



July 2023

MILITARY HOUSING

Army Should Improve Inspection Oversight and Long-Term Capital Investment Projections

GAO Highlights

Highlights of [GAO-23-105983](#), a report to the Committee on Armed Services, House of Representatives

Why GAO Did This Study

Since 1996, the Army has had the authority to enter into long-term public-private partnerships (typically 50 years) with private housing companies to own, construct, renovate, and maintain family housing at Army garrisons. Over 86,000 homes—99 percent of the Army's family housing inventory in the United States—are privatized.

In March 2021, the Army and Lendlease agreed to a development plan to improve housing for residents and expedite capital improvements at six installations. House Report 117-118, accompanying a bill for the National Defense Authorization Act for Fiscal Year 2022, includes a provision for GAO to review this plan. This report (1) describes the status of the plan, and evaluates the extent to which the Army (2) established mechanisms to oversee implementation of the plan, and (3) developed a process for assessing long-term sustainment of the privatized housing at the six installations.

GAO reviewed Army guidance and analyzed Army and Lendlease construction reports and Army long-term sustainment analyses. GAO also observed construction at three installations that collectively account for 80 percent of the plan's budget, and interviewed Lendlease representatives and Army housing officials from all six installations.

What GAO Recommends

GAO is making two recommendations that the Army and Lendlease improve inspection oversight and enforce updated financial projection requirements. The Department of Defense generally concurred with these recommendations.

View [GAO-23-105983](#). For more information, contact Elizabeth Field at (202) 512-2775 or FieldE1@gao.gov.

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What GAO Found

Under its March 2021 agreement with the Army, the private housing company Lendlease is expected to renovate more than 12,000 existing homes, build over 1,200 new homes, and demolish over 1,000 homes at six Army installations by 2027. As of December 2022, most infrastructure improvements, roof replacements, and renovations were in progress. However, of the five installations that have begun implementing the agreed-to development plan, three have encountered some construction delays due in part to new home design changes and possible changes to an Army unit's location, which could alter the need for new housing.



Example of a new home constructed under the Army-Lendlease development plan.

Source: GAO. | [GAO-23-105983](#)

Lendlease is required to report monthly on all development plan work to local Army housing offices, among other stakeholders. To meet this requirement, Lendlease provides three types of reports to the Army to track and monitor the development plan: construction reports, inspection reports, and financial reports. However, we found that these reports lack sufficient inspection detail, as required by the development plan. For example, none of these reports include the status of certain construction activity inspections, such as spot checks performed on minor and medium renovations and roof replacements. Until the Army and Lendlease develop a reporting process to facilitate Army housing office inspection oversight of all inspections, these housing offices risk not having the information needed to monitor construction.

The Army conducts an annual sustainability analysis to evaluate financial risk and overall financial health of all Army housing projects, including the six managed by Lendlease. However, GAO found that the sustainability analysis relies on outdated financial projections for capital investment. Specifically, the Army was not enforcing a requirement for projects to include financial projections with development plans submitted for review and approval. Without enforcing this requirement, the Army may not have an accurate picture of project-specific development capability and financial health.

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Abbreviations

DASA (IH&P)	Deputy Assistant Secretary of the Army, Installations, Housing and Partnerships
DCS G-9	Deputy Chief of Staff, G-9 (Installations)
ICC	Independent Construction Consultant
IMCOM	Installation Management Command
USAG	United States Army Garrison

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July 27, 2023

The Honorable Mike Rogers
Chairman
The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

In 1996, Congress enacted the Military Housing Privatization Initiative, which allows military departments to enter into long-term public-private partnerships (typically 50 years) with private housing companies.¹ Under the terms of the agreements, these private housing companies assume responsibility for the ownership, construction, renovation, maintenance, and repair of housing at U.S. military installations through partnerships known as privatized housing projects. In these partnerships, private companies work in consultation with local military installation leadership to develop and execute ongoing sustainment plans designed to maintain housing. In addition, military departments exercise oversight responsibilities and approval authorities for major construction and investment at each privatized housing project.

The Department of the Army created the Residential Communities Initiative in 1998 to privatize housing on its installations. As of May 2023, six housing companies manage 34 projects at 43 Army installations. According to Army documentation, over 86,000 homes—99 percent of the Army's family housing inventory in the United States—are privatized through the Army's Residential Communities Initiative.

Recently, one private housing company (Lendlease) took steps to improve long-term community and asset conditions among the six privatized housing projects in its Army portfolio. In 2021, Lendlease proposed—and the Army approved—the Army Integrated Out-year Development Plan (hereafter referred to as the integrated development plan). The integrated development plan invests \$1.1 billion from private investors to expedite housing and community improvements across all of Lendlease's six Army privatized housing projects: Campbell Crossing at

¹National Defense Authorization Act for Fiscal Year 1996, Pub. L. No. 104-106, §§ 2801-2802 (1996), *codified as amended* at 10 U.S.C. §§ 2871-2894a.

Fort Campbell (Kentucky), Fort Drum Mountain Community Homes at Fort Drum (New York), Cavalry Family Housing at Fort Cavazos (Texas), Knox Hills at Fort Knox (Kentucky), North Haven Communities at Fort Wainwright (Alaska), and Island Palm Communities at United States Army Garrison (USAG) Hawaii.²

The National Defense Authorization Acts for Fiscal Years 2020 and 2021 established dozens of requirements intended to reform aspects of the Department of Defense’s (DOD) privatized housing program.³ Congress has maintained its focus in examining the privatized housing program, and subsequent National Defense Authorization Acts included additional requirements intended to further improve DOD’s oversight of the privatized housing program.⁴ Since March 2018, we have issued multiple reports examining DOD’s oversight of the privatized housing program and made 49 recommendations to improve the program—of which nine recommendations were directed to The Department of the Army.⁵ As of July 2023, DOD had implemented 26 of our recommendations, including two recommendations directed to the Department of the Army.

House Report 117-118, accompanying a bill for the National Defense Authorization Act for Fiscal Year 2022, included a provision for GAO to

²On May 9, 2023, Fort Hood was officially renamed Fort Cavazos in honor of General Richard Cavazos—a Korean and Vietnam War veteran from Texas. In this report, “Lendlease” represents both the private housing company affiliated with individual privatized housing projects and the portfolio-wide limited liability company managing the integrated development plan development, construction, reinvestment account, and financial reporting. Specific privatized housing projects are identified by name.

³National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92 (2019) and William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116-283 (2021).

⁴National Defense Authorization Act for Fiscal Year 2022, Pub. L. No. 117-81 (2021), and James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Pub. L. No. 117-263, § 2807 (2022) (*codified* at 10 U.S.C. § 2851a(a)).

⁵See GAO, *Military Housing: DOD Can Further Strengthen Oversight of Its Privatized Housing Program*, [GAO-23-105377](#) (Washington, D.C.: Apr. 6, 2023); *Military Housing Privatization: DOD Should Improve Oversight of Property Insurance and Natural Disaster Recovery*, [GAO-21-184SU](#) (Washington, D.C.: Feb. 18, 2021); *Military Housing: Actions Needed to Improve the Process for Setting Allowances for Servicemembers and Calculating Payments for Privatized Housing Projects*, [GAO-21-137](#) (Washington, D.C.: Jan. 25, 2021); *Military Housing: DOD Needs to Strengthen Oversight and Clarify Its Role in the Management of Privatized Housing*, [GAO-20-281](#) (Washington, D.C.: Mar. 26, 2020); and *Military Housing Privatization: DOD Should Take Steps to Improve Monitoring, Reporting, and Risk Assessment*, [GAO-18-218](#) (Washington, D.C.: Mar. 13, 2018)

review the implementation status and Army oversight of its integrated development plan, as well as the long-term effects of the integrated development plan on housing sustainment.⁶ This report:

1. examines how the integrated development plan affected capital investment and describes the implementation status of construction activities at each of the six privatized housing projects,
2. evaluates the extent to which the Army has established mechanisms to oversee the implementation of the integrated development plan, and
3. evaluates the extent to which the Army has developed a process for assessing the long-term sustainment of the six privatized housing projects.

To address objective one, we analyzed project budget documents from fiscal year 2019 through fiscal year 2023 for all Lendlease Army privatized housing projects to identify trends in capital repair and replacement budgets from year to year. In addition, we evaluated Lendlease and Army documentation to track implementation progress of integrated development plan construction activities, including construction status, adjustments to planned timelines, and any challenges affecting the plan's implementation as of December 2022. We also visited the privatized housing projects at Fort Campbell, Fort Cavazos, and Fort Knox to observe construction progress—specifically, progress with renovations, demolition, and new home construction.⁷

To address objective two, we reviewed quality assurance procedures documented in the integrated development plan to identify inspection and reporting requirements, among other oversight responsibilities, and compared this criteria against construction reporting Lendlease provides to the Army. We interviewed Lendlease and Army officials to identify oversight actions taken throughout the plan's implementation and assessed these actions against the plan's quality assurance procedures. In addition, we reviewed Army policy and guidance that informs Army requirements for overseeing multi-year development plans, like the

⁶See H.R. Rep. No. 117-118, at 316 (2021).

⁷We chose to visit these privatized housing projects because, collectively, they receive about 80 percent of the plan's financing. Cavalry Family Housing and Campbell Crossing receive most of the plan's financing. We included Knox Hills due its proximity to Campbell Crossing.

integrated development plan, and compared these requirements to integrated development plan reporting and inspection activities.

To address objective three, we analyzed the Army's 2021 and 2022 project sustainability analyses to identify underlying assumptions used to calculate the Army's projected end state for Lendlease privatized housing projects. We also reviewed quarterly programmatic reviews that the Army submitted to DOD, which includes information related to both the integrated development plan and the Army's sustainability analysis results.

To address all three objectives, we interviewed Department of the Army officials. We also interviewed Army housing officials and privatized housing project representatives at the installations covered by the integrated development plan. We discussed oversight responsibilities, plan implementation, activities performed to identify performance metrics and monitor overall progress, and overall sustainment planning at the privatized housing projects. See appendix II for a list of the Army organizations we contacted over the course of this review.

