

# Construction Programs

With an infrastructure that is more than 60 years old, the Department of Veterans Affairs (VA) has a monumental task of maintaining and improving its vast network of facilities to ensure the Veterans Health Administration can provide accessible, high-quality health care to our nation's veterans. Currently, VA owns 5,300 buildings and manages more than 800 leases. In 2005, VA began using the Federal Real Property Council Tier 1 performance measures to assess its capital portfolio goals.<sup>1</sup> The two measures that directly affect patient services are utilization and condition. In 2004, VA's utilization was at 80 percent, well below capacity. That utilization grew to 121 percent in 2010, and is projected to grow even more in the coming years. During the same time period, the condition of VA's infrastructure decreased from 81 percent to 71 percent.<sup>2</sup> These trends show that funding for the next few years will be critical for VA to fulfill its mission.

VA has developed the Strategic Capital Investment Plan (SCIP) to address the critical deficiencies in its infrastructure. SCIP uses six criteria to assess deficiencies, or gaps, in its ability to deliver efficient, high-quality, accessible services and care for veterans. The six gap criteria are access, utilization, space, condition, energy, and other (which includes safety, security, privacy, and seismic corrections).<sup>3</sup> After conducting the gap analysis, VA found there were 4,808 capital projects that needed to be completed to close all gaps. It was also determined that to close all these gaps it would cost between \$53 billion and \$65 billion.<sup>4</sup>

The two categories that concern *The Independent Budget* veterans service organizations (IBVSOs) the most are condition and access. To determine and monitor the condition of its facilities, VA conducted a Facilities Condition Assessment (FCA). These assessments include inspections of building systems, such as electrical, mechanical, plumbing, elevators, and structural and architectural safety; and site conditions consisting of roads, parking, sidewalks, water mains, and water protection. The FCA review team can grant ratings of A, B, C, D, and F. Assessment ratings A through C conclude the assessed is in new to average condition. D ratings mean the condition is below average, and F means the condition is critical and requires immediate attention. To correct these deficiencies, VA will need to invest nearly \$10 billion.<sup>5</sup>

To close the gaps in access, VA will need to invest between \$30 billion and \$35 billion in major and minor construction and leasing. The remaining \$20 billion is needed to close the remaining nonrecurring maintenance deficiencies.

The IBVSOs will be monitoring the level of funding for each of the infrastructure accounts to ensure that all current gaps are closed within 10 years and that emerging and future gaps will have sufficient funding.

<sup>1</sup> FY 2012 Budget Submission, Construction and 10 Year Capital Plan, February 2011, Vol. 4 of 4, p. 9.3-11, 12.

<sup>2</sup> Ibid., 9.3-13, 14.

<sup>3</sup> Ibid., 8.2-4.

<sup>4</sup> Ibid., 81-1.

<sup>5</sup> Ibid., 9.3-14, 15.

**MAJOR CONSTRUCTION ACCOUNTS:***Underfunding major construction reduces quality and access to care.*

By estimation of the Department of Veterans Affairs, to implement all currently identified gaps in major construction, Congress will have to authorize and appropriate \$20 billion–\$24.5 billion over the next 10 years. Currently, there are 35 major construction projects that are authorized, dating back as far as 2004. Only three of these projects are funded through completion. The total unobligated amount for all currently congressionally budgeted major construction projects is \$2.7 billion.<sup>6</sup> Yet the total funding requested for FY 2012 major construction accounts was only \$725 million.

At this level of funding, it will take VA more than 25 years to complete its current 10-year capital investment plan. *The Independent Budget* veterans service organizations (IBVSOs) understand that fiscally difficult times call for spending restraints, but without quality, accessible medical centers, VA will not be

Category	Recommendations (\$ in Thousands)
Major Medical Facility Construction	\$2,307,000
NCA Construction	\$67,500
Advanced Planning	\$142,000
Master Planning	\$15,000
Historic Preservation	\$20,000
Miscellaneous Accounts	\$142,200
<b>TOTAL</b>	<b>\$2,693,700</b>

able to deliver quality, accessible care. The IBVSOs recommend \$2.7 billion to complete all partially funded and future major construction needs to close all identified gaps by 2021.

