

Description	Kronospan Chirk: Noise Model predictions in support of an Environmental Permit Variation Application
Date	24 September 2025
Issued by	Chris Anderson
Issued to	Kronospan
Ref No	CJA4941/23241

1. INTRODUCTION

Natural resources Wales issued a Schedule 5 notice of request for more information in relation to environmental permit variation application PAN 024285.

Item 3 of the notice reads as follows:

Note: There appears to be double counting of HGV movements from existing and proposed variation scenarios and no consideration of the impact of proposed barriers on existing site noise has been included.

In view of the above, the relevant noise models for the existing site prepared by Spectrum have been re-run with HGV noise removed and proposed barriers and bunding included.

2. NOISE MODEL RESULTS

The updated noise models are based on those reported in Appendix F and Appendix G of Spectrum Noise Impact Assessment report Ref CJA4831/23241/Rev 2.

The results show that predicted noise levels reduce by 1 dB at a limited number of assessment locations, as summarised below, with full results and noise contours included in Appendix A and Appendix B.

ISO 9613-2 1996 Model

Time Period	Change in noise levels	
Day	-1 dB at 3 Wern (height 1.5m and 4m) -1 dB at West View (height 1.5m) -1 dB at Maes-Y-Waun/Chirk Court (height 1.5m)	Marginal reductions due to reduced HGV movement and acoustic screening
Night	-1 dB Wern (height 1.5m and 4m)	As above

ISO 9613-2 2024 Model

Time Period	Change in noise levels	
Day	-1 dB at 3 Wern (height 1.5m and 4m) -1 dB at Maes-Y-Waun/Chirk Court (height 1.5m)	Marginal reductions due to reduced HGV movement and acoustic screening
Night	-1 dB 3 Wern (height 1.5m)	As above

Appendix A

Predicted noise levels at 1.5m and 4m heights using the ISO 9613-2 1996 calculation procedure

Kronospan Chirk Daytime Rev 4 ISO 9613-2 1996

Report: Table of Results
Model: Rev 4 Daytime ISO 9613-2 1996 Model
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name			
Receiver	Description	Height	Day
11_A	Marina	1.50	45
11_B	Marina	4.00	47
_A	NSR-1 3 Wern	1.50	47
_B	NSR-1 3 Wern	4.00	48
1_A	NSR-2 Maes-Y-Waun	1.50	50
1_B	NSR-2 Maes-Y-Waun	4.00	52
2_A	NSR-3 Lwyn-Y-Cil Road	1.50	47
2_B	NSR-3 Lwyn-Y-Cil Road	4.00	49
3_A	NSR-4 New Hall Farm	1.50	48
3_B	NSR-4 New Hall Farm	4.00	50
_A	P01: 2 Linden Avenue	1.50	39
_B	P01: 2 Linden Avenue	4.00	41
2_A	P02: 3 Wern	1.50	47
2_B	P02: 3 Wern	4.00	48
1_A	P03: West View	1.50	53
1_B	P03: West View	4.00	54
3_A	P04: Chirk Court	1.50	50
3_B	P04: Chirk Court	4.00	52
4_A	P05: 2 Hadley Close	1.50	41
4_B	P05: 2 Hadley Close	4.00	44
5_A	P06: Tall Trees	1.50	49
5_B	P06: Tall Trees	4.00	51
6_A	P07: Canalwood Ind. Est.	1.50	52
6_B	P07: Canalwood Ind. Est.	4.00	53
7_A	P08: Manatton, Lwyn-y-Cil Rd.	1.50	48
7_B	P08: Manatton, Lwyn-y-Cil Rd.	4.00	50
8_A	P09: New Hall Farm, Castle Gates	1.50	48
8_B	P09: New Hall Farm, Castle Gates	4.00	50
9_A	P10: Afon Bradley Farm	1.50	47
9_B	P10: Afon Bradley Farm	4.00	49
10_A	P11: Opposite Lodge Farm Cottage	1.50	43
10_B	P11: Opposite Lodge Farm Cottage	4.00	46
_A	P12: Bryn Hyfryd	1.50	50
_B	P12: Bryn Hyfryd	4.00	51
_A	Train Station	1.50	52
_B	Train Station	4.00	53
1_A	Woodland Pos A	1.50	59
1_B	Woodland Pos A	4.00	61
_A	Woodland Pos B	1.50	67
_B	Woodland Pos B	4.00	67

