

ATTACHMENT C

RESPONSE TO SUBMISSIONS

Public Exhibition SYDNEY LIGHTS CODE				
	Issue	No Times Raised	Response	Proposed Amendments
1.0	Code Principles and Framework			
1.1	Principles in section 2.2 are not given any weightings'	1	The principles do not have any weighting because they are seen as equally important and often it is a balance of all the issues that needed to address issues of lighting.	None Required
1.2	The Code's lighting hierarchy map in section 4 is "indicative only". What does this mean?	1	The maps are 'indicative only' as they are at masterplan level to guide future works. Detailed design and investigations that will follow may alter the exact alignments / extent of routes to when responding to site specific conditions.	None Required
2.0	Extent of Code Applications			
2.1	Mapping shows Macleay and Victoria Streets disjointed lighting applications	1	The Code mapping denotes City Centre, Village Main Streets/ Activity Strips and Local reflecting the City's Street Design Code street hierarchy. The allocated lighting applications reflect these different land uses of residential and local commercial areas.	None Required

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3.0			
3.1 Provision be allowed for updating the Toolkit with advances in technology and luminaires.	1	The Code recognises that lighting technology is rapidly changing particularly in the realm of sustainability. It is intended the Code will be regularly updated and reviewed to ensure consideration of technology changes and product developments that could deliver sustainability gains or improved public domain outcomes.	Add the following text; Section 1.9 Code Review and Update The Code recognises that lighting technology is rapidly changing particularly in the realm of sustainability. It is intended the Code will be regularly updated and reviewed to ensure consideration of technology changes and product developments that could deliver sustainability gains or improved public domain outcomes.
4.0			
4.1 Code needs independent evaluation showing when or how lighting outputs will be reduced'	1	The City's LED replacement program has documented the projected energy savings and reduction of carbon emissions – these include halving electricity use and carbon pollution compared to conventional lights to save nearly \$800,000 a year in electricity bills and reduced maintenance costs. These calculations are verified by the Australian Energy Regulator who is an independent federal government entity.	None Required
4.2 Code has conflicting objectives of encouraging night time visitation with the idea of sustainability.	1	The Code recognises that there needs to be a balance between increasing safety, night time amenity with the City's sustainability goals. The main sustainability initiative is the LED lighting program that includes targeted lighting improvements along priority pedestrian pathways and public spaces.	None Required

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<p>4.3 Sustainability should be achieved through reducing total lumen output, using controls and timers for on demand ability using minimum level of illumination. Lighting of public art and other creative lighting applications should utilise be on timers and subject to curfews.</p>	2	<p>The City's LED program aims to reduce the City's energy consumption and carbon emissions rather than lighting levels (total lumen output). The Code promotes the use of smart controls and measures that enables flexibility and the provision of appropriate lighting levels as required to further reduce energy consumption</p>		None Required
<p>4.4 Solar lighting should be used for streets, parks and recreation areas.</p>	1	<p>While it is technically feasible to use solar for street, parks and recreation areas there are various site constraints such as overshadowing by trees and adjacent buildings and issues of access, maintenance, metering and connection into the grid. Individual pole mounted panels may be installed in some locations such as parks where there are no mains connections, however the cost effectiveness of solar power is derived from providing this technology on larger, single installation sites such as large roof areas.</p> <p>The City is using solar technology as an alternative energy source for its properties including the 48kW installation on the roof of the heritage listed Sydney Town Hall.</p>		None Required

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5.0 Environmental Impact				
5.1 Code needs to show how light spillage into apartments will be eliminated.	2	The City complies with the Australian Standards that deal with upwards light spillage and the Control of the obtrusive effects of outdoor lighting. This includes the use of masking techniques such as baffles and glare shields to prevent spillage to residences Refer to Section 2.3 of the Code.	None Required	
5.2 Important that the city set the parameters on street lighting to minimise contribution to sky glow. To reduce sky glow impacts the distribution of light needs to be considered.	1	The City complies with the Australian Standards that deal with upwards light spillage. LED luminaires have the advantage of providing targeted light projection, significantly minimising upward light spill. Distribution of light is a primary design consideration to avoid skyglow and deep shadows. (section 2.3) All light schemes must be tested with photometric diagrams to assess light distribution.	None Required	
5.3 Need to ensure lighting from private domain - buildings, advertising etc. does not contribute to sky glow.	1	The City is preparing a Draft Sydney Development Control Plan – Signs and Advertisements 2015 – this DCP has numerous mitigation measures to control light spill and glare including no upward light sources, no flashing, flickering light displays, lighting impact assessment that considers light intensity and cumulative impact of light sources in a local.	None Required	

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6.0 Tree/ Biodiversity Impacts				
6.1 Section 2.3 does not make it clear if trees will be removed or limbs lopped	2	<p>The design of lighting schemes take into account trees in order to minimise pruning requirements. Considerations include pole location, height of pole, and extent of outreach arm. In some instances targeted pruning may be required to ensure effective light shed to the ground plane.</p> <p>A more significant issue power line clearance pruning undertaken by utility authorities.</p> <p>Ausgrid is responsible for pruning street trees in these circumstances and sets out the required clearance for its power lines.</p>		None Required
6.2 Need to avoid adverse lighting impacts on trees and fauna	2	<p>Section 2.3 and 4.4.1 of the Code includes considerations into tree mitigation measures to reduce the need for excess pruning and impacts on fauna. These include the use of appropriate outreach arms, use of timers and appropriate colour temperature.</p>		None Required

