QBS Testimony

Stephen T. Boswell, Ph.D., P.E. November 30, 1994

Testimony Against the Proposed Freeholder Resolution to Bid Design Professional Services

Thank you for the opportunity to address this Board on the proposed resolution for a procedure to select professionals who work for Bergen County by use of low bidding.

My name is Dr. Stephen T. Boswell. I am president and CEO of Boswell Engineering, one of the largest engineering firms in the State. I am speaking to you today in several capacities. I am representing the American Consulting Engineers Council, the Consulting Engineers Council of New Jersey, the National, New Jersey and Bergen County Societies of Professional Engineers, and the New Jersey Society of Municipal Engineers. Additionally, I will speak to you today as an engineer and a business owner and taxpayer in Bergen County.

The proposed resolution [Freeholder Resolution to Bid Design Professional Services] is bad public policy which will cost taxpayers more money in both the short and long-term. While the goal of reducing taxpayer expense is laudable, the proposed resolution will do exactly the opposite. I will illustrate this point by providing specific facts and data. I ask this Board to require anyone who speaks for this proposal to be as specific as the information I will provide. It is not acceptable to simply state the proposal will work. I will provide proof that the proposed resolution is bad public policy.

FACT ONE

All branches of the Federal government, the Army Corp of Engineers, the U.S. Navy, the U.S. Air Force, HUD, DOD, DOE and NASA, to name a few, use Qualifications-Based Selection (QBS). This procedure is a simple three (3) step process. In step one, firms which submit qualifications for a specific assignment are ranked. In step two, the top ranked firm develops a scope with the client/owner and in step three, an acceptable fee is negotiated for the scope as defined in step two. If an acceptable fee cannot be negotiated, the top ranked firm is eliminated from consideration and the second ranked firm precedes through steps two and three. If this is also unsuccessful, the second ranked firm is eliminated from consideration and the third ranked firm enters the process. At all times, the owner is in control of both the scope and the fee. However, the owner gets the benefit of the consultant's insight and experience in developing the scope.

All Federal agencies which hire design professionals do so under P.L. 92-582 since its introduction into law on October 27, 1972. P.L. 92-582, commonly known as the Brooks Act, requires the use of Qualifications-Based Selection. Note the use of QBS is required, not optional.

In addition to all branches of the Federal government, at least 35 states, numerous counties and municipalities use QBS. The number one agency in New Jersey in terms of hiring engineers, the NJDOT, uses QBS. Our neighboring states of New York, Pennsylvania, Delaware and Connecticut all use QBS. New Jersey may soon become the next state to require QBS by law. Senate bill S534 (sponsored by Bergen County Senator Gerald Cardinale), which requires QBS for the selection of design professionals, has already passed the State Senate and the companion assembly bill A364 has passed out of both Assembly committees and will soon be posted for a vote by the entire Assembly. A364 was introduced by Assemblyman Nicholas R. Felice (an engineer) and cosponsored by EVERY engineer in the New Jersey General Assembly, Assembly Speaker Haytaian, and Assemblymen Gibson,

DiGaetano and Albohn. As with the Federal Brooks Act, these bills will require selection of design professionals by QBS. Currently, design professionals may be selected by QBS under N.J.S.A 40A:11 - 5(1) (a) (i) which excludes professional services from the requirement of bidding.

When Governor Whitman took office, she issued Executive Order 6 on January 25, 1994, which established a panel consisting of the Attorney General, the State Treasurer and the Governor's Chief Council, to study procurement practices for several services, including design professionals. On July 29, 1994, the report of the panel stated, "The State... would be well served by continuation of modified competitive practices for the selection of architects [and] engineers..." The modified competitive practice specifies "fee negotiations are undertaken with the professional whose qualifications for a particular job are of the highest quality." In other words, QBS!

The recommendation to select the most qualified firm and then negotiate an acceptable fee was incorporated in Executive Order 26, issued on October 10, 1994. Again, the recommendation was for the State to continue to utilize competitive practices based on qualifications, not price. Unfortunately, the Star Ledger reported Executive Order 26 requires bidding for engineering and architectural services. This is flatly incorrect, the Order does no such thing.

To sum up fact one - everyone uses QBS, why should Bergen County change?

FACT TWO

The States of Maryland and Pennsylvania switched from QBS to a bid system as proposed in this resolution. Each switched for a different reason. BOTH have switched back to QBS because they were spending MORE MONEY by bidding professional design services. In fact, the Maryland method was identical to that as proposed by this resolution. It failed. Let's learn from other's mistakes.

