



PUBLIC BUILDINGS REFORM BOARD

# **THE COST OF INACTION: DEFERRED MAINTENANCE IN GSA'S PORTFOLIO**

Recommendations Pursuant to the Federal Assets  
Sale and Transfer Act of 2016 ("FASTA")

March 5, 2026

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*The Board's logical conclusion is that the GSA owned portfolio requires a radical reduction in size to become financially sustainable. Congress will not be able to appropriate its way out of this massive liability.*

## Executive Summary

**GSA's deferred maintenance liability is larger than previously reported and growing rapidly.**

**The Public Buildings Reform Board (PBRB) has documented a massive and growing liability in the General Services Administration's (GSA) federal real estate portfolio due to chronic underfunding of maintenance and repair.**

While GSA has previously articulated varying amounts of capital liabilities, the issue is not which number is 'correct' but rather the issue is that GSA cannot meet its obligations in the face of the enormous and rapidly growing costs.

### **The Scale of the Crisis:**

- **\$50 Billion Liability:** The Board's analysis concludes the overall deferred maintenance and repair (DM&R) backlog is approximately \$50 billion, more than twice GSA's highest previous estimate.
- **Chronic Underfunding:** GSA has historically received funds equal to about 0.375% of the portfolio's Functional Replacement Value (FRV), far below the industry standard of 2–4% considered sustainable.
- **Critical Risk:** The maintenance backlog is crippling agencies' ability to deliver on their missions, endangering the federal workforce, and dragging down local economies due to deteriorating, abandoned properties. Buildings aged 31–75 years pose the greatest challenge due to high maintenance costs and large square footage.

The PBRB developed its cost estimate through a two-part quantitative evaluation. First, it analyzed GSA data by building age, calculating costs as a percentage of Functional Replacement Value. Second, the PBRB commissioned an independent review, sampling eleven representative buildings for a third-party cost management team to re-estimate maintenance liabilities. These independent estimates consistently exceeded GSA's figures, leading to portfolio-wide adjustments and the final conclusion that the overall deferred maintenance backlog is approximately \$50 billion.

### **The Problem: A Portfolio Too Large for Current Funding**

The problem is compounded by a significant number of underutilized properties. The Board noted 2024 occupancy levels from a sample were as low as **12%**. To meet the 2% FRV industry benchmark with the current appropriation of \$620 million annually, **the portfolio's inventory would need to shrink by 80%**. It is not reasonable to expect Congress to appropriate \$50 billion to renovate these assets. Large scale disposals are necessary to reduce the footprint and DM&R to manageable levels.

The primary challenge GSA and agencies face is the **lack of funding necessary to vacate and dispose** of these underutilized, high-cost assets.

## *Systemic Recommendations for a Way Forward*

The PBRB urges Congress and the Administration to implement systemic reforms:

- **Incentivize Action:** Establish a clear and quick process where property sale proceeds are directly programmed for subsequent planned sales, backed by consistent and timely appropriations.
- **Maximize Private Capital:** GSA should access private capital through leases and other public private partnerships to consolidate the office footprint, lower total costs, and create flexibility to meet the government's uncertain and evolving office space needs.
- **Reform the Federal Buildings Fund (FBF):** The FBF is insufficiently resourced and funded. GSA must aggressively pursue an adjusted "**return on investment**" (ROI) rent pricing policy to ensure agencies pay sufficient rent to cover required maintenance, and Congress should fully fund GSA's requests from the FBF.
- **Align Capital Planning:** End the strategy of prioritizing "Funds from Operations (FFO) positive" assets, which forces certain buildings to financially support the rest of the portfolio, and instead align capital decisions with taxpayer interests and mission needs.
- **Adjust Federal Rules to Provide Better Decision Making:** Adjust federal rules governing **cost/benefit analysis** for leasing versus owning buildings, along with the **budgetary scoring** rules so they better reflect current economic conditions and support more strategic, cost-effective choices.
- **Increase Flexibility:** Authorize mechanisms that permit agencies to utilize rent appropriations or other operating funds for building shell improvements in exchange for rent credits, increasing access to capital and streamlining project delivery.
- **Improve Data:** Mandate the collection of valid and reliable **occupancy and daily use data**, along with accurate facility condition and maintenance data, to make rational, portfolio-wide decisions on which assets to retain, consolidate, or divest.
- **Establish Oversight:** The Board recommends that Congress consider extending and perhaps expanding the PBRB's authorization to allow it to work with Federal real estate agencies to continue to identify properties that should be sold and engage with Congress to push ahead required reforms.

## Section 1: Why the PBRB Examined Deferred Maintenance in GSA's Portfolio

During its work under the Federal Assets Sale and Transfer Act, Public Law 114-287 (FASTA), the Public Buildings Reform Board (PBRB or the Board) has witnessed an alarming amount of deferred maintenance and repair (DM&R) across the federal real estate portfolio. The bottom line is that the General Services Administration (GSA) has, for decades, been receiving maintenance and repair funds for around **.375%** of the portfolio's functional replacement value, whereas industry standards suggest rates of **2-4%**. The result is a portfolio with massive, deferred maintenance backlogs that increase building lifecycle costs, accelerate asset deterioration and degrade facility performance.

### The Board is reporting to alert Congress to the scale of the deferred maintenance problem

**The Board's analysis uncovered a startling level of taxpayer liability: GSA is carrying approximately \$50 billion in deferred maintenance and repair liabilities across its portfolio.**

Taxpayers are paying the price for historic underfunding of operation and maintenance of federal buildings. The Board's tours of federal properties, outreach to agencies and communities, and consultations with real estate experts nationwide reveal a troubling truth: the mounting maintenance backlog is crippling agencies' ability to deliver on their missions and endangering the health, safety, and welfare of the federal workforce. Local leaders have warned that deteriorating or abandoned federal buildings are not just eyesores—they actively drag down struggling downtowns, eroding property values and stifling economic recovery. Every year of underinvestment deteriorates the portfolio viability, leaving taxpayers with higher costs and communities with fewer opportunities.

The Board has also identified that GSA's portfolio includes a significant number of properties with little to no real value. Many of these assets should be divested, but the unfortunate reality is that various constraints make them difficult or impossible to sell. Some vacant buildings remain tied to adjacent, functioning properties, complicating their disposal. Others are burdened by heavy deferred maintenance and carry historic designations that limit their financial appeal to buyers. Still others are so deteriorated that demolition is necessary for redevelopment.

### Low Building Occupancy Levels and Critical Data Gaps Compound the Problem

The deferred maintenance liability is severely compounded by a second problem: **widespread underutilization of space** and a fundamental **lack of data** to inform real estate decisions.

First, many of the federal properties we have visited are terribly under-utilized, confirming that the portfolio currently contains **too much space** for the federal workforce's needs. The Board's 2024 findings showed occupancy levels from a sample of federal properties were as low as **12%** ([Reading Room – Public Buildings Reform Board](#)).

Second, most buildings currently lack modern occupancy sensors or reliable data collection mechanisms. This means GSA and agencies are unable to acquire valid, current data on daily use. GSA itself has acknowledged this critical issue. Without accurate, data-driven insights into how many employees are using a given space, the government lacks the foundation required to make rational, portfolio-wide decisions on which assets to retain, consolidate, or divest.

These challenges strike at the heart of the entire federal real estate portfolio, yet the Board has found that the federal real estate community lacks a clear understanding of the true costs. While GSA has previously articulated varying amounts of capital liabilities, the issue is not which number is ‘correct’ but rather the issue is that GSA cannot meet its obligations in the face of the enormous and rapidly growing costs. Even more troubling, there are significant legal and policy mechanisms obstacles toward resolution of the complex consolidations that are urgently needed. At the core, agencies—including GSA—have repeatedly told us that inconsistent funding and legal and policy barriers hinder them from carrying out the multi-year strategies required for a sustainable cost-effective portfolio. The result is a system that does not meet the nation’s needs, leaving taxpayers to shoulder the growing costs of an underperforming portfolio.

