

INDIGO ACOUSTICS

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28 March 2011

Our Ref: 10-315A

Bunnings Group Limited
11 Shirley Street
ROSEHILL NSW 2142

Attention: Philip Drew

PDrew@bunnings.com.au

RE: RESPONSE TO COMMENTS FROM COUNCIL re BUNNINGS STORE AT
SMITHFIELD

Fairfield City Council has raised several issues regarding the noise assessment. These issues are addressed below.

The period of noise monitoring undertaken in the above acoustic assessment was inadequate. Background monitoring shall be undertaken for a minimum seven (7) days (i.e. equivalent to one week's worth of valid data covering the days and times of operation) and in accordance with all other requirements of Section 3 of the INP.

Monitoring has now been undertaken between Wednesday 2 March and Wednesday 9 March 2011 in the front yard of 734 The Horsley Drive, the closest house to the proposed Bunnings store. The complete results are appended to this letter.

The rating background level (as detailed in section 3.1.2) should be based upon the measured L_{A90} rather than L_{Aeq} as detailed in the above acoustic assessment.

Section 3.2 of my report is shown below. It does assess intrusiveness based on measured L_{A90} background noise levels as required in section 3.1.2 of the Industrial Noise Policy (INP). In addition amenity is based on Table 2.1 of INP adjusted for high traffic noise areas as defined in section 2.2.3 of INP. As required in section 2.4 of INP the project specific noise goals are the lower of the relevant noise levels from intrusiveness and amenity criteria. This is what has been done in section 3.2 of my report and modified in the table below to include the logger results.

3.2 Noise Goals

The NSW Government Industrial Noise Policy establishes guidelines for noise goals for residential receivers in terms of external noise levels based on both amenity and intrusiveness.

The amenity goals set an upper limit to the long term L_{Aeq} noise level from all industrial or commercial sources. In this case, the potentially affected residences will be in an area which would be classified as *suburban*. The intrusiveness ($L_{Aeq,15min}$) goals are set at a maximum of 5dBA above the background (L_{A90}) noise level. The project specific noise goals are the lower of the amenity goal and the intrusiveness goal. However, in areas of high traffic noise the amenity goal is adjusted to the existing $L_{Aeq,traffic}$ less 10dBA. These goals are shown in Table 2.

The table below shows the results of the short term noise monitoring and derived noise goals submitted with the DA and the results from the recent long term monitoring and corresponding derived noise goals.

Table 2 Derived Noise Goals $L_{Aeq,15min}$ (dBA) at the houses on The Horsley Drive

	Amenity goal	High traffic amenity goal	Intrusiveness goal	Project specific goal
Short term monitoring				
Daytime (7am-6pm)	55	66-10=56	55+5=60	56
Evening (6pm-10pm)	45	63-10=53	51+5=56	53
Night (10pm-7am)	40	53-10=43	43+5=48	43
Logger				
Daytime (7am-6pm)	55	66-10=56	52+5=57	56
Evening (6pm-10pm)	45	64-10=54	49+5=54	54
Night (10pm-7am)	40	62-10=52	37+5=42	42

From this table it can be seen that:

- The daytime project specific noise goal is the same for both the long term and short term monitoring at 56dBA.
- The evening noise goal increases by 1dBA to 54dBA.
- The night time noise goal decreases by 1dBA to 42dBA.

The predicted noise levels in the noise assessment meet these noise goals.

Predicted noise levels should include consideration of all noise sources and also noise from the customer pick-up/timber loading area at south west of proposed building which was not previously considered.

This source has been included in the table below and does not increase the combined noise level at the nearest house.