FACT THREE

In 1985, the American Institute of Architects did a comparison study between the old Maryland method (substantially identical to the method proposed in this resolution) and the QBS method used in Florida. The study found the cost to procure professional services was nearly twice as much in Maryland as in Florida and procurement took much longer in Maryland. Specifically, the cost of professional services selection and fees was 13% of construction costs in Maryland and only 6.8% in Florida. The reason for the increased cost was the necessity to develop a detailed scope of work in order to get prices from professional firms. As a result, Maryland required a much larger staff to select design professionals. In the QBS process, as in Florida, the scope is developed after firms are ranked and it is developed with the consultant. This saves the owner a considerable amount of money, allows for a smaller staff and saves time. In Maryland, it took an average of ten (10) months longer to select a design professional than it did in Florida.

Summing up fact three, data proved the method as proposed in this resolution will cost the County of Bergen more money, require more staff and take more time. The AIA study conclusively proved QBS costs less in the short-term.

FACT FOUR

The increased cost to the County will not be limited to the selection process. The large increased cost will come during the construction phase. Engineering on a public works project represents approximately 1% of the total cost. The remaining 99% consists of construction and operation and maintenance of the project. However, it is the 1% spent in engineering which determines the other 99%. An example will best illustrate this point. Boswell Engineering was selected by qualifications to design the Ho-Ho-KuS Brook flood control project in the Village of Ridgewood for Bergen County. When we were selected, it was not known how many, if any, bridges were to be replaced. Detailed engineering reports and modeling determined that two (2) bridges, East Glen Avenue and Meadowbrook Avenue, had to be replaced. I do not know how any price competition was possible

prior to the reports and modeling being completed. No one knew which or even how many bridges to design. Let us assume a price competition was utilized after the two (2) bridges were identified. In order to provide the lowest price, the design proposal would assume the same type of bridge in both locations. This is the cheapest design cost. Due to the hydraulics and traffic considerations, the East Glen Avenue Bridge had to be a steel beam bridge. The lowest design cost would then dictate a steel beam bridge at Meadowbrook Avenue. Since we were hired on qualifications and were able to perform value engineering, we designed a concrete box beam bridge at Meadowbrook Avenue. This saved the County \$150,000 in construction cost and \$450,000 in operation and maintenance (painting) costs during the useful life of the structure. Just the \$450,000 is more than our entire design fee for the project. If the project were done by bidding the engineering, the County would have spent \$600,000 more for construction and operation and maintenance. Does it make sense to save \$10,000 to \$20,000 in the design fee and spend \$600,00 more in construction and operation and maintenance? There was no way to know this when we were selected.

FACT FIVE

If the lowest possible design fee is the selection criterion for design professionals, quality management will suffer. At Boswell Engineering, every project with a construction cost over \$50,000 goes through an independent constructability review. The plans and specifications are given to the construction department to look for problems which may come up during construction or look for areas where a contractor may be able to pursue extras. In fact, the Associated General Contractors (AGC), the people who build from the plans designed by engineers and architects, endorse QBS and state, "The emphasis on design quality and safety reduces life cycle costs and helps limit litigation." This is a statement directly from contractors stating that QBS reduces litigation.

FACT SIX

If the lowest price for design services is utilized to select design professionals, innovation will suffer, as well as quality management. There will not be sufficient funds to investigate novel solutions, solutions which could mean big savings in construction or operation and maintenance costs.

FACT SEVEN

In addition to the AGC, QBS is recommended by the American Public Works Association, the Building Contractors Association of New Jersey and the American Bar Association.

FACT EIGHT

The facts and logic do not support the proposal for a system of bidding for design services. The lack of logic is exemplified by an editorial in the Record. The following is taken directly from the editorial and is not out of context. "Bergen County spent more than \$1 million in the last year on non-competitive contracts, indicating a need for reform." Does anyone find any logic at all in the statement? Why does an expenditure of an amount indicate a need for reform? Were there allegations that the money was spent unwisely? The editorial makes no reference to any.

The rhetoric in support of this proposed resolution [Freeholder Resolution to Bid Design Professional Services] sounds good but the facts say otherwise.

SUMMARY

In summary, QBS is the method used by the Federal government, at least 35 states and numerous entities in this state. It is used because it has been proven to reduce both the short-term costs of selection and design and the long-term cost of construction, operation and maintenance and litigation. This proposed resolution [Freeholder Resolution to Bid Design Professional Services] can only be called bad public policy and should be defeated. Thank you again for the opportunity to address this Board. I would be happy to answer any questions you may have.