

Right of Way Acquisition Valuation and Negotiation Process Streamlining, Automation and Evaluation with the use of Business Process Management and an Associated System Accelerated Innovation Deployment (AID) Demonstration Grant Application

I. Project Abstract

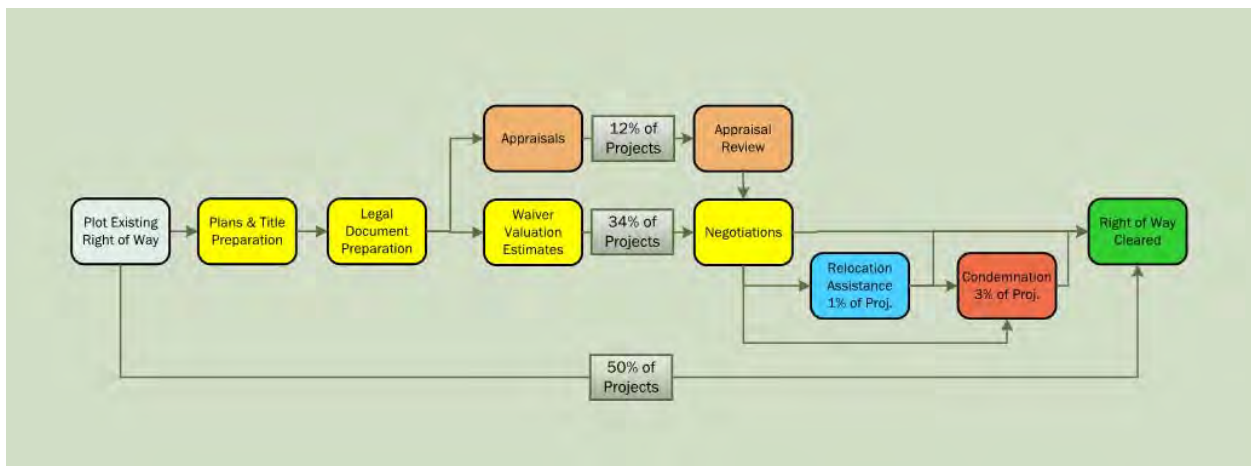
The Vermont Agency of Transportation (VTrans) is implementing Business Process Management (BPM) systems to accelerate project delivery and improve customer satisfaction. Currently working on the right of way (ROW) acquisition process, a time consuming portion of the project development process, VTrans will document the complex ROW acquisition process and use innovative tools and technologies to optimize the business processes. This will help to automate routine activities, identify and reduce unused time and track key performance data to report on. This is estimated to reduce the time a project spends in the acquisition process by 50% within five years of full implementation.

This stand-alone project addresses Every Day Counts (EDC-3 2015-2016) "Efficiency through technology and collaboration" and the Technology and Innovation Deployment Program's (TIDP) goal #2, "Leadership and incentives to demonstrate and promote state-of-the-art technologies."

II. Project Description

Problem Statement

The ROW acquisition process is on the critical path of the core Project Delivery process that VTrans utilizes to design and construct transportation assets. The ROW sub process begins during preliminary plan development and ends when the ROW clearance certificate is issued. And while its primary output is the ROW plans and clearance certificate, many other critical documents are created along the process. The ROW acquisition process is made up of ten sub processes as shown in the diagram below. This project will focus on five of the ten sub processes, which will include appraisal, appraisal review, waiver valuation estimates, negotiations and right of way cleared.



Project and Objectives

This project seeks to increase the performance of the ROW acquisition process by documenting each sub process and identifying key milestones, decision points and triggers based on the project development process, state policy as well as state and federal law. The documented sub processes will be automated by including them into a BPM system. The system will track and document the sub process down to the parcel level.

Specifically, VTrans aims to achieve a 50% time savings in the ROW acquisition process within five years of full implementation. This increase in efficiency will be measured against current baseline length of days for individual project types (roadways; town, state and interstate bridges) per sub process type (appraisal, appraisal review, waiver valuation estimates, negotiations and clearance) as well as overall performance.

Vermont has the second smallest right of way section in the nation and large projects are difficult to handle and manage. Our staff includes four in-house appraisers with consultant support, one in-house review appraiser with consultant support and four negotiators that perform waiver valuations and negotiate with no consultant support. Our test project is a long roadway project that has been broken into four contracts. The individual contacts are still very large and each impacts more parcels than 98% of projects that are cleared annually.

The scope of work includes the following activities.

- Document right of way acquisition process to include appraisal, appraisal review, waiver valuation estimates, negotiations and clearance.
- Perform process improvement reviews to integrate sub processes.
- Analyze improvement opportunities; identify, gather, clarify and validate with project participants all process requirements needed for the design, development, and deployment of refined processes.
- Identify and develop meaningful baseline (performance) metrics and measures of the processes to be improved.
- Design, automate and implement electronic forms and documents.
- Utilize task, document, and content management functionality to automate tasks.
- Design and develop process performance analytics e.g. reports, dashboards, etc.
- System training for end-users, management, and executive staff members

Innovation and Documented Benefits

As mentioned previously, our test project is a large roadway project that has been broken down into four contracts and spans two towns. The projects are Pittsford, NH 019-3(491), Pittsford, NH 019-3(492), Pittsford, NH 019-3(493) and Pittsford-Brandon, NH 019-3(494) and impact 47, 85, 45 and 26 parcels respectively. The BPM methodology will aid in managing a large workload and help to create consistence among a large number of property owners. The system will aid in automating business rules and assure state and federal requirements are met. It will also allow us leverage property owner and parcel data that is collected upstream and automate the preparation of negotiation packages to include the offer of just compensations.

