

ABSTRACT

The Hotel Felix is a 13 story boutique hotel located just north of the Loop in downtown Chicago. It intends to be an establishment that is luxurious, trendy and sustainable but it is currently not achieving its full potential. The following proposal includes lighting design solutions that will create a unique and engaging personality for the Hotel that realigns it with its desired goals.

This proposal includes lighting designs for four public spaces, electrical power distribution designs, an architectural study, a mechanical system design, a scientific discussion of color-quality in restaurant areas, and a conceptual lighting design that explores what a lighting design might look like in the future.

The lighting designs include conceptual reasoning, evaluation of criteria, equipment specifications, performance calculations and renderings. These designs revolve around a unique, interactive light sculpture for the 1st floor windows that forms the basis for the new image of the Hotel. The electrical work focuses on sizing panelboards, feeders and overcurrent protection devices to support the new lighting designs. In an attempt to bolster the sustainability goals of the hotel, a study comparing two UPS systems is conducted to explore the possibility of purchasing more energy-efficient equipment. In addition to the work in the four public spaces, a new electrical distribution system and mechanical system are designed for the 1st floor restaurant space. This also includes a conceptual lighting design that explores the possibilities of using OLED and LED technology to light a space. This design is supported by a study of the effects of monochromatic LED light on the atmosphere of a restaurant application where color quality is a critical design consideration.

These all combine to form a single proposal that will revitalize the Hotel Felix and help it become the renowned establishment that it originally intended to be.