In the following report, we will describe our analysis, and the implications of the deferred maintenance liability for both the taxpayer and the federal portfolio. We will describe the realities agencies face in trying to consolidate their functions and dispose of federal buildings. And in the final section we will make recommendations for a way forward.

## Section 2: The Cost of Chronic Underfunding- A \$50 Billion Liability

***The Board’s analysis concludes that the overall DM&R backlog is approximately \$50B – over twice the highest amount previously estimated by GSA.***

A comprehensive explanation of our methodology can be found in Appendix 1.

Using GSA data, the PBRB assessed deferred maintenance of the portfolio based on the age of buildings. A summary of the GSA portfolio is below.

Building Age	# of Buildings	Gross Square Footage	Cost per Square Foot	Original Avg Deferred Maintenance Cost as a % of Functional Replacement Value
1-20 years	370	32,934,551	\$55	11%
21-30 years	466	80,041,815	\$78	16%
31-75 years	611	107,426,447	\$130	15%
76-100 years	314	43,457,807	\$124	15%
>100 years	197	16,169,030	\$130	16%
<b>Grand Total</b>	<b>1958</b>	280,029,650		15%

Functional Replacement Value (FRV) -- shown in the ratio in the far-right column -- is the estimated cost to rebuild a facility that serves the same purpose and function as the original, though not necessarily with the same design, materials, or historical features. Importantly, FRV is not the market value of the property; instead, it provides a reference point to guide investment and asset management decisions.

Industry standards suggest that maintenance liabilities equal to **2–4%** of FRV are considered sustainable. When the ratio climbs above **10%**, it signals that deferred maintenance has reached a level where the building’s functionality, safety, and long-term viability are at risk.

The data highlights that buildings aged 31–75 years pose the greatest challenge within the portfolio. They not only have the highest maintenance costs per square foot but also account for the largest share of total square footage. This combination makes them the most significant contributors to overall risk—and the most logical candidates for potential divestiture.

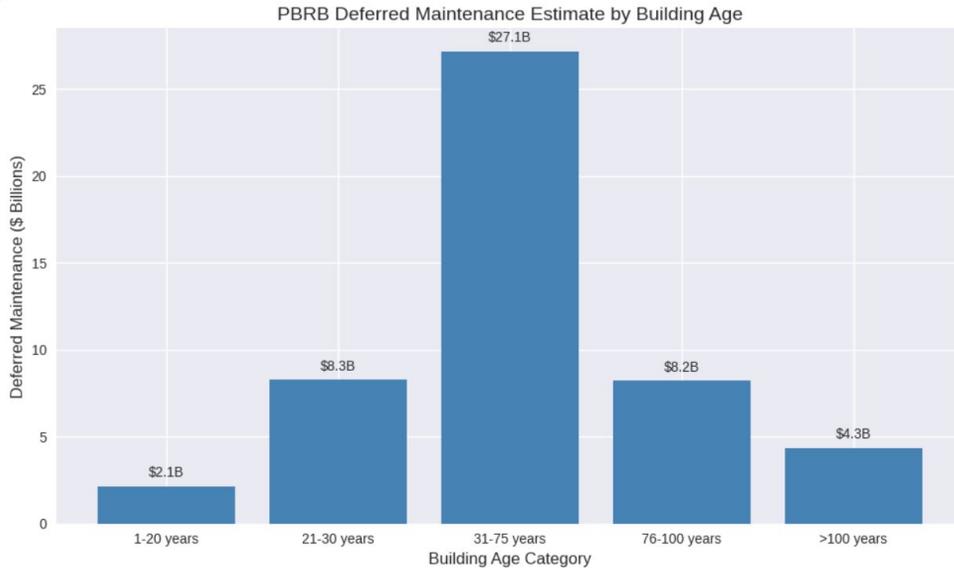
Next, the Board conducted a second quantitative evaluation to determine an independent estimate of maintenance liabilities, sampling eleven buildings that were representative of the average maintenance liability for their age group. The sampled buildings included federal office buildings, a warehouse, courthouses, and combined office/courthouse facilities across multiple regions, representing a range of building ages and sizes.

The Board used GSA maintenance reports for these eleven facilities and engaged a third-party cost management team to conduct independent estimates of each building’s deferred maintenance and repair costs for each property. These revised totals were compared to the original GSA estimates to measure variance and to inform portfolio-wide adjustments.

Across the sample, Board estimates consistently exceeded GSA numbers, indicating the likelihood that GSA was underreporting its true maintenance and repair liability.

Building Age	Building Gross Square Footage	Adjusted GSA Estimate of Deferred Maintenance per Gross Square Foot	Final PBRB Estimate of Deferred Maintenance per Gross Square Foot	Adjusted GSA Deferred Maintenance Cost Estimate	Final PBRB Deferred Maintenance Cost Estimate
1-20 years	32,934,551	\$55	\$65	\$1,267,308,751	\$2,145,353,265
21-30 years	80,041,815	\$78	\$103	\$7,166,314,784	\$8,264,839,733
31-75 years	107,426,447	\$130	\$253	\$9,363,335,086	\$27,146,452,319
76-100 years	43,457,807	\$124	\$189	\$4,051,409,971	\$8,208,102,476
>100 years	16,169,030	\$130	\$268	\$1,764,535,799	\$4,338,088,546
<b>Grand Total</b>	280,029,650				<b>\$50,102,836,340</b>

A bar graph of the PBRB estimated cost liabilities due to deferred maintenance illustrates the heavy burden of the older segment of the portfolio.

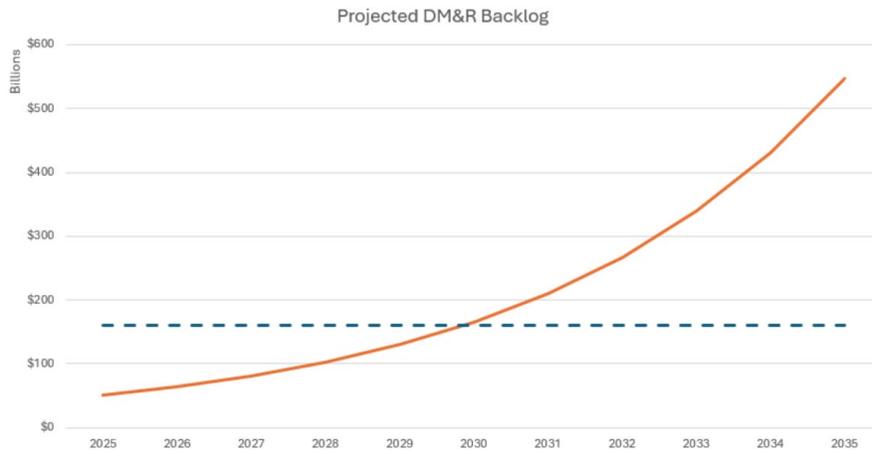


Finally, a comparison of the GSA and PBRB deferred maintenance to FRV ratios demonstrates the likely true maintenance picture. Commercial office buildings are typically designed with a lifespan of about 50 years, after which maintenance costs often begin to outweigh their value. Currently, 57% of GSA’s properties are more than 30 years old. As the ratios below show, this aging segment of the portfolio consumes a disproportionate share of maintenance resources—diverting funds away from younger properties that could remain cost-effective and fully viable.