<sup>6</sup> Ibid., 2–85.

**MINOR CONSTRUCTION ACCOUNTS:***Underfunding minor construction delays much-needed improvements to existing infrastructure.*

To close the minor construction gaps within its 10-year timeline, the Department of Veterans Affairs will need to invest nearly \$8 billion in Veterans Health Administration minor construction alone.<sup>7</sup> Minor construction projects allow VA to address issues of functional space within existing buildings and improve facility conditions at cost less than \$10 million. In past years VA and Congress requested and appropriated nearly 10 percent of the total need to close the minor construction gaps. However, the Administration and Congress decreased funding for minor construction by about \$250 million over the past two years. If this rate of investment is continued, it will take more than 16 years to complete all current minor construction gaps. Congress and VA must put minor construction back on track by investing 10 percent of the total cost to complete the 10-year minor construction plan. With this in mind, *The*

Category	Recommendation (\$ in Thousands)
Veterans Health Administration	\$789,000
National Cemetery Administration	\$68,000
Medical Research Infrastructure	\$150,000
Veterans Benefits Administration	\$48,600
Staff Offices	\$13,400
<b>TOTAL</b>	<b>\$1,069,000</b>

*Independent Budget* recommends \$1.1 billion in FY 2013 to achieve this goal.

<sup>7</sup> Ibid., 1–4.

## **NONRECURRING MAINTENANCE ACCOUNT:**

*The deterioration of many VA properties requires increased spending on nonrecurring maintenance.*

Even though nonrecurring maintenance (NRM) is funded through VA's Medical Facilities account and not through the Construction account, it is critical to VA's capital infrastructure. NRM embodies the many small projects that together provide for the long-term sustainability and usability of VA facilities. NRM projects are one-time repairs, such as modernizing mechanical or electrical systems, replacing windows and equipment, and preserving roofs and floors, among other routine maintenance needs. Nonrecurring maintenance is a necessary component of the care and stewardship of a facility. When managed responsibly, these relatively small, periodic investments ensure that the more substantial investments of major and minor construction provide real value to taxpayers and to veterans as well. Accordingly, to fully maintain its facilities, the Department of Veterans Affairs needs an NRM annual budget of at least \$2.1 billion.

Given the low level of funding NRM accounts have historically received, *The Independent Budget* veterans service organizations (IBVSOs) are not surprised that basic facility maintenance remains a challenge for VA. In addition, we have long-standing concerns about how this funding is apportioned once received

by VA. Because NRM accounts are organized under the Medical Facilities appropriation, they have traditionally been apportioned using the Veterans Equitable Resource Allocation (VERA) formula. This formula was intended to allocate health-care dollars to those areas with the greatest demand for health care, and is not an ideal method to allocate NRM funds. When dealing with maintenance needs, this formula may prove counterproductive by moving funds away from older medical centers and reallocating the funds to newer facilities where patient demand is greater, even if the maintenance needs are not as intense. The IBVSOs are encouraged by actions the House and Senate Veterans' Affairs Committees have taken in recent years requiring NRM funding to be allocated outside the VERA formula, and we hope this practice will continue.

**Table 8. Nonrecurring Maintenance (NRM) Recommendations**

Category	Recommendations (\$ in Thousands)
NRM	\$2,100,000
TOTAL	\$2,100,000



## **CAPITAL LEASING:**

*The Department of Veterans Affairs must ensure that increased use of leasing does not disrupt veterans' continuum of care.*

The Department of Veterans Affairs enters into two types of leases. First, VA leases properties to use for each agency within VA, ranging from community-based outpatient clinics (CBOC) and medical centers to research and warehouse space. These leases do not fall under the larger construction accounts, but under each administration's and staff offices operating accounts.<sup>8</sup>

The second type of lease, called enhanced-use lease (EUL), allows VA to lease property it owns to an outside-VA entity. These leases allow VA to lease properties that are unutilized or underutilized for projects such as veterans' homelessness and long-term care. Proper use of leases provides VA with flexibility in providing care as veterans' needs and demographics change.