Table 4 Predicted noise level at 734 The Horsley Drive

Source	L _{Aeq,15min} at 10m	Distance to House	Distance loss	Shielding loss	Predicted noise level
Delivery truck	56	35	11	0	45
Unloading	62	35	11	0	51
Timber saw	54	35	11	0	43
Car park entrance	51	90	19	20	12
Cars in carpark	60	50	14	5	41
Roof condensers	62	95	20	3	40
Carpark ventilation	60	110	21	20	19
Customer pick up	51	35	11	0	40
Combined L _{Aeq} noise level					53

The assessment shall include consideration of any noise impacts upon any neighbouring industrial premises in addition to those premises detailed within the acoustic assessment.

The noise goal from the INP at an adjacent industrial premises is 70dBA irrespective of time of day. The tables below shows the predicted noise level at an adjacent industrial premises across O'Connell Street opposite the carpark entrance and on the Horsley Drive adjacent to the unloading area.

Table 7 Predicted noise level at an industrial premises on O'Connell Street opposite the carpark entry

Source	L _{Aeq,15min} at 10m	Distance to House	Distance loss	Shielding loss	Predicted noise level
Delivery truck	56	100	20	20	16
Unloading	62	100	20	20	22
Timber saw	54	40	12	0	42
Car park entrance	51	20	6	0	45
Cars in carpark	60	35	11	5	44
Roof condensers	62	50	14	3	45
Carpark ventilation	60	80	18	20	22
Customer pick up	51	40	12	0	39
Combined L _{Aeq} noise level					53

Table 8 Predicted noise level at an industrial premises on The Horsley Drive adjacent to the unloading area

Source	L _{Aeq,15min} at 10m	Distance to House	Distance loss	Shielding loss	Predicted noise level
Delivery truck	56	10	0	0	56
Unloading	62	10	0	0	62
Timber saw	54	15	0	0	54
Car park entrance	51	95	20	20	12
Cars in carpark	60	30	10	5	45
Roof condensers	62	35	11	3	48
Carpark ventilation	60	40	12	0	48
Customer pick up	51	75	18	20	13
Combined L _{Aeq} noise level					64

The predicted noise levels at adjacent industrial premises meet the noise goals.

Evidence of the separation distances relied upon for the mechanical plant and ventilation systems should be provided. Note point 3 above requires the submission of amended plans which indicate the location of mechanical plant and/or ventilation systems.

The distances between the receivers and the mechanical plant are clearly shown in Tables 4-6 in the noise report ant Tables 7 & 8 above.

Please contact me if you require any further information.