Current Organizational Institutional Experience with the Innovation

VTrans is focused on process improvement specifically when it comes to resources. As with many State Transportation Agency's as well as federal agency's we struggle with the loss of employees with extensive knowledge and experience as well as the reduction of forces. Through a small proof of concept, we believe better management of the process will aid us in working smarter not harder and create efficiencies by automating data use. Results are estimated to be a 50% time savings in the ROW acquisition process within five years of full implementation.

BPM system planning has been ongoing at VTrans since 2007. In 2008 a Business Process Management Committee (BPMC) was formed and charged with sponsoring improvement projects throughout VTrans. The Committee's primary objective is to translate the Agency's strategic goals pertaining to safety, excellence, planning, and preservation into tangible operational and managerial improvements through the employment of BPM system. These efforts resulted in the successful implementation of the 'Finals' pilot.

Significant Improvement to Conventional Practice

This project represents a significant improvement to conventional work activities, which currently focus more on executing procedures rather than process performance. Presently, hundreds if not thousands of manual steps are required before a project can complete the ROW phase without any way to manage the overall process performance through continuous improvement. It is within the framework of process management which enables the innovation of continuous improvement. Iteratively, new ideas to optimize the process will be enabled by both the management discipline and the technology. This two pronged approach will significantly improve ROW directly and hence, the overall project delivery process which delivers the valuable transportation assets.

III. Innovation Performance

The measure that will be used to determine success in achieving goals is the numbers of days each project is in the right of way phase. VTrans will monitor each project entering and exiting the right of way phase to monitor progress and measure performance. Quarterly progress reports will be completed to determine progress towards goals and performance measures, and will be used to set baselines, goals, measures and continually assess performance. The system will be fully auditable and document acceptance criteria as well as manage documents. FHWA will be able to access the system with a future goal of automating FHWA approvals through the system.

Performance Goals and Measures

The project goal is to achieve a 20% savings in time spent in the right of way stage in the first year, increasing to 35% by year 2, and 50% by year 5. The impact of these savings will result in thousands of person hours saved and hundreds of thousands of dollars saved annually. This will allow VTrans to refocus these savings onto additional projects and deliver more, much needed infrastructure projects, on an annual basis.

IV. Applicant Information and Coordination with Other Entities

Project Contacts:

June Burr, Business Process Manager
Vermont Agency of Transportation
1 National Life Drive
Montpelier, VT 05633
Phone: (802) 828-0688
June.Burr@vermont.gov

Robert M White, Right of Way Chief
Vermont Agency of Transportation
One National Life Drive
Montpelier, VT 05633-5001
Phone: 802-828-2619
rob.white@vermont.gov

This project will be undertaken jointly by VTran's Right of Way Section (Highway Division) and the Information Technology Section (Finance & Administration Division).

V. Funding Request

VTrans is requesting \$1 million in AID Demonstration funds. The State will provide \$261,480 in matching funds for a total project cost of a little over \$1.26 million. Cost-estimates were developed by agency staff and validated by an independent review of the project. A more detailed cost break down analysis is attached.

The BPM system solution is a SaaS platform that in itself has minimal one-time costs to acquire. The majority of acquisition costs for the SaaS solution are derived from the developmental costs of external vendors used to configure the AOT processes into the BPM system. License fees are charged on a quarterly basis and support the instances of the BPM system SaaS, and the user licenses needed to access the system.

VI. Eligibility and Selection Criteria

- VTrans is a State Department of Transportation (SDT) and thus an eligible entity according to Section III of the NOFA.
- VTrans has not received AID funding for this project. VTrans did receive FY 2014 AID funding for a project entitled "Tri-State Advanced Transportation Management System and Traveler Information System"
- The project is eligible under 23 USC.
- The project is ready to initiate immediately and can proceed to obligation.
- This project addresses the following Every Day Counts (EDC) and Technology and Innovation Deployment Program (TIDP) goals:
 - EDC-3 (2015-2016) "*Efficiency through technology and collaboration*"
 - TIDP goal: "Provide leadership and incentives to demonstrate and promote state-of-the-art technologies, elevated performance standards, and new business practices in highway construction processes that result in improved safety, faster construction, reduced congestion from construction, and improved quality and user satisfaction."
- The project is a proven real-world application with documented benefits. The innovation BPMS has been used successfully in large company's including the Department of Defense.
- The innovation is not routinely used by VTrans.

- VTrans acquisition process is a very manual process with little use of electronic. The use of BPMS would be a significant improvement.
- VTrans is willing to: (1) Participate in monitoring and assessment activities regarding the effectiveness of the innovation(s) and subsequent technology transfer and information dissemination activities associated with the project; (2) accept FHWA oversight of the project; and (3) conduct a before and after customer satisfaction determination for construction projects.

Additional Attachments No Yes (PDF files identified by Applicant and Project Title)