

# Designing for the Future: Federal Construction Life Cycles

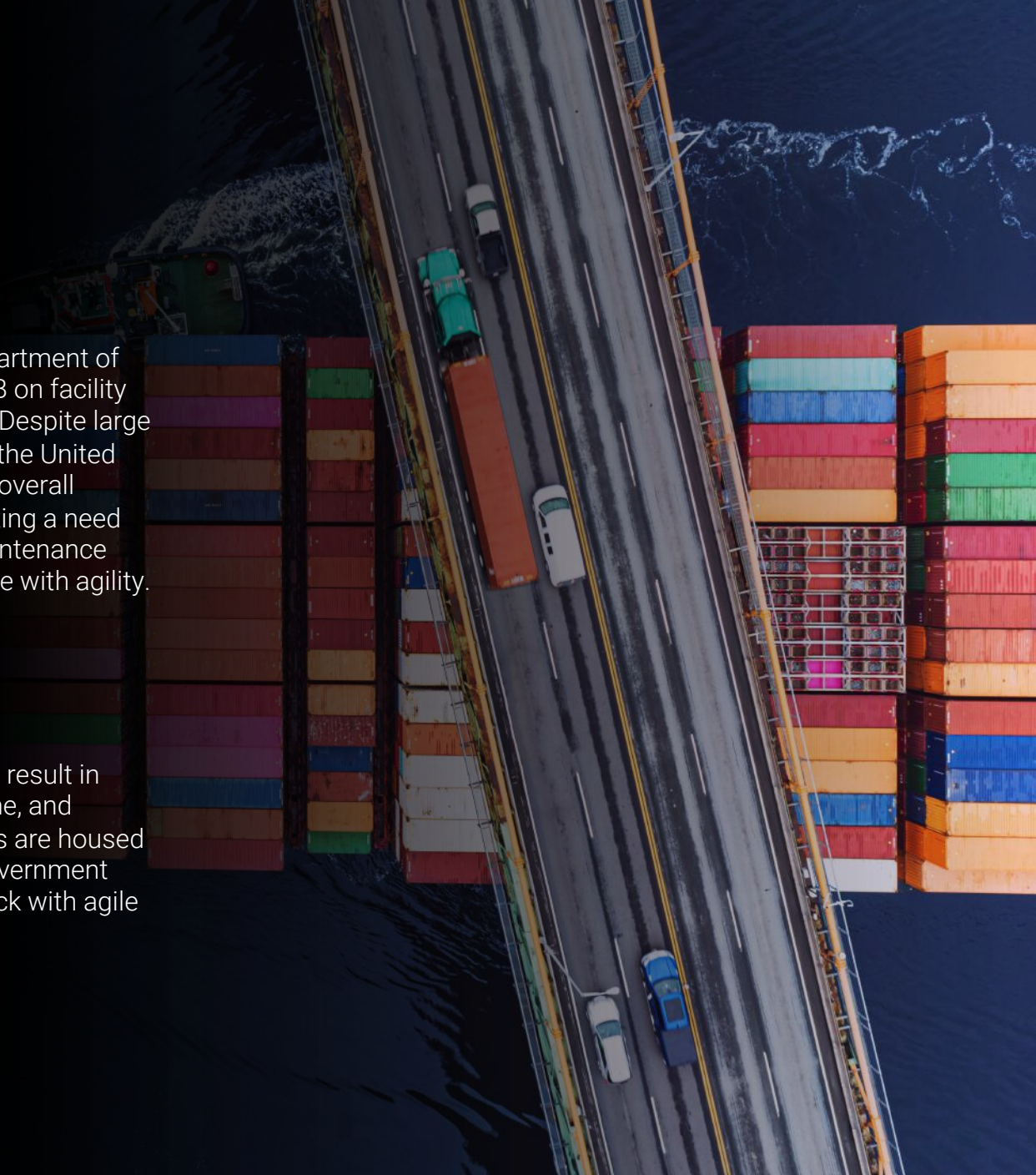
The Demand for Smarter Construction

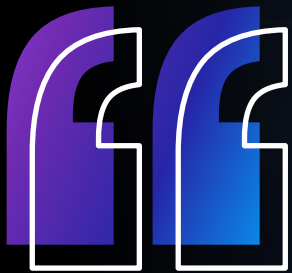
# The Big Issue

Between 2009 and 2020, the Department of Defense (DoD) alone spent \$865B on facility and infrastructure construction.<sup>1</sup> Despite large investments like these, however, the United States ranks just 13th globally in overall quality of infrastructure,<sup>2</sup> suggesting a need for smarter construction and maintenance practices that deliver greater value with agility.

## Why it Matters

Slow construction processes can result in high costs in terms of money, time, and human life. As millions of workers are housed in federal property, the federal government must keep facility hazards in check with agile construction processes.





