RUNWAY 11/29 RECONSTRUCTION

WAVERLY MUNICIPAL AIRPORT | WAVERLY, IOWA

COST

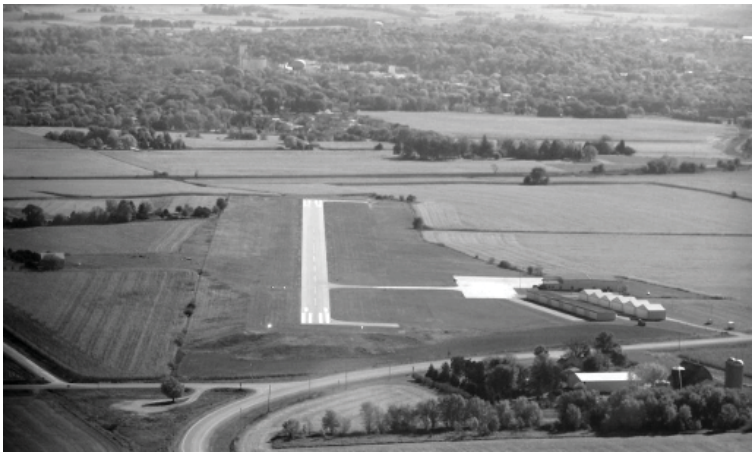
$2.4M

COMPLETION DATE

2016

REFERENCE

Mike Cherry
Public Works Director
319.352.4252



PROJECT DESCRIPTION

The City of Waverly tasked McClure Engineering Company with performing design, bidding and construction administration services for the Runway 11/29 Reconstruction at the Waverly Municipal Airport (C25). The first phase of the project included performing preliminary engineering services in order to determine the most cost effective rehabilitation method and develop a phasing plan to minimize the disturbance to airport operations.

The existing Runway 11/29 pavement had continuously deteriorated since its last improvement in 2001 which consisted of a 3.5" asphalt overlay. The Runway 11/29 pavement section consisted of 4" of asphalt, overlying 6" of Portland cement concrete (PCC) pavement which was originally constructed in 1983, and 8 inches of crushed aggregate. In the 14 years since the overlay, significant amounts of low-and medium-severity joint reflective cracking had occurred. Medium severity cracks existed where sealant had failed and it was determined that the runway was to a point where it is no longer cost effective to continue crack sealing.

Runway 11/29 at the Waverly Municipal Airport (C25) had been constructed to a length of 2,800' and a width of 50'. The existing runway width of 50' was inadequate based on FAA standard criteria for Airport Reference Code (ARC) B-I aircraft. To meet ARC B-I standards, the existing runway was widened to 60 feet.

Additionally, the existing low intensity runway lighting (LIRL) system was over 30 years old and was in very poor condition. The existing PAPI and REILs on both runway ends were also in very poor condition. With the runway pavement being widened from 50 feet to 60 feet, it was proposed to remove and replace the existing edge lighting system with a Medium Intensity Runway Lighting (MIRL) system. In addition it was proposed to replace the REILs and PAPIs on both ends. Major scope items associated with the Runway 11/29 Reconstruction project included the following items:

- Reconstruction of Runway 11/29
- Recycling the existing pavement into a crushed base
- Reconstruction of the Turnaround on the Runway 11 end
- Runway Edge Light Installation (MIRL system) & Taxiway Edge Light Installation (MITL system)
- REIL and PAPI Replacement
- Relocation of Existing Wind Cone on new pad
- Underdrain Installation
- Runway and Taxiway Marking

PROJECT HIGHLIGHTS

The ultimate Runway 11/29 centerline and runway end coordinates were designed to remain the same to avoid impacts to the existing instrument approaches. More specifically, the Runway 11 and 29 ends were be designed within 3-inches of the existing elevation to avoid impacting the VOR-A instrument approach procedure.