

Professional Experience**PRINCIPAL**

Airport Development
Group, Inc.
May, 2001 to Present

ASSOCIATE PRINCIPAL

Airport Development
Group, Inc.
June 1998 to May 2001

PROJECT MANAGER

Airport Development
Group, Inc.
April 1996 to June 1998

PROJECT ENGINEER

Airport Development
Group, Inc.
October 1995 to April 1996

AIRPORT ENGINEER

Airport Development
Group, Inc.
May 1992 to October 1995

ELECTRICAL ENGINEER

US Air Force
September 1987 to May
1992

Education

Bachelor of Science -
Electrical Engineering -
Colorado State University,
1987

Post Graduate Study in
Electrical Engineering -
Colorado State University

Professional Affiliations

Illuminating Engineering
Society, Aviation
Committee

Registrations

Professional Engineer, 1994;
Alabama, Colorado,
Kansas, Louisiana,
Mississippi, Nebraska, New
Mexico, Utah, and
Wyoming

Professional Summary

Mr. Hartshorn provides all aspects of electrical design and construction engineering at ADG. His responsibilities include development of electrical calculations to determine connected load and energy usage, preparation of airfield lighting, automated weather observing system, runway surface sensor system and NAVAID layouts, lighting plans for aircraft and vehicle parking areas, and other specialty work such as automatic gates. Mr. Hartshorn is also responsible for procurement of airport specific equipment such as aircraft rescue and fire fighting vehicles and their auxiliary equipment; airport vacuum and towed sweepers; snow removal equipment including displacement plows, rotary plows, high-speed brooms, sander/deicers trucks; and other equipment.

Mr. Hartshorn works with ADG engineering technicians to develop a comprehensive set of plans and specifications for the project. He ensures proper coordination between specification and drawing as well as compliance with FAA siting criteria, national standards, and local requirements. During this period, he continually looks for alternative methods and materials that can be used to help keep project costs down while improving the overall quality. Mr. Hartshorn normally provides on-site construction inspection on a part-time basis, which is typical of federally funded airfield lighting projects. He complements this by maintaining extensive telephone contact with both airport and contractor personnel to ensure the project is completed on time and under budget.

Featured Projects

Replace Airfield Lighting, Rock Springs – Sweetwater County Airport, Wyoming

In four consecutive projects, the entire airfield lighting system, including the power and control systems, was replaced. The work featured new taxiway and crosswind lighting using precast light bases and plowed duct, replacement of the main runway lighting system reusing the in-place duct and light bases, new visual aids, reconfiguration of the airfield lighting vault, and a new backup generator system for the terminal building and airfield.

Air Traffic Control Tower Siting Studies, Various Airports

Prepare shadow diagrams, line of sight studies, minimum viewing angle calculations, and comparative analysis of multiple potential ATCT locations on airports. Prepare cost estimates, site scoring, and narrative reports. Coordinate analysis of FAA and NWS owned equipment impacts, including AWOS/ASOS, ILS (missed approach and surface penetrations) and radars.

Replace Airfield Lighting, Worland Municipal Airport, Wyoming

In a series of projects, the entire airfield lighting system, including portions of the power and control systems, was replaced. The work featured new taxiway and runway lighting, new signs, beacon, local and FAA-owned visual aids. In a separate project, a new backup generator system was provided for the terminal building and airfield.