



**Castle Cement Limited**

# **Carbon Capture Storage Project – Padeswood, North Wales**

Volume 4, Draft Technical Appendix 10.2

**Construction Plant Lists**

**RSK**

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# 1 CONSTRUCTION PLANT LISTS

**Table 1 Earthworks**

Earthworks							
Plant	Plant Ref	L <sub>p</sub> (at 10 m) dB(A)	No. of Plant Items	On-Time %	Screening (dB)	Total Correction (dB)	Total L <sub>p</sub> (at 10 m) dB(A)
Vibratory roller	C5.20	75	2	50	-5	-5	70
Tracked excavator	C2.7	70	2	75	0	2	72
Dozer	C2.1	75	1	50	0	-3	72
Articulated dump truck	C6.17	85	2	40	0	-1	84
Petrol hand-held circular saw	C4.70	91	1	30	-10	-15	76
Wheeled backhoe loader	C2.8	68	1	50	0	-3	65
<b>Total</b>							<b>85</b>

**Table 2 Laydown Compound Establishment**

Laydown Compound Establishment							
Plant	Plant Ref	L <sub>p</sub> (at 10 m) dB(A)	No. of Plant Items	On-Time %	Screening (dB)	Total Correction (dB)	Total L <sub>p</sub> (at 10 m) dB(A)
Tracked excavator	C1.12	82	2	75	0	2	84
Dozer	C2.1	75	1	50	0	-3	72
Power pack	C3.7	70	1	50	-10	-13	57
Breaker mounted on excavator	C1.9	74	1	75	0	-1	73
Vibratory roller	C5.20	75	2	50	0	0	75
Petrol hand-held circular saw	C4.70	91	2	50	-10	-10	81
Hand held pneumatic breaker	C5.6	95	1	5	-10	-23	72
Compressor for hand held pneumatic breaker	C5.5	65	1	10	-10	-20	45
Compressor for mini piling	C3.19	75	1	10	-10	-20	55
Mini piling rig	C3.18	75	1	90	0	0	75
Telescopic handler	C4.54	79	1	20	0	-7	72
Concrete mixer truck	C4.20	80	1	20	0	-7	73
Poker vibrator	C4.34	69	2	50	0	0	69
<b>Total</b>							<b>87</b>

**Table 3 Underground Utilities**

Underground Utilities							
Plant	Plant Ref	L <sub>p</sub> (at 10 m) dB(A)	No. of Plant Items	On-Time %	Screening (dB)	Total Correction (dB)	Total L <sub>p</sub> (at 10 m) dB(A)
Lorry	C11.4	83	2	20	0	-4	79
Tracked excavator	C2.5	76	1	50	0	-3	73
Hand-held circular saw (petrol)	C5.36	87	1	50	-5	-8	79
Dumper	C4.4	76	3	75	0	4	80
<b>Total</b>							<b>84</b>

**Table 4 Civils Foundations**

Civils Foundations							
Plant	Plant Ref	L <sub>p</sub> (at 10 m) dB(A)	No. of Plant Items	On-Time %	Screening (dB)	Total Correction (dB)	Total L <sub>p</sub> (at 10 m) dB(A)
Concrete mixer truck	C4.20	80	1	20	0	-7	73
Articulated dump truck (tipping fill)	C2.32	74	3	75	0	4	78
Tracked excavator	C4.65	71	2	75	0	2	73
Truck mounted concrete pump + boom arm	C4.29	80	1	75	0	-1	79
Dozer	C2.1	75	1	50	0	-3	72
<b>Total</b>							<b>83</b>

**Table 5 Erection of Structures**

Erection of Structures							
Plant	Plant Ref	L <sub>p</sub> (at 10 m) dB(A)	No. of Plant Items	On-Time %	Screening (dB)	Total Correction (dB)	Total L <sub>p</sub> (at 10 m) dB(A)
Tracked excavator	C2.19	77	2	80	0	2	79
Dumper	C4.4	76	3	80	0	4	80
Concrete mixer truck (discharging) & concrete pump (pumping)	C4.28	75	1	50	0	-3	72
Lorry	C2.34	80	1	20	0	-7	73
Telescopic handler	C4.54	79	4	50	0	3	82
Lorry with lifting boom	C4.53	77	1	20	0	-7	70
Lifting platform	C4.57	67	1	25	0	-6	61
<b>Total</b>							<b>86</b>

**Table 6 Pipework/ Flu Ductwork**

Pipework/ Flue Ductwork								
Plant	Plant Ref	L <sub>p</sub> (at 10 m) dB(A)	No. of Plant Items	On-Time %	Screening (dB)	Total Correction (dB)	Total L <sub>p</sub> (at 10 m) dB(A)	
Lifting platform	C4.57	67	1	75	0	-1	66	
Telescopic handler	C4.54	79	1	30	0	-5	74	
Mobile telescopic crane	C4.39	77	1	50	0	-3	74	
Dump truck (empty)	C2.31	87	1	50	0	-3	84	
Generator for welding	C3.33	57	1	60	0	-2	55	
Tractor (towing trailer)	C4.75	79	1	50	0	-3	76	
<b>Total</b>							<b>85</b>	

**Table 7 Piling Works**

Piling Works								
Plant	Plant Ref	L <sub>p</sub> (at 10 m) dB(A)	No. of Plant Items	On-Time %	Screening (dB)	Total Correction (dB)	Total L <sub>p</sub> (at 10 m) dB(A)	
Piling	C3.6	68	1	50	0	-3	65	
Compressor for mini piling	C3.19	75	1	50	0	-3	72	
Mobile telescopic crane	C4.39	77	1	70	0	-2	75	
Concrete mixer truck	C4.20	80	1	75	0	-1	79	
Tracked excavator	C4.65	71	2	50	0	0	71	
Truck mounted concrete pump + boom arm	C4.29	80	1	30	0	-5	75	
<b>Total</b>							<b>82</b>	

**Table 8 Haul Road**

Scenario	Construction Traffic	Two-way		
		HGVs	LGVs	All
Peak	Scenario 1 HGV Peak Daily	216	480	696

Noise Level (dB, L <sub>Aeq,1hr</sub> )	Distance (m)						
	10	25	50	75	100	150	200
<b>Noise Level, HGV (L<sub>Aeq,1hr</sub>) =</b>	67	63	60	58	57	55	54
<b>Noise Level, LGV (L<sub>Aeq,1hr</sub>) =</b>	58	54	51	49	48	46	45
<b>Noise Level, Combined (L<sub>Aeq,1hr</sub>) =</b>	<b>67</b>	<b>63</b>	<b>60</b>	<b>59</b>	<b>57</b>	<b>56</b>	<b>54</b>