

MEMO

TO: Whom it may concern
FROM: Fiona Venn
SUBJECT: **Addendum to Lighting Technical Report for Modification 13 Planning Submission**
OUR REF: 181113-The Star-Mod 13-Lighting Technical Report-Addendum Rev 01
DATE: **13 November 2018**

The memorandum is an addendum to The Star-Mod 13-Lighting Technical Report, prepared by WSP, dated 31/01/2018.

This addendum responds to comments raised in the Request for Response to Submissions Modification Request 13 for The Star City Casino (MP 08_0098 MOD 13).

WSP responses below:

Lighting Impacts

14. Provide additional justification for the total number of additional special lighting event (SLE) days, or revise the scheme to be consistent with existing limitations on other buildings within Darling Harbour. In addition, provide a consideration of the broader visual impact and light spill impact on the surrounding area.

Project Response:

The Star is recognised as one of Sydney's leading entertainment venues. Events and temporary light activations are regularly delivered within the venue. A special lighting event (SLE) has been staged every year, over twenty-one (21) nights, during Vivid Sydney since 2015. No issues or negative impacts have been reported in relation to the previous staging of the SLE installation.

As part of Modification 13, it is proposed that the temporary Vivid Sydney lighting installation become a permanent installation to highlight special events. It is also proposed that the SLE activation program be extended to cover thirty-two (32) additional event nights for a maximum of fifty-three (53) nights per year.

The proposed event nights align with the City of Sydney, Destination NSW and the NSW Government's major events. The SLE activation supports the City and State's initiative to celebrate these festive occasions at the Darling Harbour precinct.

- New Year's Eve – 1 night;
- New Year's Day – 1 night;
- Chinese New Year – 20 nights (2+ weeks, 3 weekends);
- Vivid Sydney – 21 nights;
- Australia Day – 1 night; and

- Christmas – 5 nights.

Along with significant arts and sports events:

- ARIA Awards – 1 night; and
- State of Origin – 3 nights.

Darling Harbour, King Street Wharf and Barangaroo are well-lit precincts with special external lighting elements integrated into buildings, structures and promenades to create a festive and vibrant atmosphere. The lighting encourages the activation and night-time use of public spaces to enhance the public’s dining, entertainment and relaxation experience.

The SLE is positioned on the rooftop of the Astral Hotel adjacent to the MUEF, see Figure 1 below.

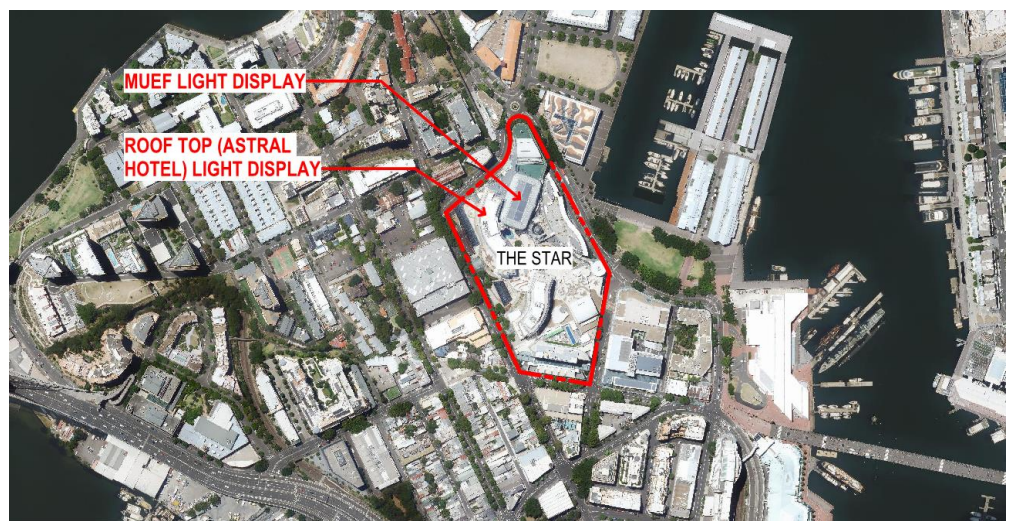


Figure 1: SLE Location Map

The SLE as part of Modification 13 will follow the controls and principles which are drawn from the Star Sydney’s recent Vivid Sydney applications and development consent. These include:

- Use of thirty-six (36) Sharpy light fixtures and thirty (30) LEP flood EX36 lighting fixtures located on the roof of the Astral Tower;
- All lights are programmed to be directed away from The Sydney Harbour Bridge, roads or any traffic or residential properties;
- All lights are aimed in an upwards direction only. The Astral Hotel’s roof structure obstructs the lights to the west, the SLE installation is aimed in an easterly direction only;
- The SLE is operational during curfew hours only – these are from 6:00pm to 11:00pm during Vivid Sydney. These are from dusk to 11:00pm on other event nights.;
- The SLE Light Show is operated on a half hourly basis and is on static (no movement) for the other half hour of each hour of operation;
- The SLE is designed in accordance with Australian Standard AS4282-1997 “Control of the obtrusive effects of outdoor lighting” and the Civil Aviation Safety Authority Regulations ‘Lighting in the vicinity of Aerodromes’;

