

# A303 Amesbury to Berwick Down

TR010025

## 6.3 Environmental Statement Appendices

### Appendix 9.2 Construction Noise

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

October 2018



# 1 Construction Plant Details

- 1.1.1 Table 1-1 details construction activities and associated plant assumed in the construction noise assessment. It also details the number of plant and the relative full power operating time (on-time) of plant as a percentage of the working day. The assumed sound power level of the construction plant has been taken from the levels contained within BS 5228-1: 2009+A1:2014 Appendix C and D.
- 1.1.2 Where construction plant does not have a reference sound power level provided in BS 5228 similar plant data from the design team have been used.

**Table 1-1 Construction Plant Details**

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
Construction of all site compounds	Bulldozer D6 size (10 tonne)	C2.13	78	1	30%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	30%
	Motor Grader 140 size (17 tonne)	C6.31	86	1	20%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	1	30%
	Self propelled lime mixing machine	C4.22	76	1	30%
	Tractor 200Hp & Lime Spreader	C4.24	67	1	30%
	Lorry mounted lime tanker (30 tonne)	C4.15	76	1	30%
	Road delivery lorry sub base (20 tonne capacity)	C11.20	83	4/hr	20%
	Asphalt Paver (10 tonne)	C5.33	75	1	25%
	Road delivery lorry asphalt (20 tonne capacity)	C11.20	83	4/hr	20%
	Smooth drum steel or rubber roller	C2.38	73	1	25%
	Site Dumper (3 tonne)	C4.9	77	1	25%
	360° rubber tracked Excavator (2 tonne)	C4.68	65	1	25%
	Lorry mounted road sweeper	C4.90	76	1	80%
	Crane (30 tonnes)	C4.43	70	1	10%
Operation of main compound at	Concrete batching plant	D6.11	80	1	50%
	Wheeled loading shovel (25 tonne)	C2.28	76	1	50%
	Concrete mixer trucks	C4.20	80	4/hr	20%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
Longbarrow Jc during construction phase	Delivery lorries aggregate	C8.20	79	4/hr	20%
	Delivery lorries cement	C4.18	75	5	20%
	Delivery lorries pulverised blast furnace slag	C8.20	79	3	20%
	Waste disposal lorries	C8.18	78	1	5%
	Cars and vans - parked up	C2.34	80	50	5%
	Material delivery lorries	C2.34	80	3/hr	10%
	Earthmoving plant maintenance area	C4.10	66	1	25%
	Wheel wash	C4.91	78	1	50%
Operation of satellite compound at Countess during construction phase	Cars and vans - parked up	C2.34	80	20	5%
	Waste disposal lorries	C8.18	78	1/hr	5%
	Material delivery lorries	C2.34	80	3/hr	10%
Esso pipeline protection slabs including access roads	360° tracked excavator (20 tonne)	C4.64	75	2	80%
	Site Dumper (6 tonne)	C4.6	79	2	50%
	Road lorry deliveries hardcore	C11.20	83	4/hr	20%
	Concrete mixer truck deliveries	C4.18	75	4/hr	20%
	Lorry mounted road sweeper	C4.90	76	1	80%
Utilities diversions pre start periods	JCB 3CX Backhoe excavator	C2.8	68	1	50%
	Site Dumper (3 tonne)	C4.9	77	1	50%
	Pneumatic breaker	C1.6	83	1	25%
	Traffic light generator	C4.82	56	1	100%
	Road lorry removal and return with granular	C11.20	83	4/hr	20%
Mobilise plant into site	Volvo FH16 Low Loaders, mobilise and demob	C6.33	82	8	5%
	20 tonne plant delivery trucks	C11.20	83	4/hr	5%
Fencing route and rights of way etc	360 deg tracked Excavator (5 tonne)	C4.68	65	3	80%
	Post borer to fit to excavator	C4.68	65	2	80%
	Tractor (150Hp) and flat trailer	C4.75	79	2	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
	Road delivery lorry with Hiab	C11.20	83	2	10%
Traffic Management	20 tonne lorry with assorted equipment	C6.23	82	1	50%
	3.5 tonne tipping truck with assorted equipment	C8.20	79	1	50%
	Road Marking Truck	C4.90	76	1	25%
Site Clearance tree and shrub removal leaving roots - Pre contract start	360° tracked excavator (20 tonne)	C4.64	75	1	80%
	Timber forwarder grab	C2.35	71	1	80%
	Chainsaw	D2.14	86	4	50%
	Chipper	D6.45	83	2	70%
	Road timber wagon (20 tonne)	C11.20	83	1	30%
	Lorry mounted road sweeper	C4.90	76	1	80%
Site clearance post contract start - Root removal	360° tracked excavator (20 tonne)	C4.64	75	2	80%
	Stump grinder (Vermeer SC 505)	D2.14	86	2	65%
	Road lorry for disposal (20 tonne)	C11.20	83	2/hr	25%
	Lorry mounted road sweeper	C4.90	76	1	80%
Demolition of subways (fill with foam concrete) break out upstands and wing walls	Lorry mounted foam concrete mixer	C4.20	80	1	80%
	Foam concrete pump and pipeline	C4.29	80	1	80%
	Concrete mixer truck - slow delivery into pump	C4.18	75	2/hr	80%
	360° tracked excavator (20 tonne)	C4.64	75	1	25%
	Hydraulic breaker attachment	C1.9	90	1	10%
	Articulated dumper (25 tonne)	C4.1	81	1	10%
Construction of haul roads western section	Bulldozer D6 size (10 tonne)	C2.13	78	1	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	80%
	Motor Grader 140 size (17 tonne)	C6.31	86	1	80%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	1	80%
	Self propelled lime mixing machine	C4.22	76	1	60%
	Tractor 200Hp & Lime Spreader	C4.24	67	1	60%
	Lorry mounted lime tanker (30 tonne)	C4.15	76	1	60%
	Road delivery lorry quicklime (20 tonne)	C11.20	83	2	20%
	Lorry mounted road sweeper	C4.90	76	1	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
Construct Crossover	360° tracked excavator (20 tonne)	C4.64	75	1	65%
	20 Tonne road lorry (spoil removal)	C11.20	83	3/hr	30%
	20 tonne road lorry (type 1 delivery)	C11.20	83	2/hr	20%
	20 tonne road lorry (surfacing delivery)	C11.20	83	2/hr	20%
Topsoil strip western section	360° tracked Excavator (30 tonne)	C2.16	75	2	80%
	Articulated dumper (30 tonne)	C4.1	81	8	80%
	Bulldozer D6 size (10 tonne)	C2.13	78	2	80%
	Motor Grader 140 size (17 tonne)	C6.31	86	1	80%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	1	80%
Topsoil strip Countess section	360° tracked Excavator (30 tonne)	C2.16	75	1	80%
	Road lorry removal (20 tonne capacity)	C11.20	83	15	80%
	Lorry mounted road sweeper	C4.90	76	1	80%
Receive topsoil from Countess section to stockpile at Longbarrow Jc	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	2	80%
	Motor Grader 140 size (17 tonne)	C6.31	86	1	80%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	1	80%
	Lorry mounted road sweeper	C4.90	76	1	80%
Bulk Excavation and filling to structural embankments	360° tracked Excavator (40 tonne)	C2.14	79	2	80%
	Articulated dumper (35 tonne)	C4.1	81	10	80%
	Bulldozer D6 size (10 tonne)	C2.13	78	2	80%
	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	2	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	2	80%
	Motor Grader 140 size (17 tonne)	C6.31	86	2	80%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	2	80%
Bulk Excavation and filling to landscape areas western	360° tracked Excavator (40 tonne)	C2.14	79	2	80%
	Articulated dumper (35 tonne)	C4.1	81	12	80%
	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	2	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	2	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
section	Motor Grader 140 size (17 tonne)	C6.31	86	2	80%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	2	80%
	Self propelled lime mixing machine	C4.22	76	2	80%
	Tractor 200Hp & Lime Spreader	C4.24	67	2	80%
	Road delivery lorry quicklime (20 tonne capacity)	C11.20	83	2	10%
	Lorry mounted road sweeper	C4.90	76	1	80%
Bulk Excavation and filling to landscape areas from Countess areas	360° tracked Excavator (40 tonne)	C2.14	79	2	80%
	Road lorries removal (20 tonne capacity)	C11.20	83	20	80%
	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	2	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	2	80%
	Motor Grader 140 size (17 tonne)	C6.31	86	1	80%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	1	80%
	Self propelled lime mixing machine	C4.22	76	1	80%
	Tractor 200Hp & Lime Spreader	C4.24	67	1	80%
	Lorry mounted lime tanker (30 tonne)	C4.15	76	1	80%
	Road delivery lorry quicklime (20 tonne capacity)	C11.20	83	2	5%
	Lorry mounted road sweeper	C4.90	76	1	80%
Trimming Road Formation	360 deg tracked Excavator (20 tonne)	C4.65	71	2	80%
	Articulated dumper (25 tonne)	C4.1	81	6	80%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	2	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	2	80%
Stabilising of chalk for capping layer	Self propelled lime mixing machine (Wirtgen 2400)	C4.22	76	1	80%
	Tractor 200Hp & Lime Spreader	C4.24	67	1	80%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	80%
	Lorry mounted lime tanker (30 tonne) Static	C4.22	76	2	80%
	Road delivery lorry quicklime (20 tonne capacity)	C11.20	83	2	15%
	Lorry mounted road sweeper	C4.90	76	1	80%
Laying Sub	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	2	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
base	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	2	80%
	Road delivery lorry sub base (20 tonne capacity)	C11.20	83	6/hr	60%
	Lorry mounted road sweeper	C4.90	76	1	80%
Trimming batters including re-soiling	360 deg tracked Excavator (20 tonne)	C4.65	71	2	80%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	2	80%
	Articulated dumper (25 tonne)	C4.1	81	6	80%
Trimming verges including re-soiling	360 deg tracked Excavator (20 tonne)	C4.65	71	2	80%
	Articulated dumper (25 tonne)	C4.1	81	6	80%
	360 deg wheeled Excavator (20 tonne)	C4.10	66	2	80%
	Lorry mounted road sweeper	C4.90	76	1	80%
Trimming landscape areas including re-soiling	360 deg tracked Excavator (20 tonne)	C4.65	71	2	80%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	3	80%
	Articulated dumper (25 tonne)	C4.1	81	8	80%
Road Surfacing (including works at Rolleston Cross)	Volvo P6870C Paver (or similar) (18 tonnes)	C5.31	77	1	70%
	Triple Drum Roller (21-25 tonne)	C5.19	80	1	70%
	Bomag 1200 vibrating roller	C5.21	80	2	70%
	Trackair (combined face shovel and pneumatic breaker)	C5.6	95	1	25%
	Whacker plate	C5.29	82	1	25%
	Volvo FH16 Low Loaders mobilise and demob	C6.33	82	1	5%
	8 wheel delivery trucks (20 tonne)	C11.20	83	6/hr	60%
Main drainage ducts and balancing ponds	360° tracked Excavator (20 tonne)	C4.64	75	2	70%
	360° tracked Excavator (10 tonne)	C2.25	69	1	70%
	Articulated dumper (25 tonne)	C4.1	81	8	70%
	Site Dumper (6 tonne)	C4.6	79	2	50%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	50%
	Tractor (150Hp and stone cart)	C4.75	79	2	70%
	Road delivery lorry granular (20 tonne capacity)	C11.20	83	3/hr	25%
	Lorry mounted road sweeper	C4.90	76	1	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
Breaking up of existing pavements - During main works	Asphalt Milling Machine (30 tonne)	C5.7	82	1	80%
	360° wheeled Excavator (20 tonne)	C4.10	66	1	50%
	360° rubber tracked Excavator (2 tonne)	C4.68	65	1	50%
	Pneumatic breaker and compressor	C1.6	83	1	20%
	Road lorry planings removal (20 tonne capacity)	C11.20	83	8/hr	80%
	Lorry mounted road sweeper	C4.90	76	1	80%
Concrete Vehicle Restraint Barrier	Wirtgen PCC Paver (25 tonne)	C5.31	77	1	70%
	Ready mix concrete delivery trucks	C4.21	77	5/hr	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	1	10%
	Volvo FH16 Low Loader mobilise and demob	C6.33	82	1	5%
Complete topsoiling and signage	360° tracked Excavator (30 tonne)	C2.16	75	1	60%
	Articulated dumper (30 tonne)	C4.1	81	3	50%
	20 tonne lorry (Signage SC)	C11.20	83	2/hr	20%
Green Bridges No 1,2 and 4	80-100 tonne crawler crane	C4.52	75	1	70%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2	20%
	MEWP (cherry picker) access	C4.55	70	1	60%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	10%
	9" skil saws	C4.73	84	3	10%
	M34 -M42 Concrete Pump	C4.24	67	1	75%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	6	75%
	Concrete delivery trucks	C4.18	75	6/hr	60%
Green Bridge No. 4	80-100 tonne crawler crane	C4.52	75	1	70%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2	20%
	MEWP (cherry picker) access	C4.55	70	1	60%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	10%



Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
	9" skil saws	C4.73	84	3	10%
	M34 -M42 Concrete Pump	C4.24	67	1	75%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	6	75%
	Concrete delivery trucks	C4.18	75	6/hr	60%
Piling Platforms	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	1	80%
	Smooth drum (twin) roller (3 tonne)	C2.40	73	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	8 wheel delivery trucks (20 tonne)	C11.20	83	6/hr	60%
Cast insitu or CFA Foundation Piling	Casagrande B250 piling Rig or similar (70 tonne)	C3.21	79	1	80%
	70-80 tonne crawler crane	C4.52	75	1	80%
	8m³ ready mix concrete delivery trucks	C4.20	80	6/hr	60%
	Lorry mounted road sweeper	C4.90	76	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	50%
	5 tonne articulated dumper	C4.7	78	1	50%
	Volvo FH16 Low Loaders, mobilise and demob	C6.33	82	3	5%
	35 tonne mobile crane mobilise and demob	C4.43	70	1	5%
Excavate Pile Caps, Blind and Break Down Piles	360° tracked Excavator (20 tonne)	C4.64	75	1	75%
	25 tonne articulated dump truck	C4.1	81	1	60%
	Ready mix concrete delivery trucks	C4.21	77	2/hr	20%
	Hydraulic/pneumatic modular pile cropper (approximately 4 tonne)	C3.31	73	1	60%
	Power pack	C1.8	74	1	60%
	Rotary saws	C4.93	80	2	25%
Bridge soffit support	Erect falsework Carpenters hammers	D2.15	84	6	70%
	Volvo FH12 40' articulated lorries falseworks on and off	C11.4	83	5/hr	50%
	Additional MEWP (cherry picker) access	C4.55	70	2	70%
Bridge Edge Parapets	20 tonne high side lorry containing materials and compressor for small tools	C11.20	83	3/hr	30%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
Bridge deck waterproofing	20 tonne high side lorry containing materials, lances and compressor for spraying and small tools	C11.20	83	3/hr	30%
Green Bridge Earth Bunds	360° tracked Excavator (10 tonne)	C2.25	69	1	80%
	Articulated dumper (25 tonne)	C4.1	81	4	80%
	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	1	80%
Green Bridge bridgeway and fencing	360° Excavator 10 tonne	C2.7	70	1	80%
	5 tonne dumper	C4.7	78	1	80%
	Bomag 75	C5.28	77	1	80%
	Wacker plate	C2.41	80	1	25%
	20 tonne delivery lorry for surfacing materials	C11.20	83	3/hr	30%
	360° 5 tonne excavator with boring attachment	C4.67	74	1	80%
	Tractor and flat trailer	C4.75	79	1	80%
	20 tonne truck delivering materials	C11.20	83	2	5%
Excavation of structural foundations western section	360° tracked Excavator (40 tonne)	C2.14	79	1	75%
	Articulated dumper (35 tonne)	C4.1	81	4	75%
	Bulldozer D6 size (10 tonne)	C2.13	78	1	75%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	75%
	Smooth drum (twin) roller (3 tonne)	C2.40	73	1	75%
Excavation of structural foundations Countess section	360 deg tracked Excavator (40 tonne)	C2.14	79	1	75%
	Road lorry removal (20 tonne capacity)	C11.20	83	8	75%
	Bulldozer D6 size (10 tonne)	C2.13	78	1	75%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	75%
	Smooth drum (twin) roller (3 tonne)	C2.40	73	1	75%
	Lorry mounted road sweeper	C4.90	76	1	75%
Backfilling behind structures	360° tracked Excavator (2 tonne)	C4.68	65	1	75%
	360° tracked Excavator (20 tonne)	C4.64	75	1	75%
	Smooth drum (twin) roller (3 tonne)	C2.40	73	1	75%
	Whacker plate	C5.29	82	2	80%
	Road delivery lorry granular (20 tonne capacity)	C11.20	83	5/hr	50%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
	Lorry mounted road sweeper	C4.90	76	1	80%
B3038 Underpass	80-100 tonne crawler crane	C4.52	75	1	70%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2	20%
	MEWP (cherry picker) access	C4.55	70	1	60%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	10%
	9" skil saws	C4.73	84	3	10%
	M34 -M42 Concrete Pump	C4.24	67	1	75%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	6	75%
	Concrete delivery trucks	C4.18	75	6/hr	60%
Bridge soffit support	Erect falsework Carpenters hammers	D2.15	84	6	60%
	Volvo FH12 40' articulated lorries falseworks on and off	C11.4	83	2/hr	20%
	Additional MEWP (cherry picker) access	C4.55	70	1	80%
Underpass access scaffold	Scaffold access delivery 20 tonne truck	C11.20	83	2/day	5%
	MEWP (cherry picker)	C4.55	70	2	80%
Complete Internal Roadway and Agricultural Access	360° tracked Excavator (2 tonne)	C4.68	65	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	Smooth drum (twin) roller (3 tonne)	C2.40	73	1	80%
	Whacker plate	C5.29	82	2	25%
	Road delivery lorry granular (20 tonne capacity)	C11.20	83	6/hr	60%
	Concrete delivery trucks	C4.18	75	2/hr	20%
	20 tonne high side lorry containing materials and compressor for small tools	C11.20	83	1	5%
	80-100 Kva Generator	C4.85	66	1	10%
	Husqvarna K760 rotary disc cutter	C3.35	65	1	10%
	9" skil saws	C4.73	84	1	10%
River Till Viaduct Piling	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	1	80%
	Smooth drum (twin) roller (3 tonne)	C2.40	73	1	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
Platforms	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	8 wheel delivery trucks (20 tonne)	C11.20	83	6/hr	60%
	Lorry mounted road sweeper	C4.90	76	1	80%
River Till Cast insitu or CFA Foundation Piling to Green Bridges	Casagrande B250 piling Rig or similar (70 tonne)	C3.21	79	1	80%
	70-80 tonne crawler crane	C4.52	75	1	80%
	8m³ ready mix concrete delivery trucks	C4.20	80	6/hr	60%
	Lorry mounted road sweeper	C4.90	76	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	60%
	5 tonne articulated dumper	C4.7	78	1	60%
	Volvo FH16 Low Loaders, mobilise and demob	C6.33	82	1	5%
	35 tonne mobile crane mobilise and demob	C4.43	70	1	5%
River Till General Plant	80-100 tonne crawler crane	C4.52	75	1	70%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2	20%
	MEWP (cherry picker) access	C4.55	70	1	60%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	10%
	9" skil saws	C4.73	84	3	10%
	M34 -M42 Concrete Pump	C4.24	67	1	75%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	6	75%
	Concrete delivery trucks	C4.18	75	6/hr	60%
Construct temporary approach roads to temporary river crossing bridge	360° tracked excavator 30 tonne	C2.16	75	1	80%
	20 tonne granular delivery lorries	C2.34	80	6/hr	60%
	35 tonne mobile crane	C4.43	70	1	80%
	Concrete delivery trucks	C4.18	75	2/hr	20%
Temporary Bridge over	35 tonne mobile crane	C4.43	70	1	80%
	Pneumatic spanners and compressor	C5.5	65	2	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
River Till	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	60%
Prepare assembly and launch area	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	80%
River Till Deck launch	100 tonne mobile crane	C4.41	71	1	60%
	Fabricated steel section delivery by 40' articulated lorries	C11.4	83	6	25%
	Mobile welding sets	C3.31	73	12	25%
	Grit blasting equipment	C11.2	71	2	25%
	Paint spraying equipment	C11.3	69	2	25%
	Strand jacking system	C4.57	67	1	25%
Surface Course, White lines and Signage	Volvo P6870C Paver (or similar) (18 tonnes)	C5.31	77	1	80%
	Triple Drum Roller (21-25 tonne)	C5.19	80	1	80%
	Bomag 1200 vibrating roller	C5.21	80	2	80%
	Trackair (combined face shovel and pneumatic breaker)	C5.6	95	1	50%
	Whacker plate	C5.29	82	1	10%
	Volvo FH16 Low Loaders mobilise and demob	C6.33	82	2	5%
	8 wheel delivery trucks (20 tonne)	C11.20	83	8/hr	80%
	20 tonne lorry (Road markings SC)	C11.20	83	1	80%
	20 tonne lorry (Signage SC)	C11.20	83	1	80%
Temporary Bridge No. 1	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	1	15%
	9" skil saws	C4.73	84	1	10%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	3	20%
	Concrete delivery trucks	C4.18	75	2/hr	20%
	100 tonne mobile crane	C4.41	71	1	60%
	Volvo FH16 Low Loader Mob and Demob Quick Bridge	C11.4	83	1	10%
Support Services	360° tracked Excavator (10 tonne)	C2.25	69	1	80%
	Falseworks support beams delivery 20 tonne lorry	C2.34	80	2	10%
A360	360° tracked Excavator (30 tonne)	C2.16	75	1	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
diversion road over temporary bridge No. 1 Earthworks	Articulated dumper (30 tonne)	C4.1	81	2	80%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	80%
	Road delivery lorry sub base (20 tonne capacity)	C11.20	83	6/hr	60%
	Lorry mounted road sweeper	C4.90	76	1	80%
A360 diversion road over temporary bridge No. 1 Paving	Volvo P6870C Paver (or similar) (18 tonnes)	C5.31	77	1	80%
	Triple Drum Roller (21-25 tonne)	C5.19	80	1	80%
	Bomag 1200 vibrating roller	C5.21	80	1	80%
	Trackair (combined face shovel and pneumatic breaker)	C5.6	95	1	25%
	Whacker plate	C5.29	82	1	15%
	Volvo FH16 Low Loaders mobilise and demob	C6.33	82	2	5%
	8 wheel delivery trucks (20 tonne) surfacing	C11.20	83	5/hr	50%
	Lorry mounted road sweeper	C4.90	76	1	80%
Long Barrow Junction Road Construction Plant	360° tracked Excavator (30 tonne)	C2.16	75	1	80%
	Articulated dumper (30 tonne)	C4.1	81	3	80%
	Bulldozer D6 size (10 tonne)	C2.13	78	1	80%
	Motor Grader 140 size (17 tonne)	C6.31	86	1	80%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	Articulated dumper (30 tonne)	C4.1	81	3	80%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	65%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	65%
	Road delivery lorry sub base (20 tonne capacity)	C11.20	83	5/hr	50%
	Lorry mounted road sweeper	C4.90	76	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	Articulated dumper (25 tonne)	C4.1	81	3	80%
	Site Dumper (6 tonne)	C4.6	79	2	75%
	Tractor (150Hp and stone cart)	C4.75	79	1	75%
	Road delivery lorry granular (20 tonne capacity)	C11.20	83	4/hr	40%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
	Volvo P6870C Paver (or similar) (18 tonnes)	C5.31	77	1	80%
	Triple Drum Roller (21-25 tonne)	C5.19	80	1	80%
	Bomag 1200 vibrating roller	C5.21	80	1	80%
	Trackair (combined face shovel and pneumatic breaker)	C5.6	95	1	25%
	Whacker plate	C5.29	82	1	15%
	Volvo FH16 Low Loaders mobilise and demob	C6.33	82	2	5%
	8 wheel delivery trucks (20 tonne)	C11.20	83	6/hr	60%
	20 tonne lorry (Signage SC)	C11.20	83	1	80%
	20 tonne lorry (White Lining SC)	C11.20	83	1	80%
Temporary Bridge No. 2	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	1	15%
	9" skil saws	C4.73	84	1	10%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	3	20%
	Concrete delivery trucks	C4.18	75	4/hr	40%
	35 tonne mobile crane	C4.43	70	1	60%
	Pneumatic spanners and compressor	C5.5	65	2	5%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	80%
	Movax SSP rig	C3.21	79	1	80%
Excavation beneath temporary bridge No. 1	360° tracked Excavator (40 tonne)	C2.14	79	1	80%
	Articulated dumper (35 tonne)	C4.1	81	4	80%
	Bulldozer D6 size (10 tonne)	C2.13	78	1	80%
SSP to tunnel approaches	Giken Silent Piling Rig possibly requiring "push in jetting mode" and or "push in super crush mode"	C3.21	79	1	80%
	Tractor (150Hp and trailer)	C4.75	79	1	60%
	40'articuted lorries delivery of piles	C11.4	83	2	20%
	35 tonne mobile crane	C4.43	70	1	80%
Top Capping beam to	360° tracked Excavator (10 tonne)	C2.25	69	1	80%
	10 tonne articulated dump truck	C4.1	81	1	50%



Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
secant piling	Concrete delivery trucks	C4.18	75	2/hr	20%
	Hydraulic/pneumatic modular pile cropper (approximately 4 tonne)	C3.31	73	1	60%
	Power pack	C1.8	74	1	50%
	Rotary saws	C4.93	80	2	15%
	Husqvarna K760 rotary disc cutter	C3.35	65	2	15%
	9" skil saws	C4.73	84	2	15%
	Pneumatic/electric 50mm concrete vibrators	C4.35	63	3	50%
Top Capping beam to SSP	360° tracked Excavator (10 tonne)	C2.25	69	1	80%
	10 tonne articulated dump truck	C4.1	81	1	50%
	Concrete delivery trucks	C4.18	75	2/hr	20%
	Special soffit shutter for AZ30-700 sheet piles	C3.35	65	1	80%
	Working gantry	C4.57	67	1	80%
	Husqvarna K760 rotary disc cutter	C3.35	65	2	15%
	9" skil saws	C4.73	84	2	15%
	Pneumatic/electric 50mm concrete vibrators	C4.35	63	3	50%
Gantry Crane	Bespoke electric gantry crane carriage, runner rails and central support	C3.29	70	1	80%
	100 tonne mobile crane	C4.41	71	1	80%
	40' articulated lorries mob and de-mob	C2.33	81	2	5%
SBMA Anchors	Advance pre drilling machine	C9.3	91	1	80%
	Casagrande M9 anchor installation machine (or similar)	C3.15	82	1	80%
	Grout plant	D2.13	80	1	80%
	Volvo FH16 Low Loader, mobilise and demob	C11.4	83	2	5%
	Tensioning jacks	C4.57	67	2	65%
	50 tonne crane for tensioning platform positioning	C4.46	67	2	65%
Western Portal Approach Cross Walls	35 Tonne mobile crane	C4.43	70	1	80%
	Husqvarna K760 rotary disc cutter	C3.35	65	2	15%
	9" skil saws	C4.73	84	2	15%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	3	80%



Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
	Concrete delivery trucks	C4.18	75	5/hr	50%
Western Portal Approach Base Slabs	35 Tonne mobile crane	C4.43	70	1	80%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	15%
	9" skil saws	C4.73	84	3	15%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	5	80%
	Concrete delivery trucks	C4.18	75	5/hr	50%
	M34 -M42 Concrete Pump	C4.24	67	1	50%
Western Portal Approach Lining Walls	80-100 tonne crawler crane	C4.52	75	1	80%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2/hr	15%
	MEWP (cherry picker) access	C4.55	70	2	80%
	Husqvarna K760 rotary disc cutter	C3.35	65	2	15%
	9" skil saws	C4.73	84	3	15%
	M34 -M42 Concrete Pump	C4.24	67	1	80%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	5	80%
	Concrete delivery trucks	C4.18	75	5/hr	50%
Western Portal Approach Centre Walls	80-100 tonne crawler crane	C4.52	75	1	80%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2/hr	20%
	MEWP (cherry picker) access	C4.55	70	4	80%
	Scaffold access platforms	C4.57	67	1	80%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	15%
	9" skil saws	C4.73	84	3	15%
	M34 -M42 Concrete Pump	C4.24	67	1	80%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	6	80%
	Concrete delivery trucks	C4.18	75	6/hr	80%
Western Portal fill and roof	Erect falsework Carpenters hammers	D2.15	84	6	65%
	Volvo FH12 40' articulated lorries falseworks on and off	C11.4	83	2	5%
	Additional MEWP (cherry picker) access	C4.55	70	1	80%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
construction	80-100 tonne crawler crane	C4.52	75	1	80%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2/hr	20%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	15%
	9" skil saws	C4.73	84	3	15%
	M34 -M42 Concrete Pump	C4.24	67	1	80%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	5	80%
	Concrete delivery trucks	C4.18	75	5/hr	50%
Western Portal lightweight fill over cut and cover roof slab	360° tracked Excavator (10 tonne)	C2.25	69	1	80%
	8 wheel delivery trucks (20 tonne)	C11.20	83	4/hr	40%
Remove excavated material from processing plant area and fill Parsonage Down landscape area	360° tracked Excavator (40 tonne)	C2.14	79	1	90%
	Articulated dumper (35 tonne)	C4.1	81	10	90%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	80%
	Bulldozer D6 size Low Ground Pressure (10 tonne)	C2.13	78	1	80%
	Motor Grader 140 size (17 tonne)	C6.31	86	1	90%
	Tractor 200Hp & Water Bowser 2500 lts	C6.38	83	1	80%
	Self propelled lime mixing machine	C4.22	76	1	80%
	Tractor 200Hp & Lime Spreader	C4.24	67	1	80%
	Lorry mounted lime tanker (30 tonne)	C4.15	76	1	80%
	Road delivery lorry quicklime (20 tonne capacity)	C11.20	83	2	5%
	Lorry mounted road sweeper	C4.90	76	1	35%
Load Transfer Slab to CMC's at Countess Interchange	360° tracked Excavator (2 tonne)	C4.68	65	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	Bulldozer D6 size GPS controlled (10 tonne)	C2.13	78	1	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	80%
	Road delivery lorry granular (20 tonne capacity)	C11.20	83	6/hr	60%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
Controlled Modulus Columns at Countess Approach Ramps	CMC Rig and tanker (Vibro Menard)	C3.21	79	1	90%
	360° tracked Excavator (15 tonne)	C2.24	73	1	60%
	Ready mix concrete delivery trucks	C4.21	77	3/hr	60%
	Volvo FH16 Low Loaders, mobilise and demob	C6.33	82	1	5%
	Lorry mounted road sweeper	C4.90	76	1	80%
Filling of reinforced earth ramps to Countess Interchange	360° tracked Excavator (2 tonne)	C4.68	65	1	80%
	360° tracked Excavator (20 tonne)	C4.64	75	1	80%
	Smooth Drum Self Propelled Roller (15 tonne)	C2.38	73	1	80%
	Smooth drum (twin) roller (3 tonne)	C2.40	73	1	80%
	Whacker plate	C5.29	82	2	60%
	Self propelled lime mixing machine (Wirtgen 2400)	C4.22	76	1	80%
	Tractor 200Hp & Lime Spreader	C4.24	67	1	80%
	Lorry mounted lime tanker (30 tonne)	C4.15	76	1	80%
	Road delivery lorry quicklime (20 tonne capacity)	C11.20	83	2	10%
	Lorry mounted road sweeper	C4.90	76	1	80%
General concreting works Edge Units, Insitu Beams, Parapets and Kerbing	10 tonne spider crane	C4.49	77	1	75%
	20 tonne delivery lorries	C11.20	83	2/hr	20%
	Husqvarna K760 rotary disc cutter	C3.35	65	2	10%
	9" skil saws	C4.73	84	2	10%
	20 tonne high side lorry containing materials and compressor for small tools	C11.20	83	2	10%
	Concrete delivery trucks	C4.18	75	3/hr	30%
Countess Pile Cap and Abutment Construction	80-100 tonne crawler crane	C4.52	75	1	80%
	Volvo FH16 Low Loader Mob and Demob	C6.33	82	1	5%
	Volvo FH12 40' articulated lorries	C6.16	88	2	10%
	MEWP (cherry picker) access	C4.55	70	2	80%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	2	15%
	9" skil saws	C4.73	84	3	15%

Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
	M34 -M42 Concrete Pump	C4.24	67	1	50%
	Concrete delivery trucks	C4.18	75	4/hr	40%
	Pneumatic/electric 75mm concrete vibrators	C4.35	63	4	50%
Fill, Beams and complete deck	20 tonne high side lorry containing materials and compressor for small tools	C11.20	83	1	5%
	20 tonne high side lorry containing materials, lances and compressor for spraying and small tools	C11.20	83	1	5%
	500 Tonne mobile crane	C4.38	78	1	80%
	40' articulated lorry attendance	C2.34	80	4	20%
	MEWP (cherry picker) access	C4.55	70	3	80%
	80-100 Kva Generator	C4.85	66	1	50%
	Husqvarna K760 rotary disc cutter	C3.35	65	3	5%
	9" skil saws	C4.73	84	3	5%
	M34 -M42 Concrete Pump	C4.24	67	1	65%
	Concrete delivery trucks	C4.18	75	4/hr	40%
Noise barriers	Pneumatic/electric 75mm concrete vibrators	C4.35	63	6	65%
	20 tonne high side lorry containing materials and compressor for small tools	C11.20	83	1	10%
Countess Roundabout Works	40' articulated lorry material delivery with Hiab	C2.34	80	2/day	80%
	Asphalt Milling Machine (30 tonne)	C5.7	82	1	80%
	360° wheeled Excavator (20 tonne)	C4.10	66	1	80%
	360° rubber tracked Excavator (2 tonne)	C4.68	65	1	80%
	Road lorry planings removal (20 tonne capacity)	C11.20	83	6/hr	60%
	Lorry mounted road sweeper	C4.90	76	1	80%
	20 tonne high side lorry containing materials and compressor for small tools Traffic Signals Installation	C11.20	83	1	50%
	Volvo P6870C Paver (or similar) (18 tonnes)	C5.31	77	1	80%
	Triple Drum Roller (21-25 tonne)	C5.19	80	1	60%
	Bomag 1200 vibrating roller	C5.21	80	2	60%
	Trackair (combined face shovel and pneumatic breaker)	C5.6	95	1	60%

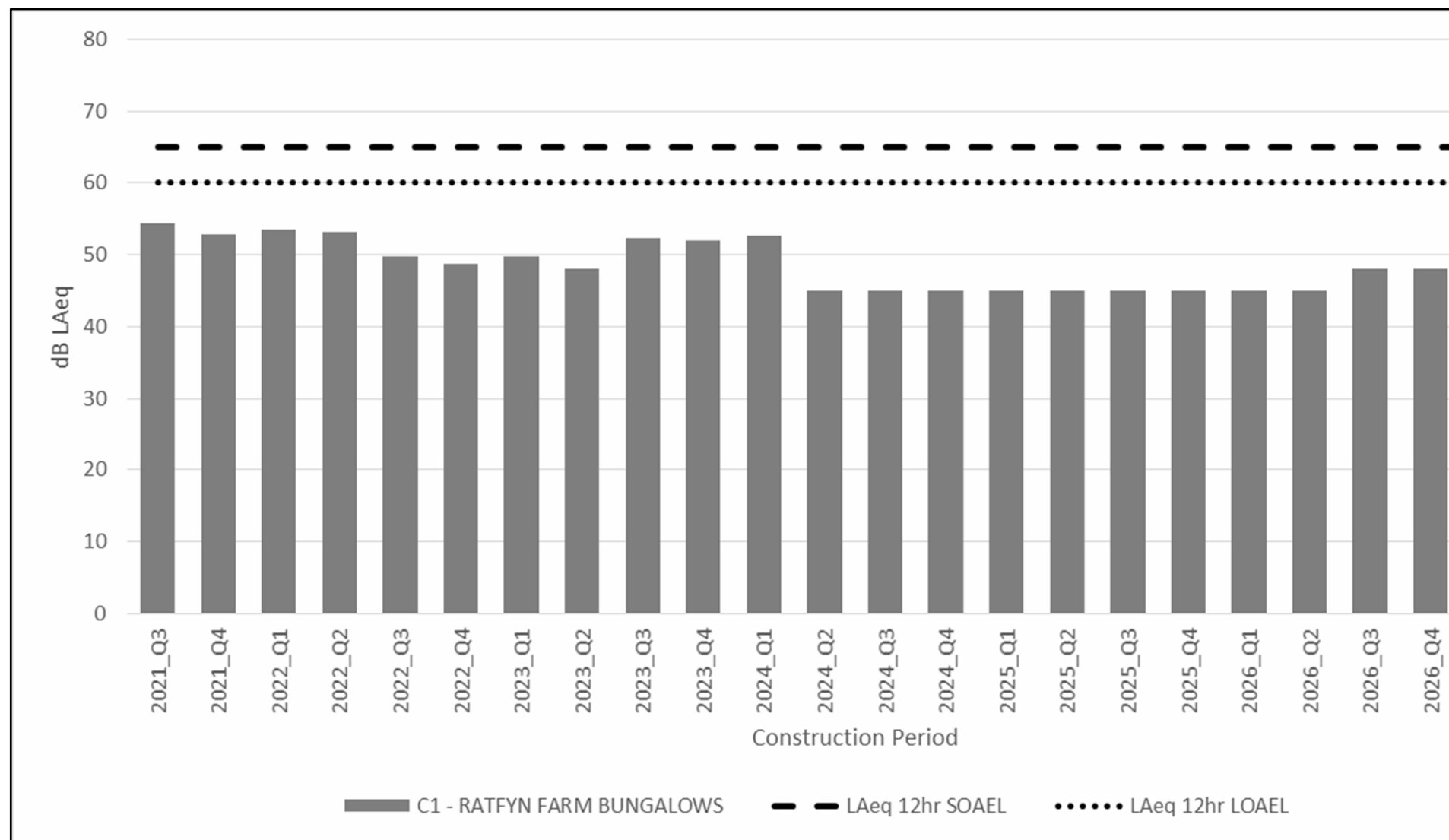
Construction Activity	Plant List	BS 5228 Reference	L <sub>Aeq</sub> @ 10m dB	Average daily no. of each plant	Percentage on-time average
	Whacker plate	C5.29	82	1	15%
	Volvo FH16 Low Loaders mobilise and demob	C6.33	82	2	5%
	8 wheel delivery trucks (20 tonne)	C11.20	83	6/hr	60%
	20 tonne lorry (Signage SC)	C11.20	83	1	80%
	20 tonne lorry (Road markings SC)	C11.20	83	1	80%
Road and directional signage	20 tonne lorry (Signage SC)	C11.20	83	1	80%
	360° 5 tonne excavator with boring attachment	C4.67	74	1	50%
	20 tonne lorry (Road markings SC)	C11.20	83	1	80%
	20 tonne truck with materials	C11.20	83	4	40%
	20 tonne truck	C11.20	83	1/hr	10%
	Bobcat front shovel / rotary drill attachment	C1.1	92	1	30%
	360° Excavator 5-10 tonne	C4.68	65	1	50%
	5 tonne dumper	C4.7	78	1	50%
	Bomag 75	C5.28	77	1	50%
	Wacker plate	C2.41	80	1	15%
	20 tonne delivery lorry for surfacing materials	C11.20	83	1/hr	10%
Slurry Treatment Plant works	Bentonite mixer	Silvertown STBM EAR	80	1	85%
	Pump units	Silvertown STBM EAR	81	4	85%
	Control and electrical building	Silvertown STBM EAR	51	1	85%
	Cyclone	Silvertown STBM EAR	80	1	85%
	Dosing pump	Silvertown STBM EAR	65	1	50%
	Lime milk emptying screw	Silvertown STBM EAR	80	1	50%
	Lime milk mixer/pump unit	Silvertown STBM EAR	82	1	50%
	Silos	Silvertown STBM EAR	61	1	85%
TBM Assembly	Water/slurry tanks	Silvertown STBM EAR	82	1	50%
	400T crane	C4.50	71	1	25%
	Telehandler	C4.55	70	1	80%
	MEWP Cherry picker (10/16m)	C4.55	70	1	80%
	Lifting equipment	C4.57	67	1	80%
	Grinders	C4.93	80	1	80%
	Welding machine	C3.31	73	1	60%

	Small compressor	C3.19	75	1	85%
Generators	600 kva silenced	Jacksons	66	1	100%
	100 kva silenced	Jacksons	63	1	100%
Segment Lining Production	Batching Plant	C3.29	63	1	80%
	100 tonne mobile crane	C4.41	71	1	80%
Transportation of segments	MSV for segment transport	C11.4	83	50	80%

## 2 Construction Noise Levels

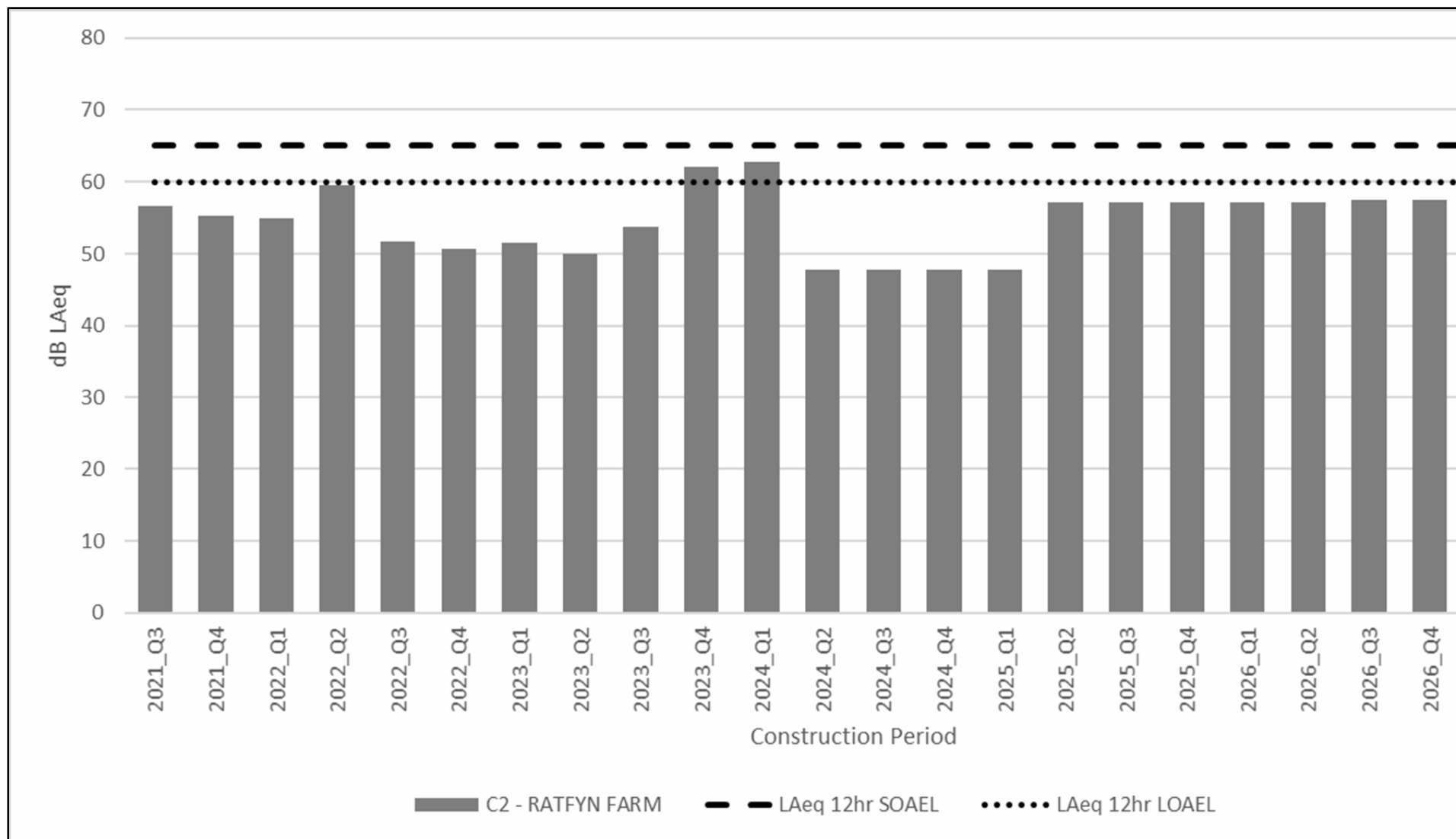
- 2.1.1 Predicted reasonable worst case construction noise levels have been estimated on a quarterly basis during the construction phase between 2021 Q3 until 2026 Q4 at each receptor and are shown in Figure 2-1 to Figure 2-20. The predicted noise levels shown are worst-case based on all plant working and represent the highest noise level from construction activities during the quarter.
- 2.1.2 At some receptors (e.g. C16 - Rollestone Crossroads), given the large separation distance between the construction activity taking place and the receptor, predicted noise levels for some quarters have not been calculated.