VA has moved to leasing many of its CBOCs and specialty clinics to increase access to primary and specialty care in local communities as well as a way to be more modular as veterans' demographics change. *The Independent Budget* veterans service organizations (IBVSOs) see the value in providing quick, accessible health care, but caution against a leasing concept that will rely on contracting inpatient care. Not having accessible inpatient care can—and has—left VA looking for ways to treat veterans in their greatest time of need. As Strategic Capital Investment Planning continues to move forward and more leases are entered into, some of which may have inpatient alternatives, the IBVSOs will continue to be vigilant to ensure that VA has viable contingency plans for inpatient care.

EUL gives VA the authority to lease land or buildings to public, nonprofit, or private organizations or companies as long as the lease is consistent with VA's mission and the lease "provides appropriate space for an activity contributing to the mission of the Department."<sup>9</sup> Although EUL can be used for a wide range of activities, the majority of the leases result in housing for homeless veterans and assisted living facilities. In 2013, VA has 19 buildings or parcels of land that are planned for EUL.<sup>10</sup> The IBVSOs encourage VA to continue to improve the transparency of potential EUL properties. Improving dialogue with veterans in the communities will reduce the backlash that often occurs when VA property is being repurposed.

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### Recommendations:

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Congress must appropriate \$2.84 billion to adequately fund VA's major construction accounts.

Congress must appropriate \$919 million to adequately fund VA's minor construction accounts.

Congress must appropriate \$2.1 billion to begin reducing the nonrecurring maintenance backlog as well as invest between 2 percent and 4 percent per year to maintain the plant replacement value of VA's infrastructure.

Portions of the Nonrecurring Maintenance account should continue to be funded outside of the Veterans Equitable Resource Allocation formula so that funding is allocated to the facilities that have the greatest maintenance needs, rather than based on other criteria unrelated to the condition of facilities.

Congress should require VA to submit its research facilities capital needs report to the House and Senate Committees on Appropriations and Veterans' Affairs as soon as possible. Further, correction of the known infrastructure deficiencies should not be further delayed.

Congress should a construction appropriation sufficient to address at least five of VA's highest priority research facility construction needs as identified in its facilities assessment report (with an appropriation of \$150 million for those purposes) and create a pool of \$50 million in maintenance and repair funds dedicated exclusively to renovating existing research facilities.

Congress should require that research space be addressed as an integral component of planning for every new medical center.

The Administration and Congress should establish a new appropriations account in FY 2013 and thereafter to define and separate VA research infrastructure funding needs independently from capital and maintenance funding for direct VA medical care programs.

<sup>8</sup> Ibid., 8.2–88.

<sup>9</sup> Title 38, U.S.C., paragraph 8162, as amended through P.L. 112–7, enacted March 31, 2011, printed May 2, 2011.

<sup>10</sup> FY 2012 Budget Submission, Construction and 10 Year Capital Plan, February 2011, Appendix 10 Year Capital Plan, p. 10–46–10–49.

## **EMPTY OR UNDERUTILIZED SPACE AT MEDICAL CENTERS:**

*The Department of Veterans Affairs must use empty and underutilized space appropriately.*

The Department of Veterans Affairs maintains approximately 1,100 buildings that are either vacant or underutilized. An underutilized building is defined as one where less than 25 percent of space is used. It costs VA from \$1 to \$3 per square foot per year to maintain a vacant building.

