



Howard County, Maryland

The Planning and Zoning Department becomes one of the nation's first to go digital with ProjectDox®.



Howard County Highlights

County population: 285,000

Reviews performed/yr. >1000

ProjectDox implementation:

Department of Planning and Zoning launched retooled Site Development Plan (SDP) process August 1, 2009, with subdivision review scheduled for Q3 2009. The new system incorporates nearly two thousand data entry fields, 10 unique and complex workflows, 43 eforms and 190 notifications.

Green focus:

Based on initial estimates conducted by DPZ, ePlan technology will conserve 1.5 million sheets of paper per year, reduce gasoline consumption and green-house gas emissions.

Quotable quote:

"We cannot overestimate the impact that this whole project has had on DPZ," says Bronow. "We've been able to completely rebuild our SDP process and set a course towards a fully digital future – we're very excited and proud of our team!"

Jeff Bronow, DPZ Chief of Research
Howard County, Maryland

Overview

Howard County (pop. approx. 285,000) is a suburban jurisdiction located between Baltimore and Washington D.C. that has enjoyed a history of healthy and sustained growth in the housing market given its proximity within the greater Washington D.C. – Baltimore metropolitan area. Howard County is known for its affluence, quality of life, and excellent schools, and in 2006 was rated third in the nation for median household income by the U.S. Census Bureau. Another interesting fact: the County has no incorporated cities within its boundaries; therefore, the Howard County Department of Planning and Zoning (DPZ) and other county agencies oversee all of the land development and construction activity that happens within its boundaries. The Site Development Plan (SDP) process employed by the County and managed by DPZ is a rigorous procedure that, as a paper-based method, utilizes numerous application forms and checklists reviewed by nine separate internal and external agencies over the course of 6 – 12 months. The past eight years has been especially busy given the general housing boom and the relatively lean DPZ staff has mobilized to reduce paper, improve communication and increase efficiency.

The Problem: Retool for the Digital Age

DPZ typically accepts and reviews several hundred residential, commercial and special-use SDPs annually. In addition to SDP's, the County also accepts and reviews hundreds of subdivision plans. Along with all the forms and checklists for the SDP process mentioned above, the County required twenty-three (23) paper plan sets per SDP submission. Each SDP contains between six and twenty-five sheets per set, translating to hundreds of plan sheets per SDP. Furthermore, SDPs are often reviewed multiple times with multiple submissions until it is determined that all County regulations are met. Manually keeping track of all the plan sets, documents, notes and critical departmental collaboration throughout the process with multiple re-submissions demanded extraordinary resource management efforts and staff time.

Howard County has a vital commitment to using computer and network technology for its operations. Over the last several years, Jeff Bronow, who is Chief of the Research Division for DPZ and responsible for the discovery and evaluation of information technology, has been engaged in advancing the use of software tools, such as GIS, to streamline and automate critical data operations for the plan review process. Virginia Peterman of the County's Department of Technology and Communication and the lead program manager for a county-wide effort to implement an integrated content management system for all County agencies, met with Bronow to discuss DPZ's document management processes. Given DPZ's immediate need, the department was chosen as one of the first to move forward with a paperless implementation. As a result, retooling the SDP review process became the focus of a multi-year, phased project that fundamentally changes the way the department conducts business.

DPZ needed to find a solution that could interface with existing structured databases, manage unstructured data (plan and document files) and conduct an integrated set of highly complex workflow and forms-based processes. Moreover, the new SDP system would have to be easy to use and accessible at all times to citizen stakeholders and each of the departments that participate in a SDP, namely:

Planning and Zoning (DPZ)	Public Works	Health Department
Recreation and Parks	Inspections, Licenses and Permits	Fire and Rescue Services
Public School System	State Highway Administration	Soil Conservation District

Peterman and Bronow's research led them to ProjectDox, and following a DPZ group visit to Osceola County, Florida for a hands-on demonstration, Howard County knew it was a solution that could work for them.

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It's time to go paperless.

