Brenda

DAYTON engineer

BIRTHPLACE OF AVIATION

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FELLOW MEMBER 1991

The grade of FELLOW is reserved for those unique individuals who have made an impact in the areas of technology, business or humanities through their involvement in engineering or science. This may be direct activity or it may be creating a management philosophy which fosters an environment (organizational structure, management, people, capital investment, etc.) which allows new technologies or even whole new industries to be born.

With roots stemming to such members as Charles Kettering, Colonel Edward Deeds, Orville Wright, George Leland, Hans von Ohain, "Ernie" Fraze, and General Jim Stewart the grade of FELLOW represents the highest honor the Engineers Club can bestow.

WILLIAM D. LOCKWOOD, P.E.

Chairman of the Board

LBJ ENGINEERS & ARCHITECTS INC.

FELLOW
ENGINEERS CLUB OF DAYTON
WILLIAM D. LOCKWOOD, P.E.

This distinguished professional engineer is a team builder with a commitment to problem-solving through engineering and total responsiveness to client needs. Many of Dayton's leading structural engineers have honed their professional skills at his side. Bill's creative civil engineering efforts over the past three decades have significantly improved the quality of life for many. His fundamental technical advances in "tilt-up construction" technology, developed in cooperation with Miller-Valentine Group, have provided modern long-lasting facilities for business firms at minimal cost. His most recent technical advances address two of our nation's most urgent problems: the replacement of an aging and deteriorating bridge inventory and the environmental needs for underground containment.

Bill is a highly disciplined civil engineer with a driving philosophy that promotes inventive concepts, cost effective design, practical construction and rapid completion of the work. This philosophy is anchored in strong educational credentials and exceptional experience. He holds a BS Civil Engineering degree and MS Civil Engineering degree from the University of Cincinnati. He is a registered professional engineer in Ohio, Indiana, Florida, Alabama, Nevada, Colorado, and Wisconsin. He is a member of the American Society of Civil Engineers, Engineers Club of Dayton, American Concrete Institute, National Society of Professional Engineers and Society of Military Engineers. He has authored technical papers for national technical and construction journals. He received the 1978 ASC Outstanding Engineer and Scientist Award.

Bill has the unique capability to function as both a fundamentalist and a generalist. He uses rigorous mathematical analysis in structural design to insure safety and long-term integrity of the structure. This fundamentalist approach has consistently met and exceeded accepted government design standards. It has also been validated by test data and overwhelming acceptance in numerous peer reviews. The ability to integrate this fundamental rigor into the broader requirements of architectural design, minimal construction costs and long-term economic return is the mark of the true professional.

This special talent has resulted in two major technological achievements in the field of civil engineering. First is the highly respected concrete panel "tilt-up construction" technique that has provided major economic opportunities for the construction industry. Bill was one of the pioneers in tilt-up, applying emperical test data to a wide range of constructable, economical engineering solutions for the building technique. The result was that site cast concrete wall panels could be designed as vertical load bearing members and still accommodate wind loading and shear transfer. This eliminated exterior structural framing for large buildings, permitted continuous horizontal pouring of concrete wall panels, and reduced erection time at the job site. It also offers an unlimited variety of architectural treatment to the buildings' exteriors. He established the design data and technical standards for this new wall panel construction technique. These standards are employed by LJB's CON/STEEL Tilt-Up Systems and used by contractors around the country.

Second is the rapidly emerging precast reinforced concrete arch that is having a major impact on small bridge replacement programs on a national basis. This patented precast unit eliminates most restrictions for cover and live load limitations and has been proven to be more economical than other design concepts. A three-year development program has correlated Bill's innovative stress analysis with actual performance data obtained during full-scale tests. The CON/SPAN culvert arch has been installed in twenty-nine states and Canada. This program has been a success because Bill was able to comprehend the magnitude of the evolving bridge replacement needs, integrate this knowledge with the construction requirements of conventional bridge design, and evolve a technical solution that significantly reduces costs and construction time. The technology is now being extended to underground containment systems.

Bill Lockwood is an unassuming, low-profile engineer. He leads by example and is characterized by his contemporaries as a person with significant integrity, ingenuity and energy.

His influence can be seen in the many "tilt-up construction" buildings that stand graciously along our area's interstate highways. His creative passion to "do it right" is expressed in many award-winning structures including Dayton's Island Park cable-stayed bridge. His dedication to standards in civil engineering have placed his footprint firmly in the sands of time. He stands with the other great engineers who contributed to the innovator image in this community.