Building Age	# of Buildings	GSA Avg Deferred Maintenance Cost as a % of Functional Replacement Value	PBRB Avg Deferred Maintenance Cost as a % of Functional Replacement Value
1-20 years	370	11%	18%
21-30 years	466	16%	18%
31-75 years	611	15%	42%
76-100 years	314	15%	31%
>100 years	197	16%	40%

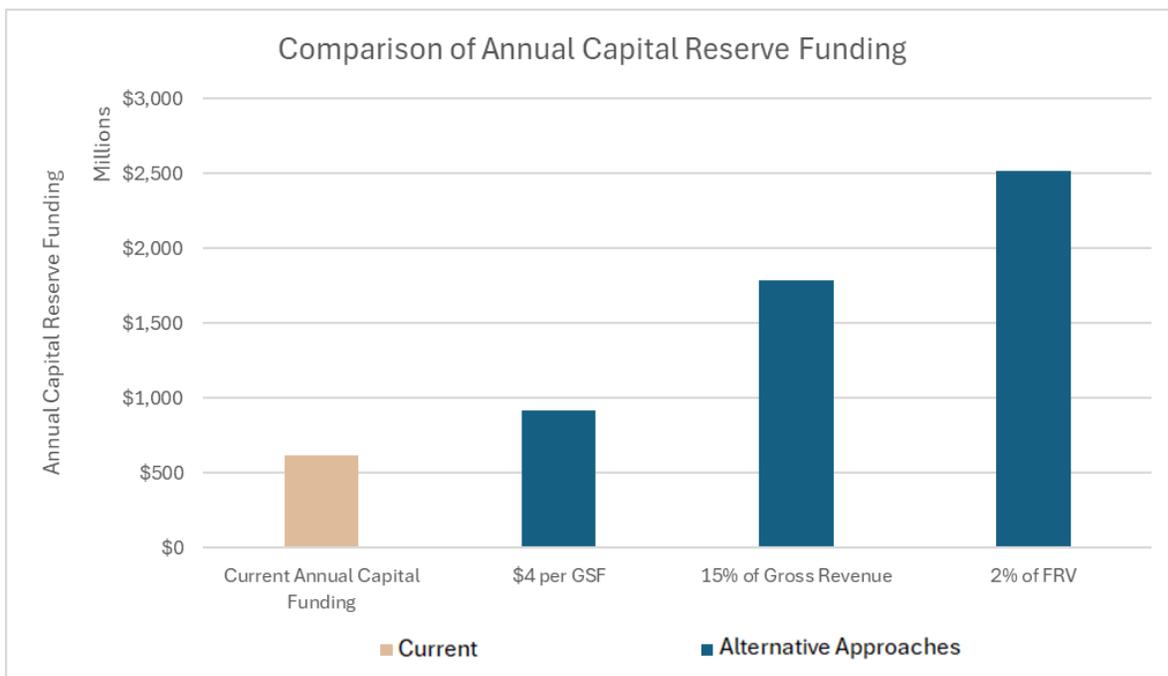
**Deferred maintenance challenges escalate quickly.**

According to the GSA’s FY26 Congressional Budget Justification, the deferred maintenance backlog has grown at an average annual rate of 27% over the past five years. GSA data places the total functional replacement value of the portfolio—the estimated cost to rebuild all structures, excluding market value—at roughly \$160 billion. At the present pace of escalation, deferred maintenance will exceed the portfolio’s entire replacement value by 2030.



The blue dashed line shows \$160 billion functional replacement value. While escalation rates may return to pre-COVID levels, the issue is that the replacement value will soon be overcome by deferred maintenance.

Shrinking the portfolio is one strategy to reduce the total annual funding required to meet industry benchmarks. For example, the currently appropriated \$620 million in maintenance and repair funds would meet 2% of FRV target if the portfolio’s FRV were \$31 billion – a stark contrast to its current \$160 billion FRV. **The inventory would have to shrink by 80% to reach a size where the current appropriations would be adequate for renovation and ongoing maintenance and upkeep.**



The funding gap between current appropriations and the industry's best practice of 2% of FRV demonstrates how the DM&R backlog has continued to grow. While adopting larger funding in line with best practice benchmarks would prevent the backlog from worsening, that level of funding alone is not enough to materially reduce the existing \$50 billion backlog.

**The Board's logical conclusion is that the GSA portfolio requires a radical reduction in size to meet sustainable levels of maintenance appropriations. Congress will not be able to appropriate its way out of this massive liability.**

### **Deferred maintenance creates hidden costs for taxpayers.**

The costs we have just reviewed are not the entire picture. **The Board has learned that when a building deteriorates to the point that tenants relocate to a leased facility, GSA is left with a vacant or nearly vacant property that still requires upkeep. In that scenario, taxpayers end up footing the bill for both the mounting maintenance costs of the original building and the expenses of the new lease.** Communities also feel the strain, as a neglected, empty property in the heart of a business district can drag down the surrounding area and add to the public burden.

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*“... the building's finances have been degraded by regular costly repairs to its rapidly deteriorating garage, which has been in need of a major renovation for over a decade. \$1.1 million has been spent since Fiscal Year '17 in emergency stop gap measures including netting, controlled knockdowns, and structural reviews. In Fiscal Year '23 an approved project for an additional \$550,000 for full depth repairs was recently awarded, putting our new total at \$1.6 million in temporary repairs. At least \$200,000 - \$500,000 is expected in emergency repairs prior to Fiscal Year '25 prospectus funding. Unsurprisingly, devoting significant funds from the service center's budget to temporarily sustain a failing piece of infrastructure that has yet been unable to obtain capital funding for much-needed repairs is not a path to financial sustainability. **Tenants are extremely dissatisfied with the state of the garage so much so that they are considering leaving the building.**”*

GSA-provided documentation on Minton-Capehart Federal Building from 2023

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As we have just presented, the cost of deferred action has been significant and will grow exponentially worse. Without consistent, disciplined reinvestment, federal real estate assets will face further decline, increasing fiscal pressure and risk to agency missions. To address this challenge fully, the government must pursue actions like consolidation and divestiture.

The PBRB was created to identify properties that should be divested from GSA's portfolio to address the challenges highlighted in our analysis. With maintenance and repair funding holding steady at roughly \$620 million per year, GSA would need to divest nearly 80% of its properties to bring its capital liabilities within its funding levels. However, the Board has found that many assets face unique obstacles that make disposal extremely difficult. Some vacant buildings are physically tied to adjacent functioning facilities, complicating their sale. Others suffer from severe deferred

maintenance or carry historic designations that reduce their market appeal. Still others are in such poor condition that the cost of demolition or repair outweighs any potential reuse—particularly in markets with little demand for office space. In these situations, the government should consider demolition to clear the property and then sell the land.

While GSA and other federal agencies understand the condition of their portfolios are dire, the primary issue they face in contemplating consolidations is resourcing. The remainder of this report reviews issues the Board has uncovered from listening to GSA and agencies describe their need to vacate unnecessary space and provides a roadmap for potential solutions.

### **Section 3: Agencies Require Resourcing and Authorities**

Over the past five years, the Board’s in-depth review of the GSA portfolio has repeatedly identified properties that should be divested based on apparent low occupancy and high deferred maintenance. The reality is that there are limited numbers of properties in the older age category which are well maintained that would produce strong value as individual sales under FASTA. Deferred maintenance plagues the portfolio as well as the disposition process and creates a situation where urgently needed downsizing will require significant effort, resources, and oversight.

#### ***GSA and agencies’ primary challenge: how to resource vacating properties.***

The biggest issue the Board has observed is GSA’s inability to vacate properties identified for disposal. The post-Covid office market remains depressed nationwide and continues to present GSA with considerable savings for vacant leased space. Several factors deter GSA and tenant agencies from seizing the opportunity for taxpayers.

- Agencies and GSA require funds to effectuate moves and consolidations whether they move into leases or into federal buildings. GSA and agencies require timed appropriations, sometimes in a specific sequence, to execute a move that brings with it significant savings to the taxpayer. Too often, appropriations are initiated but not carried through to the end of multi-phase projects, driving up costs and leaving agencies stranded mid-transition.
- Compounding the problem, Office of Management and Budget scoring rules restrict agencies’ ability to plan for consolidations, while the prospectus process adds years of delay and risk to otherwise beneficial projects.
- GSA requires tenant agency rent funds for its operations. The Board recognizes that GSA understands it must aggressively downsize the portfolio, yet at the same time, GSA appears unable to take appropriate action. The reality is that federal agencies that occupy GSA-owned buildings pay market-rate rents to GSA, and those payments are used to fund a large portion of GSA’s operating budget. If agencies leave those GSA-owned buildings, the rental payments end and GSA loses substantial revenue. The result is that GSA faces a real financial dilemma whenever federal agencies consolidate or vacate GSA-owned real estate.

Together, these outdated rules, laws, and procedures result in hidden costs to the taxpayers. Thus, the Board strongly urges reform, as we will discuss in the final section of this report.