We conducted this performance audit from April 2022 to July 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

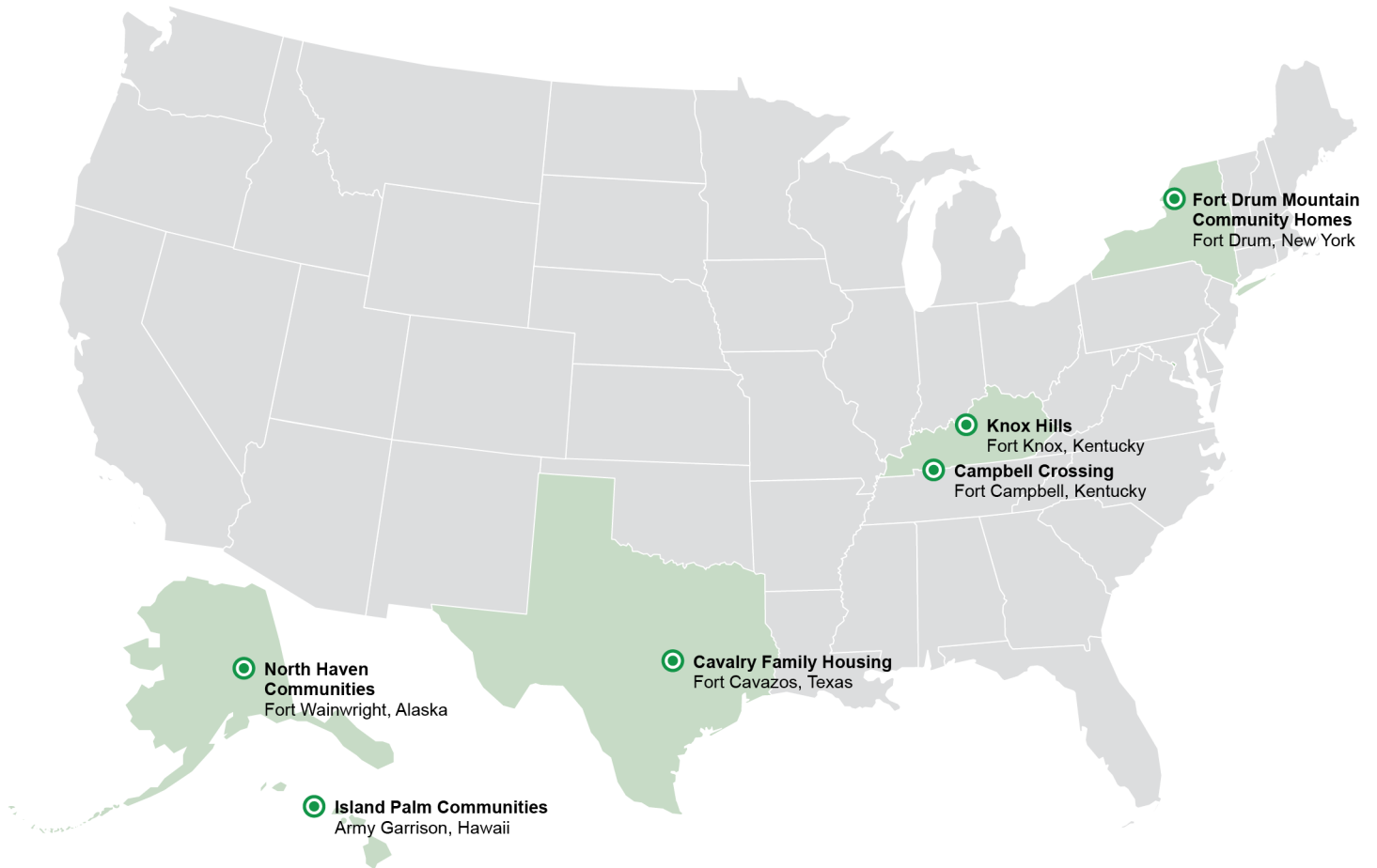
Background

Residential Communities Initiative Authorities, Roles, and Responsibilities

The Army's Residential Communities Initiative consists of partnerships between the Department of the Army and private housing companies. The partnerships are generally structured as limited liability companies, in which the Army holds minority ownership.⁸ One private housing company, Lendlease, is the majority owner of six Army privatized housing projects across five states (see fig. 1).

⁸A limited liability company is a company in which the liability of each shareholder or member is limited to the amount individually invested.

Figure 1: Privatized Housing Projects in Lendlease's Army Housing Portfolio



Source: GAO analysis of U.S. Army information; Map Resources. | GAO-23-105983

Lendlease is the overarching private housing company for the six Army privatized housing projects, but each privatized housing project is a separate and distinct entity managed at the installation level and governed by its own lease terms and legal agreements (hereafter referred to as business agreements). These business agreements typically include an operating agreement, a property management agreement, and an agreement that describes the management of funds in the projects. In addition, the Army has issued guidance that outlines its responsibilities for privatized housing, such as which offices are responsible for overseeing

privatized housing projects.⁹ The Army Housing Office provides oversight, but not operational control, over privatized housing operations at the installation level. The Privatized Housing Project Director—an individual from the private housing company—is responsible for providing day-to-day operational control and management of the projects. Figure 2 describes key roles and responsibilities for the Army and private housing companies in the Residential Communities Initiative.

Figure 2: Key Roles and Responsibilities in the Residential Communities Initiative

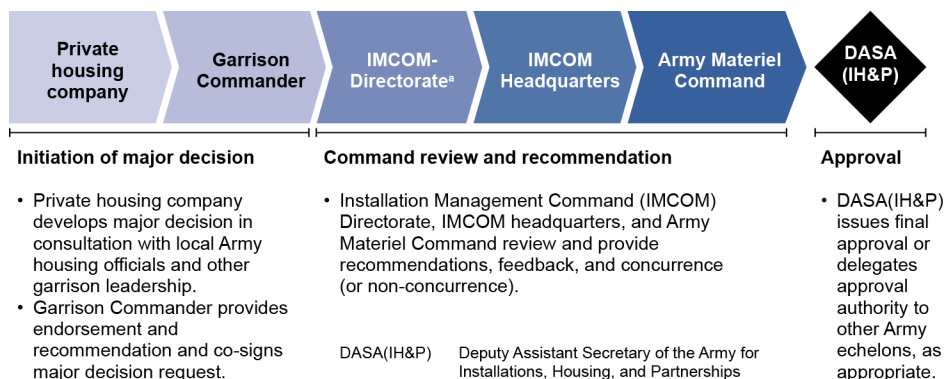
Department of the Army	Deputy Assistant Secretary of the Army, Installations, Housing and Partnerships (DASA (IH&P))	Provides the Army's Residential Communities Initiative portfolio-level strategy, oversight, guidance and support for private housing companies, including monitoring portfolio-level compliance and financial performance.
	Deputy Chief of Staff, G-9 (Installations) (DCS G-9)	Monitors the long-term financial health of private housing companies. Specifically, DCS G-9 tracks, assesses, and analyzes privatized housing project financial reports and provides consolidated information for each private housing company portfolio. The office also programs and defends, on behalf of AMC, the resourcing needed to perform Residential Communities Initiative oversight functions across the Army.
	Army Materiel Command (AMC)	Reviews each privatized housing project's annual budget to provide feedback, understand the project's financial health, and resolve any areas of concern.
	Installation Management Command (IMCOM)	A subordinate command of AMC that ensures installation resources are available to support the Army Residential Communities Initiative oversight functions, to include staffing of each installation's Army housing office.
	Garrison Commander	Serves as the Secretary of the Army's local representative for privatized housing projects.
	Directorate of Public Works, Army Housing Office	Performs installation-level program reporting and legal compliance oversight, prepares annual program evaluation report for installation submission, and coordinates with the privatized housing project and chain of command to align privatized housing development with the installation master plan. The Army Housing Office performs the daily oversight of the privatized housing projects.
Private housing company	Privatized Housing Project Director	Serves as the decision maker with authority for the business and the affairs of the privatized housing project company and applicable business and legal agreements.
	Asset Manager	Performs periodic financial analysis on performance of the privatized housing project and reviews performance of the project against requirements, such as updating financial projections and reporting budgeted financial requirements.
	Development Manager	Coordinates and monitors all plans, designs, construction activity progress, and compliance with the project schedule and budget.
	Independent Construction Consultant (ICC)	Monitors construction to ensure code compliance; provide quality assurance and due diligence; and provide the client and project team with comprehensive, objective reports reflecting construction progress, among other functions.

Source: GAO analysis of the Department of the Army, *Portfolio and Asset Management Handbook*, Version 6.2 (June 2022) and information from officials. | GAO-23-105983

⁹Department of the Army, *Portfolio and Asset Management Handbook*, Version 6.2 (June 2022).

The Army retains authority to approve specific actions through its major decision process. Each privatized housing project’s business agreements define specific actions that require a major decision approval prior to the action’s execution. Privatized housing projects are generally required to obtain Army approval through its major decision process when planning large-scale construction and development or spending reinvestment account funds, among other situations. All major decision actions require approval of the Deputy Assistant Secretary of the Army for Installations, Housing and Partnerships (DASA (IH&P)) unless otherwise delegated, such as to Army Materiel Command or Installation Management Command (IMCOM) (see fig. 3).

Figure 3: Army Major Decision Approval Process



Source: GAO analysis of the Department of the Army, *Portfolio and Asset Management Handbook*, Version 6.2 (June 2022). | GAO-23-105983

³In the case of Lendlease Army privatized housing projects, IMCOM’s Readiness Directorate oversees Fort Campbell, Fort Drum, and Fort Cavazos; the Training Directorate oversees Fort Knox; and the Pacific Directorate oversees Fort Wainwright and United States Army Garrison Hawaii.

In November 2022, IMCOM published guidance that expands the Army’s efforts to provide additional quality assurance and quality control in support of improved construction and development that is executed by private housing companies.¹⁰ According to IMCOM guidance, Army housing offices are required to observe at least 5 percent of ICC inspections throughout different phases of construction, and review ICC reports, as necessary, to ensure compliance with local, state, and federal requirements. According to Army officials, as of July 2023 IMCOM has hired 22 engineer technicians to perform quality assurance and quality

¹⁰Army Operations Order (OPORD) 23-009, *Development and Construction Quality Assurance (QA) Support at Select Residential Communities Initiative (RCI) Installations* (November 2022).

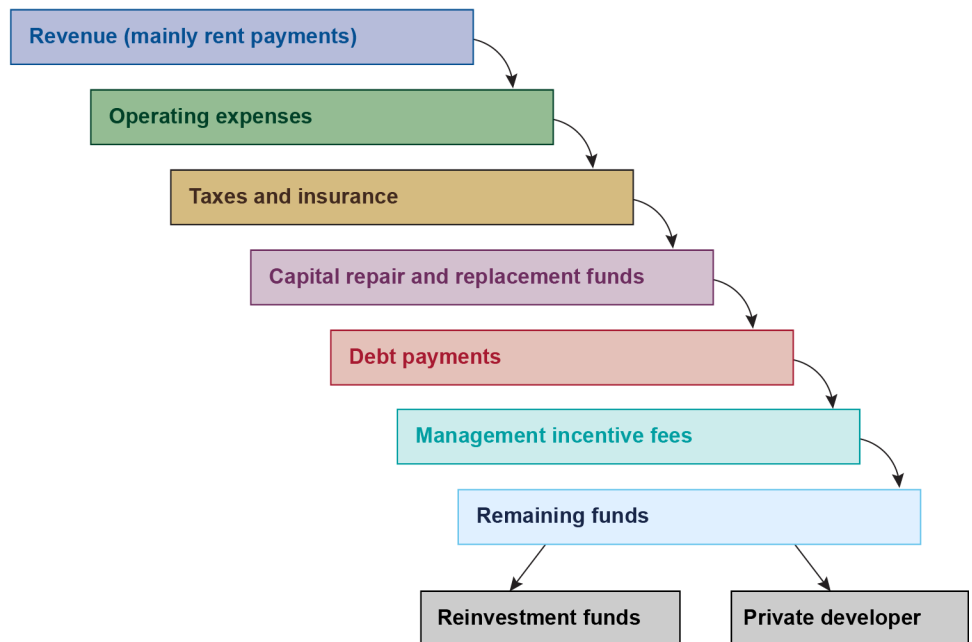
control activities, with at least one engineer technician at each privatized housing project that is executing construction and development activities.

Army Privatized Housing Sustainment

Army Privatized Housing Project Funding

Every privatized housing project takes in revenue, which consists mostly of rent payments. Privatized housing projects use this revenue for operating expenses (including administrative costs, day-to-day maintenance, and the provision of utilities) and to pay taxes and insurance, among other things, before funds are reinvested or retained by the developer (see fig. 4).

