



THE VOLCKER ALLIANCE

Empowering and Inspiring Public Servants

**CAPITAL
BUDGETING
AND STATE
DEFERRED
MAINTENANCE**

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TOOL KIT

Meeting the Trillion-Dollar Challenge

**FRAMEWORK FOR ASSESSING AND REPORTING
STATE DEFERRED INFRASTRUCTURE
MAINTENANCE NEEDS**

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MEETING THE TRILLION-DOLLAR CHALLENGE **TOOL KIT**

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INTRODUCTION

BACKGROUND The US has accumulated at least \$1 trillion in deferred maintenance at the federal and state level.¹ Budget constraints and competing priorities often lead government agencies to postpone or delay planned maintenance to make funding available for other pressing needs. The failure to keep up with maintenance results in higher expenditures in the future, however, and in some cases compromises the safety and health of people using these facilities.

Unlike other large obligations, such as debt and public worker pensions and other postretirement benefits, deferred maintenance is not included among liabilities on government balance sheets. While some states report deferred maintenance needs in their capital budgeting documents, there is no universally adopted system for assessing, valuing, and funding this gap.

AUDIENCE FOR THIS TOOL KIT It is designed primarily for state budget officers, legislative and executive staff, and state agency heads. It could also be helpful to other stakeholders and interested members of the public.

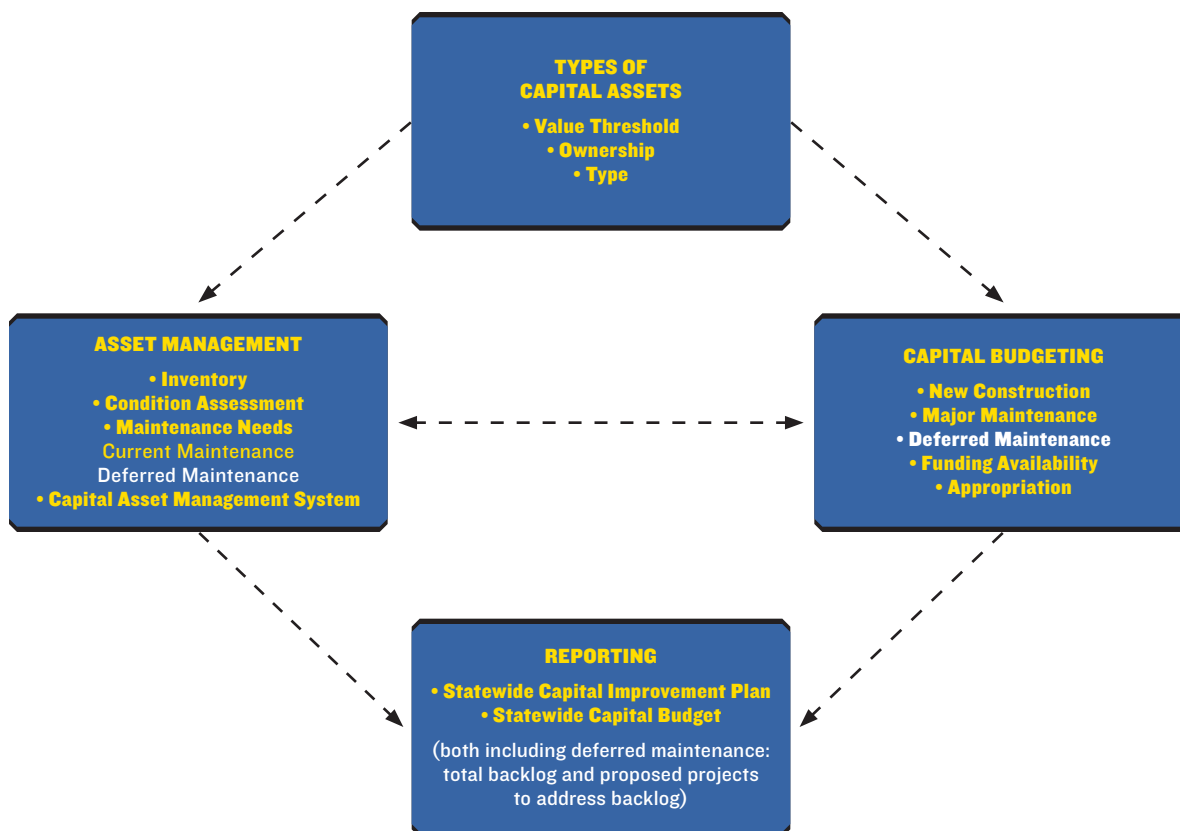
HOW THIS TOOL KIT WAS CREATED Its development was based on the experiences of nine states that are currently working to address their deferred maintenance needs. They were chosen because they have taken concrete steps to track, measure, and manage those needs. The nine states are Alaska, California, Hawaii, Idaho, Illinois, Massachusetts, Montana, Oklahoma, and Tennessee. (Tennessee is included as it has an inventory that considers state and local infrastructure needs, but it does not currently report deferred maintenance needs).

These states' diverse approaches provide valuable examples of practices that might be useful for other states, whether they are just beginning to navigate and assess their long-standing maintenance backlogs or are looking to refine and strengthen existing strategies.

This tool kit is part of a broader research project on deferred infrastructure maintenance. Assessing and reporting deferred maintenance backlogs requires policies that guide processes (figure 1). Deferred maintenance needs should be identified as part of capital assets management processes, budgeted for in capital budgets, and clearly separated from construction and major maintenance projects. Furthermore, statewide capital budgets and statewide capital improvement plans should disclose total deferred maintenance backlogs, annual funding appropriated in the current year, and estimated funding required in future years.

ABOUT THIS TOOL KIT This is a guide that aims to assist states in adopting or improving the

¹ Jerry Zhirong Zhao, Camila Fonseca Sarmiento, and Jie Tan, *America's Trillion-Dollar Repair Bill: Capital Budgeting and the Disclosure of State Infrastructure Needs*, Volcker Alliance, November 2019, <https://www.volckeralliance.org/resources/americas-trillion-dollar-repair-bill>.

FIGURE 1 Framework for assessment and reporting of deferred maintenance needs


assessment and documentation of deferred infrastructure maintenance needs. It is organized into a series of modules, each focused on a component of a state’s approach to deferred maintenance. States at the beginning of their efforts can use the tool kit as a road map for establishing foundational systems, while those with existing frameworks can identify opportunities to refine and enhance them. Each component offers key actions and real examples drawn from the experiences of states analyzed in this project.

