

Insular ABC's Phase 3
YEAR 4 SUMMARY REPORT

March 2021



**US Army Corps
of Engineers**
Honolulu District



**Office of Insular Affairs
US Department of Interior**



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Acronyms

AA	Administrative Assistant
ASDPW	American Samoa Department of Public Works
ATP	Authorization to Proceed
CIP	Capital Improvement Project
CNMI	Commonwealth of Northern Mariana Islands
CS	Construction Specialist
DM	Deferred Maintenance
DMRP	Deferred Maintenance Reduction Program
DST	Decision Support Tool (i.e., EAMS web viewer)
EAMS	Enterprise Asset Management System
EC	EAMS Coordinator
FY	Fiscal Year
GDOE	Guam Department of Education
HA	Host Agency
IFB	Invitation for Bid
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
OIA	Office of Insular Affairs
OSP	Organizational Sustainability Plan
POH	USACE Honolulu District
PM	Program Managers (regarding embedded team members)
PSS	Public School System
USACE	US Army Corps of Engineers
USVI	US Virgin Islands
VIDE	Virgin Islands Department of Education

Preface

This report summarizes Year 4 objectives and progress made with ABCs tasks, and reviews planned actions for Year 5. Year 4 is a figurative term that correlates with contract years and will be considered for this report to include the efforts undertaken from late-November 2019 through December 2020. Year 3 activities, after the Year 3 report (December 2018), continued in 2019 included Deferred Maintenance Reduction Program (DMRP) projects and Enterprise Asset Management System (EAMS) management and buildout until funds were exhausted. The ABCs Initiative was suspended from September to late-November 2019 due to a lapse in funding.

Year 4 was unusual because it occurred during the worldwide COVID-19 outbreak that affected work in each of the territory offices and restricted ability to travel and to conduct work at the schools.

The Insular ABCs Year 4 and 5 scope includes:

- A. Ongoing program management (e.g., maintaining/guiding local staff, host agency coordination)
- B. DMRP project execution (including providing and coordinating design review and technical assistance from subject matter experts of the engineering team)
- C. Facility condition assessments (American Samoa and Guam)
- D. Capacity building (focused on the operations and maintenance manuals, including preventive maintenance plans for each territory, that are intended to assist in the transition and continuation of efforts after the ABCs Initiative concludes)
- E. Ongoing EAMS Management

A contract modification was executed (16 September 2020) for the creation of facility master plans for American Samoa and Guam.

Summary of Year 4 outputs:

1. 153 weekly Program Manager status reports (December 2019 through December 2020)
2. 13 monthly status reports (December 2019 through December 2020)
3. Territory visits by Honolulu team members were postponed due to pandemic-related travel restrictions. Trips were planned to provide status briefs and DMRP project oversight, to update operating agreements and consult with the host and related agencies and assesses DMRP work plans and capacity building initiatives. The ABCs team addressed these matters via monthly host-agency zoom calls and email correspondence and is planning territory visits in Year 5.
4. DMRP project funding spent: AS 93%, CNMI 100% (funds reallocated), Guam 67%, USVI 64%; projects awarded in Year 4:
 - a. American Samoa: 13 projects (\$812K)
 - b. CNMI: did not participate in ABCs Year 4
 - c. Guam: 2 projects and 3 design contracts (\$951K)
 - d. USVI: 3 projects (\$434K)
5. Preparations for the facility condition assessment updates were made in Year 4 (e.g., mobile tool development); field assessments are planned for Year 5.

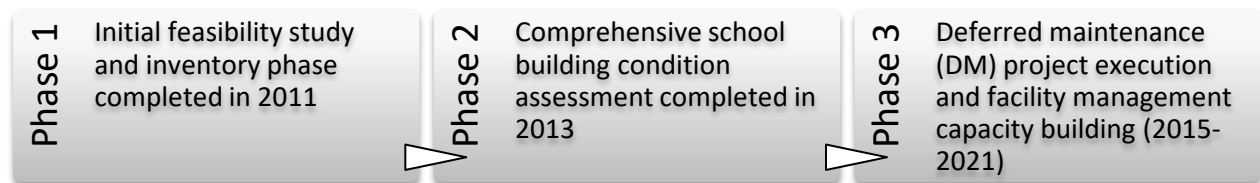
6. Preventive maintenance plan components created in collaboration with host-agency contacts: job plan (task definitions/steps), work plans (locations and frequencies), resource estimates (in-house or contracted labors hours/costs for tasks). Draft plans to be sent for review in Year 5.
7. EAMS training with host-agency contacts was provided to the extent practicable; focused training and oversight planned in Year 5 after EAMS deployment to local servers.
8. Revised Operating Agreements for American Samoa, Guam and USVI to capture personnel and program updates.
9. Emergent addition memos created for two urgent roofing projects in American Samoa

1 INTRODUCTION

The US Office of Insular Affairs' (OIA) Insular ABCs Initiative is a multi-phase effort focused on improving the physical condition of the US Insular Area Public Schools (in American Samoa, Guam, and the US Virgin Islands). Host-agency contacts in the Commonwealth of Northern Mariana Islands (CNMI) declined ABCs services for Years 4 and 5, and activities in CNMI concluded in 2019.

The "ABCs Team" referred to in this report consists of the US Army Corp of Engineers, Honolulu District (POH) Project Management team and the HHF Planners team consisting of Honolulu based planners, architects and engineers and embedded personnel in each of the three participating territories.

ABCs Initiative phases:



Phase 3 is the third and final phase of the ABCs Initiative. This report summarizes the Year 4 objectives, reviews progress related to Organizational Sustainability Plan recommendations made in 2017 and highlights the planned objectives of Year 5. Year 4 efforts included ongoing execution of DM Reduction Program (DMRP) projects (updating work plan priorities as needed based on observations), as well as capacity building efforts in line with Organizational Sustainability Plan (OSP) findings to bolster host agency facility management efforts.

The report outline follows the three basic scope of work tasks: A. Work Plan Execution and Program Management, B. Embedded Team Management and Transition, and C. A-E Support Services (Task B, Embedded Team, was nested in Task A for Year 4). Section 5 provides an overview of planned Year 5 work.

Work products initiated in Year 4 include components of the Operations and Maintenance Manuals and preventive maintenance plans, both related to OSP efforts, preparation for the condition assessment, and ongoing EAMS buildout and refinements in preparation for transition to host agency management.

The ABCs Team was unable to conduct territory trips in Year 4 due to the global COVID-19 pandemic. Online video teleconferences replaced monthly calls, to help maintain relationships and situational awareness (in lieu of in-person meetings). Revised communication protocols with local staff were put in place to replace in person check ins for assignments.