**Figure 2-1 C1 Ratfyn Farm Bungalows Predicted Construction Noise Levels**

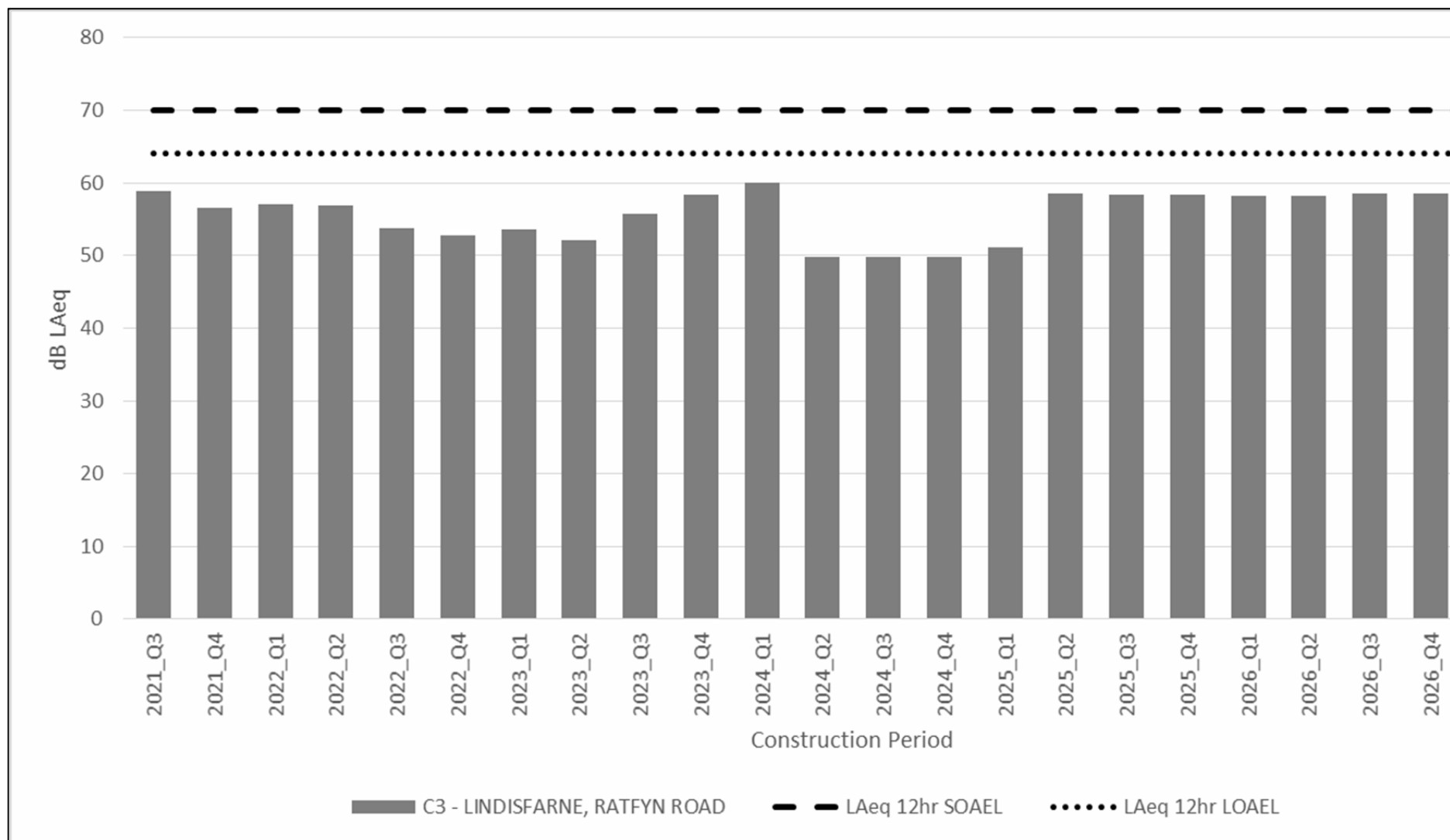




**Figure 2-2 C2 Ratfyn Farm Predicted Construction Noise Levels**



**Figure 2-3 C3 Lindisfarne, Ratfyn Road Predicted Construction Noise Levels**



**Figure 2-4 C4 Travelodge (SE facade) Predicted Construction Noise Levels**

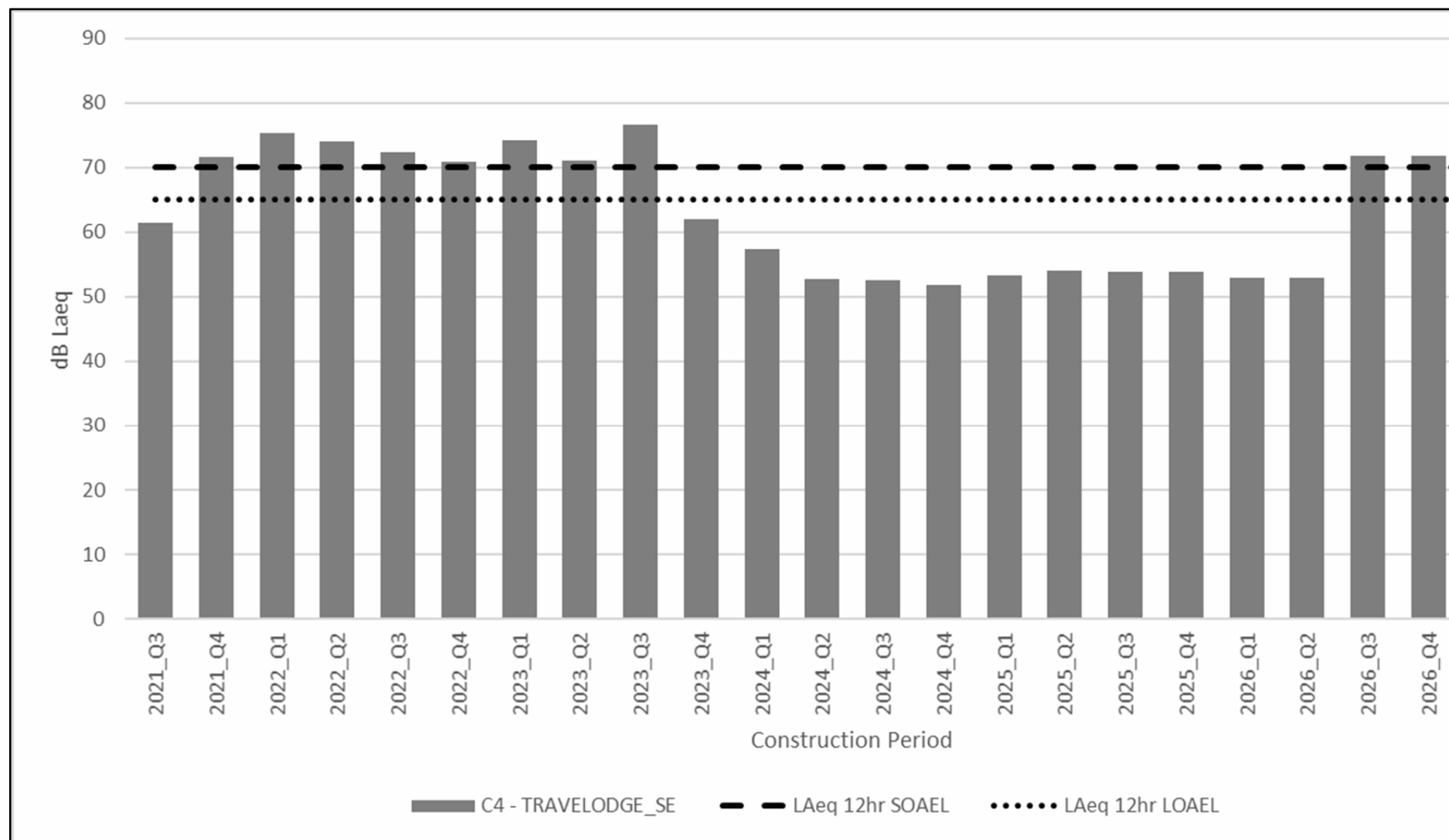
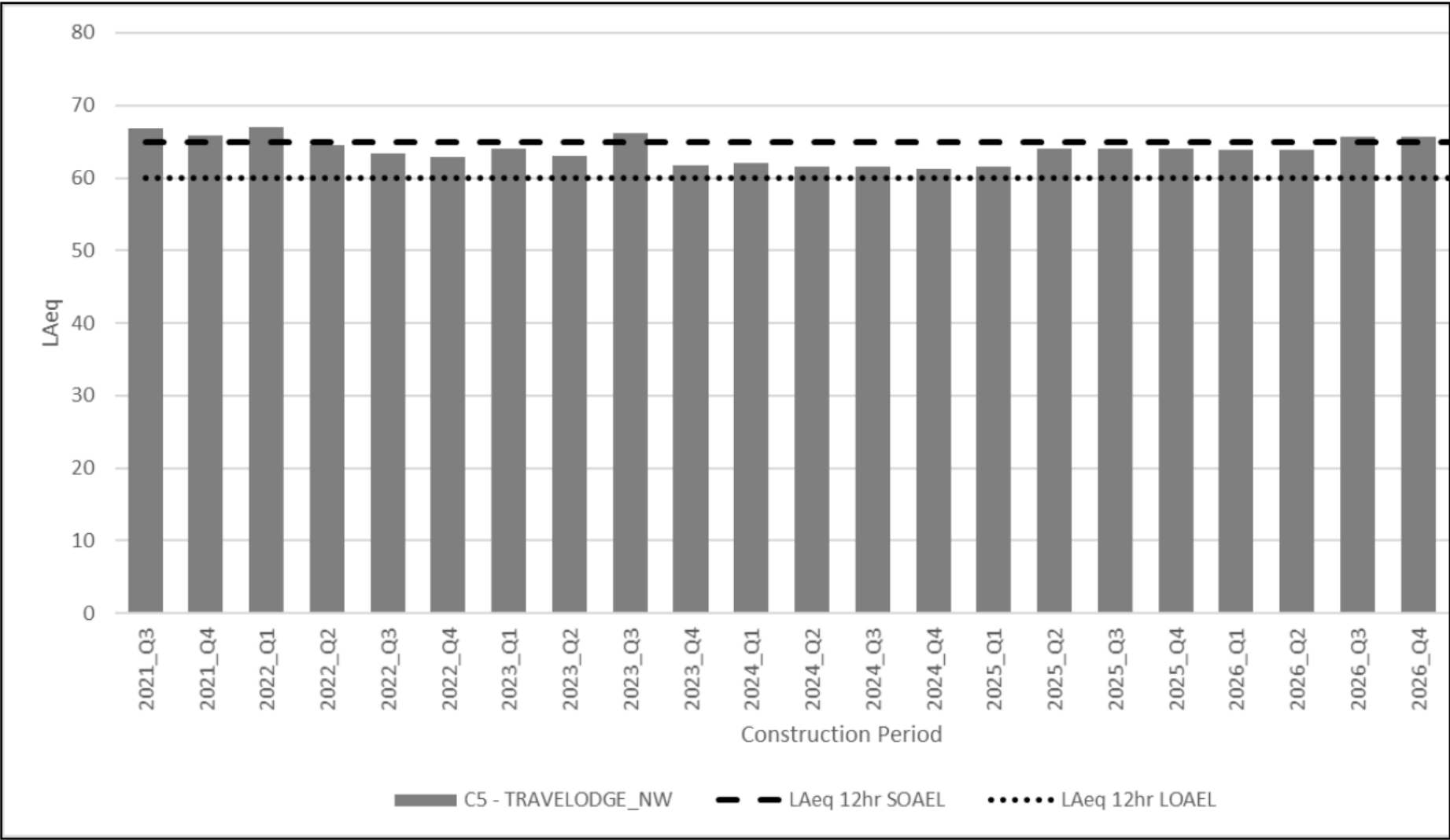
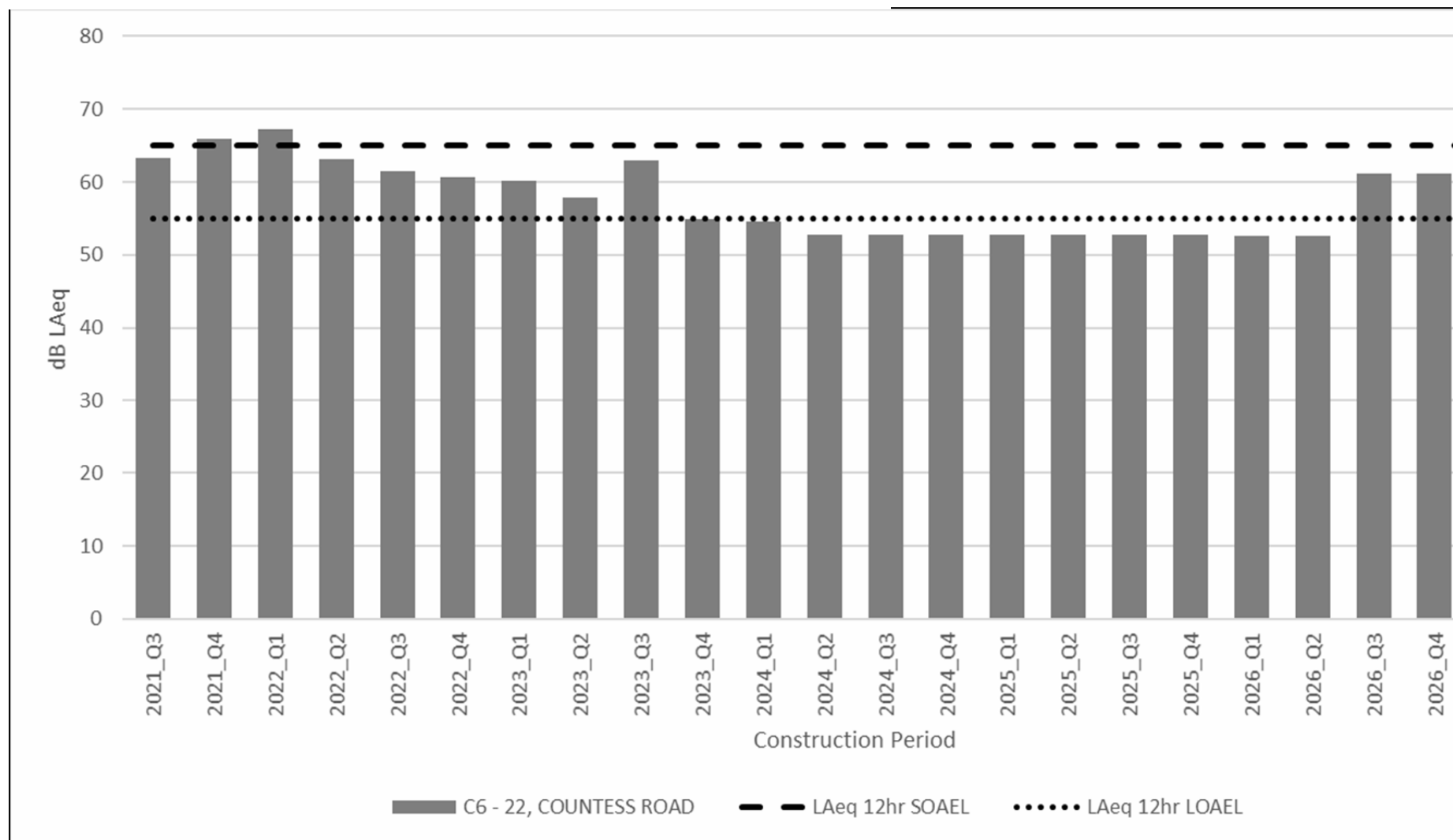


