

## **Implementing Web-Based Comment and Response**

The ESI membership has long been interested in using technology to improve upon the process of plan preparation, submission, review and approval. The ESI program of investigation into these areas is referred to as ESRA: Electronic Submission Review and Approval.

The widespread availability of computers, high-speed telecommunication access, internet connectivity, specialized software products and human comfort with automation have matured sufficiently to explore new opportunities. One aspect of the process to obtain approval for a project, in any jurisdiction, is submission management and the underlying process during which regulatory review by the jurisdiction takes place followed by plan correction and clarification and resubmission until agreement is achieved and the plan can be approved. For simplicity, this aspect of the process is often referred to as Comment and Response. It is not necessary to dwell on the complexity, level of resource consumption and time effects that comment and response involves. It is an intense communication-based effort. Fortunately, comment and response is also an area of great promise for applying web-based technology to assist both the reviewers and submitters of plans.

The US Army Corps of Engineers, Construction Engineering Research Laboratory has been providing support for a web-based comment and response system for over ten years. The system known as Dr. Checks is in mandatory use for all contract design projects for the Corps. The system has also been adopted by the Department of State, Foreign Building Office for comment and response activities on embassy projects worldwide. Dr. Checks has over 30,000 users worldwide, is stable and has been offered to ESI as a potential solution to improve upon C&R processes. The ESI version of this capability is referred to as ESI WCR.

The ESI WCR provides web-based support for entering review comments in a very organized and well-documented manner. The reviewer enters the comment into the system (either original comment text or copied text from a pick list of previous comments or references) identifying specific points in the plan documents (page and detail) for reference. The comment is uniquely identified so a “threaded” sequence of discussion and resolution can take place. Once the comments are ready for publication, the reviewer (submitter is used in Dr Checks) can analyze each comment individually and provide responses to resolve the comment. These responses can be supported with graphical materials in the form of pdf attachments that become part of the record or resolutions. The original reviewer then has the opportunity to “back check” the response to determine if the issue has been resolved. Once all comments have been resolved, a detailed documentation of those resolutions is available, essentially forming the “contract” of agreement between the reviewer and submitter on corrections to the final approvable plan. The system provides a robust management level set of controls to task reviewers in discipline areas, establish timelines for review, oversee review progress, communicate with the project team etc. A very responsive “help desk” capability is available through a contractual arrangement. The system runs on secure servers authenticated by the State Department and Corps of Engineers.

ESI has spent several months testing the system and attempting to determine if the WCR can provide an assist to the ESI programs in various jurisdictions. Several pilot tests have been conducted in Loudoun County, Alexandria and Fauquier County. This investigation has led to the conclusion that although the system is not perfect, it is a stable well-tested system that warrants consideration. Results to date have shown that the number of paper submissions and meetings necessary can be reduced, proving it to be a real “green technology.” ESI has recommended that a “trial” implementation be initiated in Loudoun County, Fauquier County and other jurisdictions as time permits. The recommendations have been accepted.

There is a minimal one time charge (\$100) for use of the system that is paid by the applicant. All training for both the public and private sectors using the system is provided free of charge by ESI. Both Loudoun and Fauquier Counties, and the City of Alexandria (for grading plans) have agreed to more widely use the ESI WCR system on the trial basis. From these more “normal operating condition” results, a decision will be made by the public/private partnership on continuing this approach or not.

For further information or questions relating to the ESI WCR system and its implementation, please contact Dr. Terry Ryan, (703) 263-2232.