Phase 3 Year 4-5 objectives are largely ongoing. Project procurement and closeout delays responsible for delays in DMRP expenditures were exacerbated by the pandemic. EAMS transition to host agency ownership, planned to occur at the end of Year 4, was pushed to the early part of Year 5 and the ABCs Team continues to support data entry and management so information is current when the host

agencies take over. The ABCs Team has transitioned into management of the Year 5 efforts, which are described in Section 5.

2 Task A - Work Plan Execution and Program Management

2.1 Agreements

2.1.1 Memorandum of Understanding

The Memoranda of Understanding (MOU), between each territorial Governor and OIA executed at the start of Phase 3, remain unchanged and effective through the completion of Phase 3 (i.e., no reason to modify the agreements).

2.1.2 Operating Agreement

Operating Agreements cover the working relationship and roles and responsibilities of the ABCs Team and the host agency to implement the provisions of the MOU. These agreements include a provision for annual review and revision if warranted. Because of staff changes (and host agency head change in USVI) and evolution of ABCs tasks (e.g., EAMS cross training efforts), the Operating agreements were revised in Year 4 for American Samoa (completed May 2020), Guam (completed June 2020) and USVI (completed May 2020). The need to revise the Operating Agreements to capture host agency plans for hiring EAMs Coordinators for staff training and system management, or other document additions or revisions, will be considered in Year 5.

2.2 Work Plan Updates

Work Plans were created in Year 1 to guide school repair work based on Phase 2 findings, health and safety priorities, and input from host-agencies. These plans included more projects than could be funded under the ABCs Initiative to allow flexibility and evaluation of current conditions to ensure that efforts are focused on the highest priorities (and territories are free to fund projects from other sources). Refinements are made on an ongoing basis, and updates have been considered on an annual basis. Work plan updates, when warranted, are formally adopted by OIA and each territory. Updates in Year 4 were limited to two emergent additions for roof replacements at Olomoana Elementary School Buildings 3 and 7.

1. Olomoana ES Bldg. 3 – approved January 2020
2. Olomoana ES Bldg. 7 – approved December 2020

Formal and comprehensive work plan updates were not warranted in Year 4 but are expected to be updated in Year 5 after facility condition assessments are conducted. Furthermore, VIDE is still clarifying facility replacement possibilities with FEMA for schools impacted by the 2017 hurricanes Maria and Irma (via the Stafford Act Section 428 program). All territories are also considering the use of Coronavirus Aid, Relief, and Economic Security (CARES) Act school stabilization funding for facility improvements. ABCs DMRP work plans will be coordinated with consideration of other funding streams and host agency efforts.

2.3 Project Execution

Local ABCs staff continue scoping, procuring, and overseeing DMRP projects in all territories other than CNMI (which stepped away from the program after DMRP funds were reallocated to recovery efforts for impacts from Super Typhoon Yutu). A total of \$18.9M was made available for DMRP work to date (the total of grants for five years less the funds that were reallocated in American Samoa, CNMI, and USVI). As of January 2020, the ABCs Team executed approximately \$14.3M in projects to award or completion, with a project backlog of \$4.6M in the procurement pipeline (i.e., under IFB development, out for bid, under bid evaluation or under pre-award review), as summarized in Figure 1.

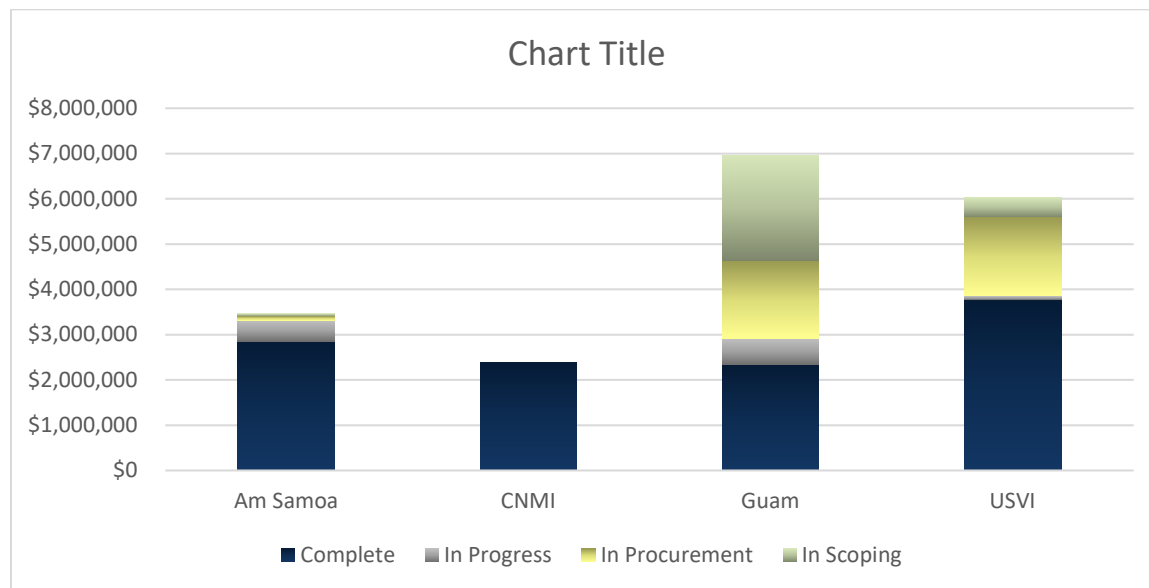


Figure 1 - DMRP Project Status as of January 2021 (total funding made available indicated by column height)

OIA grant funds are released via formal Authorizations to Proceed (ATP) each fiscal year (FY). ATP issuance for ABCs grant funds, and local reallocation of funds, to date are summarized in Table 4.