All shown dB values are A-weighted

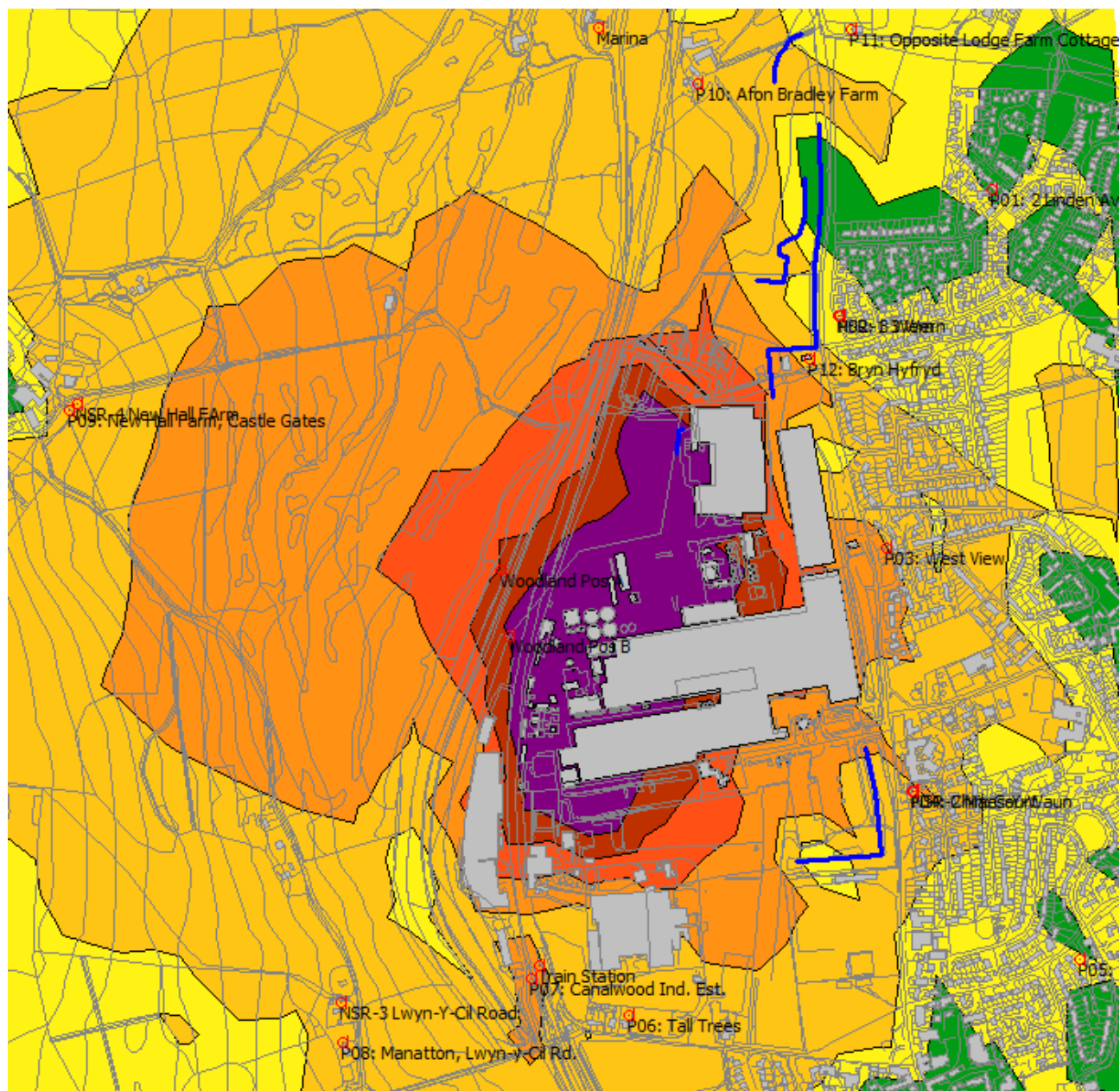


Figure A1: Predicted daytime noise levels using ISO 9613-2 1996 calculation procedure

