T H E 🕸 S T A R

MODIFICATION 13 TO MP08_0098

ENVIRONMENTAL ASSESSMENT REPORT

PREPARED BY



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EXECUTIVESUMMARY

This Environmental Assessment Report (EAR) has been prepared by Urbis Pty Ltd (Urbis) on behalf of the Star Entertainment Group Limited (SEGL). It accompanies an application to modify the Part 3A Project Approval MP08_0098 for The Star Casino and Entertainment Complex Sydney (The Star) under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

THE STAR

SEGL is a leading operator of integrated resorts catering to both local and international visitors and, as the operator of The Star, has commenced a five-year redevelopment journey to create a landmark, exemplar integrated resort.

This proposed redevelopment will occur through the lodgement of two modification applications with the Department of Planning and Environment (DP&E). Modification 14 (Mod 14) has been approved. Modification 13 (Mod 13), which is the subject of this EAR, relates to the design of a new residential and hotel tower that is to be branded Ritz-Carlton, associated podium treatment, as well as several other packages of works.

The Star is a 24 hour a day operational facility that functions as an integrated resort with a range of entertainment facilities, retail spaces, multiple restaurants and bars, 606 hotel rooms/serviced apartments across three towers, and basement parking. The key venues include the Sovereign Resort gaming operations, the Multi Use Event Facility (MUEF), and Lyric Theatre, which is operated by a separate entity from SEGL.

The Star is located on an irregularly shaped site in Pyrmont, which is bounded by Pyrmont, Edward and Union Streets, and Pirrama and Jones Bay Roads. The site has a total area of 39,206 m² (excluding Lot 1 in DP 867854 and Lot 201 in DP 867855 to the north).

The site is leased by SEGL from the Independent Liquor and Gaming Authority (ILGA). The site also accommodates, in addition to The Star, a light rail line (including The Star light rail station). A bus interchange is located adjacent to the site's Pirrama Road frontage. A publicly accessible wharf serving both commercial boats and private watercraft is located within a short walking distance of the site and is also available to SEGL to use.

Key elements of the existing development within The Star include the following:

- A range of gaming spaces including the main gaming floor, private gaming spaces, international gaming spaces and outdoor gaming spaces;
- The SELS Building, a local heritage item;
- A range of retail spaces including luxury designer stores such as Gucci, Chanel and Salvatore Ferragamo;
- A rooftop bar at Level 03 known as the Sky Terrace;
- A mix of restaurants and bars including the Sports Bar, Sokyo Lounge and Marquee Sydney;
- Two theatres the Sydney Lyric Theatre and MUEF (The Star Event Centre);
- A total of 318 hotel rooms within The Astral Tower;
- A total of 171 hotel rooms within The Darling including a luxury spa;
- A total of 117 serviced apartments within The Astral Residences;
- The Star light rail station; and
- 2,795 Basement car parking spaces.

THE PROPOSAL

Mod 13 (the Proposal) seeks approval for the following works and activities:

- Ritz-Carlton Hotel and Residential Tower including a Neighbourhood Centre and car-parking stacker system;
- Level 07 Ribbon;
- Level 05 Sky Terrace and Astral Recreational Facility Upgrades;
- Level 04, Level 04 Mezzanine Tower, and Level 03 Sovereign Link by escalator and lift;
- Façade Integration Works and Level 03 Sovereign Column Façade Treatment along Pirrama Road;
- Infrastructure upgrades;
- Level B02 Transport Interchange upgrades;
- Transport improvements within the local roads;
- Site-wide Landscape and Public Domain upgrades;
- Level 00 Restaurant Street;
- Pirrama Road and Jones Bay Road Food & Beverage ((F&B) premises);
- F&B in other locations including reconfiguration of Harvest Buffet and refurbishment of Bistro 88;
- Upgrades to the Darling Hotel corners;
- Special Events Lighting;
- Site-Wide Acoustic Strategy;
- Site Wide Lighting Strategy;
- Signage Upgrades;
- Stormwater Upgrades; and
- Land administration to include stratum subdivision

Mod 13 will seek the modification of the conditions of Major Project Approval MP08_0098 (MP08_0098). This Environmental Assessment Report (EAR) will also identify development consents applicable to The Star issued by City of Sydney that are impacted by the proposed works.

NEED FOR THE PROPOSAL

Do Nothing - Business as Usual

As SEGL's flagship Australian destination, The Star is a globally competitive destination offering a unique Sydney experience. The Star also forms a critical piece of the tourism landscape in New South Wales and provides an essential contribution to Sydney's reputation as Australia's global city and a leading international destination. However, to maintain this competitive positioning, SEGL must continue to invest in the ongoing evolution of The Star.

The Star's success as an international destination depends on:

- Its existing and future capacity to be a major contributor in the visitor and tourism economy of the city;
- Its active participation in hosting major events and city-wide festivals; and
- Improving the site's opportunities to provide unparalleled and unique Sydney based experiences.

As outlined in the Urban Context Report at **Appendix G**, strong demand for gaming activities among many Asian cultures means that visitors from these countries seek out the casino experience. However, the market for international gaming customers is competitive.

Recent significant changes to the nature and positioning of casinos, particularly in Asia, have had implications for the sector globally. The emergence of the Integrated Resort in Asia, most notably in Macau and Singapore, has redefined the traditional casino concept and, in the process, has transformed the Asian tourism landscape.

It is clear from the experience across the region that it is only an Integrated Resort that can fully harness the opportunity presented by the increase in Asian visitation by delivering a complementary entertainment experience within a family friendly environment. The Integrated Resort is a proven model that appeals to this customer segment, and is typically characterised by:

- Large scale facilities;
- A high proportion of non-gaming facilities including entertainment, meeting and conferencing facilities, or attractions such as theme parks;
- Substantial hotel capacity;
- Ability to cater to a range of budgets the luxury offering is complemented by 3, 4 and 5-star offerings;
- Sizeable Business Travel and Meetings, Incentive Travel, Conventions and Exhibitions (BTMICE) capacity; and
- A variety of entertainment offerings, including restaurants, bars, theatres, nightclubs, retail precincts and unique features.

Additionally, the awarding of a second casino license in Sydney to a casino to be located opposite The Star at Barangaroo brings this global competition directly to the shores of Sydney.

In the context of the changing tourist landscape, SEGL does not consider the 'Business as Usual' option to be a viable option. SEGL has concluded that, in order to ensure its accommodation, entertainment and casino environment offer a unique experience to drive visitation, the existing development on-site needs to be upgraded to continue to grow and deliver as an integrated resort.

Design Excellence Process

The Ritz-Carlton Hotel and Residential Tower and the Level 5 & Level 7 Ribbon elements represent the outcome of a robust alternative design excellence process. The Design Excellence Report included in **Appendix F** provides commentary regarding the design excellence process undertaken.

The design excellence process has been undertaken to deliver a tower element that will exhibit leading design and incorporate the commercial and operational requirements of The Star and Ritz-Carlton to provide a world class 6-star hotel.

As part of the design excellence process, three alternative designs from FJMT, BVN and Grimshaw were considered. After a rigorous design review process, the Design Review Panel chose the FJMT scheme as the most appropriate design for the site and concluded that the proposed tower and ribbon elements exhibit design excellence.

ENVIRONMENTAL ASSESSMENT

Methodology

In assessing the environmental impacts of the Proposal, this EAR has comprehensively addressed the Secretary's Environmental Assessment Requirements (SEAR's) issued for the Proposal. To that end, this EAR undertakes two types of analysis:

 Firstly, this EAR evaluates the Proposal from a merits perspective with regard to the SEARs issued for the Proposal. This represents the standard merits assessment that must accompany and support all requests for modification under section 75W of the EP&A Act. This analysis includes an assessment of the Proposal against the individually identified SEARs (Appendix A), and relevant statutory planning and policy provisions. Secondly, to address the final component of SEAR 1 which relates to 'limited environmental impacts', this EAR considers the environmental impacts of Mod 13 in relation to those environmental impacts that have been assessed for MP08 0098 to date.

It is noted that this requirement is not a standard requirement for section 75W modification applications, and is understood to have been based upon an observation made by Basten J in the NSW Court of Appeal case of *Barrick v Williams*, where he stated that a modification of a project approval "...was something intended to have limited environmental consequences beyond those which had been the subject of assessment."

This concept, which is summarised below, has informed the methodology for the environmental assessment of the Proposal.

Since the original approval of MP08_0098 was granted on 27 January 2009, the project has undergone several modifications. The Star presently comprises elements including gaming spaces, commercial spaces, retail spaces, restaurants, two theatres, two hotels, serviced apartments, a light rail station and underground parking spaces.

For the purpose of the comparative environmental assessment of Mod 13 under SEAR 1, the baseline environmental impacts have been defined as all those impacts that have been assessed up to and including 04 October 2017, being the date on which Mod 14 was approved. This baseline will be referred to in the EAR as the **Approved Project**.

With respect to each topic identified in the relevant SEARs, this EAR compares the environmental impacts that have been assessed for the Approved Project to the environmental impacts of the Proposal, and provides a conclusion on whether the impact is positive (i.e. a benefit), neutral, or negative and of limited environmental impact. Where the EAR identifies a negative environmental impact, it considers any mitigation measures that are recommended to be implemented to manage those impacts. The EAR then identifies whether those mitigated impacts will be limited beyond those already assessed for the Approved Project.

Finally, this EAR provides conclusions as to whether the Proposal, as a whole, has limited environmental impacts beyond those already assessed.

Summary of Findings

The environmental assessment concludes, from a merits perspective with respect to many issues identified in the SEARs, particularly the public domain, economic impacts, safety, heritage, and flooding risk, that the Proposal will comply with relevant EPIs, strategies, plans and guidelines and will deliver positive outcomes for the site and for Pyrmont.

As outlined in detail in Section 9, the Proposal will deliver positive outcomes because the Proposal:

- is a result of a robust design excellence process, and will enhance the Pyrmont peninsular in terms of built form, streetscape and public domain;
- includes a range of improvements to the site vehicle entries, pedestrian and cycle access;
- will create a landmark, exemplar development that contributes positively to the overall architecture of the city;
- includes public domain and access improvements will significantly improve the public interface with The Star and create a pedestrian friendly and inclusive environment;
- will deliver high quality and positive residential amenity for the future residents, balancing the needs of future occupants, whilst limiting potential external environmental impacts;
- will encourage public transport patronage;
- will achieve sustainability best practice outcomes and has been registered with the Green Building Council for certification. In addition, the Proposal will improve the energy efficiency capability of The Star;
- provides for 20% 'Universal Design' units and 15% 'Adaptable Units' in the residential tower. This will have a positive accessibility outcome as it will enable occupants to continue living in the same home as their mobility needs change;
- includes a Neighbourhood Centre which will provide a significant social benefit on the site and Pyrmont locality by providing a diverse range of social spaces for use by the local community;

 will have positive economic benefits for the Pyrmont area, and the wider Sydney metropolitan area and NSW generally, and will provide local employment opportunities and greater housing choice.

The EAR also concludes that the environmental impacts (including mitigation measures) of the Proposal are limited. A summary of the most relevant impacts forming the basis of this conclusion is set out as follows:

 Built form and design – The proposed hotel and residential tower addition will have a maximum height of 237 m (AHD). The proposed addition to the Approved Project will have impacts beyond the project as previously assessed.

However, the proposed built form and associated height is isolated to a discrete and comparatively small area of the site. The tower and podium have a footprint of approximately of $3,409m^2$, which equates to 8.7% of the overall site area of $39,206 m^2$.

The location of the tower has been chosen to respond positively to various constraints and considerations including existing building, heritage, transport operations, structural capacity, servicing and operational factors.

In addition, the Proposal's height, bulk and scale are consistent with other projects in the Darling Harbour / Bays Precinct which is an area of significant change within Sydney. The architectural form of the tower and podium exhibits design excellence and have been developed to ensure solar access to key public spaces, including Union Square and Pyrmont Bay Park is maximised.

The Proposal will result in a substantial revitalisation of the streetscape and public domain surrounding the site including the revitalisation of several entry points of the site.

Given the above, the impacts of Proposal relative to the Approved Project in terms of built form and design will be limited.

Visual impact – The overall impact of the Proposal on public domain views is limited because the Proposal will not obstruct the elements considered most important including water, the land-water interface, public places, heritage items or landmarks. The Proposal is also consistent with the anticipated future context of the locality, with taller buildings emerging around Darling Harbour today, as well as the future development of the Bays Precinct anticipated in strategic planning frameworks. The impact of the Proposal on the public domain views will be limited given the context of taller buildings, both recent and future.

The impact of the Proposal on private views will also be limited because the additional height of the tower element of the Proposal will generally only obstruct views of sky above a 28 m LEP compliant building envelope, whereas an LEP compliant building envelope would obstruct existing views of land, water, land-water interface, and land-sky interface.

In terms of private views, the Proposal will have a high impact on only 30 apartments in two buildings in the surrounding locality. The impact of the Proposal on private views is considered limited because the areas of the design which affect view loss of the most important elements (Darling Harbour, Sydney Harbour and the city skyline) for existing apartments are generally within the existing 28m Height of Building Control. In addition, within the context of an acknowledged area of growth within Sydney, that is also within proximity to Central Sydney, it would be unreasonable to expect that views from most residences within a street-wall building should remain unobstructed. To further mitigate its impact on private views, the Proposal has adopted an 'inset' at the lower-tower levels which widens the 'gap' for private views along the axis of John Street.

Overshadowing – The architectural form of the tower, podium and ribbon elements have been designed as a slender structure that casts a fast-moving shadow. The design ensures that there will be no prolonged loss of solar access at any particular location, and that solar access is maximised to Union Square and Pyrmont Bay Park. The Proposal, in comparison with the Approved Project, will result in minimal reductions in solar access to Union Square over a 12-month period, with no impact over core lunch hours.

The location and design of the tower minimises shadowing of neighbouring properties and will cast a shadow that falls predominately within the site, without adversely impacting the existing Astral Residences. The daylight impact analysis prepared by FJMT confirms there are only three instances where solar access to any part of a neighbouring apartment is reduced to below two hours between 9 am and 3 pm in mid-winter. In each instance, FJMT's analysis concludes that two hours of sun access will be maintained to the apartment's living room and balcony for residential

properties which currently experience more than two hours of daylight access. With regard to those residential properties which presently do not receive two hours of daylight access, FJMT's analysis found that these units will have their solar access reduced by less than 20%. Given the above findings, it is concluded that the Proposal will have negligible overshadowing and daylight access impacts.