Table 1 - ABCs Grant ATPs to Date (\$ millions)

ATP	AS	CNMI	Guam	USVI
FY15	1/23/16: \$1M	2/24/16: \$1M	2/24/16: \$1M	11/2/15: \$2.148M
FY16	8/22/17: \$1M	6/20/16: \$1M	6/20/16: \$1M	3/28/16: \$1.939M
FY17	Rev. 08/06/18: \$0.5M (\$0.5M redirected)	10/05/17: \$0.4M (\$0.6M redirected)	11/28/17: \$1M	7/21/17: \$1.947M
FY18	(\$1M redirected)	(5/16/18: \$1 redirected for Yutu response)	5/16/18: \$1	(3/15/2018: \$1.5 funding redirected)
FY18 MAP	(8/16/18: \$0.75 to DPW)	(8/08/18: \$0.75 funding redirected)	8/08/18: \$0.75	(8/08/18: \$0.75 funding redirected)
FY19	6/6/19: \$1M		4/9/19: \$1M	
FY20			4/17/20 \$1.216M	[\$500K reallocated to ABCs; pending]

ATP	AS	CNMI	Guam	USVI
DMRP Funding to date	\$3.478M (\$1.5M reallocated) (\$0.75M to DPW) (\$22K expired FY15 funds)	\$2.4M in DMRP work completed; (\$2.35M reallocated for disaster recovery)	\$6.966M	\$6.034M (\$2.25M reallocated for disaster recovery) [\$500K reallocation pending confirmation]

Procurement and contracting delays have impacted project progress in Guam and USVI. Global disruptions from the Covid pandemic have also created delays (e.g., school and office closures; manufacturing and shipping delays). Figure 1 shows the current accounting of completed ongoing, and planned work. Overall, the ABCs Team facilitated the execution 327 design and construction awards (to date as of January 2021)—AS (110), CNMI (166), Guam (32), USVI (19). Government estimates and scopes of work created by local ABCs staff have been used as templates for other work by host-agency counterparts and are believed to be contributing to improved practices (e.g., more detailed scopes, specifications, warranties, and post-installation maintenance). Related documents are available in EAMS. Individual projects awarded in Year 4 are shown in Table 2.

Table 2 - Individual projects awarded in Year 4

Territory	School	Building(s)	Nature of Work	Cost
AS	Leone HS	B-15	Media Center Renovation	\$46,000
AS	Leone HS	B-9	Building Renovation	\$282,000
AS	Siliaga ES	B-2	Building Renovation	\$95,000
AS	Alataua Lua ES	B-4	Building Renovation	\$66,000
AS	Leone Midkiff ES	B10-15	Electrical / Lighting Service	\$41,000
AS	Matafao ES	B-16	Roof Replacement	\$65,000
AS	Alofau ES	B-3, 6, 8, 9, 10, 11	Electrical Repair	\$34,000
AS	Pavaiai ES	B-6, 13,14, 15, 16, 17, 18, 19, 20	Electrical Repair	\$35,000
AS	AP Lutali ES	B-3	Roof Replacement	\$38,000
AS	Olomoana ES	B-2, 5, 7, 8, 10	Electrical Repair	\$39,000
AS	Coleman ES	B-1, 3, 4, 5, 6, 7, 8, 10, 11, 13, 16, 21, 23, 24	Electrical Repair	\$47,000
AS	Matafao ES	B-3, 6, 8, 11	Electrical Repair	\$9,000
AS	Leatele ES	B-5	Electrical Repair	\$15,000
			AS Subtotal	\$812,000
Guam	M.U. Lujan ES	Covered Walkway	Roofing and Gutters	\$300,000
Guam	G. Washington HS	B-08, 100, 101, 12	Electrical Upgrades (design)	\$23,000
Guam	Finegayan ES	All Buildings	Intercom/bell systems (design)	\$29,000
Guam	Upi ES	All Buildings	Intercom/bell systems (design)	\$26,000
Guam	L.P. Untalan MS	Drainage Facilities	Overall Drainage Pattern	\$573,000
			Guam Subtotal	\$951,000

Territory	School	Building(s)	Nature of Work	Cost
USVI	P. Larsen ES	B-02, 04	Bldg. renovation	\$144,000
USVI	J. Gardine ES	B-05, 13, 14	Bldg. renovation/security fencing	\$134,000
USVI	E. Rivera ES	B-08, 09	Bldg./rec. facilities renovation	\$156,000
			USVI Subtotal	\$434,000
			Year 4 Total	\$2,197,000

3 Task B - Embedded Team Management and Transition

HHF maintained required positions in the three territories that continued with the ABCs Initiative in 2020 and is managing budgeted staff hours to provide the most complete coverage possible for ongoing efforts. Base ABCs Initiative efforts are schedule to conclude in Year 5 (2021). Local staff positions will terminate at different times depending on the status of efforts being overseen by respective employees and budgeted hours available. Positions include the local Program Managers (PMs), Construction Specialists (CSs), EAMS Coordinators (ECs), and Administrative Assistants (AAs). A summary of positions and planned transition timeframes is provided in Table 5.

Table 3 - Summary of Positions and Planned Transition Timeframes

Position	Status	Planned or Estimated Transition	Employee to Transition to Host Agency
Am Samoa PM	Active	June 2021	No, staffer not interested
Am Samoa CS	Active	April 2021	No, staffer not interested
Am Samoa EC	Active	February 2021	Yes, to ASDOE
CNMI PM	Discontinued in 2019	Not Applicable	Not Applicable
Guam PM	Active	June 2021	No, staffer not interested
Guam CS	Active	June 2021	No, staffer not interested
Guam EC	Discontinued in 2019; EC duties managed by the Guam PM	Not Applicable	Not Applicable
USVI PM	Active	June 2021	No, staffer not interested
USVI CS	Active	June 2021	No, staffer not interested
USVI EC	Active	early-April 2021	Not as an employee but potentially in a training capacity to VIDE
USVI AA	Active	June 2021	Unlikely

The ABCs team is encouraging host agencies to adopt staff if practical and beneficial.

- American Samoa: The School Maintenance Division of ASDPW, soon to be transitioned back to ASDOE, is planning to hire the AS EC, Nelda Emory, when her position terminates after February

2021. ASDPW also approached the AS CS, Epenesa Jennings, about future employment, but she will likely return to her architect business as a sole practitioner.

- Guam: GDOE expressed interest in hiring the Guam CS, Henry Villanueva, but he has not indicated an interest in transferring to GDOE.
- USVI: VIDE expressed interest in hiring the USVI EC, Sean Francis, but he is not interested in becoming a government employee (although he is willing to support VIDE in a transitional training capacity).

4 Task C - A-E Support Services

HHF continued providing Honolulu-based support to the DMRP and all ABCs project related matters, including A-E services:

1. Design Review and Technical Assistance
2. Organizational Sustainability Program (OSP) Implementation for Year 4
3. EAMS Refinement and Preparation for Transition to Host Agency Ownership

4.1 Design Review and Technical Assistance

The ABCs engineering team remained available for A-E support services (e.g., scope and design review, assistance with construction details and specifications). These services, though limited in requests from the local ABCs teams, were provided for all territories in Year 4; examples include:

- MEP: AC replacement scoping for the St. Croix Educational Complex
- Structural: roof reconstruction for Matafao ES
- Architectural: major facility renovations including roofing and gutter replacements for Charlotte Amalie HS

4.2 Organizational Sustainability Plan Recommendations

Organizational Sustainability Plans (OSP) were created in 2017 for all four territories (American Samoa, CNMI, Guam, and USVI) in collaboration with the host agencies to identify actions that could bolster the effectiveness and sustainability of school facilities management. Focus areas included operations and maintenance, funding, and planning. The strategies and policies were selected based on stakeholder input, including observations from embedded ABCs Program Managers, working alongside procurement officers, public school administrators, and facilities managers and staff. The output was a menu of resources that facility managers could use to guide improvement efforts, and solicit outside funding and technical support, year to year.