Kronospan Chirk Night-time Rev 4 ISO 9613-2 1996

Report: Table of Results
Model: Rev 4 Night-time ISO 9613-2 1996 Model
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name			
Receiver	Description	Height	Day
11_A	Marina	1.50	45
11_B	Marina	4.00	47
_A	NSR-1 3 Wern	1.50	47
_B	NSR-1 3 Wern	4.00	48
1_A	NSR-2 Maes-Y-Waun	1.50	50
1_B	NSR-2 Maes-Y-Waun	4.00	52
2_A	NSR-3 Lwyn-Y-Cil Road	1.50	47
2_B	NSR-3 Lwyn-Y-Cil Road	4.00	49
3_A	NSR-4 New Hall Farm	1.50	48
3_B	NSR-4 New Hall Farm	4.00	50
_A	P01: 2 Linden Avenue	1.50	39
_B	P01: 2 Linden Avenue	4.00	41
2_A	P02: 3 Wern	1.50	47
2_B	P02: 3 Wern	4.00	48
1_A	P03: West View	1.50	53
1_B	P03: West View	4.00	54
3_A	P04: Chirk Court	1.50	50
3_B	P04: Chirk Court	4.00	52
4_A	P05: 2 Hadley Close	1.50	41
4_B	P05: 2 Hadley Close	4.00	44
5_A	P06: Tall Trees	1.50	49
5_B	P06: Tall Trees	4.00	50
6_A	P07: Canalwood Ind. Est.	1.50	51
6_B	P07: Canalwood Ind. Est.	4.00	53
7_A	P08: Manatton, Lwyn-y-Cil Rd.	1.50	47
7_B	P08: Manatton, Lwyn-y-Cil Rd.	4.00	49
8_A	P09: New Hall Farm, Castle Gates	1.50	48
8_B	P09: New Hall Farm, Castle Gates	4.50	50
9_A	P10: Afon Bradley Farm	1.50	47
9_B	P10: Afon Bradley Farm	4.00	49
10_A	P11: Opposite Lodge Farm Cottage	1.50	43
10_B	P11: Opposite Lodge Farm Cottage	4.00	46
_A	P12: Bryn Hyfryd	1.50	50
_B	P12: Bryn Hyfryd	4.00	51
_A	Train Station	1.50	51
_B	Train Station	4.00	53
1_A	Woodland Pos A	1.50	59
1_B	Woodland Pos A	4.00	61
_A	Woodland Pos B	1.50	67
_B	Woodland Pos B	4.00	67

