



Fairfax County: Advancing Lifecycle Capital Improvement Program Management with CIPAce™

Under the partnership between Fairfax County Government and CIPPlanner Corporation, the CIPAce™ Capital Program Management Information System (CPMIS) has been in Production since March 2, 2021, replacing a dilapidated and ineffective legacy system along with historical records from various disconnected systems and time-consuming tools. The system has enabled Fairfax County Department of Public Works & Environmental Services (DPWES) and Department of Transportation (FCDOT) to effectively manage the County's more than \$15 billion capital improvements portfolio. Presently supporting \$1.26 billion active annual capital investment in FY 2026, the system features full scale pre-defined, division-specific business processes, intuitive user-friendly functionalities, and 200+ highly automated workflows to seamlessly support day-to-day capital program management, contract management and financial oversight, interdepartmental coordination, and internal and external collaboration throughout the entire capital project lifecycle.

Customer Profile

As one of the most populous and economically significant counties in the United States, Fairfax County is known for its large population, strong economy, and proximity to Washington, D.C. The Fairfax County government provides a full-spectrum municipal infrastructure services to its 1.2 million residents, including but not limited to water and sewer services, transportation system and services, environmental services, flood control and maintenance services, public safety and recreational facilities, etc. As major departments within the Fairfax County Government, DPWES and FCDOT are responsible for meeting public infrastructure needs and managing all aspects of capital improvements activities within the County's jurisdiction.

Facing a growing population and an expanding infrastructure portfolio, the County recognized the need to modernize its approach to capital improvement program management and financial oversight to safeguard its valuable existing infrastructure assets and tremendous ongoing investments. By implementing a Capital Program Management Information System (CPMIS) powered by the CIPAce™ technology, Fairfax County has successfully transitioned from an outdated legacy system to a modern cloud-based, centralized, data-driven, highly standardized and automated capital program lifecycle management system. The system contains numerous modules and features tailored to the County's current business processes and streamlines capital project management throughout the entire lifecycle. This enables more accurate budgeting and financial management at both project and program levels, enhances internal and external collaboration and coordination throughout project planning, design and construction phases, and ensures consistent oversight of projects and contracts across departments.

For decades, Fairfax County’s capital improvement program management primarily relied on an aging legacy system that could no longer meet evolving business needs as well as modern day technology, access and security related requirements. Like most organizations, the County had to manage its massive capital improvement program with disconnected systems and disparate tools such as spreadsheets, hardcopy forms and records, manual review, coordination and approval processes to manage its expanding capital improvement needs, exposing themselves to avoidable challenges and risks. Main business challenges include:

- Lack of standard and consistent processes and tools for capital project planning and delivering across various work units, divisions, and departments.
- Lack of readily available tools to facilitate effective coordination and collaboration as well as review and approval processes.
- Lack of readily available tools to track auditable records at project, funding source, fund program, and managing unit levels on a real-time basis.
- Lack of strong alignment and continuity between various aspects and/or phases of a project throughout its lifecycle.
- Lack of convenient and effective tools for various scenario and “what if” analyses.
- Lack of accurate and automated processes for design and construction contract procurement, internal and external reporting and collaboration.

Strategic Objectives

Implement user friendly and cost effective solutions to address all primary business challenges.

Streamline capital program management through a unified CPMIS environment and effective tools to ensure timely coordination among departments and external stakeholders.

Safeguard financial management integrity through real time data tracking and daily synchronization between the CPMIS and the County FOCUS SAP financial system.

Optimize operational efficiency and improve data accuracy through a scalable digital framework powered by over 200 automated workflows and integrations with modern tools like Adobe Sign DocuSign and ArcGIS.

The Solution

Powered by **CIPAce™** platform, the Fairfax County Capital Program Management Information System (CPMIS) has been actively used by hundreds of users on daily basis since March 2021 and seamlessly managing \$1.26 billion active annual capital budget for FY2026 throughout individual project lifecycles in absence of the six fore-mentioned business challenges. As a comprehensive lifecycle Capital Program Management solution, CPMIS offers the following the main modules and functionalities:

- Planning Project Module
- Schedule Management Module
- Solicitation and Bid Management Modules
- Document Management Module
- Submittals Management Module
- LAD Projects Management Module
- Construction Change Management Module
- Financial Management Modules
- Post Construction and Warranty Management Module
- End User Support Services System

Core Technical Capabilities

- **Intuitive IT Solution Designs:** All features, dashboard, UIs, and workflows built in CPMIS are built with User Centered Design and tailored to the County’s current business practice at work unit, division, or department levels, making them intuitive and easy to use with minimum training and little to none learning curve.
- **Financial System Synchronization:** Automatic daily integration with FOCUS (SAP) ensures continuous budget validation, funding accuracy, and financial transparency across the capital program lifecycle.
- **Geospatial Project Intelligence:** ArcGIS integration enables spatial visualization of projects, improving planning coordination, impact analysis, and decision-making.
- **Digital Document Management:** DocuSign and online markup tools integrated with electronic approvals, document review and version control, reducing administrative delays.
- **Dynamic Workflow Automation:** A framework of 200+ automated workflows supports complex operational processes across various divisions and departments, standardizing approvals and accelerating project progression.
- **Prompt and Seamless Coordination:** The CPMIS environment strengthens collaboration across work groups, divisions, departments, as well as vendor users, enabling real-time progress monitoring and records tracking, shared responsibility and visibility, consistent data, and coordinated project delivery.

Value Driven Results

Implementation of the CPMIS delivered measurable operational improvements:

- **Scalable System Architecture** Supports growing portfolio and user demands.
- **Financial Confidence** Real time FOCUS SAP synchronization enhances accuracy.
- **Process Acceleration** Automated workflows streamline approvals.
- **Data Consistency** Centralized system of record reduces discrepancies.
- **Transparency and Accountability** Real-time progress monitoring and record tracking promote prompt actions and efficiency.
- **Progress and Financial Reporting** Custom reports can be easily generated for any records stored in the CPMIS system.
- **Executive Visibility** User role based dashboards improve visibility and oversight.

Project Results at a Glance

<p>Holistic Transformation: Managing capital projects throughout lifecycle on centralized and cloud-based platform via data driven highly automated business processes.</p>	<p>Financial Oversight: Managing diverse capital investments with an annual budget of \$1.26 billion for FY26 across a \$15 billion portfolio.</p>	<p>Operational Efficiency: Optimize operational efficiency and data accuracy through a scalable digital framework powered by automated workflows and integrations with modern tools.</p>	<p>Strategic Planning: Providing comprehensive program visibility through a fully customizable default 20-year capital planning horizon.</p>
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