

Create an Electronic Storage Protocol for Building Permits

Janet McIlvaine, Karen Sutherland, Jeff Sonne, Rob Vieira

Rationale

- Uniform requirements for electronic permitting will more easily allow contractors working across jurisdictions to submit and retrieve projects
- Setting requirements based on stakeholder input increases chances that jurisdictions obtain what they need and that the process works for all stakeholders
- Renovation and Demonstrations – potentially easier process of finding records years later and avoid loss of physical files due to fire or flood
- Time is Money – considerable savings in time, effort & money for stakeholders and hence ultimately for citizens; 24/7 access
- Better and easily verifiable compliance
- Ability for Florida Building Commission (FBC) to obtain data for future policy and code development
- Use mobile skype-like video technology for inspection and approval – save trips and time
- Potentially better and quicker collaboration between departments.

Overview

The Florida legislature and governor passed into law a new requirement for local building code enforcement agencies to make building permit applications available on their websites. Agencies are further required to accept permit applications electronically:

“A local enforcement agency shall post each type of building permit application on its website. Completed applications must be able to be submitted electronically to the appropriate building department. Accepted methods of electronic submission include, but are not limited to, e-mail submission of applications in portable document format or submission of applications through an electronic fill-in form available on the building department's website or through a third-party submission management software. Payments, attachments, or drawings required as part of the permit application may be submitted in person in a nonelectronic format, at the discretion of the building official.”
[CS/CS/CS/HB 535, Engrossed 2, Enrolled, Section 38 (p. 64, lines 1640-51) and Section 39 (p. 65-6, lines 1682-93).]

The end-goal of the proposed research is to develop a specification protocol for evaluating electronic tools already on the market, or to be developed by code agencies or software producers, that will meet the common work flow needs of local building code enforcement agencies in Florida.

Work Scope

This research will include four main tasks:

Task 1: Review of electronic tools in use on a state-wide basis outside Florida

Task 2: Survey of Florida local code enforcement agencies

Task 3: Half day focus meetings with four local code enforcement agencies and stakeholder groups

Task 4: Compile all results into final specification matrix.

The proposed work will be conducted on the timeline shown in Figure 1.

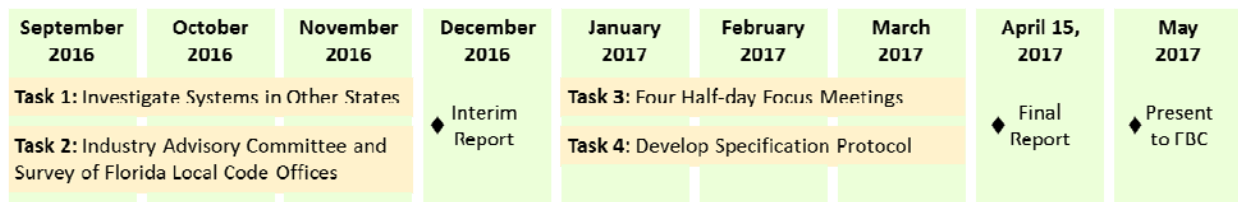


Figure 1: Tasks 1 and 2 will run concurrently with survey completion in November in time for preliminary findings to be included in the interim report. Task 2 analysis will continue concurrently with Task 3. All reporting and presentations to FBC and the Administration TAC fall into Task 4.

Details of each task

Task 1 Investigate Electronic Filing Systems in Other States: Working toward development of the specifications for electronic permit submission and storage, researchers will query other states to identify any using commercially available or internally developed systems on a state-wide basis and document key functionality and associated capabilities.

Task 2 Industry Advisory Committee and Survey of Florida Local Code Offices: Researchers will solicit input on the survey from an Industry Advisory Committee which will include designees from the Building Officials Association of Florida (<http://boaf.site-ym.com/?page=BOD>) and the Florida Building Commission.

Researchers will collaborate with local code enforcement agencies in Florida to document the typical work flow steps in current permitting processes that will need to be addressed electronically if anything other than email submission of PDF documents of scanned paper forms is to be instituted. Learning these typical work flow steps will be key elements in the specifications matrix for evaluating electronic permit submission and storage tools and methods. For example, the City of Melbourne currently requires the signature of each subcontractor on the residential building permit application. This and other steps of the paper submission process that involve multiple parties will need to be addressed in the transition to electronic submission.

Additionally, electronic application submission may lead to challenges with file storage, re-submissions, and archiving. However, balanced against those challenges, a cursory review of electronic submission tools already in the market place suggests many benefits such as easier access by field staff, permit tracking and inspection scheduling.

A two part survey will address Florida local code enforcement agencies who have not and those who have already adopted some form of electronic application submission which may or may not include additional processes. First, the survey will address those agencies who will need to implement a system to comply with the new legislative requirements. The survey will gather information on typical work flow patterns in current submission process to assess common tasks capability needed in an electronic tool. The survey will also solicit information on the number and nature of permits processed, anticipated challenges, benefits, concerns, and current intent for compliance from this group of respondents. Additionally, the survey will ask about implications for file storage, office and field access, public record inquires, and other capabilities, benefits, handicaps, and limitations of electronic compared to paper submissions.

Task 3 Conduct Focus Meetings: Researchers will hold half-day focus meetings with four local building code enforcement agencies and contractors to share the survey results and thoroughly document the current paper-based work flow steps that need to be addressed in the transition to electronic submissions. Afterward, researchers will develop a set of two to four case studies that illustrate how critical work flow steps have been addressed in the systems used by agencies that have already implemented an electronic submission process. The case studies will be made available on the FSEC website and for public distribution by interested associations and stakeholders.

Task 4 Develop Specification Protocol: Combining outcomes of Tasks 1, 2, and 3 researchers will finalize a specification protocol for evaluating electronic tools already on the market, or to be developed by code agencies or software producers, which will meet the common work flow needs of local building code enforcement agencies and contractors submitting permits in Florida. This protocol may be something that the FBC makes available as a voluntary guideline for local jurisdictions, as a mandatory requirement for local jurisdictions, or as something in-between such as a document that must be followed by third party software vendors who will be recognized as meeting the state's electronic filing protocol. The protocol may serve as a set of feature criteria that an electronic tool must provide, and it may stipulate the documents that must be submitted for FBC approval. This is similar in character to the Technical Advisory Manual (TAM) that software providers must follow for FBC approval of energy code compliance software.

Deliverables

Researchers will produce an interim report and progress update to be presented at the December meeting of the Code Administration Technical Advisory Committee (TAC). A final report will be submitted by the end date of the contract and subsequently presented to the following TAC meeting and/or TAC Chairs meeting at the discretion of the FBC.

Expected Outcome and Impact on the Code

This is an important step towards helping jurisdictions set up electronic submission, particularly for small jurisdictions which may not have the staff to develop a system or even analyze the features of third-party systems sufficiently. The advantage of such a system is to speed up processing and to be able to pull up documents in the field when inspecting. Subcontractors also benefit if they are provided access for a particular building as they will have the plans available on site electronically if they failed to bring a hard copy. Overall benefit is to improve code compliance.

An understanding of certain inherent permitting delays that can be virtually eliminated by automation and the ultimate cost effectiveness to Florida citizens. The impact on the code is expected to be significant in terms of better compliance, zeroing in on compliance hitches, better synchronized policy and code development.

Approximate Budget

\$45,000