All shown dB values are A-weighted

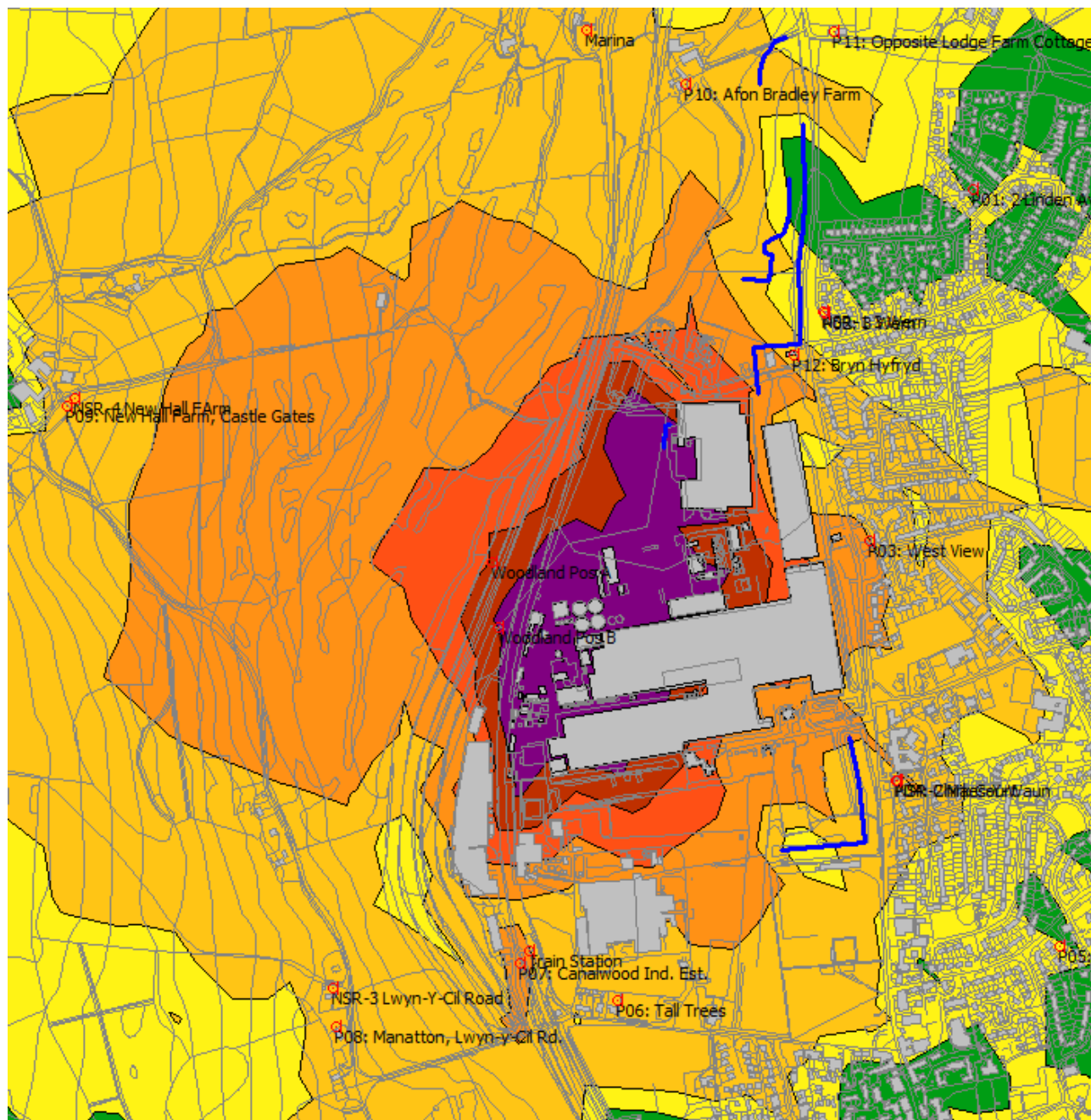


Figure A2: Predicted night-time noise levels using ISO 9613-2 1996 calculation procedure

Appendix B

Predicted noise levels at 1.5m and 4m heights using the ISO 9613-2 2016 calculation procedure

