

## Projects First-Round Winner

Innovations Challenge  
<http://wwwi/intranet/cr/SolutionsAtWork/Innovations.htm>

April 2015

Prepared by Transportation Planning  
Missouri Department of Transportation

## Electronic Bidding and Contracting



### Description

Executing contracts electronically is the third and final phase of becoming 100 percent electronic with the STIP letting process. The first phase, accepting bids electronically, was implemented in January 2007. Starting as an optional process, it became mandatory in May 2013. The second phase, providing the bidding documents electronically, began in October 2007 when MoDOT stopped printing plans and proposals and instead started posting them electronically to our external website.

Contractor acceptance of the process was improved by using a known consultant, Info Tech. With a focus on legality and security, the electronic signatures use a mathematical process called public key cryptography to ensure that a “signed” document was actually signed by a specific person, and that the document has not been altered in any way after signing. Each electronic signature has two keys, one public and one private. InfoTech requires that the person creating and registering a public key also physically sign a paper document asserting his or her control of the matching private key. That paper document must be notarized, and the original delivered to Bid Express. Once the document has been checked, the public key is added to the database of known key holders.

PROCESS: MoDOT creates a PDF of the contract and places it on Bid Express. This triggers an email notification to the awarded contractor requesting a signature. The contractor has 15 days to review and sign the contract. Once signed, an email notification is sent to MoDOT to begin the signature process. MoDOT execution process requires three signatures in the following order: Chief Counsel’s Office, senior management and the commission secretary. Each signer reviews the contract and either signs or rejects the contract. If rejected, an email notification is sent to Bidding and Contract Services to address any issues. If signed, an email notification is sent to the next required signature. Once the contract is fully executed, the contract is available for 30 days to download the PDF. Bidding and Contract Services downloads the PDF and stores it on Design’s secure SharePoint site. An electronic copy is emailed to the contractor, Construction and Materials Division and the district construction office. The secured copy is kept for 11 years past the awarded year.

*Description (cont'd.)*

OUTREACH: MoDOT had six contractors who volunteered to participate in development of the process. After development, MoDOT presented the process to the AGC of Missouri and hosted a webinar for contractors interested in electronic contracts.

RESULTS: Since January 2014, MoDOT has executed 78 contracts electronically with 11 contractors. An additional 10 contractors have signed an agreement to execute contracts electronically.

**Benefit**

MoDOT awarded 279 contracts for highway construction in 2013. On average 11 copies were printed of each contract. This resulted in approximately 3,069 total copies with an average of 580 pages per contract, totaling roughly 1.78 million sheets or 3,560 reams of paper. It took approximately 320 hours of labor to print, assemble and package the contracts for mailing. The contractor would receive six copies of each contract with four being fully signed and executed by the Commission. The total signature process has been reduced from several weeks to a few days.

Now that it is established, this system could be utilized to execute other types of contracts including procurement contracts and consultant agreements.

**For More Information Contact:**

Danica Stovall-Taylor at [Danica.stovall-taylor@modot.mo.gov](mailto:Danica.stovall-taylor@modot.mo.gov) or (573) 526-2918.

Additional photos can be seen by accessing the Innovations Challenge homepage at: <http://wwwi/intranet/cr/SolutionsAtWork/Innovations.htm>.