OSP actions undertaken in Year 4 included:

1. Preventive Maintenance Plan and Other Operations and Maintenance (O&M) deliverables
2. Facility Master Plans (initiation)
3. EAMS Refinement and Preparation for Transition to Host Agency Ownership
4. Condition Assessments

Work on these modules includes conveying best practices for addressing areas of concern and working with the host-agencies to create strategies that best support local efforts (e.g., guidebooks, reference material, template documents, or training). The ABCs team, led by the PMs, provides facilitation and leadership at a programmatic level, but the long-term success of the TSP depends on the level of local engagement and contributions of host-agency counterparts.

4.2.1 Preventive Maintenance Plan and Other Operations and Maintenance (O&M) deliverables

Deliverables for this scope task are being prepared in three groups: (1) preventive maintenance plans, (2) electrical single-line CAD diagrams, and (3) other O&M deliverables.

4.2.1.1 Preventive Maintenance Plans

Preventive maintenance plans for American Samoa, Guam and USVI include: Job Plans, Work Plans, and Repair Work Hours.

1. Job Plans: the documentation of repeatable repair processes that list specific maintenance steps for a job. These plans identify key preventive maintenance tasks for required actions and standardized summary steps for execution by maintenance staff or to inform scopes for contracted work and will promote consistency and thorough completion for each maintenance task. Once approved (Year 5), the job plans will be created in EAMS and used as templates for site and location-specific work orders. This capability will help host agencies schedule/plan and execute/track maintenance work expediently. Templated job plans in EAMS can also be modified for unique assets or locations to account for individual needs (e.g., different types of equipment, materials, or conditions).
2. Work Plans: task locations and frequencies, including logistical considerations (e.g., how many rooms or buildings at a school could be completed in one day; whether annual maintenance tasks could be paired with or replace quarterly maintenance tasks).
3. Repair Work Hours: the estimated work hours calculated in the work plan based on the job plans for selected preventive maintenance actions and work plan metrics (e.g., locations at which the maintenance will occur and frequencies). These calculations provide an estimated number of labor hours for scheduling in-house maintenance work and ensuring staffing positions are adequate to support the work or creating government estimates for soliciting contracted support (not including materials or equipment costs).

Other important outputs of the preventive maintenance plans include discussions on existing funding and needs, as well as recommended organization and management structure change recommendations. Existing funding and needs discussions highlight recommended cost ranges for general maintenance (including preventive maintenance) and continued DM reduction actions, as well as recent averages for maintenance and capital outlay funding, and how these could work together to stabilize facility conditions. Organization and management structure change recommendations provide a review of existing management and staff positions and conditions, and recommendations for adjustments or new positions that would help support proactive facility management.

4.2.1.2 Electrical Single-Line Diagrams

Electrical single-line diagrams, showing existing points of connection and power routes for each school, were initiated for Guam, and will be provided for the three participating territories (American Samoa, Guam, and UVI) in Year 5. These diagrams will show locations of power distribution equipment and respective capacities that can be used to assess adequacy for supporting existing or planned loads and for informing maintenance needs.

4.2.1.3 Other O&M Deliverables

Compilation of information and documentation for other O&M deliverables was underway in Year 4 and will be finalized and provided in Year 5.

1. Spare Parts and Supply Lists: Rotating inventory items, identified as critical to efficient maintenance and repair operations and in active use within EAMS, will be identified and summarized to describe stock carrying needs by territory.
2. Existing Building Documentation Research: Existing building and school documentation (e.g., building floor plans, elevation drawings, and site plans) will be compiled by school to the extent that these are available.
3. As-Built Construction Documents: to be compiled by school for all DMRP projects that required design to assist building operators and maintenance personnel.
4. Equipment Maintenance Manual and Warranty Information: will also be compiled for relevant DMRP work.

4.2.2 Facility Master Plans – American Samoa and Guam

The ABCs scope was modified in Year 4 to include supporting Guam and American Samoa Departments of Education (GDOE and ASDOE) in developing FMPs to guide the long-term improvements for their public schools for a ten-year planning horizon.

Key steps in the planning process include:

1. Data collection, enrollment projections, and initiating stakeholder engagement, culminating into Milestone 1 workshops for school district vision, standards, and facility standards to which adequacy assessed and improvements planned.
2. Analysis of existing conditions to inform facility and service gaps and improvement needs for Milestone 2 workshops on defining facility priorities, and the prioritization rubric that will be used to encourage geographic equity in investments.
3. Takeaways from the Milestone 1 and 2 workshops will be used to build draft FMPs and CIP recommendations that will be presented to stakeholders in Milestone 3 briefings to solicit feedback for the preparation of final plans.

Considering the end of Year 4 as the end of calendar year 2020, then Year 4 efforts for the FMP process included creation of the project management plan and draft stakeholder engagement strategy, early requests for information, creation of the enrollment projections methodology reports with preliminary

findings for American Samoa and Guam, creation of the and initial host agency engagement. These documents were sent to host agencies for review and comment:

1. Project Management Plan/Stakeholder Engagement Process
 - a. GDOE 10/27/20
 - b. ASDPW 10/27/20 and ASDOE 11/5/20 (and to the new DOE Director 2/17/20)
2. Enrollment projections methodology
 - a. GDOE [12/21/20]
 - b. ASDPW [12/21/20] and ASDOE [2/17/21]
3. Fact sheets and internal websites:
 - a. Fact sheet to ASDPW and DOE contacts (11/5/20; and new DOE Director 2/17/21)
 - b. Fact sheet to GDOE contacts (11/25/20)
 - c. Websites:
 - i. AS: www.asdoemasterplan.com/
 - ii. Guam: <https://www.gdoemasterplan.com/>
4. SharePoint site for document transfer/storage

Further engagement and briefings, and workshops for Milestones 1, 2, and 3, will be undertaken in Year 5 (ongoing). Stakeholder Engagement is an important element of the planning process. Due to the COVID-19 pandemic, stakeholder engagement will be conducted online and will include: an interactive website, surveys and interviews, and virtual stakeholder meetings/open houses.