Kronospan Chirk Daytime Rev 4 ISO 9613-2 2024

Report: Table of Results
Model: Rev 4 iNoise Daytime with all assessment pos
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name			
Receiver	Description	Height	Day
11_A	Marina	1.50	45
11_B	Marina	4.00	47
_A	NSR-1 3 Wern	1.50	47
_B	NSR-1 3 Wern	4.00	49
1_A	NSR-2 Maes-Y-Waun	1.50	50
1_B	NSR-2 Maes-Y-Waun	4.00	52
2_A	NSR-3 Lwyn-Y-Cil Road	1.50	47
2_B	NSR-3 Lwyn-Y-Cil Road	4.00	49
3_A	NSR-4 New Hall Farm	1.50	48
3_B	NSR-4 New Hall Farm	4.00	50
_A	P01: 2 Linden Avenue	1.50	39
_B	P01: 2 Linden Avenue	4.00	41
2_A	P02: 3 Wern	1.50	48
2_B	P02: 3 Wern	4.00	49
1_A	P03: West View	1.50	53
1_B	P03: West View	4.00	54
3_A	P04: Chirk Court	1.50	50
3_B	P04: Chirk Court	4.00	52
4_A	P05: 2 Hadley Close	1.50	41
4_B	P05: 2 Hadley Close	4.00	44
5_A	P06: Tall Trees	1.50	49
5_B	P06: Tall Trees	4.00	50
6_A	P07: Canalwood Ind. Est.	1.50	52
6_B	P07: Canalwood Ind. Est.	4.00	53
7_A	P08: Manatton, Lwyn-y-Cil Rd.	1.50	49
7_B	P08: Manatton, Lwyn-y-Cil Rd.	4.00	50
8_A	P09: New Hall Farm, Castle Gates	1.50	48
8_B	P09: New Hall Farm, Castle Gates	4.00	50
9_A	P10: Afon Bradley Farm	1.50	47
9_B	P10: Afon Bradley Farm	4.00	49
10_A	P11: Opposite Lodge Farm Cottage	1.50	43
10_B	P11: Opposite Lodge Farm Cottage	4.00	46
_A	P12: Bryn Hyfryd	1.50	51
_B	P12: Bryn Hyfryd	4.00	52
_A	Train Station	1.50	54
_B	Train Station	4.00	53
1_A	Woodland Pos A	1.50	59
1_B	Woodland Pos A	4.00	61
_A	Woodland Pos B	1.50	65
_B	Woodland Pos B	4.00	66

