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Nader Kadri, MCIP RPP
Planner II, Development Review Urban Services Branch
Planning, Infrastructure and Economic Development Department
City of Ottawa

Subject: 187 Boteler Street – Illumination Concept and Bird Safety Practices

Dear Mr. Kadri,

The following responses are to address the NCC commentary regarding the Illumination Concept and the Bird Safe Lighting Practice measures.

Illumination Concept

The site of the Embassy of Qatar, 187 Boteler Street, falls within the “Far Background” field as defined by the NCC’s Capital Illumination Plan (Section 5.1 - Illumination Zones) and does not fall within the Plan’s designated environmentally protective Dark Zones. While this zone is described as initiating a gradual return to relative darkness, the architectural quality of the Embassy’s tower façade merits lighting, as noted by the Urban Design Review Panel. The site is separated from the Foreground zone both topographically as well as by the multitude of taller buildings in between, thus ensuring that illumination of the tower does not visually detract from the foreground buildings.

The primary purpose of illuminating the tower façade will be to enhance the character of the National Capital and the experience of those in the vicinity. The Macdonald-Cartier Bridge is one of the defining elements of the Capital Illumination Plan’s Sector 2 (Jacques-Cartier Park and Sussex North), and sees an estimated 70,000 users daily, many of whom travel along King Edward through the corridor between the site and the Lester B. Pearson Building.

In accordance with the Capital Illumination Plan’s Section 6.1 guidelines on illumination of buildings, lighting the tower façade will serve the purpose of revealing the building’s architecture, showcasing the unique shape of the building as well as defining the featured pattern of perforations. Without illuminating the perforated façade, focus is likely to be drawn solely upon the perforations through which interior lighting may be apparent while in use, particularly during winter where working hours coincide with earlier nighttime darkness.

The façade is to be illuminated with high quality LED luminaires manufactured by Lumenpulse less than 250KM from the site in Longueuil, QC. The luminous sources will be 3000K, 80+ CRI, consistent within 3 SDCM and with a rated lifetime of over 250,000 hours. This configuration was selected to accentuate the façade’s champagne colour finish by creating a warm glow that is colour consistent across the illuminated façade and remains so without the need for frequent replacement of luminaires.

While illumination values will be targeted based on façade lighting guidelines as defined by IES RP-33 (Lighting for Exterior Environments), the lighting will be governed by a robust controls system, allowing for levels to be calibrated according to ambient lighting levels, seasonal impacts, as well as adjusted dynamically according to curfew parameters (i.e. night mode).

Bird Safe Lighting and Optics

In order to comply with Bird Safe Lighting Practices, all site lighting luminaires are Dark Sky compliant. All luminaires use low glare 3000K 80+ CRI LED sources to avoid impact on circadian rhythms while ensuring accurate colour rendition of the site, enhancing visual acuity as well as the aesthetic appearance. All luminaires along the perimeter of the site use optic shielding (either internal, external, or a combination of both) in order to limit light trespass to the minimum possible. Where architecturally necessary for facade or sign lighting, specialized optics have been used which direct the majority of the candela power toward the targeted surface, limiting the amount of light directed up into the sky to avoid contributing to sky glow. The specialized optics are used in combination with internal/external shielding & louvers to conceal the luminous source and eliminate potential for glare and light spill off the property.

Other Lighting


The balance of lighting, not associated with the illumination of the Embassy tower, will be minimized as practicable to realize a safe and secure setting for the Embassy complex. Fence mounted lighting – oriented towards the interior of the property will attend to security matters by creating a uniform glow along the perimeter which will facilitate alerting security personnel of unauthorized access to the property.

The main entrance to the property will require wall mounted and soffit mounted fixtures, illuminated during office hours, in order to attend to security. Lighting of the main entrance area traveled by vehicles will be done with a combination of pole mounted fixtures, wall mounted fixtures and bollards at the main entrance doors. Where proper security lighting practices necessitate lighting outwards from the facility to identify approaching persons, luminaires have been configured using optics which limit the distance of light projection to avoid disturbing neighbors as well as vehicular and pedestrian traffic.

The courtyard area interior to the property will be lit using pedestrian scale light columns equipped with low output, low glare optics arranged to provide soft illumination of landscape elements and create a warm, inviting outdoor space for employees and guests.

We trust the above addresses the NCC concerns regarding lighting design and Bird Safe Lighting.

Yours Truly,



Carolyn Jones, Principal, OAA, OAQ, MRAIC, LEED AP-BD+C