4.2.3 Condition Assessments Preparation – Preplanning, Mobile Tool Creation and Training

The ABCs team was preparing for the condition assessments, including mobile tool standup, and preplanning efforts with the SMEs to define the approach for updating the condition data in Maximo and ensure that the needed fields are set up and easily accessible in the mobile tool. SME input was sought through Spring and Summer, 2020, and mobile tool training was conducted in the Fall with system and approach refinements made along the way. The preplanning report, first created in April was revised in November, after training was complete, to capture SME input. This effort was extended over a longer period than anticipated due to the reduced urgency related to Covid travel restrictions. Once quarantine restrictions are lifted, or SMEs can conduct assessments with territory movements restrictions, the team will create a facility assessment work plan and conduct a second round of mobile tool training to refresh the team members on mobile tool use (Year 5).

4.2.4 Detailed Electrical Assessments – Subset of Guam Schools

Efforts for the detailed electrical assessments are dependent on the single-line electrical diagrams discussed in Section 4.2.1.2. These drawings will provide information on power capacity at the school entrance and panel capacity along the schools' distribution. This information will inform load calculations and project recommendations where power flow and capacity are inadequate or otherwise problematic (Year 5).

4.2.5 Overall OSP Progress Summary

About 34 recommendations were made for each territory. A few of the recommendations were unique, but the majority were common across all territories. A summary of progress made with OSP recommendations is graphically represented in Figure 2. The color coding indicates the extent to which the host agencies have demonstrated proficiency, the lightest green shows areas where additional support could help, medium green indicates progress is being made, and the darker green was used for areas that are no longer a concern.

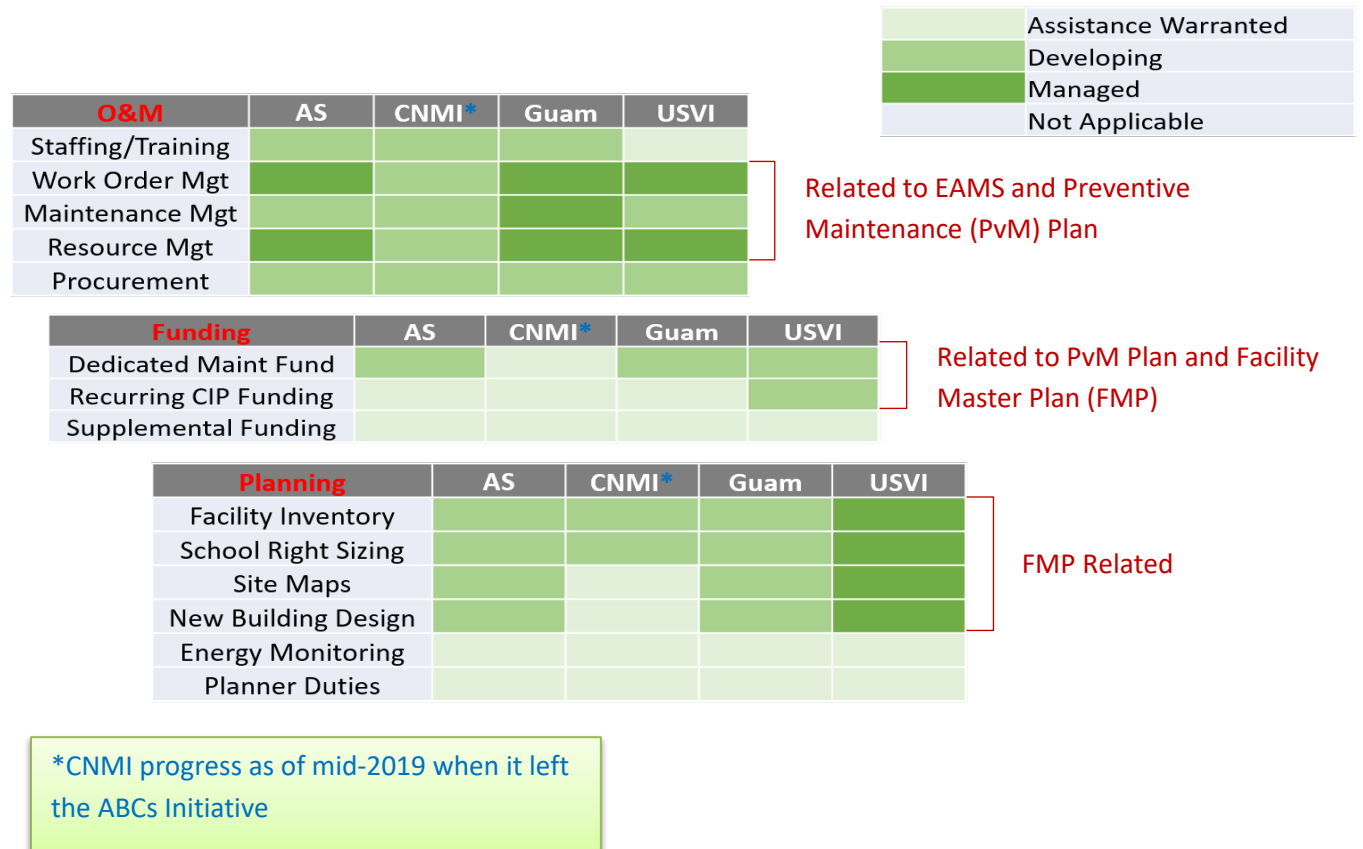


Figure 2 - OSP Status by Action Category

The three overarching areas assessed in the OSP report were:

1. O&M
2. Funding
3. Planning

Additional discussion of progress made on the action categories and recommendations for these areas, including needed actions that warrant future assistance, are provided in Appendix A, in the order presented in the OSP report and Figure 3.

4.3 EAMS Refinement and Preparation for Transition to Host Agency Ownership

EAMS efforts in Year 4 focused on preparing for system transition to host-agency ownership and management. Figure 3 shows key steps in the transition process that were accomplished in Year 4.

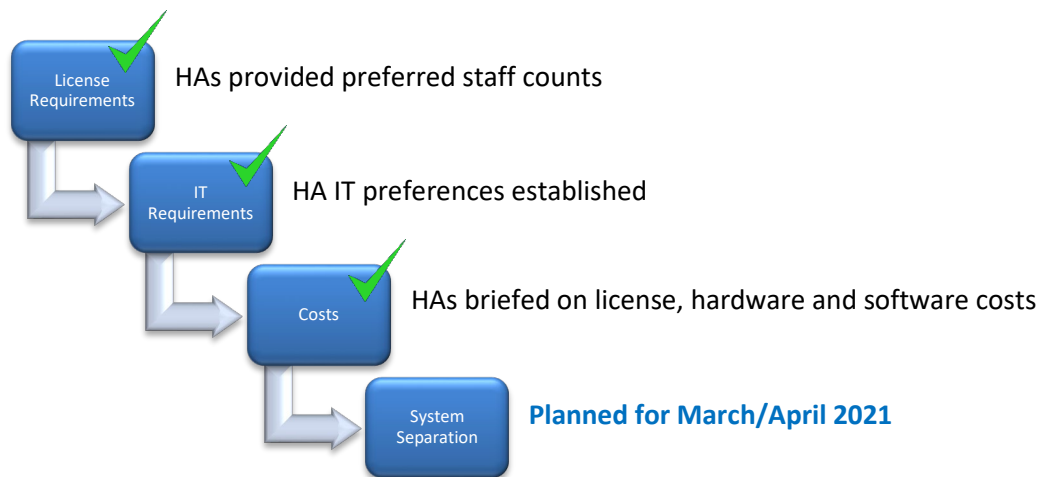


Figure 3 - Key steps and status in the EAMS transition process

Once EAMS instances (Production and Test) are set up on host-agency servers, HHF will support training and adoption efforts throughout execution of base-contract tasks (Year 5).

