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**PROPOSED STAR CITY “PARTIAL ENCLOSURE OF ROOF DECK ADJOINING
SOVEREIGN ROOM” – MINOR MODIFICATIONS TO MAJOR PROJECT No.08_0098**

LEVEL 03, 80 PYRMONT STREET, PYRMONT

PRE CONSTRUCTION CERTIFICATE BCA REVIEW FOR DA SUBMISSION

Report prepared for: Star City Pty Limited
80 Pyrmont Street
Pyrmont NSW 2009

Attention: Graham Brown

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DOCUMENT ACCEPTANCE

	Name	Signed	Date
Prepared by	Frank De Pasquale		09/09/2010

REVISION HISTORY

Revision No.	Prepared by	Description	Date
R01	Frank De Pasquale	Issued to client for review	24/05/2010
R02	Frank De Pasquale	Revised Scheme for DA Submission	05/07/2010
R03	Frank De Pasquale	Revised Scheme for DA Submission	09/09/2010

1.0 Introduction and Documentation

Introduction

This report contains a design philosophy review concerning the capability of the design to meet Building Code of Australia requirements. This revised review has found that the fundamental design is capable of meeting the requirements of BCA 2010 with the inclusion of fire engineering.

We have reviewed the submitted architectural documentation (provided to date) for compliance with the deemed-to-satisfy provisions of the Building Code of Australia. Where compliance with the deemed to satisfy provisions is not possible a schedule of alternate solutions will be provided as discussed with the client and design architects. A separate fire engineering report prepared by AECOM is likely to be formulated for the departures from the deemed to satisfy provisions once a thorough assessment of existing areas is finalized including additional assessment of the original egress strategies for this particularly level of Star City.

We have made every attempt to cover the main issues under Parts C, D, E, F, G, H and J of the Building Code of Australia. Areas of the design are still being refined so that resolution will be possible prior to the issue of a Construction Certificate for these works.

Methodology is principally review of the available documentation for the building as prepared by Fitzpatrick & Partners including existing drawings prepared by others.

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Documentation available and assessed

The Design Development scheme assessed comprises of the following design drawings as per the attached drawing schedule.

Drawings

SK-001/C, SK-002/K, SK-003/K, SK-004/E, SK-005/E, SK-006/D, SK-007/E, SK-010/D, SK-012/D, SK-013/B & SK-014/B all dated 07/08/10 & 08/09/10 as prepared by Fitzpatrick & Partners.

The Site and Contexts

The site comprises the irregularly proportioned street block bounded by Edward Street, Pyrmont Street, Union Street, Pirrama Road and Jones Bay Road, Pyrmont. It accommodates the existing Star City Casino, which comprises:

- A 10,500m² main gaming floor.
- 3,800m² of retail space.
- 11 restaurants and 10 bars.
- 2 theatres.
- 480 hotel rooms / serviced apartments.
- A 900 person ballroom / conference facility.
- Basement parking for 2,500 cars.

The site also accommodates the light rail line and the 'Casino' light rail station and bus interchange, which are all housed within the Casino building, adjacent to the Pirrama Road frontage.

This application relates to the partial enclosure of the level 03 roof deck adjoining Sovereign Room.

2.0 Use and Class of Buildings relating to this application

Level	Use	Classification
Casino Level 03	Casino and external entertainment deck	Class 9b – entertainment venue

3.0 Construction and fire resistance ratings

The proposed building is to be constructed of concrete and structural steel with a combination of glass fins and lightweight roof. The fundamental concept of fire ratings for the building will be in accordance with BCA.

1. Separation of equipment:

The following equipment (if applicable) is to be fire separated from the remainder of the building via a 120/120/120 FRL: Lift motors, Boilers, Batteries, Sub-station, Switchrooms that sustain emergency equipment operating in the emergency mode.

2. Store rooms:

Store rooms to “entertainment venues” are currently the subject of an alternate solution report issued by AECOM, hence should the need arise for store rooms within the new partial roof deck enclosure adjoining the Sovereign Room, these rooms will also be the subject of detailed alternate solution prior to the issue of a construction certificate.

3. Fire compartment areas and volumes

The building is a large isolated building and in accordance with C2.3, as the building is over 18,000² it is required to be fitted with a sprinkler system complying with Spec E1.5, a smoke exhaust system according to E2.2b, and is to be provided with perimeter vehicular access complying with C2.4 (b).

Vehicular access required under C2.5:

- Must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and
- Must have a minimum unobstructed width of 6 m with no part of its furthest boundary more than 18m from the building and in no part of the 6 m width be built upon or used for any purpose other than vehicular or pedestrian movement; and
- Must provide reasonable pedestrian access from the vehicular access to the building; and
- Must have a load bearing capacity and unobstructed height to permit the operation and passage of *fire brigade* vehicles; and
- Must be wholly within the allotment except that a public road complying with the above may serve as the vehicular access or part thereof.

Currently the 6 metre fire access road is breached by light rail. NSW fire brigade approval has been granted by submission of Section 144 of EP&A Act. Whilst a revised fire engineering report (FER) will be reissued to NSWFB (for information) based on the latest changes this particular non-compliance is not likely to be revisited in the revised FER.