“It has never been more important for us to invest in strengthening our infrastructure and competitiveness.”<sup>3</sup>

- The Biden Administration





# The Scope of Federal Property Ownership

125,938 buildings are owned and leased by the federal government.<sup>4</sup>

The General Services Administration (GSA) owns among the most government properties, accruing a [multibillion-dollar](#) Repair and Alteration (R&A) liability.<sup>5</sup>

GSA's office spaces span [2,200](#) communities across the United States.<sup>6</sup>

# What drives the higher costs of public sector construction?

Public sector construction tends to run higher costs than the private sector. In a construction-cost study conducted by GSA, government R&A costs were found to be usually 15-20% more than those found in the private sector.<sup>7</sup> Higher costs can typically be attributed to federal regulations, such as:



Design standards that require more durable construction material.

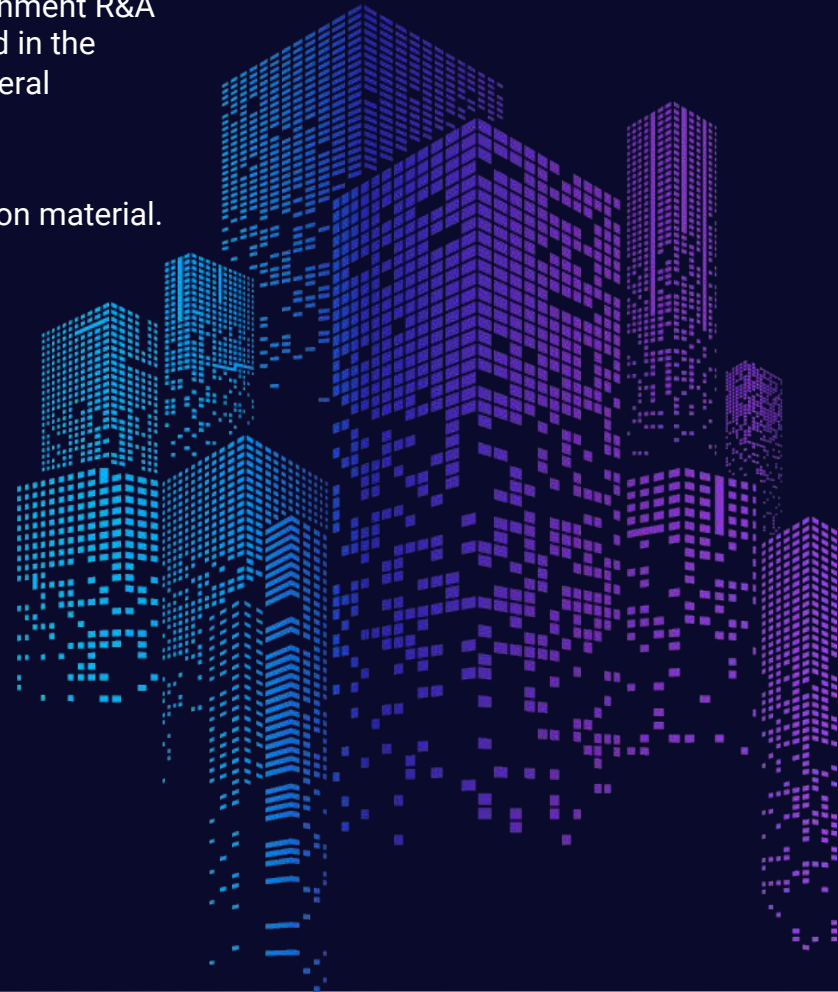


Wage requirements for federal contracting.



Background checks and security clearances.

Despite some inevitable costs associated with government construction, cost savings and efficiencies can be achieved elsewhere to help make the best of tax-payer dollars.



# Construction cycle challenges

Some government agencies face a number of issues within the construction cycle that can slow schedules and increase costs.



## ***Lack of appropriations***

A lack of construction funding has postponed some government projects and resulted in deferred maintenance strategies. A Federal Emergency Management Agency (FEMA) campus project, for example, has been delayed for more than a decade due to funding shortfalls meeting only half of what was initially requested.<sup>8</sup> The appropriation-request process is a typical bottleneck for government construction projects, but hopes of a massive congressional infrastructure bill may help alleviate some budget constraints.



## ***Slow procurement***

The GSA listed government procurement as one of its top eight performance challenges for FY2019.<sup>9</sup> Construction procurement can take years, despite new facilities or repairs requiring urgency at times. Pre-bidding and bidding processes can last up to a year, and the administrative work related to pricing and multiple contracts can cause additional friction during the procurement process.<sup>10</sup>



# Construction cycle challenges



## ***Poor property management***

GAO has listed real property management on its high-risk report since 2003.<sup>11</sup> By the numbers, reports from the federal government indicate that the U.S. government holds over 45,000 underutilized assets that may not be managed properly.<sup>12</sup> Agencies, such as the GSA, have taken steps to improve management with increased data and analytics capabilities. However, with hundreds of thousands of government buildings spread across the United States –and several aged over sixty-one years–, improved property management is increasingly important to monitor and respond to the condition of aging government buildings.<sup>13</sup> Digitizing the construction cycle, from design to maintenance, may help make data management and analysis more effective for government agencies.



