The Wright projects

The largest employer in the Dayton area is Wright Patterson Air Force Base (WPAFB). This includes not only military and civilian personnel but sub contractors as well. Every expansion provides opportunities for the construction trades. Whether the work entails building a new hangar, expanding the National Air and Space Intelligence Center (NASIC), or remodeling The Air Force Institute of Technology (AFIT), companies that are members of the Dayton division of the National Electrical Contractor’s Association (NECA) perform work that is integral to the success of these projects. ESI Electrical Contractors recently replaced the flight line approach lighting at WPAFB. The scope of this project was to replace the approach lighting on both ends of the flight line on runways 5L and 23R. It was a high profile project and challenging due to the fact that ESI could not interfere with any flying mission activity. The scope was to completely remove the old system at each end and install all new power distribution, concrete pads, aircraft rated handholes, new 5kv cable, and control cables to the new system, new duct bank and the entire lighting system. This project involved working closely with the Control Tower, Base Operations and Civil Engineering.

ESI had to work within the clear zone of all Air Craft leaving and entering Wright Patterson. At the end of every day, ESI had to make sure all equipment and materials were removed from the site or installed and secured. The Project Foreman was Nick Behnken and Project Manager was Matt Hartshorn.

Chapel Electric is working on several projects at the Base. They are in the finishing stages of a new computer center and auditorium for NASIC. The commissioning has begun and the first floor data center has wrapped up allowing the client beneficial use of this portion of the project. The finished wall coverings are being installed with large architectural decorative lighting behind them in the lobby and dining areas. The extensive raised floor grounding system is in the finishing stages along with numerous emergency lighting inverter. The dimming system (cont’d. page 2)

The war for talent

In December 2004, economic think tank The Brookings Institute released a study titled “Toward a New Metropolis: The Opportunity to Rebuild America”. The study noted “Residential and commercial development in the next 25 years will eclipse anything seen in previous generations,” and that “Nearly half of what will be the built environment in 2030 doesn’t exist yet.” There is no doubt that the construction industry is facing a growth curve like it has never seen before. This is at a time when our country faces a serious skilled workforce challenge. This labor shortage is not only in the skilled trades but also includes qualified managers and leaders.

According to information published by the Bureau of Labor Statistics approximately 7 million craft employees were employed in the construction industry in 2005. This number was predicted to grow to 7.8 million by 2012. It is also estimated that we will loose 1.4 million workers over that same time period due to a number of factors. This means that in a 7 year period 2.2 million workers must be recruited into and trained in order to meet the needs as currently projected. Shortages in all crafts are projected.

In 2006 The Building Futures Council sponsored the publishing of a White Paper addressing the issue of labor shortages in the construction industry. The Building Futures Council (BFC) is a national, non-profit, private organization composed of building and construction industry decision-makers concerned with challenges and rewards of the built environment. In the opening summary the authors succinctly identify the issues and what is at stake for the industry and lastly issues a call to action for members of this industry to demonstrate that the A/E/C (Architects/Engineers/Contractors) is progressive and able to change with the times. In the executive summary the authors write:

“The A/E/C industry is losing the war for talent due to a convergence of demographic, economic, and societal trends. While the industry is occasionally recognized for innovation and excellence, the general stereotype of the construction worker, or the industry as a whole, is poor or negative. However, within the industry, there are examples of associations, organizations, companies, and individuals

(continue page 2)
installation has begun for the new 500 seat auditorium and audio visual work is nearing completion. All the special systems such as fire alarm, security, access control, cameras, multiple communications and data systems, copper and fiber, are in full swing as the construction progress permits. Project Manager: Joe Meyers; General Foreman: Shawn Cochran; Construction Manager: Monarch Construction.

Chapel is also working on two separate hangars for the C-5 Galaxy. The C-5 Multipurpose Aircraft hangar is approaching the final commissioning stage and the C-5 Maintenance Hangar, right next door, is not far behind. The most challenging part of both projects take place 70 feet to 130 feet above floor level. Chapel’s dedicated crews spend the majority of their time high above the ground running conduit, pulling wiring and installing the lighting, fire alarms and foam suppression systems. The foam suppression system is specifically designed to cover America’s largest aircraft in less than 60 seconds. In this case, timing is everything, since the C-5 Galaxy has 12 internal wing tanks with a total capacity of 51,150 gallons of fuel, which is enough fuel to fill over six railroad tank cars. Project Manager: Joe Meyers; Foreman: Doug Seitz; Construction Manager: Monarch Construction.

CRT (Chapel-Romanoff Technologies) has been working on an AFIT renovation. The extensive remodel for one wing of AFIT houses a graduate school dedicated to providing responsive, defense focused graduate education and research capabilities to help sustain the technological supremacy of the USAF. CRT provided and installed a new hybrid fiber-optic backbone, multi-air copper and rework of existing RF distribution network between existing campus networks and new communication closets in this 130,000 sq. ft., three-story wing campus. This project required intricate planning and coordination; ensuring project timeline requirements and customer expectations were maintained to ensure success and zero interruption of the existing network facilities. Seven dedicated communication closets, one SCIF location and over 28,000 Cat 6 data cables, 14,000 Cat 5E voice cables and 220 locations of fiber-to-desk were installed for work areas in support of EIA/TIA and WPAFB standards.

Talent

who are reversing this negative trend. These people are winning the war for talent and developing the future leadership of this huge segment of our economy. But, reversing a decades-old image is not going to happen overnight, if at all, unless the entire industry and the leadership teams in the individual companies make human resources management a strategic priority. This paper outlines the industry problem(s) with human resources, “talent management” best practices within the A/E/C industry and from other industries, and delivers specific recommendations for overcoming this obstacle. This paper is a call to action. There exists a failure to take an honest look at our existing management practices and demonstrate that the A/E/C industry is progressive and able to change with the times. Our ability to articulate those qualities – to current employees, prospective employees, teenagers forming career aspirations, and among ourselves – will determine if we win the war, or simply prolong the debate."

