



## Memo

24 September 2007

To: Scott Macarthur – planner

cc:

From: Jacqueline Ahmu – Environmental noise specialist

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Subject: LUC 20070456301

### Location

1-5 Wiremu Street Balmoral. The site is zoned business 2 with residential and business 2 land adjacent. The properties across Balmoral Road are zoned mixed use and the properties across Wiremu street are zoned residential.

### Proposal

To construct and operate a 24-hour McDonalds family restaurant with a drive through and associated parking area. An acoustic report prepared by Hegley Acoustics has been provided with the application.

### Discussion

The consultant report has addressed several noise sources on the property and the main issues are as follows

#### *Restaurant.*

The main source of general noise for the restaurant is the mechanical plant from the air conditioning, mechanical ventilation and the refrigeration and freezing units. The applicant has stated that they will be designed to ensure that L10 40 dB(A) will be achieved. As there are additional noise sources on the site designing to the plan may effect the cumulative noise from the mechanical units. So to prevent creep due to multiple noise sources on the property the units will be required to be designed to a lower level of 30dB(A). This lower design level will prevent the accumulation of sounds from the site exceeding the levels outlined in council's district plan.

#### *Play land*

The applicant has stated that the play land will comply with the noise limits as it is enclosed, however; the plans indicate that the area has louvered windows that will allow sound to escape.

The consultant has measured an existing McDonald to gauge the expected noise from the proposed play area and stated he feels it will comply. However given the nature of the noise in that it is intermittent and of such a nature that it may interfere with sleep patterns if it is used after hours. The hours will be required be restricted.

The consultant has stated that a solid 1.8 m fence is to be constructed along the boundary to control noise at the nearest residential boundary from the play land. Given the nature of most of the noise sources, which will be children screaming, the high louvered windows and the distance from the noise to the fence it is considered the fence will have little effect. The fence will control the noise from the cars as they enter and leave the property on Balmoral Road.

#### *Speaker boxes*

The applicant has stated that the noise from the speaker boxes will not breach the plan and that they are not in use enough to control or effect the L10 value. The volume of the speaker box can be controlled to ensure that the plan levels are adhere to, however the volume of the patron in the vehicle cannot be controlled and has the potential to breach the plan levels. McDonalds has previously moved away from a speaker box system, as have other similar style restaurants due to potential for noise. A multi window system is preferred over the use of a speaker box. In this location for a 24 hour operation the window system is preferred and the speaker box should be removed.

#### *Garbage compactor*

The applicants consultant has stated that the compactor has been located on the far side of the building away from the residentially zoned land and will only be used during the day time period. The day time period in councils plan is generally considered as Monday to Saturday 7.00am to 10.00pm. The trucks are required to access the site from the residential street which has the potential to create an adverse effect on the residential neighbours. The hours of use should be required to be reduced to 8.00am to 6.00pm seven days to reduce the noise effects for the additional heavy trucks on the residential street.

#### *Deliveries and waste collection*

The applicant has addressed the noise from vehicles on the site and stated that they will comply with the levels outlined in the plan and I concur with this statement. However the noise from large trucks for deliveries and waste collection have not been addressed. As these heavy trucks will enter and exit the site from the residential site the hours of use will be required to be restricted.

#### *Construction noise*

The report that has been submitted outlines the construction levels that are to be adhered to, however it does not outlined what measures will be put in place to ensure that the levels are adhered to. This detail can be addressed in a construction noise management plan that can be submitted prior to works commencing.

#### *Other sources*

The applicants consultant has not addressed a few sources of potential noise they are as follows:

The flagpoles that are to be erected adjacent to the residential property in Wiremu Street has lanyards and rigging that are a potential source of noise and must be designed so as not to create a nuisance in periods of high wind.

Patron noise late at night from people using or congregating in the car park has not been addressed.

This is an area of concern as it relies on the ability of McDonalds staff to control such a noise rather than prevent it with design measures. The inability to prevent the extraneous noise that can be created from people using the car park area has not been addressed especially as many people often choose to sit in vehicles and eat their food purchased from the drive through or the restaurant.

This proposal may lead to an increase in traffic in the local road of Wiremu Street as access to Dominion Road to turn right may be difficult and smaller local side roads may be used. The design the car park and traffic flows because of the median strip on Balmoral Road means that a large majority of vehicles are required to either enter or exit the premises through the residential street on a 24-hour basis. With a right turn difficult into dominion road there is also the potential for additional traffic to travel down Wiremu Street to either Volcanic or Pine Street.

### *Conclusion*

As there are extraneous sources from the carpark and the extra traffic that have the potential for sleep disturbance the hours of operation of the restaurant should be reduced to ensure the impact on sleep of the surrounding residents is minimised.

A majority of the noise from the site can be controlled through either restricting hours or through the installation of fixed noise control methods.

The extraneous sources are only able to be controlled through reactive measures and are of concern as the premises will be in use 24 hours a day and has the potential to be used at capacity if it becomes a popular venue.

The consultant has not measured the noise at 3.00am on weekdays as this is usually when the background would drop to well below 39dB(A), as has been the case in other heavy traffic locations. Although this is not the peak time for McDonalds use there is still the potential for noise from car park to create sleep disturbance.

### **Recommendation**

The application in its current form has the potential for significant noise effects on the surrounding neighbours through the 24 hour operation. The main noise sources that cannot be controlled are related to the carpark area and people noise. . The rear area of the site is considered a quiet residential street with low noise levels in the early hours of the morning that have been confirmed by council's own noise readings of the area. The 24 hour operation has the potential for noise effects that are considered significant.

The application should be refused or modified to ensure all noise issues are adequately addressed.

Jacqueline Ahmu  
Environmental noise specialist