MUSEUM OF APPLIED ARTS AND SCIENCES

SUBMISSION TO NSW PLANNING AND ENVIRONMENT
CROWN SYDNEY HOTEL RESORT

SSD 15_6957 Crown Sydney Hotel Resort Environmental Impact Statement

The Museum of Applied Arts and Sciences (MAAS) encompasses

- the Powerhouse Museum (Ultimo)
- Sydney Observatory (Millers Point) and
- The Discovery Centre (Castle Hill).

This submission is the Museum's formal response to the development application submitted to the department by **Crown Sydney Hotel Resort** referred to as **SSD 15_6957 Crown Sydney Hotel Resort Environmental Impact Statement.** It specifically responds to the impact assessment that relates to the Sky View Impact Assessment, which forms part of the EIS.

Sydney Observatory significance

Sydney Observatory is recognised by UNESCO as a historically significant site overlooking Sydney Harbour, which today functions as a museum of astronomy and a place for visitors to observe the southern sky and stars. A summary of the historical significance of Sydney Observatory is attached to this letter.

Sydney Observatory core business

Sydney Observatory is open daily to visitors and operates guided astronomy sessions each night as part of its core program and business model. Guided astronomy sessions are scheduled to optimise viewing times: 6.15pm (winter), and 8.15pm (summer and winter).The ability to view the night sky is essential to attracting visitors and achieving the Museum's business objectives.

Summary of impact

The Crown Sydney Hotel Resort development will affect viewing of **Omega Centauri** for part of the year.

Light spill from development and city activity has the potential to affect night viewing at all times of the year. Sydney Observatory has been working to raise awareness of the problems associated with light spill and encouraging sensitive design of both internal and external lighting.

SUMMARY OF IMPACT OF THE CROWN SYDNEY HOTEL RESORT ON SYDNEY OBESERVATORY OPERATIONS

Context

MAAS notes the opportunity the redevelopment of Barangaroo and Crown Sydney Hotel Resort offers to increase the number of visitors, tourists, workers and residents coming to Observatory Hill and particularly the Sydney Observatory.

MAAS and Sydney Observatory are keen to work with neighbours and those with a role in planning the area including the Lend Lease, CSHR, new tenants at Barangaroo, the BDA, , SHFA and the City of Sydney to create a wider strategic plan to physically and economically connect and promote the attractions across the wider precinct.

There needs to be a focus on ensuring that Observatory Hill is linked with activity on all sides so that the area benefits from the extensive growth in visitors and residents in the area. We are keen to deliver increased visitation and use of commercial facilities at Sydney Observatory as a result of the growth in the wider precinct. This will go some way towards helping to mitigate impacts on viewing the night sky by the development at Barangaroo

Impact of Crown Sydney Hotel Resort of viewing of the night sky

Sydney Observatory has assessed the impact of the Crown Sydney Hotel Resort (CSHR) on night viewing from Sydney Observatory as follows:

1. Reduced opportunity to view Omega Centauri

Crown Sydney Hotel Resort will impact viewing of **Omega Centauri** for part of the year. Omega Centauri is the largest and brightest globular cluster visible in the night sky. It is one of a number of astronomical features in the southern sky in addition to other objects including: clusters, stars, planets and the moon, which are currently viewed by visitors to Sydney Observatory throughout an evening session and across the year.

The development proposed by Crown Sydney Hotel Resort limits viewing of Omega Centauri during the first and second night viewing sessions held at Sydney Observatory.

More specifically there will be a loss of 8% of the presently available viewing time across the year in session one and 11% of the presently available viewing time in session two.

Proposed mitigation by applicant

The EIS submitted with the planning application states that the impact of CSHR on night viewing of Omega Centauri can be reduced by changes to the structure and conduct of the overall night viewing program. Unfortunately the potential to change the viewing times is not an option due to the strict time limits imposed by sunset & twilight.