MODULE 1 Establishing policy guidance on scope and agencies’ responsibilities

- 1.1** Maintaining consistent definitions of maintenance and deferred maintenance
- 1.2** Defining the types of infrastructure to be considered in the assessment and reporting of deferred maintenance needs
- 1.3** Determining the agencies involved and their responsibilities

- 1.4 Establishing policies that guide the assessment and reporting of deferred maintenance needs

MODULE 2 Assessing deferred maintenance and addressing funding needs

- 2.1 Establishing procedures for assessing deferred maintenance needs
- 2.2 Adopting and implementing a methodology for selecting and prioritizing deferred maintenance projects for funding
- 2.3 Establishing reliable and consistent funding allocation to address deferred maintenance needs
- 2.4 Providing education to state agency staff about the deferred maintenance process
- 2.5 Providing deferred maintenance education to legislation and executive staff

MODULE 3 Disclosing deferred maintenance needs and funding strategies

- 3.1 Reporting statewide deferred maintenance needs
- 3.2 Reporting funding appropriations to address deferred maintenance needs

MODULE I Establishing Policy Guidance on Scope and Agencies' Responsibilities

CLARITY AND A ROBUST GOVERNANCE STRUCTURE are critical for the statewide assessment and reporting of deferred maintenance needs. This module will deal with the following questions:

HOW IS DEFERRED MAINTENANCE DEFINED? A key aspect of the deferred maintenance tracking process is to have clear definitions of maintenance and deferred maintenance. Establishing the terminology minimizes ambiguity and promotes alignment among stakeholders. This module outlines best practices in this area and includes examples from selected case studies.

WHAT TYPES OF INFRASTRUCTURE SHOULD BE CONSIDERED IN THE ASSESSMENT OF DEFERRED MAINTENANCE NEEDS? Ideally, all types of infrastructure within the state should be considered in assessing deferred maintenance needs. In practice, however, limitations such as budget, staff capacity, and varying levels of asset management tenure across state agencies contribute to restricting the types of infrastructure considered in a statewide assessment. This module outlines best practices for identifying the types of infrastructure to be considered and includes examples from case studies.

WHICH STATE AGENCIES SHOULD BE INVOLVED IN ASSESSING AND REPORTING DEFERRED MAINTENANCE NEEDS, AND WHAT ARE THEIR ROLES? Determining the agencies involved in assessing and reporting deferred maintenance needs and their roles and responsibilities is crucial to establishing an effective and coordinated assessment and reporting system. Key questions include which entity provides oversight and which leads and coordinates the process. Clarifying roles helps prevent duplication of effort in compliance and accountability.

WHAT IS THE ENABLING POLICY? The statewide assessment and reporting of deferred maintenance requires policies that provide structured guidance on the process and delineate the responsibilities of state agencies involved. These policies contribute to promoting coordination across agencies, enhancing accountability and transparency, and strategic planning to address deferred maintenance needs.

A policy framework helps systematically address deferred maintenance needs.

1.1. Maintaining consistent definitions of maintenance and deferred maintenance

Clear and consistent definitions of maintenance and deferred maintenance are essential to clarify and avoid misunderstanding among stakeholders in assessing deferred maintenance needs. Standardizing and clearly documenting these definitions may aid consistent reporting of statewide deferred maintenance needs.

The terms *deferred maintenance*, *deferred maintenance needs*, *deferred maintenance costs*, *deferred maintenance deficiencies*, *critical repairs*, and *deferred maintenance backlogs* are generally used interchangeably. Regardless of which term is chosen, it is important that a state use it consistently across all documentation to ensure clarity and alignment.

The definition process should include the following:

REVIEWING HOW THE STATE DEFINES MAINTENANCE Maintenance usually refers to repairs that are recurrent and scheduled to preserve and extend functionality to keep infrastructure in good working order or acceptable condition. Hawaii defines it as the cost of catching up with delayed maintenance, which acknowledges additional costs incurred for not performing the maintenance that was due.

CLARIFYING THE PERIOD IN WHICH MAINTENANCE BECOMES DEFERRED A certain amount of maintenance should be provided in a given period and becomes deferred if not completed by the end of this period. The period can be determined by the repair and maintenance cycle (as in Hawaii) or by the operating budget cycle (as in Alaska).

SPECIFYING THE TYPES OF INFRASTRUCTURE CONSIDERED Define the scope of infrastructure included in the process and its ownership (see the next subsection).

The definition of *maintenance* is generally included in state statutes, and the definition of *deferred maintenance* is often included only in documents reporting on deferred maintenance. Table 1 presents definitions of *maintenance* and *deferred maintenance* used by the states included in this study.

TABLE I Definitions

MAINTENANCE	
SOURCE	DESCRIPTION
ALASKA	
Sec. 7 AS 37.07.120	"Maintenance and repair means the day-to-day scheduled and preventive maintenance effort required to keep buildings and facilities operational and in a continuous state of readiness."
CALIFORNIA	
Legislative Analyst's Office	"Maintenance includes the recurring, usual upkeep needed to preserve and extend the useful life of facilities."
HAWAII	
Rev. Stat. § 37-121	"'Routine repair and maintenance' means repair and maintenance performed on a scheduled repair and maintenance cycle."
IDAHO	
Stat. 67-5701B	"(a) Corrective repairs or replacements used for existing state-owned, or state-operated facilities, which result from a systematic program in which wear, tear, and change are anticipated and continuous corrective actions are required to be taken to ensure peak efficiency and to minimize deterioration. It includes systematic inspection, adjustment, lubrication, replacement of components, as well as performance testing and analysis;
	(b) Repairs and replacements with an estimated useful life of less than five (5) years;
	(c) Repairs and replacements which are funded in the state agency's operating budget;
	(d) Repairs and replacements that can be accomplished by the agency's existing physical plant staff;
	(e) Repairs and replacements which do not require the services of architects, engineers, and other professionally licensed consultants to investigate conditions, prepare recommendations for corrective action, prepare plans and specifications, and supervise the execution of corrective projects."
ILLINOIS	
<i>Capital Budget FY 2025, p. 123</i>	"The cost of keeping buildings or equipment in good working order."
MASSACHUSETTS	
Instructions for deferred maintenance study, p. 26	"Day-to-day, routine, normally recurring repairs and upkeep. Preventative maintenance is done by conducting periodic service checks of building equipment to avoid any failures, fatigue, neglect or normal wear. Preventative maintenance is designed to preserve and restore equipment reliability by replacing worn components before they fail. The scheduled maintenance activities may include partial or complete overhauls at specified periods, oil changes, lubrication, changing belts and filters, cleaning indoor and outdoor coils, lubricating motors and bearings, cleaning and maintaining cooling towers, testing control functions and calibration, and painting for corrosion control, minor adjustments, etc. In addition, maintenance workers can record equipment deterioration so that worn parts may be repaired or replaced before they cause system failure. The ideal machine maintenance program would prevent any unnecessary and costly repairs."
General Law—Part I, title II, chapter 7C, § 1	"Day-to-day, routine, normally recurring repairs and upkeep."
General Law—Part I, title II, chapter 7C, § 1	"Work required to restore a facility or system to such condition that it may continue to be approximately and effectively utilized for its designated purpose by overhaul, reprocessing or replacement of constituent parts or materials which have deteriorated by action of the elements or wear and tear in use."

TABLE I Definitions (cont.)