 Lighting – In accordance with the recommendations of the Lighting Management Plan, a Master Lighting Control system will be implemented prior to occupation to allow for centralised control of all external lighting including event lighting.

It is anticipated that impact of the illuminated signage will be low because compliance with industry best practise design and relevant guidelines will mitigate any environmental impact.

Given the context of The Star as an entertainment destination and in the context of other developments in Darling Harbour including Barangaroo and the Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP), as well as the strict curfew restrictions, it is anticipated that the lighting environmental impacts of the Proposal in comparison to the Approved Project will be limited.

- Construction Impact The construction works proposed as a part of Mod 13 has the potential for traffic, noise and air quality impacts during the construction stage of the project. However, these can be managed to acceptable levels through implementing the comprehensive range of mitigation and management plans including the Construction Management Plan, the Traffic Impact Statement, the Noise Impact Assessment, the Air Quality Report, and existing conditions of approval.
- Tree Removal Seventy-two trees are located in the vicinity of the Approved Project. The Proposal will remove 24 of these trees and replace them with 13 Sydney Red Gums, 5 Little Gem Magnolias, and 6 Cabbage Tree Palms. While 16 of the trees to be removed are of a high retention value, this is not because of any special heritage or ecological significance, but simply because they are mature specimens that contribute to the amenity of the site and streetscape adjoining the site. Any loss of amenity will be temporary, as the existing trees to be removed will be replaced by species that will be larger at maturity than the existing trees.

All remaining trees surrounding The Star will be retained and protected during the construction of the Proposal.

Traffic, Parking, Transport and Access - The proposed strategy to mitigate traffic impacts relating to the Proposal includes the provision of a new car park entry on Pyrmont Street to spread the demand more evenly across the road network and reduce the pressure on Pirrama Road. The Proposal will have a limited impact on operational traffic flow within the local area based upon traffic generation and distribution.

There is adequate car parking capacity within the basement car park to accommodate the cumulative increase in demand arising from the Approved Project and the non-tower components of Mod 13. A car stacker with access from the internal service road has been proposed to accommodate the parking demands arising from residents, visitors and hotel guests of the Ritz-Carlton hotel and residential tower. This response is considered adequate to mitigate any adverse impacts on surrounding on-street parking for increased parking demand arising from the Proposal.

The management measures within the Loading Dock Management Plan will adequately mitigate any environmental impacts arising from the activities of the loading docks during the operational phase of the Proposal.

The Proposal will improve the pedestrian and bicycle access to and from the site, and improve the site's connection to the CBD along the Pyrmont Bridge and Darling Drive cycleways, which are identified as part of the strategic cycleway network in the Sydney City Centre Access Strategy.

The proposed Level B2 Interchange improvement works will support sustainable transport by making access to and from the Light Rail station legible and easy to access. These works will be complemented by the improvement in bicycle parking options on the site, which will also enhance the mode share of sustainable transport options to and from the site. The site is well-connected to several modes of public transport. By improving the interface of the site with various transport options, the Proposal will encourage a mode shift to public and active transport usage.

The Construction Management Plan and Traffic Impact Statement also provide a comprehensive range of mitigation and management measures that will limit the environmental impacts associated with the construction phase of the development to acceptable levels.

In summary, it is anticipated that the Proposal will have a limited impact on the traffic generation, road network performance, access and parking. The Proposal will also provide positive impacts on pedestrian and bicycle access, as well as public and active transport usage.

 Acoustics - The Noise Impact Assessment has assessed the noise impacts that will be generated by the Proposal generally, and in comparison, to the Approved Project in relation to mechanical plant and equipment, operational noise, entertainment noise from licensed premises, road traffic noise, and construction noise including construction traffic noise,

The potential mechanical plant and operational noise of the Proposal can comply with the existing conditions of MP08 0098 relevant to the off-site residential and commercial receivers.

The cumulative noise emissions from the entertainment areas of the Proposal and the Approved Project can meet the entertainment noise condition criteria for the off-site residential and commercial receivers. During the detailed design process, noise emissions will continue to be reviewed to confirm that compliance can be achieved.

The potential for road traffic noise impacts to occur on the surrounding roads as a result of additional traffic generated by the Proposal was assessed in line with the NSW Road Noise Policy (RNP). The assessment considered the forecast traffic growth and traffic generation from The Star, provided by Mott Macdonald, and the impact of previous modifications to MP08_0098 on traffic growth. The assessment predicted that the traffic generated by the Proposal can comply with the provisions of the RNP.

A noise and vibration assessment of typical construction equipment was assessed in line with the Interim Construction Noise Guideline and Australian Standard AS 2436-2010. The assessment identified noise management levels and mitigation strategies for managing noise and vibration where these levels are exceeded during the construction phase. These recommendations are designed to protect the amenity of occupants within and external to the site.

Measurements of the light rail vibration indicate that structure-borne noise and vibration will not impact the residential and hotel areas of the Proposal.

The potential for external ambient noise from the entertainment facility to impact noise sensitive uses within the proposed tower development including hotel bedrooms and residential accommodation has been assessed. Specifications have been incorporated into the final design for double glazed units for residential bedrooms to mitigate any adverse impacts from noise intrusion. Where internal noise levels cannot be met with windows open, mechanical ventilation and attenuated natural ventilation paths will be provided so that the windows can be closed and still provide adequate ventilation.

Various noise mitigation measures are proposed so that the Proposal will when completed will comply with the relevant criteria and terms of approval and be within established criteria.

The Noise Impact Assessment has reviewed the change in noise level between the Approved Project and the Proposal in accordance with the criteria set out in the relevant policies, guidelines and conditions of consent. On the basis of this review, it is concluded that the Proposal will have limited environmental impacts beyond the Approved Project in terms of noise and vibration impacts.

The assessment within this EAR will demonstrate that the Proposal has a limited environmental impact beyond that already assessed for the Approved Project.

Balancing the Proposal's environmental impacts, which can be mitigated to acceptable levels, against the many environmental benefits that it will bring, overall, it can be concluded that the Proposal's environmental impacts, beyond those already assessed, will be limited.

1 INTRODUCTION

1.1 OVERVIEW

This Environmental Assessment Report (EAR) has been prepared in support of an application to modify the Project Approval MP08_0098 for The Star Casino and Entertainment Complex Sydney (The Star) under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This application is Modification 13 (Mod 13).

This EAR has been prepared by Urbis Pty Ltd (Urbis) based on the architectural drawings prepared by FJMT, DWP and other technical reports and information appended. This EAR describes the site, its environs, the proposed modifications and addresses the terms of the Major Project Approval MP08_0098. This EAR should be read in conjunction with the supporting documentation and plans.

This EAR has been prepared in accordance with the requirements of Part 3A of the EP&A Act, and presents modifications to the conditions of the Major Project Approval MP08_0098.

Urbis, on behalf of the Star Entertainment Group Limited (SEGL), made a request for Secretary's Environmental Assessment Requirements (SEARs) under clause 3, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* in relation to the modification of the Major Project Approval MP08_0098. The request was made on 17 December 2015. SEARs were issued on 9 February 2016 and amended on 9 May 2016.

1.2 PROJECT OBJECTIVES

SEGL is a leading operator of integrated resorts catering to both local and international visitors and is the operator of The Star. SEGL is proposing a revitalisation of the existing complex to ensure The Star continues to operate to a first-class international standard.

The objectives of Mod 13 are to:

- Refresh the existing development to create a landmark, exemplar development that exhibits design excellence within the City of Sydney, and contributes positively to the overall architecture of the City;
- Create desirable places to live, work and play with different characteristics, and provide an integrated resort experience to the visitors of The Star;
- Leave a positive legacy of SEGL's historical involvement in the locality of Pyrmont, including a positive contribution to the quality of public domain areas;
- Deliver a project that meets or exceeds very high-level benchmarks for environmental, social and economic sustainability; and
- Provide these positive outcomes with limited environmental impacts.

1.3 THE PROPOSAL

Mod 13 seeks approval for the following works and activities:

- Ritz-Carlton Hotel and Residential Tower: Part demolition of the existing development at the coroner of Pirrama and Jones Bay Road and the construction of a 237-m tower comprising 204 residential apartments and 220 hotel rooms, residential and hotel lobbies, a hotel club lounge, a neighbourhood centre within the tower podium, an F&B premises fronting Jones Bay Road, and a car-parking stacker system and associated development;
- The Ribbon: A new 'ribbon' element at Level 07 connecting the new tower to The Star along the Pirrama Road frontage, comprising two pools (one for new hotel, one for The Star), associated pool decks and F&B premises with associated store rooms and facilities, residential communal open space, separate gymnasiums and associated facilities for the residents and hotel guests, and landscape treatment;
- Level 05 Sky Terrace: New Level 05 Sky Terrace incorporating F&B premises with external areas, landscaping treatment, pool and pool deck upgrades for the Astral Hotel and Residences, day spa and completion of the Vertical Transportation drum to connect Level 05 to the levels below;

- **Façade Integration Works**: Upgrades to the facades at Pirrama Road and Jones Bay Road to integrate the new Ritz-Carlton Hotel and Residential Tower with the existing building;
- Infrastructure Upgrades: Upgrades including new plant rooms, relocation of cooling towers and main switchboards, new capstone microturbine units and associated flues, relocation of diesel generator flues, and upgrades to the Jones Bay Road Loading Dock and the Event Centre Loading Dock;
- Level B02 Transport Interchange: Integration of the new Ritz-Carlton Hotel and Residential drop-off/pick-up
 arrangements, new commuter bike parking and bike-hire system, upgrade of finishes to light rail station surrounds
 including removal of existing walls adjacent to the Pirrama Road frontage, upgrades to taxi rank arrangements, new
 coach parking, and line-marking/realignment of kerbs;
- Transport improvements local road works: Median strip works and line-marking on Jones Bay Road and Pyrmont Street to enable a new right-hand turning lane into the Astral porte-cochere, new Pyrmont Street carpark entry/exit and associated works, and relocation of the existing taxi-rank from Jones Bay Road to the Level B02 transport interchange;
- Site-wide Landscape and Public Domain Upgrades: Upgrade to street frontages along Pirrama Road, Jones Bay Road, and Pyrmont Street, as well as entrance upgrade to the SELS building at Jones Bay Road and Pyrmont Street;
- Road signage works (Pyrmont Parking Guidance System): Additional signage upgrades to the Pyrmont Parking Guidance System to support Mod 13;
- Level 00 Restaurant Street: Creation of a new destination restaurant street incorporating existing retail spaces and F&B premises on Level 00;
- F&B Premises other locations: Reconfiguration of Harvest Buffet and refurbishment of Bistro 80;
- Darling Hotel Corner: Upgrade of the corner plaza at the Edward/Union Street and Union/Pyrmont Street property entries including a new F&B premises located at the Edward/Union Street entry on Level 01 and Level 02, a new awning enclosure for the existing café at the Union/Pyrmont Street entry, and two luxury display cases at the Darling Hotel carpark entry;
- Site Wide Acoustic Strategy and 3D Noise Model: A comprehensive review of the acoustic properties of the site, as well as the design and construction of permanent solutions to allow The Star to operate on a 24/7 basis while maintaining compliance with relevant regulatory requirements and the conditions of the approval included in the MP08_0098 Project Approval;
- Site Wide Lighting Strategy including Special Lighting Events: A site-wide lighting strategy comprising lighting works to the proposed Ritz-Carlton Hotel and Residential Tower, and modernisation of the existing lighting across the site. The use of temporary Vivid Sydney lighting installation as a permanent installation for special events. The proposed hours of operation are from 6:00pm to 11:00pm during Vivid Sydney and dusk to 11:00pm for up to 53 nights per calendar year;
- Signage Upgrades: Installation of new signage works including building identification (on existing buildings and the Ritz-Carlton Tower), business identification (including F&B premises), and way-finding signage;
- **Stormwater Upgrades**: Stormwater upgrade works including increased pit inlets and pipe capacities in order to decrease potential flood risk to the site, adjacent existing properties and the general public; and
- Land Administration: Undertake subdivision to create five (5) stratum lots to support the different elements of the Star including the casino, the hotel and residential apartments; and
- Modifications of Conditions: Modifications of conditions as may be required.

1.5 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The Mod 13 SEARs are addressed in this EAR and the appended technical reports, as set out below in **Table 1**. A complete copy of the SEARs is included at **Appendix A**.

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REQUIREMENT	COMMENT		
General Requirements			
The modification application must include:			
An executive summary.	An executive summary is provided at page 10 of this EAR, providing a summary of the content within this assessment report		
A description of the existing and surrounding environment.	Addressed in Section 3.		
 A thorough description and justification of the Proposal, including: A detailed justification for increases in height, GFA and additional car parking; Identification and analysis of alternatives, in particular for the hotel and residential tower, and environmental impacts; and Description of the public benefits arising from the Proposal. 	Addressed in Section 9.1 and 9.15 . The public benefits have been addressed throughout Section 9 of the EAR. Alternatives for the hotel and residential tower are addressed in Design Excellence Report at Appendix F .		
Consideration of any statutory provisions	Addressed in Section 6.		
A detailed assessment of the key issues specified below, including:			
- A description of the existing environment; and	Addressed in Section 3.		
 An assessment of the potential impacts of the modifications, including cumulative impacts. 	Addressed in Section 9.		
An amendment to the approved Statement of Commitments (where relevant).	Addressed in Section 13.		
A conclusion justifying the Proposal, taking into consideration the environmental impacts of the Proposal, and the suitability of the site.	Addressed in Section 9 and Section 14.		
1. Relevant EPIs, Strategies, Plans and Guidelines			
Address the relevant EPIs, Strategies, Plans and Guideline provisions	that would apply to the site:		
State Environmental Planning Policy (State & Regional Development) 2011	Addressed in Section 6.2.		
State Environmental Planning Policy No 55 – Remediation of Land	Addressed in Section 6.3 and Section 9.35.		
State Environmental Planning Policy (Infrastructure) 2007	Addressed in Section 6.4 and the Traffic Impact Statement provided at Appendix J .		
State Environmental Planning Policy No 64 – Advertising and Signage	Addressed in Section 6.5 and Section 9.8 and in the Signage Strategy at Appendix AAA .		
State Environmental Planning Policy No 65 Design Quality of Residential Apartment Development	Addressed in Section 6.6 . Detailed assessment provided within the Architectural Design Statement at Appendix C.		

