

Good Neighbor

Outdoor lighting is kept inside the property line at a Utah country club

BY PAUL TARRICONE

In the comedy classic *Caddyshack*, Rodney Dangerfield's character announces himself with car horn blaring as he pulls up to the front door of the garish Bushwood Country Club. At the real-life Cottonwood Country Club, however, that sort of boorish display would not be in keeping with the club's culture. *Quiet* and *discreet* are the watchwords at Cottonwood—from the location of the club itself to the lighting that defines it.

Tucked away in a residential neighborhood of Holaday, UT, Cottonwood required a "minimalist approach" for lighting the exterior, says Mansour Aghdasi of Electrical Engineering & Lighting Design (EELD), Salt Lake City, which collaborated with EDA Architects on the 775,000-sq ft project. "There is housing almost all around it, so the lighting is designed in a way as to not impact the neighboring areas. We wanted to keep the light within the property." The illuminance level was



Photo: Aaron Shaw

The club is hidden within a residential neighborhood. Landscape fixtures graze the pillars at the front entrance, while fixtures atop each pillar uplight the canopy.

Linear LED tape light integrated into the wood handrails light a pathway bridge.



limited to .2-5 footcandles—"just enough light for security," says Aghdasi—for a project scope that included entrance lighting, pathway lighting, back deck illumination and a custom lighting scheme for the swimming pool that ensures Cottonwood members can take a nighttime dip without disturbing their residential neighbors.

EELD's design, which earned an IES Illumination Award of Merit, uses only LED sources. "It's all LED for a couple of reasons," says Aghdasi. "We wanted a 2700K-3000K color temperature so the club would blend into the neighborhood.

We could have gotten that with incandescent lights, but without the energy efficiency and life expectancy of LED. High-pressure sodium light would provide the 2700K color temperature but does not have a good color rendering, does not offer dimming capability and is not an instant-on source. LED also offered more control. It allows you to direct the light where you want it."

The first place light was needed, naturally, was at the front entrance. Here, landscape-type LED fixtures with snoots graze the surface of a 6-in. indentation in the pillars. Adjustable LED flood-



Dimmable LED downlights on the back deck allow the building to assimilate into its residential environs.

lights are hidden on top of the pillars to uplight the canopy, giving it a warm welcoming glow.

Uniform ambient light for the pathways traversing the club grounds emanates from 12-ft-high pole-mounted fixtures. Lighting is hidden at the rear of the club, where a pathway bridge is illuminated with inexpensive wet-rated 12-in. linear LED tape lights that are integrated into the bottom of the wood handrail to accentuate the bridge and create an aesthetically pleasing atmosphere. Also at the rear of the club is a deck lighted by dimmable LED downlights with wide

distribution. The lighting control can be programmed to allow these fixtures to gradually dim to a desired light level after a certain hour.

POLE POSITION

Perhaps the most innovative aspect of the design involves the pool deck lighting. "We didn't want to use poles. If we had used pole lighting, there would be about 19 poles around the pool to get the proper lighting, but poles are obstacles on a pool deck and limit kids from running around," says Aghdasi.

Rather than clutter the pool deck with conventional light poles or erect a sports lighting system with high poles, aircraft cable was hung to support LED luminaires.



FAST FACTS

- Preventing light trespass into the residential community was an overriding theme.
- The exterior footcandle level is kept just high enough to meet security requirements.
- A catenary system was designed for the pool deck.

With poles ruled out, the client and design team considered other options. A sports lighting concept was reviewed; for example, a high-mast pole with multiple fixtures could be placed in each corner of the site, which would enable the heads to be aimed to eliminate glare. However, aesthetically, “a 40-ft-high pole wouldn’t fit into the residential area, and there was the potential for light leak,” says Aghdasi.

Instead, the designers teamed with a structural engineer to create what Aghdasi calls a “one-of-a-kind” solution to light the pool area. The structural engineer designed a custom catenary system comprised of aircraft cables strung between six structural posts. Hanging from the cables are 19 70-W LED floodlights, which light the deck from a height of 25 ft to reduce the glare on the water surface. Each of these luminaires

weighs 12 pounds and measures 15 in. in diameter and 11 in. high. Their bulk necessitated the use of the sturdier aircraft cable.

Finally, inside the pool itself are eight underwater 75-W LED lights. Underwater lighting. You can’t get more hidden than that. □

THE DESIGNER



Mansour Aghdasi, PE, LC, is principal of Electrical Engineering & Lighting Design, Salt Lake City. He has received multiple IES awards for his work.