Figure 4: Typical Army Funding Allocation for a Privatized Housing Project



Source: GAO analysis of the Department of the Army, *Portfolio and Asset Management Handbook*, Version 6.2 (June 2022). | GAO-23-105983

Typically, once taxes and insurance payments are made, the project funds capital repairs and replacements (such as repair and replacement of items like roofs, heating and cooling systems, and infrastructure) and then allocates funds to pay down debt and for a series of management incentive fees, such as the property management fee. Finally, the project divides any remaining funds based on a fixed percentage to accounts for

Capital Investment and
Management Fees

(1) major renovations and rebuilds through the project's multi-year development plan and (2) the developer. The percentages may vary across agreements, but according to military department documentation, the majority of funds typically go toward the project's reinvestment account—which the project relies on to fund its multi-year development plan.

Army guidance encourages privatized housing projects to make capital investment decisions that balance a long-term perspective on annual operating expenses with longer-term construction and renovation requirements and costs.¹¹ Privatized housing projects invest in housing improvements and sustainment through their capital repair and replacement plans and multi-year development plans. Depending on the volume of work required, activities can either be accounted for under the capital repair and replacement plans or under multi-year development plans.

Capital repair and replacement plans. Privatized housing projects prepare, and Army Materiel Command manages capital repair and replacement plans. These plans identify, and budget for, critical repairs to improve and sustain aging infrastructure, such as faulty roofs or fences, and can also include other targeted efforts, such as replacing defective heating and cooling systems.

The privatized housing project's property manager, asset manager, or development manager is responsible for executing capital repair and replacement plans. The development manager typically gets involved in more technical or broader-scale work, whereas the property or asset manager oversees more routine, less complicated projects.

Multi-year development plans. Privatized housing projects prepare, and DASA (IH&P) approves, multi-year development plans that identify large-scale construction activities and associated budgets for projects' reinvestment accounts. Examples of construction activities include major renovations on existing homes and building new homes. Privatized housing projects conducting large-scale construction activities subject to a development management fee are also required to hire an Independent Construction Consultant (ICC) to serve as a third-party contractor to monitor construction.

¹¹Department of the Army, *Portfolio and Asset Management Handbook*.

Management Fees. Lendlease is awarded management fees from each privatized housing project's revenue as a result of implementing improvements. The type and amount of fees for implementing housing improvements vary based on the scope and scale of the implemented repair and construction activities. The Army's privatized housing projects are eligible to receive quarterly incentive performance management fees. These fees are assessed by Army housing offices and awarded to privatized housing projects that meet specified performance metrics. For example, according to IMCOM guidance, timely and quality implementation of annual capital repair and replacement plans account for 5 percent of a privatized housing project's quarterly incentive performance management fee. In addition, privatized housing projects receive a development management fee in exchange for implementing large-scale construction activities through their respective multi-year development plans.¹²

Lendlease Consolidated Reinvestment Funds and the Integrated Development Plan Progresses with Challenges

Lendlease Consolidated Reinvestment Accounts to Finance the Integrated Development Plan and Fund Future Development

Lendlease developed—and the Army approved—the integrated development plan in March 2021 to improve housing for residents and expedite capital improvements at its six Army privatized housing projects. In order to secure financing for the integrated development plan, Lendlease consolidated six individual privatized housing project reinvestment accounts into one integrated reinvestment account.¹³ In April 2021, Lendlease used the integrated reinvestment account to secure a \$1.1 billion private sector investment that would support large, short-

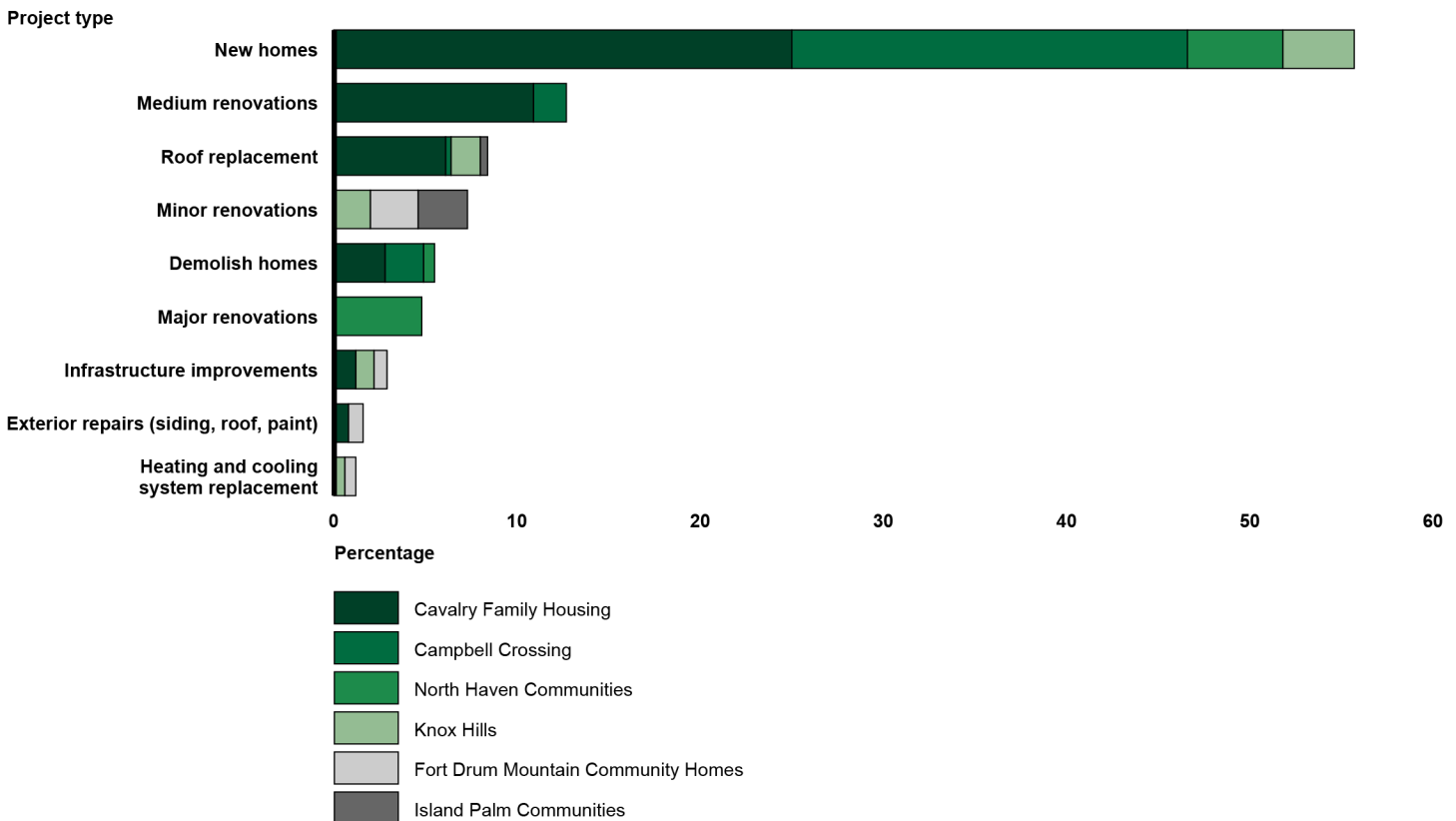
¹²The Department of the Army identified Lendlease's development management fee percentage as proprietary information and considered sensitive. As a result, this information is not included in this report.

¹³North Haven Communities is not contributing to the integrated reinvestment account because, as we discuss later in this report, integrated development plan construction at Fort Wainwright is on hold.

term capital improvements across its portfolio. According to Lendlease representatives and financial projections provided to DASA (IH&P), the integrated development plan financing will be repaid within the existing ground lease terms at each privatized housing project.

According to Lendlease, the integrated development plan is expected to renovate more than 12,000 existing homes, construct more than 1,200 new homes, and demolish over 1,000 legacy homes across these privatized housing projects in a 5-year period. Figure 5 depicts the distribution of planned integrated development plan construction activities across Lendlease Army privatized housing projects.

Figure 5: Distribution of Planned Construction Activities across Lendlease Privatized Housing Projects



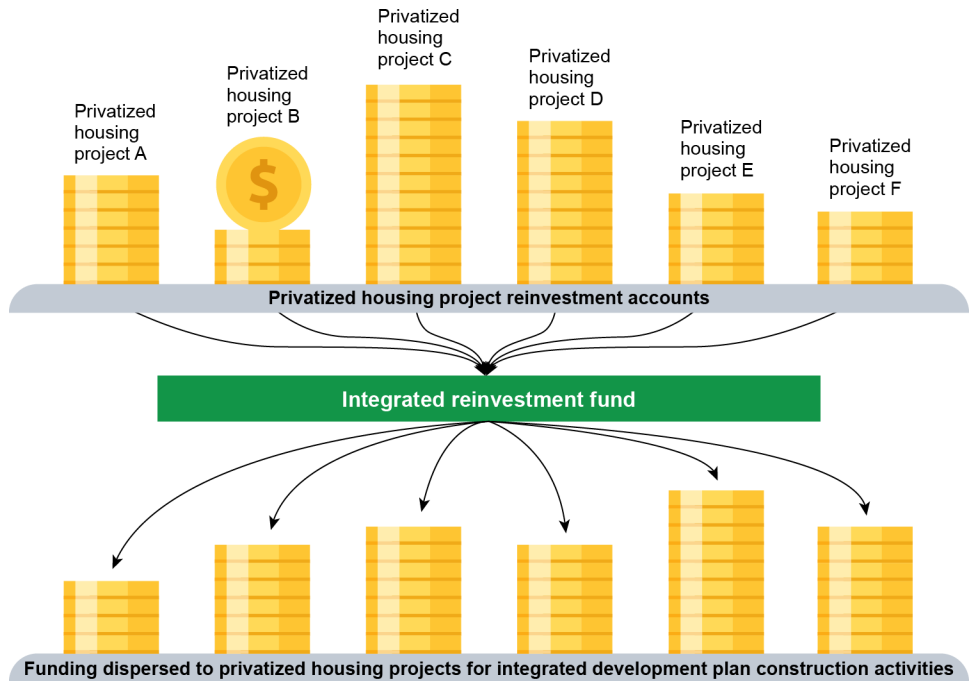
Source: GAO analysis of Lendlease information. | GAO-23-105983

Note: This figure reflects the planned integrated development plan construction activities when the plan was originally approved at the end of March 2021, with the exception of Campbell Crossing construction activities. In August 2021, Lendlease modified Campbell Crossing construction activities to reduce the number of roof replacements, change renovation types, and change the location of some new construction homes (the number of demolished homes and new homes built did not change).

In April 2021, the Army and Lendlease finalized business agreements that outline specific requirements across the six Lendlease Army privatized housing projects as they relate to the integrated development plan. The business agreements build on existing ground leases at each Lendlease Army privatized housing project and create new operational and asset management agreements between Lendlease and the Secretary of the Army that specifically apply to current and future integrated development plans.

The integrated development plan is the first in an expected series of development plans that will address development and construction needs across Lendlease's privatized housing project portfolio. According to Lendlease representatives, another purpose of the integrated reinvestment account—aside from securing financing for the integrated development plan—is to redistribute funding for future portfolio-wide development plans because some individual privatized housing projects lacked sufficient revenue on their own to support significant, short-term capital investment. By consolidating project reinvestment accounts into one integrated reinvestment account, Lendlease representatives, with Army approval, expect to redistribute reinvestment funds to individual projects in need of more development over others (see fig. 6).

