

ENQUIRIES: ATHOL MALONE
PROJECT NO: 18438-SYD-E

14 September 2006

Attention: Tony Burg

Dear Sir

RE: EMIRATES LUXURY RESORT: CONCEPT PLAN APPROVAL: ITEM 11f

This design statement is to be read in conjunction with the Resort Exterior Lighting Plan E04.

1. The Exterior Lighting Design:

- Provides effective levels of light for the safe movement of guests and staff within the accommodation areas.
- Minimises the impact of light on the surrounding areas.
- Minimises light spillage into the atmosphere.
- Ensures that the night sky view is a feature of the development by controlling all light sources that impact on this experience.
- All lighting will be directed downwards and mounted at low level wherever possible.
- Is energy efficient by utilising efficient light sources and providing much lower levels of light than the recommended levels in the Australian Standards while still maintaining safe movement.

2. The Resort & Spa Complex

The lighting layout is provided in the attached drawing E04.

- The pedestrian pathways interlinking the villa have LED fitting cast into the concrete pathways that have a downward and a 120 degree horizontal distribution that provides low level "pools" of light. These marker lights identify one edge of the pathway while not detracting for the night time experience.
- The Entry to the Main Building will be highlighted under the canopy with exterior type downlighters.
- Bollard lighting, with 20watt metal halide lamps, provide exterior lighting to the Main Building entrance area as well as around the pool. Again these fittings direct the light downwards only.

'vital experience'

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Wood & Grieve Engineers ABN 75 900 165 652 **Perth Melbourne Sydney Brisbane Albany Busselton**
2/33 Ryde Street, Pymble, New South Wales 2073
Phone +61 2 8484 7000 Fax +61 2 8484 7100 Email sydney@wge.com.au Web www.wge.com.au

Wood & Grieve Pty Ltd ACN 008 808 786 as trustee for the Wood & Grieve Unit Trust trading as Wood & Grieve Engineers.

- LED Bollard fittings will be used along the main incoming road from the Staff precinct to the Resort. This lighting provides safe passage for staff moving between the Staff Accommodation and the Resort during darkness.
- In-ground uplighter fittings will be used to highlight the cluster of trees along the entry road near the Resort as well as adjacent to the Spa Complex.

3. **The Staff Accommodation Precinct.**

- The exterior lighting to this area will be minimised with only pathway lighting assisting with the safe movement of pedestrians around the complex.

4. **The Entry & Gate House.**

- The entrance lighting will be understated while providing a suitable level for security identification.
- The entry roadway leading from the entrance to the resort will not have any lighting.

5. **AS4282-1997 – Control of Obtrusive Effects of Outdoor Lighting.**

There are four main criteria when assessing the obtrusive effects of outdoor lighting:

- 5.1 The effects on surrounding developments – There are no other developments near any of the boundaries on this property. The lighting design will have no spill light on any of the boundaries.
- 5.2 The effects on road users – this aspect does not apply to this development as the Staff and Resort precinct are a considerable distance from any public roadway.
- 5.3 The effects on transport signalling- again this does not apply.
- 5.4 Effects on Astronomical Observations – This is the most important of the four criteria to this development. The lighting design will concentrate all light in a downwards direction with the only exceptions being when the underside of a few feature trees' canopies are being highlighted. The selection of light fitting will ensure that no spill light is able to pass the edge of the canopy and to go into the sky.

One of the main attractions of this resort is to experience the night sky while moving between buildings during night time and together with minimising lighting levels and energy efficient lamps the exterior lighting scheme will comply with all relevant standards.

Yours faithfully



Athol Malone
for **Wood & Grieve Engineers**

DOCUMENT: DOCUMENT1 (AGM)

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