MAINTENANCE	
SOURCE	DESCRIPTION
MONTANA	
“Major repair” MCA 17-7-201-7	“Major repair means (i) a renovation, alteration, replacement, or repair project with a total cost of less than \$2.5 million; (ii) a site or utility improvement with a total cost of less than \$2.5 million; or (iii) a new facility with a total construction cost of less than \$250,000.”
“Operations and maintenance” MCA 17-7-201-9	“Operations and maintenance means operational costs and regular, ongoing, and routine repairs and maintenance funded in an agency operating budget that does not extend the capacity, function, or lifespan of a facility.”
OKLAHOMA	
Administrative code, title 260, chapter 95-3-2	“‘Maintenance’ means the repair or preventative up-keep of equipment, machinery, property and building features or fixtures.”
TENNESSEE	
<i>Building Tennessee’s Tomorrow: Anticipating the State’s Infrastructure Needs</i> , p. 275	“Regular activities, including ordinary repairs or replacements unrelated to new construction, designed to preserve the condition or functionality of a capital facility or appurtenance to a capital facility, typically costing less than \$5,000 for each individual instance.”
FEDERAL ACCOUNTING STANDARDS ADVISORY BOARD	
FASAB Definitional Changes Related to Deferred Maintenance and Repairs, p. 7	“Maintenance and repairs are activities directed toward keeping fixed assets in an acceptable condition. Activities include preventative maintenance, replacement of parts, systems, or components, and other activities needed to preserve or maintain the asset. Maintenance and repairs exclude activities directed towards expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than, its current use.”
DEFERRED MAINTENANCE	
ALASKA	
Legislative Finance Division	“Maintenance that has been deferred to another time, usually as a consequence of insufficient funding.”
Office of Management and Budget	“Maintenance or repair projects that have been delayed or postponed due to lack of funds within an entity’s normal operating budget cycle.”
CALIFORNIA	
Legislative Analyst’s Office	Maintenance that “is delayed or does not occur.”
<i>Five-Year Infrastructure Plan 2016</i> , p. 3	“Deferred maintenance is maintenance that has not been completed to keep state-owned facilities in an acceptable and operable condition and that is intended to maintain or extend their useful life.”
HAWAII	
Act 150 SB 254	“Deferred maintenance costs means the costs to catch up on the repair and maintenance of the state-owned building, facility, or other improvement that has been delayed past the ordinarily scheduled repair and maintenance cycle.”
IDAHO	
<i>Capital Assets Deferred Maintenance Liability</i> , p. 2	“Deferred maintenance occurs when the facility owner leaves maintenance, repairs, replacement, and renewal projects unperformed, due to lack of resources or perceived low priority. Deferral of the activity results in a progressive deterioration of the facility’s condition or performance. The cost of the deterioration includes capital and operating costs and productivity losses. These will increase if the activity continues to be deferred.”

TABLE I Definitions (cont.)

DEFERRED MAINTENANCE	
SOURCE	DESCRIPTION
ILLINOIS	
<i>Capital Budget FY 2019, p. 21</i>	"Deferred maintenance refers to repairs and upkeep needs that have been frequently postponed due to other pressing expenses and priority projects."
<i>Capital Budget FY 2023, p. 100</i>	"Postponing of maintenance activities."
<i>Capital Budget FY 2025, p. 121</i>	"Postponed maintenance activities, usually in relation to capital assets."
MONTANA	
<i>2024 Statewide Facility Inventory & Condition Assessment Report, p. 9</i>	"The amount needed but not yet expended for repairs, restoration, or rehabilitation of an asset." "The unplanned or planned decision to allow physical assets to deteriorate by postponing prudent major repairs until funding and a replacement schedule are determined."
OKLAHOMA	
<i>Capital Planning and Asset Management Report, p. 47</i>	"Preventative maintenance activities that have been delayed due to lack of prioritization or funding."
<i>Office of Management and Enterprise Services website</i>	"Deferred maintenance refers to the practice of postponing maintenance activities, such as repairs and upkeep, on assets like infrastructure or machinery. This delay is often due to budget constraints, lack of resources or other priorities."
INFRASTRUCTURE NEEDS	
TENNESSEE	
<i>Building Tennessee's Tomorrow: Anticipating the State's Infrastructure Needs, p. 266</i>	"An infrastructure project with a minimum capital cost of \$50,000 deemed necessary to enhance and encourage economic development, improve the quality of life of the citizens, and support livable communities. Infrastructure projects included in the inventory, including each component project in the survey of existing schools, must involve a capital cost of not less than \$50,000, with the exception of technology infrastructure projects in the survey of existing schools, which may be included regardless of cost. Projects considered normal or routine maintenance shall not be included in the inventory."

1.2. Defining the types of infrastructure to be considered in the assessment and reporting of deferred maintenance needs

Defining the types of infrastructure to be considered for deferred maintenance assessment and reporting is an important step for establishing the processes for assessing and reporting deferred maintenance. It is crucial to determine the agencies involved in the process, their responsibilities, and the level of coordination required. These steps help improve the assessment and reporting processes, the accuracy of statewide deferred maintenance needs, and the appropriate funding.

Ideally, all types of infrastructure should be considered; in practice, state agencies must navigate several trade-offs. Different infrastructure categories may require tailored strategies for assessment criteria, time frames, or definitions of condition. It may be more effective for individual state agencies to manage and standardize their processes given the level of expertise needed. Conversely, for similar types of infrastructure—such as buildings—a centralized effort

led by a single agency may be more efficient and consistent. Ultimately, the types of infrastructure considered in a statewide approach to address deferred maintenance will depend on factors such as staff capacity and budget constraints.

THE SCOPE OF COVERAGE OF THE INFRASTRUCTURE It ranges from a comprehensive approach, which encompasses all infrastructure assets, such as buildings, roads, structures, and equipment, to a narrower focus that encompasses only buildings or vertical infrastructure. Determining the scope involves making trade-offs. A comprehensive approach allows for a more holistic view of a state's deferred maintenance needs but might be more costly to implement and more difficult to standardize across agencies, as different types of infrastructure have different life-cycle trajectories and ways to assess condition. Across selected case studies, those with a comprehensive infrastructure scope actually delegate maintenance activities and decisions to individual agencies. The lead agency in these cases collects information only for reporting. A narrow focus might be more manageable operationally and less complicated to standardize across state agencies.

THE OWNERSHIP OF THE INFRASTRUCTURE The ownership structure varies across case studies: state-owned, state-maintained and operated, or locality owned.

- *State-owned* infrastructure includes assets that are wholly owned by the state.
- *State-maintained and operated* infrastructure refers to assets that may be owned by another entity but are operated or maintained by the state.
- *Locality-owned* infrastructure refers to assets owned and maintained by local governments such as counties, cities, municipalities, or special districts.

THE SOURCE OF FUNDING THAT SUPPORTS THE INFRASTRUCTURE In capital budgeting, infrastructure may be funded by general revenues, special revenues (such as dedicated taxes or user fees), or the combination of both. The funding sources that support each type of infrastructure vary in each state. Across case studies, states with a comprehensive infrastructure scope often do not limit the types of infrastructure considered in the assessment of deferred maintenance, while states with a narrow scope of deferred maintenance may limit the infrastructure considered to infrastructure projects that receive funding from certain revenue sources. For this reason, in some states, transportation-related and university infrastructure are sometimes not included in the assessment of deferred maintenance.

