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Memo

To	John Dawson, Savills	Date	14 January 2015
From	Charmaine Pang	Project No.	s11657
Project	Walsh Bay Arts Precinct		
Subject	External Lighting, Signage/Wayfinding, Public Amenities and Waste Management		

Circulation

External Lighting

Arup electrical engineers and lighting designers prepared the following advice during the concept design phase:

Australian Standards

The lighting design for the project is to be developed to meet the appropriate Australian Standards.

- > AS1158 Outdoor Lighting
- > AS1680 Interior Lighting
- > AS4282 Control of the Obtrusive Effects of Outdoor Lighting

Generally exterior pedestrian areas within the precinct will be lit to pedestrian category P6 as per AS1158.3.1:2005 Table 2.3. This recommends amongst other values an average illuminance of 21 lux. This design target is to be balance against the overall lighting concept to ensure architecture is illuminated where appropriate and public way finding is accentuated by the exterior lighting scheme. Due to the location of nearby residential and hotel developments compliance with AS4282 should be considered throughout the lighting design process.

Assessment of the lighting design criteria to prevent light pollution shall be completed following the resolution of the scheme. A formal report is to be complete to demonstrate compliance to the relevant authorities.

Local Authorities

Compliance criteria for the Sydney Harbour Foreshore Authority (SHFA) and the City of Sydney (CoS) lighting requirements will be determined and agreed upon through the planning process. Where relevant, luminaires are to be specified to meet the maintenance requirements of the local authorities.

Walsh Bay has in recent years become an important site for the Vivid festival light art installations. As a means of drawing visitors through the site the heritage architecture has become an ideal location for the ephemeral works. To that end Vivid and other potential festivals should be considered through the lighting design process. This may include designing lighting in specific locations for use within the festival and/or allowing temporary power within the electrical design.

Site Analysis

The existing site is illuminated using various luminaire and lighting styles. During the design development phase it is recommended that a site analysis is undertaken of exterior and lighting equipment including luminaires and lighting

control. Where appropriate existing luminaire styles are to be continued or referenced.

Hickson Road is illuminated using Smartpoles to meet the relevant Australian Standards and local authority requirements. Amendments to the road lighting is not anticipated within the project scope, however it will be considered when the lighting of potential signage and site entries are considered.

Entry Portals

The entry portals are to be illuminated to provide a clear way- finding experience during the hours of darkness and communicate the brand and character of the precinct. Working as part of the overall design for the 'look and feel' of the development, the lighting design will be developed to reveal the heritage nature of the site and potentially a sense of theatre on arrival.

Wharf Aprons

The wharf aprons will include general lighting to provide safety of circulation and give clear direction. The lighting will aim to establish the heritage feel and potentially create ambient low level lighting to have a sense of connection to the water. There is an opportunity to introduce colour to the wharf aprons, permanent light art installations, or illuminate the water below.

Waterfront Square

The areas that make up the waterfront square could be illuminated in a subdivided manner to reflect the different environments. These areas should be clearly defined, and the design intent established whether that is restaurants, cafes, circulation or seated areas.

As it is located adjacent to the primary entries, this area could be a welcoming and inviting place that enhances the cultural hub and user experience. Intimate low level, indirect unobtrusive illumination is key to this space in order to invite visitors to linger.

Heritage

The heritage buildings are a significant aspect of the site and cultural hub. There is the potential to highlight the facades by the use of light, colour and shadow. Once this brief is developed many lighting effects can be explored, projections, uplighting, highlighting and accentuating the façade.

Waterfront Special Events

The cultural hub in event mode could be an exciting dynamic area. Light and reflections and refractions in the water could potentially form a central light show. Light projections could dance around the space and reflect the current occupancy, LED screens, colour changing luminaires could be utilised to bring and help accentuate this thriving hub.

Signage and Wayfinding

Aspect Studios prepared the following guiding principles for a signage and wayfinding strategy within their public domain concept design report:

Precinct Marking

A well considered and executed wayfinding strategy will enhance the existing entries to the Walsh Bay Arts Precinct, establish visible, ceremonial gateways and enhance accessibility from the greater site area. These wayfinding elements can be integrated into the public domain and structural elements, whilst being sympathetic to the industrial and working heritage of the precinct. They should be playful, visible, informative and vibrant and establish the precinct as open, inviting and highly public.

Principles

- > Establish a legible wayfinding strategy which is highly visible, clear and informative.
- > Mark precinct entries with precinct signage.
- > Locate highly visible wayfinding and information signage at each precinct entry.
- > Enhance the public domain and its unique location as a desirable destination to come back to time and time again.
- > Improve physical and visual site connections by clearing existing entries of vehicular and loading infrastructure.
- > Recognise the Walsh Bay Arts Precinct as a key destination on Sydney's cultural ribbon.
- > Utilise digital technology, such as social media, free wifi and smartphone apps, to raise awareness of the precinct, facilitate navigation to it and encourage visitors to linger and return.
- > Interpret the unique industrial character of the site through varied and dynamic means - integration with structure, signage, digital storytelling.
- > Create precinct signage and interpretive elements that are finely detailed, integrated and enduring.
- > Provide clear links to other destinations within the Walsh Bay and neighbouring areas; and
- > Integrate with existing signage in the Walsh Bay Precinct.

Public Amenities

Steve Watson & Partners and ARUP have provided advice with regards the provision of public sanitary facilities for each of the four event categories as set out in Section 3.2 of the draft Operational Plan of Management for Events.

