

54. The development site must be landscaped. The works must be undertaken in accordance with an Operational Works approval and the Sunshine Coast Council landscape materials palette for the specific area and must include in particular:

- (a) Deleted
- (b) Landscaping strips to road frontages generally in accordance with the Approved Plans, exclusive of the access driveway, generally uncompromised by infrastructure items;
- (c) provision of trees within the landscape frontage strips at an average of 6 metre centres;
- (d) vegetated screening of retaining walls and courtyards addressing the road frontage designed such they that will be screened at maturity;
- (e) provision of feature trees within the development site at the corners of Pacific Boulevard and Talinga Street and Talinga Street and Iluka Avenue;
- (f) landscaping along side / rear boundary interface with Lot 309 B92911 and Lot 283 B92911 comprising of shrubs at 1 to 1.5m centres, and where space is available, columnar trees at 6m centres;
- (g) vegetated screening to the side/s of any electrical transformers and in front of bin storage areas and the like from the road frontage;
- (h) provision of one (1) street tree within the road reserve for every six (6)m of road frontage (Pacific Boulevard, Talinga Street, and Iluka Avenue);
- ~~(i) control of all weeds species listed in the following standards and legislation:
 - ~~(i) declared plants under the Land Protection (Pest and Stock Route Management) Act 2002 and sub-ordinate Regulation 2003~~
 - ~~(ii) Sunshine Coast Local Government Area Pest Management Plan 2012-2016.~~~~
- (i) Vegetation screening to minimise light spill onto the beach and to the sky.**

63. **Prior to commencement of the use**, Certification must be submitted to council from a qualified person* that all lighting devices comply with the requirements of this development approval.

Following commencement of the use, and having regard to the nature of any complaint made to Council about lighting impacts from the approved use, as well as previous testing results, corrective actions and compliance history, Council may require the site management entity to:

- (i) undertake additional testing (until the results of testing achieve confirmation of compliance with the conditions of this development approval)**
- (ii) where necessary, undertake amelioration measures to ensure that the development complies with the conditions of this development approval**
- (iii) submit certification from a qualified person* that the development complies with the conditions of this development approval.**

**(Refer to Advisory Note)*

69. At all times, the development must ~~demonstrate that they~~ maintain **or reduce** the ~~existing established~~ sky glow values that existed at the adjacent turtle nesting grounds prior to any light being emitted by the development. ~~under identical conditions (i.e. clear sky).~~

To achieve this, prior to commencement of the use, The developer must ~~is to~~ engage an **appropriately qualified lighting** consultant* to ~~prepare a~~ **undertake** pre

and post construction ~~development~~ Artificial Light at Night (**ALAN**) ~~surveys under identical equivalent conditions (i.e.: clear sky at time of survey) to describe any~~ determine changes in light emissions ~~spill and/or sky glow at from the development to the adjacent turtle nesting beach grounds, attributable to the development;~~ and engage a suitably qualified ecologist, and, in consultation with an appropriately qualified lighting consultant* to interpret the results of the surveys and confirm compliance with this condition, including identification of any required rectification measures. ~~generally in accordance with the~~ Methodology and equipment used must be generally as described in Sunshine Coast Council and Moreton Bay Council's Benchmark Artificial Light at Night Survey 2017. **ALAN survey results are to be submitted to Council for review.**

The post-development ALAN survey must be conducted based on illumination of at least 99% of all lights in the development that may be illuminated following 8pm during the turtle nesting season from 1 October to 31 May, having regard to the lighting control measures required under these conditions. For example, ALAN survey should be conducted with sensor/timer-activated lights illuminated, but with any lights that are required by these conditions to be turned off after 8pm not illuminated. This may require an override of lighting control systems to provide an artificial "worst-case scenario".

The post-development ALAN survey must be completed, with a report confirming the outcomes provided to Council, prior to any residential occupation of the development.

Should the post-construction survey identify an increase in either direct light spill or sky-glow that is attributable to the development, corrective actions are to be undertaken by the Developer.

Having regard to the nature of any complaint made to Council identifying a specific change or concern in relation to light emission levels associated with the development, as well as previous testing results, corrective actions and compliance history, Council may require the site management entity to:

- (i) submit an Artificial Light At Night (ALAN) survey prepared by a qualified person*, and additional surveys as necessary until the results of the surveys achieve confirmation of compliance with the conditions of this development approval;
- (ii) where necessary, undertake further amelioration measures; and
- (iii) submit certification from a qualified person* that the development complies with the conditions of this development approval.

- ~~(a) the pre-construction Light Survey is to be undertaken prior to any site works commencing on site.~~
- ~~(b) the post-construction Light Survey is to be undertaken by the Developer on completion of the development~~
- ~~(c) the Light Surveys are to be submitted to Council officers for their review and assessment. Should the post construction 'as built' audit identify that correctional actions are required, these are to be undertaken by the Developer.~~

~~*(Refer to Advisory Note)~~

70. Internal **Indoor** and external **outdoor** lighting and signage must be **designed, installed,** positioned and **at all times managed and** operated to minimise disruption

light spill and maintain or reduce the existing established sky glow levels at the adjacent turtle breeding **nesting** grounds. All lighting must be managed to reduce sky glow and light spill onto the beach, **including by: the use of reduced intensity, long wavelength lights; outdoor lights which are fitted with shielded; outdoor lighting which is located low to the ground, and directed only onto specific areas of interest; use of low reflectance building surfaces and paint; and tinted windows.** Details as follows: **Specific design requirements for site lighting controls include:**