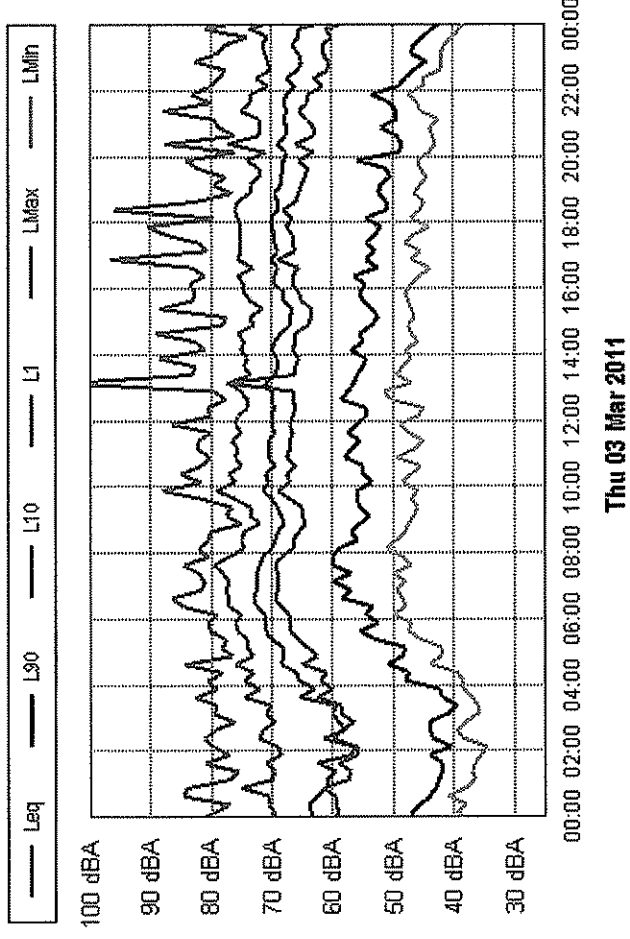
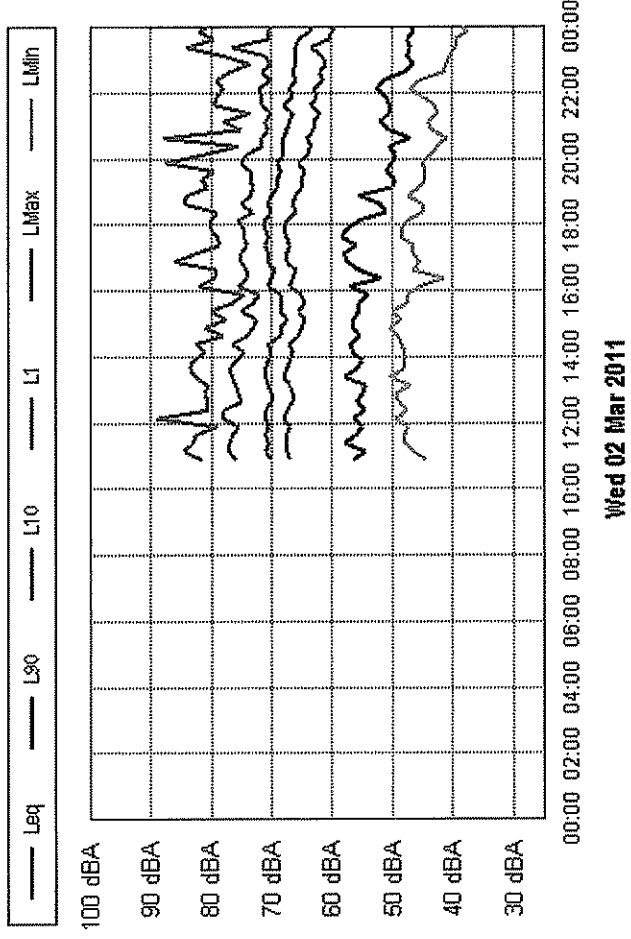
Regards