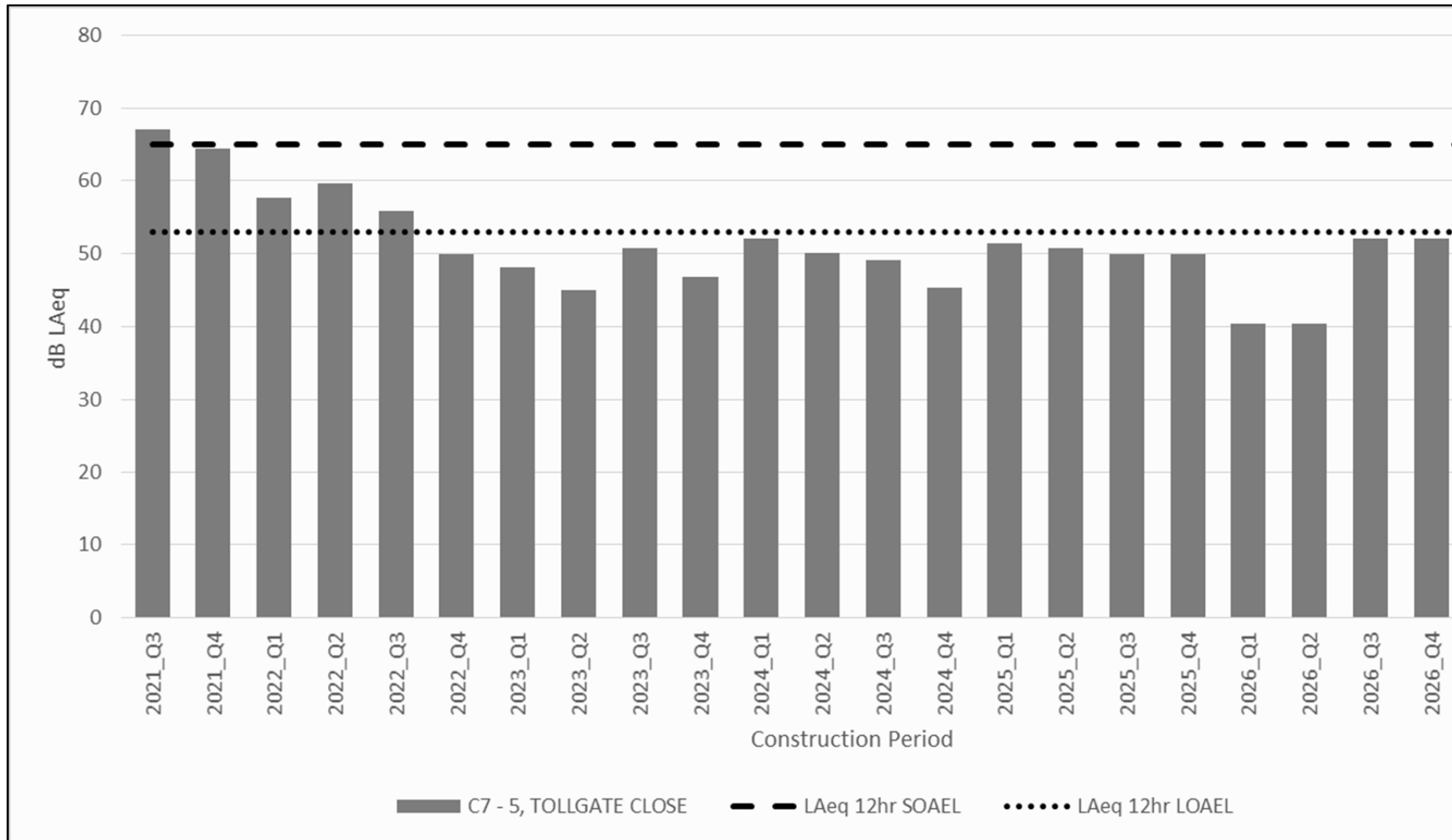
Figure 2-5 C5 Travelodge (NW faade) Predicted Construction Noise Levels



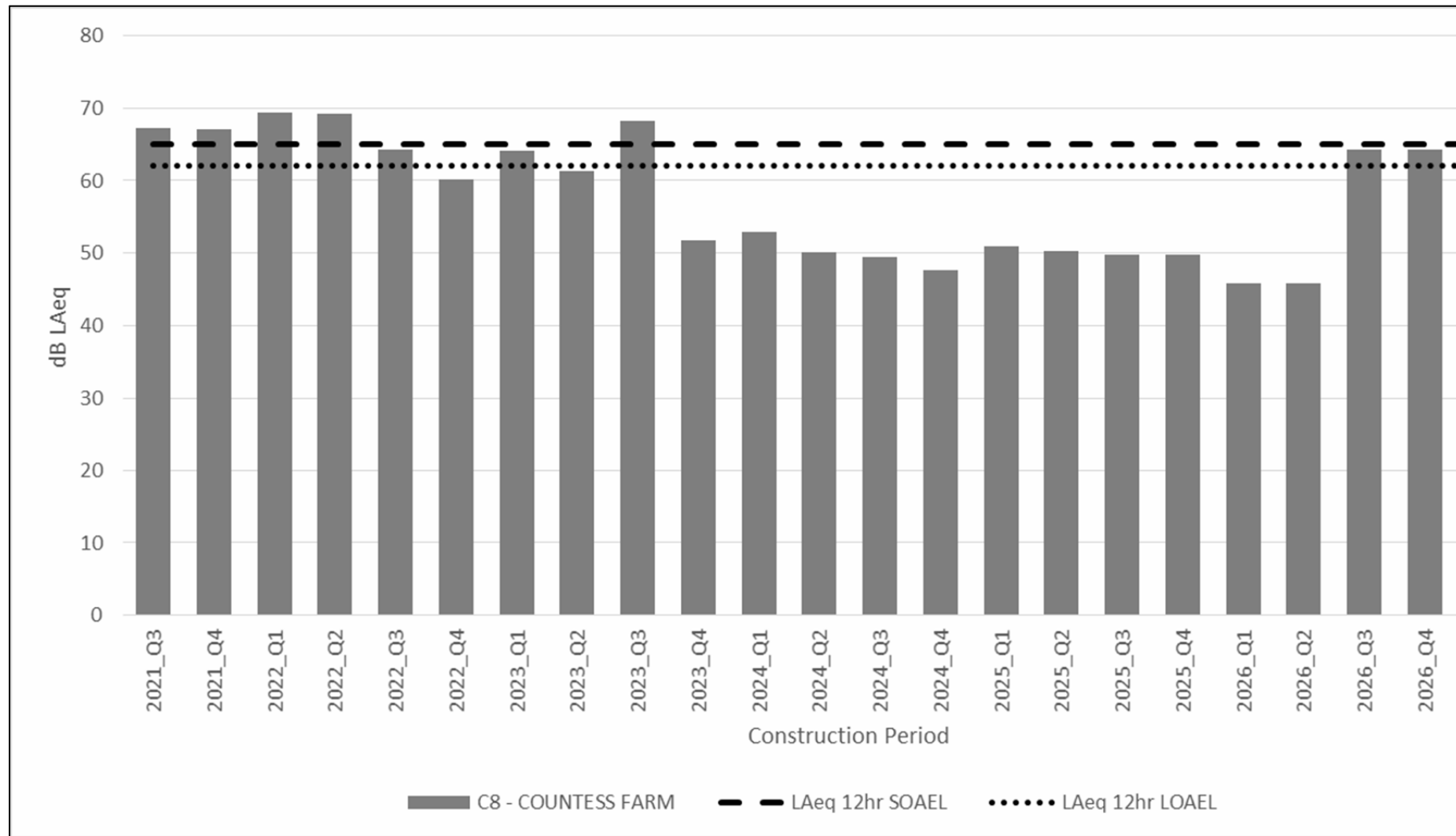
**Figure 2-6 C6 22 Countess Road Predicted Construction Noise Levels**



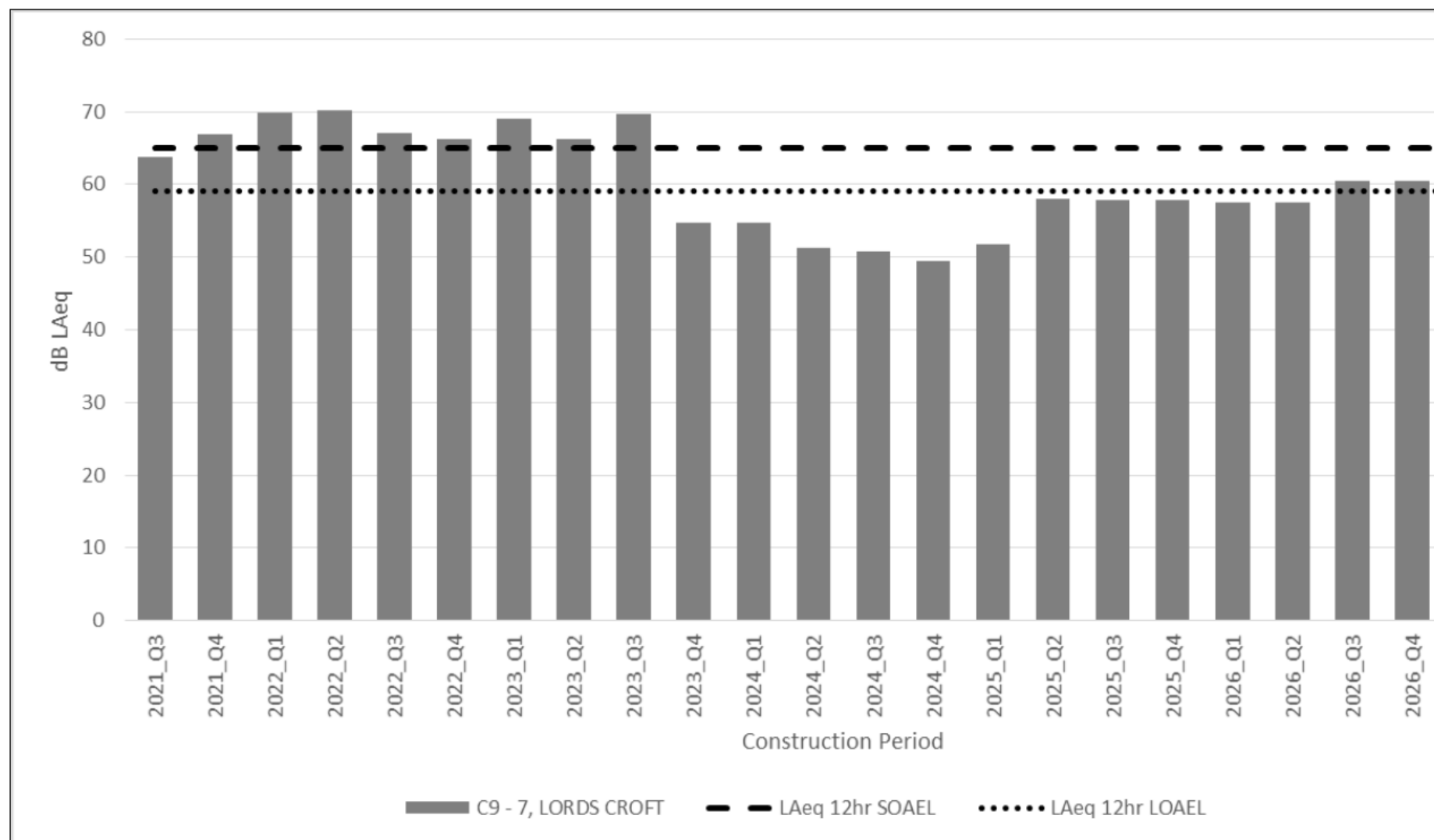
**Figure 2-7 C7 5 Tollgate Close Predicted Construction Noise Levels**



