

# Martin Place East



Artist Anne Graham  
Architect Johanssen Architects  
Engineer Flanagan and Lawson  
Client Council of the City of Sydney



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Provisional Data Sheet  
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*At The Forefront of Electronic & Fibre Optic Lighting Technologies*

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The proposed fog feature art work “Passage” by artist Anne Graham provided a thorny problem for the client, City of Sydney Council and their engineer, Flannigan Lawson.



**The design** The brief from Johanssen architect Lynda Mieke seemed simple enough, to illuminate the fog from an in ground vandal resistant source without heat present that may cause a public liability problem, especially considering the probable fascination and inevitable prying curiosity of passing children.

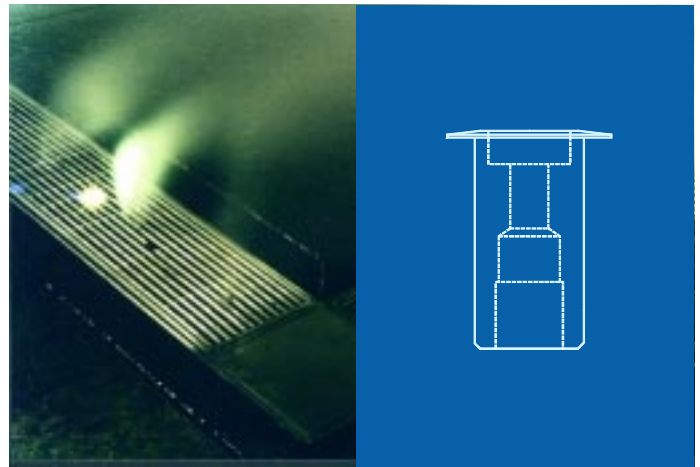


**The solution** Well aware of the public liability risks if conventional inground uplights were used, Flannigan Lawson consulted another fibre optic supplier only to be advised that the excessive lengths required of the fibre cables to the remote mounted light sources resulted in poor light output with considerable discolouration.

Resigned to the fact that a fibre optic solution was not possible the design team then was approached by Digilin, who specialise in custom built solutions. After constructing a test harness of the required length of end light cable (30 metres) Digilin not only achieved the required lux level, but exceeded it by well over 100% with minimal discolouration of the emitted light.

Buoyed by the result, Digilin was asked then to develop a luminaire able to withstand the most concerted attacks by vandals.

The impressive end result is a 30 mm deep by 18mm wide light head machined from a solid piece of 316 grade stainless steel with a 15mm diameter by 5mm deep toughened glass slug epoxied in place to protect the UV stable fibre.



Each light head is fed with a 25x.75mm stranded fibre optic jacketed cable giving approximately 390 lux measured one metre from the light head, a pretty impressive figure given the final lengths of some of the cables. Seventy two light heads are fed by four Arcblaze 150 watt metal halide light sources.

**The water feature** The water bowls had their own set of difficulties. Whist vandal resistance was paramount, the presence of heat was not anticipated to be a problem. Initially selecting low voltage underwater luminaires for the task, the design team quickly changed their minds when they saw how bulky and ugly these would be in a series of bowls measuring only a metre or so in diameter, and that every lamp change (nine fittings) would necessitate draining the water!

Digilin’s fibre optic solution involved welding three 12mm copper tubes to each bowl base, then inserting a machined solid rod of UV stable acrylic incorporating a specially terminated fibre optic cable (SV 25) into the tubes which was then thoroughly sealed at all potential water entry points.

Using conventionally lamped lights would have necessitated a total of eighty one lamps, providing a potential maintenance nightmare, with a couple of lights out at any one time.

The Digilin solution requires only five lamps in total! The end result as you can see, is stunningly beautiful. Council is especially pleased due to the low maintenance and public risk factor.

The only maintenance required is a lamp change every 18 months!