All shown dB values are A-weighted

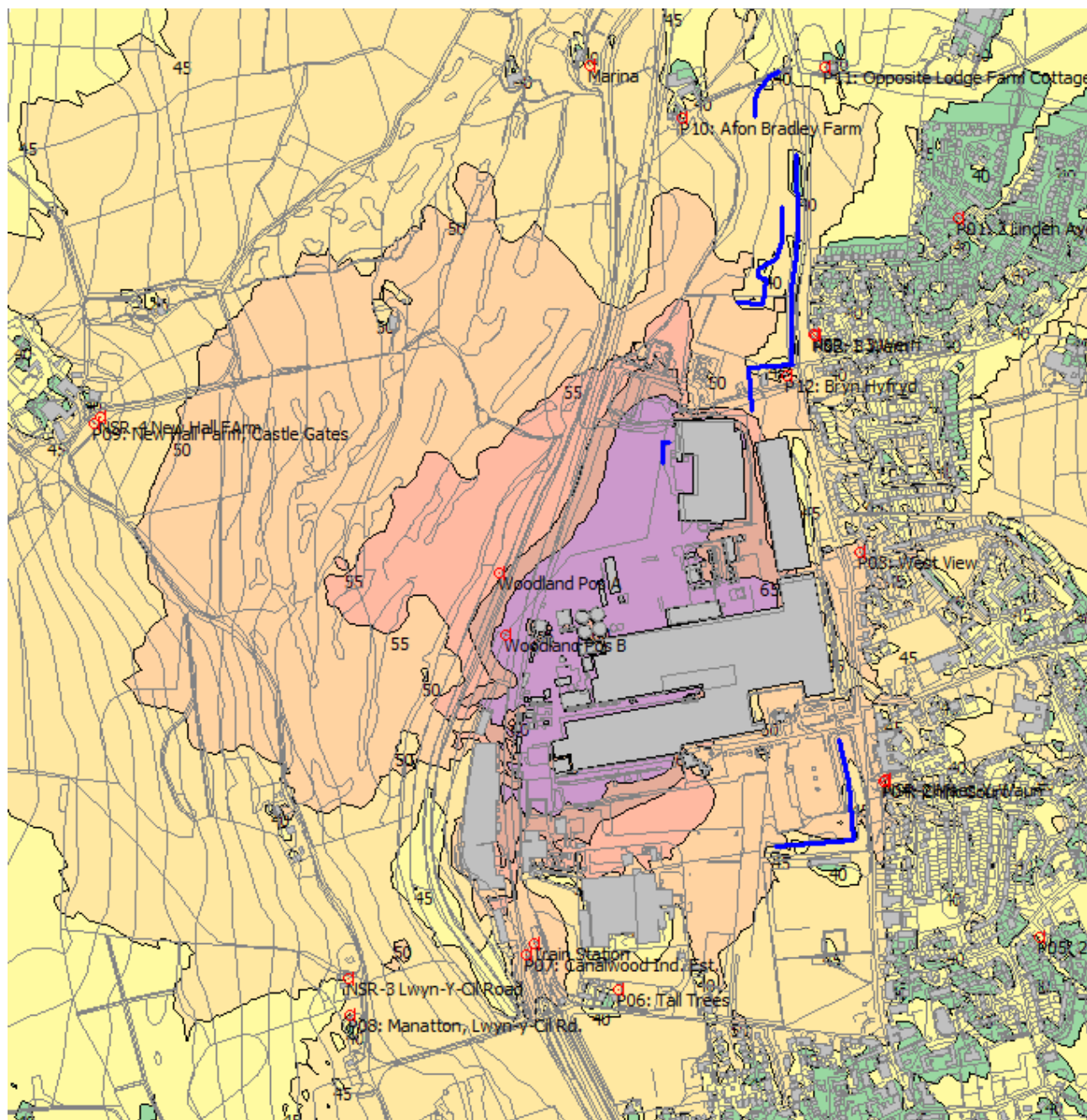


Figure A3: Predicted daytime noise levels using ISO 9613-2 2024 calculation procedure

Kronospan Chirk night-time Rev 4 ISO 9613-2 2024

Report: Table of Results
Model: Rev 4 iNoise Night-time with all assessment pos
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name			
Receiver	Description	Height	Day
11_A	Marina	1.50	45
11_B	Marina	4.00	47
_A	NSR-1 3 Wern	1.50	48
_B	NSR-1 3 Wern	4.00	50
1_A	NSR-2 Maes-Y-Waun	1.50	50
1_B	NSR-2 Maes-Y-Waun	4.00	52
2_A	NSR-3 Lwyn-Y-Cil Road	1.50	47
2_B	NSR-3 Lwyn-Y-Cil Road	4.00	48
3_A	NSR-4 New Hall Farm	1.50	48
3_B	NSR-4 New Hall Farm	4.00	50
_A	P01: 2 Linden Avenue	1.50	39
_B	P01: 2 Linden Avenue	4.00	41
2_A	P02: 3 Wern	1.50	48
2_B	P02: 3 Wern	4.00	49
1_A	P03: West View	1.50	53
1_B	P03: West View	4.00	54
3_A	P04: Chirk Court	1.50	50
3_B	P04: Chirk Court	4.00	52
4_A	P05: 2 Hadley Close	1.50	41
4_B	P05: 2 Hadley Close	4.00	44
5_A	P06: Tall Trees	1.50	49
5_B	P06: Tall Trees	4.00	50
6_A	P07: Canalwood Ind. Est.	1.50	52
6_B	P07: Canalwood Ind. Est.	4.00	53
7_A	P08: Manatton, Lwyn-y-Cil Rd.	1.50	48
7_B	P08: Manatton, Lwyn-y-Cil Rd.	4.00	50
8_A	P09: New Hall Farm, Castle Gates	1.50	48
8_B	P09: New Hall Farm, Castle Gates	4.50	50
9_A	P10: Afon Bradley Farm	1.50	47
9_B	P10: Afon Bradley Farm	4.00	49
10_A	P11: Opposite Lodge Farm Cottage	1.50	43
10_B	P11: Opposite Lodge Farm Cottage	4.00	46
_A	P12: Bryn Hyfryd	1.50	50
_B	P12: Bryn Hyfryd	4.00	52
_A	Train Station	1.50	53
_B	Train Station	4.00	53
1_A	Woodland Pos A	1.50	59
1_B	Woodland Pos A	4.00	61
_A	Woodland Pos B	1.50	65
_B	Woodland Pos B	4.00	66