REQUIREMENT	COMMENT
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	Addressed in Section 6.7 and the Sustainability Report in Appendix Z.
Draft State Environmental Planning Policy (Environment) 2017	Addressed in Section 6.8.
Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 and Foreshores and Waterways DCP	Addressed in Section 6.9.
State Environmental Planning Policy (Coastal Management) 2018	Addressed in Section 6.10.
Draft Remediation of Land State Environmental Planning Policy	Addressed in Section 6.11.
Sydney Local Environmental Plan 2012	Addressed in Section 6.12.
City of Sydney Development Contributions Plan 2015	Addressed in Section 6.12.
Sydney Development Control Plan 2012	Addressed in Section 6.13.
ISW State Priorities	Addressed in Section 7.1.
he Greater Sydney Region Plan	Addressed in Section 7.2.
Eastern City District Plan	Addressed in Section 7.3
Future Transport Strategy 2056	Addressed in Section 7.4.
Sydney City Centre Access Strategy 2013	Addressed in Section 7.5.
Sydney's Cycling Future 2013	Addressed in Section 7.6.
Sydney's Walking Future 2013	Addressed in Section 7.7.
Sydney's Light Rail Future 2013	Addressed in Section 7.8.
Sustainable Sydney 2030	Addressed in Section 7.9.
Draft Central Sydney Planning Strategy	Addressed in Section 7.10.
isitor Accommodation Action Plan	Addressed in Section 7.11.
ourism 2020	Addressed in Section 7.12.

Demonstrate that the Proposal has limited environmental impacts beyond those already assessed for Project Approval MP 08_0098 and any subsequent modifications to that approval This has been addressed within the following sections of the EAR - Section 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16, 9.17, 9.18, 9.19, 9.20, 9.21, 9.22, 9.23, 9.24, 9.25, 9.26, 9.27, 9.28, 9.29, 9.30, 9.31, 9.32, 9.33, 9.34, 9.35, 9.36, 9.37, 9.38, 9.39, and 11.1.2

2. Built Form and Design Excellence

- Demonstrate design excellence through an alternative design excellence process endorsed in writing by the Secretary which includes:
 - a design brief requiring a minimum of three alternative

An Alternative Design Excellence Process has been undertaken, and three alternative design options were considered. Refer to the Design Excellence Report at **Appendix F.** Following the Design Review Panel's (DRP's) endorsement of the refined scheme in March 2017, FJMT has

	REQUIREMENT	COMMENT
	 design options for the Proposal; establishment of a design review panel to review each alternative and inform the preferred design; and 	been retained for the detailed design development of the Proposal in preparation for lodgement of Mod 13. SEGL is committed to retaining FJMT as the project architects for the upcoming design phases of Mod 13 which will include post- lodgement, determination, post-determination, and the
	 mechanisms to retain the architect during the design and construction of the scheme. 	construction phases of the Proposal. See Section 8.6.
	Address the height, bulk and scale of the proposed development within the context of the locality.	Addressed in the Urban Context Report at Appendix G , the Architectural Design Statement at Appendix C , the Contextual Analysis at Appendix XX and the Peer Review of the Urban Context Report and Contextual Analysis at Appendix YY and Section 9.1 .
	Address visual impact when viewed from the public domain and key vantage points surrounding the site.	Addressed in the Visual Impact Assessment at Appendix H, the Peer Review of the Visual Impact Assessment at Appendix ZZ and Section 9.3 .
	Address design quality, with specific consideration of the overall site layout, siting and design, orientation, vistas and connectivity, street activation, open spaces and edges, façades, massing, setbacks and building articulation.	Addressed in the Architectural Design Statement at Appendix C and Sections 9.1 , 9.2 , 9.3 , 9.4 , 9.5 , and 9.6 .
•	Provide a table identifying the proposed development's different land uses including a floor-by-floor breakdown of GFA, total GFA and site coverage.	Addressed in Table 4 and Table 5.
. A	Amenity	
	Address and outline design principles incorporated into the development in terms of sunlight/overshadowing, natural ventilation, wind impacts, reflectively, visual and acoustic privacy, and safety and security.	Addressed in Sections 9.5, 9.6, 9.22, 9.21, 9.3, and 9.12.
	Demonstrate consistency with the requirements of SEPP 65 and the Apartment Design Guide.	Addressed in the Architectural Design Statement at Appendix C and Section 6.6.
. \	/isual Impacts	
	A Visual Impact Assessment must be undertaken to identify the visual changes and view impacts of the development.	Addressed in the Visual Impact Assessment at Appendix H, the Peer Review of the Visual Impact Assessment at Appendix ZZ and Section 9.3 .
5. T	raffic, Car Parking, Transport and Access	
	e modification application shall include a Traffic and Transport act Assessment that:	Addressed in the Traffic Impact Statement at Appendix J an at Section 9.14, 9.15, 9.16, 9.17, 9.18 , and 9.20 .
	Evaluates daily and peak hour vehicle, public transport and pedestrian movements likely to be generated by the development (construction and operation) including peak traffic movements.	Addressed in video simulations for the Porte Cochere and right turn into Jones Bay Road microsimulation videos. Note: these video files are submitted electronically.
	Models and assesses the current and future performance of key intersections providing access to the site under 'project and 'no project' scenarios, and identifies any upgrades (road/intersections) required as a consequence of the Proposal.	
	Evaluates the cumulative impacts and potential conflict with traffic movements generated by existing and approved development in the vicinity of the site.	
	Assesses the ability of existing and future public transport	

Proposal

- Assesses and details the impacts on the light rail (including passenger access to platforms) to ensure the development does not adversely impact on its safe and efficient operation;
- Outlines existing public transport services and opportunities for greater usage for workers and visitors;
- Details sustainable travel initiatives for workers and visitors, particularly for the provision of end-of-trip facilities;
- Details existing and proposed vehicular access and car parking arrangements for workers and visitors (cars, coaches/buses & taxi ranks), including compliance with parking codes and Australian Standards;
- Details of the potential impacts to access and manoeuvring in the bus interchange;
- Identifies pedestrian and cycle connections/circulation, particularly the cycle network identified in the Sydney City Centre Access Strategy;
- Details access arrangements for emergency and service vehicles, including loading dock arrangements; and

In relation to Construction Traffic:

- Outlines anticipated daily and peak hour light and heavy vehicle movements to and from the site;
- Outlines car parking and work zones for construction traffic;
- Outlines access arrangements for workers to/from the site, emergency vehicles and service vehicle movements;
- Outlines measures to mitigate construction traffic impacts on vehicles, pedestrians, cyclists and public transport operations; and
- Outlines measures to maintain pedestrian and cyclist safety during construction

6. Public Domain and Public Access

- Identify proposed streetscape, open space, public domain and key pedestrian linkages with and between other public domain spaces existing and proposed buildings and surrounding areas.
- Identify and assess the impacts of any proposed building identification signage, including safety impacts on traffic and public transport operations.
- Identify important sight lines and visual connectively to and through the site
- Identify any change to the use and/or layout of the site and development and associated impacts on circulation movements, access and linkages
- Address cumulative management of proposed access arrangements.
- Outline specific design features:
 - Footpaths and pavements, roads and/or rights of

Construction traffic impacts are addressed in the Traffic Impact Statement at **Appendix J** and **Section 9.20**.

Addressed in the Architectural Design Statement at **Appendix C** and **Section 9.4**.

Addressed in the Architectural Design Statement at **Appendix C**, the Signage Strategy at **Appendix AAA** and **Section 9.2**.

Addressed in the Architectural Design Statement at **Appendix C** and **Section 9.3**.

Addressed in the Traffic Impact Statement at $\ensuremath{\textbf{Appendix}}\xspace$ J and $\ensuremath{\textbf{Section 9.15}}\xspace$.

Addressed in the Traffic Impact Statement at **Appendix J** and **Section 9.15** and **9.16**.

Addressed in the Traffic Impact Statement at Appendix J, the Architectural Design Statement at Appendix C, the

andscape Design Report at Appendix E , Electrical frastructure Report at Appendix BB , the Water lanagement Report at Appendix CC , and the Flood Impact ssessment at Appendix DD .
ection 9.26. ddressed in the Heritage Impact Statement at Appendix P nd the Aboriginal and Historical Archaeological Assessment
ection 9.26. ddressed in the Heritage Impact Statement at Appendix P nd the Aboriginal and Historical Archaeological Assessment
nd the Aboriginal and Historical Archaeological Assessment
nd the Aboriginal and Historical Archaeological Assessment
ddressed in Section 6.3 and Section 9.37.
 wo separate Infrastructure Management Reports have been repared, being the Electrical Infrastructure Report at ppendix AA and the Hydraulic Infrastructure Report at ppendix BB. The Electrical Infrastructure Report and lydraulic Infrastructure Report constitute the Infrastructure Ianagement Plan required by the SEARs. n addition, a comprehensive Traffic Impact Statement has een provided at Appendix J. betails regarding any augmentation have been included at: Traffic and Light Rail: Section 9.14, 9.15, 9.16, 9.17, and 9.19. Services: Section 9.32. Stormwater: Section 9.33.
A A H M Ir b

11. Air, Noise and Odour

REQUIREMENT	COMMENT
Address potential air quality, noise and odour impacts, in particular during the construction and operation of the development and appropriate mitigation measures.	A Noise Impact Assessment has been undertaken and is provided at Appendix K . Noise impacts are addressed under Section 9.12 .
	An Air Quality Report has been prepared by WSP and is provided at Appendix EE . Air quality and odour impacts are addressed under Section 9.11 .
12. Drainage and Stormwater	
 Prepare a Stormwater and Drainage Assessment to assess the impacts of the Proposal on surface and groundwater hydrology and quality. Identify appropriate water quality management measures focussing on the management of the impacts from the proposed works. 	 A Water Management Report has been prepared by Umow Lai and is provided at Appendix CC. A Flood Impact Assessment has been prepared by TTW and is provided at Appendix DD. Drainage and stormwater are addressed in Section 9.33.
 Prepare an Integrated Water Management Strategy. This should include water, stormwater and wastewater management, including any re-use and disposal requirements, demonstration of water sensitive urban design and any water conservation measures 	
13. Staging	
Details regarding the staging of the proposed development.	The Construction Management Plan at Appendix HH provides information on the indicative phasing of construction The Construction Management Plan notes that the detailed staging of construction will be developed in consultation with SEGL, with a construction programme to be prepared by the Main Contractor to mitigate any impact on operation facilities and on the adjoining neighbourhood.
14. Prescribed Airspace for Sydney Airport	
Identify any impacts of the Proposal on the prescribed airspace for Sydney Airport, including impacts of cranes required for construction.	An Airspace Application and Assessment was undertaken by Thomson GCS and is provided at Appendix S .
	A Prescribed Airspace Application for building and cranes to penetrate the Sydney Airport prescribed airspace was submitted to the Sydney Airport Corporation Ltd, and a copy of this application is provided at Appendix S .
	Approval for penetration of 'prescribed airspace' was obtained from the Department of Infrastructure, Regional Development and Cities 22 March 2018.
15. Developer Contributions	
Scope of developer contributions proposed in accordance with the Draft Sydney Contributions Plan 2015.	Developer contributions are discussed in Section 6.10 .
Consultation	
During the preparation of the modification application, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular, you must consult with:	Addressed in Section 5 and Table 10 .
 Commonwealth Department of Infrastructure and Regional Development; 	

REQUIREMENT

COMMENT

- City of Sydney Council;
- Roads and Maritime Services;
- Transport for NSW (CBD Coordination Office);
- Sydney Light Rail;
- Sydney Trains;
- Office of Liquor, Gaming and Racing;
- Heritage Council;
- Sydney Water;
- Ausgrid;
- Local heritage group/s; and
- Local Aboriginal Land Council and relevant stakeholders.

Plans and Documents

Existing Site Survey Plan

An existing site survey plan drawn at an appropriate scale illustrating:

- the location of the land, boundary measurements, area (sqm) and north point;
- the existing levels of the land in relation to buildings and roads;
- location and height of existing structures on the site;
- location and height of adjacent buildings and private open space; and
- all levels to be to Australian Height Datum (AHD).

Locality/Context Plan

A locality/context plan drawn at an appropriate scale should be submitted indicating:

- significant local features such as parks, community facilities and open space and heritage items;
- the location and uses of existing buildings, shopping and employment areas; and
- traffic and road patterns, pedestrian routes and public transport nodes.

Drawings

Drawings at an appropriate scale illustrating:

- the location of any existing building envelopes or structures on the land in relation to the boundaries of the land and any development on adjoining land;
- detailed plans, sections and elevations of the concrete batching plant;
- the height (AHD) of the proposed development in relation to the

Provided within the Architectural Plans at Appendix B.

Addressed in the Urban Context Report at **Appendix G** and the Architectural Design Statement at **Appendix C**.

Addressed in the Urban Context Report at **Appendix G**, the Contextual Analysis Report at **Appendix XX**, the Architectural

Design Statement at Appendix C and the Traffic Impact

Assessment at Appendix J.