All members of management in the construction industry as well as leaders in construction related organizations and unions should read the white paper in its entirety. Talent is the lifeblood of the industry and our ability to meet this challenge will certainly be instrumental in shaping the future of our country.

(Submitted by Jack Lohbeck, Battelle and Battelle. If you would like a copy of “The War for Talent” white paper please e-mail Jack Lohbeck: jlohbeck@battellecpas.com)

Four Recommendations to A/E/C Companies:

Too few new graduates are entering A/E/C professions, and too many of the industry’s veteran leaders are at or near retirement. The blueprint to construct effective change, some observers believe, will require more than slogans and industry marketing. Company by company, it will require leaders willing to shift away from old practices toward more collaborative work environments that foster career development and reward results.

1) Make succession and leadership development planning a strategic priority. Long-term talent management is absolutely critical to ensure the the future success of your company.
2) Be open to change. To create a more attractive work environment, individual companies should review existing management and HR practices to see if they help or hinder current and future workforce needs.
3) Establish recruiting, training, and development programs that fit the company culture. For example, if your business has a time-honored way of approaching cutomers, projects, or career advancement, it would be wise to design orientation programs for new hires that feature a senior executive talking about those issues in candid detail.
4) Build your company’s “brand.” Success in recruiting happens when prospective employees see that companies encourage ongoing learning, demand accountability at all levels and reward results.

October, 2007
Your comments, suggestions and questions are welcome! Contact the Western Ohio Chapter - NECA.
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Connections
In light of the shortage of qualified managers available to electrical contractors, NECA and partners are working on several fronts to attract capable young people to the management side of the industry. One way is through the establishment of NECA student chapters at colleges and universities.

ELECTRI International – The Foundation for Electrical Construction Inc., which has been active on this issue since its inception, is working with researchers from the University of Oregon in a study on the “Development and Implementation of an Electrical Construction Management Scholarship, Internship and Cooperative Program.” In addition to encouraging and facilitating development of construction management degree programs at more institutions of higher learning, the plan also includes using NECA student chapters as a resource for developing future electrical contracting personnel.

Regular NECA chapters provide assistance by exposing students to industry-related educational programs and helping arrange internships with local NECA-member contractors and field trips to NECA contractor’s offices and work sites. Their goals include:

- Bringing together students with industry professionals
- Educating students about the electrical construction industry
- Exploring the opportunities that exist in electrical construction
- Reaching out to the community through service projects.

Did you know?

- The most abundant metal in the Earth’s crust is aluminum.
- Ten percent of the salt mined in the world each year is used to de-ice the roads in America.
- There are exactly 1,048,576 bytes in one megabyte. Half a byte is called a “nybble.”
- The first video game was Pong, introduced in 1972 by Atari.
- The first parking meter was installed in Oklahoma City in 1935.
- The first commercial passenger airplane began flying in 1914. The first one with a bathroom began flying in 1919.

Getting educated... the NECA convention

Over 5,000 attendees benefited from NECA 2007 in San Francisco on October 5-8. With over 302 exhibitors on the trade show floor – 22 of which were dedicated to solar, green and renewable energy – attendees found the aisles filled with great business opportunities. Management seminars provided leading-edge education opportunities on a host of topics essential to success in the competitive electrical construction industry.

Thinking “green” is the future of the construction industry in this country. Several seminars offered at the convention focused on this topic. “It isn’t easy being green: but it’s profitable,” covered several subjects including: the LEED rating system and “green” lighting systems and transformers. Another management seminar, “Emerging Green Markets: The Role of the Electrical Contractor on Green Building Projects,” provided a strategy for electrical contractors to use on green building projects. Attendees learned about the history of green buildings, key market drivers, standards, areas of opportunity for electrical contractors, and strategies to expand their business around these projects. This course is also offered through NECA’s Management Education Institute (MEI).

MEI

The purpose of the NECA MEI is to develop and provide management education programs as a service to NECA members and chapters. The MEI provides NECA members and Chapters with education and training services focused on the business and project management knowledge and skills required for the success and continuous improvement of the electrical contracting industry in the 21st century. In today’s fast-changing business and technical environments, management decisions and strategic thinking must occur at all levels of the company. MEI meets the management development needs of NECA’s electrical contracting community.

New 2007-2008 Courses include:

- Electrical Safety in the Workplace – 70E
- How to Avoid Killer-Jobs by Improving Estimating Accuracy
- Emerging Green Markets
- Marketing Planning/Consultative Selling
- Leadership Dynamics
- Human Resources – Using the Potential of Your Greatest Asset

In addition to the new courses, continuing education programs were again offered through NECA’s Management Education Institute (MEI). The newest NECA chapter was recently established at the Georgia Institute of Technology. The Georgia Tech group is the 14th student chapter and is affiliated with the Atlanta NECA Chapter. Other NECA student chapters include: Bowling Green State University, California State University at Chico, Central Washington University, Iowa State University, Milwaukee School of Engineering, Northern Illinois University, Oregon State University, Purdue University, Southern Polytechnic State University, University of Kansas, University of Nebraska, University of Washington and University of Wisconsin-Madison.
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Annual NECA / IBEW / LMCC Golf Outing at Greene Country Club.

Winners (from 1 to r) Jerome Welling, Tim O’Meara, Tom Cope and John O’Meara, all with Wagner Industrial Electric.