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7.0	Heritage Impacts			
7.1	This Code is contrary to Sustainable Sydney 2030 regarding heritage	1	<p>An objective of the Code is to align with the directions of Sustainable Sydney 2030.</p> <p>The Code's Principle 5: Respect Distinctiveness and Place promote the use of lighting to enhance specific precinct identities – including Heritage areas and precincts.</p> <p>The Code has dedicated sections for Heritage areas, section 3.4.2 (p36), section 3.5.3 (p53)</p>	<p>Addition to The Code's Principle 5 directions (Section 2.2 p 18);</p> <ul style="list-style-type: none"> Ensure that heritage context is respected and considered when developing lighting schemes, strategies and design proposals.
7.2	<p>This Code is contrary to council's Heritage DCP Sections 2.1 and 2.2, and Sections 4.1 and 4.2.</p> <p>Lighting palette selections to recognise heritage streets and precincts in the City and take into account existing heritage streetscape heritage elements and features.</p>	2	<p>The cited Heritage DCP sections relate to 'Vicinity controls' and 'Heritage conservation areas and heritage streetscapes'.</p> <p>As with other areas, any changes and review of the existing streets will be done on a street by street basis in keeping with Principle 5: Respect Distinctiveness and Place, including considerations to Heritage Streets and Areas.</p>	<p>Addition to The Code's Principle 5 directions (Section 2.2 p 18);</p> <ul style="list-style-type: none"> Ensure that heritage context is respected and considered when developing lighting schemes, strategies and design proposals. <p>Addition to toolkit for Heritage Areas (Section 3.4.2 p 36)</p> <ul style="list-style-type: none"> Heritage context need to be respected and considered, taking into account existing lighting type and any relevant heritage conservation plans.

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7.3 Not clear if Code applies to heritage listed parks'	1	The Code does apply to all public spaces and parks including heritage parks. Specific Park Plans of Managements and masterplans will ensure lighting proposals and requirements are in keeping with heritage context and planning legislation requirements.	Addition to strategic direction for Parks (Section 4.4.1 p 77) <ul style="list-style-type: none"> Heritage parks need to be considered taking into account existing heritage elements and in line with relevant heritage conservation plans and plans of management.
7.4 Does the Code "heritage area" referred to in 3.4.2 include all Heritage Conservation Areas?	1	Heritage Areas denoted in the code does include heritage conservation areas however application and use of the heritage area lighting palette is to be assessed by the City of Sydney on a case by case basis to ensure consideration of applicable lighting requirements, palette, scale and context.	Addition to toolkit for Heritage Areas (Section 3.4.2 p 36) Heritage context need to be respected and considered, taking into account existing lighting type and any relevant heritage conservation plans.
7.5 Code should be more explicit on extent/ use of heritage poles – particularly for use in the 2011 postcode area.	1	Section 3.5.3 refers to all heritage areas, this includes Elizabeth, Kings Cross, Potts Point, Rushcutters Bay and Woolloomooloo in the 2011 postcode. As with other areas, any changes and review of the existing streets will be done on a street by street basis in keeping with Principle 5: Respect Distinctiveness and Place, including considerations to Heritage Streets and Areas.	None Required

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8.0	Night Time Use of the City			
8.1	No research to suggest that usage of the city at night will be increased through the utilisation of additional lighting	1	<p>The City adopted OPEN Sydney, Strategy and Action Plan is based on a wide consultation on what people wanted for their city after dark. It is also based on a substantial body of new research and submissions provided during the public exhibition period. One of the 5 goals for OPEN Sydney is, “An Inviting and Safe Sydney with beautiful design, including lighting, where spaces for pedestrians encourage strolling and exploring; where streets are safe and free of violence, and where there is respect between visitors and residents.”</p> <p>The Code recognises that lighting is only one aspect of the night-time environment and that other considerations such as urban design, programming, ground floor activation and business mix all contribute to a safe public domain at night.</p>	None Required
9.0	Safety and Surveillance			
9.1	What does “CPTED” mean in Section 2.3?	1	CPTED stands for Crime Prevention Through Environmental Design. This is explained in the front portion, section 1.2 paragraph 2 (p 6) of the document.	Acronym explanation included in section 2.3 (p 19)

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9.2 The operation of CCTV with associated increased illumination does not deter crime. The simplest evidence of this is the amount and degree of crime that is recorded by CCTV systems. City should use low light cameras	2	<p>As stated in section 2.3, the code promotes an integrated approach to the design of the streetscape and public spaces.</p> <p>The City works closely with police to identify the locations for the cameras, based on crime-mapping data and consultation with local business and residents. Monitored CCTV network has been shown to aid in improving effective police response and resources allocation, and convictions in court.</p> <p>As CCTV technology improves, lighting levels will be adjusted as required.</p>	None Required
9.3 Code needs to give clarity on professional qualifications a lighting designer.		Lighting designs are usually developed by professionals with qualifications in engineering or architecture that have undertaken a specialisation in lighting design. All designs are assessed by the City for compliance to the Code and relevant Australian Standards.	None Required