THE COST OF THE INFRASTRUCTURE Across case studies, agencies limit the infrastructure considered in the process to those whose capital cost is above a certain threshold.

Table 2 provides examples of the types of infrastructure used among case studies.

TABLE 2 Categories and ownership of Infrastructure across analyzed states

TYPES OF INFRASTRUCTURE	STATE	DESCRIPTION
PUBLIC INFRASTRUCTURE	TENNESSEE	
	Infrastructure needs report, p. 2	Public infrastructure “Capital facilities and land assets under public ownership or operated or maintained for public benefit. To be included in this inventory, infrastructure projects must involve a capital cost of at least \$50,000 and must not be considered routine maintenance.”
STATE-OWNED FACILITIES AND INFRASTRUCTURE	CALIFORNIA	
	Government code, sec. § 13101	Property “Including land and improvements to the land, structures and equipment integral to the operation of structures, easements, rights-of-way and other forms of interest in property, roadways, and water conveyances”
	HAWAII	
	SB 719	State-owned building, facility, or other improvement “building, facility, or other improvement owned by a state executive agency; provided that a building, facility, or other improvement shall not be deemed ‘owned’ by a state executive agency if leased by the agency to a person”
	MASSACHUSETTS	
	General Law—Part I, title II, chapter 7C, § 1	Commonwealth facilities “A public improvement such as a building or other structure; a utility, fire protection, and other major system and facility; a power plant facility and appurtenances; a heating, ventilating, air conditioning or other system; initial equipment and furnishings for a new building or building added to or remodeled for some other use; a public parking facility; an airport or port facility; a recreational improvement such as a facility or development in a park or other recreational facility; or any other facility which, by statute or under standards as they may be prescribed from time to time by the commissioner of capital asset management and maintenance”
STATE-OWNED BUILDINGS	ALASKA	
	Source: electronic communication with state official	Building infrastructure, including storage facilities Properties and buildings owned, managed, or controlled by the state, including public buildings, transportation infrastructure, and other facilities used for state operations.
	IDAHO	
	Source: interview with state official	Vertical portfolio Mostly office buildings, including their interiors (e.g., heating, ventilation, and air-conditioning system; electric system; walls, doors) and exteriors (e.g., roofs, walls, window systems). On campuses, such as universities, the Department of Public Works administers roads, as well as water and sewer systems.
	ILLINOIS	
	Capital Budget FY 2025, p. 43	State-owned buildings Office buildings; health care, residential care, and secured facilities; state fairgrounds, laboratories, correctional centers, garages, state parks, and historic buildings.
	MONTANA	
	MAC § 17-7-201-1	Buildings Buildings, facilities, or structures constructed or purchased wholly or in part with state money, at a state institution or owned or to be owned by a state agency, including the Department of Transportation).
	MAC § 17-7-201-6a	Long-range building program-eligible building A building, facility, or structure eligible for major repair account funding that is owned or fully operated by a state agency and whose operation and maintenance are funded with resources from the state general fund; or that supports academic missions of the Montana University System and whose operation and maintenance are funded with current unrestricted university funds.

1.3. Determining the agencies involved and their responsibilities

Determining the agencies involved in assessing and reporting deferred maintenance needs and their roles and responsibilities contributes to compliance and accountability while reducing duplication of effort. The first step in this practice is identifying the relevant agencies. Once the types of infrastructure to be considered in the process are identified, determine which agencies own or manage these types of infrastructure.

The second step is defining each agency's role and responsibility in assessing and reporting deferred maintenance needs. They will include evaluating the condition of infrastructure, developing and implementing a plan for addressing deferred maintenance needs, and prioritizing and reporting them. Other factors in determining agencies' roles and responsibilities are staff capacity, capital management systems, and the level of standardization of the process.

1.4. Establishing policies that guide the assessment and reporting of deferred maintenance

Statewide assessment and reporting of deferred maintenance requires policies that provide guidance in the process and delineate the responsibilities of the state agencies involved. These policies, typically established through legislation, provide a structural framework for data collection and reporting. They may also enhance accountability, transparency, and strategic planning in addressing deferred maintenance needs.

Existing policies generally describe the role of state agencies in the statewide collection and reporting of deferred maintenance needs. Policies typically designate a lead state agency or entity to oversee the collection and reporting of the state's needs. Additionally, these policies specify the roles and responsibilities of other state agencies, which generally include a requirement to provide deferred maintenance information to the lead agency or entity. In a few states, the policy requires collaboration with the lead state agency or entity for the reporting of deferred maintenance needs or authorizes the lead agency to request information from other state agencies. Table 3 presents the policies used across selected states.

TABLE 3 Policies for reporting deferred maintenance needs across analyzed states

STATE	LEGAL BASIS	LEAD STATE AGENCY OR ENTITY	STATE DEPARTMENTS INVOLVED OR REQUIRED TO REPORT DEFERRED MAINTENANCE
HAWAII	Act 150 (SB 254—June 26, 2015)	Department of Budget and Finance	19 executive agencies
ALASKA	House Bill 364	Office of Management and Budget develops a deferred maintenance plan. Department of Transportation and Public Facilities is lead agency to consolidate the statewide maintenance functions	15 state agencies, the University of Alaska, legislature, and judiciary
IDAHO	Executive order 2021-10	Department of Administration Division of Public Works, in collaboration with the Permanent Building Fund Advisory Council to develop a report on deferred maintenance liabilities	28 agencies and institutions
MASSACHUSETTS	General Law—Chapter 7C, § 9	Division of Capital Asset Management and Maintenance	11 offices and agencies
MONTANA	SB 43	Department of Administration Architecture and Engineering Division	Departments: Environmental Quality, Military Affairs, Natural Resources and Conservation, Transportation, Fish, Wildlife, and Parks, Public Health and Human Services, the university system, corrections, the state's office, the judicial branch, and the legislative branch
OKLAHOMA	Capital Improvement Planning Act, title 62, § 901	Long-Range Capital Planning Commission	All state government entities.
TENNESSEE	Code § 4-10-109	Tennessee Advisory Commission on Intergovernmental Relations	22 state agencies, 95 counties, 345 municipalities, 1,434 special districts, and 327 other entities

Additional considerations to include as part of the policy:

- A.** Lay out provisions detailing the level of standardization required for statewide procedures to collect and report on deferred maintenance needs. For example, Hawaii's policy specifies that the Department of Budget and Finance is not required to ensure the accuracy of the information in the reports, while Tennessee requires the state Advisory Commission on Intergovernmental Relations to implement standardized procedures to ensure ease and accuracy in summarizing statewide needs and costs.
- B.** Require the development of a plan to address deferred maintenance needs. Across analyzed states, common components of required plans include the following:
 - Inventory of projects: Creating a list identifying deferred maintenance projects and condition of facilities

- A timeline or schedule to identify and address deferred maintenance needs
 - Prioritization criteria: Defining and establishing criteria for project prioritization for funding allocation
 - Funding: Identifying and planning for funding needed to address deferred maintenance needs
 - Regular updates: Requiring updates to the plan to help ensure that it is current and actionable
- C.** Require the reporting of deferred maintenance needs in a designated document. For instance, Hawaii requires reporting in its multiyear program, financial plan, executive budget documents, and supplemental budget. Similarly, Idaho requires a report on state deferred maintenance liabilities.