Studies have shown that the VA medical system has extensive amounts of empty space that can be reused for medical services or reapportioned for another use. It has also been shown that unused space at one medical center may help address a deficiency that exists at another location. Although the space inventories are accurate, the assumption regarding the feasibility of using this space is not. Medical facility planning is complex. It requires intricate design relationships for function, as well as the demanding requirements of certain types of medical equipment. Because of this, medical facility space is rarely interchangeable, and if it is, it is usually at a prohibitive cost. Unoccupied rooms on the eighth floor used as a medical surgical unit, for example, cannot be used to offset a deficiency of space in the second floor surgery ward. Medical space has a very critical need for inter- and intradepartmental adjacencies that must be maintained for efficient and hygienic patient care.

When a department expands or moves, these demands create a domino effect on everything around it. These secondary impacts greatly increase construction expense and can disrupt patient care.

Some features of a medical facility are permanent. Floor-to-floor heights, column spacing, light, and structural floor loading cannot necessarily be altered. Different aspects of medical care have various requirements based upon these permanent characteristics. Laboratory or clinical spacing cannot be interchanged with ward space because of the different column spacing and perimeter configuration. Patient wards require access to natural light and column grids that are compatible with room-style layouts. Laboratories should have long structural bays and function best without windows. When renovating empty space, if an area is not suited to its planned purpose, it will create unnecessary expenses and be much less efficient if simply renovated.

Renovating old space, rather than constructing new space, often provides only marginal cost savings. Renovations of a specific space typically cost 85 percent of what a similar, new space would cost. Factoring in domino or secondary costs, the renovation can end up costing more while producing a less satisfactory result. Renovations are sometimes appropriate to achieve those critical functional adjacencies, but are rarely economical.

As stated earlier in this analysis, the average age of VA facilities is 60 years. Many older VA medical centers that were rapidly built in the 1940s and 1950s to treat a growing war veteran population are simply unable to be renovated for modern needs. Another important problem with this existing unused space is often location. Much of it is not in a prime location; otherwise, it would have been previously renovated or demolished for new construction.

P.L. 108–422 incentivized VA's efforts to properly dispose of excess space by allowing VA to retain the proceeds from the sale, transfer, or exchange of certain properties in a Capital Asset Fund. Further, that law required VA to develop short- and long-term plans for the disposal of these facilities in an annual report to Congress. With this in mind, VA has begun a review of buildings and properties for finding possible reuse or repurpose opportunities. Building Utilization Review and Repurposing, or BURR, will focus on identifying sites in three major categories: housing for veterans who are homeless or at risk for being homeless; senior veterans capable of independent living; and veterans who require assisted-living and supportive services. The three phases planned include identifying campuses with buildings and land that are either vacant or underutilized; sites visits to match the supply of buildings and land with the demand for services and availability of financing, and identifying campuses using VA's enhanced-use leasing authority. Under the BURR initiative, if no repurposing is identified, VA will begin to assess its vacant capital inventory by demolishing or disposing of buildings that are unsuitable for reuse or beyond their usefulness.

*The Independent Budget* veterans service organizations have stated that VA must continue to develop these plans, working in concert with architectural master plans, and community stakeholders and clearly identifying the long-range vision for all such sites.

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## Recommendations:

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VA must develop a comprehensive plan for addressing its empty, underutilized, or excess space in non-historic properties so that it can be used for other purposes if it is not suitable for medical or support functions because of its age or location.

VA must have greater transparency when initiating its Building Utilization Review and Repurposing plan and an earlier more extensive community involvement when planning for underutilized space and infrastructure needs.




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## **PROGRAM FOR ARCHITECTURAL MASTER PLANS:**

*Each VA medical facility must develop a detailed master plan and delivery models for quality health care that are in a constant state of change as a result of factors that include advances in research, changing patient demographics, and new technology.*

The Department of Veterans Affairs must design facilities with a high level of flexibility in order to accommodate new methods of patient care and new standards of care. VA must be able to plan for change to accommodate new patient care strategies in a logical manner with as little effect as possible on other existing patient care programs. VA must also provide for growth in existing programs based on projected needs through a capital planning strategy.