**Figure 2-8 C8 Countess Farm Predicted Construction Noise Levels**

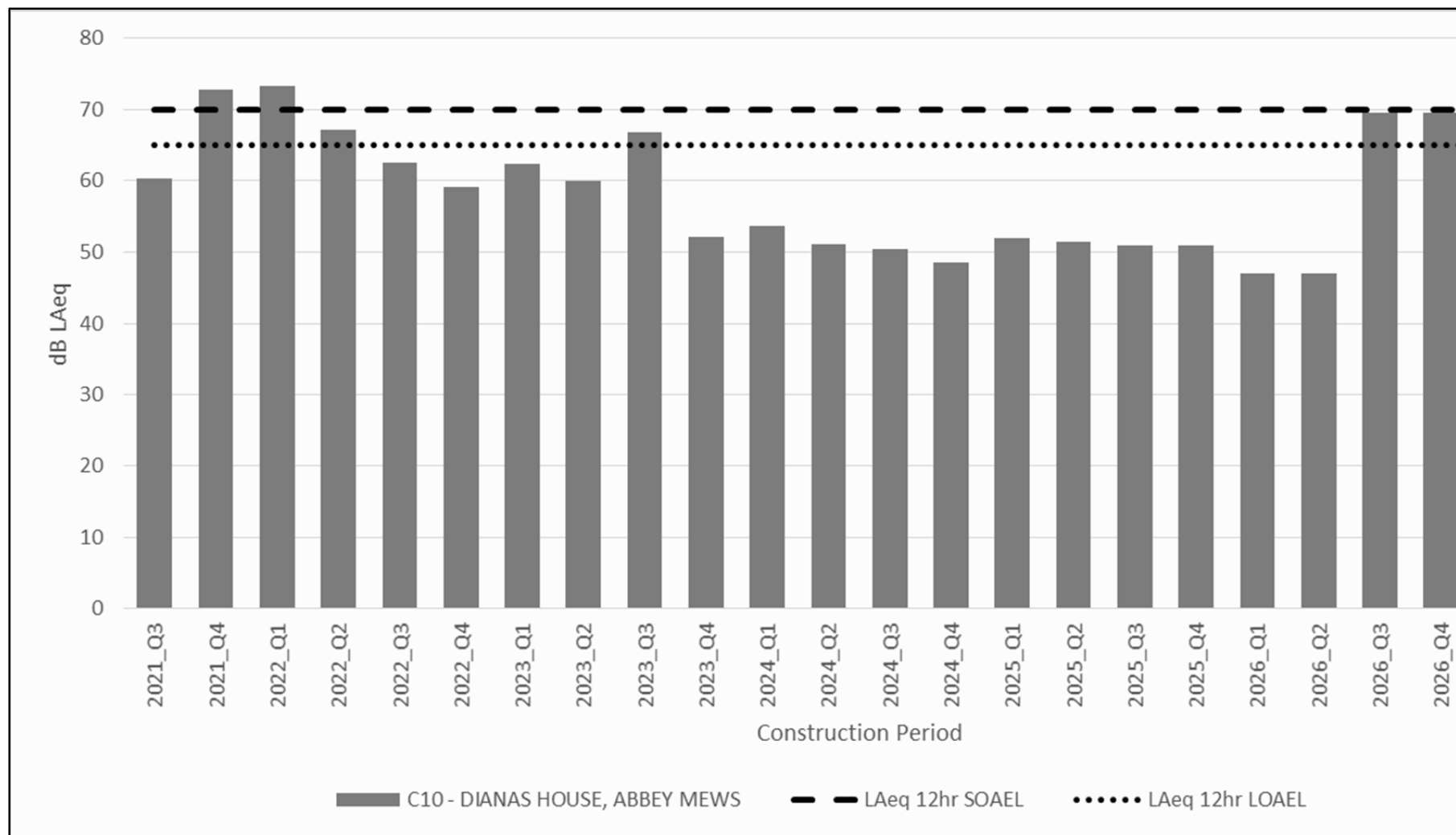


**Figure 2-9 C9 7 Lords Croft Predicted Construction Noise Levels**

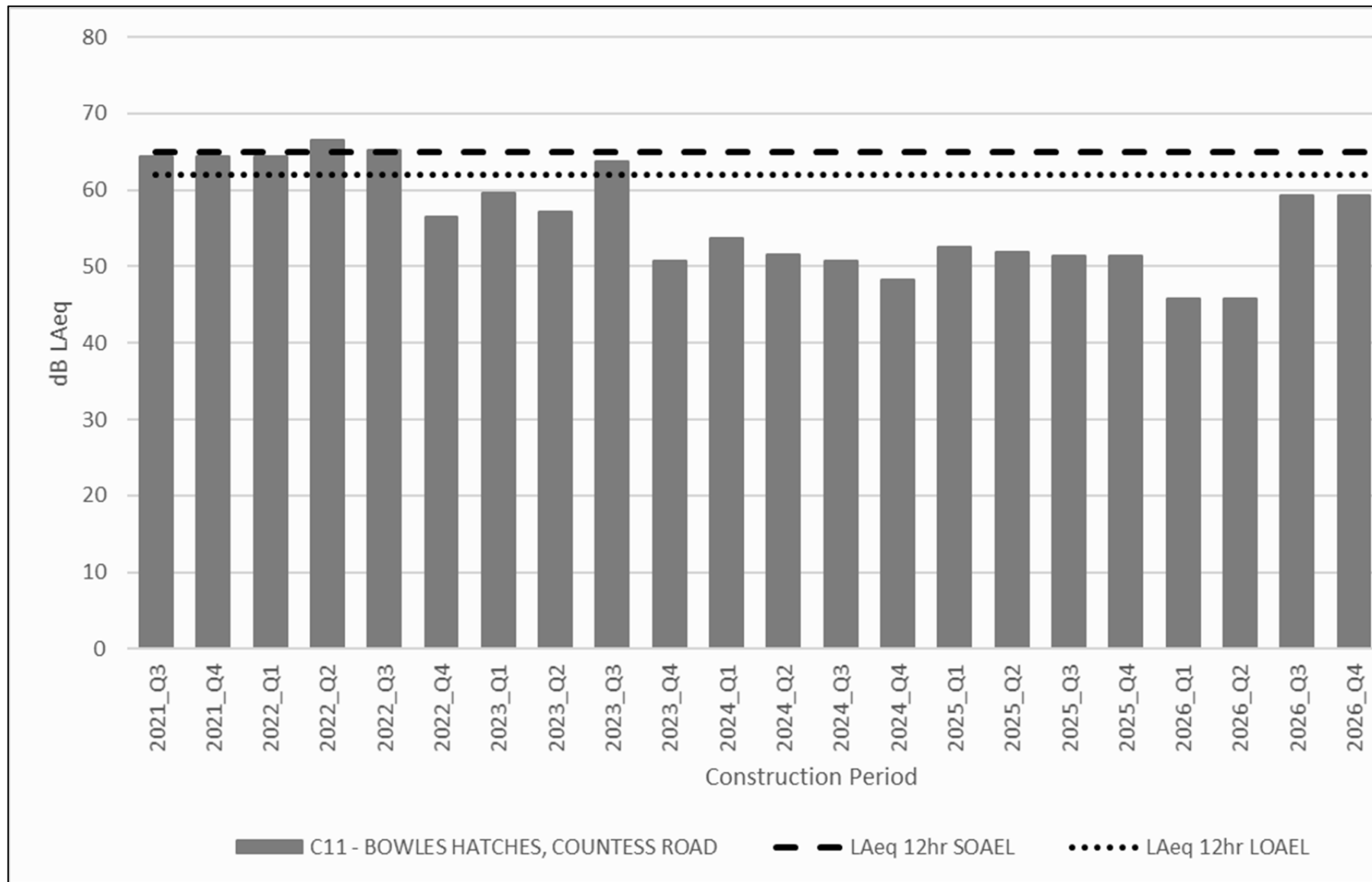




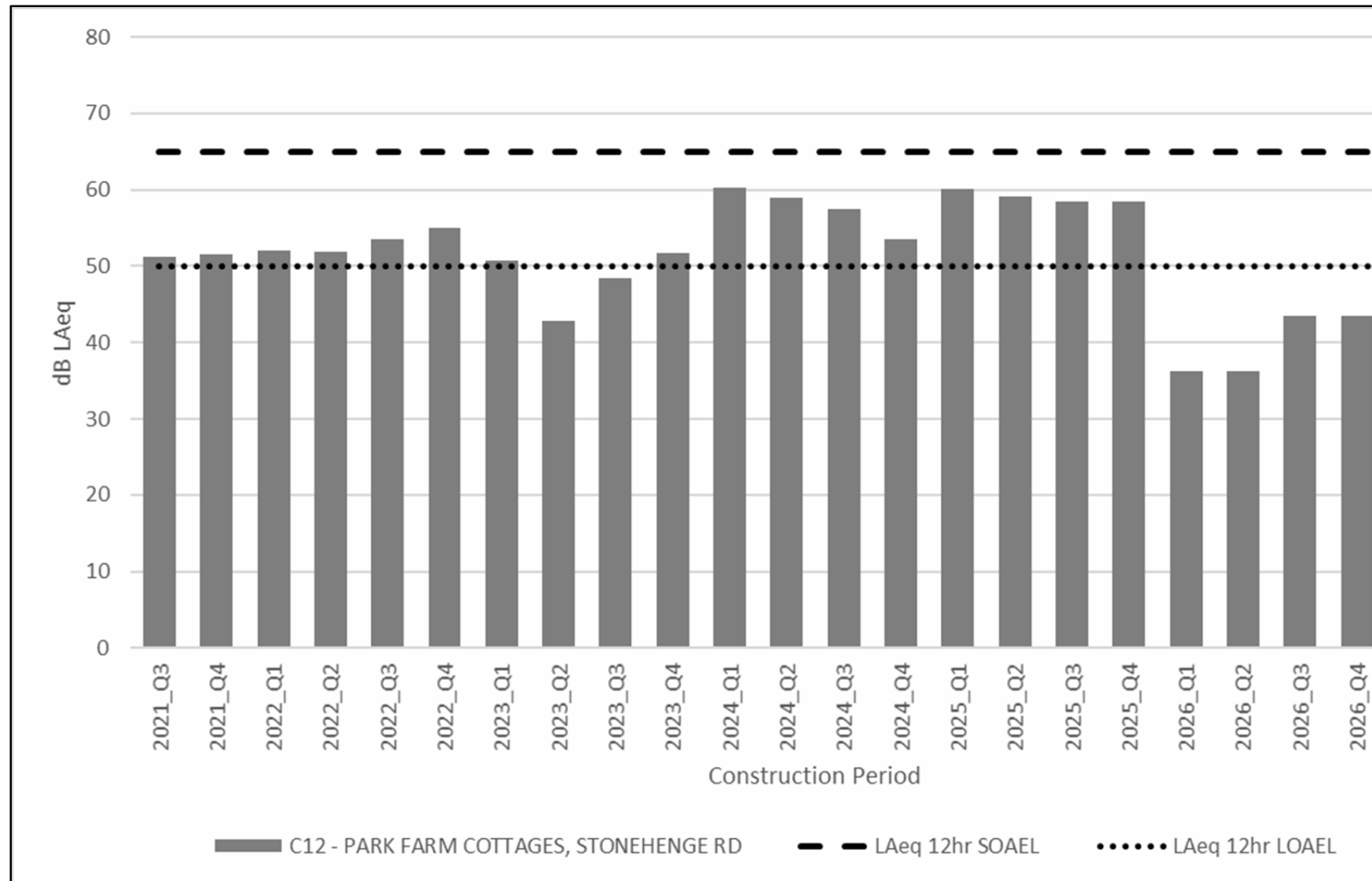
**Figure 2-10 C10 Diana's House, Abbey Mews Predicted Construction Noise Levels**



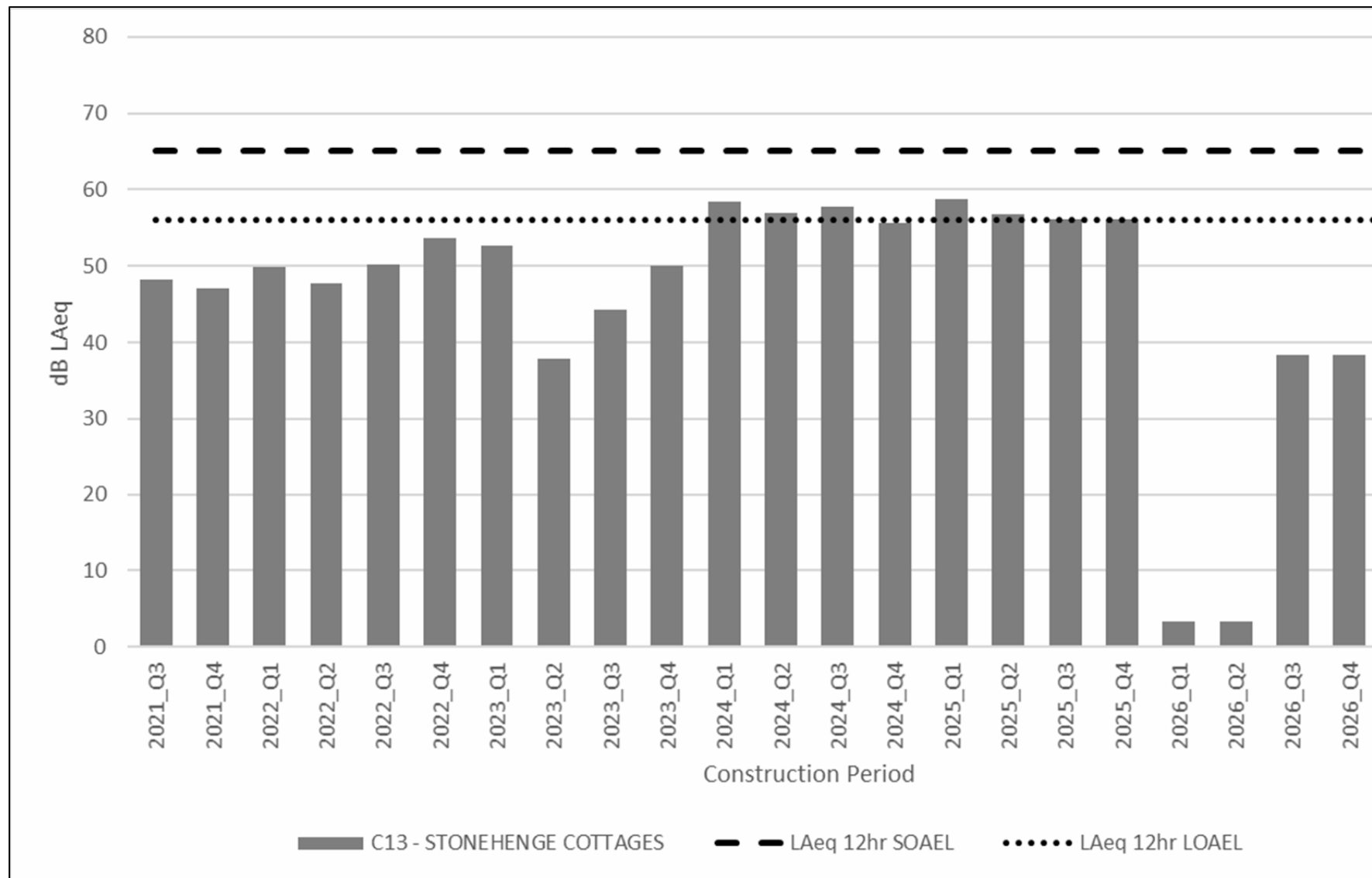
**Figure 2-11 C11 Bowles Hatches, Countess Road Predicted Construction Noise Levels**