Guidelines under the NCC

Steve Watson and Partners has confirmed the required public sanitary facilities based on Part F2 of the NCC as set out in the table below:

Class	Event	Occupant Numbers			WC Required / Provided		Urinal Required / Provided		Basin Required / Provided	
		Total								
	Category 1 Major Event	10,000	Male	5000	26		53		26	
			Female	5000	54		N/A		26	
			Unisex Disabled				N/A			
	Category 2 Arts and cultural Festivals	7,500	Male	3750	20		40		20	
			Female	3750	41		N/A		20	
			Unisex Disabled				N/A			
	Category 3 Community Events	5,000	Male	2500	13		28		14	
			Female	2500	29		N/A		14	
			Unisex Disabled				N/A			
	Category 4 Private Event	1,000	Male	500	3		8		4	
			Female	500	9		N/A		4	
			Unisex Disabled				N/A			

* The section for public halls, function rooms or the like under Table F2.3 was used in calculating sanitary facility numbers.

Accessible sanitary facilities must be provided in accordance with F2.4 of the BCA. This requires one unisex accessible facility at half the bank of sanitary facilities provided. These facilities must comply with AS 1428.1 - 2009.

This potentially will allow only one accessible facility to be provided, this would likely be insufficient to cater for the expected numbers. Previous BCA's (prior 2010) would require at least two facilities for category 1 & 2.

Further ambulant accessible facilities at each male and female facility must be provided at each bank of sanitary facilities. These facilities must comply with AS 1428.1 – 2009.

Alternative Guidelines for Categories 1-3

Additionally, ARUP has prepared the following guiding principles for the provision of sanitary facilities for Categories 1-3:

The advice offered by Steve Watson and Partners uses *public halls, function room and the like* category from Section F2.3 of the NCC as the basis for recommended quantities. We agree this category is appropriate for your Category 4 1,000 persons, private event, but believe that any of the other Categories (1-3) would be better addressed as an outdoor festival and would likely encompass the entire precinct. Therefore guidelines for Outdoor Events should provide the recommended quantities of toilets.

The number of facilities required is dependent on a number of qualifiers:

- > What is the makeup of attendees? Women and children use the facilities more often.
- > Duration of the event, longer events need more facilities
- > Availability of alcohol. Drinking creates a higher need.

- > Weather conditions, partly ties to attendance and alcohol/beverage consumption.

There are some guidelines that can be referenced. The *Sydney Public Toilet Strategy Guideline* suggests for a typical event without alcohol present and an even distribution of men, women and children audience:

Category	Audience	2 Hours	Half Day	Full Day
Category 1	10,000	25	50	100
Category 2	7,500	20	37	75
Category 3	5,000	15	25	50
Category 4	1,000	6	8	12

The NSW Premier and Cabinet Guide for Protocol and Special Events references the *Safe and Healthy Mass Gathering Australia Emergency Manual* which gives the following guidelines for a typical event without alcohol and an even distribution of audience:

Category	Audience	Men WC	Men Urinal	Hand Basin	Women WC	Hand Basin
Category 1	10,000	16	50	34	60	34
Category 2	7,500	12	37	25	45	25
Category 3	5,000	8	25	17	30	17
Category 4	1,000	4	8	6	12	6

The City of Melbourne Event Planning Guide provides the following recommendation for events, again without alcohol, and an even distribution of men, women and children.

Category	Audience	Men WC	Men Urinal	Hand Basin	Women WC	Hand Basin
Category 1	10,000	16	50	34	60	34
Category 2	7,500	12	37	25	45	25
Category 3	5,000	8	25	17	30	17
Category 4	1,000	4	8	6	12	6

And with alcohol present:

Category	Audience	Men WC	Men Urinal	Hand Basin	Women WC	Hand Basin
Category 1	10,000	24	60	40	80	40
Category 2	7,500	18	45	30	60	30
Category 3	5,000	12	30	20	40	20
Category 4	1,000	9	15	7	18	7

As noted above, it is recommended that the building code requirements for uses *public halls, function room and the like* category from Section F2.3 be used for the Category 4 and serve as a baseline of "installed" toilets from which Categories 2 through 4 can be increased through the use of portable, "hired" toilets.

Site Locations

Based on the above guidelines we have attached a site diagram demonstrating possible WC provision areas within the precinct for Categories 1-3, using the *City of Melbourne Planning Guide* (with alcohol) as guide.

It is anticipated that the sanitary facilities provided throughout the precinct will be used for Category 4 events.



PUBLIC AMENITIES
CATEGORY 1 - MAJOR EVENTS
The approximate quantity and possible locations for portable, hired amenities blocks for Category 1 events mode are shown on the adjacent diagram, proposed across different parts of the precinct as one potential scenario depending on events operation.



PUBLIC AMENITIES
CATEGORY 2 - ARTS AND CULTURAL EVENTS
The approximate quantity and possible locations for portable, hired amenities blocks for Category 2 events mode are shown on the adjacent diagram, proposed across different parts of the precinct as one potential scenario depending on events operation.



PUBLIC AMENITIES

CATEGORY 3 - COMMUNITY EVENTS

The approximate quantity and possible locations for portable, hired amenities blocks for Category 3 events mode are shown on the adjacent diagram, proposed across different parts of the precinct as one potential scenario depending on events operation.

Waste Management

A waste room has been nominated in the concept design. The proposed waste room location and associated collection point is shown on the attached site diagram.



WASTE MANAGEMENT
A waste room to Wharf 4/5 has been included in the concept design and is shown in the diagram adjacent.