- **Incentivize Action: GSA and agencies require a no-year, revolving fund**

FASTA established a fund, the Asset Proceeds and Space Management Fund, where sales proceeds were deposited with GSA for use in subsequent consolidations. Fiscal Year 2026 was the first time that GSA opted to seek appropriations under that fund to underwrite sales from the PBRB's Second Round of recommendations. Amendments to FASTA have eliminated this fund and land holding agencies receive proceeds from dispositions as an incentive to underwrite more cost-effective housing alternatives. However, the funds must be appropriated, causing uncertainty for agency planning.

Using the Asset Proceeds Fund as a model, **the Board believes that agencies and Congress should work to establish a clear and quick process whereby property sale proceeds are directly programmed for subsequent planned sales, and appropriations are made in a timely manner to support the execution of the proposed consolidations.** This is especially important in a multi-year or multi-phased consolidation that larger and more complex transactions require.

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*“...agencies told us that while they identified several properties for consideration under the FASTA process, there was no financial incentive to suggest potentially more challenging and costly projects, such as consolidations. In particular, officials noted the limited funding available to help prepare properties for disposal as well as the fact that all proceeds from potential sales are deposited in the Asset Proceeds Fund instead of going directly to the agency that held the property prior to sale. “*

*Government Accountability Office Report GAO-23-104815 Federal Real Property  
GAO-23-104815, FEDERAL REAL PROPERTY: GSA Should Leverage Lessons Learned from New Sale and Transfer Process*

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- **GSA and agencies should maximize private capital to support agency consolidations**

As we describe above, the single most challenging issue facing agencies is the lack of capital to pay for moving out of a property identified for disposal. Given the enormity of the required disposals, GSA and federal agencies should seek every opportunity to minimize upfront appropriations and maximize private capital. Leasing, lease-ownership and GSA out leasing to the private sector are all tools for relieving the taxpayer of the deferred maintenance capital liabilities we describe in this report. Public-Private Partnerships are a valuable tool, however the Office of Management and Budget's scoring policy is the primary impediment. Allowing agencies to move into privately owned properties which are paid for via lease terms with ownership at the end of the term (a lease-purchase), would require a scoring rule change, as we describe later in this section. Similarly, in some cases, moving agencies into simple leases would relieve federal taxpayers of the capital liabilities we describe in this report, allow agencies flexibility to expand or contract, and could leverage lessor-provided support for consolidations. Also, GSA could out lease properties to the private sector, shifting ongoing maintenance and repair to the lessor, while also providing a small

and steady income stream to the federal government. However, OMB has issued technical rules governing leases and public-private partnerships which result in the disuse of these kinds of mechanisms.

- **Reform the Federal Buildings Fund (FBF).**

There are two fundamental issues hampering adequate maintenance of federal properties related to the Federal Buildings Fund. The first is that insufficient funds are collected across the portfolio when compared with federal properties' maintenance and upkeep requirements. The second issue is that Congress routinely allocates only about 60% of this already depressed amount for maintenance.

### **The Federal Building Fund**

GSA collects rents from agencies and deposits those rents into its Federal Buildings Fund (FBF). GSA then requests authority to spend those funds from Congress during its budget formulation. GSA's preferred method of determining rates is by a "fair annual rent", which is an appraisal-based rate based on commercial rate comparables. These rates do not necessarily capture what individual properties need for upkeep and maintenance. Many Federal buildings are massive, historic, aging, and require *more* per square foot to maintain than the average commercial office space which is more efficient in design. The input to the FBF has never been adequate, and over the past 50 years, the condition of the inventory bears out this problem. To compound the problem, as the properties' maintenance problems increase, the comparable rent rates decrease, causing even lower rent rates to be produced over time. The FBF is not constructed to address the long-term capital requirements of the Federal government. The fund is insufficient to address expansion and contraction requirements of the Federal workforce, building obsolescence and planned renewal or emergency capital requirements related to code or life and safety upgrades. On top of this, Congress has recently funded only about 60% of GSA's budget requests which are based on the full FBF deposits, meaning that the outlays are far below what is required.

### **An Improved "Return on Investment" Rate is Required**

A ready solution is currently available. GSA has a policy where it can charge an alternative rental rate, called "return on investment pricing" (ROI pricing). This pricing is described as capturing the cost of capital, capital investments for major repairs, and the market value of the property to ensure a return on the investment. GSA has the option to refresh its policy and seek appropriate levels of rent for its properties. An adjusted ROI pricing policy could ensure that agencies cover the required 6% return on investment "hurdle" set by GSA and provide sufficient capital to the FBF to cure deferred maintenance in the asset. This practice is much like 'common area maintenance' charges in the private sector to cover large capital expenditures born by landlords.

Simultaneously, GSA would need to negotiate with Congress to allow adequate appropriations to sustain the federal properties where agencies are contributing sufficiently to the FBF.

- **Capital planning needs to align with taxpayer interests.**

As a direct result of the inefficiencies of the Federal Buildings Fund, discussed above, the Board believes that GSA's prioritization of deferred maintenance projects has become misaligned with taxpayer interests. For the past decade, Congress has appropriated less money for GSA to spend than the FBF receives in rent from GSA's tenant agencies, creating a situation where GSA appropriations are no longer sufficient for building upkeep, and where day-to-day operational needs are in direct competition with capital needs. Because of this appropriations issue, GSA's ability to repair its portfolio has diminished over time. Thus, the Board has found that GSA's analysis and decision-making for retaining properties has become heavily weighted towards and based upon whether the property is providing a revenue stream to the FBF. GSA has resorted to a strategy of prioritizing those assets in which agencies pay market rent at rates exceeding those properties' needs for maintenance or repairs. **Thus, certain buildings in GSA's portfolio financially support the rest of the portfolio.** But emphasizing the importance of retaining assets where Funds from Operations (FFO) are positive can skew the objectivity of the portfolio analysis by focusing on revenue generation as compared to other criteria for determining which buildings to retain and which to dispose of. **Assets may be "FFO positive", and thus categorized as "core performing," but may have large, deferred maintenance requirements that may never be addressed by funding, and/or may not be ideally suited to meet the changing missions of their tenant agencies.** Further, those properties may be well-located and quite valuable for private sector use, and alternative leasing opportunities available nearby. A clear, forward-looking, capital planning process is fundamental to protecting an organization's portfolio and supporting immediate operational needs and broader strategic goals. Without a disciplined approach to capital investment, agencies risk accumulating dangerous levels of deferred maintenance backlogs, and can miss critical opportunities to transform their facilities in ways that support evolving public purposes. The introduction to this paper provides examples of the risks to the portfolio in maintaining the current course. Adopting and strengthening core capital planning principles allows agencies to align resources with mission needs, anticipate challenges, and make decisions that offer lasting value. At the same time, the current office markets in the U.S. can sometimes provide more cost-effective housing options.

- **Adjust Federal Rules to Support Better Decision Making.**

Federal rules in OMB Circulars A-94 and A-11 are designed to assist agencies with making sound determinations about whether leasing or owning properties is the best option. Circular A-94 provides a test for understanding whether the financial flows associated with owning or leasing are most beneficial, however the underlying assumption is that a building would be consistently and fully occupied over the projected life of the building. In other words, the current rules do not incorporate the flexibility required by agencies as the size and nature of their workforce changes. Further, the test applied by A-94 assumes that a given property would have a residual value at the end of its life, and the Board has found that federal properties have often had maintenance issues for so long that the building has no value. Combine the poor condition of the inventory with properties which may not be zoned or which have environmental contamination and there may be no residual value left even for the land.