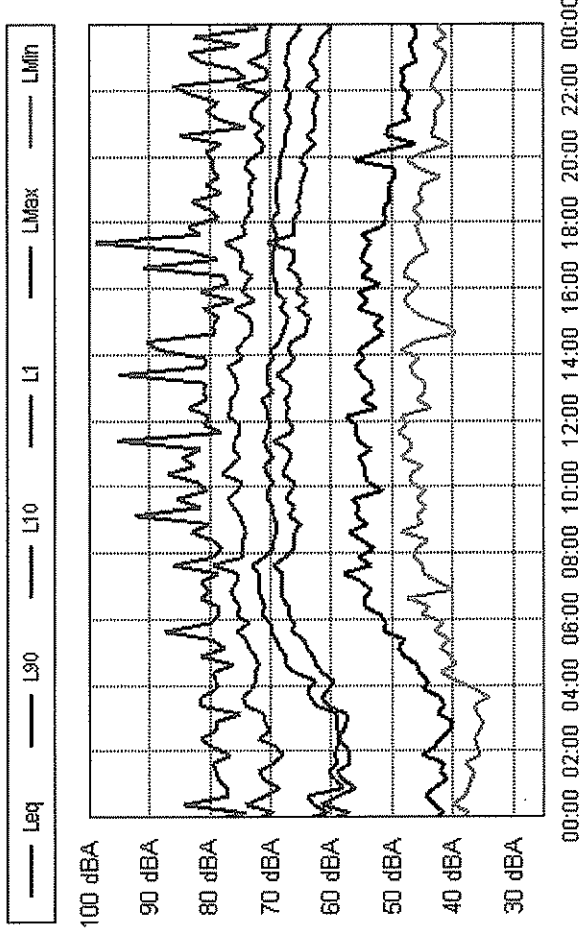
PAUL BRIDGE Bsc MAppSc MIEAust MAAS

Appendix - Monitoring undertaken by Wilkinson Murray

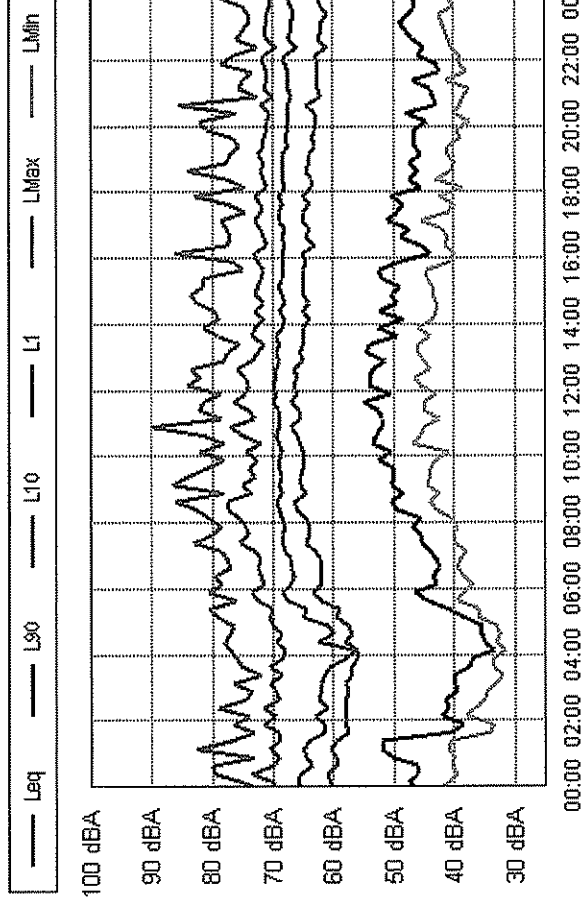
Location: Front yard of 734 Horsley Drive, Smithfield