- (a) all windows **glazing (including windows and doors) on the north, south and eastern elevations** facing the beach must **be tinted with non-reflective tinting, or utilise smart glass technology, to have achieve a maximum 15% visible light transmittance window tinting.**
- (b) all windows **and doors within all units on the north, south and eastern elevations** facing the beach must be fitted with **automatic** opaque blinds where not already screened by opaque external screens or opaque fixed louvres under Condition 31 of this development approval. **The automated blinds must be configured to be closed automatically, and must remain closed, between 8:00 pm and sunrise during turtle nesting and hatching season (1 October – 31 May).**
- (c) indoor and outdoor paint/surfaces/fixtures must be matte and dark in colour and have a maximum reflectance value of 30%.
- (d) all outdoor lights must have a maximum of 2700 K correlated colour temperature (CCT). All indoor lights must have a maximum of 3000 K CCT. All lighting (interior and exterior) must avoid the use of halogen, metal halide, or fluorescent lights.
- (e) amber LED (590-610 nm) or low pressure sodium lighting must be used as a standard. Warm white is to be used only where colour rendition is required. LED lights must not contain short wavelength blue light and supplier should be asked to provide spectral power curve of requested LEDs to prove the absence of short wavelengths.
- (f) the number and wattage of lights must be minimised **and achieve compliance with AS4282: 2019 (Control of the obtrusive effects of outdoor lighting).**
- (g) all **outdoor lights (including balcony lighting) where mounted on a building, must be recessed into structures and/or roof/ceiling, or where it cannot be recessed, fitted with appropriate shields, and directed away from the beach, and to avoid direct illumination of the beach, ocean and sky at night. turtle nesting habitat.**
- (h) no lighting is permitted on the roof of the building.
- (i) all outdoor lights, including balcony lights, must be turned off when not in use between 8:00 pm and sunrise during turtle nesting and hatching season (October – May). external **Outdoor** feature lighting to the building must be positioned below 10 metres in height and turned off between 8.00 pm and sunrise during turtle nesting and hatching season **(1 October – 31 May).**
- (j) no upward lights or vertical illumination of the building, vegetation or other structures using lighting that shines into the sky **is to be used during the nesting and hatching season (1 October – 31 May).**
- (k) where lighting is required for safety purposes (including all corridors above ground level, stairwells, entry points etc.), **All outdoor lighting (including balcony lighting) and indoor common area lighting (including all corridors above ground level, stairwells, entry points etc) the lighting of these areas must be activated by proximity sensors or motion detectors with an associated deactivation of the lighting after no more than 10 minutes during turtle nesting and hatching season (October – May). For lighting in other areas, timers, proximity or motion activated light sensors must be used wherever possible.**
- (l) smart lighting technology (including dimming control) must be incorporated **for all indoor and outdoor lighting** in all storeys above the 1st storey in order to allow

- ~~the body corporate and residents the ability to reduce light emissions during critical turtle breeding periods (1 October – 31 May).~~
- (m) ~~no decorative outdoor lighting is to be fitted to the buildings, open space or recreation areas (e.g. Fairy/Christmas lights) is to be used~~ during nesting and hatching season **(1 October – 31 May).**
 - (n) pool lighting must be switched off after 8:00 pm during nesting and hatching season **(1 October – 31 May).**
 - (o) any external signage on the eastern (seaward) side of the development must not be illuminated during nesting and hatching season **(1 October – 31 May).**
 - (p) any lighting in recreation areas within the development must be switched off and operate on proximity sensors after 8:00 pm during nesting and hatching season **(1 October – 31 May).**
 - (q) all lighting within the development (~~interior~~ **indoor** and **outdoor exterior**) must be shielded by a minimum of **300mm** ~~em~~ vertical shielding.
 - (r) ~~visual screening through vegetation screens must be applied to all lighting towards the coastline and sky.~~ reflective materials must be used to delineate pathways, and embedded lighting must be used wherever possible. If lights are used they are to be amber in colour, max. 2700 K CCT, as low as possible, intermittent flashing only, facing away from the beach and to be fitted with **300mm** ~~em~~ vertical shades to contain light spill.

70A In addition to the requirements of conditions 24, 25 and 72:

- (a) **the by-laws of the proposed Community Management Statement must require:**
 - (i) **the occupiers of each unit to comply with, and ensure that all visitors comply with, condition 70 in relation to their unit;**
 - (ii) **the owner of each unit (where not the occupier) to ensure that all occupiers of and visitors to their unit comply with condition 70 in relation to their unit; and**
 - (iii) **all occupiers and their visitors to not do anything in outdoor areas or common property that results in a contravention of condition 70; and**
- (b) **the occupiers of each unit must comply with, and ensure that all visitors comply with, condition 70 in relation to their unit;**
- (c) **the owner of each unit (where not the occupier) must comply with and ensure that all occupiers of and visitors to their unit comply with condition 70 in relation to their unit;**
- (d) **all occupiers must not do, and must ensure that their visitors do not do, anything in outdoor areas or common property that results in a contravention of condition 70;**
- (e) **any body corporate for the subject site must:**
 - (i) **comply with condition 70 in relation to the common property; and**
 - (ii) **ensure that owners, occupiers and visitors do not do anything that results in a contravention of condition 70.**

73. The land area located east of the development (Buddina Foreshore Reserve) identified on the Referenced Revegetation Area Plan must be rehabilitated and revegetated in accordance with an Operational Works approval and must include ~~the removal of all weeds species listed in the following standards and legislation:~~

- (a) **The removal of all weed species listed in the following standards and legislation:**
 - i. **invasive plants listed in the Biosecurity Act 2014**

ii. Sunshine Coast Local Government Area Pest Management Plan 2012-2016.

- (b) ~~Sunshine Coast Local Government Area Pest Management Plan 2012-2016~~ The planting of locally occurring native species to achieve optimal community structure and densities.**