Bronow comments,

"When we saw how ePlan technology was transforming the situation at Osceola, it confirmed our program discussions and gave us tangible evidence that implementing a paperless process was not only possible, but well within our reach. The tools were up to the task; we just needed to make it happen in Howard County."

Confident they had found the right solution for their SDP program, the County purchased ProjectDox in January, 2008.



Sea Change

Early on, the DPZ recognized that going paperless would be a significant paradigm-shift for them and the other agencies involved in the plans review process. After internal meetings that focused on the impact of this shift, DPZ decided to hire an outside firm to help the department through the process of organizational change in which ProjectDox was the primary driver. Line of Sight Consulting of Ellicott City, MD (located in Howard County) was solicited to design and conduct workshops to elicit the information required to understand the current state of DPZ and its culture, and to develop a change management program to implement and support the new operational context for the department.

Line of Sight worked with Bronow and a team of DPZ leaders and managers to facilitate communication among the various roles; and to prepare for an aggressive change management effort driven by technology and process innovation. The SDP retooling program presented a number of "firsts" for which no precedent existed, and DPZ's organizational structure and processes required adjustment to accomplish goals effectively. Change-management "action" teams and roles were created under a Senior Leadership Team to handle a variety of management, communication and technical requirements. The primary challenge was to coordinate a significant number of interdependent tasks that had to be accomplished in parallel if project deadlines were to be met. The team structure was overlaid onto the existing organization, and DPZ personnel welcomed the opportunity to have a heightened role in directing their own future. Bronow comments:

"Without the team structure in place we would not be where we are today. Line of Sight's expertise in helping us with this structure and setting up development, communication, and leadership teams has been the key to making this work. Communicating and managing the change was just as important as developing the tool."

Pushing the ProjectDox Envelope

Amit Sharma, one of DPZ's top engineers, was given responsibility for the technical end of the ProjectDox deployment.

"Since the ePlan solution was to be so essential to the future operation of the entire department and given the complexity of our process design, our goal was to develop our own internal expertise with respect to ProjectDox, to the point where we could perform any development task necessary," says Sharma.

Automating the complex SDP process would require highly granular workflow and commensurate eforms creation. Sharma, the DPZ development team and the Department of Technology and Communications team of programmers worked closely with Avolve professional services personnel on the initial workflow and eform templates, but quickly continued to strike out on their own on developing and testing the remainder of the SDP work effort, needing only occasional Avolve technical support. One of the bigger challenges was to get a handle of the complex business rules governing the SDP process including the involvement of outside agencies. Amit met that challenge by interviewing scores of DPZ and agency staff and developing a precise workflow after much iteration.

The new, electronic SDP went live in August 2009 and is a process-management wonder that fully utilizes the ProjectDox feature-set, with nearly two thousand (2000) data entry fields, 10 unique and complex workflows, 43 eforms and 190 notifications.

"We cannot overestimate the impact that this whole project has had on DPZ," says Bronow. "We've been able to completely rebuild our SDP process and set a course towards a fully digital future – we're very excited and proud of our team!"

The DPZ has received numerous inquiries from other Howard County departments, including Public Works, the Building Department and Facilities Management regarding what it takes to implement ePlan technology.

A Greener Future for Howard County

DPZ has announced that it will take some time to fully exploit the new tool by applying it to the entire set of plan review processes and realize the full range of ePlan benefits, but they calculate that, at full implementation, the DPZ will conserve 3,000 reams of paper, or 1.5 million 8 ½ by 11 inch sheets per year. In addition to the August deployment of the standard SDP, a new final-subdivision plan process is scheduled for implementation in the fall. Moreover, Montgomery County, MD, Virginia Beach, VA and Providence, RI have contacted Howard County to inquire about what it takes to implement ePlan technology in their respective jurisdictions.

"Our ePlan deployment has put us in the spotlight here in the County and even beyond," says Bronow. "We like the notion of being trailblazers with respect to applying information technology to our work. We are anxious to get this in front of the general public, and we know there will be some issues to address – but there's no going back to paper now."



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