Figure 6: Lendlease Privatized Housing Project Reinvestment Account Consolidation Concept



Source: GAO analysis of Department of the Army information; Pavel/stock.adobe.com (coin illustrations). | GAO-23-105983

Note: This is an illustration of how privatized housing project reinvestment account balances are consolidated into an integrated reinvestment account and how funding could be redistributed back to privatized housing projects future development plan construction activities. The figure does not represent actual reinvestment account balances or actual distribution of funding for any of Lendlease's privatized housing projects. For example, while there are six privatized housing projects in the figure above, one Lendlease privatized housing project—North Haven Communities—is not contributing to the integrated reinvestment account while integrated development plan construction is on hold at that location.

The Integrated Development Plan Significantly Increased Development Funding at Privatized Housing Projects

Island Palm Communities (US Army Garrison-Hawaii) Privatized in October 2004

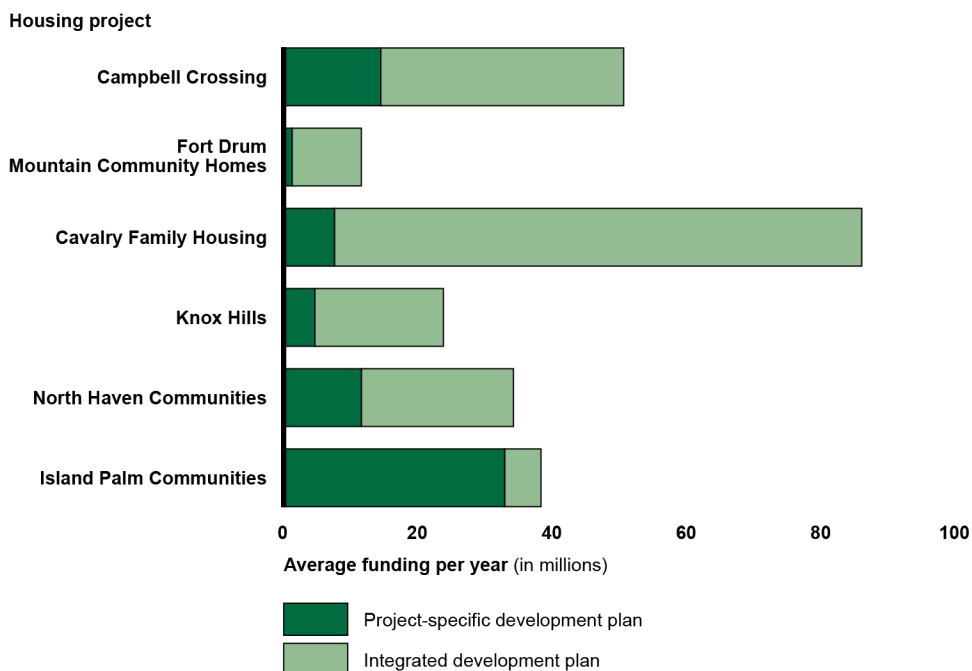


The project has invested hundreds of millions of dollars through multi-year development plans since 2006. According to Army documentation, Island Palm Communities homes are the largest and most complex of the Lendlease Army privatized housing projects. Island Palm Communities represents a small portion of the total integrated development plan investment, in large part due to the significant investment Island Palm Communities has made in recent years to renovate existing homes, build new homes, and demolish legacy homes, which were originally built by the Army but managed by Island Palm Communities since 2004. As of December 2022, Lendlease reports that all integrated development plan construction activities at Island Palm Communities will be completed within the plan's original time frame.

Source: GAO analysis of Army and Lendlease information (text); U.S. Army/A. Brum (photo). | GAO-23-105983

Five of the six Lendlease Army privatized housing projects received significantly more funding for integrated development plan construction activities than they did under recent project-specific development plans at each project (see fig. 7).¹⁴ For example, according to Lendlease reporting, integrated development plan funding at four of the six privatized housing projects is more than double what each individual project budgeted for in its project-specific development plan. According to Lendlease representatives, Island Palm Communities is receiving a relatively smaller portion of integrated development plan funding due in part to recent capital investments made through its project-specific development plan.

Figure 7: Average Annual Funding for Integrated Development Plan and Project-Specific Development Plans



Source: GAO analysis of Lendlease information. | GAO-23-105983

¹⁴The integrated development plan represents all of the six Lendlease Army privatized housing projects. In addition, each project has its own development plan—of which most are nearly complete—in addition to its portion of the integrated development plan. According to Lendlease and Army housing officials, once all project-specific development plans are complete, the privatized housing projects will no longer develop project-specific development plans. Instead, Lendlease and Army housing officials said Lendlease will continue to develop integrated development plans that will identify construction activities at all of the Lendlease Army privatized housing projects.

Note: Each privatized housing project has its own project-specific development plan underway, in addition to its portion of the integrated development plan. This figure averages annual funding based on the following time frames: Campbell Crossing (2020-2025); Fort Drum Mountain Community Homes (2019–2023); Cavalry Family Housing (2017–2023); Knox Hills (2019–2023); North Haven Communities (2019–2023); Island Palm Communities (2018–2028). According to Lendlease and Army Housing officials, once all project-specific development plans are complete, privatized housing projects will no longer develop project-specific development plans. Instead, officials said Lendlease will continue to develop future integrated development plans that will identify construction activities at all of Lendlease’s Army privatized housing projects.

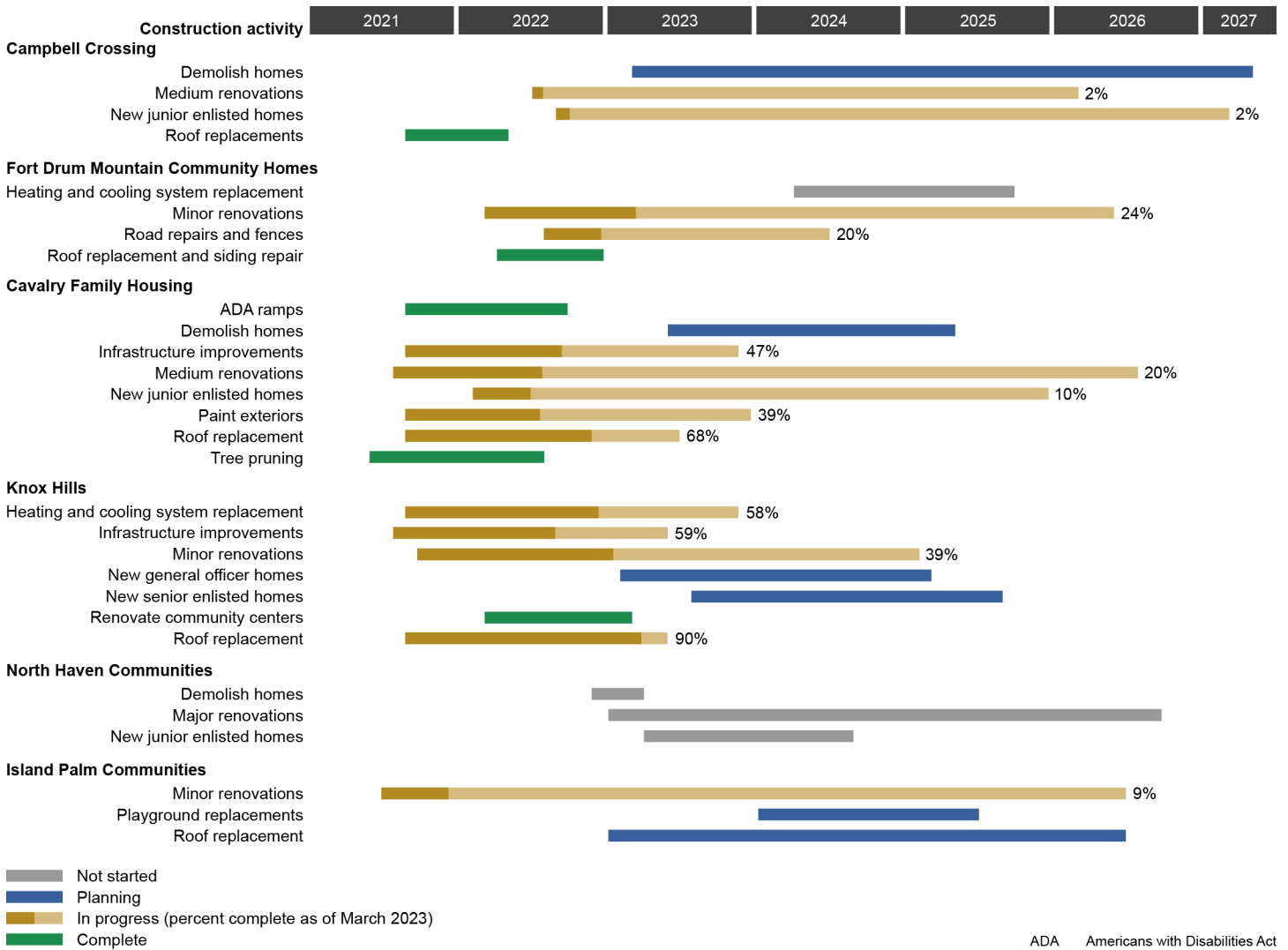
According to Fort Campbell housing officials, the integrated development plan funding for Campbell Crossing is the project’s largest housing investment since 2012. Officials added that this level of investment would not be possible if Campbell Crossing relied on its own revenue sources to fund the work.

According to Army officials, integrated development plan construction activities reduce the need for near-term sustainment and maintenance and allow privatized housing projects to reallocate annual capital investment funding to previously underfunded activities. For example, the Campbell Crossing and Fort Drum Mountain Community Homes reduced annual capital repair and replacement budgets for flooring between fiscal year 2021 and 2023 because these renovations will be funded through the integrated development plan. As a result, Campbell Crossing was able to increase capital repair and replacement funding for community and infrastructure improvements (i.e., playground equipment, roadside repairs, etc.) more than 20-fold between fiscal year 2021 and fiscal year 2023. Similarly, now that the integrated development plan funds flooring replacements as part of its minor renovations, Fort Drum Mountain Community Homes was able to more than double its heating and cooling system repair budgets between fiscal year 2021 and fiscal year 2023.

Most Integrated Development Plan Activities Are in Progress

Lendlease updates DASA (IH&P) monthly on the overall status of integrated development plan construction activities, including any challenges, mitigations, and activity timelines. Across the portfolio, most infrastructure improvements, roof replacements, and minor and medium renovations are in progress. Campbell Crossing and Cavalry Family Housing have begun building new homes and planning demolition of legacy homes (see fig. 8).

Figure 8: Status of Integrated Development Plan Construction Activities for Lendlease’s Six Army Privatized Housing Projects (as of March 2023)



Source: GAO analysis of integrated development plan monthly construction reports. | GAO-23-105983

Infrastructure improvements. Three privatized housing projects—Cavalry Family Housing, Knox Hills, and Fort Drum Mountain Community Homes—receive funds for infrastructure improvements through the integrated development plan. These improvements typically include replacing fences; repairing sidewalks, roads, curbs and gutters; repaving

roads and sidewalks; installing accessible sidewalk ramps; and lowering driveway entrances.