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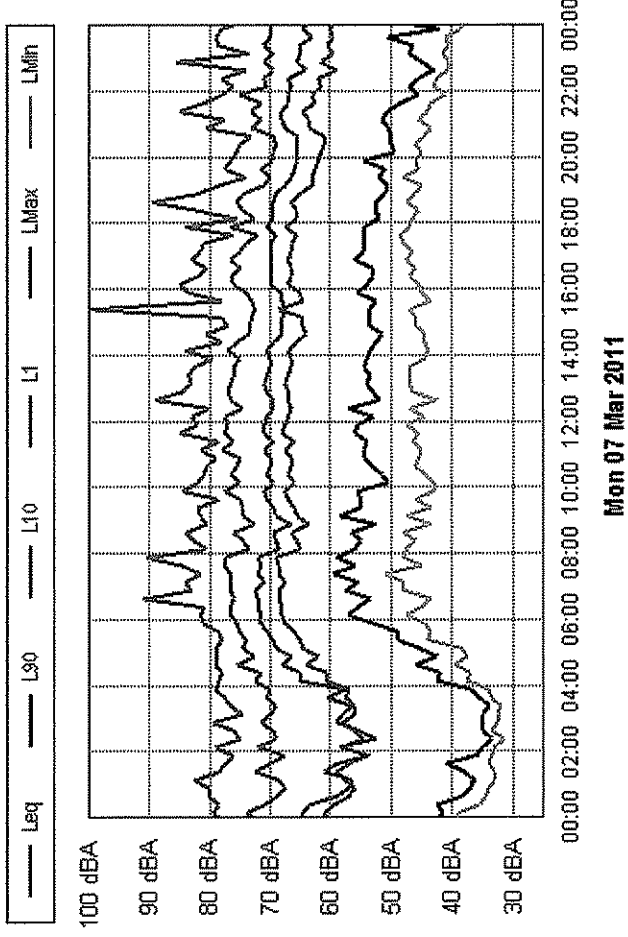
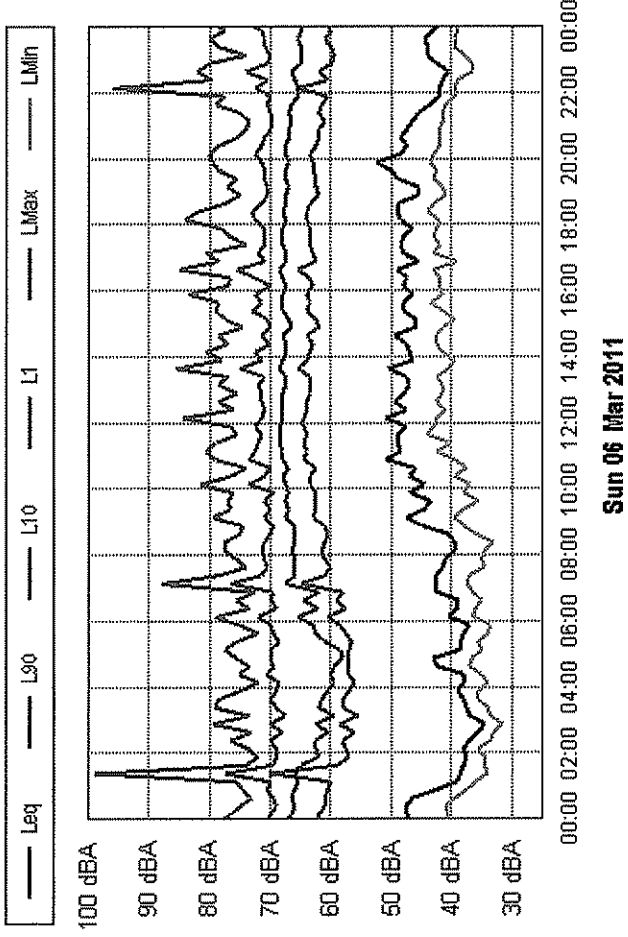