	REQUIREMENT	COMMENT
•	land; and any changes that will be made to the level of the land by excavation, filling or otherwise.	
Land	dscape Plan	
Lanc	Iscape plan illustrating treatment of open space areas on the site.	Provided at Appendix D .
Sha	dow Diagrams	
area	dow diagrams showing solar access to the site and surrounding s at summer solstice (Dec 21), winter solstice (June 21) and the nox (March 21 and September 21) at 9.00 am, 12.00 midday and pm.	Provided at Appendix C .
3D N	lodelling	
	nodelling and a physical model of the proposed modifications be prepared in accordance with City of Sydney's requirements.	A 3D model and physical model will be provided in accordance with the City of Sydney's requirements.
Visu	al Impact Assessment	
	Visual Impact Assessment, including focal lengths, must be done cordance with Land and Environment Court requirements.	A Visual Impact Assessment is provided at Appendix H and Visual Impact Assessment Peer Review at Appendix ZZ .
Visu	al Assessment Methodology	Visual Impacts are addressed in Section 9.3.
•	The consultant's methodology should be explicit. This may include a flow-chart indicating how the analysis is to be undertaken, or a narrative description of the proposed sequence of activities. As part of the methodology, the consultant should provide, and explain, criteria for assessment relevant to the site, local context and proposed built form and public domain outcomes. A rationale should be provided for the choice of criteria. Criteria must include reference to the planning framework.	
٠	Visual catchment should be defined and explained (see below).	
٠	An assessment matrix should be produced including number of viewers, period of view, distance of view, location of viewer to determine potential visual impact - i.e. high, medium or low.	
Visual catchment		
•	Potential visual catchments and view locations, including contours (areas from which the development is visible) should be identified. This must include, but is not limited to Pyrmont Street, Pirrama Road, Heritage Walk, Jones Bay Road, Darling Island Road, Sydney Observatory, Sydney Observatory Park, Darling Harbour, Sydney Harbour Bridge, Pyrmont Bridge, Pyrmont Bay Park, Darling Island, Jones Bay Wharf, Barangaroo, East Balmain, King Street Wharf, Millers Point, Watermark Building, 2 Jones Bay Road, 24 & 26 Point Street and 88 John Street.	A Visual Impact Assessment is provided at Appendix H and Visual Impact Assessment Peer Review at Appendix ZZ .
•	Categories of views (e.g. from the water, from public open space, from key streets, from main buildings and from key heritage items) should be defined.	
	Photos are required for representative view categories, plotted	

REQUIREMENT

Visual material

- Reference to be made to site analysis. Provide key plan indicating where viewpoints are located and narrative explaining why these have been selected.
- The modified and approved built form should be illustrated in the context of the visual catchment to enable assessment of the visual impact.
- The location of cross-sections should be clearly shown on a key plan and the choice of positions explained. The cross sections should be shown in the context of the visual catchment.
- Vertical exaggeration should provide an accurate rather than 'flattened' impression of buildings in the context of the visual catchment.
- A key plan must be provided for photomontages. In addition, the choice of locations should be explained. Photomontages should be provided for close as well as distant views.
- Assessment must benchmark against the existing situation and currently approved plans.
- Photomontages to be provided for key viewpoints from all directions, and from several positions within the visual catchment.
- As above, support visual evidence such as cross sections to be drawn to realistic scales and shown in context.
- A comparison of 'before', 'approved' and 'proposed' is fundamental to a Visual Impact Assessment, therefore the Visual Impact Assessment (A3 in size) should be undertaken using human eye focal lengths (50mm at 35mm FX format and 46 degree angle of view) from long range, medium range and short range positions so that they can be assessed with respect to visibility, visual absorption capacity and visual impact rating, as well as a comparison analysis with the approved project.

COMMENT

A Visual Impact Assessment is provided at **Appendix H** and Visual Impact Assessment Peer Review at **Appendix ZZ**.

1.6 PROJECT TEAM

 Table 2 provides details of the project team including company name and area of expertise.

Table 2 – Project Team		
DISCIPLINE	CONSULTANT	
Proponent	The Star Entertainment Group Limited	
Urban Planning	Urbis	
Architecture	FJMT & DWP	
Landscape	Urbis	
Urban Design	Urbis	
Heritage	Urbis	
Social Impact	Urbis	
Economic Impact Assessment	PWC	
Traffic and Parking Assessment	Mott MacDonald	
Visual Impact Assessment	Architectus	
Reflective Study	CPP	
Accessibility	McKenzie Group	
Building Code of Australia	McKenzie Group	
Contamination Assessment	JK Geotechnics	
Ecologically Sustainable Development	WSP	
Hydraulics	Umow Lai	
Geotechnical	JK Geotechnics	
Acoustics	WSP	
Wind Study	СРР	
Structural Engineer	WSP	
Fire Engineering Statement	WSP	
Aboriginal Heritage & Archaeology	Urbis	
Impact on Sydney Airport airspace	Thomson GCS	
Waste Management	WSP	
Construction Management	WSP	
Quantity Surveyor	RLB	
Survey and Subdivision	Veris	

1.7 STRUCTURE OF THE REPORT

This EAR is structured as follows:

- Section 2 Background and Historical Approvals: Provides an overview of historic modifications and development applications;
- Section 3 Site and Surrounds: Provides a description of the site, the regional and local context;
- Section 4 The Proposed Modification: Provides a description of the proposed works.
- Section 5 Community and Stakeholder Engagement: Describes the consultation undertaken with the relevant agencies and service providers.
- Section 6 Statutory Context: Provides a detailed review of the Proposal against the State and local planning framework.
- Section 7 Strategic Context: Provides a detailed review of the Proposal against the State and local strategic policies.
- Section 8 Design Excellence: Describes the alternative design excellence process and a summary of the process and outcome.
- Section 9 Environmental Assessment: Provides an in-depth assessment of the existing environment, the
 potential impact, and the mitigation measures proposed. This section also includes an assessment of the cumulative
 and limited environmental impacts.
- Section 10 Mitigation Measures: Describes the proposed environmental mitigation measures.
- Section 11 Consideration Against Secretary Environmental Assessment Requirements: Provides consideration of the Proposal against the SEARs.
- Section 12 Modifications to Conditions: Outlines modifications to conditions of MP08_0098.
- Section 13 Statement of Commitments: Outlines the proposed refinement to the current Statement of Commitments.
- Section 14 Conclusion

2 BACKGROUND AND HISTORICAL APPROVALS

2.1 SITE BACKGROUND

The site was historically occupied by the Pyrmont Power Station, one of two key electricity generating plants located on the Pyrmont Peninsula. The power station was decommissioned in 1983 and afterwards remained derelict for almost a decade. Most of the structures on the site were demolished in 1993 as part of the development of the temporary Sydney Harbour Casino.

2.2 ORIGINAL MAJOR PROJECT APPROVAL

Development Application 33/94 was approved by the Minister for Planning on 9 December 1994 under section 91 of the EP&A Act and clause 6(1) of State Environmental Planning Policy No 41 – Casino Entertainment Complex for a permanent casino and entertainment complex including a hotel, serviced apartments, theatres, restaurants, bars, car parking and associated facilities on the site. The Star City Casino and Entertainment Complex began operation in November 1997.

2.2.1 Subsequent Major Project Approval 08_0098

In 2007, a major expansion of The Star City Casino (known as 'Project Star') comprising the following elements was proposed:

- The construction of a 10-storey hotel above a 3-storey podium containing ancillary retail, gaming and conference facilities on the current vacant Switching Station site;
- Additional basement car parking on the Switching Station site to be accessed via the existing Casino complex car park. (Note: the maximum number of car parking spaces across the whole site is not to exceed 3,000);
- Re-development of the retail arcade through the ground floor level of the complex, linking Pyrmont Bay Park to the intersection of Union and Pyrmont Streets, and to Jones Bay Road;
- Redevelopment of the eastern (Pirrama Road) frontage of the Casino building, to contain additional restaurants, gaming space, other entertainment and tourist related facilities, a new entry and a driveway providing a new vehicular drop-off to the Casino; and
- Works to the exterior of the existing Casino tower buildings.

On 27 May 2008, the Minister formed the view that the Proposal presented in Major Project Application MP08_0098 was development to which Part 3A of the EP&A Act applied. This application was approved by the Minister for Planning on 27 January 2009.

A number of modifications to Project Approval MP08_0098 have been approved under section 75W of the EP&A Act as follows:

- Modification 1 (3 March 2009) modifying conditions A6 and B1 to provide clarity in respect of specific condition requirements;
- **Modification 2** (25 March 2009) modifying condition B2 to provide clarity in respect of the approved hotel height;
- Modification 3 (6 April 2009) modifying condition B4 to allow a staged agreement process for excavation within the vicinity of the rail tunnel easement;
- Modification 4 (1 December 2009) modifying the approval to facilitate an alternative façade design, consolidation
 of porte-cochere, reconfiguration of the entry arrangements and extension to the entertainment deck;
- Modification 5 (20 July 2010) modifying conditions to alter general project arrangements, reflect revised BCA capability and extend hours of construction;
- Modification 6 (9 September 2009) deleting Level 13 and increasing the floor to ceiling heights on Levels 11 and

12 of the hotel, along with a reduction in the number of suits on Levels 6 to 12, resulting in an overall reduction in the total number of hotel suits from 252 to 173;

- Modification 7 (29 July 2011) modifying the approval to facilitate the construction of the Multi-User Entertainment Facility (MUEF) on Level 4 roof top terrace area;
- Modification 8 (16 November 2010) modifying the approval to facilitate the partial enclosure of the existing outdoor terrace adjoining the Sovereign Room on level 3;
- Modification 9 (13 October 2011) modifying the approval to facilitate the relocation of the night club to the southern end of Level 2 and relocation of the restaurant to the northern end of Level 2;
- Modification 10 (16 December 2011) modifying the approval to facilitate a change to the cladding material on the façade of the MUEF;
- Modification 11 (17 October 2012) modifying Condition F1 to permit the playback of background music and DJ/live music events on the Level 3 Darling Pool Terrace;
- Modification 12 (14 October 2014) modifying Condition F1 to permit the installation of speakers on the Level 3 Pirrama Road Entertainment Deck and within the Level 1 Pirrama Road unenclosed gaming areas. Modification to Condition F3 to enable the continued and permanent use of the Level 1 Pirrama Road unenclosed gaming area for 24-hour per day use; and
- Modification 14 Mod 14 was determined in October 2017 and included approval of a range of upgrades to The Star. These upgrades included:
 - The enclosure of the level 3 terrace to facilitate an expansion in gaming floor area and a new bar and restaurants,
 - Expansion of the level 3 pre-function space,
 - Changes to the Astral Hotel lobby and retail space,
 - Alterations to internal vertical transportation, and
 - Services and infrastructure upgrades, including the harbour heat rejection system.

Mod 14 is described in further detail in Section 2.2.2. below.

2.2.2 Modification 14

The Mod 14 upgrades predominantly relate to infill works including existing terrace and roof spaces. The works are contained internally to the site and result in minimal changes to existing building façades. The works will generally improve functioning, circulation and amenity within The Star and will contribute to the redevelopment of The Star to satisfy obligations to the NSW Government to maintain the site to a first-class international standard for casinos and casino complex in general. The works are generally constrained to Level 00 to Level 05. The base plans for Mod 14 consolidated all historically approved and constructed works on site. The approved drawings identify the breakdown of approved floorspace by land use type. Mod 14 also incorporated operative conditions from a number of historical development consents as they relate to gaming and those consents have been surrendered by SEGL.

The main works will deliver an increase in GFA including:

- The expansion of the 'Sovereign Resort' gaming floor at Level 3; and
- Improved functioning of the MUEF at Level 03 by providing additional pre-function space.

In addition, Mod 14 works include upgrades of the following areas:

- Existing circulation spaces;
- Column strengthening;
- The Porte Cochere;
- The SELS Building (including a lighting strategy);

- Level 5 of the Astral Towers; and
- Mechanical and electrical services including the harbour heat rejection system.

The consolidation of the approved and constructed work into the base plans for Mod 14 and the incorporation of relevant operative conditions of the historic development consents into the Terms of Approval of MP08_0098 will deliver:

- A rationalisation of the existing plans which document the Approved Project on site and form the basis for the proposed works;
- A rationalisation of existing conditions which allow for the effective, holistic operating of the site from both a compliance and management perspective; and
- Clarity in relation to the applicable controls that manage the operation of The Star.

The operative conditions of transferred into the Major Project Approval relate to:

- Gaming floor space or gaming related floor space;
- Areas of the site where works are occurring under Mod 14; and
- Areas on the main gaming floor.

Mod 14 included a consolidated 'as built' plan set. This plan set includes all development that had been approved and constructed. These as-built plans plus the approved Mod 14 works form the base for the Mod 13 plan set.

2.3 LOCAL APPROVALS

Combined with the overarching Major Project Approval and associated modifications, the following section contains details of the Local Development Approvals, granted by the City of Sydney that have been commenced and remain current.

2.3.1 Signage Approvals

The City of Sydney has issued a total of six (6) development approvals for signage on the site. These include:

- D2011/988 Astral Hotel and Residences Signage approved on 08 January 2011.
- D2011/987 The Darling Signage approved on 08 January 2011.
- D2011/986 Replacement of existing illuminated building identification signage on the north-eastern elevation of the Star City Casino lift shaft approved on 08 January 2011.
- D2012/431 Sokyo Restaurant Signage approved on 05 April 2012.
- D2015/479 Installation of free standing steel signage and associated lighting to existing garden bed (THE STAR letters) approved on 30 June 2015.
- D2016/1368 Removal of existing glass partition with signage. New solid partition with signage Gojima approved 1 February 2017.

2.3.2 Food and Beverage Approvals

A total of 12 Development Approvals for the operation of Food and Beverage premises within The Star have been issued by the City of Sydney, including:

- D/2013/1259 (Pizzaperta).
- D/2011/19 (Balla).
- D/2011/18 (Black).
- D/2011/862 (Century).

- D/2011/19/A (Balla extension of trial period.
- D/2011/19/B (Balla extend trading hours).
- D/2011/18/A (Black extension of trial period).
- D/2011/18/B (Black extend trading hours).
- D/2015/1826 (Sky Terrace Marquee & Lift).
- D/2012/1006 (L03 Pool Deck & L06 Plant Room Modification).
- D/2012/802 (the lighting of the MUEF).

D/2016/48 was approved on 15 July 2016 and will not be constructed; the approved works will be subsumed as part of Mod 13.

3 SITE AND SURROUNDS

This chapter will identify the site and described the existing context and development, as well as the key operational elements of The Star.

3.1 SITE LOCATION AND DESCRIPTION

The Star is located at 20-80 Pyrmont Street, Pyrmont (the site). The site is comprised of multiple lots and the legal description and ownership is set out in **Table 3**.

The site is bounded by Pirrama Road to the north-east, Jones Bay Road to the north-west, Pyrmont Road to the southwest, Union Street to the south and Edward Street to the east. The location and configuration of the site is shown in **Figure 1** below.

The site (excluding Lot 1 in DP 867854 and Lot 201 in DP 867855 to the north), has an area of 39,206 m².

The site is leased by SEGL from Independent Liquor and Gaming Authority (ILGA). SEGL as the operator of The Star, has a casino licence to operate the casino through to the year 2093.



Figure 1 – Aerial Image of the Subject Site (base map source: maps.six.nsw.gov.au)

3.2 LEGAL DESCRIPTION AND OWNERSHIP

The site is comprised of the following lots as shown in Table 3 below.

Table 3 – Legal Description and Ownership			
Details	Uses	Ownership	
Lot 211 in DP 870336	The Light Rail Corridor	Owned by Rail Corporation New South Wales	
Lot 500 in DP 1161507	The Star site	Owned by ILGA, leased by SEGL	
Lot 301 in DP 873212	Astral Hotel	Owned by ILGA, leased by SEGL	
Lot 302 in DP 873212	Astral Residences divided into strata (Strata Plan - SP 56913);	Stratum owned by ILGA, leased by SEGL	
Lot 1 in DP 867854	Service road	Owned by ILGA, leased by SEGL	
Lot 201 in DP 867855	Service road	Owned by ILGA, leased by SEGL	



Figure 2 – Legal Description of the site and various lots

Refer to the Survey Plans, Certificates of Title, and deposited plans at Appendix QQ for further details.
3.3 EXISTING AND APPROVED PROJECT

The Star is located on an irregularly shaped site in Pyrmont, which is bounded by Pyrmont, Edward and Union Streets, and Pirrama and Jones Bay Roads. The site has a total area of 39,206 m² (excluding Lot 1 in DP 867854 and Lot 201 in DP 867855 to the north).

