

Insular ABC's Phase 3
YEAR 3 SUMMARY REPORT
Performance Evaluation

December 2018



**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
FTE	Full-time equivalent
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
PM	Program Managers (regarding embedded team members)
PO	Purchase Order
PSS	Public School System
REC	Record of Environmental Consideration
RFP	Request for Proposal
TSP	Training and Sustainability Plan
USACE	US Army Corps of Engineers
USVI	US Virgin Islands
VIDE	Virgin Islands Department of Education

Preface

This report summarizes Year 3 objectives, evaluates accomplishments of the ABCs Initiative Phase 3, and highlights planned objectives of Year 4 and 5. The reports prepared in Year 3 were primarily focused on Training and Sustainability Program (TSP) efforts, but also include Work Plans updates and revised Operating Agreements which guide the Deferred Maintenance Reduction Program (DMRP). This report covers the period from December 2017 through December 2018.

Year 3 outputs include:

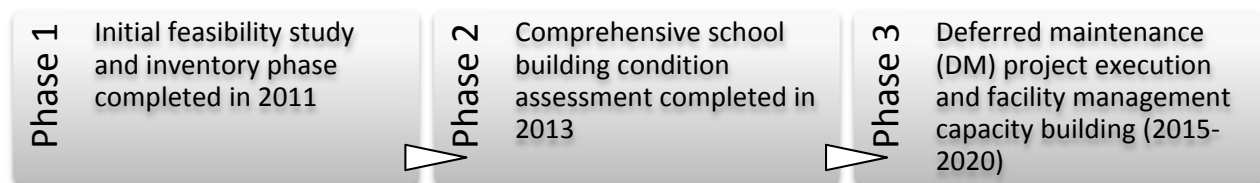
1. 173 weekly (or monthly for CNMI) Program Manager status reports (December 2017 through December 2018)
2. 12 monthly status reports (December 2017 through December 2018)
3. TSP Reports:
 - a. Maintenance Program
 - b. Facility Planning Components
4. Territory visits by Honolulu team members to build situational awareness (more than a year had passed since previous trips), assess employee relations (ensure employees are motivated and are appropriately supporting host agency programs and ABCs objectives); update operating agreement and work plans through Years 4 and 5, receive feedback on performance from host-agency leadership.
 - a. VI – April 15-20, 2018
 - b. Guam – May 29-30, 2018
 - c. CNMI – May 31 - June 1, 2018
 - d. AS – December 11-13, 2018
5. Trips for EAMS training/support.
 - a. VI trip March 7-23, 2018 (a follow up trip is planned for early 2019)
 - b. EAMS support trips to other territories were not required
6. EAMS training – in-person and video-teleconference training sessions held regularly with EAMS PM and embedded team members on a rotating, as needed basis.
7. Revised Operating Agreement for Guam only; not warranted for other territories
8. Updated Work Plans – Version 3.0 completed for American Samoa, CNMI, and Guam
9. Record of Environmental Consideration (REC):
 - a. AS – REC 001 Addendum (2)
 - b. CNMI – REC 001 and 002 Addenda (completion pending)
 - c. Guam – REC 002 complete; REC 001 and 002 Addenda
 - d. USVI – no additional reviews were required
10. Emergent addition memo created for an urgent railing repair project in American Samoa (December 2018; completion pending)
11. Newsletter assistance to report on ABCs progress (only acted upon by Guam DOE for the July 2018 publication; other territories passed on assistance offers).

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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 Guam, Commonwealth of Northern Mariana Islands (CNMI), American Samoa and the US Virgin Islands). The "ABCs Team" referred to in this report consists of the Corps' Project Management team and the HHF Planners team consisting of Honolulu based planners, architects and engineers and embedded personnel in each of the four territories.