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10.0 Precinct Lighting			
10.1 Creating precincts accented by individual lighting strategies is supported however some require finer resolution. Observatory Hill/ Millers Point need special lighting consideration as a precinct that has had continuous use for astronomy since the early colony.	1	As expressed in Section 4.6, for each identified precinct, the preparation of a creative lighting masterplan that fully scopes the opportunities and needs of the area is vital to ensure coordination with broader public domain proposals for the area. The Sydney Observatory is a key stakeholder in the precinct and will be consulted on lighting applications for the precinct.	None Required
Suggestion for the introduction of Chinese lanterns for Chinatown	1	Chinatown already has a number of creative lighting schemes that express the unique identity of Chinatown, these include, <i>Inbetween Two Words</i> on Kimber Lane, Lanterns on Little Hay Street and <i>Heaven and Earth</i> on the corner and Little Hay and Dixon Street. The City has recently re-engaged a public art curator for Chinatown who will review the public art in Chinatown including art lighting projects.	None Required
10.2 Avoid over lighting Harbour Foreshore as this can interfere with marine navigation.	1	Lighting Schemes should consider all environmental impacts including marine life. LED luminaires have the advantage producing targeted light projection.	None Required

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11.0 Light Levels and Requirements / Specifications				
11.1 The inclusion of the Australian Standard AS4282 is appropriate however that standard is acknowledged as out-dated with respect to current technology	1	The advance of technology does not affect the application and use of AS4282 as it deals with the obtrusive lighting impacts rather than the technology that produces the light.		None Required
11.2 Light quality specifications include a wide range of colour temperature (up to 4500K that is too harsh and will contribute to sky glow and create deep contrasting shadows. High intensity lighting (with high CCT) for public spaces will produce sky glow impacts. Specifications need to be more prescriptive.	1	Colour temperature does not contribute to skyglow impacts. It can be used as a design tool to provide contrast. However, this is done in consideration of overall public domain safety and amenity. Lighting specifications for public spaces are based on Australian Standards 1158 which considers pedestrian use and context. The Code provides a range and each lighting scheme is assessed to respond to unique site conditions.		None Required

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12.0	Lighting Palette Selections			
12.1	Most recommendations on luminaires are considered appropriate to reducing sky glow however a number of suggested luminaires from the Toolkit palette are seriously flawed for use when sky glow is of a concern.	1	The submission did not nominate which luminaires were problematic for skyglow impact however all luminaires in the Code are fully compliant with the Australian Standard for upward light spill ratio.	None Required
13.0	Bollards			
13.1	Use of bollard lighting should be included especially in areas sensitive to astronomical use.	1	Bollard lighting is generally not supported by the City for functional lighting as they do not provide the vertical lighting levels required for facial recognition and a safe public domain.	None Required
14.0	Catenary			
14.1	The use of centenary lighting be restricted to where the surface of illumination is of low reflectivity.	1	Catenary Lighting is used in special circumstances. (eg. Pitt Street Mall) Assessment of these schemes consider all environmental impacts including reflectively and glare.	None Required

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15.0 Planning approvals / legislation				
15.1 The code does not indicate if DAs will be lodged for proposed works. How will early morning construction noise be addressed. This code is therefore contrary to section 79C NSW Environmental Planning and Assessment Act.	1	Public lighting is deemed Exempt Development under the City's Local Environmental Plan, however the City undertakes a Part 5 assessment under the Environmental Planning and Assessment Act to ensure consideration of environmental and social impacts. Creative Lighting schemes will require a Development Application which includes an assessment of environmental impacts as part of the planning approval process.		None Required
15.2 Code is contrary to Sydney 2030	1	The impetus and basis for the review of the Code is Sustainable Sydney 2030. Principle 5: Respect Distinctiveness and Place - The Code promotes the use of lighting to enhance specific precinct identities - Heritage areas and precincts are included in this. The Code has dedicated sections for Heritage areas, section 3.4.2 (p36), section 3.5.3 (p53)		None Required

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15.3 Lighting used at temporary events be subject to Development Applications the use of spotlights to be banned or under strict operational guidelines such as curfews.	1	Temporary Event Lighting is subjected to the Events approval process and include an assessment of all aspects of the proposed event including lighting applications.	None Required
16.0 Cost Implications			
16.1 Cost implications of Code to rate payers	1	The purpose of the Code is not to provide a works program but provide palette selections, lighting specifications and future directions on functional and creative lighting for projects undertaken by the City or private sector. Budget allocations for public lighting and creative lighting are included in the City's 10 Year Capital works Program. Refer to point 28, 32 and 33 of the council report.	None Required
17.0 Syntax / Grammar/ Type Setting			
17.1 Section 3.4.3 missing	1	Typo	Typo corrected in the Code document