Asset collection and data entry efforts were a substantial undertaking and have continued into Year 5. This includes updates and refinements to address changes to assets (e.g., AC units) and inventory (e.g., buildings). Host-agency user training and the use of established protocols will require encouragement from supervisors. Year 5 Training will include:

- Schools submitting service requests
- EAMS staff receiving service requests and creating/issuing work orders to maintenance supervisors (and associated quality assurance)
- Managing preventive maintenance tasks/work orders
- Generating reports (e.g., facility inventory, resource expenditures)
- User credential management

EAMS has been in use for work order tracking in each territory. Progress with staff cross training was broken by the lapse in program funding in 2019 and host agency staff participation has been sporadic since.

Asset inventories are set up and supporting host-agency efforts in scoping maintenance work. This module will require ongoing updates as equipment or other assets are replaced, or when buildings are decommissioned, and new buildings constructed.

Figure 4 provides an update of current and underway or possible EAMS functionality.

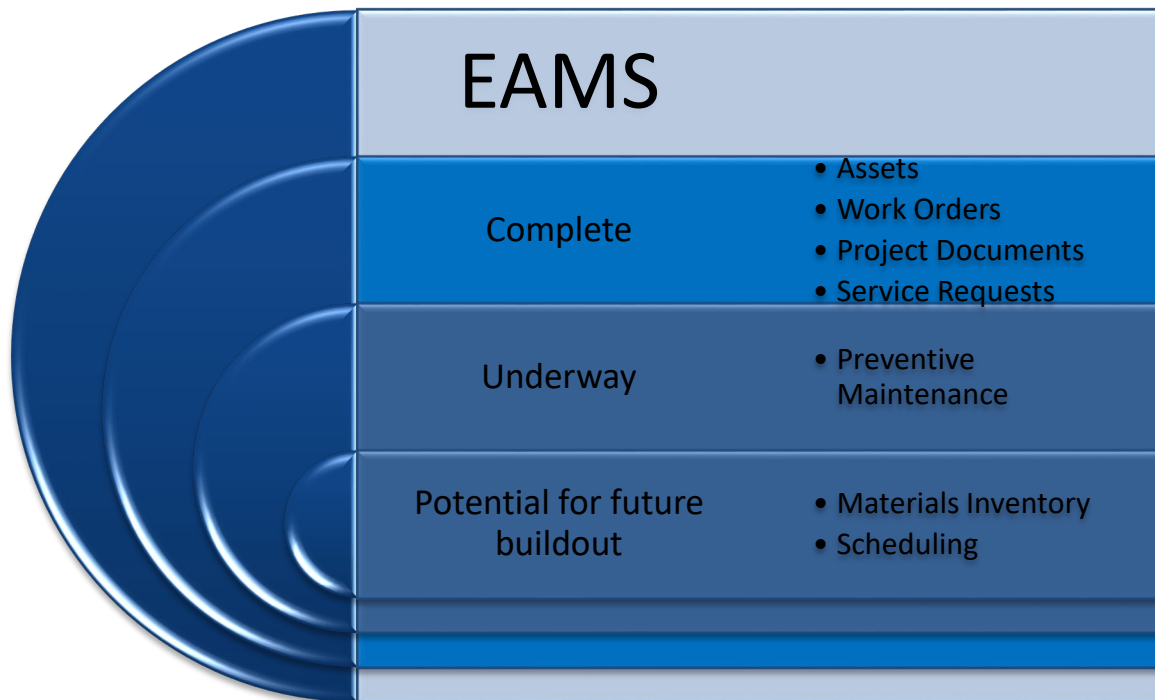


Figure 4 - EAMS Capabilities – Current and Underway or Possible

EAMS capabilities that are underway include the job plans and work plans that will establish preventive maintenance tasks in EAMS. Once tasks and frequencies are confirmed by the host agencies, they will be input/activated in EAMS and will be ready for host-agency dispatch and sequencing as recurring work orders.

The materials inventory module is available and ready for use in managing the intake/disbursement of materials or spare parts and issuance of equipment and tools. If scanner functionality is desired by the host agencies, then an add-on module would need to be purchased.

5 YEAR 5 OVERVIEW

Years 5 is the last years of the period agreed to in the MOUs created between the three participating territories and OIA. For purposes of this report, Years 5 corresponds with the 2021 calendar year. Tasks in Year 5 follow the tasks outlined herein for Year 4: Work Plan Execution and Program Management, Embedded Team, and A-E Support Services.

5.1 Work Plan Execution and Program Management

In the final year of the ABCs Initiative, the remaining DM CIP funds allocated by the Insular Governors of USVI, Guam and American Samoa will be fully encumbered. Local staff in American Samoa are in the

process of procuring what is expected to be the final DMRP project. GDOE is slated to receive an additional \$1M in 2021. Projects are identified for the additional GDOE funds, and the ABCs team will do its best to get projects through procurement but seeing projects through to completion is unlikely. It is expected that local ABCs staff in USVI will also be unable to see all projects through completion.

For any project that are ongoing when the ABCs Initiative shuts down, host-agency contacts will be briefed by local staff on construction or procurement status and related construction documents will be transmitted to host-agency contacts to ensure that they understand oversight requirements. Once the host agency confirms that DMRP project handoffs are complete, the PM positions, and CS if ongoing, will terminate. Until DMRP project handoffs are complete and local staff positions concluded, the Honolulu based management team will continue to serve as the point of contact for ABCs program (including liaison with USACE and OIA PMs), provide overall project leadership, maintain relationships with host agency leadership, and provide accountability for embedded team actions and program goals.

After the condition assessments (Section 4.2.3) are complete, the updated DM and school need information will be used to create revised work plans for host agency use in continuing effort to address remaining maintenance issues.