ABCs Initiative phases:



Phase 3 represents the final phase of the ABCs Initiative. This report summarizes the Year 3 objectives and accomplishments of the ABCs Initiative Phase 3 and highlights the planned objectives of Years 4 to 5. Objectives of the Year 3 effort included ongoing execution of DM reduction projects, additional National Environmental Policy Act (NEPA) compliance reviews, adjusting work plan priorities based on conditions observations and updating work plans accordingly, as well as capacity building efforts through the Training and Sustainability Program (TSP) to help the host agencies streamline facility management efforts.

The report outline follows the three basic scope of work tasks: Work Plan Execution, Embedded Team, and A-E Support Services. NEPA Support was provided throughout 2018, but is included in description of effort for Task A since this was not a distinct task in the Year 3 scope of work.

Section 6 provides an overview of planned Year 4-5 work.

The reports prepared in Year 3 were primarily focused on TSP efforts, but also included work plan updates and revised Operating Agreements which guide the Deferred Maintenance Reduction Program (DMRP).

Two of the four territories were extremely damaged by hurricanes/typhoons (USVI: Maria and Irma in September 2017; CNMI: Yutu in October 2018). The hurricanes caused significant damage to DM work (completed and underway) and has challenged the embedded team and their host agencies.

2. SUMMARY OF YEAR 2 TASKS AND OBJECTIVES

Tables 1 through 3 summarizes the Year 3 scope objectives, related outputs, and assessments or discussions of the accomplishments achieved.

Table 1 - Task A – Work Plan Execution: Summary Assessment of Year 3 Accomplishments

Objective	Output	Assessment
1. Weekly PM meetings	205 weekly (or monthly for CNMI) Program Manager status reports (September 2017 through November 2018)	Honolulu staff consistently held regular meetings with embedded team PMs to document project status, assist with local agency communications, and ensure that embedded team actions are advancing program goals (i.e., program direction/accountability) as well as to guide and assist with host- or partner-agency issues
2. Monthly host-agency head communications	At least 28 scheduled calls held with host-agency contacts (American Samoa 11, CNMI 5, Guam 8, USVI 4)	Satisfied objective: Calls were critical for communicating needs and planned actions, as well as for managing expectations.
3. Monthly status reports	14 monthly status reports (September 2017 through November 2018)	Consistently provided pertinent updates; timing of report submittal was delayed on a few occasions and the team is working to provide in the first week of the subsequent month.
4. Program administration	Memoranda of Understanding: not revised; determined to be relevant to current conditions. Operating Agreements: revised for Guam only; not warranted for other territories	Satisfied objective: ABCs Team vetted with host agencies and revised documents as warranted.
5. Issue calls with U.S. Army Corps of Engineers (USACE) and OIA	At least nine calls held to discuss various issues and identify ways forward (e.g., USVI conditions and work plan actions; CNMI staffing and TSP action needs; American Samoa procurement, funding)	Satisfied objective: Calls were critical for maintaining understanding and ensuring that the ABCs Initiative was meeting host-agency needs.
6. Work plan maintenance		Satisfied objective
7. Annual work plan updates	Version 3 work plans: AS – June 2018 CNMI – September 2018 Guam – June 2018 USVI – not needed	Satisfied objective
8. Performance evaluation	This report	Satisfied objective
9. Territory ground time	VI – meetings held April 15-20, 2018 Guam – meetings held May 29-30, 2018 CNMI – meetings held May 31-June 1, 2018 AS – meetings held December 11-13, 2018	Satisfied objective: Conducted one visit per territory to build situational awareness, assess employee relations; update operating agreements and work plans, receive feedback on performance from host-agency leadership.