## ***Neglected maintenance***

As a result of limited funding, some agencies have minimized the level of their operation and maintenance services to reduce costs. The Public Buildings Service (PBS), for instance, was reported to have cut down on its air conditioning use at night to help reduce energy costs.<sup>14</sup> These practices, however, may result in unintended consequences, such as high humidity conditions that foster mold growth. Having funding and the processes to meet maintenance needs quickly is vital to building safety and performance.

## Fast Facts

50%

of all construction projects  
go over anticipated costs  
and schedules<sup>15</sup>

15%

the increase of costs  
associated with antiquated  
building systems<sup>16</sup>

23%

of the GSA inventory's  
square footage is not in  
good condition<sup>17</sup>

+

Poor building conditions  
are positively correlated  
with tenant (or employee)  
dissatisfaction<sup>18</sup>



# Enhancing the construction life cycle



## *Leverage digital solutions*

With thousands of properties that need to be monitored, federal agencies may want to digitize their property management systems. Underutilized assets owned by the government cost about \$1.5 billion in maintenance annually, which can multiply rapidly if R&A needs are not identified and satisfied swiftly through agile maintenance and construction procurement processes.<sup>19</sup>



## *Think long-term*

Although short-term fixes may lower costs in the immediate future, long-term consequences can result and wreak havoc on a building's performance. Consider the operation and maintenance systems that protect the integrity of a building and ensure that those associated costs are accounted for. Additionally, ensure that your organization has the expertise to identify operation and maintenance problems and fix them with sustainable solutions.

# Enhancing the construction life cycle



## *Speed up procurement*

Regulatory controls may slow government procurement, but opportunities exist to accelerate the procurement process, such as leveraging single bid contracts and set-pricing for construction services and products.



## *Improve cost estimate accuracy*

With tight construction budgets, cost estimate accuracy is imperative to avoid budget overruns and make confident requests for funds. Utilizing government or contractor databases for market pricing can help provide important data to estimate costs of construction or maintenance.



## INDUSTRY PERSPECTIVE

Gordian serves as a strategic partner, helping more than 60 federal agencies, subagencies and departments overcome the challenges and complexities of building and managing facilities and infrastructure.

Gordian continues to advance its federal solutions and recently announced RSMeans Data Online enterprise features, FedRAMP authorization, predictive cost data and cost support of BUILDER™ SMS. Notable Gordian federal customers leveraging RSMeans data include the U.S. Department of Defense (DOD), FEMA and the Department of Veterans Affairs.

In addition, Gordian is developing its next-generation Job Order Contracting (JOC) support platform, Gordian Cloud, to better enable turnkey JOC (commonly referred to as SATOC or SABER) programs. Gordian's flagship JOC implementation and support programs are being embraced by many DOD installations and intelligence community users to control costs, reduce change orders and reduce cycle time of mission-critical projects.

Notable federal users of Gordian's JOC solutions include the Federal Bureau of Investigations, Redstone Arsenal and Los Alamos National Laboratory.

Gordian's federal solutions business line has grown five-fold since its acquisition of RSMeans data in 2014. "Gordian's commitment to our federal clients continues to grow. RSMeans data has underpinned DOD and civilian agency asset management, estimating and small project execution programs for over 20 years. We are now able to develop a more robust and integrated solution portfolio that meets their unique and evolving needs," says William Pollak, President at Gordian.

From construction planning and building to facility operations, Gordian empowers agencies and installations to overcome business challenges by delivering critical data, innovative technology and extraordinary services.



# Endnotes

1. <https://www.sciencedirect.com/science/article/pii/S2352340920310222#bib0001>
2. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>
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4. [United states department of defense \(DoD\) real property repair, alterations, maintenance, and construction project contract data: 2009–2020. - ScienceDirect](#)
5. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>
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# About

The logo for the Government Business Council, featuring the words "Government", "Business", and "Council" stacked vertically in a white, sans-serif font on a blue rectangular background.

## Government Business Council

## Government Business Council

As GovExec's research division, Government Business Council (GBC) is dedicated to advancing the business of government through analysis, insight, and analytical independence. An extension of Government Executive's 50 years of exemplary editorial standards and commitment to the highest ethical values, GBC studies influential decision makers from across government to produce intelligence-based research analysis.

For more information, email us at [research@govexec.com](mailto:research@govexec.com).

The logo for Gordian, featuring a stylized "G" icon followed by the word "GORDIAN" in a bold, sans-serif font, with a registered trademark symbol (®) to the right.

## GORDIAN®

## Gordian

Gordian is the leading provider of facility and construction cost data, software and services for all phases of the building lifecycle. A pioneer of Job Order Contracting (JOC), Gordian's solutions also include our proprietary RSMeans data and Facilities Intelligence solutions. From planning to design, procurement, construction and operations, Gordian's solutions help clients maximize efficiency, optimize cost savings and increase building quality.

Learn more at [www.gordian.com/](http://www.gordian.com/)