Territory visits were planned for interfacing with related agency contacts, providing status briefings, reviewing task outputs, and discussing host-agency needs and Initiative goals at a deeper level. Trips will be conducted in Year 5 as feasible and practical with pandemic-related travel restrictions.

5.2 Embedded Team

Embedded team staffing stabilized in Year 4 after the interruption of services between Years 3 and 4, the severe hurricane impacts to USVI in 2017 and impacts from super typhoon Yutu in CNMI in 2018. Local ABCs staffing in Year 5 will be reduced to PMs, and CSs where needed. ECs will transition to host agencies or out after March 2021. DMRP program funding was reduced by the American Samoa Governor and CS efforts are expected to taper before the end of Year 5. HHF’s current understanding of status for each embedded team position is shown in Table 5.

Table 4 - Embedded Team Position Statuses

Territory	PM	CS	EC	AA
AS	To remain through program completion	To remain through program completion	To terminate at the end of March 2021	Not Applicable (N/A)
CNMI	N/A	N/A	N/A	N/A
Guam	To remain through program completion	To remain through program completion	N/A	N/A
USVI	To remain through program completion	To remain through program completion	To terminate at the end of March 2021	To remain through program completion

* “To remain through program completion” indicates completion of DMRP projects or until program funding is exhausted.

5.3 A-E Support Services

5.3.1 Design Review and Technical Assistance

The Honolulu-based engineering team, including architects, civil, structural and MEP engineers, will continue to provide technical input for scope procurement document development and design reviews as needed in Year 5 to implement projects from the approved work plan. The Honolulu office will assist in coordinating the design review/technical assistance provided by the engineering team.

5.3.2 Organizational Sustainability Program

OSP actions were established based on the OSP recommendations made in Year 2, and ongoing discussions with host-agencies. Actions that will be completed in Year 5 include:

- Facility Master Plans for American Samoa and Guam
- Preventive Maintenance Plans for American Samoa, Guam, and USVI (these include Work Plans, Job Plans, and Repair Work Hours)
- Construction Plans and Specifications
- Equipment Maintenance Manual and Warranty Information
- Spare Parts and Supply Lists
- Existing Building Documentation

5.3.3 EAMS Transition and Oversight/Assistance

EAMS is scheduled to be deployed to host-agency servers in March 2021. The American Samoa EC will transition to ASDOE and provide ongoing support. The USVI EC is anticipated to be contracted by VIDE to provide as-needed training and support but is not expected to transition to VIDE. The Guam PM has overseen EAMS updates and training of GDOE staff and will continue to provide support through program completion.

As an asset management system, EAMS will continuously be updated as conditions change, and assets are replaced. The system is ready for host-agency staff use for DM/CIP project work orders, school service requests, and regular/preventive maintenance tasks. The American Samoa team has been working with ASDPW staff on system use since May 2018. The Guam team started cross-training GDOE staff in November 2018. American Samoa and Guam transitions are expected to be smooth. VIDE engagement is the most limited, and remote support will be provided by the Honolulu-based EAMS manager as needed for the several facets of system use including:

1. Work order creation and tracking
2. School service requests
3. Maintenance program oversight and refinement
4. Creation of reports and queries for facility and work order data requests

Oversight and assistance provided by the EAMS Manager will ensure data integrity and guide the use of reports to utilize the vast amount of valuable information (and documents) stored in EAMS.

6 Appendix A – Overall OSP Progress

OSP actions addressed under the ABCs Initiative focused on recommendations that were common to all territories. Although unique circumstances exist in each territory, economies of scale could be achieved, and lessons learned applied by addressing similar issues for all territories. Sections 6.1 through 6.3 highlight territory progress with recommendations made in the OSP and areas where additional support could further bolster facility management efforts.

6.1 Operations and Maintenance

Action categories in the O&M area included staffing/organizational structure, training, work order management, maintenance management, resource management, and project procurement.

6.1.1 Progress

- **Staffing, Organizational Structure, Training:** When analyzed in 2017, and to date, all territories have an ample number of staff, but skills are generally limited and specialized positions (e.g., electrician and AC technicians) are typically understaffed. Training, targeted hiring, and outsourcing could help.
 - ASDPW made impressive progress with training 40 staff members over a three-semester period with a 100 percent completion rate and plans to continue training.
 - Before leaving the program in 2019, the CNMI Public School System Facility Development and Maintenance (FDM) Division provided plumbing training (one of the Division's greatest needs) to 20 staff, the PM provided has on mentoring to key FDM staff (e.g., pump maintenance), and preventive maintenance training for the proposed fire protection system improvements was planned.
 - GDOE has a history of outsourcing maintenance work, as evidenced by the six schools constructed under design, build, finance and lease back agreements that included operations and maintenance. GDOE still has a high number of maintenance staff that handle trouble call work, in addition to seasonal operations responsibilities (e.g., opening and closing procedures), and plans to reduce maintenance positions as staff retire or otherwise leave existing positions with the expectation that the increase in outsourced preventive maintenance will reduce the frequency of trouble call work. GDOE also plans to standup more project manager positions to oversee contracted work.
 - VIDE participated in a demonstration of online training courses and is identifying staff and associated costs.
- **Work Order Management, Maintenance Management, and Resource Management:** Progress for these action categories was/will be boosted by the preventive maintenance plans, which define maintenance tasks and associate resource needs, and EAMS development, which will be used to track work orders, resource allocations and other maintenance metrics. Once preventive maintenance plans are adopted by the host agencies, tasks will be entered and tracked in EAMS (Year 5 effort).

- ASDPW is preparing to adopt EAMS and initiate school and maintenance staff training; the ABCs team understands that DOE will take over responsibility for the system as School Maintenance transitions from DPW to DOE. ASDPW collaborated with the ABCs team in the preparation of job plans, the work plan, and organizational structure recommendations.
- CNMI FDM chose a different maintenance management system, the status of which is unknown, and declined to have a preventive maintenance plan.
- GDOE is preparing to adopt EAMS and initiate school and maintenance staff training. GDOE collaborated with the ABCs team in the preparation of job plans, the work plan, and organizational structure recommendations. Draft under review by GDOE leadership.
- VIDE is preparing to adopt EAMS and initiate school and maintenance staff training. VIDE participated in planning workshops for job plan and work plan development in late-2020 and continues to collaborate with the ABCs team in finalizing the work plan and proposed organizational structure recommendations.
- **Project Procurement:** Project procurement has hindered DMRP efforts more than any other factor. Efforts were made to create templated scopes and government estimates, which have been helpful to the host agencies, but problems persist outside of the host agencies and beyond the abilities of host agency or ABCs staff to influence. DMRP project scopes and cost estimates are being compiled and will be provided to host agencies for reference (Year 5).