Minor renovations. Three privatized housing projects—Fort Drum Mountain Community Homes, Knox Hills, and Island Palm Communities—are receiving funds for minor renovations through the integrated development plan. Minor renovations vary by installation. According to the integrated development plan, the typical scope of minor renovations includes a combination of replacement of flooring, cabinets, counter tops, plumbing and lighting fixtures, and interior painting (see fig. 9).

Figure 9: Examples of Integrated Development Plan Minor Renovations

Pre-renovation home



Post-renovation home



Minor renovations at Knox Hills include interior paint, new flooring, ceiling fans, and new stainless steel appliances in the kitchen.

Source: GAO. | GAO-23-105983

Cavalry Family Housing (Fort Cavazos, Texas) Privatized in October 2001

Fort Cavazos was one of the original four privatized housing communities of the Army's Residential Communities Initiative. Fort Cavazos housing officials estimate that about 75 percent of its family housing inventory was built in or before the 1970s. As of December 2022, Lendlease reports that nearly all integrated development plan construction activities at Cavalry Family Housing will be completed within 3 months of the plan's original time frame.

Source: GAO analysis of Army and Lendlease information. | GAO-23-105983

Medium renovations. Two privatized housing projects—Campbell Crossing and Cavalry Family Housing—are receiving funds for medium renovations. Medium renovations cover the same infrastructure improvements as minor renovations, but the scope is more extensive. For example, in some homes, Campbell Crossing converted a small walkway between the kitchen and dining room into a pantry with access from the kitchen. In addition, Cavalry Family Housing added storage in some homes next to new kitchen appliances (see fig. 10).

Figure 10: Examples of Integrated Development Plan Medium Renovations

Pre-renovation home



Post-renovation home



Medium renovations at Cavalry Family Housing include new flooring, cabinets, new appliances, and additional storage.

Medium renovations at Campbell Crossing include new flooring, cabinets, counter tops, replacing florescent lighting with LED recessed lighting, and new appliances.

Source: GAO. | GAO-23-105983

New homes. Four privatized housing projects—Campbell Crossing, Cavalry Family Housing, Knox Hills, and North Haven Communities—are receiving funds to build new homes through the integrated development plan. By July 2022, Campbell Crossing built a model home to test design

concepts and incorporate changes into future homes (see fig. 11). In November 2022, Cavalry Family Housing began constructing new junior enlisted homes by trenching and forming home foundations. According to Army documentation, as of June 2023, Cavalry Family Housing completed construction of nine homes and is actively working on 42 additional homes, which should be move-in ready within the next 6 months.

Figure 11: Model Home at Campbell Crossing



New homes at Campbell Crossing are expected to have modern features, such as kitchen islands, recessed lighting, and stainless steel appliances.

Source: GAO. | GAO-23-105983

Fort Drum Mountain Community Homes (Fort Drum, New York) Privatized in May 2005

Integrated development plan construction activities at Fort Drum Mountain Community Homes are primarily minor interior renovations, home siding and roof repairs, and infrastructure improvements such as road and fence repairs. According to Fort Drum housing officials, 70 percent of legacy homes—originally built by the Army but managed by Fort Drum Mountain Community Homes since 2005—will have received some level of exterior or interior renovation when the integrated development plan is fully implemented.

Source: GAO analysis of Army and Lendlease information. | GAO-23-105983

Roof replacement and siding repair. Five privatized housing projects—Campbell Crossing, Fort Drum Mountain Community Homes, Cavalry Family Housing, Knox Hills, and Island Palm Communities—are replacing over 3,700 roofs collectively through the integrated development plan (see fig. 12). Over 2,500 roofs will be replaced at Fort Cavazos alone. According to officials, roof replacements include a multi-year warranty that will reduce the cost of roof maintenance during the warranty period. In addition, officials expect a reduction in heating and cooling expenses over time, as the new roofs will address poor insulation or other defects in old roofs.

Figure 12: Examples of Integrated Development Plan Roof Replacements



Materials for roof replacements vary across privatized housing projects, depending on environmental conditions. Knox Hills home roof replacements will replace some shingled roofs with standing seam metal roofs. Cavalry Family Housing homes will replace tar and gravel roofs with thermoplastic polyolefin and shingled roofs.

Source: GAO review of Lendlease's integrated development plan (text); Fort Drum Mountain Community Homes (Fort Drum photo); GAO (other photos). | GAO-23-105983

Some Privatized Housing Projects Have Encountered Delays in Executing Construction Activities

Some privatized housing projects have encountered challenges in executing integrated development plan activities, which in some cases have caused construction delays.

Delays at Campbell Crossing. All integrated development plan construction activities at Campbell Crossing began later than anticipated, with some activities expected to be completed more than a year later than originally planned (see fig. 13).

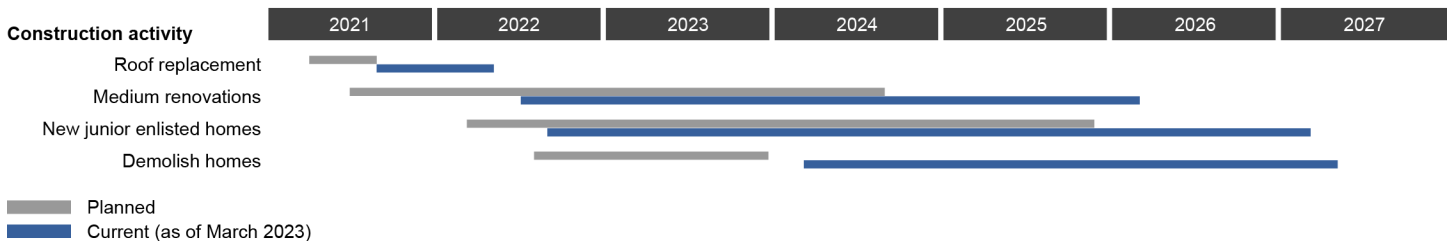
Campbell Crossing (Fort Campbell, Kentucky) Privatized in December 2003

Fort Campbell is one of the first four privatized housing communities of the Army's Residential Communities Initiative.

As of 2022, Campbell Crossing has built over 1200 new homes since 2003. Still, more than half (58 percent) of housing at Campbell Crossing is over 45 years old.

Source: GAO analysis of Army information. | GAO-23-105983

Figure 13: Campbell Crossing (Fort Campbell) Planned Time Frame and Current Time Frame for Integrated Development Plan Construction (as of March 2023)



Source: GAO analysis of integrated development plan monthly construction reports. | GAO-23-105983

According to Army officials and Lendlease representatives, the delays at Campbell Crossing began in 2021 for multiple reasons. In March 2021—just after the Army approved the integrated development plan—Fort Campbell’s Cultural Resources Management Program archaeologists reviewed the integrated development plan and discovered a high likelihood of intact archeological remains of a World War II German prisoner of war internment camp where Campbell Crossing planned to build about 200 new homes.¹⁵ In light of this new discovery, Lendlease representatives reported that construction has encountered delays in order to accommodate historical preservation efforts.

According to Fort Campbell housing officials and Lendlease schedule documentation, another cause for construction delays correlate to Lendlease restarting design plans for new home construction—plans which Fort Campbell housing officials told us were nearly complete when Lendlease chose to restart the design planning process. Lendlease subsequently constructed a new model home; however, Fort Campbell housing officials said design plans were again modified following the model home build. In addition, Fort Campbell housing officials said the design plans for new home construction have changed three times between 2021 and April 2023.

Delays at Campbell Crossing could also be the result of changes to construction activities at this location. Specifically, in August 2021, Lendlease submitted a proposal to DASA (IH&P) to modify Campbell Crossing construction activities and relocate 125 homes to the LaPointe Village neighborhood.¹⁶ In September 2021, Fort Campbell housing officials notified Lendlease that they did not concur with Lendlease’s plan to build family housing at LaPointe site. Rather, according to the installation’s long-term infrastructure plans, they planned to build barracks for unaccompanied soldiers in LaPointe Village. Installation housing officials recommended that the LaPointe Village property be returned to Fort Campbell via a modified ground lease for development of barracks.

¹⁵This camp, Camp D-D, housed approximately 1,000 German prisoners of war from 1943–1946. It was one of three camps of similar size on the installation. According to Army documentation, archeologists have since discovered an intact fire hydrant and part of a storehouse to feed prisoners of war, among other things. Lendlease plans to include historical signage about Camp D-D for residents.

¹⁶Changes to integrated development plan construction activities at Campbell Crossing did not affect the total cost or the numbers of new homes built and homes demolished. Changes centered on reducing the number of roof replacements, changing minor renovations to medium renovations, and changing the location of some of the new construction.

In September 2022, Fort Campbell housing officials learned that Lendlease planned to return LaPointe Village to Fort Campbell and build the new homes in a different neighborhood. As of April 2023, Fort Campbell housing officials said Lendlease is working on a statement of intent to return LaPointe Village to the installation, which will include a timeline for when this land will be returned.

North Haven Communities (Fort Wainwright, Alaska) Privatized in April 2009

According to Army documentation, the financial turmoil during the summer of 2008 made borrowing more difficult and increased the risk premiums for financing Army privatized housing projects. As a result, delayed financing during the financial crisis affected North Haven Communities.

According to Army documentation, since 2009 North Haven Communities constructed 400 new homes, renovated 287 existing homes, and invested over \$412 million between Fort Wainwright in Fairbanks, Alaska and Fort Greely in Delta Junction. In August 2021, the project completed construction on its \$51 million development plan, which started in 2019. In addition, according to Lendlease, North Haven Communities built 32 new 3-bedroom homes at Fort Wainwright. New home construction began in the spring of 2020 and continued through the arctic winter months.

Source: GAO analysis of Army and Lendlease information. | GAO-23-105983

Delays at North Haven Communities. According to Army officials and integrated development plan construction reports, construction activities at North Haven Communities are on hold due to issues with the terms of the privatized housing company's financing structure. According to Army officials, in 2009, the original investors of North Haven Communities required a loan guarantee that the Army would compensate the investor in the event that Congress closed Fort Wainwright in the future.

Army officials told us in June 2022 that, in order to secure financing for Fort Wainwright's integrated development plan construction activities, the project's initial investors need to revise the original financial agreement to remove the limited loan guarantee. Further, in April 2023, IMCOM officials reported that the limited loan guarantee may no longer be necessary because the Army reactivated the 11th Airborne division at Fort Wainwright, reducing the likelihood that Fort Wainwright will be closed. According to Army officials, the limited loan guarantee applies only in the case of a base closure, downsizing, or deployment. These officials also noted that, if the loan guarantee was not removed and Fort Wainwright was included in the integrated development plan, the existing loan would be subject to Office of Management and Budget scoring requirements, requiring the Army to list the full amount of the loan as an obligated

expenditure in its budget.¹⁷ As of April 2023, DASA (IH&P) officials told us that Lendlease was negotiating with the initial investors to come to an agreement to remove the loan guarantee thereby allowing for financing from the integrated development plan's investor. According to Fort Wainwright housing officials, the privatized housing project is ready to begin construction as soon as funding is secured.

As of March 2023, Lendlease representatives estimated at least a 1-year delay in starting Fort Wainwright integrated development plan activities. In the event that Lendlease cannot reach an agreement to remove the loan guarantee, DASA (IH&P) officials told us that Lendlease will redistribute resources currently reserved for North Haven Communities in the integrated development plan to other high-priority work at Lendlease's remaining privatized housing projects that are not currently funded. In addition, the officials stated that North Haven Communities will be required to develop project-specific development plans separate from any future integrated development plans for Lendlease's five remaining Army privatized housing projects.

