American Concrete Pipe Association

House Bill No. 6739, Act Concerning Specifications for Pipes Used by the Department of Transportation
Standing Committee on Transportation
Hartford, CT
February 23, 2015

Mr. Chairman & Committee Members:

The American Concrete Pipe Association (ACPA) is the national association of producers of reinforced concrete pipe. The ACPA represents over 60 companies and more than 300 plants across the country. As a national association, we have seen almost identical legislation to House Bill 6739 in several other states over the last two years. In each of these cases a coalition of Engineering Associations, specifying bodies, concrete pipe producers, and competitive products have combined to present a unified opposition against these bills.

I am testifying today in **opposition of House Bill No. 6739** as both a representative of the ACPA and a Professional Engineer registered in the State of Ohio.

I'm not sure that this is the appropriate forum to discuss the merits of plastic or concrete pipe; however, I would like to respond to some points made during the testimony in favor of the bill. It is true that both Florida and Pennsylvania have given plastic pipe a 100 year design life alongside concrete pipe. But the studies mentioned from these states took *very* short term and questionable results and extrapolated them out hundreds, if not thousands, of years. In addition to a 100 year design life, these states have two of the most stringent post installation inspection requirements of any state in the country. Both of these states have found out firsthand the intensive amount of inspection necessary to verify a proper flexible installation, and the high expenses associated with such thorough inspections.

It is true that both rigid and flexible pipes must be correctly installed. Proper installation insures that a buried pipeline provides two functions: It must provide conduit for the flow of water and structure to support loads from above. Concrete pipe provides both. With concrete pipe up to 95% of the structure is provided by the pipe itself, while plastic pipe is simply a liner. Plastic pipe gets up to 95% of the structure from the compacted soils around the pipe, making it extremely installation sensitive. This is why inspection is so important--it helps to verify that a low-bid contractor has properly built that structure.

Upon initial inspection, the bill appears relatively harmless; in effect stating that in order to be installed a pipe material must have an associated AASHTO specification. However, after further review of the bill it would seem to suggest an end to the autonomy of the engineer to decide which material he/she deems acceptable based on their professional judgment for a given project. In fact, testimony in favor of this bill has very clearly stated that this is the desired outcome of the bill.

By legislating that pipe materials used in storm drainage applications be *any* material meeting the AASHTO specifications for manufacturing, design and installation, the legislature may unintentionally remove the engineer's discretion of structural, location and situational considerations for each individual project. While it is common for governing entities and industries to reference AASHTO specifications, the mere fact that a material standard exists is not proof of a pipe-material's acceptability. The existence of such a standard does not imply approval or the mandate of a material by the national AASHTO organization, but instead is meant as a guideline for design and installation.

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If the design professional's hands are to be tied by the passage of this bill, the onus of liability would still rest firmly and unfairly on the engineer. The autonomy of design for Professional Engineers is not only common sense, it is granted to them on federally funded highway projects through the passage of the most recent highway funding bill, MAP-21 (Moving Ahead for Progress in the 21st Century Act).

House Bill 6739 states that "...pipe manufacturer(s) shall supply tabulated values for minimum and maximum cover to support anticipated highway traffic loads." Such tables are often useful tools for an engineer to estimate viable design considerations, but are produced based upon *several assumptions* which often preclude the these tables from consideration on the design of a specific project. Due to the difficult and technical calculations necessary to check the design of a flexible pipe material and installation, the Professional Engineer cannot simply choose a viable fill height from a table. Certainly there are states across the country which provide these tabulated "height of cover" tables; however, the assumptions, population and enforcement of these values should be left to the Department's of Transportation Professional Engineers rather than the pipe manufacturer.

In the past two years our association has seen similar legislation appear in many other states, and in each case the proposed bills follow this same format. Initially the bills define pipe materials to be any material with an associated standard by a specifying body (i.e. AASHTO, ASTM, AWWA, etc). This loose definition at once opens the bid process to an almost unlimited variety of products, while simultaneously removing the engineer's autonomy to evaluate all necessary considerations. In each case that a similar bill was lobbied by a specific pipe material industry, the state legislatures have chosen to defeat the proposed motions.

Last year the state of Ohio dealt with one of these nearly identical bills. Among the many professional associations and companies who spoke out against the proposed Ohio HB417 was the Ohio Chapter of the American Council of Engineering Companies (ACEC). Mr. Donald Mader, the Executive Director of the Ohio Chapter made an illuminating analogy in his letter to members of the Ohio House Public Utilities Committee. Mr. Mader wrote that lawmakers wouldn't dream of dictating to a knee surgeon the types of replacement knee materials which could be used in every knee operation. In the same light the legislature should not consider dictating to the professional engineer which pipe material or standard is optimal for each design situation.

As both the Northeast Regional Engineer for the American Concrete Pipe Association and a registered Professional Engineer in the State of Ohio, I urge you and your fellow legislators to vote to keep the autonomy of design firmly within the Engineer's responsibilities. The choice to specify a material, design, installation and inspection should be made by informed, technical design professionals rather than as an outcome of an attempt to gain market share.

Sincerely,

Trygve W. Hoff, PE
Northeast Regional Engineer
American Concrete Pipe Association