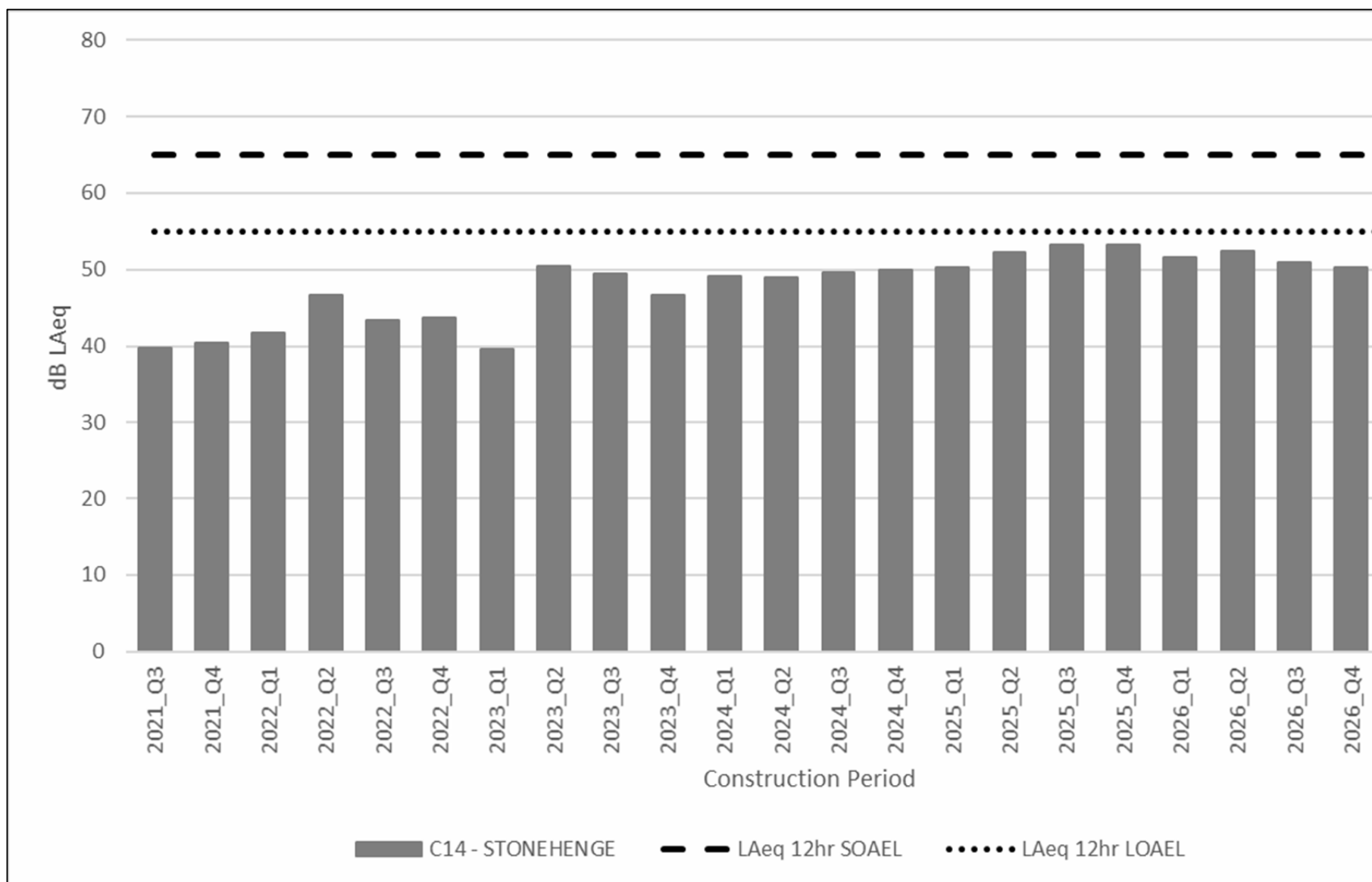
**Figure 2-12 C12 Park Farm Cottages Predicted Construction Noise Levels**



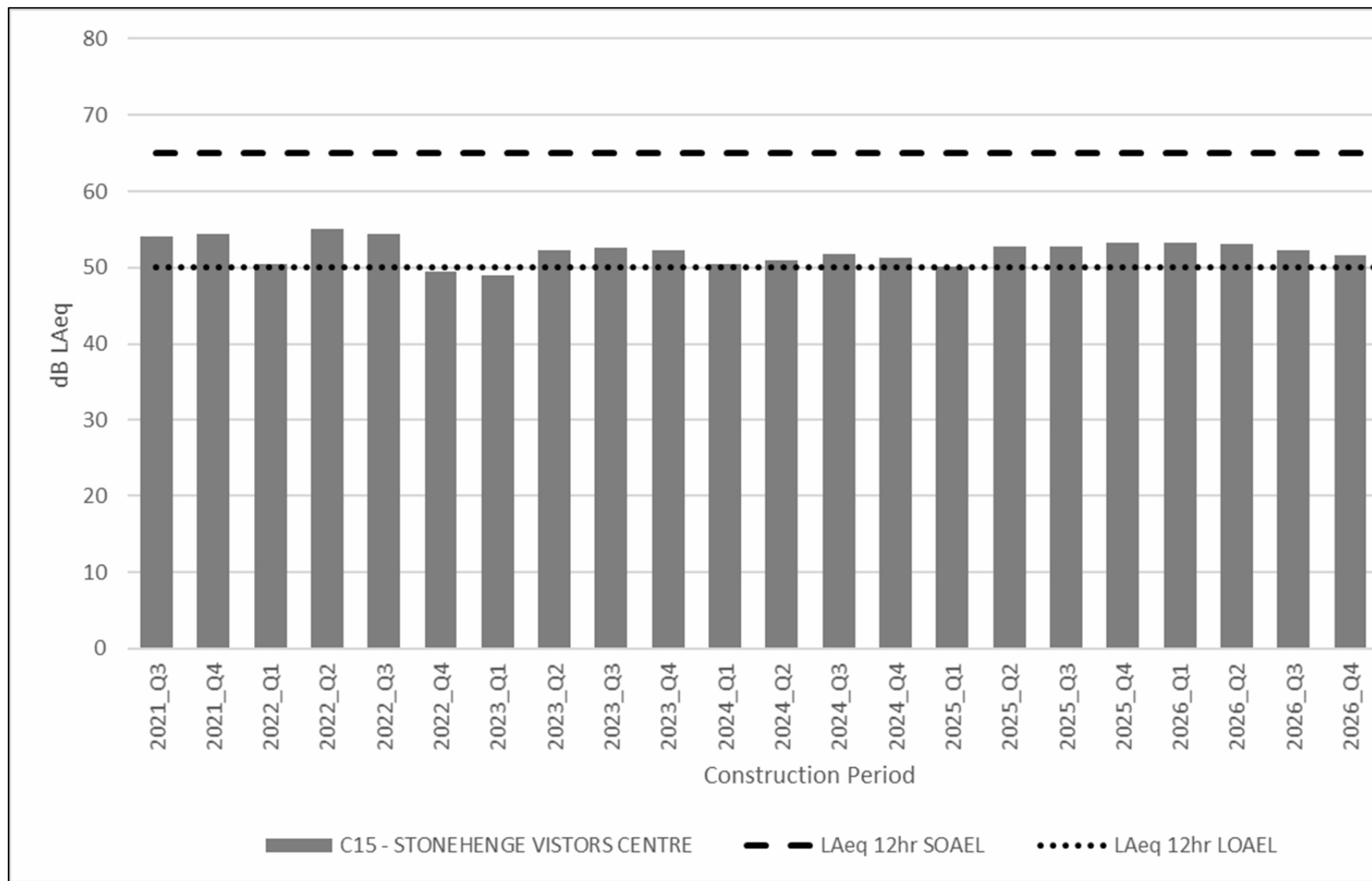
**Figure 2-13 C13 Stonehenge Cottages Predicted Construction Noise Levels**



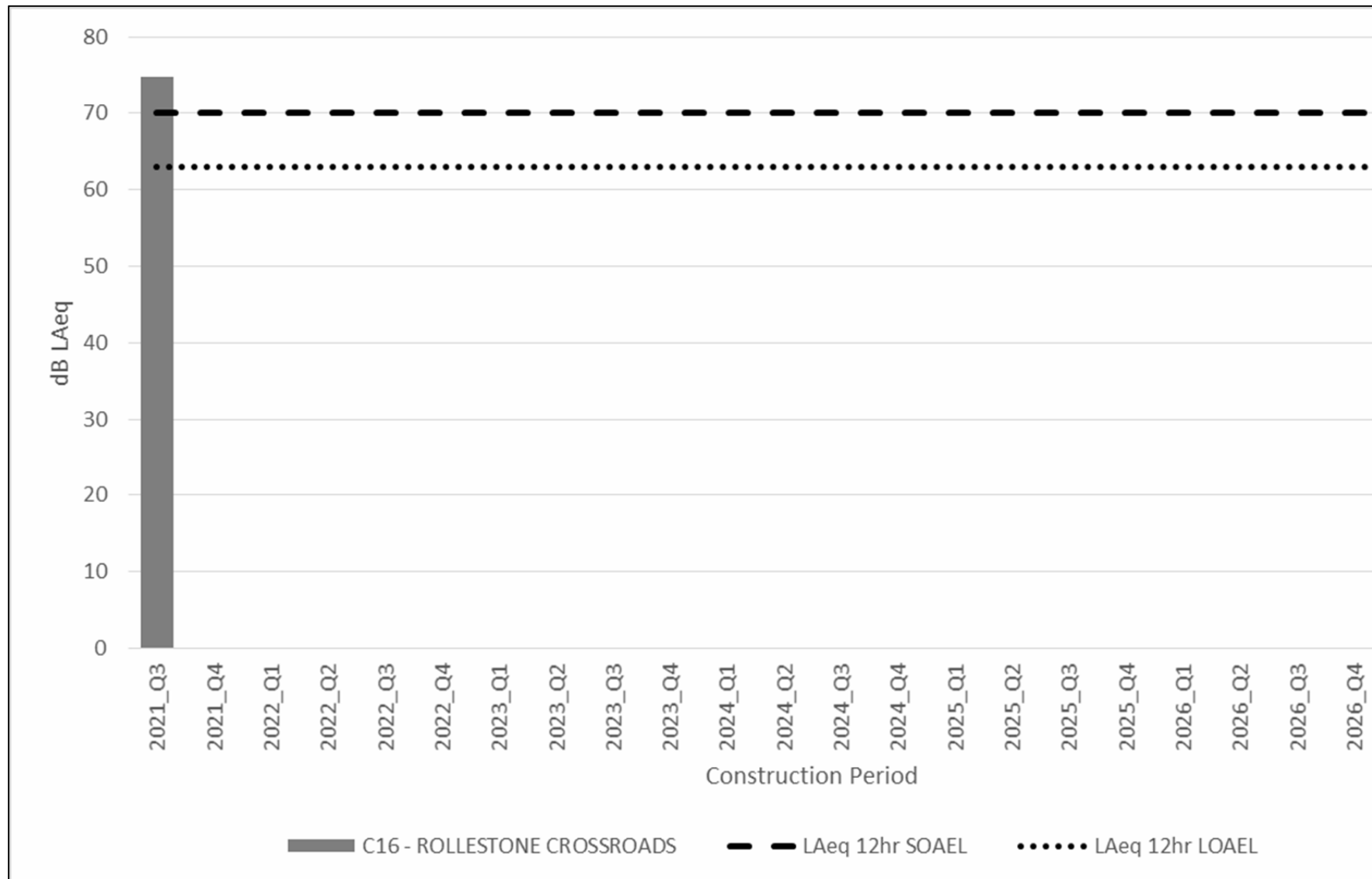
**Figure 2-14 C14 Stonehenge Predicted Construction Noise Levels**