- The SLE is separately controlled from all other lighting at The Star, see Figures 2 and 3 below for SLE lighting layout;
- Activation of The Star Event Centre shell lighting will integrate with the SLE activation display;
- A lighting technician will be present on the rooftop whenever the lights are operational to ensure someone is always available to troubleshoot in the case any light malfunction;
- No noise will be associated with the proposed installation at this location;
- Star Entertainment Group will undertake a notification process in order to communicate the details of the SLE activation to local residents and businesses. This will be done primarily via email to the existing stakeholders and resident database; and
- At no time will the intensity, period of intermittency and hours of illumination to cause objectionable glare or injury to the amenity of the neighbourhood.

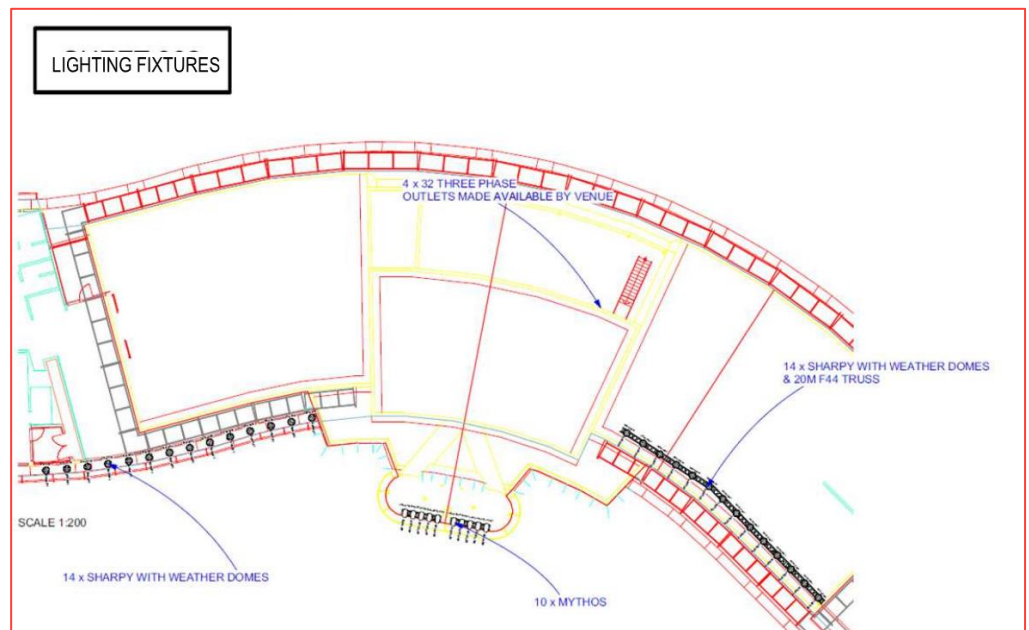


Figure 2: SLE Astral Hotel Rooftop Lighting Layout

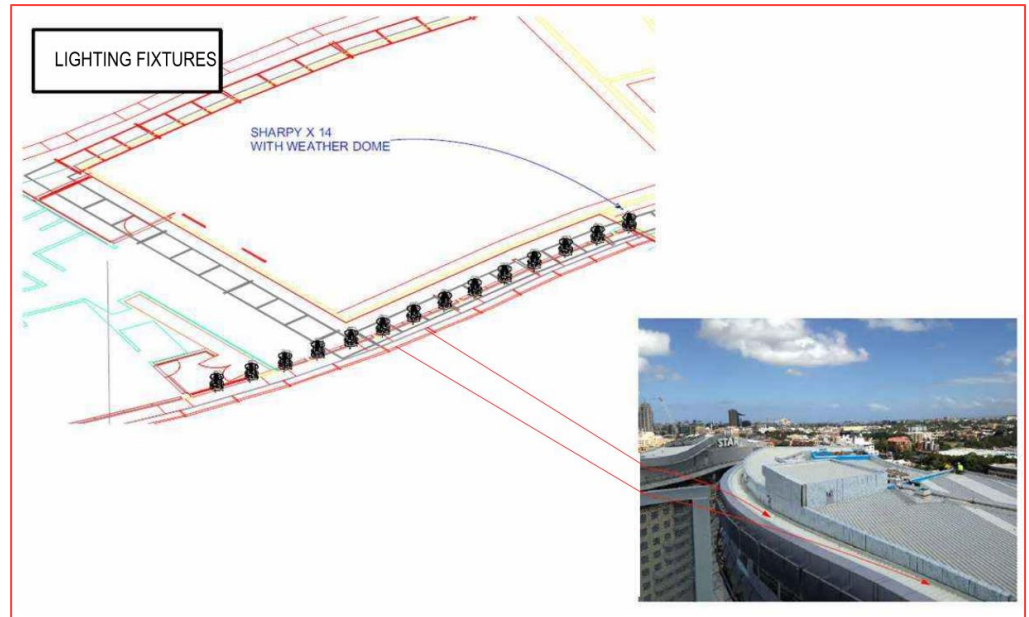


Figure 3: SLE Astral Hotel Rooftop Lighting Layout

The SLE activation will be visible in the sky as seen during Vivid Sydney since 2015. The SLE is considered appropriate when considered in the context of Darling Harbour, the ICC and ICC Hotel, Darling Quarter, Barangaroo and the MUEF where there are existing dynamic colour changing light installations. The hours of operation of the dynamic colour changing façade at Darling Quarter are Sunday to Monday from dusk to 12.00am every night of the year.

Lighting Impacts

Submissions 280789 and 281273 raised the following issue:

'The area will now be subjected to moving projector lights, fixed on to the top of the Astral Hotel, and this will occur on at least 53 nights per year. This will add to the light pollution already emanating from the Star.'

and

'I note that our area will now be subjected to moving projector lights, fixed on to the top of the Astral Hotel, and this will occur on at least 53 nights per year.'

Project Response:

The SLE is currently activated for twenty-one (21) nights per year as part of Vivid Sydney. The SLE will occur on an additional thirty (30) nights per year for a maximum of fifty-three (53) nights per year.

All SLE lights are programmed to be directed away from residential properties including 1 Murray Street. All lights are aimed in an upwards direction only.

The lighting to The Star, Sydney including the SLE is designed in accordance with Australian Standard AS4282-1997 "Control of the obtrusive effects of outdoor lighting".

Lighting Impacts

15. Confirm the location and proximity of new light sources in relation to existing adjoining residential properties.

Project Response:

Existing adjoining residential properties are indicated as per the map below in Figure 3.



Figure 3: Residential Property Map

New light sources will be located at The Ritz Carlton Hotel Tower, The Podium, The Ribbon and The Darling Retail Precinct.

Ritz Carlton Tower

External lighting to The Ritz Carlton Hotel Tower is limited to four locations: the top of the tower (roof level), Level 59 Club Lounge and Terrace, Levels 39 & 40 Sky Lobby and the Eastern and Western vertical slots (vertical gardens).