6.1.2 Additional Assistance Warranted

- **Staffing, Organizational Structure, Training:** Dedicated funding for staff training will continue to be a concern, as well as sustaining interest in ongoing training. Host agencies have not demonstrated adoption of training as regular practice. Another OSP recommendation was to establish “lead tradesmen” positions that can serve mentorship roles and establish clear hierarchy in staff positions to encourage self-improvement and advancement. Improving hiring practices through the creation of well-defined job positions and job descriptions so employment expectations are clear, and instituting employee performance evaluations to inform rewards or corrective measures has also been largely unaddressed.
- **Work Order Management, Maintenance Management, and Resource Management:** Funding for EAMS operations, IT support, and potential enhancement may require future assistance. The standup of local servers was significantly delayed, so oversight of host agency adoption and use of EAMS by the ABCs team will likely be limited (Year 5 effort). A continued commitment to data entry and anticipated workflow protocols is required for the host agencies to reap the benefits the system can bring. Maintenance funding is an ongoing issue for all territories (see Section 4.2.3.2.2). Additional assistance may be required until preventive maintenance is instituted in host agency practices and annual budget allocations.
- **Project Procurement:** A deeper look into procurement practices may yield helpful findings, but the general assumption is that procurement-related offices are inadequately staffed and lacking tools or systems that could potentially build efficiency.

6.2 Funding

Action categories in the Funding area included dedicated maintenance fund, recurring CIP funding, and supplemental funding.

6.2.1 Progress

- **Dedicated Maintenance Fund:** O&M cost components and overall host agency budget needs are being partially compiled in the preventive maintenance plan reports for American Samoa, Guam, and USVI (Year 5). This has helped to define maintenance budget requirements. Host agencies and the ABCs team continue seeking potential funding streams and partnerships.
- **Recurring CIP Funding:** Facility Master Plan (FMP) development was initiated in Year 4 for American Samoa and Guam. This effort will be undertaken primarily in Year 5 and will help to define CIP cost components for a ten-year planning horizon. An overall budget estimate will be created for CIP needs to inform grant requests. Alternatively, or in addition, an annual average amount could be identified to build a reserve fund for planned replacement, renewal, and new construction.

VIDE completed their school facility master plan in 2020 and is working to actualize desired improvements, including FEMA funded school replacement to schools destroyed by Hurricanes Irma and Maria in 2017.

- **Supplemental Funding:** As a part of the FMP process in Year 5, HHF in partnership with the host agencies in American Samoa and Guam will explore the potential to secure supplemental funding by partnering (i.e., joint use of school facilities) with specialized vocational/technical schools or adult education centers.

It is assumed that VIDE considered supplemental funding in their FMP workshops. Actual partnerships and benefits achieved are unknown.

6.2.2 Additional Assistance Warranted

- **Dedicated Maintenance Fund:** Maintenance funds are often used/redirected for other priorities, particularly in American Samoa, but this issue is evident in all territories. Continued DM and work order tracking in EAMS is required to further define maintenance needs and expenditures.
- **Recurring CIP Funding:** Sources of funding will continue to be a challenge for the facility upgrades needed in the territories to address the deficiencies of aging structures and functional inadequacies to transition to twenty first century learning environments.
Prior to leaving the ABCs Initiative CNMI PSS maintained an annual report of planned facility improvement needs that included major repair and replacement as well as new construction. Status is unknown, but it is believed that PSS would benefit from conducting an FMP process and maintaining the plan (e.g., on a five-year cycle).
- **Supplemental Funding:** Joint use of space for supplemental funding requires several levels of management (e.g., scheduling, security, cleanup, finance). There is potential that EAMS can assist these efforts, but staff time and oversight is required for this to be effective. Concerns related to mixing student spaces with public uses requires careful consideration.

6.3 Planning

Action categories in the Funding area included facility inventory, school right sizing, site maps, new building design, energy monitoring, and planner duties. Some of these were addressed during EAMS buildout, and others are being addressed in the FMP effort (Year 5).

6.3.1 Progress

- **Facility Inventory:** facility assets inventories were set up for American Samoa, Guam and USVI as a part of EAMS build out and have been updated as equipment and buildings are replaced (i.e., old assets were decommissioned, and new assets created in EAMS). This inventory will assist with overall facility management and inventory monitoring.
Facility master plans are underway for American Samoa and Guam, and complete for USVI (outside ABCs). These plans will assist with planning and prioritizing future capital investments. Data tracked in EAMS can facilitate lower-effort FMP updates.
- **School Right Sizing:** Facility master plans (underway for American Samoa and Guam, and complete for USVI) will develop strategies for school rightsizing, identify needs, analyze options, propose actions, estimate costs, and create a prioritization rubric and timeframes for project execution (Year 5). While participating in the ABCs Initiative, CNMI PSS demonstrated ongoing monitoring of school capacity and enrollment.
- **Site Maps:** HHF updated facility site maps in Year 4 for American Samoa and Guam (USVI site maps will be updated in Year 5). These provide quick reference for building nomenclature, planned actions (e.g., demolition or new construction), and identifying issues that require action.
- **New Building Design:** the FMP process (Year 5) will explore new building designs to help inform new construction that best support the academic program while minimizing construction, operations, and maintenance costs.
- **Energy Monitoring:** no progress with energy monitoring was made in Year 4 or previous years.
- **Planner Duties:** none of the territories have added a staff planner position to assist with managing utility costs, space planning for future improvements, and procurement and contract management, or to ensure that these duties are addressed in an existing position. The preventive maintenance plans (initiated in Year 4 and to be completed in Year 5) will include additional recommendations for organizational changes that would better support facility management efforts.

6.3.2 Additional Assistance Warranted

- **Facility Inventory:** progress with the facility asset inventory for CNMI PSS is unknown but is believed to be incomplete and in need of financial or personnel support. CNMI would benefit by completing an FMP for vision and standard definition and capital investment planning.
- **School Right Sizing:** Related actions may require additional CIP funding.
- **Site Maps:** Host agencies will need continue to update these in the future (e.g., in tandem with FMP updates).

- **New Building Design:** the extent to which CNMI PSS needs to explore designs that support twenty-first century learning is unknown but based on previous observations assistance in this area is warranted.
- **Energy Monitoring:** there is potential for utility consumption and cost saving in all territories pending execution of conservation measures. Reestablishing baseline data and monitoring energy use at all facilities would provide empirical data for cost saving and progress made toward local sustainability goals.
- **Planner Duties:** adding staff planner positions to host-agency facility management offices would facilitate immediate gains in managing CIP efforts and asset management and have the potential to assist with managing utility costs and energy conservation actions.