¹⁷GAO previously discussed scoring in the context of military housing privatization in [GAO-18-218](#). In that report, we noted that the Office of Management and Budget uses scoring to determine the amounts to be recognized in the budget when an agency signs a contract or enters into a lease. Privatized housing projects are scored by the Office of Management and Budget at inception to determine the amount that must be included in the federal budget for the project. Scoring seeks to determine the cost that should be recognized and recorded as an obligation of DOD for budgeting purposes at the time a contract is signed. When the Military Housing Privatization Initiative began, developers sought private borrowing, knowing that only the government funding would be scored because a 1997 Office of Management and Budget memorandum established that private funds for the projects would not be scored as government participation or activity. However, according to a 2005 Office of Management and Budget memorandum, as of September 30, 2010, new privatized housing projects and expansions to existing projects using the limited liability company approach are subject to traditional scoring rules. These rules require projects proposing the use of a purely private entity to be scored as a private activity, and projects proposing the use of a co-owned limited liability company to be scored as government activity. In addition, we reported that Office of Management and Budget officials stated that any future federal government contributions to privatized housing projects in the form of direct loans or loan guarantees will be fully scored at the value of the loan or loan guarantee.

Knox Hills (Fort Knox, Kentucky)

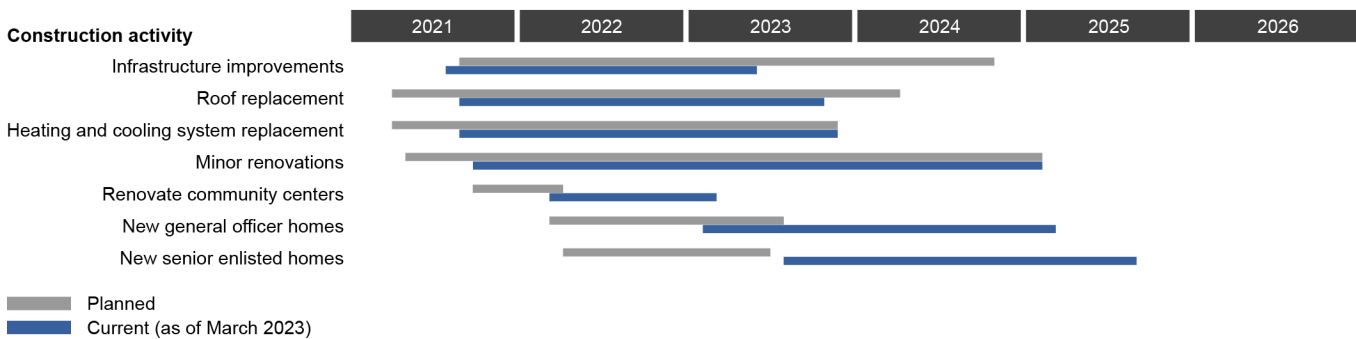
Privatized in December 2006

According to Fort Knox housing officials, Knox Hills inherited 3,000 homes at the beginning of the ground lease in 2007, and all but 300 homes were built before 1962. Since 2007, Knox Hills has built 712 new homes. Still, more than half (53 percent) of housing inventory is over 45 years old.

Source: GAO analysis of Army information. | GAO-23-105983

Delays at Knox Hills. Integrated development plan construction activities are postponed at Knox Hills, and as of March 2023, Lendlease representatives estimate new home construction will begin about 1 year later than originally planned (see fig. 14).

Figure 14: Knox Hills (Fort Knox) Planned Time Frame and Current Time Frame for Integrated Development Plan Construction (as of March 2023)



Source: GAO analysis of integrated development plan monthly construction reports. | GAO-23-105983

Industry Perspective: COVID Pandemic Impact on the U.S. Construction Industry

According to a February 2023 GAO report, the COVID-19 pandemic and war in Ukraine resulted in economic fallout that disrupted global supply chains and highlighted their vulnerabilities. Supply chains—links enabling the production of finished goods and services from raw materials—faced significant disruptions, leading to product shortages and inflationary pressures. Further, according to the Associated General Contractors of America, the construction industry felt these disruptions as early as February 2020, when factories in China and northern Italy were shut down, causing shortages of items as diverse as elevator parts, floor tiles, and kitchen appliances.

A February 2023 GAO report stated that supply chains have faced greater disruptions, including production delays and elevated shipping costs, since the onset of the pandemic compared to recent decades. In addition, pandemic-related shutdowns and labor shortages contributed to supply chain disruptions. We also reported that, according to the International Labor Organization, 93 percent of the world's workers resided in countries with COVID-19-related workplace restrictions. In 2020, global working hours fell by 8.8 percent relative to the fourth quarter of 2019, equivalent to the loss of 255 million full-time jobs.

Source: GAO, Supply Chain Resilience: Agencies Are Taking Steps to Expand Diplomatic Engagement and Coordinate with International Partners, [GAO-23-105534](#) (Washington, D.C.: Feb. 2, 2023) and Associated General Contractors of America. | GAO-23-105983

In April 2022, according to Army officials, Lendlease proposed and the Army agreed to postpone construction of new general and senior enlisted

homes at Fort Knox pending potential redistribution of forces in one of the installation's units.¹⁸ According to Lendlease representatives, a sudden change to housing occupancy could negatively affect the financial health of the project.¹⁹ In March 2023, Lendlease submitted a request to DASA (IH&P) to decrease the number of homes planned for construction at Knox Hills and add 140 medium renovations that would convert existing three-bedroom homes to four-bedroom homes. DASA (IH&P) officials reported that, as of March 2023, DASA (IH&P) had not decided on whether to approve this request. They added that DASA (IH&P), Army Materiel Command, and IMCOM are working concurrently to review the issue and determine a plan for Knox Hills.

Delays at multiple locations. Two of the five privatized housing projects currently implementing the integrated development plan have experienced construction delays due to larger-than-anticipated material costs, which were caused by national supply chain shortages. For example, according to integrated development plan documentation, the lead time for some materials for Fort Drum Mountain Community Homes construction activities is months, and prices for some materials have increased. As a result, the project monitors high risk materials and incorporates long lead times into its planning. Similarly, according to Lendlease construction reporting, national supply chain shortages and material price increases for medium renovations at Cavalry Family Housing may affect the originally estimated quantity of medium renovations completed at the end of 2026.

¹⁸According to Army documentation, Fort Knox is one of the most multifunctional installations in the Army. Its senior-most units include U.S. Army Cadet Command, U.S. Army Recruiting Command, U.S. Army Human Resources Command, 1st Theater Sustainment Command, First U.S. Army Division East and 84th Training Command, U.S. Army Reserve Aviation Command, and 100th Division.

¹⁹According to Lendlease representatives, Fort Knox encountered a similar situation in 2014, when occupancy rates dropped from about 95 percent to about 70 percent after an Army unit was deactivated. As a result, Lendlease representatives said the privatized housing project encountered financial challenges because it had more housing inventory than required.

The Plan Designates Quality Assurance Responsibilities But Inconsistent Reporting Affects Army Oversight

The Integrated Development Plan Documents Quality Assurance Procedures for the Army, Lendlease, and the ICC

The integrated development plan seeks to ensure all work is completed in compliance with applicable codes and industry standards by documenting quality assurance procedures for construction and responsibilities for executing planned integrated development plan construction activities, among other things. In order to delineate quality assurance, reporting, and oversight requirements among the Army, Lendlease, and the ICC, the plan's quality assurance procedures group integrated development plan into one of two categories—sustainment and replacement.

Sustainment. Construction activities under this category include work intended to replace aged equipment and material which has reach the end of its useful lifecycle. This includes heating and cooling replacement, infrastructure improvements, road repairs and fences, roof replacements and siding repair, and minor and medium renovations. The integrated development plan outlines the following quality assurance procedures for sustainment:

- **Quality assurance.** Lendlease is responsible for inspecting exterior sustainment work while both the Army housing office and Lendlease inspect interior sustainment work. The ICC has a limited role with sustainment work and is required to spot check, at least annually, code compliance for minor and medium renovations and certain additional construction activities.²⁰ In addition, the ICC is required to spot check roof replacements at least four times over the course of

²⁰Specifically, the ICC is required to spot check code compliance for any sustainment construction activity involving new ductwork, insulation, and furnace installation; any electrical work at receptacles in kitchens, garages and bathrooms; and any work requiring a new gas connection, underground plumbing, electrical panel replacement, and heating and cooling system condenser replacement and coil cleaning.

the construction schedule to ensure the work complies with appropriate standards.

- **Reporting and record retention.** Lendlease manages sustainment construction activity records and is required to make this information available to the Army for review at any time. In addition, the ICC is responsible for reporting compliance or identifying observed deficiencies related to its sustainment construction activity spot checks to Lendlease.
- **Oversight.** The Army reviews contract specifications prior to execution. Lastly, the Army inspects completed construction activities and according to Army officials, issues a letter to the privatized housing project acknowledging completion of the development program as a result to a major decision request.

Replacement. Construction activities under this category include work involving housing demolition, new construction, and any major renovation involving reconfiguring an existing home's floor plan or building an addition onto an existing home. The integrated development plan outlines the following quality assurance procedures for replacement:

- **Quality assurance.** The ICC leads quality assurance inspections for replacement construction activities in coordination with Lendlease and the local Army housing office. Specifically, the ICC performs regular on-site inspections, identifies applicable building codes, verifies contractor compliance with contract specifications, maintains and stores construction documentation, and manages punch lists, among other responsibilities. Lendlease leads any reviews of design drawings and specifications and approves the ICC's punch lists, among other responsibilities.
- **Reporting and record retention.** The ICC manages replacement construction activity record keeping, such as schedule updates, photographs, payment logs, and approved drawing specifications. Additionally, it is the responsibility of the ICC to provide advice, direction, and reports to the Project Company and contemporaneously to the Army.
- **Oversight.** The Army housing office comments on design drawings and specifications for major renovations, demolition, and new home construction.

According to the integrated development plan's quality assurance procedures, Lendlease is responsible for ensuring all stakeholders outlined in the quality assurance procedures are engaged in a timely manner and the required approvals and certifications are provided at the

appropriate stages of design and construction. Lendlease is also required to compile and provide a monthly report for the Army that reflects sustainment and replacement construction activity progress.

Construction Reports Lack Inspection Detail and Are Not Consistently Shared with All Army Housing Offices

The Army relies on three types of reporting to track and monitor the integrated development plan: construction reports, ICC inspection reports, and financial reports. Lendlease provides DASA (IH&P) with a monthly construction report that summarizes construction activity progress, as required by the integrated development plan. The construction report includes planned budgets and money spent to date for each construction activity, risks or issues facing construction activities, and changes to construction activity budgets and timeline. In addition, the report identifies activities where construction is in progress or is expected to start within the next 90 days.

The ICC's monthly inspection report reflects construction activity at each privatized housing project. It is designed to capture the progress of each project's compliance with standards of quality, budgetary constraints, code compliance, and project schedule for replacement work, such as new home construction, demolition work, and major renovations. In addition, the ICC inspection report documents observations, quality of workmanship and materials, and testing results, among other information. According to Lendlease representatives, Lendlease provides inspection reports to relevant Army housing officials via SharePoint—a document management system—where Army housing officials have access. In addition, Lendlease e-mails ICC inspection reports directly to the relevant Army housing officials.