Another circular, A-11, mandates OMB rules called “scoring” rules, for federal activities that might increase the budget deficit. In essence, scoring rules delineate real estate transactions into those which require all upfront capital allocations, and those which are ‘short term’ and can be paid for year to year. Scoring rules for Federal properties are predicated on an outdated assumption that owning properties will always be less expensive to the taxpayer than leasing, and the rules drive federal agencies toward short-term leases which are not always the most cost effective. However, the poor condition of many federal buildings and the taxpayer burden of the deferred maintenance liabilities along with the flagging commercial real estate sector means that this is not always true. Given a distressed office market, the Board has found that in some cases, it may be that leasing or even purchasing distressed commercial properties is a better financial transaction for the taxpayer than moving Federal employees into properties with massive, deferred maintenance. Finally, scoring rules are predicated upon the assumption that federal agencies would be able to secure needed appropriations for major renovations and new construction as opposed to using private capital and lease-purchase arrangements. This assumption has been proven incorrect. GSA does not have accurate deferred maintenance and capital liability information to provide OMB during the scoring analysis, therefore the true cost of keeping Federal employees in a failing or failed building is not reflected in the budget analysis. Finally, because OMB applies its scoring and budget rules to most real estate transactions, OMB often becomes the ultimate arbiter of Federal real property portfolio decisions.

- **Greater flexibility is needed for agencies to use rent appropriations or other funding to effectuate consolidations.**

Congress and OMB should consider authorizing a mechanism that permits agencies to utilize rent appropriations, or other funding available in their operating accounts, for building shell improvements in exchange for rent credits. This strategy has been employed by GSA in the past, but only for those agencies whose appropriations could be moved freely across rent and capital improvement activities. The Board proposes this strategy be consistently applied across all Executive branch agencies. This should streamline an overly burdensome process and realize tangible gains in project delivery efficiency, timelier optimization of building operations, and net savings to the taxpayer. This approach creates a transparent, equitable relationship between asset conditions and occupancy cost, and helps agencies manage maintenance backlogs through proactive financial planning. Legislative authorities would be required to implement this policy, but it offers a practical solution to longstanding funding problems and asset management challenges which GSA has encountered.

- **Building occupancy and daily use data must be improved to support decision making.**

Recent legislation, particularly the USE IT Act, which requires the government to track the utilization rates in its portfolio, will add to the justifications to reduce the portfolio by selling off underutilized buildings. In recent reports, the GAO has discussed how inconsistent tracking of space utilization prevents effective implementation.<sup>1</sup> The Board has been unable to acquire valid and reliable building occupancy and use data to support its own analysis. GSA has reported that it too lacks

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<sup>1</sup> GAO, Federal Real Property: Improving Data Transparency and Expanding the National Strategy Could Help Address Long-Standing Issues, GAO-16-275, March 2016, p. 17, at <https://www.gao.gov/assets/gao-16-275.pdf>.

that information. Without accurate and valid data on how many employees are using a given space, GSA cannot make evidence-based decisions.

Further, reliable and timely building condition and maintenance data are indispensable for portfolio-level decisions. The disparity between the estimates GSA uses for understanding facility maintenance liabilities and the PBRB analysis demonstrate the seriousness of the data issue.

Adopting standardized asset tagging, robust data validation processes, and periodic audits are essential steps toward developing reliable, actionable information. Recent technological advances in collecting utilization data mean that agencies are no longer limited to manual data gathering.

*For a review of commercial best practices on data collection refer to Appendix 2.*

- **An oversight organization is key.**

The Board believes that its work represents only initial analysis in its effort to identify properties that provide value upon their sale. There are many buildings that present no value or such low value that the cost to move employees and shut the facility exceeds the possible savings. The considerable amount of effort required to shrink the federal portfolio justifies an oversight organization with sufficient authority and budget over the long term to effectuate change. As a result, the Board recommends that Congress consider extending and perhaps expanding the PBRB's authorization to allow it to work with Federal agencies to continue to identify properties that should be sold and engage with Congress to push ahead required reforms.

## **Section 4: Conclusions**

The analysis we have presented in this report demonstrates the magnitude of the challenge ahead, and the urgency of the effort needed to drastically reduce the size of the portfolio. The key points in our report were that:

- The PBRB estimates that GSA's portfolio is burdened with deferred maintenance liabilities at or in excess of \$50 billion. At the current rate of GSA-estimated annual escalation, this liability will become \$546 billion in ten years, or approximately \$3,300 per U.S. taxpayer.
- As we have previously reported, the low daily use of the federal inventory compounds the excess costs to the American taxpayer. Our previous report indicated an average use rate across the select set of properties in Washington D.C. to be 12%.
- Given the extraordinary cost liabilities and the low use, the portfolio must undergo a radical reduction in size.
- Congress will not be able to appropriate its way out of the deferred maintenance liabilities, but agencies will need appropriations to support initial move costs.

## Appendix 1 Method - Costs Arise Through the Definition of Deferred Maintenance

A common understanding of deferred maintenance, and a frank assessment of the underlying data sources and challenges, is critical for developing effective and actionable recommendations.

The first step in this analysis was to understand what the federal government, and more specifically GSA, considers 'deferred maintenance'. The lifecycle of a building generates significant types of costs – for example interior refreshes, exterior modifications, upgrades to mechanical, electrical and plumbing systems, energy efficiency upgrades, and technological improvements. All of these costs should be planned for and considered in concert with a total portfolio plan to reduce inefficient spending, or “throwing good money after bad”. The Board found that, unlike best practices of the commercial sector (explored in Section 5), which emphasize proactive planning and systematic investment to manage building lifecycles, the government takes a reactionary approach. Deferred maintenance issues typically are addressed only as they arise, rather than as part of a comprehensive, forward-looking portfolio strategy.

The GSA uses the definition of DM&R developed by the Federal Accounting Standards Advisory Board (FASAB):

- Deferred maintenance and repairs are maintenance and repairs that were not performed when they should have been or were scheduled to be, and which are put off or delayed for a future period.
- Maintenance and repairs are activities directed toward keeping fixed assets in an acceptable condition. Activities include preventive maintenance; replacement of parts, systems, or components; and other activities needed to preserve or maintain assets. Maintenance and repairs, as distinguished from capital improvements, exclude activities directed towards expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than, its current use.<sup>2</sup>

While this is typically limited to a 'like-for-like' replacement, the distinction is not absolute. Legislation such as the Energy Act of 2020 requires that when outdated building systems are replaced, they must be upgraded to meet modern sustainability and efficiency standards, effectively blurring the line between simple maintenance and capital improvement in those cases.<sup>3</sup>

The private sector offers similar definitions:

- **Deferred Maintenance** - Curable, physical deterioration that should be corrected immediately, although work has not commenced; denotes the need for immediate expenditures but does not necessarily suggest inadequate maintenance in the past.<sup>4</sup>

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<sup>2</sup> Federal Accounting Standards Advisory Board, *FASAB Handbook of Federal Accounting Standards and Other Pronouncements, As Amended*, Version 23, September 2024, Statement of Federal Financial Accounting Standards 42.

<sup>3</sup> Energy Act of 2020, Division Z of the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260. (2020), at <https://www.congress.gov/bill/116th-congress/house-bill/133/text>.

<sup>4</sup> Appraisal Institute, *The Dictionary of Real Estate Appraisal, Third Edition*, 1993, s.v. "Deferred Maintenance."

- Deferred maintenance represents *necessary repairs* and *replacements* postponed beyond their optimal timing. It's not simply about things being old - it's about systems and components that are *overdue for replacement or repair*, creating both immediate risks and future liabilities. By contrast, **Capital Improvements** are defined as: Upgrades that add value versus repairs that restore original function. Installing granite countertops is a capital improvement; replacing a failed water heater is addressing deferred maintenance.<sup>5</sup>

Private sector entities with large real estate portfolios address DM&R as part of a larger portfolio capital plan, allocating resources not solely to replace 'like for like'; but to ensure the facilities continue to meet current and future mission needs, and, if not, to be positioned for disposal. GSA (and the government writ large) should consider utilizing more progressive definitions as part of any transition to Capital Planning practices and processes. For example, the Federal Facilities Council of the National Academies of Science proposed that DM&R be defined as, "Sustaining an asset's current functionality and extending functionality beyond its expected service life through significant renovation, replacement or repurposing."<sup>6</sup>

### How the Board used the Existing Data for this Analysis

As explained in the section above, the FASAB definition of DM&R that GSA uses is specific to a 'like for like' replacement of assets in most cases. This approach excludes capital improvements, which are projects that add value or position the property for an expanded or different use. To ensure that the cost estimates and information related to DM&R are captured remain consistent with GSA's methodologies, the PBRB estimated DM&R using the same definitions.