The Star is a 24 hour a day operational facility that functions as an integrated resort with a range of entertainment facilities, retail spaces, multiple restaurants and bars, 606 hotel rooms/serviced apartments across three towers, and basement parking. The key venues include the Sovereign Resort gaming operations, the MUEF and Lyric Theatre, which is operated by a separate entity from SEGL.

The Star occupies an entire street block in Pyrmont, in the context of the scale of recent development Proposals in and around Darling Harbour waterfront, the site has significant capacity for development. The multitude of uses on-site makes The Star a hub for tourism, retail and cultural opportunities. The light rail at The Star also makes the site a highly connected and accessible site for everyone to enjoy.

Key elements of the existing development within The Star include the following:

- A range of gaming spaces including the main gaming floor, private gaming spaces, international gaming spaces and outdoor gaming spaces;
- The SELS Building, a local heritage item;
- Pre-function space adjacent to the MUEF;
- Lighting of the SELS Building;
- Harbour heat rejection system;
- A range of retail spaces including luxury designer store such as Gucci, Chanel and Salvatore Ferragamo;
- A rooftop bar at Level 03 known as the Sky Terrace;
- A mix of restaurants and bars including the Sports Bar, Sokyo Lounge and Marquee Sydney;
- Two theatres the Sydney Lyric Theatre and MUEF (The Star Event Centre);
- 318 hotel rooms within The Astral Tower;
- 171 hotel rooms within The Darling including a luxury spa;
- 117 serviced apartments within The Astral Residences;
- The Star light rail station; and
- 2,795 Basement car parking spaces.

The works approved under Mod 14 are yet to commence but are shown on the base plans in **Appendix B**. Development Application, D/2016/48 was approved by City of Sydney on 15 July 2016 which approved, installation of a new lift and associated lobbies and the construction of a terrace area adjacent to the approved Level 5 VIP guest lounge on the Pyrmont Street side of the Astral Hotel. As these works had not been constructed prior to the determination of Mod 14 the approved works were not included in the base drawings. These works are under construction and are documented on the base plans in **Appendix B**. This EAR describes and assesses Mod 13 as a modification to the Major Project Approval (MP08_0098) up to and including Mod 14 (**Approved Project**).

The Star has been undergoing an evolution since the original Star City Casino and Entertainment Complex approval in 1994. The Approved Project is a result of an ongoing desire to enhance the sites operation and maintain The Star's status as a premiere Sydney destination and an exciting entrainment venue. The most significant approval, MP08_0098, introduced the Darling Hotel, a 171 room 5-star hotel with a 500-basement carpark. Subsequently, the approval of Modification 7 to MP08_0098 introduced a world class event centre the MUEF, with a maximum capacity of 3,000 people. The MUEF has allowed The Star to evolve to become Sydney's number one function and events centre for medium sized functions.

Figure 3 demonstrates how large and significant The Star site is, exceeding the size of Quay Quarter and numerous city blocks. It is noted that the proposed hotel and residential tower will be located on a small footprint within a large site. The tower and podium have a footprint of 3,409m² which, equates to 8.7% of the overall site area of 39,206 m². That is, the proposed Mod 13 hotel and residential tower will constitute a small proportion of the already approved, large and significant development.



Figure 3 – Comparison of the subject site to Quay Quarter

3.4 TRAFFIC AND TRANSPORT

3.4.1 Pedestrian and Cycle Access

The site and surrounds are serviced by pedestrian and cycle networks, including shared pathways along the waterfront connecting the site to the CBD via Pyrmont Bridge, a shared path link to the west via the Anzac Bridge, and an on-road link to the south via Darling Drive.

Pedestrian access to The Star is provided via entry points on Pyrmont Street, Jones Bay Road, Edward Street and Pirrama Road. As part of Mod 14, the existing pedestrian pathway connecting Jones Bay Road and the Astral Hotel Lobby entrance along the Porte-Cochere ramp is to be replaced with an internal pedestrian pathway through the new Astral Hotel Lobby retail zone and upgraded access from Pyrmont Street.

Cycle access to The Star is provided via a separated cycleway on Union Street, and a shared path on Pirrama Road and the footpath network surrounding the site. End-of-trip facilities are provided for staff and comprise wall-mounted racks and storage lockers in a secure room on Level P2 of the carpark accessed off Edward Street. No formal bike parking provisions for guests are currently available on the site.

As part of Mod 14, the following upgrades to cycle parking will be in place prior to the completion of Mod 13:

- Removal of the underutilised lockers in the existing staff bike parking facility and installation of five additional bike parking racks to accommodate additional staff parking requirements associated with Mod 14; and
- Installation of 29 visitor bike parking spaces located across the Level B1 and B2 car parks.

3.4.2 Vehicular Access and Parking

Public vehicular access to The Star is currently available via three points as described below and shown in Figure 4.

- 1. Access/Egress Point: Pirrama Road intersection: This intersection, which is signal controlled, provides ingress to the coach drop-off/pick-up/parking area and the loading dock, as well as entry and exit to the carpark at Level B3.
- 2. Edward Street from Pyrmont Bridge Road: This location provides two entry and two exit lanes to the carpark at Level B2.
- 3. Jones Bay Road Access to Porte-Cochere: The porte-cochere is used by taxis, limousines, valet services and hire cars, with access provided from Jones Bay Road via a left-turn only entry, and dedicated circulation to and from the car park for valet parking. Exit from the Porte-Cochere is provided off Pyrmont Street. As part of Mod 14, changes will be made to the porte-cochere including modifications to the Astral Hotel façade within the porte-cochere, as well as modifications to the layout and width of the porte-cochere adjacent to the existing set-down and pick-up areas, and conversion of the existing pick-up zone immediately outside the casino entry into a taxi drop-off-only zone.

Car parking is provided over basement levels B4, B3, B2, and B1, and are known as P1, P2, P3, P4, and P5. The site currently has a parking capacity of 2,795 spaces. It is noted that MP08_0098 permits the provision of a maximum of 3,000 spaces on-site. However, due to operational, circulation and storage requirements, the full car park capacity has not been realised. A total 2,795 car parking spaces is presently provided.

A parking guidance system is in place around The Star precinct, known as the Pyrmont Parking Guidance System (PPGS).

A commitment under Mod 14, is that SEGL will work with Parking Assist and TfNSW to deliver upgrades to the PPGS to provide timely warning to drivers regarding carparks already at capacity in order to improve traffic circulation and enable drivers to choose an alternate parking options.



Figure 4 – Existing Transport and Vehicular Movement

ENVIRONMENTAL ASSESSMENT REPORT PREPARED BY URBIS

3.4.3 Taxis and Coaches

The site is well serviced by taxi operators with three major taxi pick up locations within the site. As shown in **Figure 4** above, these are located:

- Within the porte-cochere adjacent to the main casino entry;
- Within the Pirrama Road forecourt, adjacent to the light rail station; and
- Taxi feeder rank along Jones Bay Road.

Under Mod 14, the Pirrama Road taxi rank will be relocated to the service road adjacent to the light rail corridor to improve access to the site. This will also facilitate the establishment of a construction zone in the Pirrama Road frontage, which will be required for both Mod 14 and Mod 13 works.

3.4.4 Public Transport

The site enjoys a high level of accessibility by public transport, including:

- The Star light rail station: this light rail station is located directly under The Star with direct access provided via stairs and lifts. The light rail operates between Central Station and Dulwich Hill, providing access to and from the CBD and inner western suburbs. Services operate 24 hours per day, every 10 to 30 minutes.
- Local bus services: which connect Pyrmont to the CBD, operating between 6.00am and 1.00am, approximately every 10 minutes.
- Pyrmont Bay Ferry Wharf: Pyrmont Bay Ferry Wharf is a short walk from the site, and provides ferry services operating between 6 am and 8 pm (every 30 minutes). The ferry services include the F3 Parramatta Route, F4 Darling Harbour Route, and the Manly to Darling Harbour Loop (private), which provide access to and from the CBD, Balmain, the Lower North Shore and Circular Quay.
- **Trains:** Town Hall station is a 15-minute walk across the Pyrmont Bridge, and Central Station is a 6-minute light rail trip from the site. These two train stations provide access to all the Sydney suburban rail lines.
- Sydney Metro West: The recently announced Sydney Metro West includes a new metro station located immediately to the west of the site under the Union Street/Harris Street intersection. This project is expected to be operational in the second half of the 2021, and represents a major opportunity to further improve public transport choices for visitors and staff travelling to the site. The recently released Interim Rail Link and Metro Corridor Land Application Map included in the Draft SEPP for Metro West shows the route passing under the southern end of The Star (under the Darling Hotel).
- Star Express Buses: The Star Express is a network of chauffeured coaches which operate on dedicated routes between The Star and key suburbs across greater Sydney including Central Station, Bankstown, Riverwood, Hurstville and Cabramatta. Routes operate on scheduled timetables, beginning 7:30am and departing from The Star as late as 1:00am. The Star Express costs up to \$10 for a return ticket.



Figure 5 – Surrounding Public Transport Network

3.4.5 Loading Docks and Service Vehicle Access

The site is currently serviced by the following loading docks:

- The Star Loading Dock (Jones Bay Road): The main loading dock for The Star, which receives deliveries of fresh produce, non-perishables, and beverages for outlets, general items including computers and gaming equipment, maintenance supplies for in-house facilities, laundry, and housekeeping items including uniforms, gas and cooking oils. This loading dock comprises six (6) docks and unloading areas, and is used between 7 am to 6 pm on weekdays, 7 am to 1.30 pm on Saturdays, and 7 am to 11 am on Sundays.
- The Darling Loading Dock (Edward Street): Principally a service dock used to receive retail and restaurant stock deliveries, as well as managing waste removal from The Star with storage provided for recycling bins, compactors, and glass bins. This loading dock is used between 7 am to 3 pm on weekdays and 7 am to 12 noon on Saturdays.
- The Star Events Centre Loading Dock (Service Road): This loading dock is accessed via a one-way service road from Pirrama Road and is used primarily to load and unload goods and production equipment used for stage plays, concerts, private functions, and special events such as the ARIAs. Outside of special events, this loading dock is used between 6 am to 6 pm on weekdays and 6 am to 6 pm on Saturdays.

As part of Mod 14, several upgrades have been approved to the Jones Bay Road loading dock to increase storage and sorting areas to resolve constraints on cross-docking processes, and increase the loading dock capacity by up to 45 palettes per hour.

As part of Mod 13, upgrade works are proposed to The Star Events Loading Dock to accommodate the additional capacity requirements associated with the Proposal. The proposed works are described in detail within **Section 4** of this EAR.

3.5 HERITAGE AND ARCHAEOLOGY

The site, as a whole, is not a heritage item under Sydney Local Environmental Plan 2012 (SLEP 2012). However, the former Sydney Electric Lighting Station (SELS) Building that formed part of the Pyrmont Power Station Administrative, shown in **Figure 6** below, located in the northwest corner of the site and is identified as a locally listed item, including interiors.

Moreover, the site is located within the proximity to 52 locally listed inventory items listed under SLEP 2012 and two (2) State heritage inventory items as well as the Pyrmont Conservation Area located to the southwest of the site (refer to **Figure 69** in **Section 9.21**).



Figure 6 – SELS building

The SELS building is currently used as administration offices for The Star. The building is distinctly Federation in character with arts and craft detailing. It has stained glass windows, decorative tiles on various floors and walls, cast iron balustrades and decorative plaster.

The original (1904) section of the building has an early extension to the north, which is of a referential stripped Federation character. Archival photographs indicate that the building was completed c1922. The extension has a narrow frontage to the north, which comprises an entry to the retail space currently occupied by a florist, a window on the ground floor, and two arched windows on the first floor. The eastern façade of The SELS building is integrated into the Porte Cochere as it now represents the western wall of the latter. A glazed canopy joins the two as shown in **Figure 7** below.



Figure 7 – SELS building and Glazed Canopy Connection to Porte-Cochere

3.6 EXISTING TREES AND LANDSCAPING

A total of nine (9) trees are located within the boundary of the site. These include:

- Six (6) trees clustered along the southern end of the Pirrama Road frontage, identified as being Exmouth Magnolias
 – at the;
- One (1) Honey Locust located at the Pyrmont/Union Street intersection;
- A group of seven (7) Bangalow Palms located at the Jones Bay Road porte-cochere entrance; and
- A Little Gem Magnolia at the Edward/Union Street intersection.

A further 63 trees are located around the periphery of the site within the road reserves of Jones Bay Road, Pyrmont Street, Pirrama Road, Union Street and Edward Street. The Arboriculture Assessment (refer to **Appendix** R) notes that none of the trees are listed on Council's Register of Significant Trees Volume 4 (Significant Trees under Private Ownership) or Volume 2 (Significant Street Trees).

3.7 EXISTING UTILITIES AND SERVICES

The proposed Mod 13 works will require augmentation of the existing utilities and services as described in **Section 4** of the EAR. The discussion below identifies the services currently available to The Star.

Electricity

The site has an existing maximum demand of 12.2 MW. AUSGRID has advised that the existing high voltage network has capacity to support only the existing site maximum demand of 12.2 MW.

Mod 14 includes the upgrade of existing on-site infrastructure designed to reduce power demand and to generate electricity to service the new spaces to be created. It is proposed to install on site gas powered electrical generation to avoid increasing the load on the Ausgrid network. The proposed additional generation is designed to run in parallel with the Ausgrid network.

Telecommunications

The exiting telecommunication infrastructure on the site consists of:

- A Building Distributor and MDF located on Level 4 to distribute fibre and copper cabling throughout the site;
- A secondary redundant path distributor on Level 2 in the north-eastern corner of the site; and
- A dedicated building distributer for the Darling Hotel.

Water

Domestic and fire-fighting water supply is provided to The Star from an existing 250 mm Sydney Water main located in Jones Bay Road, which is connected to the site via a 150mm connection which provides two (2) separately metered services for the Astral Hotel & Apartments and the Casino.

The Darling Hotel is serviced by a separate 150mm metered water service connection off the 200 mm Sydney Water main in Edward Street.