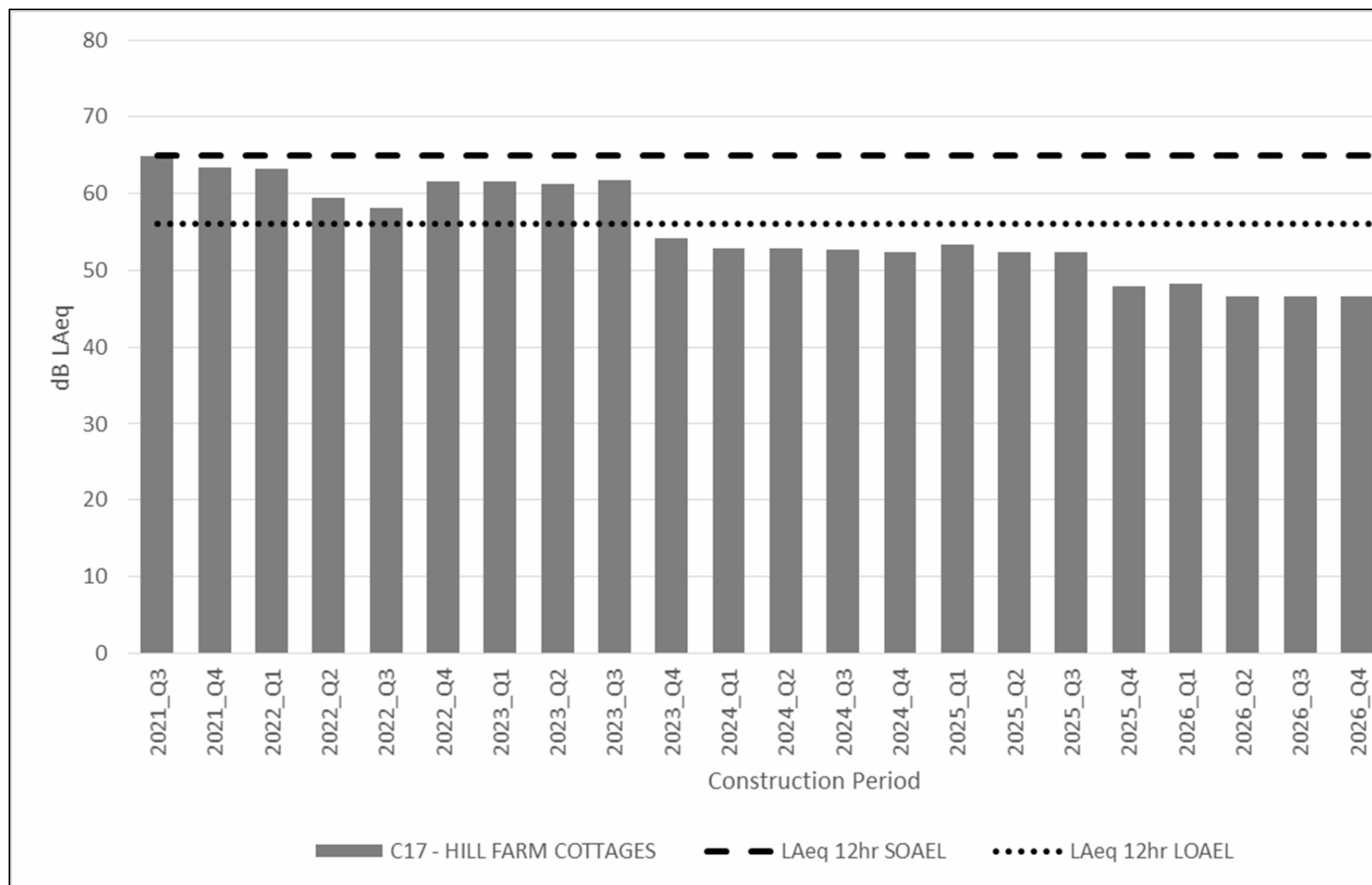
**Figure 2-15 C15 Stonehenge Visitors Centre Predicted Construction Noise Levels**



**Figure 2-16 C16 Rolleston Crossroads Predicted Construction Noise Levels**

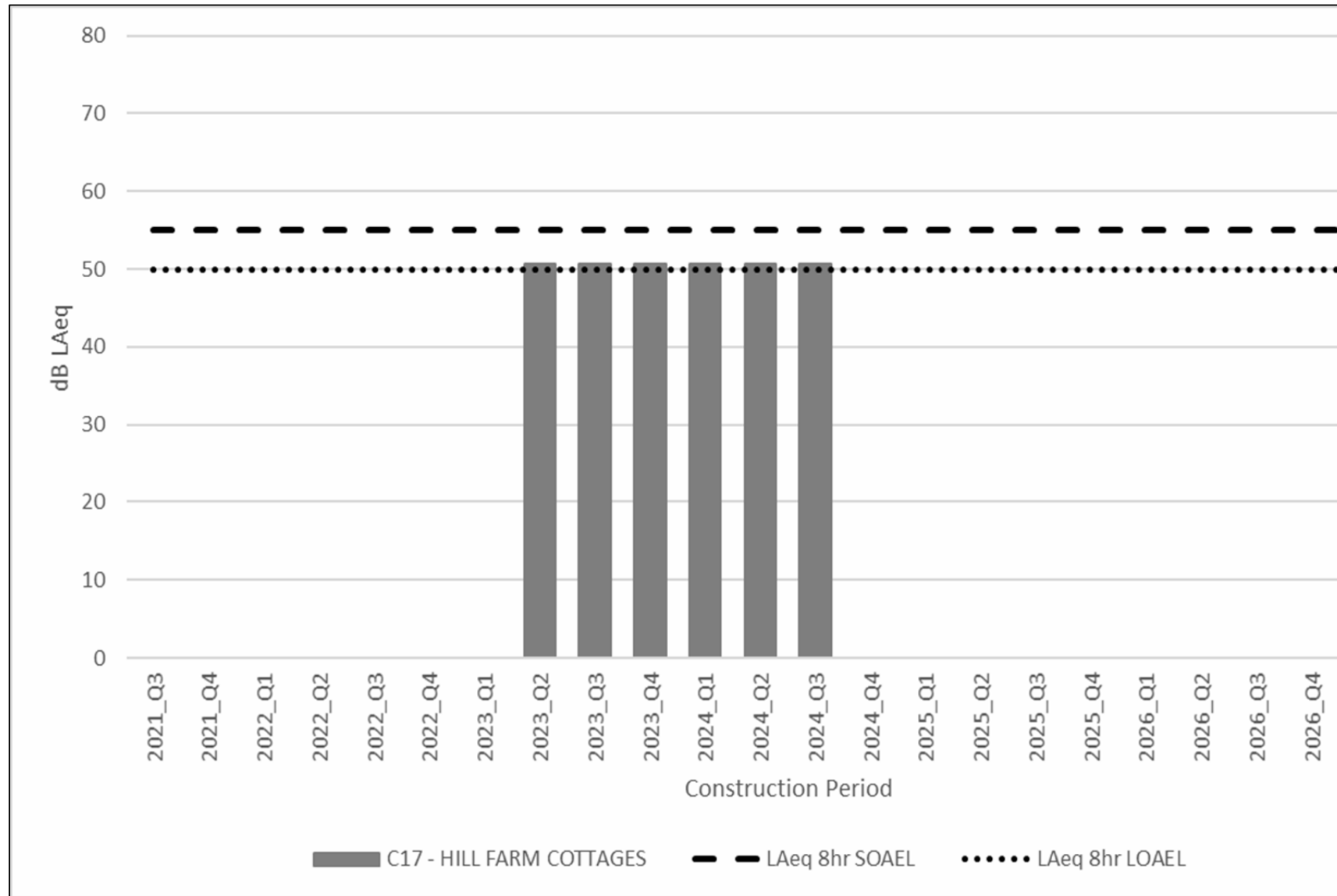


**Figure 2-17a C17 Hill Farm Cottages Predicted Daytime Construction Noise Levels**

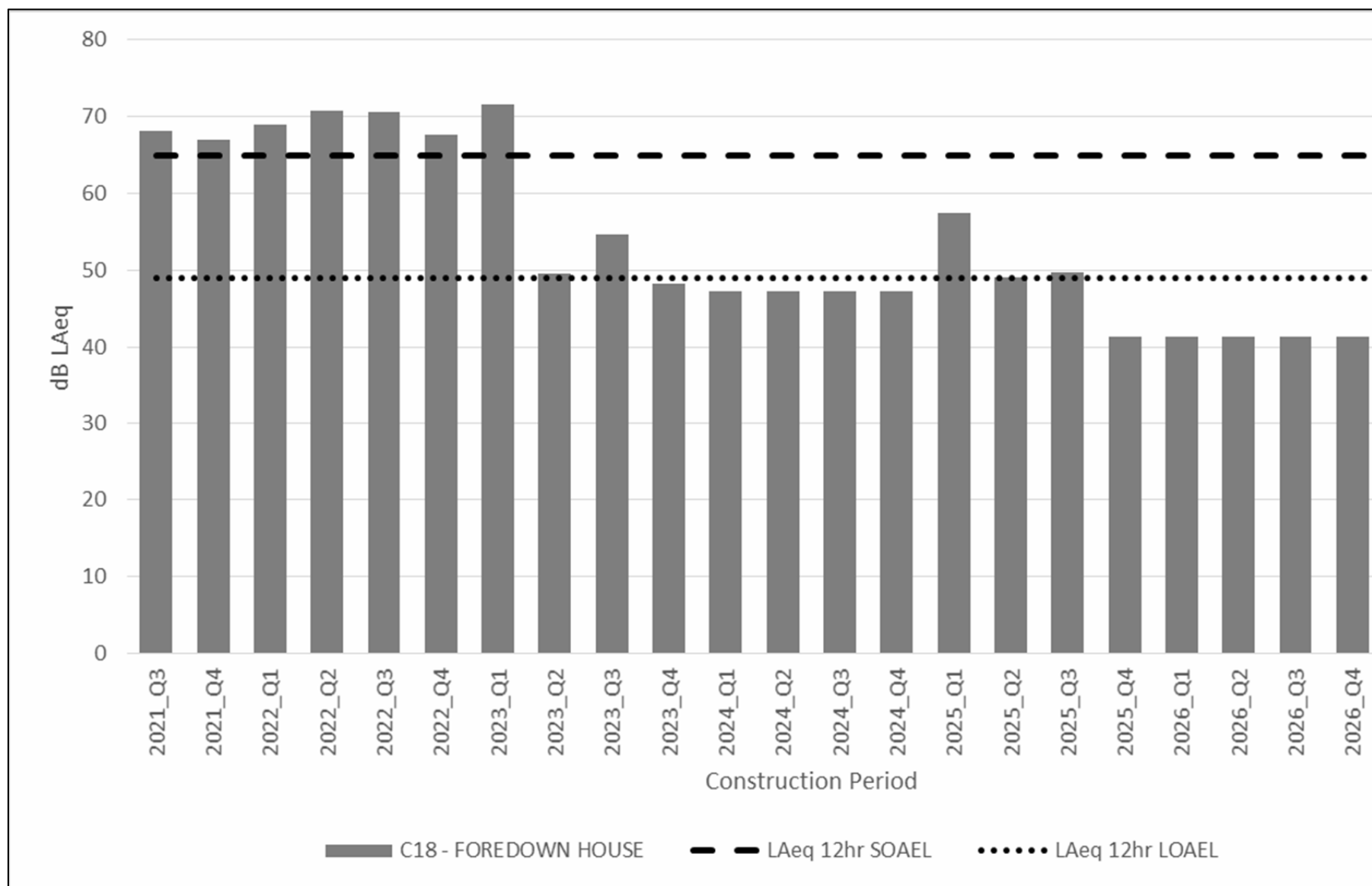




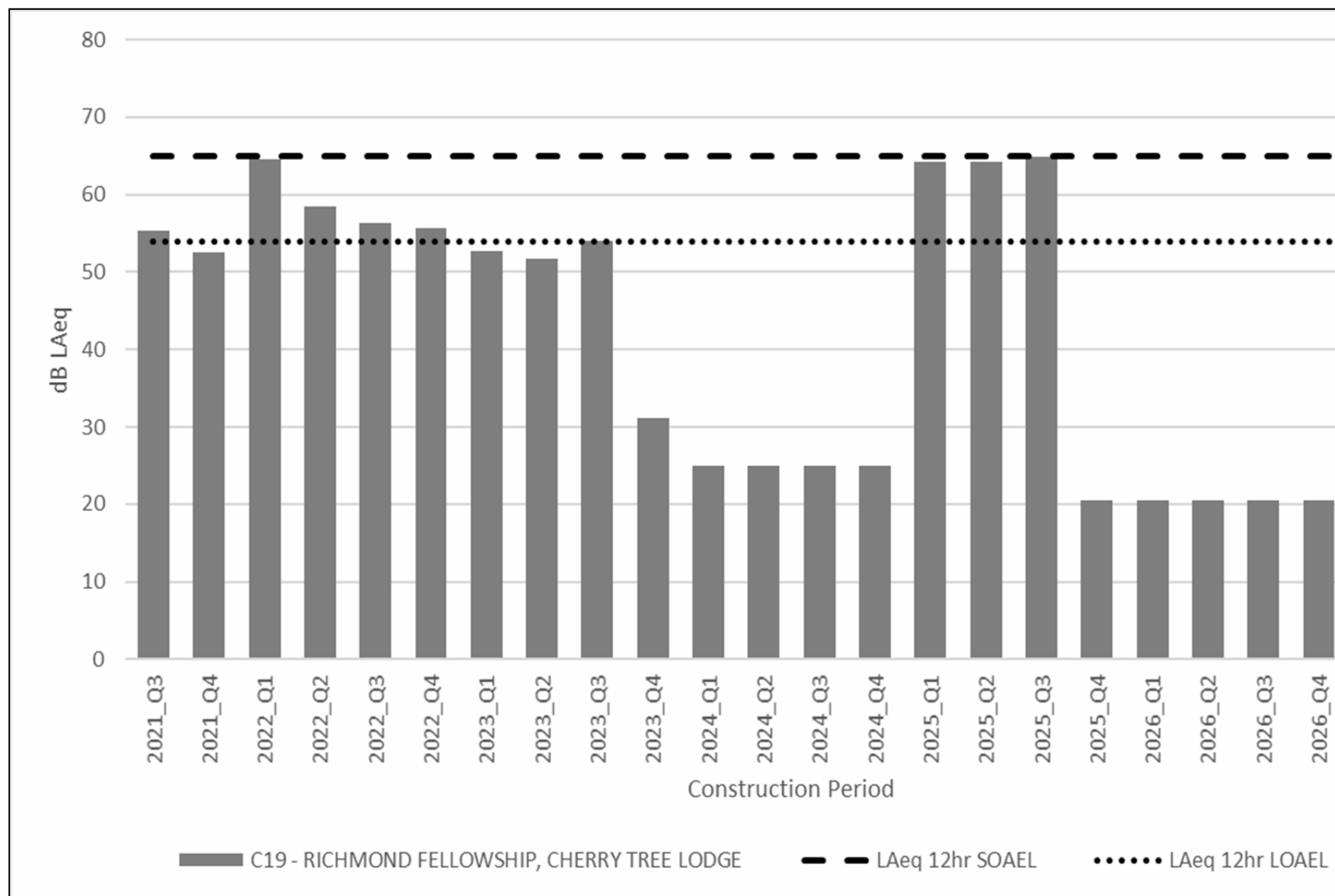
**Figure 2-17b C17 Hill Farm Cottages Predicted Night-time Construction Noise Levels**



**Figure 2-18 C18 Foredown House Predicted Construction Noise Levels**



**Figure 2-19 C19 Richmond Fellowship, Cherry Lodge Predicted Construction Noise Levels**



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