In spite of the data challenges, the Board utilized data from GSA's Business Intelligence (BI) application for this analysis. This application consolidates data from multiple internal GSA sources (OASIS, the Building Assessment Tool (BAT), and others) to provide the financial and real estate-related information which the Board required to perform its work. Using financial information provided by GSA and sourced from the same data sets utilized by GSA for financial reporting and decision making provides a reasonable and consistent foundation from which the Board validated GSA's estimates and developed independent projections. Later sections of this report provide recommendations for how GSA and the Government overall can improve data collection in this important area.

In addition to data from GSA's BI tool, the Board's analysis also relied upon GSA's BAT tool. The BAT is a comprehensive 40-section survey that provides biennial assessments of physical conditions for each building's basic structure and systems and provides an overall assessment of GSA's building inventory. GSA requires a building assessment for every federally-owned, leased, or delegated asset controlled by GSA where:

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<sup>5</sup> Real Estate Financial Planner, *Deferred Maintenance: A Real Estate Investor's Guide To Finding Opportunities Others Miss*, at <https://realestatefinancialplanner.com/deferred-maintenance/> (accessed November 21, 2025)

<sup>6</sup> National Academy of Sciences (NAS), *Strategies to Renew Federal Facilities: A Consensus Study Report of the National Academies of Sciences, Engineering, and Medicine*, 2022, Chapter 1, p. 15 (emphasis added).

- GSA has R&A responsibility
- The asset maintains an “active” or “excess” status
- The asset has a real property type of “building” or “structure”

Building assessments electronically document building conditions, with approximately half of GSA’s building inventory being surveyed each year. The cost estimation methodology within the BAT relies on surveyor assessments of asset defects and pre-selected line-item costs and quantities to arrive at a rough order of magnitude cost estimate. These costs are updated annually based on the asset’s location, unique conditions (i.e., the building’s security level, unique space buildout, and the historical nature of the asset), and line-item costs are updated based on current material and labor market conditions using RS Means cost data. The surveyor can also use more accurate cost estimates (i.e., previous studies or project proposals) to override the system-generated costs if available.<sup>7</sup>

BAT outputs feed directly into BI for portfolio-level analysis, enabling GSA to track deferred maintenance liabilities, Functional Replacement Value (FRV) of the asset, rent that tenant agencies pay (revenue), O&M costs, and Funds from Operations (FFO)<sup>8</sup>. The data also included baseline information such as square feet, historical significance, and other real estate and locational data points.

The Board’s analysis found that GSA’s BAT is a fairly robust tool for the purposes of developing portfolio-wide summary cost totals. It links to RS Means, which is an industry standard construction cost database, it has default and changeable cost adjustment factors, and it is flexible enough to include specific cost estimates when available. However, the Board’s review of the 2024 GSA BAT data set, and of multiple individual BAT reports associated with that data set revealed numerous ambiguities, inconsistent inputs, and gaps in supporting information. These limitations in the BAT data posed significant challenges in assessing its overall accuracy and comparability. Common issues included:

- **Insufficient Scope Definition:** Several BAT entries for deficiencies contained general descriptions without providing detail on systems, construction scope of work, or the extent of improvements required. These broad cost allowances without supporting technical details prevented accurate cost validation. It is unclear whether the various BATs were completed by people with sufficient knowledge and expertise in facility management, construction, architecture/engineering, or construction cost estimating.
- **Unclear Cost Composition:** While the BAT is a robust and thorough database for accumulating and summarizing repair and alteration project needs at a portfolio level, there are numerous caveats associated with its costs. The BAT numbers appear to lack consistent markup structures, creating challenges in making “apples-to-apples” comparisons with industry-standard estimates that explicitly account for these additional project costs. For example, while the BAT identifies the

<sup>7</sup> GSA, *FY 2024 Agency Financial Report*, November 2024, p. 123, at <https://www.gsa.gov/system/files/FY-2024-GSA-AFR-12-20-2024-508-compliant.pdf>.

<sup>8</sup> Funds From Operations (FFO) is equal to revenue less operational expenses.

actual hard costs (direct construction trades costs) of the specific work indicated (roof replacement, concrete spalling, etc.), a project to replace a roof could have multiple additional costs that have not been included in the BAT numbers. These additional costs include design and engineering, general contractor fees, contingencies, and more. Depending on the complexity of the project, these indirect costs and ‘soft costs’ alone can add 50 percent or more to the base construction cost shown.

- **Inconsistent Cost Escalation and Market Factors:** BAT figures require escalation to the time of likely project execution and must account for periodic and locality-specific changes in materials costs, labor rates, and other market factors which influence project costs. It is unclear whether the BAT’s Default and Applied Cost Adjustment factors are tied to the appropriate market conditions and applied consistently to every building.
- **Outdated or No Information:** BATs have not been completed for every building in the portfolio. Additionally, it is unclear whether BAT assessments reflect current conditions. For example, where concrete cracking was documented with specific quantities requiring repair, it remains unknown whether any work had been completed since the assessment or whether conditions had deteriorated further.
- **Baseline Data:** It is unclear what sources were used and what assumptions were made to arrive at the Functional Replacement Value field, cost adjustment factors, and estimated quantities included in the BATs. Further, there is a lack of consistency in how the baseline quantities are measured from one BAT to another.

**Methodology for Normalizing Data and Key Findings**

The Board conducted a full independent review of the 2024 GSA Business Intelligence (BI) Dataset. The objective of this review was to create a more accurate and updated estimate of the deferred maintenance liabilities in GSA’s portfolio, by validating GSA’s reported information, identifying inconsistencies, and updating information to today’s dollars. The 2024 BI dataset received from GSA reflected:

Original 2024 Business Intelligence Dataset Provided by GSA	
Total Properties	2,008
Total Building Gross Square Feet	228,438,933 GSF
Total BAT DM&R Liabilities (Original GSA Data)	<b>\$16,716,873,544</b>
Total # of Buildings with No BAT Data	559 (29% of Total)
Total GSF of Buildings with No BAT Data	17,522,086 GSF (8% of Total)
Total # of Buildings with No GSF Data	279 (14% of Total)

The BI dataset includes variables such as: BAT-estimated DM&R cost, FRV, building gross square foot (GSF), and asset type. The data review process included multiple steps to organize the data and check it for completeness, consistency, and appropriateness of groupings. Where necessary, the Board determined a logical way to address inconsistencies and fill in data gaps:

1. Missing or zero-value GSF entries (279 buildings) were cross-referenced with other federal data sources (such as FRPP) or estimated using AI-assisted research tools.
2. The dataset was categorized by property type (e.g., offices, courthouses, warehouses, etc.) and average BAT cost per square foot (SF) ratios were calculated for each asset type in the portfolio. Where BAT data had missing or zero-value values (559 buildings), average asset BAT cost per SF ratios were used to project the cost per square foot.
3. Finally, using the complete data set, the Board projected a total DM&R cost for the total GSA portfolio, increasing the estimate from \$16.7B to \$23.8B.

As a validation step, the Board used asset FRV values as a reasonableness check to flag possible anomalies. If the BAT DM&R cost approached or exceeded the FRV cost, the building received a more detailed analysis to ensure that the estimated DM&R costs are within credible boundaries.

In reviewing the dataset, the Board’s analysis revealed systemic data and reporting issues that reduce effectiveness for investment prioritization and long-term capital planning. Several observable asset-level trends and anomalies emerged that merit further examination:

- Courthouses, offices, industrial buildings, land ports of entry, dormitories/barracks, data centers, and warehouses generally had higher BAT to FRV ratios<sup>9</sup> than other asset types.
- Parking structures, by contrast, showed BAT to FRV ratios exceeding 200%. This may indicate both high deferred maintenance (e.g. the Kefauver parking garage in Nashville, TN had to close due to maintenance issues) as well as potential inconsistencies in cost recording.
- Properties located in the Northeast, Midwest, West Coast and Caribbean regions had higher BAT cost per SF (averages over \$100 per SF) than other areas, with many of those same areas showing high average BAT to FRV ratios (greater than 50%) as well. This finding generally adheres to regional differences in maintenance costs experienced by commercial real estate nationwide and should be examined further.
- Building age correlated predictably with DM&R per GSF; newer buildings had lower cost ratios, which increased along with the age of the building.