Sewer

The site features three sewer drainage points which are connected to the Sydney Water Corporation's sewer as follows:

- 1. The Edward Street sewer main draining the Darling Hotel, Lyric Theatre, DAF Grease Waste Treatment Plan, Astral Residences and a section of the retail component of the Casino;
- 2. The Pirrama Road sewer main which drains the majority of The Star including gaming areas, restaurants, Astral Hotel, and entertainment facilities; and
- 3. The Pyrmont Street sewer connection which receives a relatively small loading from the SELS building.

Gas

The site has a single high-pressure connection from the Edward Street 150 mm high pressure gas main, which is regulated down from 1050 kPa to 300 kPa and reticulated through The Star, and further regulated at each kitchen and other points to 7kPa.

3.8 STORMWATER

The existing stormwater network around the site consists of a large rectangular culvert that runs along Pyrmont Street, Jones Bay Road, and Pirrama Road, before discharging into Darling Harbour. Another large trunk system runs from the light rail track in Edward Street across Pirrama Road and into Darling Harbour. A number of minor networks exist that either discharge into the main trunk system or directly into Darling Harbour.

3.9 HARBOUR HEAT REJECTION SYSTEM

The site is served by an existing harbour heat rejection (HHR) system comprising a water intake point in Jones Bay Road, a heat exchanger and pumping system within The Star's basement, and a water discharge point in Pyrmont Bay.

As part of Mod 14, the system will to be upgraded by replacing the existing three pumps with six new pumps (which includes a built-in redundancy of two pumps that will operate as standby pumps), internal pipework modification to accommodate new pumping arrangement, and filtration system and strainer system upgrade within the plantroom.

3.10 SURROUNDING DEVELOPMENT

The Star is located on Pyrmont Peninsula, which forms the context of the site. Pyrmont is a neighbourhood in transition from its historic function as a maritime industrial suburb with workers' accommodation to a contemporary mixed commercial and residential precinct.

Current land uses in the immediate vicinity of the site are diverse, including large commercial premises, restaurants, cafes, contemporary residential apartments, public parks, and pockets of remnant terrace housing.

- **North**: to the north of the site is a mixed-use area including a small row of terraced houses and residential apartments in buildings up to eight storeys in height.
- East: North-east of the site is the commercial / retail and parkland precinct of Jones Bay Wharf, Darling Island and Darling Harbour Wharf 10. To the south-east is a street block of six to seven storey mixed use residential / commercial units (fronting Pirrama Road, Edward Street and Union Street) and a mix of lower scale development including commercial, retail and residential terraces along Union Street.
- **South**: Union Street forms the southern boundary of the site. It supports largely medium density residential development, restaurants, pubs and cafes in remnant terrace buildings. Union Square, at the western end of the street at its intersection with Harris Street, is an important local community meeting place and restaurant / café hub.
- **West**: Pyrmont Street, on the western boundary of the site, supports a diverse range of building styles, heights and land uses ranging from six to eight storey commercial buildings to smaller scale heritage listed terrace houses.

The site is strategically located in proximity to the recently completed International Convention Centre (ICC), Darling Harbour Live Precinct, and the Maritime Museum which are all within a 600m (8-minute walk).



Figure 8 – Site Surrounds and Context

3.11 LIKELY FUTURE CHARACTER

The open skyline surrounding the site is likely to change over the next 20-30 years as the Bays Precinct is developed and further development occurs along the western side of Darling Harbour.

Developments that are underway or recently constructed that are transforming the western harbour include:

- Barangaroo;
- The Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP) including the Haymarket precinct towers and ICC Hotel;
- The 'Ribbon' development to replace the existing IMAX building; and
- Redevelopment of the Four Points Hotel, Darling Harbour.

The majority of these developments exceed the existing building heights that inform and define the existing the local context.

The future development of the Bays Precinct proposes to place taller buildings further to the west (refer to **Figure 9**). There is acknowledgement in the Draft Central Sydney Strategy of the expansion and growth of Central Sydney west towards the Bays Precinct.



Figure 9 – Surrounding future development (indicative) (Source: Urbis)

4 THE PROPOSED DEVELOPMENT

The works proposed under Mod 13 include a new Ritz-Carlton Hotel and residential tower, associated podium treatment and balance-of-site works at The Star. These works will enable SEGL to meet its intention to create a landmark, exemplar integrated resort, and will complement the approved Mod 14 works. The following sections provide a detailed description of the proposed works and activities under Mod 13.

4.1 SUMMARY OF THE PROPOSED DEVELOPMENT

New Ritz-Carlton Hotel and Residential Tower

- Demolition of part of the existing building in the northern portion of the site, including part of the Pirrama Road façade and part of the Jones Bay Road façade.
- Construction of a new Tower, 237.0 metres AHD (approximately 232.9 metres from Pirrama Road);
- Residential uses across 35 levels, comprising:
 - A residential vehicular drop off lobby on Level B2
 - A residential lobby on Level 00 to be accessed from Jones Bay Road;
 - Residential communal space on Level 07 to be accessed via Level 08; and
 - 204 residential apartments located on Levels 05 and 06 and from Levels 08, 12, 14 to 38, featuring one-bedroom, two-bedroom and three-bedroom unit types (Note no Level 13).
- Hotel uses across 31 levels, comprising:
 - A hotel arrival lobby on Level B2 to be accessed from the new Ritz-Carlton porte-cochere along Pirrama Road;
 - A hotel Sky Lobby for guest check-in on Level 39 and 40, featuring a restaurant, bar and lounge;
 - 220 hotel rooms located from Level 42 to 58 and from Level 60 to 61;
 - A hotel spa and gym on Level 07;
 - A VIP link to the Sovereign Room on Level 04 and 04 Mezzanine;
 - A Ritz-Carlton Club lounge and terrace on Level 59;
 - Hotel staff end-of-trip facilities on Level B3;
 - Hotel staff arrival point on Level 00; and
 - Hotel back-of-house and plant on Level 03, 05 and 41.
- A Neighbourhood Centre consisting of a cafe, library, learning / innovation hub and function centre within the podium of the tower;
- A new car-parking stacker system below the new porte-cochere of the Ritz-Carlton Hotel, with a total capacity of 220 spaces, to serve the new hotel and apartments;
- Vertical transport associated with the tower and podium; and
- A new drop-off / pick up area (short-term parking) on Jones Bay Road for the proposed apartments adjacent to the residential lobby.

Level 07

- A 'Ribbon' element at Level 07 connecting the new Hotel and Residential Tower to the existing building along Pirrama Road, frontage comprising:
 - Two pools and associated pool decks (one for the new Hotel, one for The Star); and
 - Two F&B premises with associated store rooms and facilities;

- Lift access from Level 07 to the Level 05 Sky Terrace below;
- Residential communal open space associated with the new residential apartments, comprising pool and landscaped terrace at the base of the Tower adjacent to Jones Bay Road;
- Gym and associated change rooms and facilities for the residents;
- Gym and associated change rooms and facilities for hotel guests; and
- Landscaping elements.

Level 05 Terrace

- Three F&B outlets with external areas;
- Completion of the Vertical Transportation drum to connect with Level 05 Terrace;
- Designated event spaces on the Terrace; and
- Landscaping treatment.

Level 05 Astral Hotel and Residences Recreational Facility Upgrade

• New pool deck, pool, spa, gym and amenities upgrade for Astral Hotel and Residences.

Tower to Sovereign Link by Escalator and Lift

- Link from the Tower (across Level 04 and Level 04 Mezzanine) to the Sovereign Resort and MUEF at Level 03, connected via Lift G4, Lift VIP 1 and escalators; and
- Extension of the lift service to stop at Level 00, 01 and 05 in addition to Level 3, 4 and 4M.

Level 03 Sovereign Column Façade Treatment along Pirrama Road

• New glazed detail to enclose exposed Level 03 Sovereign columns along the Pirrama Road façade.

Façade Integration Works

 Upgrades to the Pirrama Road and Jones Bay Road façades to integrate the new Ritz Carlton Hotel and Residential Tower with the existing building.

Infrastructure Upgrades

- A new plant room located within the podium over Levels 03, 04, 05 and 06 of the proposed Hotel and Residential Tower;
- Relocation of the current Level 03 cooling towers (adjacent to the MUEF) to the Level 09 plant room above the Level 06 plantroom adjacent to the Astral Hotel;
- New capstone microturbine units and associated flues in the proposed plant room at Level 03 between the Darling Hotel and the Astral Residence Tower;
- New capstone microturbine units and associated flues in the new Level 03 plant room at the base of the Tower;
- Relocation of the existing main switch-room to a new plant room on Level 02, south of the demolition area;
- Relocation of the existing data recovery centre to a new plant room on Level B1 of the Darling Hotel; and
- Relocation of diesel generator flues to the side of the new Level 09 plantroom, adjacent to Astral Hotel.

Level B2 Transport Interchange

- Upgrades to the Event Centre Loading Dock;
- Entry into Basement car stacker for the Tower apartments and Ritz-Carlton Hotel;
- New commuter bike parking and hire bike system;
- Upgrade of finishes to light rail station surrounds and removal of existing wall barrier to the Pirrama Road frontage;
- Upgraded taxi-rank arrangements;
- Realignment of kerbs and line-marking; and
- Removal of stairs from Level B2 to level above (that people use to access light rail).

Note - no works to the Light Rail corridor

Transport Improvements – Local Road Works

- Reconfiguration of existing median strips on Jones Bay Road and addition of new median strip on Pyrmont Street, with associated line-marking to enable a new right-hand turning lane into the Astral Hotel Porte-Cochere;
- New Pyrmont Street carpark entry and exit, associated line marking, changes to internal circulation, and reconstruction of the pedestrian footpath along Pyrmont Street; and
- Relocation of existing feeder taxi-rank from Jones Bay Road to the Level B2 transport interchange.

Site Wide Landscape and Public Domain Upgrades

- Upgrades to street frontages along Pirrama Road (for the Hotel Porte Cochere) and Jones Bay Road (for the residential entry);
- Upgrades to street frontage to Pyrmont Street, due to new car parking entry; and
- Upgrade to the entry forecourt of SELS building at the corner of Jones Bay Road and Pyrmont Street. (Note: no works within SELS building is proposed).

Level 00 - Restaurant Street

- Creation of a new destination Restaurant Street by:
 - Incorporating existing F&B premises on Level 00; and
 - Converting existing retail shops into new F&B tenancies, including the new Century tenancy at the Jones Bay Road end.

Pirrama Road and Jones Bay Road F&B

- A revised F&B tenancy at the existing Pizzaperta outlet along Pirrama Road;
- A new F&B tenancy at the Marquee street entry;
- A small café outlet adjacent to the residential lift lobby at Jones Bay Road; and
- A new F&B tenancy accessed off the existing walkway from Jones Bay Road.

F&B – Other Locations

- Reconfiguration of Harvest Buffet, including new escalators from Level 00 Food Court to Level 01; and
- Refurbishment of Bistro 80 into the interim Century tenancy.

Note: The Century tenancy post construction is proposed to be at the Jones Bay end of L00 - Restaurant Street

Darling Hotel Corners

- Upgrade of the corner plaza at the Union/Edward Street property entry:
 - A new F&B premises on Level 01 and 02;
 - A new entry foyer leading to the Food Court; and
 - A relocated awning enclosure at street level.
- Upgrade of the corner plaza at the Union/Pyrmont Street property entry:
 - A new awning enclosure at for the existing café;
 - New revolving door at entry to Darling Hotel;
 - Eight (8) luxury display cases at Darling Hotel car park entry; and
 - Two car display areas at Darling Hotel car park entry.

Subdivision

To vertically subdivide existing Lot 500 in DP 1161507 to create five (5) new stratum lots for purpose of dedicating space within the proposed tower and associated ribbon development as follows:

- Lot 1 The Star Sydney;
- Lot 2 Hotel
- Lot 3 residential
- Lot 4 Car park stacker
- Lot 5 Back of House

Special Events Lighting

 Approval for fifty-three (53) Special Event nights per year for the use of the permanent Vivid installation of moving projector lights on the rooftop of the Astral Hotel.

Site-Wide Lighting Strategy

- A site-wide lighting strategy integrating and improving the existing lighting across the precinct, with new lighting the proposed Tower, Podium and Ribbon, including:
 - Internal lighting of Hotel and Residential spaces;
 - Illuminated highlights at the Sky Lobby and Club Lounge levels;
 - Integrated lighting on the eastern and western vertical façade slots and angled roof profile;
 - Podium external illumination from awnings, and under retail and lobby colonnades;
 - Landscape lighting on Level 07 open terraces and pool decks;
 - Feature lighting accentuating the wing-like profile of the Ribbon and vertical element; and
 - Internal and external lighting to F&B outlet at Union/Edward Street corner.

Signage Upgrades

- Consolidation of existing signage approvals and new signage within a consolidated signage strategy, including:
 - Approved signs;
 - Wayfinding signs;

- Business identification (including F&B premises); and
- Signage on the Tower and Podium.

Stormwater upgrades

 Stormwater upgrade works, including increased pit inlets and pipe capacities at the low points along Pyrmont Street and Edward Street.

4.2 NUMERICAL OVERVIEW

4.2.1 Summary

Table 4 provides a numerical summary of the proposed development metrics for The Star.

 Table 4 – Numerical Summary

Element	Existing development (including Mod 14)	Mod 13	
Site	39,206 m ²	39,206 m ²	
Total GFA	140,200 m ²	189,177 m²	
Hotel rooms	Astral Hotel – 318 rooms The Darling Hotel – 171 rooms	Astral Hotel – 318 rooms (no change) Darling Hotel – 171 rooms (no change) Ritz-Carlton - 220 rooms	
Apartment units	Astral Residences – 117 serviced apartments	Astral Residences – 117 (no change) Tower residences - 204 units	
Sydney Lyric	2005 seats 9,403m²	No change	
MUEF	2,000-2,200 patron capacity (cocktail event) 5,477m ²	No change	
Gaming	33,887 m ²	No change	
Maximum height	174.648 m - top of Astral Towers (including lift motor room)	237 m (AHD) – top of Ritz-Carlton Tower	
Car parking spaces	2,795 spaces	2,998 spaces, comprising: Removal of basement spaces: - 18 spaces New Car stacker: + 221 spaces	
Bicycle parking spaces	Staff: 31 racks Visitor: 29 spaces	Staff : + 35 class 1 spaces for employees Visitor : + 62 visitor spaces comprising of 20 rental bikes in the Pirrama Road forecourt, 13 bike lockers adjacent to the Light Rail Platform and 29 bike racks located in grounds at major entry points.	

