



10 June 2009

Chris Wilson
Executive Director
NSW Department of Planning
GPO Box 39
SYDNEY NSW 2001

Our ref: 22/14532/86980
Your ref:

Dear Chris

Residential subdivision at 740-742 Pacific Highway, Sapphire Beach - 06_0148 Mod 1 Supplementary Acoustic Report

1 Introduction

GHD was commissioned by Sapphire Beach Developments Pty Limited to examine environmental noise impact issues associated with the redevelopment of the Pelican Beach Resort at 740-742 Pacific Highway, Sapphire Beach.

GHD submitted its preliminary *Acoustic Assessment (GHD Report 22/12787/71387, June 2006)* report based on a development that comprised 122 dwellings. Sapphire Beach Developments Pty Limited has since modified its proposal to the development of a 39 lot residential subdivision.

The NSW Department of Planning has issued Acoustic / Noise Director General's Requirements for MP 06_0148 Mod 1 for this amended concept plan, which are:

- ▶ *9.1 Discuss whether any impacts on future residents from road traffic noise from the adjacent Pacific Highway will be altered by the proposed modification, and detail proposed mitigation measures.*

This letter report reviews the impacts of the amended proposal taking account of the proposed revised site layout.

As with the previously proposed site layout, the revised site layout proposes future dwellings in proximity to the adjacent Pacific Highway. With consideration to the road traffic noise impact on to the site the key noise receptors are the future dwellings situated in proximity to the roadway.

In our view the impacts on future residents from road traffic noise from the adjacent Pacific Highway will not be altered to any significant amount. The mitigation measures proposed in our June 2006 Report still remain applicable for the future dwellings.

2 Recommendations

Results of previous¹ noise monitoring undertaken adjacent to the Pacific Highway indicated that existing traffic noise is a feature of the ambient environment in the area, and current traffic noise levels exceed the NSW Department of Climate Change (DECC) Criteria for Road Traffic Noise (ECRTN) criteria at the monitoring location for a new residential development affected by freeway / arterial road traffic noise.

¹ Previous traffic noise monitoring undertaken between the 31st May and the 7th June 2006 along the Pacific Highway at the site occupied by the Pelican Beach Resort, Pacific Highway, Coffs Harbour, NSW. The separation distance between the logging location and the Pacific Highway was approximately 46m.



As the ECRTN goals are likely to be exceeded for new residential development with houses situated adjacent to the Pacific Highway, GHD suggest that all feasible and reasonable noise control options be investigated in the next design phase, endeavouring to meet the criteria. At the time the Development Application for Subdivision is to be lodged with CHCC, a detailed 3D acoustic model can be created for so as to optimise the site-specific noise control design measures such as:

- ▶ Potential shielding effects (noise barriers in the form of a fence or earth mound at the property boundary).
- ▶ Required minimum architectural design treatments for external building elements based on predicted noise impact.
- ▶ Relative cost benefit analysis of architectural acoustic amelioration measures.
- ▶ Detailed traffic noise level prediction using:
 - Final ground contours.
 - Consideration of the impacts of any proposed NSW Roads & Traffic Authority (RTA) upgrades of the adjacent Pacific Highway.
 - Detailed monitoring of the night time traffic flow characteristics and maximum noise level in line with the RTA publication, Environmental Noise Management Manual (ENMM) requirements to attain accurate data to be able to model the potential for sleep arousal at future residential premises.
- ▶ Due to the close proximity of adjacent resorts and residential receivers, GHD recommend that a site specific Construction Noise and Vibration Management Plan be undertaken prior to construction activities commencing.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Stephen Kozakiewicz', with a long horizontal line extending to the left.

Stephen Kozakiewicz

Mechanical - Acoustic Engineer
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