Building Age Groups	# of Buildings	Sum of Building GSF	Sum of BAT Deficiencies	Average of BAT/GSF	Average of BAT/FRV
1-20 yrs	370	32,934,551	\$1,267,308,751	\$55	34%
21-30 yrs	466	80,041,815	\$7,166,314,784	\$78	28%
31-75 yrs	611	107,426,447	\$9,363,335,086	\$130	49%
76-100 yrs	314	43,457,807	\$4,051,409,971	\$124	26%
>100 yrs	197	16,169,030	\$1,764,535,799	\$130	23%
<b>Grand Total</b>	<b>1,958</b>	<b>280,029,650</b>	<b>\$23,612,904,392</b>	<b>\$104</b>	<b>36%</b>

<sup>9</sup> The BAT to FRV ratio tells us how much of a building’s functional replacement value is being encumbered by deferred maintenance and repair costs. A greater BAT to FRV ratio is indicative of a worse building condition.

In order to understand why the GSA reported DM&R capital liability appeared to inadequately reflect the maintenance requirements the Board was routinely viewing through its tours of GSA buildings, the Board requested a sample of BAT surveys and the ability to conduct one Building Engineering Report (BER), an in-depth review of the structural and mechanical, electrical and plumbing systems conditions. GSA was unable to support a BER evaluation, but did provide the PBRB with sample BATs

### **PBRB Methodology for Independent BAT Review**

Using the 2024 BI dataset provided by GSA, the Board conducted a second quantitative evaluation, based on an analysis of available variables, identifying building age as the greatest correlation factor with BAT DM&R liabilities and overall condition. Based on observed clustering trends in the BAT per GSF data, every building in GSA's portfolio was categorized into one of five age groups: 1-20 years, 21-30 years, 31-75 years, 75-100 years, and over 100 years old. From each category, the Board selected buildings that were representative of the average BAT per GSF for their group, creating a sample of eleven buildings. The sample of buildings, drawn from GSA's diverse portfolio, included federal office buildings, a warehouse, courthouses, and combined office/courthouse facilities across multiple regions, representing a range of building ages and sizes.

After requesting and receiving from GSA full detailed BAT reports for these facilities, the Board engaged a third-party cost management team to conduct independent estimates of each building's DM&R costs. For each building, a detailed analysis of the BAT was performed, and a new opinion of DM&R cost was developed. These revised totals were compared to the original BAT estimates to measure variance and to inform portfolio-wide adjustments. To address the known BAT limitations, the following methodology was used to develop the independent cost estimates:

- a. **Where a particular number was ambiguous or there was insufficient information:** Independent estimates were utilized for similar work in the appropriate geographic area, incorporating current labor rates, material costs, and market conditions.
- b. **If the BAT figures appeared low based on available scope information:** The analysis substituted escalated figures developed through independent research and industry benchmarking.
- c. **Where the BAT information appeared reasonable and sufficiently detailed:** The BAT numbers were escalated to current dollars and incorporated into the updated estimates.
- d. **All cost estimates** were escalated to 2025 pricing levels to ensure consistency and relevance for current planning purposes. Although efficiencies or economies of scale could reduce costs if multiple projects are combined or strategically phased; without specific information about potential sequencing or bundling opportunities, conservative standalone pricing was applied throughout the analysis.

The Board's detailed analysis, and the diversity of these 11 buildings, served the dual purpose of revealing significant limitations in translating BAT data into accurate project-ready cost estimates, and identifying key insights which could be meaningfully extrapolated to the broader portfolio of GSA-owned buildings.

Results are summarized in the chart that follows. The values shown are:

- “FRV”: GSA-reported Functional Replacement Value from the BI dataset
- “GSA BAT DM&R”: GSA-reported DM&R value from the BAT
- “Independent DM&R Estimate”: independent estimates conducted by the third-party cost management team
- “Unescalated”: shown in 2025 pricing
- “Escalated”: pricing escalated to match the timing in the BAT (i.e. Immediately, 1-2 years, 3-5 years, 6+ years)

### BRB Analysis of DM&R Needs for 11 GSA-Owned Buildings

The chart below summarizes the PBRB findings for its independent cost estimates across 9 out of the 11 properties. The remaining two properties are shown in a following table and discussed separately. The properties are de-identified to preserve the ability of the government to independently understand the marketability of the properties without influencing through the release of specific building information.

Building Name	Size (GSF)	Year Built	FRV	GSA BAT DM&R	Independent DM&R Estimate	
					Unescalated	Escalated
Bldg 1	275,220	1965	\$128,978,998	\$36,659,211	\$68,808,596	\$75,112,898
			\$469/SF	\$133/SF	\$250/SF	\$273/SF
Bldg 2	128,715	1914	\$77,897,191	\$18,102,938	\$31,745,874	\$33,713,465
			\$605/SF	\$141/SF	\$247/SF	\$262/SF
Bldg 3	26,857	1925	\$13,875,255	\$3,038,923	\$6,461,279	\$7,475,467
			\$517/SF	\$113/SF	\$241/SF	\$278/SF
Bldg 4	74,140	2011	\$31,045,697	\$2,472,472	\$3,908,780	\$4,437,388
			\$419/SF	\$33/SF	\$53/SF	\$60/SF
Bldg 5	905,533	1996	\$594,175,930	\$54,194,184	\$89,603,184	\$105,385,310
			\$656/SF	\$60/SF	\$99/SF	\$116/SF
Bldg 6	1,427,965	1964	\$1,178,596,101	\$195,574,993	\$353,291,382	\$413,618,814
			\$825/SF	\$137/SF	\$247/SF	\$290/SF
Bldg 7	192,410	2021	\$117,382,205	\$5,958,456	\$12,876,143	\$15,678,427
			\$610/SF	\$31/SF	\$67/SF	\$81/SF

Bldg 8	565,959	1934	\$350,490,318	\$68,385,194	\$100,809,265	\$106,967,752
			\$619/SF	\$121/SF	\$178/SF	\$189/SF
Bldg 9	691,956	1999	\$345,600,651	\$42,625,639	\$71,936,591	\$87,810,835
			\$499/SF	\$62/SF	\$104/SF	\$127/SF

Across the sample, Board estimates consistently exceeded BAT figures (aside from Building 11, described below), indicating the likelihood that portfolio-level estimates based solely on the GSA-reported BAT data undervalue actual repair needs.

Two supplementary case studies were also reviewed: the Building 10 and Building 11.

- Building 10 was selected due to its mid-range age (59 years old) and average condition. It represents one of the portfolio's larger assets (over 1 million GSF) with diverse facility uses and a complete BAT record. The GSA-reported DM&R was \$87/GSF, while the independent analysis showed an unescalated DM&R/GSF of \$195/GSF - a 105% increase over the GSA value.
- By contrast, Building 11 is a smaller facility (appx. 55,000 GSF) with a relatively high reported DM&R/SF of \$319/SF, confirmed by the independent analysis (\$312/SF). This alignment contrasted with the mid-range samples, where independent analyses typically exceeded GSA estimates by 150%-250%.
- Together, Building 10 and Building 11 illustrate the broad variability in GSA's BAT data. While the Board could not analyze a statistically significant sample from the portfolio or conduct independent Building Evaluation Reports (BER) or visual inspections of any properties, these desktop reviews underscore the need for a more consistent, data-driven assessment framework (such as an improved BAT/BER system) to accurately portray federal portfolio capital liabilities.

