-15.9
MPB lean to - NE	-17.7
MPB lean to - NW	-19.4
MPB lean to - SE	-19.8
MPB lean to - roof	-23.8
Recycled Lime (Drum)	-68.7
Total	31.5

Table A8.7.19: R5: Subway Road
Full NMP Predicted Specific Sound Levels
Daytime (07:00 – 23:00 Hours)
Receptor Height: 7 metres (second floor)

R5: Subway Road Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Reagent recycle (APCR) conveying blower	20.5
ACC Fans	20.5
Collection Chain Conveyor	20.0
ID Fan Case and Motor	19.6
Weigh Belt	18.7
Drag Chain Conveyor	18.7
Overband Magnet Conveyor	18.3
Main Processing Building - SW	18.3
Baghouse Gathering Screw Conveyors	16.7
ID Inlet Duct Wall	15.3
Collection Chain Conveyor Top Drive	15.2
Baghouse Gathering Screw Conveyors	14.8
Baghouse Transfer Screw Conveyor	14.7
Steam Turbine Ventilation Fan	14.2
Reception Building - SW	14.0
Disc Screen	13.9
Main Processing Building - NW	13.8
Steam Turbine Ventilation Fan	13.7
Steam Turbine Ventilation Fan	13.6
ID Stack Outlet Aperture	13.5
Steam Turbine Ventilation Fan	13.3
Baghouse Penthouse Ventilation Fans	12.6
Baghouse Penthouse Ventilation Fans	12.4
PAC Enclosure	12.2
Main Processing Building - Roof	12.1
ID Flue Gas Duct	12.0
Reactor Feed Screw Conveyor	10.5
LPPH Drain Pumps	10.4
Turbine Building - Roof	10.3
Recycle to Silo Rotary Feeder	10.2
Dust Extract Fan B	10.2
Turbine Building - SW	9.8
Dust Extract Outlet Grille	8.6
8 Ladder Push floor hydraulic power pack	8.5
Main Processing Building - SE	8.1
Condensate Pumps	8.0
ST Intake Grille	7.7
ST Exhaust Grille	7.4
ST Exhaust Grille	7.3
ST Intake Grille	7.1
Reception Building - NW	6.5
Super heated Steam outlet	6.5
Main Processing Building - NE	6.2
Hydrated Lime Metering Rotary Feeder	4.9
Dust Extract Fan A	4.9
Aux Dry Air Blast Cooler	4.7
Dust Extract outlet grille	4.4
Reception Building - Roof	3.0

R5: Subway Road Full NMP Predicted Specific Sound Levels Night Time (23:00 – 07:00 Hours) Receptor Height: 7 Metres (Second Floor)	
Source Description	Night time dB $L_{Aeq,15min}$
Reagent Recycle Conveying Blower Piping	1.9
Vacuum Unit start up	1.8
Turbine Building - SE	0.6
Turbine Building NE	-0.6
Reception Building - SE	-1.2
Recycled Lime (Drive)	-2.2
Fresh Lime Conveying Blower	-2.8
Reception Building - NE	-3.0
ACC Vacuum Unit	-5.5
4 Ladder Push floor hydraulic power pack	-6.0
MPB Extract ventilation	-6.0
Glycol/Water Recirculation Pump	-8.0
Deaerator Outlet Vent Pipe	-8.2
MPB Extract ventilation	-8.5
Diesel Transfer Pump	-8.7
Air compressor outlet	-9.2
MPB Extract ventilation	-9.6
Air compressor outlet	-9.8
MPB Extract ventilation	-10.3
MPB Extract ventilation	-10.6
Air compressor outlet	-10.8
MPB Extract ventilation	-10.8
MPB Extract ventilation	-11.1
MPB Extract ventilation	-11.2
MPB Extract ventilation	-11.2
Recycled Lime (Blower)	-11.3
MPB Extract ventilation	-11.3
Urea Blower	-11.4
Gland Steam Condenser Fan Exhaust	-15.9
MPB lean to - NE	-17.7
MPB lean to - NW	-19.4
MPB lean to - SE	-19.8
MPB lean to - roof	-23.8
Recycled Lime (Drum)	-68.7
APCR conditioner	n/a
Lorry Walking Floor	n/a
Ash Conditioner	n/a
Lorry transit	n/a
Total	31.1