Fri 04 Mar 2011

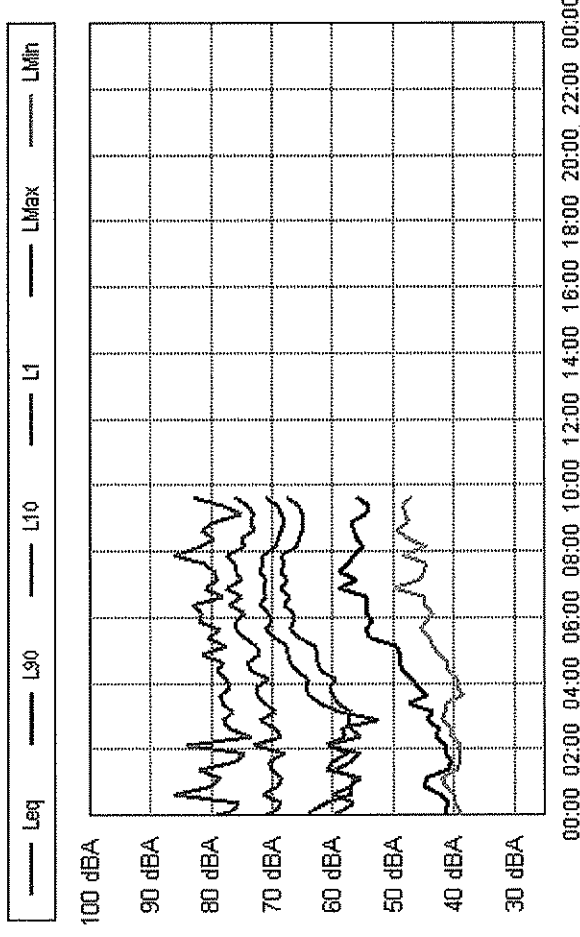
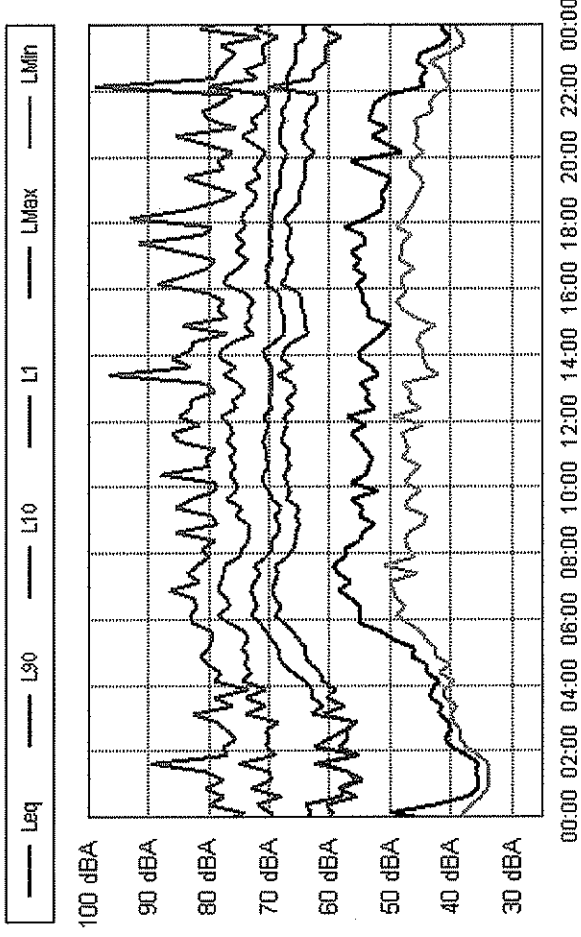


Sat 05 Mar 2011

Location: Front yard of 734 Horsley Drive, Smithfield:



Location: Front yard of 734 Horsley Drive, Smithfield



Location: Front yard of 734 Horsley Drive, Smithfield

Noise Descriptor LMax	Calculation Method Max Level	Date	Day	Period Evening	Night
		01 Mar 2011	89.0		18.5
		02 Mar 2011		88.0	86.5
		03 Mar 2011	104.0	96.0	87.5
		04 Mar 2011	99.0	85.0	86.0
		05 Mar 2011	90.0	85.5	99.0
		06 Mar 2011	85.5	82.0	96.0
		07 Mar 2011	100.0	89.5	89.5
		08 Mar 2011	96.5	85.5	99.0
		09 Mar 2011	86.0		
		Max All	104.0	96.0	99.0
Leq	Leq Period	01 Mar 2011			18.0
		02 Mar 2011	65.5	64.5	63.3
		03 Mar 2011	67.6	65.0	62.6
		04 Mar 2011	66.8	63.9	60.4
		05 Mar 2011	65.2	63.3	60.7
		06 Mar 2011	63.3	62.5	62.8
		07 Mar 2011	66.6	63.5	63.2
		08 Mar 2011	66.6	64.0	63.1
		09 Mar 2011	66.6		
		All	66.1	63.9	62.4
L90	ABL/RBL	01 Mar 2011			18.0
		02 Mar 2011	18.0	49.5	42.0
		03 Mar 2011	53.2	49.2	41.5
		04 Mar 2011	51.7	47.0	36.3
		05 Mar 2011	45.5	43.0	37.0
		06 Mar 2011	41.8	44.3	35.0
		07 Mar 2011	52.2	48.9	36.5
		08 Mar 2011	52.5	50.2	41.3
		09 Mar 2011	54.4		
		RBL	52.2	48.9	36.8