The EIS claims the viewing schedule within each session can be adjusted to enable the affected targets to be viewed first. This cannot be achieved across multiple group sessions in the August-October period. To maximise viewing in this period, the program is structured to provide 3 or 4 groups of 20 within a 90 minute period in each session, based on two sessions per night.

In addition, the Building Code of Australia, not the facility, requires group size of maximum 23 people in the existing telescope domes.

Sydney Observatory will continue to offer viewing sessions of the night sky however acknowledging that there will be limited viewing of Omega Centauri for part of the year which may impact the visitor experience.

2. Potential impact of light spill on the quality of the view of the night sky

CSHR will spill light to the sky reducing the contrast between the background sky and objects viewed from Sydney Observatory making objects more difficult to view. The EIS does not reference the impact of light spill on Sydney Observatory from the eastern facades of CSHR which will likely feature extensive use of glass, to maximise views to the city and Sydney Harbour. More details in relation to lighting of this façade is requested and a commitment at this stage that light spill will be minimised.

Potential to limit impact

The opportunity to significantly reduce the impact of light spill on the operations of Sydney Observatory is something that should be addressed through sensitive lighting design for both internal and external lighting schemes.

The museum has highlighted this issue to a representative of CSHR who has indicated that it is their intention to minimise light spill and that details of the lighting scheme will be subject to a separate approval process.

MAAS recommends the effect of light spill can be minimised by shielding lighting, eliminating up-lighting, not using blue lighting, the use of sensor & timed lighting.

Sydney Observatory would like an ongoing commitment that we will be consulted as the more detailed proposals for lighting are developed and at the application stage.

Thank you for the opportunity to comment on this application.

MAAS would be happy to discuss this proposal further or facilitate a tour of the site to assist in the assessment of the application.

Background - The Sydney Observatory and its heritage significance

Sydney Observatory is recognised by UNESCO as a historically significant site overlooking Sydney Harbour, which today functions as a museum of astronomy and a place for visitors to come and observe the southern sky and stars.

The site

The site of Sydney Observatory, now known as Observatory Hill, was previously known as Windmill Hill, Citadel Hill, Fort Phillip and Flagstaff Hill, describing its functions over time. All of these functions relied on its location as the highest point overlooking Sydney Harbour. For all of these functions, it had to have a clear view to the distance and be clearly visible, so its setting has some of the best views in Sydney.

The heritage significance of the site lies in its dominant location on the hill overlooking the colony and the range of uses this supported which were important to the stages in the development of the colony. These included milling, defence, communications, astronomy, meteorology and time keeping. Most importantly it has been used as an observatory since it was built in 1859 and more recently as a place for the public to come and share in this important history of the site but also enjoy viewing the southern sky and stars in an historic, accessible urban setting.

The site is listed as a heritage item pursuant to the Sydney LEP 2012 and is also listed on the National Trust of Australia register.

The buildings

There are 4 buildings on site. The main Observatory was built between 1857 and 1859. Its design combined the practical needs of an observatory and astronomer's residence with the impressive appearance of a public building in an Italianate style. In 1878 a western wing and dome for telescopes was added. This is a two level building which provides public exhibition and viewing areas. In 1997 the building were refurbished and re-launched as a public observatory interpreting astronomy in Australia, past and present. Since then it has welcomed visitors both during the day and evening.

In keeping with the Observatory's time-keeping role, the tower and time ball were given greater prominence than the telescope dome.

The telescope in the south dome was installed to observe the 1874 Transit of Venus. It is the oldest working telescope in Australia and is of immense historic importance

The north dome and west office wing were added to the Observatory in 1878. The extension was designed by the government architect James Barnet. The north dome now houses the state-of-the-art computer-controlled 40cm reflecting (mirror) telescope.

Current operations

The Observatory is open daily to visitors and operates two guided astronomy sessions each night. There is also a program of special events which include 'stargazing'. It is the impact on these evening session which is the most significant.