A facility master plan is a comprehensive tool to examine and project potential new patient care programs and how they might affect the existing health-care facility design. It also provides insight with respect to growth needs, current space deficiencies, and other facility needs for existing programs and how they might be accommodated in the future with redesign, expansion, or contraction.

In many past cases VA has planned construction in a reactive manner. Projects are first funded and then placed in the facility in the most expedient manner, often not considering other future projects and facility needs. This often results in short-sighted construction that restricts rather than expands options for the future.

*The Independent Budget* veterans service organizations believe that each VA medical center should

develop a comprehensive facility master plan to serve as a blueprint for development, construction, and future growth of the facility; \$15 million should be budgeted for this purpose. We believe that each VA medical center should develop a comprehensive facility master plan to serve as a blueprint for development, construction, and future growth of the facility.

VA has undertaken master planning for several VA facilities, and we applaud this effort. But VA must ensure that all VA facilities develop master plan strategies to validate strategic planning decisions, prepare accurate budgets, and implement efficient construction that minimizes wasted expenses and disruption to patient care.

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## Recommendation:

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Congress must appropriate \$15 million to provide funding for each medical facility to develop a 10-year comprehensive facility master plan. The master plan should include all services currently offered at the facility and should also include any projected future programs and services as they might relate to the particular facility. Each facility master plan is to be reviewed every five years and modified accordingly based on changing needs, technologies, new programs, and new patient care delivery models.



## **ARCHITECT-LED DESIGN-BUILD PROJECT DELIVERY:**

*The Department of Veterans Affairs must evaluate the use of architect-led design-build project delivery.*

VA currently employs two project delivery methods: design-bid-build and design-build. Design-bid-build project delivery is appropriate for all project types. Design-build is generally more effective when the project is of a low complexity level. It is critical to evaluate the complexity of the project prior to selection of a method of project delivery.

Design-bid-build is the most common method of project design and construction. In this method, an architect is engaged to design the project. At the end of the design phase, that same architect prepares a complete set of construction documents. Based on these documents, contractors are invited to submit a bid for construction of the project. A contractor is selected based on this bid and the project is constructed. With the design-bid-build process, the architect is involved in all phases of the project to ensure that the design intent and quality of the project is reflected in the delivered facility. In this project delivery model, the architect is an advocate for the owner.

The design-build project delivery method attempts to combine the design and construction schedules in order to streamline the traditional design-bid-build method of project delivery. The goal is to minimize the risk to VA and reduce the project delivery schedule. Design-build, as used by VA, is broken into two phases. During the first phase, an architect is contracted by VA to provide the initial design phases of the project, usually through the schematic design phase. After the schematic design is completed, VA contracts with a contractor to complete the remaining phases of the project. This places the contractor as the design builder.

One particular method of project delivery under the design-build model is called contractor-led design-build. Under the contractor-led design-build process, the contractor is given a great deal of control over how the project is designed and completed. In this method, as used by VA, a second architect and design professionals are hired by the contractor to complete the remaining design phases and the construction documents for the project. With the architect as a subordinate to the contractor rather than an advocate for VA, the contractor may sacrifice the quality

of material and systems in order to add to his own profits at the expense of VA. In addition, much of the research and user interface may be omitted, resulting in a facility that does not best suit the needs of the patients and staff.

Use of contractor-led design-build has several inherent problems. A shortcut design process reduces the time available to provide a complete design. This provides those responsible for project oversight inadequate time to review completed plans and specifications. In addition, the construction documents often do not provide adequate scope for the project, leaving out important details regarding the workmanship and/or other desired attributes of the project. This makes it difficult to hold the builder accountable for the desired level of quality. As a result, a project is often designed as it is being built, compromising VA's design standards.

Contractor-led design-build forces VA to rely on the contractor to properly design a facility that meets its needs. In the event that the finished project is not satisfactory, VA may have no means to insist on correction of work done improperly unless the contractor agrees with VA's assessment. This may force VA to go to some form of formal dispute resolution, such as litigation or arbitration.