MODULE 2 Assessing Deferred Maintenance and Addressing Funding Needs

DEFERRED MAINTENANCE NEEDS should be assessed, communicated and funded consistently. This module will address the following questions:

WHAT TYPES OF PROCEDURES SHOULD BE DEFINED FOR ASSESSING DEFERRED MAINTENANCE NEEDS? Establishing clear and standardized procedures for assessing deferred maintenance needs helps ensure that the infrastructure is properly maintained and that necessary repairs or replacements are identified before they become critical issues. Important procedures identified across analyzed states include inventorying the different types of infrastructure; conducting an assessment of the condition of assets identified in the inventory; performing supplemental analyses to determine appropriate actions to address deferred maintenance needs; and collecting, recording, and reporting data on infrastructure condition to support decision-making and long-term planning.

HOW SHOULD DEFERRED MAINTENANCE PROJECTS BE PRIORITIZED FOR FUNDING? Due to growing deferred maintenance needs and limited funding, some states have developed prioritization frameworks to guide decisions on which deferred maintenance projects should receive funding. These frameworks incorporate a range of quantitative and qualitative criteria aligned with state-specific priorities. They also facilitate the efficient allocation of resources, ensuring that the most urgent and high-impact needs are addressed first.

WHAT ARE THE FUNDING SOURCES TO ADDRESS DEFERRED MAINTENANCE NEEDS? States rely on a variety of funding sources to address deferred maintenance needs, including capital budget funds, general funds, and bond financing. It is essential that these funding mechanisms are reliable and consistent to prevent further infrastructure deterioration, minimize the long-term costs of delayed repairs, and ensure the continued delivery of public services.

HOW CAN THE PROCESS BE STREAMLINED FOR STATE AGENCIES AND FOR LEGISLATIVE AND EXECUTIVE STAFF? Streamlining the process of assessing deferred maintenance requires clear communication, coordination, and capacity-building. Training is an important tool in aligning the understanding and priorities of multiple state agencies, legislative staff, and executive leadership. Providing well-structured resources to all stakeholders involved in the process helps build understanding, support informed decision-making, and unify the approach to managing deferred maintenance needs.

2.1. Establishing procedures for assessing deferred maintenance needs

The procedures used to assess deferred maintenance needs are generally part of state agencies' capital asset management practices. Establishing clear and consistent procedures helps ensure that the infrastructure is properly maintained and aids in identifying necessary repairs or replacements before they become critical issues. Among analyzed states, the process typically involves the following steps:

INVENTORYING TYPES OF INFRASTRUCTURE Lead agencies in charge of maintaining a statewide infrastructure inventory may aggregate existing from individual agencies or enhance and adjust data collected by agencies that already have a statewide list of assets for other infrastructure management-related purposes, such as insurance. For example, Montana officials have relied on data from the Risk Management and Tort Defense Division of the Department of Administration, which has kept a central roster of state-owned facilities for insurance purposes.

The information provided in such inventories includes

- Name or identifier of the infrastructure
- Area (such as acres or square feet)
- Location (latitude and longitude)
- Asset condition (excellent, good, fair, poor)

Examples of inventories available to the public include Montana's *2024 Statewide Facility Inventory & Condition Assessment Report*, Oklahoma's *2024 Real Property Asset Report*, and *Building Tennessee's Tomorrow* (for July 2022 through June 2027).

CONDUCTING FACILITY CONDITION ASSESSMENT Staff or external contractors conduct a comprehensive and physical infrastructure assessment to identify deferred maintenance, capital renewal, and replacement projects.

The infrastructure components typically inspected include roofs; building exteriors; elevators; heating, ventilating, and air-conditioning (HVAC; equipment and distribution system); equipment (electrical and fire protection equipment); interior finishes; vertical and horizontal elements; site development; and utility systems.

A baseline assessment is typically performed or contracted out by the lead agency for consistency of data across all agencies and comparability across state agencies and to ensure that the evaluations are not biased. Any assessments following the baseline evaluation are typically the responsibility of state agencies and should be required to be updated regularly to reflect the current condition of the infrastructure. Table 4 presents information on condition assessments conducted across four analyzed states.

TABLE 4 Condition assessment across four analyzed states

STATE	AGENCY CONDUCTING BASELINE FACILITY ASSESSMENTS	AGENCY CONDUCTING FUTURE FACILITY ASSESSMENTS	FREQUENCY OF ASSESSMENTS
IDAHO	Lead agency	State agencies	Not established in policy
ILLINOIS	Lead agency	Not available	Not established
MASSACHUSETTS	Lead agency	State agencies	Not established
MONTANA	Lead agency	State agencies	Every 4 years

DETERMINING ACTIONS TO ADDRESS DEFERRED MAINTENANCE NEEDS After assessing the infrastructure condition, state agency staff should conduct additional analysis to determine deferred maintenance needs. Infrastructure in poor condition might have become too expensive to maintain. In such cases, agencies should perform a life-cycle cost analysis (LCCA) to determine which action is more beneficial: completing deferred maintenance repairs or replacing the infrastructure. States already conducting LCCA include Idaho and Oklahoma.

In addition to conducting such an analysis, state agency staff should publish a list of the types of infrastructure that are removed from service or disposed of and the cost of replacement, as these items will likely change the year-to-year value of deferred maintenance needs.

COLLECTING, RECORDING, AND REPORTING INFRASTRUCTURE INFORMATION Staff should gather details from the assessment and enter it into a capital asset management system. Such a system is designed to manage, track, share, and report on the status of the infrastructure.

Information commonly collected in these systems includes

- Age
- Location
- Area
- Expected life and expected remaining life
- Maintenance history
- Infrastructure components
 - Building (e.g., roof, exteriors, internal spaces)
 - Systems (e.g., electric, HVAC, plumbing)
- Cost estimates
- Incident or accident reports

These systems often have embedded capabilities to calculate metrics that disclose the condition of the infrastructure (e.g., the facilities condition index, or FCI, estimated deferred