The top of the tower roof lighting will be illuminated by dimmable indirect light sources. Due to the height and angle of the top of the tower, the lighting will not be visible to residential properties. Where the top of the tower is visible it will be viewed at a distance.

Level 59 Club Lounge and Terrace and Levels 39 & 40 Sky Lobby will have static warm white LED lighting integrated into the façade spandrels. All lighting will be dimmable. The light sources will be indirect. Due to the height of levels 59, 39 & 40, the lighting will be viewed at a distance from existing adjoining properties.

Eastern and Western vertical slots will include integrated static LED lighting. The lighting will be dimmable and directed inwards towards the tower to illuminate the vertical garden in the vertical slots. The vertical slot lighting will be indirectly visible at a distance from existing adjoining residential properties to the east and west of the Tower.

The Podium

New light sources to The Podium will be localised to provide circulation lighting to areas below and define entries for way-finding. Key features such as the sandstone walls at ground level will be up-lit with dimmable glare controlled light fittings. Level 07 communal terrace lighting will be localised and dimmable during curfew hours. The closest existing adjoining residential properties with clear views of this will be across Jones Bay Road. Residential properties at Darling Island and Darling Harbour Wharfs will have distant views of the Podium lighting at night.

The Ribbon

The Ribbon will include new façade integrated LED lighting and in-ground up-lights for dynamic colour changing effect from ground level to Level 07. This is in keeping with the existing lighting at Pirrama Road which includes dynamic colour changing lighting.

New light sources to entries and covered exterior areas of the Ribbon on Pirrama Road will be localised to provide circulation lighting to areas below and define entries for way-finding. Level 07 pool decks, circulation and landscaped areas will include dimmable new light sources. The closest existing adjoining residential property will be The Astral Residences Tower which will have clear views overlooking The Ribbon Level 07. Some residents at 1 Murray Street will have oblique views of the Ribbon. Residential properties at Darling Harbour Wharfs will have distant views of the Ribbon lighting at night.

The Darling Retail Precinct

The proposed upgrade to the corner retail areas at Edward/Union St and Union/Pymont St will include new light sources. Lighting will be localised to provide circulation lighting to areas below and define entries for way-finding. The closest existing adjoining residential properties will be on the other side of Union and Pymont Streets.

Please do not hesitate to contact the undersigned regarding this addendum report.

A handwritten signature in blue ink, reading "Fiona Venn". The signature is fluid and cursive, with the first name "Fiona" written in a larger, more prominent script than the last name "Venn".

Fiona Venn
Associate Director