According to Army officials, in May 2023 Lendlease began providing detailed financial reports that were adapted from two standardized reporting tools—a monthly financial disbursement report and a quarterly development report—currently used at privatized housing projects to capture financial information but needed revisions to reflect financial and construction information at the integrated level. The monthly financial disbursement report tracks scheduled and planned deposits from project-specific reinvestment accounts and loan payments made from the integrated reinvestment account. The quarterly development report reflects development and construction activities and tracks completed and planned projects, costs incurred during the current quarter, actual costs to date, and the latest revised budget totals, among other things.

We found that these reports lack sufficient inspection detail, as required by the integrated development plan. For example, none of Lendlease's

integrated development plan reporting includes the status of certain construction activity inspections performed by the ICC but not included in the ICC inspection report, such as spot checks performed on minor and medium renovations and roof replacements. According to the integrated development plan quality assurance procedures, the ICC is required to perform spot checks on minor and medium renovations and roof replacements, among other activities, and Lendlease is required to report monthly on all integrated development plan work.²¹ These spot checks are required on an annual basis, at a minimum, for these types of construction activities.²² In addition, Lendlease is required to provide a monthly report for the Army that summarizes information relating to construction activities gathered from both sustainment and replacement records such as work completion summaries, design and construction status, and change order applications and approvals. However, as of January 2023, Fort Campbell, Fort Drum, and Fort Cavazos housing office officials were not aware of any ICC spot checks performed on minor or medium renovations or roof replacements, as required in the quality assurance procedures.

According to IMCOM guidance, Army housing offices are required to observe at least 5 percent of ICC inspections throughout different phases of construction, and review ICC reports as necessary to ensure compliance with local, state, and federal requirements.²³ Further, according to Army housing officials, inspection information is important for local Army housing offices to appropriately plan for and execute its inspection and oversight responsibilities. However, according to Fort Campbell housing officials, Lendlease construction reports lack sufficient detail, such as approved contract documents, which Fort Campbell housing officials need to conduct inspections and oversight. Similarly, Fort Cavazos housing officials recalled at least one instance in which Lendlease shared that it had recently poured concrete for a construction activity, but had not informed the housing office or shared a construction

²¹Specifically, the ICC is required to spot check code compliance for any sustainment construction activity involving new ductwork, insulation, and furnace installation; any electrical work at receptacles in kitchens, garages and bathrooms; any work requiring a new gas connection, underground plumbing, electrical panel replacement, and heating and cooling system condenser replacement and coil cleaning.

²²In the case of roof replacements, the ICC is responsible for spot-checking at particular points in time during the construction schedule.

²³Army Operations Order (OPORD) 23-009, *Development and Construction Quality Assurance (QA) Support at Select Residential Communities Initiative (RCI) Installations* (November 2022).

schedule in advance, making it difficult to plan and schedule Army inspections. In addition, as of January 2023 Fort Drum housing officials said they have not received ICC inspection reports on any integrated development plan construction activity, despite a requirement for the ICC to conduct an inspection and report on the first renovated home with new siding.

We also found, based on statements from housing officials, that Lendlease has not consistently provided construction reports to the Army housing offices at the garrisons. Specifically, USAG-Hawaii and Fort Campbell housing offices reported receiving monthly integrated development plan construction reports, and the remaining three Army housing offices reported that they have not consistently received these reports.²⁴ According to Fort Drum housing officials, as of January 2023, the office had received Lendlease's construction report for January 2022.

In addition, access to—or Army review of—inspection information at local Army housing offices varies across garrisons. For example, according to the USAG-Hawaii housing officials, in December 2022, Island Palm Communities gave the Army housing office access to all of Island Palm Communities construction activities, including ICC inspection results, pictures, project status and modifications. Similarly, Fort Knox housing officials said Knox Hills gave the Army housing access to a database that stores inspection information beginning in January 2023. However, Fort Drum housing officials said that, as of January 2023, they had not observed any ICC spot checks of ongoing roof replacements—which Lendlease categorizes as sustainment work, as discussed previously—nor had they received information on the results of these ICC spot checks. Lendlease representatives reported that the ICC is only required to include replacement work, such as new home construction, in its ICC inspection reports. As a result, since Fort Drum construction activities do not include replacement work, Lendlease representatives stated that Fort Drum housing officials will not receive monthly ICC inspection reports.

According to the integrated development plan quality assurance procedures, Lendlease has sole responsibility for keeping records related to sustainment work, to include minor and medium renovations and roof replacements. In addition, Lendlease is required to provide a monthly report on all integrated development plan construction activities to the

²⁴Since all construction for integrated development plan activities are on hold at Fort Wainwright, we excluded Fort Wainwright from our discussions on integrated development plan construction reporting.

local Army housing offices. The report is required to summarize monthly construction activities gathered from various records, such as approved project contract documents, observed deviations or omissions from construction plans and specifications, and a description of any qualitative defects below industry standards.

We determined that Lendlease construction reports lack inspection information and have not been consistently shared with Army housing offices because DASA (IH&P), in coordination with Army Materiel Command, IMCOM, and Lendlease, did not develop a standardized reporting process to facilitate oversight of all ICC inspections, including ICC spot checks of minor and medium renovations and roof replacements, and share this information with local Army housing offices. According to DASA (IH&P) officials, Lendlease developed the monthly construction report to reflect a high-level progress summary for Army leadership. The officials further explained that the construction report is not designed to provide detailed information. For example, according to the Deputy Chief of Staff, G-9 (Installations) (DCS G-9) officials, detailed financial reporting on the integrated reinvestment account is reported separately from the monthly construction report because it includes proprietary information. In addition, DASA (IH&P) officials said the Army approved the metrics included in Lendlease's monthly construction report and excluded inspection information, in part because inspection oversight is the responsibility of IMCOM and local Army housing offices.

While DASA (IH&P) and Lendlease agreed to exclude inspection information in its monthly construction report for Army senior leadership, IMCOM and Army housing office officials agreed that improved access to inspection reporting would facilitate their oversight of inspections. For example, Army housing officials stated that timely access to construction reports is important because monthly reports are the primary method by which the housing office's Garrison Commander can obtain information on integrated development plan matters. Prior to the integrated development plan, Garrison Commanders at each installation could review, comment, and endorse development plans through the Army's major decision process, as described in the Army's Portfolio and Asset Management Handbook. However, Lendlease requested—and DASA (IH&P) approved, with Army Materiel Command and IMCOM support, according to DASA (IH&P) officials—that the Army waive the requirement for Garrison Commander endorsement for all integrated development plan-related and integrated reinvestment account-related major decisions.

Despite this waiver, the integrated development plan's major decision process did not alter Lendlease's obligation to provide construction reporting to Army housing offices. Until DASA (IH&P), in coordination with Army Materiel Command, IMCOM, and Lendlease, develops a standardized reporting process to facilitate oversight of all ICC inspections, including ICC spot checks of minor and medium renovations and roof replacements, and share this information with local Army housing offices, Army housing offices may be limited in their ability to monitor construction for appropriate quality and safety standards. In addition, Army housing officials may not be able to accurately oversee, report on, and ensure the privatized housing projects' compliance with the integrated development plan quality assurance terms.

The Army Has Established Sustainment Planning Processes, but Relies on Outdated Information

The Army Has Annual Sustainment Planning Processes

The Army has two processes for assessing the long-term sustainment of privatized housing projects: (1) preparing and reviewing capital repair and replacement plans for each privatized housing project and (2) an annual sustainability analysis. These processes monitor and gauge risk across the privatized housing portfolios by evaluating the development capability and financial health of privatized housing projects. Different entities within the Army are involved with these two processes. DASA (IH&P) reviews and approves multi-year capital repair and replacement plans and Army Materiel Command reviews and approves annual capital repair and replacement budgets, including the specific sustainment efforts planned within a given fiscal year. In addition, DCS G-9 conducts the sustainability analysis.

Privatized housing projects prepare 5-year capital repair and replacement plans that identify critical repairs to improve and sustain aging infrastructure, such as faulty roofs or fences, and can also include other targeted efforts, such as replacing defective heating and cooling systems. The capital repair and replacement plans also provide a more general list of replacement work estimated through the remainder of the lease, beyond 5 years. Each year, Army Materiel Command, in collaboration

with IMCOM and Garrison leadership, reviews the capital repair and replacement construction activities planned for that fiscal year and approves the budget to complete those planned activities.

DCS G-9 conducts an annual sustainability analysis across the privatized housing company portfolios to gauge financial risk, forecast development capability (i.e., building or replacing new homes and planned end-state home inventory), and evaluate the overall financial health of the privatized housing projects in each portfolio. In addition, the sustainability analysis incorporates expected construction activities documented in privatized housing project's 5-year capital repair and replacement plans. The Army compares the results of this analysis to both the original closing pro forma and the most recent pro forma approved through the Army's major decision process.²⁵ The pro forma is an investment tool used by privatized housing projects to predict funds available for capital investment based on expected revenue and expenses through the end of its ground lease.

DASA (IH&P) regularly briefs the Office of the Deputy Assistant Secretary of Defense for Housing (DASD (Housing)) on aspects of the military housing privatization initiative. Since January 2021, DASD (Housing) has met with Army officials on a quarterly basis to discuss housing forecasts and the overall financial health of the privatized housing projects. According to DOD guidance, DASD (Housing) uses these quarterly meetings to, among other things, identify areas for improvement and maintain awareness and understanding of project status.²⁶ Each July, DASD (Housing)'s quarterly meeting focus on a discussion of privatized housing project sustainment across the Army's housing projects.

DCS G-9 Sustainability Analysis Incorporates Projections That May Be Outdated and Inaccurate

The sustainability analysis comparisons rely on information from each privatized housing project's approved pro forma. This comparison allows the Army to identify any significant changes or risks that might alter the financial feasibility of a project's multi-year development plan.

However, we found that approved pro formas used to compare sustainability analysis results were outdated. As of March 2023, the

²⁵According to the *Army's Portfolio and Asset Management Handbook*, modified pro forma models reflecting updated out-year plans should be reviewed and approved through the major decision process.

²⁶Assistant Secretary of Defense (Sustainment) Memorandum, *Military Housing Privatization Initiative – Approval and Notifications Policy* (Jan. 15, 2021).

privatized housing project approved pro formas for the six locations we reviewed were last updated between about 4 to 8 years ago (see table 1).

Table 1: Privatized Housing Project Closing and Current Approved Pro Forma Dates

Privatized housing project	Closing pro forma	Current approved pro forma	Approximate Length of time since approved pro forma as of March 2023
Knox Hills	February 2007	June 2019	3 years, 9 months
North Haven Communities	September 2010	June 2019	3 years, 9 months
Campbell Crossing	November 2003	April 2018	4 years, 11 months
Island Palm Communities	April 2005	April 2018	4 years, 11 months
Cavalry Family Housing	May 2007	December 2017	5 years, 3 months
Fort Drum Mountain Community Homes	July 2008	June 2015	7 years, 9 months

Source: GAO analysis of fiscal year 2022 Army Sustainability Analysis. | GAO-23-105983

Army guidance indicates that each privatized housing project’s pro forma should be revised as part of a new multi-year development plan.²⁷ We found that all six privatized housing projects should have more recent approved pro formas that align with the integrated development plan, which began in 2021.