An alternative method of design-build project delivery is architect-led design-build. This model places the architect as the project lead rather than the builder. This has many benefits to VA. These include ensuring the quality of the project, since the architect reports directly to VA. A second benefit to VA is the ability to provide tight control over the project budget throughout all stages of the project by a single entity. As a result, the architect is able to access pricing options during the design process and develop the design accordingly. Another advantage of architect-led design-build is in the procurement process. Since the design and construction team is determined before the design of the project commences, the request-for-proposal process is streamlined. As a result, the project can be delivered faster than the traditional design-bid-build process. Finally, the architect-led design-build model reduces the number of project

claims and disputes. It prevents the contractor from “low-balling,” a process in which a contractor submits a very low bid in order to win a project and then attempts to make up the deficit by negotiating VA change orders along the way.

In addition to selecting the proper method of project delivery, there is much to learn from the design and construction process for each individual project. It is important for VA to apply these “lessons learned” to future projects.

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### Recommendations:

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VA must establish a category system ranking design/construction project types by complexity. This system should be used to determine if the project is a candidate for the design-build method of project management.

The design-build method of project delivery should only be used on projects that have a low complexity, such as parking structures and warehouses. For health-care projects, VA must evaluate the use of architect-led design-build as the preferred method of project delivery in place of contractor-led design-build project delivery.

VA must institute a program of “lessons learned.” This would involve revisiting past projects and determining what worked, what could be improved, and what did not work. This information should be compiled and used as a guide to future projects. This document should be updated regularly to include projects as they are completed.



## **PRESERVATION OF VA’S HISTORIC STRUCTURES:**

*The Department of Veterans Affairs must further develop a comprehensive program to preserve and protect its inventory of historic properties.*

The Department of Veterans Affairs has an extensive inventory of historic structures that highlight America’s long tradition of providing care to veterans. These buildings and facilities enhance our understanding of the lives of those who have worn the uniform, of those who cared for their wounds, and of those who helped to build this great nation. Of the approximately 2,000 historic structures in the VA historic building inventory, many are neglected and deteriorate year after year because of a lack of any funding for their upkeep. These structures should be stabilized, protected, and preserved because they are an integral part our nation’s history.

Most of these historic facilities are not suitable for modern patient care but may be used for other purposes. For the past eight years, *The Independent Budget* veterans service organizations (IBVSOs) have recommended that VA conduct an inventory of these properties to classify their physical condition and study their potential for adaptive reuse. VA has moved in that direction; historic properties have been

identified. Many of these buildings have been placed in an “Oldest and Most Historic” list and require immediate attention.

The cost for saving some of these buildings is not very high considering that they represent a part of American history. Once gone, they cannot be recaptured. For example, the Greek Revival mansion at the VA Medical Center in Perry Point, Maryland, built in the 1750s can be restored and used as a facility or network training space for about \$1.2 million. The Milwaukee Ward Memorial Theater, built in 1881, could be restored as a multipurpose facility at a cost of \$6 million. These expenditures would be much less than the cost of new facilities and would preserve history simultaneously.

The preservation of VA’s historic buildings also fits into the VA’s commitment to “green” architecture. Materials would be reused, reducing the amount of resources needed to manufacture and transport new materials to building sites.



As part of its adaptive reuse program, VA must ensure that facilities that are leased or sold are maintained properly. VA's legal responsibilities could, for example, be addressed through easements on property elements, such as building exteriors or grounds.

The IBVSOs encourage VA to use the tenets of P.L. 108-422, the "Veterans Health Programs Improvement Act," in improving the plight of VA's historic properties. This act authorizes historic preservation as one of the uses of the proceeds of the capital assets fund resulting from the sale or leases of other unneeded VA properties.

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## Recommendations:

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VA must continue to develop a comprehensive program to preserve and protect its inventory of historic properties.

VA must allocate funding for adaptive reuse of historic structures and empty or underutilized space at medical centers.