4.0 Access and Egress

Principles

The buildings' egress system has been assessed and designed to ensure compliance with the following principles:

- The maximum distance of travel to any exit from any point of the floor in Class 9b building is to be 40 metres
- If two exits are required for compliance then there is to be 20 metres to a point of choice at which travel to two exits is available.
- The distance between these alternate exits is not to exceed 60 metres passing through the point of choice.
- The distance between alternate exits is to be not less than 9 metres.
- The construction and discharge of stairs, landings, thresholds, balustrades and handrails will need to meet the requirements of the BCA.
- Fire corridors provided for egress will achieve the same fire rating as that provided to their associated fire-isolated stairs.
- All paths of travel are to be a minimum of 1000mm in clear width and all doorways are to be at least 1000mm in clear unobstructed width.
- Widths of exits and corridors must be sufficient to provide safe passage for occupant egress and aggregate widths.

Based on the plans provided, the travel distances will comply with Part D1.4 and D1.5 of the BCA. Additional assessment is currently underway to determine if the aggregate egress width from other parts of the building discharging to the entertainment deck are likely to be affected by these works. If so, a revised alternate solution report by AECOM shall be provided prior to issue of a construction certificate.

Disabled access considerations

In accordance with D3 of the BCA disabled access is required to and within the entrance floor (ground floor) and to any other floor to which vertical access by way of ramp, step ramp or kerb ramp complying with AS1428.1 or a passenger lift is provided. In this regard access is required to the partial roof deck enclosure via compliant lift from the main floor. Access to the partial roof deck enclosure for disabled persons is required to comply with the following:

- Access for persons with disabilities must meet the requirements of D3 and AS 1428.1.
- Access for persons with disabilities is required to each floor of the partial roof deck enclosure as there is a lift which connects all levels.
- The circulation space at doorways i.e. the air-lock doors leading to the partial roof deck enclosure must comply with AS 1428.1-2001.
- Lifts – All lifts will have disabled access features in accordance with E3.6 – no change envisaged.
- No change is envisaged to existing sanitary facilities including unisex disabled sanitary facility located in main Sovereign Room.

Should any variations from the above arise it will require that justification be provided by an access consultant prior to the issue of a construction certificate.

5.0 Fire Services and Equipment

As the partial roof deck enclosure is immediately adjacent to the Sovereign Room the following is a status of the services required and to be provided to the building.

Fire Hydrants:

The building must be served with fire hydrants complying with the requirements of AS2419.1-2005. Hydraulic Consultant to provide details. Details are required prior to issue of a construction certificate. If variances to the coverage by the fire hydrants are required an alternate solution will be required and concurrence from the NSW Fire Brigade sought.

Fire Hose-Reels:

The building must be provided with hose-reel coverage complying with the requirements of AS2441-2005. Hose-reels are to be located within 4 metres of an exit or an internal fire hydrant. Details are required prior to issue of a construction certificate. If variances to the coverage by the fire hose reels are required an alternate solution will be required and concurrence from the NSW Fire Brigade sought.

Sprinklers:

A sprinkler system complying with AS2118.1-1999 is to be provided to the building. Details are required prior to issue of a construction certificate. If departures are proposed an alternate solution will be required and concurrence from the NSW Fire Brigade sought.

Extinguishers:

Fire extinguishers must be provided to all locations which are deemed a potential risk to the occupants of the building, i.e. areas such as main switchboards and plant rooms if any are proposed.

Fire Control Centre:

Not applicable to scope of works

Smoke Hazard Management

Not applicable to scope of works

Lift Installation

Not applicable to scope of works

Exit and emergency lighting and warning systems:

Exit signs and emergency lights must be provided throughout the building in accordance with AS2293.1-2005. Details are required prior to issue of a construction certificate.

6.0 Health and amenity issues

The following criteria detail the required sanitary facilities to be provided.

Sanitary facilities

The partial roof deck enclosure is immediately adjacent to the existing Sovereign Room hence it is unlikely that additional facilities are required as additional patron numbers are not anticipated other than those patrons currently utilizing the existing Sovereign Room.

Room Sizes

The current scheme indicates an internal ceiling height of 3.7m – will comply.

Light and ventilation

The extended building is open all on sides and will be provided with a level of artificial lighting and mechanical ventilation. The mechanical system although not necessarily required is likely to be installed to achieve comfort levels for patrons utilizing this space.

7.0 Energy Efficiency

As the building is unlikely to be classified a conditioned space this particular part of the BCA does not apply.

8.0 Window cleaning

Not applicable to the scope of works.

9.0 Alternate solutions / fire engineering

There may be a need once further assessment is completed of the existing egress strategy for this level for a revised fire engineering report by AECOM. This is based on the aggregate egress width which shall be addressed prior to issue of a construction certificate.

10.0 Approvals from the New South Wales Fire Brigade

At this stage we are confident that it is unlikely the Sovereign Suite (UGA) extension is likely to require any additional approval/s from NSWFB. Regardless this will be determined once a thorough assessment of the level 03 zones and areas is completed.

11.0 Conclusion

We have assessed the architectural building design to date and have reviewed the revised scheme with respect to the Building Code of Australia. The design is at a point where the inherent BCA philosophies have been checked and development consent can be sought. The finer details with respect to BCA 2010 compliance can be finalised prior to the issue of a Construction Certificate.