



# **ARCHITECTURAL ENGINEERING**

## **Porter Henderson Library Addition Angelo State University San Angelo, Texas**



<b>Architect:</b>	DMS Architects, Inc.
<b>Completion Date:</b>	2003
<b>Building Use:</b>	Education and Library Facilities
<b>Building Size:</b>	44,000 sf
<b>Construction Cost:</b>	\$5,500,000

**Project Description:** Structural Solutions, Inc. prepared the design for a 44,000 square foot third floor addition to an existing two-story library. The third floor addition required large clear span areas and cantilevers that extend beyond the existing cast in place concrete waffle slab and column system. The addition is designed for the use of book stacks, classrooms, audio and video studios, computer laboratories, and administrative offices.

**Project Construction:** The structural system is constructed using conventional structural steel frames and lateral load resisting systems composed of vertically braced and rigid frames. Long clear span conditions are accomplished utilizing plate girders and open web steel joists. Analysis of the existing waffle slab structure was performed to determine the feasibility of the addition and its allowable occupant loading.