Table 2 - Task B – Recruit/Retain and Direct Embedded Team: Summary Assessment of Year 3 Accomplishments

Objective	Output	Assessment
Program Managers (PMs)	Maintain one PM in each territory (total four)	Satisfied objective: PMs retained full time in American Samoa and Guam; CNMI PM to part time; USVI PM converted to part-time starting January 2019 pending discussions with the new VIDE administration.
Construction Specialist (CSs)	Maintain one CS each in American Samoa and Guam, and two in USVI (total four)	Satisfied objective: CSs retained in all territories as needed; USVI St. Croix CS vacant as of April 2018; St. Thomas CS is working part-time as needed.
Enterprise Asset Management System (EAMS) Coordinator (ECs)	Maintain one EC each in American Samoa, Guam, and USVI (total three)	Satisfied objective: ECs retained in three territories
Administrative Assistant (AA)	Maintain one AA each in American Samoa and USVI (total two)	Satisfied objective: AAs retained in American Samoa and USVI; American Samoa AA position terminated as of December 2018

Table 3 - Task C – Provide Honolulu-based technical assistance for DMRP projects and TSP Implementation: Summary Assessment of Year 3 Accomplishments

Objective	Output	Assessment
Work Plan Execution/Projects	<p>50 awards were made in 2018 (as of November), for a total of about \$1.2M in design and construction contracts (as of November 2018) with about \$5M in the procurement pipeline (i.e., under Invitation for Bid (IFB) development, out for bid, under bid evaluation or under pre-award review).</p> <p>Contracts and/or awards/procurement for several DMRP projects were cancelled because of hurricanes for about \$3M in both USVI and the CNMI (totaling about \$6M per engineer’s estimates).</p> <p>Efforts to raise standards for procurement documents continue, with host-agency personnel using ABCs procurement documents (e.g., work scopes, construction details, specifications, and warranty requirements) as templates for other host-agency led projects. This is helping to build value into the local procurement processes.</p>	Working to improve project award rate and completion of DMRP projects; progress severely impeded by hurricanes in USVI and the CNMI; ability to conduct more DMRP work in these territories will be informed as FEMA actions for repairs to school facilities are clarified in 2019.
Maintenance Program	Documents for American Samoa, CNMI and Guam that provide a starting point for planning regularly scheduled maintenance including preliminary recommendations for frequencies, skill levels required for maintenance staff, and time required for	Satisfied objective: Delivered as planned; USVI requested edits were made, and the team clarified that this is a working document for VIDE

	the individual maintenance tasks as well as a scenario building tool to align needs with available resources.	use and that it is intended to evolve overtime.
Facility Planning Components	Documents prepared for American Samoa, CNMI and Guam that provide a template for a working document that establishes foundational school facility Capital Improvement Program (CIP) planning components that can be updated annually to provide high level facility-need information (e.g., existing facility conditions and functionality, enrollment trends, and overall school CIP needs). This document includes recommendations for district-wide planning efforts (i.e., master planning).	Satisfied objective
Enterprise Asset Management System (EAMS):	<p>EAMS objectives for 2018 included buildout to enable work order, job plan, and asset template functions and facilitate system rollout to host agencies:</p> <ol style="list-style-type: none"> 1. Asset collection/data entry 2. Host Agency (HA) user group defined 3. Service request and work order operating procedures defined <p>Asset collection and data entry continued to delay EAMS rollout, though this effort was largely completed in 2018 (quantitative data for final schools are being entered for Guam and USVI).</p> <p>Host agency stakeholder groups have formed and the team is working to establish user credentials and appropriate permissions for individuals that will require or benefit from having access to the system.</p> <p>Service request and work order operating procedures have been agreed upon by host agencies in American Samoa and Guam, but efforts will continue in USVI once the new administration is in place. EAMS is ready for rollout to host agencies, and training for this will begin in Year 4 as host agencies are able to allocate staff time, and Honolulu staff will continue to provide remote quality assurance and oversight of EAMS deployment and technical support.</p> <p>The ABCs Team will continue to add functionality to the EAMS software as needed to support host-agency operations (e.g., inventory, scheduling).</p>	Mostly satisfied objective, but continuing to work to advance host-agency engagement and training for system use.

