

Contractor Value Engineering

Value engineering (VE) is a systematic approach to identifying a project's functional objectives so that design, construction, and future operations can be optimized. Owners typically authorize and initiate value engineering studies, which are then conducted by a multidisciplinary team with a clearly defined scope.

Quality in the Constructed Project, 2nd ed., published by the American Society of Civil Engineers, contains a chapter that includes a discussion of the concept of value and the benefits of VE. Project value is defined by:

Value \approx [Function + Performance + Quality]/Cost

Owner requirements are the basis for establishing the project function, performance, quality, and cost. Thus, owner requirements directly affect the relative value of project characteristics such as aesthetics, reliability, sustainable development, maintainability, operability, and construction duration. But, there are costs associated with building aesthetically pleasing structures, ensuring that the structures are durable enough for the intended use, building them faster, or satisfying the other characteristics. VE is one method for achieving a value measure that is acceptable to, and in the best interest of, the owner. Concrete contractors are often invited to participate in value engineering decisions and can make significant contributions to the value the owner receives.

ASCC concrete contractors are eager to assist in the VE process. Contractor suggestions can, and have, made a considerable difference in value and cost to owners throughout the United States. These suggestions are made in good faith and are based on previous experience, interactions with other architects and engineers, and discussion with other owners. Such suggestions shouldn't be considered to constitute design because most concrete contractors aren't licensed to practice engineering, nor do they carry errors-and-omissions insurance for design.

Recommendations by concrete contractors should not be construed as "design" unless specifically designated in a design-build agreement. Concrete contractors are often asked to make suggestions that will reduce the cost or duration of the project. Typically, the owner's value or project function is not adequately conveyed when cost or time reductions are necessary. Design professionals for a project are best able to evaluate recommendations by the concrete contractor and should be consulted by the owner when all of the VE recommendations are reviewed.

ASCC concrete contractors will work with all parties in addressing these issues. If you have any questions, contact your ASCC concrete contractor or the ASCC Technical Hotline at (800) 331-0668.