Building ID	Size (GSF)	Year Constructed	FRV	GSA BAT DM&R	Independent DM&R Estimate	
					Unescalated	Escalated
Bldg 10	1,016,748	1966	\$665,499,988	\$88,581,921	\$181,708,701	\$198,178,028
			\$655/SF	\$87/SF	\$179/SF	\$195/SF
Bldg 11	55,824	1938	\$37,316,254	\$17,831,365	\$16,841,632	\$17,460,668
			\$668/SF	\$319/SF	\$302/SF	\$313/SF

## Appendix 2: Reliable Data and Technology Integration

At the heart of effective capital planning lies accurate, current data on asset conditions. Facility condition assessments (FCA) performed on standardized criteria help agencies understand the true state of their buildings and systems. As described in Section 3, the Board's analysis of existing BAT data highlighted critical gaps in how building condition information is collected, categorized, and maintained. Without good data, even the most sophisticated planning frameworks falter. Incomplete scope definitions, inconsistent costing structures, and incomplete or outdated assessments collectively undermine confidence in these data sets as the foundation for effective capital planning.

As an example, recent legislation, particularly the USE IT Act, which requires the government to track the utilization rates in its portfolio, will add to the justifications to reduce the portfolio by selling off underutilized buildings. However, the GAO has discussed how inconsistent tracking of space utilization prevents effective implementation.<sup>10</sup> Additionally, the Board is concerned that the process of utilization tracking and reporting, and the subsequent necessary processes of evaluating options and making decisions, will result in the needed substantive changes to the inventory taking far longer than necessary.

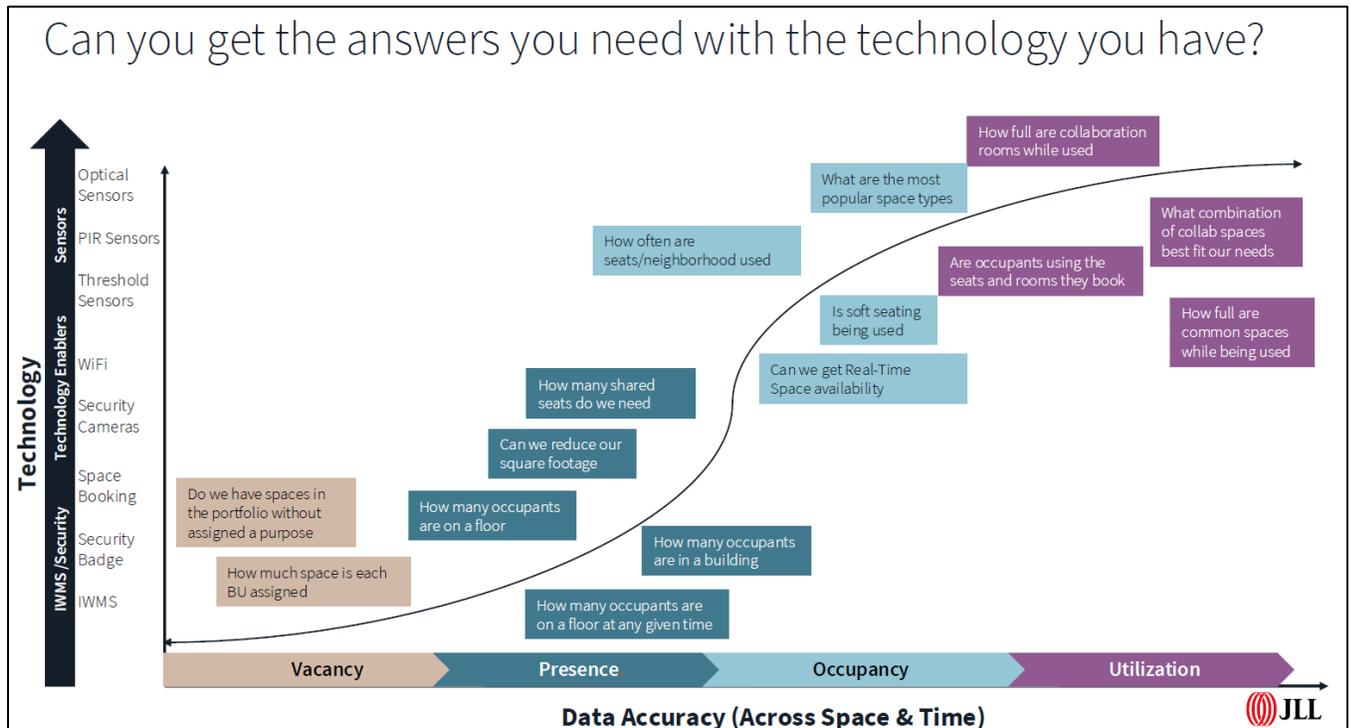
Reliable and timely building condition data are indispensable for portfolio-level decisions. Addressing data weaknesses requires not simply refining survey methods but modernizing the entire information ecosystem supporting the management of the assets. Adopting standardized asset tagging, robust data validation processes, and periodic audits are essential steps toward developing reliable, actionable information. Recent technological advances mean that agencies are no longer limited to manual data gathering. Technology offers tools for:

- **Automated asset monitoring:** IoT sensors track real-time equipment health (e.g., HVAC, elevators, power systems), immediately flagging anomalies that could indicate impending failure.
- **Aerial and mobile surveys:** Drones and mobile platforms speed facility inspections, especially for roofs and exterior structures, while AI-powered analysis of images helps identify defects before they escalate.
- **Digital platforms:** Integrated Workplace Management Systems (IWMS) and Computerized Maintenance Management Systems (CMMS) now allow agencies to centralize information, automate reporting, and use digital twins for scenario modeling and long-term forecasting.
- **Occupancy and utilization analytics:** Technologies such as badge readers or WiFi trackers provide granular insight into space use, guiding decisions on consolidation, disposal, or modernization of federal space.

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<sup>10</sup> GAO, Federal Real Property: Improving Data Transparency and Expanding the National Strategy Could Help Address Long-Standing Issues, GAO-16-275, March 2016, p. 17, at <https://www.gao.gov/assets/gao-16-275.pdf>.

- **Predictive maintenance:** With enough sensor data collected over time, agencies can use analytics to forecast which assets are likely to require expensive intervention soon, optimizing capital investment and reducing unforeseen costs.



For example, GSA and other federal agencies have piloted drones for building envelope inspections and expanded the deployment of real-time sensors for critical MEP systems. These technologies allow for more frequent, comprehensive assessments, making it possible to prioritize investments and avoid surprises.

Despite these advancements, technology cannot fully automate capital planning. Sensors and drones have limits: security restrictions may prevent their use at sensitive sites, and data can be misinterpreted or incomplete. Manual verification and human expertise remain essential to validate findings, interpret ambiguous data, and ensure that strategic priorities take precedence, especially in high-security or unique operational contexts. **A best practice is to combine technology-enabled data collection with systematic manual review, ensuring that final capital decisions are both data-driven and grounded in operational reality.**

# Assessment Analysis Improvements

## Data Quality & Validation Gaps

 <b>Continuous, objective monitoring</b>  Human inspection is an analytics triggered event and tracked asset metric	 <b>Quantifiable performance metrics</b>  Performance is a calculated asset metric	 <b>Real-time validation</b>  Performance against design is a calculated asset metric	 <b>Historical trend data</b>  Asset data is automatically ingested by financial systems to calculate depreciation
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## Component-Level Intelligence

 <b>Individual system performance</b>  Performance degradation is a calculated asset metric	 <b>Usage intensity data</b>  Usage is a calculated asset metric	 <b>Environmental stress factors</b>  Environmental stress is a calculated asset metric	 <b>Maintenance intervention effectiveness</b>  Maintenance activities and timing are optimized based upon asset demand trends
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The benefits of this comprehensive approach are tangible. Organizations that integrate technology with process improvements reap measurable rewards:

- **Structured, data-driven prioritization:** Defined attributes such as risk, payback, and strategic alignment guide project selection. Advanced tools enable agencies to objectively score, rank, and compare capital projects, supporting transparent, repeatable decisions.
- **Tiered condition assessments and health reporting:** Real-time monitoring at the asset, system, and building level supports multi-year forecasting and timely investment.
- **Agile scenario planning:** The combination of integrated financial forecasting tools and rapidly updated asset data allows agencies to respond dynamically to changing conditions, funding, and mission needs.
- **Portfolio optimization:** Utilization analytics enable agencies to identify and eliminate underused space, consolidating where possible and redeploying funds to higher-impact investments.