TABLE 5 Capital asset management systems used across analyzed states

STATE	LEAD STATE AGENCY AND CAPITAL ASSET MANAGEMENT SYSTEM
ALASKA	Department of Transportation and Public Facilities Division of Facility Services has implemented a computerized maintenance management system to provide long-term management, tracking, and reporting capabilities for all state-owned real estate.
IDAHO	Department of Administration has contracted a specialized firm to perform facility condition assessments (FCA) in 2021. As part of its work, the firm populates FCA software, which includes cost information based on RSMeans cost estimate databases.
MASSACHUSETTS	Division of Capital Asset Management and Maintenance maintains the Capital Asset Management Information System database for tracking land and building inventory, maintenance, facility assessments, and supporting documentation.
MONTANA	Architecture and Engineering Division uses an Archibus system that combines infrastructure and facilities management applications in one interface. The system helps standardize data collection, analysis, and management across all state agencies and provide accurate and consistent data across the portfolio of facilities.
OKLAHOMA	Office of Facilities Management, a division of the Capital Assets Management branch of the Office of Management and Enterprise Services, uses an enterprise platform. It measures and tracks facility condition, deferred maintenance backlog, critical systems failure prediction, budget allocation, work order tracking, customer service feedback, energy management, and total cost of ownership. The state also reports deferred maintenance metrics on its Statewide Transparency and Reporting website.
AGENCIES AND OTHER STATE ENTITIES	
UNIVERSITY OF CALIFORNIA	It uses the university's Integrated Capital Asset Management Program to identify, prioritize, and track deferred maintenance projects.
HAWAII DEPARTMENT OF EDUCATION	It deploys the Hawaii Facilities Inspection Tool.
UNIVERSITY OF HAWAII	It contracts with a vendor-sourced company to update the Facilities Renewal Reinvestment Model (FRRM) costs for the entire university system. The system uses the FRRM life-cycle approach to determine the current replacement value of all buildings on campuses.

maintenance) that are used to inform decision-making.

State agencies also use these systems in their budgeting processes and incorporate other infrastructure-related information such as usage, code requirements (to monitor compliance and violations), energy efficiency, and climate change resiliency (e.g., flood mitigation, extreme heat management). Similarly, these systems contain information for prioritizing needs such as the criticality of the infrastructure's condition and the risks it represents for users.

Information in these systems is typically updated every year. Having the most accurate and current data helps agencies maintain a reliable inventory of their needs and facilitates decision-making. Table 5 presents the capital asset management system used across analyzed states. The information in these systems is for internal use, and only agency staff has access to it. But several states make some of the information available to the public.

2.2. Adopting and implementing a methodology for selecting and prioritizing deferred maintenance projects for capital budget decisions and funding

Due to the increasing and pressing deferred maintenance needs and the limited funding available to address them, agencies have adopted various methodologies for prioritizing needs to allocate funding that could also be used for capital budgeting decision-making.

APPROACH The approach to prioritizing deferred maintenance needs typically depends on the types of infrastructure considered. Two common approaches are

- Individual agency, in which individual state agencies prioritize deferred maintenance needs for their owned or managed assets according to goals, objectives, and needs
- Statewide, in which lead state agencies prioritize deferred maintenance needs according to statewide goals and objectives across all covered assets

METHODS The following are three methods for prioritizing deferred maintenance needs:

- Data-driven method: The prioritization relies on technical metrics derived from capital asset management systems (such as the FCI) that quantitatively assess the condition of the infrastructure to determine which needs must be addressed first.
- Collective deliberation-driven method: A group of agency staff subjectively assesses the criticality or urgency of deferred maintenance needs. Each need may be considered separately and in relation to the larger system.
- Hybrid method: A combination of the two previous methods. The decision process may weight both methods to align with statewide goals and objectives.

METRICS Various qualitative and quantitative metrics are used to prioritize deferred maintenance needs for funding. These metrics help assess the condition, severity, urgency, and impact of such a need. Examples of commonly used metrics are referenced in table 6.

These are among states using a statewide prioritization process:

- Alaska
- Idaho
- Massachusetts
- Oklahoma

TABLE 6 Metrics for prioritizing deferred maintenance needs

	METRICS	DESCRIPTION
QUANTITATIVE	Facility condition index	Estimates deferred maintenance backlog and replacement cost. A deferred maintenance backlog could be considered for a 1-, 5-, or 10-year period and might be indexed to inflation. The replacement cost is the cost of replacing an infrastructure of similar characteristics (in terms of size or usage).
	Infrastructure capacity	Provides the number of infrastructure users or additional capacity needed.
	Cost savings	Seeks to minimize life-cycle costs (costs saved by investing in the infrastructure in the considered year to prevent fluctuations or spikes in future expenditures). Cost savings are compared to additional costs incurred for investing in the infrastructure (e.g., moving, impact to local economy).
QUALITATIVE	Urgency	Emphasizes the urgency of fixing the facility Critical Immediate action (corrects critical life safety or code hazard). Important, not yet critical Requires action within the next five years (corrects deterioration or potential safety hazards). Necessary Requires action within the next 10 years (requires appropriate attention to preclude deterioration). The time frame may vary, considering more categories and different periods (e.g., within 12 months, 24 months, 48 months, etc.).
	System factors	Emphasizes the impact of the specific system on the building or infrastructure. These include life, health, and safety issues caused by system failures; envelopes and shells; mechanical, electrical, and conveying process; and interiors and exterior grounds.
	Funding availability	Specifying whether funding is available from federal, state, or local sources, as well as eligibility for additional funding, or percentage of funding available by source and as a share of total funding.
	Mission alignment index	Alignment of the facility with the agency's mission: Critical Agency cannot meet its mission without the facility. Important Availability of the facility would impact the agency's mission. Supportive Availability of the facility would possibly impact the agency's mission, but other options are available. Noncritical Facility's availability would not affect the agency's mission.

2.3. Establishing reliable and consistent funding allocations to address deferred maintenance needs

Establishing reliable and consistent funding allocations to address deferred maintenance needs is essential to prevent further infrastructure deterioration, reduce costs of future repairs, and support the delivery of public services. Analyzed states often rely on a combination of funding sources, including capital budget funds, general funds, and bond financing.

CAPITAL BUDGET FUNDS These are primary special revenue funds that are supplemented occasionally with transfers from the general fund. Five of the nine analyzed states have established these funds to address the lack of a dedicated funding stream for deferred maintenance and the change in priorities between administrators and legislators. These funds provide a more stable

way for states to pay for deferred maintenance, particularly given possible changes of elected officials and agency leadership. The Alaska legislature established the Alaska Capital Income Fund to provide dollars for preventive or deferred maintenance of facilities. It is capitalized by an annual appropriation of earnings from the Alaska Permanent Fund.

- Idaho uses appropriations from the Permanent Building Fund (PBF), which receives transfers from sales; income, cigarette, and beer taxes; state lottery earnings; general fund; and interest earnings from the PBF and budget stabilization fund.
- Illinois established Rebuild Illinois, a program that is funded by revenues from licenses, admission taxes, and fees from casinos, gambling, and video gaming; cigarette tax revenues; parking excise collections; trade-in property; taxes on out-of-state retailers; and transportation-related taxes.
- Montana uses the major repair account within the Long-Range Building Program. The account receives funding from the cigarette and the coal severance tax, along with interest earnings, project carryover funds, administrative fees, miscellaneous revenues, and transfers from the general fund. Additional funding for deferred maintenance comes from the capital developments account – also part of the Long-Range Building Program – which receives dollars from annual transfers from the general fund proposed by the governor. Montana also recently created a working rainy day fund, which receives transfers from the Budget Stabilization Reserve Fund under specific economic circumstances.
- Oklahoma has the Maintenance of State Buildings Revolving Fund, which is stocked with proceeds of sales of state-owned buildings and annual and one-time legislative appropriations. In addition, the state created the Legacy Capital Financing Fund to provide loans for the state's capital needs. Loans are interest-free, must be paid over a 20-year term, and lack the issuance costs of a bond offering.

