

## **Project Statement**

Light is infinite, yet light marks time. It literally colours our experiences; marking a place as significant and therefore memorable. Expressing the influence of light on memory, time, and place has been my principle work of recent years and was the basis of my concept for Urban Confluence.

To answer the competition brief, I designed a diaphanous yet durable sculpture based on elements of human existence that are universally recognized by diverse cultures across the globe: measurements of time, in units of light. These fundamental elements also reflect the community's desire to see the Tower as both a symbolic marker and a bridge from past to future.

The structural design is based upon a wooden pagoda, celebrated through history for its ability to withstand earthquakes. Seven levels of fibre-optic light arrays represent the days of the week, each divided into 24 segments representing the hours of a day. Each segment incorporates 365 conical, frosted light diffusers representing days in a year. Fifty-two sun-tracking solar panels on plinths, representing weeks in the year, power low-voltage LED projectors that bring light through Spectrum Tower. At night, the Tower will sequence through gently changing colours, with each segment of each layer being differently coloured. By day its light is white only and will be subtly shimmery.

The quality and effect of light within the sculpture has been carefully constructed to comply with design objectives to avoid biological constraints and mitigate contribution to Artificial Lighting at Night (ALAN). Use of shorter wavelength spectrum over reds and whites decreases interference with bird migratory paths. No high-intensity light is projected outward or upward. The quality of light generated by use of fibre-optic fibers is condensed and matte rather than flashy in appearance. Glare-shielded or dimmable functionality is also embraced.

Spectrum Tower incorporates net-zero energy design principles: the solar panels power all light sources as well as other services such as security lighting, an aviation light at apex, and pathway lighting. The Tower is designed to have an impressive presence from afar for vehicular and pedestrian traffic and on an intimate scale for individual park-goers. This submission includes structural consultancy appropriate to the seismic location provide by an internationally-operational integrated engineering firm and is comprised of highly robust and low-maintenance materials.