Table A8.7.20: R5: Subway Road
Full NMP Predicted Specific Sound Levels
Night Time (23:00 – 07:00 Hours)
Receptor Height: 7 metres (second floor)



A8.7.4 Decommissioning Phase



Figure A8.7.27: Predicted daytime $L_{Aeq,1hour}$ Specific Sound Level at 1.5 metre grid height (ground floor) – Decommissioning Phase

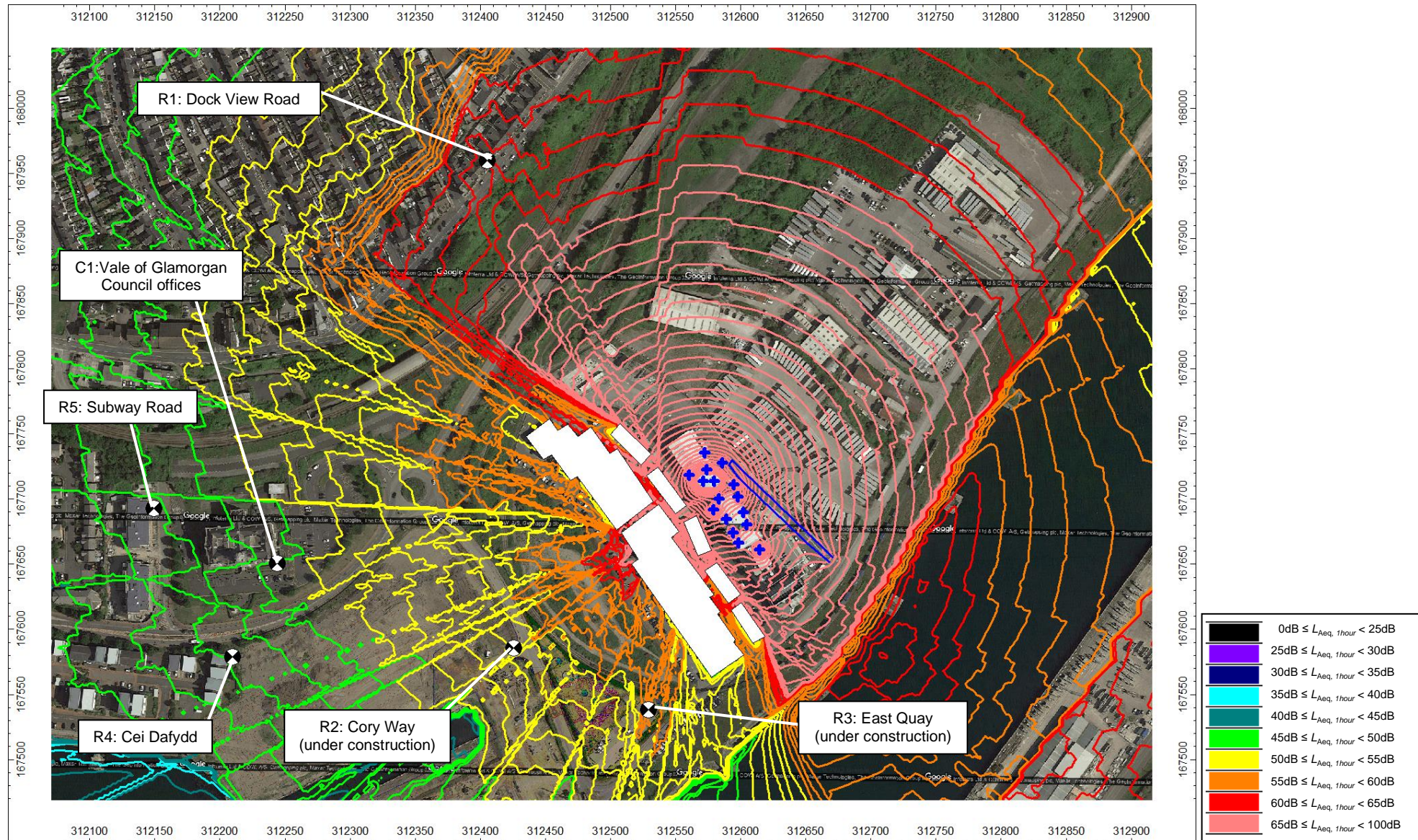


Figure A8.7.28: Predicted daytime $L_{Aeq,1hour}$ Specific Sound Level at 4 metre grid height (first floor) – Decommissioning Phase