In addition to these statewide funds, states have established programs with specific objectives and timelines to address deferred maintenance in particular state agencies. For example, California's Road Maintenance and Rehabilitation Program and Drought, Water, Parks, Climate, Coastal Protection and Outdoor Access for All Act provide funding for deferred maintenance in the transportation and park system, respectively. And the Statewide Montana Accelerate Rapid Training (SMART) deferred maintenance program provides funding for those needs for Department of Military Affairs facilities.

GENERAL FUND California and Idaho have used one-time allocations from their general funds.

TABLE 7 Deferred maintenance funding sources deployed by seven analyzed states

STATE	CAPITAL BUDGET FUNDS	GENERAL FUND	BOND FINANCING
ALASKA	✓	✓	
CALIFORNIA	✓	✓	✓
IDAHO	✓		
ILLINOIS	✓		✓
MASSACHUSETTS			✓
MONTANA	✓		
OKLAHOMA	✓		✓

Similarly, the Alaska Public Building Fund—a special account in the general fund—can be tapped to address deferred maintenance needs.

BOND FINANCING California, Illinois, Massachusetts, and Oklahoma have used bond proceeds for their deferred maintenance needs.

Table 7 presents the combinations of funding sources that analyzed states use to address deferred maintenance needs.

Preventing the accumulation of deferred maintenance

IT IS WORTH NOTING that in addition to establishing reliable and consistent funding allocations to address deferred maintenance needs in capital budget, states should establish recurring and consistent maintenance spending in their operating budgets to avoid increasing the backlog of deferred maintenance.

Furthermore, in the same way budget staff assesses and incorporates the impact of new capital assets into the operating budget (that is, the additional maintenance costs that state entities would have to incur due to new capital assets), budget staff should consider assessing and incorporating the impact of failing to fund current maintenance needs into the capital budget.

2.4. Providing education about the deferred maintenance process to state agency staff

Several case studies highlight the importance of educating staff across all agencies involved about the deferred maintenance assessment and reporting process. This ensures a clear understanding of the procedures and systems available for addressing deferred maintenance needs, contributes to standardizing the reporting process, ensures uniformity across agencies, and promotes the accuracy and relevance of data entered into the systems.

The educational materials should be made accessible via the lead agency's website and updated annually to reflect system changes. Across analyzed states, educational materials include

INSTRUCTIONAL MATERIALS AND FORM TEMPLATES Instructional materials are stand-alone documents or communications that are available on websites or are sent to all agencies responsible for providing deferred maintenance information that provide guidance about the processes or the information required. These often come with form templates: predesigned documents used to collect or organize information in a structured way. Both instructional materials and form templates contribute to standardizing the reporting process, ensuring uniformity and comparability across agencies, and fostering transparency and accountability. In addition, they are practical tools—especially for agencies with limited resources or technical expertise—that enable agencies to align with statewide goals and methodologies more effectively.

In Hawaii, the budget instructions include an Additional Requirements section that provides guidelines for disclosing deferred maintenance needs. State departments responsible for operating and maintaining state-owned buildings must complete and submit a Form DMC (Department Summary of Estimated Deferred Maintenance Costs). Essential information such as the identification and organization code of the responsible program, the island location of the deferred maintenance cost, the type of asset (including name of building, facility, or improvement), description of the deferred maintenance cost, and the estimated amount and means of financing of each deferred maintenance cost.

In Massachusetts, the Division of Capital Asset Management and Maintenance (DCAMM) requires that a study be submitted for the certification of a deferred maintenance project. The DCAMM website provides a template for the study and instructions for preparing and submitting it.

In Tennessee, state agencies receive an email requesting capital budget requests and infrastructure needs identified for a 20-year period. To collect data on local infrastructure needs, staff of each state development district surveys public officials within their jurisdictions, fol-

lowing directions from the Tennessee Advisory Commission on Intergovernmental Relations. Local needs are reported via the Existing School Facility Needs Inventory Form and the General Public Infrastructure Needs Inventory Form.

WEBINARS These are live, interactive online presentations that provide guidance on the deferred maintenance process and updates to the system. They use visual aids to enhance learning, and the format enables staff from state agencies to engage in the conversation from different locations. Lead agencies generally record these webinars and make them available on their websites for staff wishing to review the material or unable to attend the live session.

In Massachusetts, the DCAMM develops several webinars annually that discuss aspects of the deferred maintenance process. The webinars, 30–60 minutes long, cover topics such as requesting, oversight, and finance (“Deferred maintenance FY23 process”), as well as supporting resources (“Delegated project checklist and “Updated for study template”). DCAMM makes webinars and training materials available on its deferred maintenance web page.

TRAINING AND INFORMATION SESSIONS These are in-person listening sessions that provide guidance on the deferred maintenance process and updates to the system. These sessions enable only on-site staff to engage in conversations and are not recorded. Oklahoma is in the process of developing annual sessions focusing on capital asset management. An additional session will be planned when an impactful improvement is made.

2.5. Provide deferred maintenance education to legislative and executive staff

It is crucial to educate legislative and executive staff about deferred maintenance needs, as they play key roles in setting budgets and approving plans to address identified deferred maintenance needs. Increasing awareness about those needs before infrastructure fails helps avoid emergencies and associated high outlays. In addition, regularly informing leadership about the risks and long-term costs of deferring maintenance can assist in decision-making that is based on a clear understanding of the problem. Such communication can also enhance cross-agency coordination and planning, as well as efficient allocation of resources.

Such sessions could be integrated into budget hearings or held as briefings dedicated to deferred maintenance. In Alaska, the directors of the Office of Management and Budget and Department of Transportation and Public Facilities give annual presentations to the Senate and House Finance Committees about the approach for addressing deferred maintenance and current backlogs. California is considering a similar strategy.

MODULE 3 Disclosing Deferred Maintenance Needs and Funding Strategies

THIS MODULE WILL ADDRESS the following question:

HOW CAN DEFERRED MAINTENANCE NEEDS AND APPROPRIATIONS BE MADE AVAILABLE FOR REVIEW BY VARIOUS STAKEHOLDERS? Statewide deferred maintenance needs should be reported in budget documents to facilitate presentation of deferred maintenance trends over the years, as well as their fiscal impacts. Reporting funding appropriations for deferred maintenance can highlight the gaps that persist and the need for any reorganization of priorities in addressing deferred maintenance.

3.1. Reporting statewide deferred maintenance needs

States should present accumulated deferred maintenance needs in existing budget documents as a single section. The section should include the following items:

- a. The state's plans to consistently fund maintenance activities and prevent them from being deferred. Several analyzed states have identified this item as a top priority in policy and planning agendas.
- b. Current deferred maintenance needs and year-to-year variations by state agencies and statewide totals. Analyzed states disclose maintenance needs, but a few report annual variations in their documents.
- c. Appropriations requested by state agencies and statewide totals to address needs. Analyzed states currently disclosing their needs in budget documents also disclose the funding requests.
- d. Information on the adequacy of requested and actual appropriations to address deferred maintenance, including for prior years. This information should include the following points:
 1. If the resources are sufficient to cover maintenance expenditures (percentage of expenditures covered with funding requests and appropriations) and prevent the increase of deferred maintenance.
 2. If the resources are sufficient to address maintenance backlogs (percentage of deferred maintenance needs covered with funding requests and appropriations).