All shown dB values are A-weighted

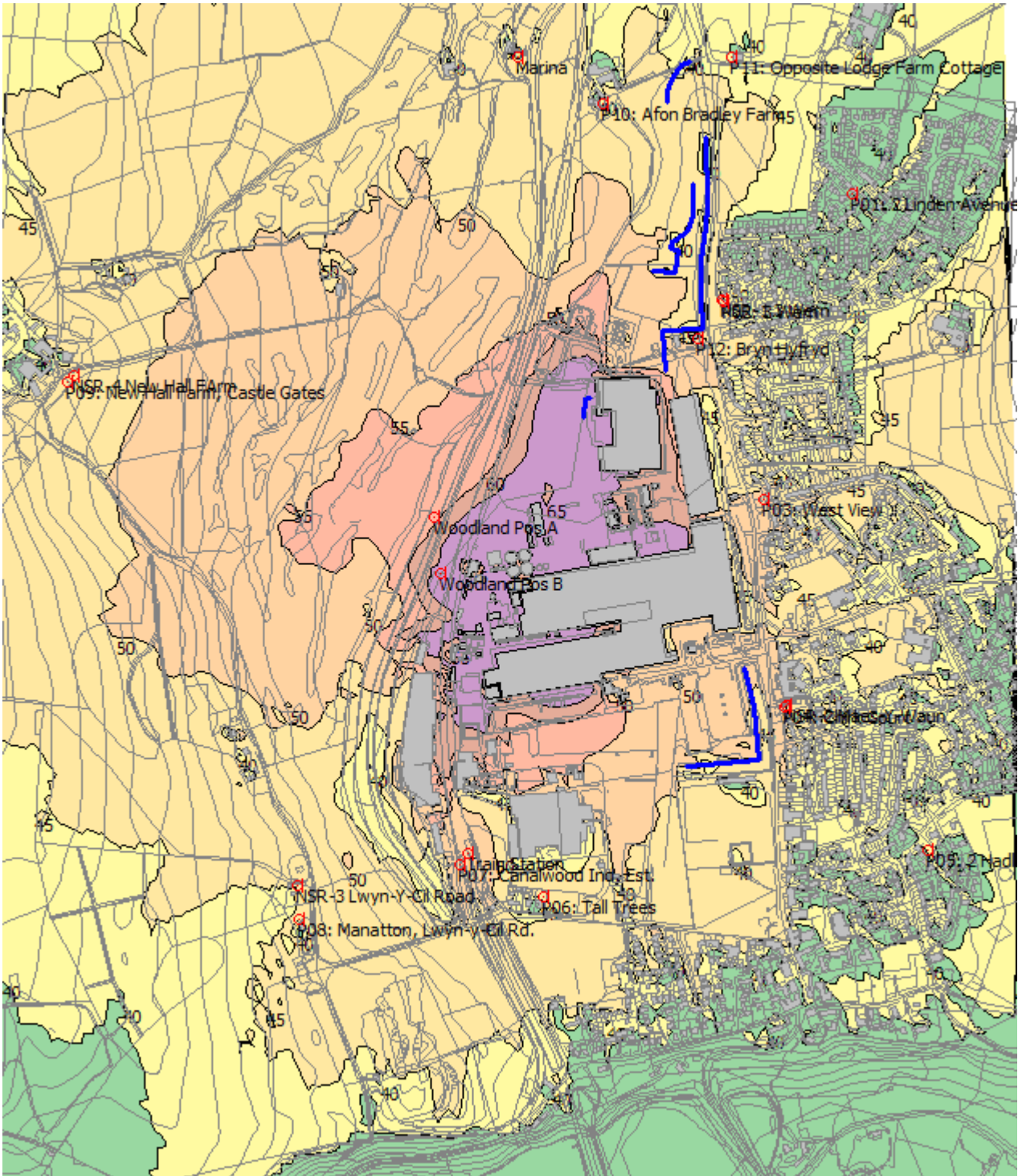


Figure A4: Predicted night-time noise levels using ISO 9613-2 2024 calculation procedure