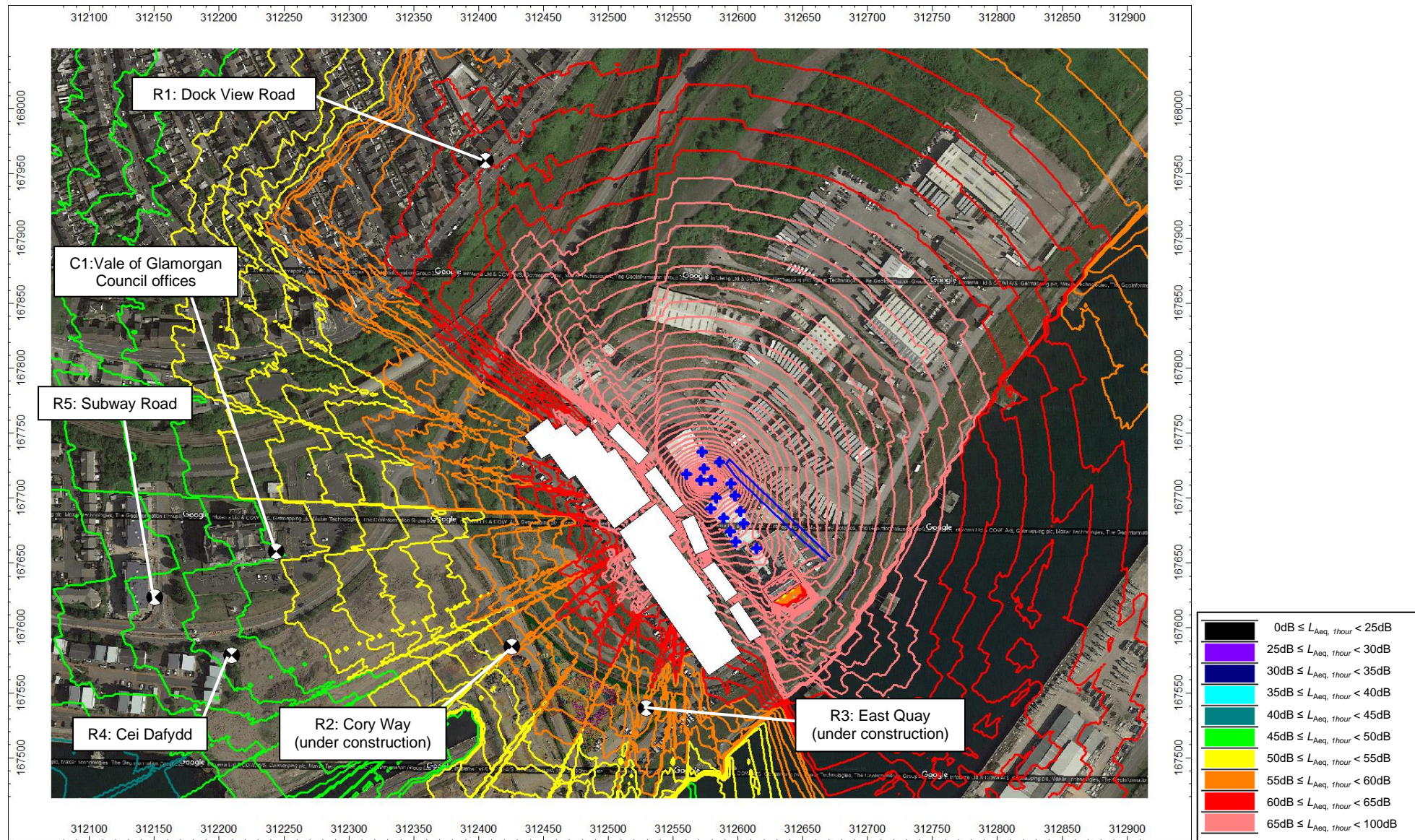


Figure A8.7.29: Predicted daytime $L_{Aeq,1\text{hour}}$ Specific Sound Level at 7 metre grid height (second floor) – Decommissioning Phase