TABLE 8 Deferred maintenance reporting

STATE	STATEWIDE DOCUMENT DISCLOSING INFORMATION	INFORMATION DISCLOSED (YEAR OF REPORT)	LEVEL OF DETAIL PROVIDED
ALASKA	<i>Legislative Fiscal Analyst's Overview of the Governor's Request</i>	Deferred maintenance backlog (2018, 2019, 2021, 2022, 2023)	Table: • By state department/agency • Total
CALIFORNIA	<i>Five-Year Infrastructure Maintenance Plan</i>	Reported statewide deferred maintenance needs (2016, 2017, 2018, 2020, 2021, 2022)	Table: • By state department/agency • Total
HAWAII	Executive Biennium Budget and supplemental budget	Estimated deferred maintenance costs (executive budget 2017–19, 2019–21, 2021–23, 2023–25; supplemental budget 2019, 2021, 2023, 2025)	Summary table: • By department/agency • By mode of financing • Total Table by department: • By island • By infrastructure (Name) • By mode of financing • Total
IDAHO	<i>State of Idaho Capital Assets Deferred Maintenance Liability</i>	• Preliminary deferred maintenance backlog • Preliminary facilities condition index (2021)	Summary table: • By department/agency • Total
TENNESSEE	Infrastructure needs report	Costs of needed infrastructure in a 5-year period (2017–24)	Summary table: • By department/agency • By project type (Conceptual & Planning & Design + Construction) • Total Summary tables per county: • By department/agency • By project type (Conceptual & Planning & Design + Construction) • Total

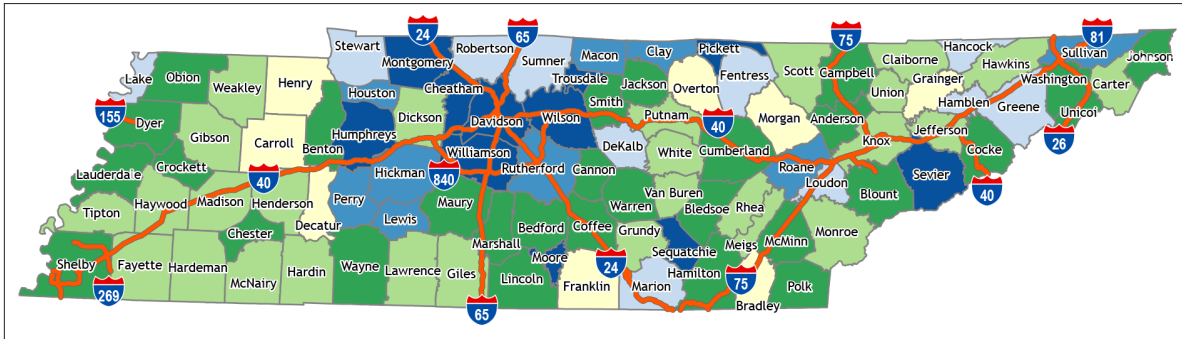
If available, projections of future deferred maintenance given current or expected funding levels. None of the analyzed states currently follows this practice.

- e. Other methods that affect the value of deferred maintenance needs (such as infrastructure that is removed from service or disposed of). None of the analyzed states currently utilizes this practice. Table 8 presents the reports used by five analyzed states to report deferred maintenance needs and a description of the level of detail provided. The states typically report deferred maintenance needs in a table that discloses needs by department and presents the total amount of deferred maintenance for the year of reporting.

In addition to this information, states should consider disclosing needs by geographic area. Several are already including some geographic information in their reports. For instance, Hawaii discloses the island where the deferred maintenance need is located but does not report the total deferred maintenance costs by island. Similarly, Tennessee

FIGURE 2 Estimated per capita infrastructure needs in Tennessee, by county (July 2022–June 2027)

■ Less than \$1,000 (8)
 ■ \$1,001 to \$2,000 (27)
 ■ \$2,001 to \$3,000 (29)
 ■ \$3,001 to \$4,000 (11)
 ■ \$4,001 to \$5,000 (9)
 ■ More than \$5,000 (11)



SOURCE Tennessee Advisory Commission on Intergovernmental Relations, 2022.

discloses infrastructure needs by county (as required per policy) in a table format (that includes county totals) and a visual representation (of both total needs and per capita needs—figure 2).

3.2. Reporting funding appropriated to address deferred maintenance needs

In addition to reporting the requests to fund deferred maintenance, states should disclose the actual amount of resources that are appropriated every year to meet deferred maintenance needs. This information is important to monitor progress in addressing existing needs and to assess or improve capital asset management strategies. In addition, it contributes to improving budgeting transparency.

Across the states analyzed, a different state agency than the one responsible for collecting deferred maintenance needs is the one disclosing funding appropriated to address deferred main-

TABLE 9 Reporting of funding for deferred maintenance needs

STATE	DOCUMENT DISCLOSING INFORMATION	INFORMATION DISCLOSED IN THREE ANALYZED STATE (YEAR OF REPORT)	LEVEL OF DETAIL PROVIDED
ALASKA	Presentation to the Senate Finance Committee by the Office of Management and Budget	Statewide appropriation (2022 presentation contains 2018, 2019, 2020, 2022)	By state department/agency Total
CALIFORNIA	Five-Year Infrastructure Maintenance Plan	Proposed deferred maintenance funding (2016)	By state department/agency Total
	Legislative Analyst's Office, 2019–20 Budget: Deferred Maintenance	Proposed deferred maintenance funding (2019 report contains information for 2015–16; 2016–17; and 2018–19)	By revenue source (general fund, motor vehicle account, Prop. 98) By state department/agency Total

tenance needs. These reports typically include the total amount of resources appropriated, revenue sources for such appropriations, and a breakdown of resources by state agency. Table 9 lists the reports used by analyzed states to report such appropriations and a description of the level of detail provided.

CONCLUSION

THIS TOOL KIT, informed by the experiences of nine states, provides practical guidance for state officials working to establish or improve systems for identifying, managing, and funding deferred maintenance. Whether a state is just beginning to address its backlog or refining an existing process, this material offers adaptable strategies and real-world examples to support progress.

Better tools are needed because deferred maintenance represents substantial financial and operational risks for state governments. Despite its magnitude—estimated at more than \$1 trillion nationwide—deferred maintenance remains largely absent as liabilities on government balance sheets and is frequently underreported in capital budgeting documents. This lack of visibility affects strategic planning, increases long-term costs, and in some cases compromises public safety.

Along with better identification and tools, addressing deferred maintenance requires stronger leadership, heavier investment, and more interagency coordination. This tool kit will assist states in taking important first steps toward these goals and efforts to build more transparent and accountable infrastructure systems.

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