

RUNWAY 15/33 LIGHTING REHABILITATION

MOUNT PLEASANT MUNICIPAL AIRPORT | MOUNT PLEASANT, IOWA

COST

\$400,000

COMPLETION DATE

2015

REFERENCE

Brent Schleisman
City Administrator
319.385.1470



PROJECT DESCRIPTION

In 2014, the City of Mount Pleasant tasked McClure to perform engineering services associated with the design and bidding of the Runway 15/33 Lighting Rehabilitation at the Mount Pleasant Municipal Airport (MPZ). The existing Runway 15/33 Medium-Intensity Runway lighting (MIRL) system and the associated taxiway lighting system was antiquated and approximately 30 years old. The cable for the existing lighting system was direct buried, exposing the wiring to the elements and potential animal interference. In addition, the existing fixture heights were not in conformance with FAA height requirements. Furthermore, the existing stake mounted lights were often knocked over and required constant maintenance. Frequent power outages and mowing the airfield was a constant struggle with the damaged stake mounted lights. The direct buried system made it extremely difficult for the Airport to identify and isolate the areas which needed repair.

As a result of the existing conditions, McClure assisted the City in completing a grant application for federal funding to remove and update the edge lighting system. The primary elements of the project included the following:

- Installation of a concrete base mounted MIRL system with energy efficient LED light fixtures equipped with arctic heater kits,
- Installation of new cabling in a continuous 2-inch PVC conduit system,
- Installation of concrete collars around all the base mounted lights to provide convenience for ground keeping maintenance,
- Installation of one (1) Runway End Identification Lighting systems (REIL) on the Runway 15 end. The FAA owned the Runway 33 REIL,
- Installation of a bare counterpoise system for lighting protection,
- Installation of one (1) primary lighted wind cone,
- Removal and replacement of two (2) Constant Current Regulators,
- Removal and replacement of the PAPI systems,
- Removal and replacement of the L-854 Radio Control Equipment,
- Installation of three (3) runway hold position guidance signs.

PROJECT HIGHLIGHTS

Working closely with the FAA, McClure was able to justify the removal of the old turnaround pavement on the Runway 33 end; which was originally constructed when Runway 15/33 was only 3,000 feet in length. The abandoned turnaround pavement conflicted with the proposed edge light spacing, and in lieu of performing costly boring under the pavement, the FAA agreed to fund the removal of the abandoned turnaround.