The ABCs Team conducted one round of territory trips in Year 3 to gain situational awareness (more than a year had passed since the previous visit), assess employee relations (ensure employees are motivated and are appropriately supporting host agency programs and ABCs objectives); update

operating agreements and work plans through Years 4 and 5, receive feedback on performance from GDOE and PSS leadership.

- VI – April 15-20, 2018
- Guam – May 29-30, 2018
- CNMI – May 31 - June 1, 2018
- AS – December 11-13, 2018

Phase 3 Year 3 objectives are complete. Higher DMRP expenditures were expected, but progress was impeded by the aforementioned hurricanes. EAMS rollout was also expected to be further along, but asset data entry took longer than expected and it was important to have this complete before focusing efforts on demonstrating system functionality to host-agency staff and bringing them into system use. The ABCs Team is transitioning into management of the Year 4 efforts, which are described in Section 6.

3. Task A - Work Plan Execution and Program Management

3.1 Agreements

3.1.1 Memorandum of Understanding

The Memoranda of Understanding (MOU), between each territorial Governor and OIA executed at the start of Phase 3, are unchanged to date and effective through the completion of Phase 3. These documents demonstrate a mutual commitment and affirm the Governors' desire to support the Insular ABCs Initiative.

3.1.2 Operating Agreement

First established in Phase 3 Year 1, the 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. As stated in the Operating Agreement, it will be reviewed on annual basis (or sooner if required) to maintain relevance and incorporate lessons learned, and that any amendments to the Operating Agreement will require written agreement of both parties. Due to staff changes, as well as changing needs and responsibilities of the host agency personnel, some updates to the work plans were required.

Operating agreement revisions were only required for Guam (completed May 2018). Agreements for the other territories were reviewed with the host agencies and found to be adequate. The Operating Agreements will continue to be reviewed annually, latest versions of which will remain effective through Phase 3 completion.

3.2 Work Plan Updates

Work plans guide DMRP projects for each territory, based on Phase 2 findings, established health and safety priorities, and evaluation of current conditions to ensure that efforts are focused on the highest priorities. Refinements are made on an ongoing basis, and finalized on a periodic basis. Work plan updates are formally adopted by OIA and each territory.

Work Plan Version 3 adoption dates:

- American Samoa: June 2018
- CNMI: September 2018
- Guam: June 2018
- USVI: not warranted; Outgoing VIDE administration determined that no further DM projects should be funded in lieu of Congressional funding via the Stafford Act Section 428 program. HHH to review this position with the incoming administration. VIDE is assessing hurricane damage and needs to determine FEMA priorities before the ABCs Team can engage in additional work.

The next update, Version 4, if needed will be issued in Year 4.

3.3 Project Execution

The embedded teams continue executing projects via Purchase Orders (POs), IFBs, and Request for Proposals (RFP) for design and construction work. As of November 2018, the ABCs Team executed approximately \$6.5M in projects to completion or award, with a project backlog of \$5M in the procurement pipeline (i.e., under IFB development, out for bid, under bid evaluation or under pre-award review). It is noted that planned DM workload is low for CNMI and USVI because of hurricane damage and need to clarify the repair work that FEMA will address, to avoid conflicts with DMRP work, so the projects that will be pursued next are still being clarified.

OIA grant funds are released, via formal Authorizations to Proceed (ATP), for each fiscal year (FY) as the need for additional funding is demonstrated (i.e., bid solicitation requires funds be made available). ATP issuance for ABCs grant funds to date are summarized below:

Table 4 - ABCs Grant ATPs to Date (\$ millions)

ATP	AS	CNMI	Guam	VI
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: \$1M	11/28/17: \$1M	7/21/17: \$1.947M
FY18	(\$1M redirected)	5/16/18: \$1	5/16/18: \$1	3/15/2018: \$1.5 Funding redirected based on 11/5/2018 VIDE correspondence
FY18 MAP	8/16/18: \$0.75 (to DPW)	8/08/18: \$0.75	8/08/18: \$0.75	8/08/18: \$0.75
FY19				
\$ to date	\$2.5M (less the \$0.75 to DPW)	\$4.75M	\$4.75M	\$6.784M

USVI suffered significant losses from the two Category 5 hurricanes (Irma 9/6/17 and Maria 9/20/17), and CNMI suffered losses due to Super-typhoon Yutu (10/25/18), including school facilities. An estimated \$6M or more in repair projects were put on hold indefinitely or cancelled. Figure 1 shows the

current accounting of completed, ongoing and planned work (numbers subject to change as estimates are replaced with actual project costs).