4.2.2 Gross Floor Area

Mod 13 will result in a 48,977m2 increase of gross floor area (GFA) across the site. The proposed works will alter the GFA across most of the existing floors of The Star. The most significant addition of GFA relates to the new tower and podium in the northern portion of the site, as shown in **Table 5** below. The works represent a 34.9% increase in GFA on the site.

Table 5 -	Numerical	Overview	of the	Proposal
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Use	Existing Total GFA (including MOD 14)	Proposed change in GFA as part of Mod 13	Final GFA
Back of House	12,702 m2	-1,202 m2	11,500 m2
F&B Premises	14,523 m2	+5,519 m2	20,042 m2
Office & Admin	5,020 m2	-1,566 m2	3,454 m2
Retail	1,976 m2	-1,373 m2	603 m2
Darling Hotel	13,784 m2	No change	13,784 m2
Astral Hotel	20,516 m2	-617 m2	19,179 m2
Astral Residences	16,137 m2	No change	16,137 m2
Gaming	33,887 m2	No change	33,887 m2
Theatre	9,403 m2	No change	9,403 m2
Circulation	5,869 m2	+1,086 m2	6,955 m2
Night Club	906 m2	+167 m2	1,073 m2
Event (MUEF & related)	5,477 m2	No change	5,477 m2
Tower Residential Facilities	-	+308 m2	308 m2
Tower Residential	-	+23,530 m2	23,530 m2
Ritz-Carlton Facilities	-	+3,072 m2	3,072 m2
Ritz-Carlton BOH	-	+2,672 m2	2,672 m2
Ritz-Carlton Hotel	-	+15,690 m2	15,690 m2
Neighbourhood Centre	-	+1,691 m2	1,691 m2
Total GFA	140,200 m2	+ 48,977 m2	189,177 m2

Refer to the GFA Schedule at Appendix RR for further details.

4.2.3 Building Height

The proposed hotel and residential tower will have a maximum height of 237 m (AHD), although this built form will only be located on a small footprint in a large site. The tower and podium footprint take up approximately of $3,409m^2$ the site area, which equates to 8.7% of the site area of $39,206 m^2$ isolated to a discrete and comparatively small area of the site.

As noted in the Airspace Application and Assessment at **Appendix S** and as discussed at **Section 9.8**, the proposed tower height means that neither the permanent obstruction (the proposed tower) nor the construction cranes will extend past the PANS-OPS surface over the proposed development. Building height is addressed in greater detail within **Section 9.1** of this EAR.

The Ribbon will increase the built form along the Pirrama Road frontage to a maximum height of RL 44.30 associated with the canopy structure.

4.2.4 Staffing Numbers

The Star employs approximately 5,000 staff. On a daily basis, a maximum of 2,500 staff are present on the site over a 24-hour period.

As part of Mod 14, an increase in GFA of approximately 6,600 m² was approved. Using the current staffing rates at The Star, this equates to an additional 125 daily staff.

The current staffing rates have been used to identify additional staff required for the different elements of the Proposal as follows:

- Mod 13 Balance-of-Site = 178 staff.
- Ritz-Carlton Hotel = 128 staff.
- Apartments = 10 staff.

4.2.5 Car and Bicycle Parking Numbers

Mott Macdonald has conducted a review of the car parking spaces on the site and their utilisation. The site currently has a parking capacity of 2,795 spaces.

The proposed Pyrmont Street Car Park Entry will necessitate the removal of 18 spaces, bringing the total available basement car parking spaces down to 2,777 spaces.

The Traffic Impact Statement (TIS) at **Appendix L** notes that the basement car park has an average maximum occupancy rate of 92%, leaving an average of 230 spare spaces. The additional GFA approved as part of Mod 14, generated a parking demand of 44 spaces this has been accommodated within the capacity of the carpark. The TIS concludes that the additional GFA for the non-tower components of Mod 13 would result in an additional parking demand of 63 spaces, with sufficient spare capacity in the basement to accommodate this demand.

Based on the Sydney LEP 2012 rates for hotel, residential, and visitors, Mott MacDonald has calculated that the proposed tower component of Mod 13 will generate an additional parking demand of 221 spaces, which are proposed to be accommodated in a car stacker under the tower.

As part of Mod 13, the following bicycle parking spaces are also proposed:

- ♦ 35 x Class 1 spaces for employees within a 66 m² secure room at the Union Street/Edwards Street entry; and
- 62 x visitor spaces, located at as follows:
 - 20 rental bikes in the Pirrama Road forecourt;
 - 13 bike lockers adjacent to the Light Rail platform in an unused 32 m² retail space; and
 - 29 bike racks located in groups at the major entry points to the site.

The TIS at Appendix J and discussion at Section 9.15 provides further details.

A description of the proposed parking infrastructure which includes the underground car stacker system and the Car Stacker Management Plan in **Appendix VV** and **Section 4.4.6**.

4.3 **DEMOLITION**

The proposed Ritz-Carlton Hotel and Residential Tower will necessitate the partial demolition of the foundations, floor slabs, columns, walls and stairs associated with the existing development within the northern portion of the site across Level B02 to Level 05. Mod 13 will result in the demolition of existing office/admin, back of house (BOH) and F&B spaces.

The demolition works will occur in the northern portion of the site as shown on the architectural plans, and will occur while maintaining operations in the adjacent areas of The Star.

The key uses that currently exist within this location include:

- A restaurant and loading dock at Level B02;
- Office/administration spaces at Level B01, 00, and 02;
- Retail uses at Level 00;
- Back-of-house at Level 00 and Level 01; and
- Plant at Level 01, 02, 03, 04, and 05.

The proposed Balance of Site works will also necessitate the demolition of existing improvements across the site as detailed in the Demolition Plans at **Appendix B**.

4.4 RITZ-CARLTON HOTEL AND RESIDENTIAL TOWER

The proposed Ritz-Carlton Hotel and Residential Tower will be a landmark tower at the northern end of the site. The community, residential and hotel uses will be vertically allocated within the tower as shown in **Figure 10** below.



Figure 10 – Vertical Allocation of Uses within the Tower

4.4.1 Ritz-Carlton Hotel

Hotel lobby and sky lobby

The Ritz-Carlton Tower component will feature a hotel lobby at Level B2 located adjacent to the dedicated hotel portecochere (described below).

The Level B2 lobby will also provide direct hotel porter access to the goods lift and hotel BOH, which is separated from the hotel lifts that provide direct access to the Sky Lobby located at Level 39 and Mezzanine Level 40.

Level 39 features personal reception spaces adjacent to the lifts. Just beyond reception, the Sky Lobby opens up into a double height space, offering city wide views through double height frameless glazing as the guests step out of the lifts. The remainder of Level 39 features lounge areas and a bar area that offer expansive views out towards the Harbour Bridge and the city skyline, along with restroom facilities and BOH

Mezzanine Level 40 includes a restaurant with an open kitchen, and seating that provides expansive views towards the Harbour Bridge and city skyline and private dining options.



Figure 11 – Sky Lobby over Level 39 and Mezzanine Level 40

Ritz-Carlton Porte-Cochere

The porte-cochere will provide visual connectivity into the Ritz-Carlton arrival lobby, and will provide a generous, continuous, and weather protected space for arriving hotel guests.



Figure 12 – Dedicated Ritz-Carlton Porte-Cochere at Pirrama Road

As shown in **Figure 12** above, the porte-cochere will feature a grand scale of architecture to give it a distinct presence on the street frontage in accordance with the Ritz-Carlton design brief.

As shown in Figure 13 overleaf, the new porte-cochere arrangement will include:

- Set-down and pick-up areas for 4-5 taxis or up to 2 coaches;
- Right-in turn entry from Pirrama Road to facilitate taxi access from the feeder rank located in the service road under The Star; and
- Left-out only exit to Pirrama Road.

The existing northbound Sydney Buses Bus Stop will remain in its current location, between the entry and exit points of the Ritz-Carlton porte-cochere. The proposed left turn onto Pirrama Road will require the southern end of the bus zone to be shortened from 41 m to 21 m to ensure that large vehicles can enter Pirrama Road without swinging out into the southbound carriageway. The shortening of the existing bus zone is not expected to impact Sydney Bus services as detailed in the TIS.

Type B hoarding will be erected on the Pirrama Road footpath approaching the roundabout during construction. Pedestrian access to the Sydney Buses bus stop will be maintained during construction.



Figure 13 – New Ritz-Carlton Porte-Cochere

Club lounge

The Club Lounge located at Level 59 will offer hotel guests an extension to their rooms, providing recreation opportunities including a private library, seating pods, and dining spaces. The Club Lounge leads out to a terrace featuring an external garden offering with informal seating, alfresco dining, and a bar.

The Club Lounge and Terrace will offer expansive city views and the layout of the two spaces is shown in **Figure 14** and **Figure 15**.



Figure 14 – Level 59 Club Lounge layout



Figure 15 – Club Lounge and Terrace

Hotel Rooms & Room Types

The proposed tower will include 220 hotel rooms comprising the following room types:

- Double Queen (45 m²) 63 rooms (28.6%).
- King (45 m²) 71 rooms (32.3%).
- Executive Corner Rooms (50 m²) 52 rooms (23.6%).
- Double-Key Suites (96 m²) 31 (14.1%).
- Presidential Suite (180 m²) 1 (0.5%).
- Ritz-Carlton Room (270 m²) 1 (0.5%).

As shown in **Figure 16** below, the structural grid and core of the tower has been designed to allow typical room layouts to be repeated across several levels of the tower.





(Note that H1-H4 = Level 43 - 45, H5-H16 = Level 46 - 57, H17= Level 60, H18 = Level 61)

The Architectural Design Statement at Appendix C provides further detail on hotel room types.

4.4.2 Residential Apartments

Residential lobby

The residential lobby forms part of the active frontage to Jones Bay Road, bookended by the neighbourhood centre to the north and F&B uses to the south, refer to **Figure 17**. The residential lobby will have a concierge service, an adjacent mail room, and will provide direct access via lifts to the residential levels from Level 06 to Level 38, and to residential recreational facilities on Level 07. As detailed in **Figure 18** the lobbies and vertical transport for the residential and hotel uses are separated. As a security measure, access to the residential levels will be restricted to residential property owners only. Public and private uses are intentionally separated to maintain a high level of resident and user amenity and security.

Apartment types

A variety of apartment sizes is proposed, as set out below.

- 65 x 1 Bedroom;
- 16 x 1 Bedroom + Study;
- 25 x 2 Bedroom, 1 Bath;
- 15 x 2 Bedroom, 2 Bath;
- 64 x 2 Bedroom, 2 Bath + Study; and
- 19 x 3 Bedroom.

As addressed in **Section 16.1** of the Architectural Design Statement at **Appendix C**, the apartments have been designed to be consistent with the objectives and design criteria of *State Environmental Planning Policy No.65 (Design Quality of Residential Apartment Development)* (SEPP 65) and the Apartment Design Guide (ADG).

Private open space

All apartments are provided with private open space which satisfies the ADG's minimum area and depth criteria. The scheme results in the following range of minimum 'winter garden' sizes:

- 1 Bed External Area 8m²
- 2 Bed External Area 10m²
- 3 Bed External Area 12m²

For apartments where winter gardens are not practical due to wind considerations, a more enclosed configuration featuring a juliet balcony is proposed. No more than 10% of all apartments will have juliet balconies as described in the Architectural Design Statement at **Appendix C**. The apartments comply with Objective 4E-1 of the Apartment Design Guide.



Figure 17 – Level 00 showing the Residential Lobby on Jones Bay Road

4.4.3 Vertical Transport Core (within Tower)

The vertical transport core has been centralised within the tower to enable apartment and hotel rooms to maximise their façade frontage, contributing to the amenity of the development in terms of daylight access and cross-ventilation as discussed in the Architectural Design Statement at **Appendix C** and in **Section 9**.

The vertical transport system for the tower will feature proprietary ThyssenKrupp technology called the TWIN lift system in which two (2) lifts that can travel independently of each other are arranged on top of each other in the same shaft. The TWIN lift system will reduce the number of lift shafts required to six.

In addition, the TWIN system can learn traffic patterns of the tower and adjust the quality of the service accordingly by going into standby during periods of low use, and learning to position themselves at locations where they have minimal travel distances to reach call.

The proposed lift core arrangement will service all the proposed uses within the tower as per the following breakdown and **Figure 18**.

	Shaft No.1	Shaft No.2	Shaft No.3	Shaft No.4	Shaft No.5	Shaft No.6
Upper Car	Back of House / Goods Lift No. 1	Hotel Guest Lift No. 1	Hotel Guest Lift No. 2	Hotel Guest Lift No. 3	Hotel Guest Lift No. 4	Hotel Guest Lift No. 5
Lower Car	Back of House / Goods Lift No. 2	Residential Lift No. 1	Residential Lift / Backup Goods Lift No. 3	Residential Lift No. 2	Shuttle Lift No.1	Shuttle Lift No.1

Table 6 – Vertical Transport Arrangement

The shuttle lifts will provide shuttle service between the hotel lobby at Level B2 to the Sky Lobby for hotel guests.

As noted in the Vertical Transportation Services Report at **Appendix LL**, the vertical transportation system in the tower will incorporate the latest ESD initiatives available to minimise energy consumption, minimise the use of volatile organic compounds (VOC), and to minimise construction waste.

The unique system meets all of the relevant Australian Standards and Guidelines including the National Construction Code of Building 2016, NSW Statuary Regulations and the requirements of the NSW Work Cover Authority.

Through the use of an advanced control system such as Destination Control, and energy efficient regenerative drives and machines, the overall energy consumption of the vertical transportation system will be much less than a conventional system.

The TWIN lift system will also result in significantly less lift shafts and thus construction material to build the overall vertical transportation system. The vertical transport provisions within the Mod 13 works are standalone and will not impact any approved Mod 14 works. The design aligns with SEGL's goals of achieving the highest standard of built form for The Star by encouraging innovation and best practice approaches in order to achieve an environmentally sustainable development that positivity contributes to Pyrmont.



Figure 18 – Vertical Transport in the Tower and Podium

4.4.4 Neighbourhood Centre

A Neighbourhood Centre with a total floor area of 1,691 m² is proposed within the podium levels of the tower, with frontages to Pirrama Road and Jones Bay Road as shown in **Figure 19** below. Access to the Neighbourhood Centre will be from Jones Bay Road.