We found that privatized housing project approved pro formas were outdated because DASA (IH&P) was not enforcing the requirement for projects to include an updated pro forma as part of development plans submitted for review and approval. Further, according to DASA (IH&P) officials, even approved pro formas are often out of date within 2 or 3 years due to unexpected circumstances, such as fluctuations in the basic allowance for housing or emergency needs that may have reduced cash

²⁷Specifically, the Army *Portfolio and Asset Management Handbook* notes that an out-year development plan incorporates, among other things, a recalibrated pro forma using current project results and updated assumptions. Additionally, Residential Communities Initiative company pro formas are to be revised to reflect current information if operating budget variances exceed 10 percent. Variances occur when net operating income—operating cash left after all operating expenses are paid from revenue collections—differ from the projected pro forma.

flow or shifted development priorities.²⁸ As such, compliance with the requirement for projects to include an updated pro forma as part of their development plans submitted for review and approval is important to ensure the pro forma is as accurate as possible.

According to Army officials, Lendlease delayed updating project-specific pro formas to prioritize securing financing for the integrated development plan. Further, they stated that project pro formas were not approved until late 2021 while the 2022 sustainability analysis was underway. Lendlease representatives, however, disagreed that the pro formas had not been updated and told us that all project pro formas were updated and approved by the Army at the time of the integrated development plan's financial closing in April 2021. In April 2023, Army officials stated that the 2023 sustainability analysis will include a comparison to more recent approved pro formas from each Lendlease privatized housing project. However, it was unclear if DASA (IH&P) will enforce the requirement to include an updated pro forma in future multi-year development plans because other private housing companies, in addition to Lendlease, have not included an updated pro forma with their development plan submissions, according to Army officials. Additionally, the Army did not provide documentation to demonstrate that updated pro formas were approved in 2021 or included in its 2023 sustainability analysis of Lendlease's housing portfolio. Without enforcing its requirement for privatized housing projects to include an updated pro forma as part of their development plans submitted for Army review and approval, DASA (IH&P) risks using unreliable information to conduct annual sustainment analyses and may not have an accurate picture of project-specific development capability and financial health.

Conclusions

The integrated development plan is a significant investment in expediting housing and community improvements across Lendlease's Army privatized housing project portfolio. By consolidating privatized housing project reinvestment accounts, the Army and Lendlease have secured

²⁸The Office of the Under Secretary of Defense for Personnel and Readiness annually calculates median rent and average utilities across military housing areas in the United States based on estimates of local market conditions. These calculations, which fluctuate from year to year, are used to determine individual service members' monthly basic allowance for housing payments, which, in turn, are based on their pay grade and dependency status. Service members pay their rent—whether living on the installation or off—with their basic allowance for housing payments. If a service member lives on an installation, according to DOD officials, basic allowance for housing payments are allotted directly to the privatized housing project with the service member's permission as a condition of the signed rental housing lease agreement.

private financing and accelerated housing improvements that would otherwise take multiple years for individual privatized housing projects to fund.

However, these improvements require continued Army oversight to ensure that integrated development plan construction activities are executed to the appropriate quality standards. Lendlease provides DASA (IH&P) the monthly reports on construction activities required by the integrated development plan and approved by DASA (IH&P) to support summary information to Army leadership. In addition, Lendlease provides monthly ICC inspection reports that reflect replacement scope work such as new home construction, demolition, and major renovations. However, Lendlease does not include ICC inspection information related to spot checks performed on select sustainment work such as minor and medium renovations and roof replacements or consistently provide construction reports to the Army housing offices at the garrisons. Developing a standardized construction reporting process to facilitate oversight of all ICC inspections, including ICC spot checks of minor and medium renovations and roof replacements, and sharing this information with local Army housing offices would enable Army housing offices to monitor construction for appropriate quality and safety standards and ensure the privatized housing projects' compliance with the integrated development plan quality assurance terms.

Further, these improvements require continued Army oversight to ensure Lendlease remains in good financial health and that private housing companies, like Lendlease, can continue to sustain family housing through the life of the ground lease. The Army annually conducts a sustainability analysis to gauge financial risk and forecast development capability across Army privatized housing projects. However, we found that the financial projections used to compare the results of the analysis are outdated because DASA (IH&P) is not enforcing its requirement for privatized housing projects to include an updated pro forma as part of development plans submitted for Army review and approval. Enforcing this requirement would mitigate unnecessary risk of using unreliable information to inform annual sustainment analyses and improve the accuracy of privatized housing projects' development capability and financial health.

Recommendations for Executive Action

We are making the following two recommendations to the Secretary of the Army:

The Secretary of the Army should ensure that DASA (IH&P), in coordination with Army Materiel Command, IMCOM, and Lendlease, develops a standardized reporting process to facilitate oversight of all ICC inspections to share with local Army housing offices. (Recommendation 1)

The Secretary of the Army should ensure that DASA (IH&P) enforces its requirement for privatized housing projects to include an updated pro forma when submitting development plans for Army review and approval. (Recommendation 2)

Agency Comments

We provided a draft of this report to DOD for review and comment. A previous version of this report was tentatively marked sensitive, pending a sensitivity review by DOD. We incorporated DOD's sensitivity review into this report to remove sensitive information and consulted with DOD officials to ensure revised statements are appropriate for a public report. DOD also provided technical comments, which we incorporated as appropriate.

In its comments, reproduced in appendix II, DOD concurred with our first recommendation and partially concurred with the second.

DOD concurred with our first recommendation to develop a standardized reporting process to facilitate oversight of all ICC inspections to share with local Army housing offices. This recommendation originally stated, in the draft report that we provided to DOD for official review and comment, that DASA (IH&P) should coordinate with Lendlease to implement this recommendation. In its written comments, DOD stated that Lendlease has largely complied with reporting requirements and the agreed-upon quality assurance procedures, but there have been some inconsistencies in how such reporting is provided to other Army organizations, which would include Army Materiel Command and IMCOM. As a result, we modified our first recommendation to direct DASA (IH&P) to coordinate with Army Materiel Command and IMCOM—in addition to Lendlease—as the office develops a standardized inspection reporting process to facilitate inspection oversight with local Army housing offices.

DOD partially concurred with our second recommendation to enforce the Army's requirement for privatized housing projects to include an updated pro forma when submitting development plans for Army review and approval. In its written comments, DOD stated that, as of July 2023, all Lendlease privatized housing project pro formas were received, reviewed, and in use. However, we did not verify the current status of these pro

formas. DOD acknowledged that guidance requiring privatized housing projects to include updated pro formas when submitting development plans for Army review and approval has not been precisely followed by some Army privatized housing projects and DOD said it will work with privatized housing projects to better ensure adherence to this existing requirement. We are encouraged by DOD's statement that it intends to address this issue and will continue to monitor DOD's actions moving forward.

We are sending copies of the report to the appropriate congressional committees, the Secretary of Defense, the Secretary of the Army, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-2775 or FieldE1@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.



Elizabeth A. Field
Director, Defense Capabilities and Management

Appendix I: Contacted Organizations

Table 2 lists the organizations within the Department of the Army that we interviewed during the course of our audit.

Table 2: Contacted Organizations within the Department of the Army

Lead Organization	Subordinate Organizations
Assistant Secretary of the Army (Installations, Energy and Environment)	Deputy Assistant Secretary of the Army Installations, Housing, and Partnerships Deputy Chief of Staff, G-9 (Installations)
Army Materiel Command	Installation Management Command Installation Management Command Pacific Directorate Installation Management Command Training Directorate Installation Management Command Readiness Directorate
Fort Campbell	Fort Campbell Directorate of Public Works Fort Campbell Housing Division
Fort Knox	Fort Knox Directorate of Public Works Fort Knox Housing Division
Fort Drum	Fort Drum Housing Division
Fort Cavazos	Fort Cavazos Directorate of Public Works Fort Cavazos Housing Services Office
U.S. Army Garrison Alaska-Fort Wainwright	U.S. Army Garrison Alaska-Fort Wainwright Housing Division
U.S. Army Garrison Hawaii	U.S. Army Garrison Hawaii Directorate of Public Works U.S. Army Garrison Hawaii Housing Division

Source: GAO. | GAO-23-105983

Appendix II: Comments from the Department of Defense



ENERGY, INSTALLATIONS,
AND ENVIRONMENT

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3400 DEFENSE PENTAGON
WASHINGTON, DC 20301-3400

July 13, 2023

Ms. Elizabeth A. Field
Director, Defense Capabilities and Management
U.S. Government Accountability Office
441 G Street N.W.
Washington DC 20548

Dear Ms. Field,

This is the Department of Defense (DoD) response to the Government Accountability Office (GAO) Draft Report GAO-23-105983SU, "MILITARY HOUSING: Army Should Improve Inspection Oversight and Long-Term Capital Investment Projections," dated June 6, 2023 (GAO Code 105983).

Enclosed is DoD's proposed response to the subject report which includes additional comments and corrections from our office and Headquarters, Department of the Army (HQDA). Corrective Action Plans for each recommendation will be developed by our office with input from the HQDA upon publication of the final report.

Our point of contact for this report is Ms. Megan Purkey who can be reached at 703-614-0867 or megan.d.purkey.civ@mail.mil.

Sincerely,

BAKER.PATRICIA.
ANN.1103561406⁶

Digitally signed by
BAKER.PATRICIA.ANN.110356140
Date: 2023.07.13 14:46:39 -0400'

Patricia Baker
Acting Deputy Assistant Secretary of Defense
(Housing)

Enclosure:
As stated

**GAO DRAFT REPORT DATED JUNE 6, 2023
GAO-23-105983SU (GAO CODE 105983)**

“MILITARY HOUSING: Army Should Improve Inspection Oversight and Long-Term Capital Investment Projections”

**DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS**

RECOMMENDATION 1: The Secretary of the Army should ensure that DASA(IH&P), in coordination with Lendlease, develops a standardized inspection reporting process to facilitate inspection oversight and consistent reporting to Army housing offices.

DoD RESPONSE: Concur. Lendlease has largely complied with the reporting requirements and Quality Assurance / Quality Control plan agreed to and executed as part of the Army Integrated Out-Year Development Plan (AIODP). However, there have been some inconsistencies as far as how reporting is provided to all Army echelons, and the AIODP program execution could benefit from clarification and standardization of the roles, responsibilities, and actions of the various parties in the process.

RECOMMENDATION 2: The Secretary of the Army should ensure that DASA (IH&P) enforces its requirement for privatized housing projects to include an updated pro forma when submitting development plans for Army review and approval.

DoD RESPONSE: Partially concur. In the case of the Lendlease Army Integrated Out-Year Development Plan, the subject of this GAO review, all updated pro formas were received, reviewed, and are currently in use. Under provisions in the Department of the Army Portfolio and Asset Management Handbook, privatized housing projects are required to include updated pro formas when submitting development plans for Army review and approval. The Army acknowledges, however, that there might be instances where this guidance is not precisely followed by some of the privatized housing projects. As such, the DASA(IH&P) will work with privatized housing projects to better ensure adherence to this existing requirement.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Elizabeth A. Field, (202)-512-2775 or FieldE1@gao.gov

Staff Acknowledgments

In addition to the contact named above, Margaret Best (Assistant Director), Amy Bush (Analyst-in-Charge), Vincent Buquicchio, Rena Elhessen, Kaitlyn Hunter, David Jones, Patricia Powell, Jack Wang, and Emily Wilson made significant contributions to this report.

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