The Neighbourhood Centre uses have been selected following extensive community consultation undertaken by KJA and FJMT during the design excellence and design development phases, and will include the following uses:

- Level 00: Community lounge and terrace, outdoor terrace, F&B (Enterprise Café), Technology Bar, makers space for multimedia projects (analogue and digital);
- Level 01: Reading room and library space, elevated lounge, children and family space, space for study and group setting;
- Level 02: Open plan training and class settings, casual group lounge settings, consultation and tutoring settings, meeting rooms and conference spaces;
- Level 03: Civic function space with harbour views, dual purpose catering and neighbourhood kitchen, access to Harbour Roof Terrace at Level 04, and available for private and community functions; and
- Level 04: Community terrace with harbour views, green space and seated settings, and available for private and community functions.



Figure 19 – Proposed Neighbourhood Centre looking south from Jones Bay Road

The proposed Neighbourhood Centre has been designed to include a diverse range of spaces. At Level 00, a street aligned lounge and technology hub will have direct visual connection to the public domain through floor to ceiling glazing. Direct access is provided to the library annexe at Level 01 above via stair and lift.

Level 02 and Level 03 offer spaces for community and private use by presidents onsite and the Pyrmont locality. There are open plan spaces for casual groups ('knit and natter', casual computer training, youth / children's programs etc.) as well as a series of more cellular spaces which can be used for smaller group work and consultations.

Level 04 is a dramatic double height function space which can offer space for larger classes, community parties and community ceremonies. A kitchen / banquette will provide similar amenity to the highly popular Surry Hills neighbourhood centre where people from diverse backgrounds are brought together by food and cooking classes.

The Architectural Design Statement at **Appendix C** includes further details on the design and potential programming of these spaces.

Operational Model

A Plan of Management for The Star Neighbourhood Centre has been prepared and included at **Appendix UU**. The Plan of Management outlines clear management objectives and strategies for the operation of the Neighbourhood Centre, to ensure that the Neighbourhood Centre retains its importance as an active space for the whole community.

The Neighbourhood Centre will be operated and managed by The Star, in conjunction with an Advisory Committee comprised of local community members. The Advisory Committee will comprise approximately six members who will represent local Pyrmont community groups, local residents and the local working community.

On a day-to-day basis, the Neighbourhood Centre Manager will manage, coordinate and market events and activities and enhance the social interaction with the community.

The Neighbourhood Centre will operate seven-days per week, with the meeting and event space available for hire on a demand basis from 9am to 11pm daily. The internal spaces and learning spaces will be open daily from 9am – 9pm with scheduled programming taking place at various times throughout the day.

- Internal Area: Monday to Sunday: 9am 9pm
- Function Spaces: Monday to Sunday: 9am 11pm
- External Terrace: Monday to Sunday: 9am 9pm
- Ground Café: Monday to Sunday: 7am 7pm

Fees and charges, and terms and conditions for booking will be determined by the Centre Manager and Advisory Panel, and will be reviewed and updated as required.

4.4.5 Back-of-House

Several BoH spaces have been provided to support the hotel, residential and neighbourhood centre uses within the tower, including:

- Hotel BoH at Level B2, Level 33, Level 39, Level 42, and Level 43-60: Comprising office spaces, luggage store, linen store, cleaner's rooms, general storage and butler's pantries.
- Neighbourhood Centre BoH at Level 01, Level 02, Level 03, and Level 04: Comprising storage and office spaces.
- **Residential BoH at Level 00**: Comprising staff lobby and concierge spaces. Garage rooms will be accessible by residents on each residential floor.
- General BoH (across multiple levels) comprising office and storage spaces.

4.4.6 Car Stacker

A four (4) level 221-space car stacker facility is proposed to service the hotel and apartment uses, contained in three entry cabins (car park lifts incorporating turntables) is located on the eastern side of the service road between the taxi drop off to the south and the Event Centre Loading Dock to the north.

As shown in **Figure 20**, the car stacker location is adjacent to the Pirrama Road boundary of the site, and will be wholly contained within the site boundaries. The car stacker will extend to RL -25.850, equating to approximately 25m.

This car stacker will be located on Level B4 to Level B7 beneath the proposed porte-cochere and hotel lobby at Level B2. Access to the car stacker and the car stacker transfer cabins via the service road at Level B2 and the car stacker transfer cabins shown in **Figure 21**.

A Car Stacker Management Plan has been prepared and attached at **Appendix VV**, outlining security and access arrangements.



Figure 20 – Location of the Car Stacker along the Pirrama Road site boundary


Figure 21 – Car Stacker Access at Level B2

As noted in the TIS at **Appendix J** the capacity of the car stacker system has been designed to cater for peak hour trips generated by the Ritz-Carlton Hotel valet service and residential apartments. Each car stacker transfer unit can accommodate up to 24 parking movements per hour providing a combined capacity of 72 parking movements per hour. The Traffic Impact Statement also notes that at least one of the storage retrieval units will be fully accessible for wheelchair users providing access to the entire stacker capacity.

4.4.7 Tower and Neighbourhood Centre Façades

Tower Facades

The tower features a gradual twist travelling up the built form. Façade treatment for the geometrically progressive form of the tower is achieved by an offset arrangement of unitised curtain wall panels, which will feature low-iron glazing with white automated louvres behind.

The dual form of the tower is articulated on its eastern façade through a subtle overlapping of glazing which will break the bulk of the tower form.



Figure 22 – Eastern and Western Dual Form Façade Articulation

The split in the western façade of the tower will feature a 'green seam' which gradually reveals the tower core travelling up the built form.

Use specific façade treatment and design have been proposed for the hotel and residential levels:

- The hotel levels will feature a fully sealed floor-by-floor system adopting an integrated glazing unit with sandstone spandrels (or profiled aluminium in a sandstone colour).
- The residential levels will feature a floor-by-floor system, visually consistent with the hotel, but incorporating operable top hung (casement style) windows as well as fixed glazing and a sandstone spandrel or profiled aluminium in a sandstone like finish. The private open space of the apartments incorporates large louvres providing external connectivity to the winter-garden spaces within the apartment.

The amenity and functionality of the proposed façade design is detailed within **Section 9** of this EAR, and in detail within the Architectural Design Statement at **Appendix C**.

Neighbourhood Centre Façade

The Neighbourhood Centre design features a gentle curved façade to match the height of the adjacent sandstone escarpment. The façade materials include a double-skin façade with operable timber louvre shades and a shear glass external wall on a timber mullion to provide a warm and inviting community architecture.

The articulated façade and built form of the Neighbourhood Centre will read as a welcoming building independent from the tower above. The Neighbourhood Centre entry will be clearly identified as a publicly accessible space, with a separate entry to the adjacent residential and hotel entry.



Neighborhood Centre as seen from the corner of Pirrama Rd. and Jones Bay Rd.

Figure 23 - Neighbourhood Centre Façade

Law Building Sydney University

4.5 LEVEL 05 SKY TERRACE

An expansion of the Sovereign Room at Level 03 was approved under Mod 14. The roof of the proposed expansion will create an opportunity to provide a new Level 05 terrace and outdoor event space. The Sovereign Room expansion will be accommodated by the demolition of the L03 Sky Deck. Conditions of Approval requires the roof of this new space to be constructed as a non-trafficable and non-accessible green roof. Mod 13 propose to transform the space to a multiuse landscaped event space which restores the facilities and functionality of the current L03 Sky Deck. The L05 green roof identified under Condition B30 of Major Project MP08_0098, will be superseded by the proposed L05 and L07 deck event, and recreation spaces. The column strengthening from the basement levels to Level 01 undertaken in Mod 14 will support the new the sky terrace.

The proposed Level 05 Sky Terrace will accommodate F&B premises and landscaping. It is also proposed to reconfigure the existing pool and create a new day spa for Astral Hotel as shown in **Figure 24** below and the Architectural Plans at **Appendix B**.



Figure 24 – Sky Terrace

The Level 05 Sky Terrace will also include the space beneath the Level 07 ribbon, accommodating two F&B spaces, outdoor seating and associated kitchen/storage and BOH facilities.

There are two new lifts and scissor stairs located at the northern and southern ends of the Level 05 Sky Terrace and Level 07 Ribbon. These lifts are machine room less lifts with permanent magnet machines and variable voltage frequency drives, meaning there are no lift overruns.

The proposed works to Level 05 will feature a variety of informal lounge areas and dining spaces. The proposed restaurants spaces at this level will be framed with planter and movable pots. Refer to the Landscape Plans at **Appendix D** for further information on the landscape works proposed.

Vertical Circulation Drum

It is proposed to modify the geometry of the vertical transportation drum approved under Mod 14. The vertical circulation drum will be extended to Level 05 to provide a direct link from Level 00 to the Sky Terrace. The vertical circulation drum roof has been designed to integrate into the L05 terrace design. The vertical circulation drum will incorporate of bidirectional escalator pairs connecting between each level. These escalators will provide links between Level 00 and Level 01, Level 01 and Level 02, Level 02 and Level 03, Level 03 and Level 04, and Level 04 and Level 05.



Figure 25 – Location of the Vertical Circulation Drum on Level 05



Figure 26 – Section showing Extension of the Vertical Circulation Drum to Level 05

4.6 LEVEL 07 THE RIBBON

A new ribbon extension proposed above the Level 05 Terrace will form the proposed Level 07 Ribbon, connecting the tower to the existing Star complex along the Pirrama Road frontage. The Ribbon will be supported by the column strengthening from the basements levels through to Level 01 approved under Mod 14. The Level 07 Ribbon will increase the Pirrama Road facade height from 29.80 RL to 44.0 RL, as shown in **Figure 27**.

The southern portion of the Ribbon, as shown in **Figure 28**, will comprise two pools, associated pool decks and two F&B premises and associated store rooms and facilities. The southern pool will be for use by The Star patrons, while the northern pool will be for guests of the Ritz-Carlton.

Lift connection is provided from The Star pool at Level 07 to Level 05 Sky Terrace below.

The northern portion of the Ribbon, as shown in **Figure 29** below, will feature dedicated gym facilities for residents and Ritz-Carlton hotel guests. These facilities are physically distinct from each other and are accessible from separate F&B and hotel circulation spaces.

The Hotel gym/spa will offer direct connection via a walkway to the southern portion of the Ribbon. Similarly, the residential gym will open on to the residential communal open space of 1,103 m², which includes landscaping, a residents' kitchen, causal seating, and a pool. The communal open space has an area of approximately 40% of the tower-related site area, and will have 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter).



Figure 27 – Section of the Ribbon



Figure 28 – Southern Portion of the Ribbon – The Star and Ritz-Carlton



Figure 29 – Northern Portion of the Ribbon – Gym/Spa/Communal Spaces

4.7 FAÇADE INTEGRATION WORKS

Façade upgrade works are proposed to the Pirrama Road and Jones Bay Road facades of the existing building to integrate with the new Ritz-Carlton Hotel & Residential Tower and Ribbon.

Jones Bay Road Facades and Entrances

The proposed Jones Bay Road frontage will form the residential and Neighbourhood Centre entrance to the site, with supporting retail uses along this frontage. Façade integration works to this frontage will include ground floor activation and upper level sandstone facades as shown in **Figure 30** below. Sydney Sandstone panels with drained cavity and internal structural walls will be used along Jones Bay Road to signify its permanence and warmth. The design will blend intricate suspended panels and solar fins using high end fabrication techniques.

The upgraded Jones Bay Road façade will clearly define entry points and has an opportunity to engage with the local pedestrian network, including the steps to the north-west that lead to the upper escapement and Giba Park beyond. Refer to Architectural Plan No. AF4102 within the Architectural Plans at **Appendix B** for further details.



Figure 30 – Jones Bay Road Façade Integration Works

Pirrama Road Façade

Works are proposed to the Pirrama Road frontage to integrate the existing building with the new tower

These works include:

- Vertical elements connecting the new ribbon façade to the Pirrama Road ground plane; and
- Curved sandstone podium element over the Ritz-Carlton porte-cochere.

These works are shown in Figure 31 overleaf.



Figure 31 – Pirrama Road Façade Integration Works

The ribbon will appear as an extension of the tower podium that gently hovers above the existing podium. The façade adopts high performance glazing in an aluminium framing system, with solid cladding areas envisaged to be doubly curved GRC elements or alternatively opaque solid cladding panels. Internally the Ribbon is formed through a timber gridshell structure. Similarly, the porte-cochere and hotel entrance will mirror the Ribbon in shape and texture. The porte-cochere provides a grand entrance with timber panelling enclosing the underside, which morphs to form the ceiling finish of the lobby behind the glass enclosure line.

As part of the Mod 14 Sovereign Expansion works, a new façade primarily composed of clear glazing was approved for Level 03. The Mod 13 Level 05 Sky Terrace and Level 07 Ribbon facade will integrate with the approved Pirrama Road façade, as described in the Architectural Design Statement at **Appendix C**.

4.8 LEVEL 00 RESTAURANT STREET

It is proposed to create a new destination 'Restaurant Street' adjacent to and incorporating the existing Balla and Black restaurants at Level 00, incorporating new arrival arrangements, expanded dining opportunities, and multiple new F&B premises as shown in **Figure 32** below. 'Restaurant Street' will modify the internal layout of Level 00, expanding existing food offerings 'Balla' and 'Black' and converting existing retail spaces into F&B spaces. Restaurant Street will not create any additional GFA.

The proposed works will result in an additional F&B GFA of 5,519m² of which 2,505 m² is on Level 00. The new F&B spaces are achieved by the conversion of existing retail and circulation space.

Balla and Black on Level 00 will be internally demolished, to accommodate new internal fit-out works and integration with 'Restaurant Street'. Refer to Architectural Plan no. AS0700 within the Architectural Plans at **Appendix B** for further details.



Figure 32 – Level 00 Restaurant Street

4.9 DARLING FOOD & BEVERAGE PRECINCT

The proposed Darling F&B Precinct will be achieved by the infill of existing void areas of the Darling Hotel podium. It is proposed to upgrade the corner plaza at the Edward/Union Street and Union/Pyrmont Street entries to incorporate:

- A new F&B premises located at the Edward/Union St entry on level 01 and 02;
- A new awning enclosure for the existing café at Union Street/Pyrmont Street; and
- Two luxury display cases at Darling Hotel car park entry.

These changes are shown in Figure 33 to Figure 36 below.



Figure 33 – Proposed works at the corner of Edward and Union Streets



Figure 34 – Proposed works at the corner of Edward and Union Streets (section)



Figure 35 - Proposed works at the corner of Edward and Union Streets - Level 00, Level 01, Level 02 and Roof