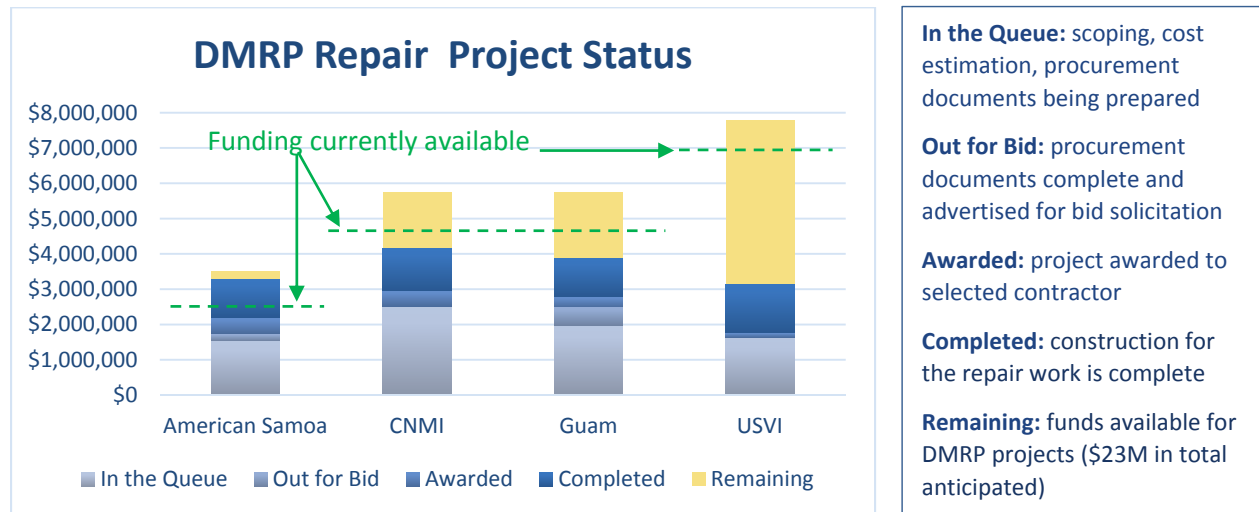


Figure 1 - DMRP Project Status (November 2018)

Overall, the ABCs Team prepared 356 design and construction solicitations (to date as of November 2018)—AS (124), CNMI (166), Guam (39), USVI (27). A substantial amount of effort has gone into developing a higher standard of procurement documents including more detail on scope tasks, specifications and warranties, and the initial government costs estimates. These documents are also being archived and used as templates for subsequent ABCs projects and non-ABCs projects in the territories.

4. Task B - Embedded Team Recruitment and Management

4.1 Program Managers

American Samoa and Guam PMs remain in place.

The CNMI PM transitioned to part-time in February 2018 per guidance from PSS early in 2018 that their office is well positioned to continue DMRP and organizational sustainability efforts largely on their own with minimal assistance from the PM. Discussions with PSS later in 2018 clarified that PSS is still interested in working with OIA on organizational sustainability initiatives, which are being addressed in the Year 4 and 5 scope, but the PM will remain on part-time status.

The USVI PM is transitioning to part-time in January 2019 to oversee ongoing DMRP work and project closeout for completed DMRP work. This situation will be revisited once the new administration is in place.

4.2 Construction Specialist

The Guam CS remains in place.

The American Samoa CS, replaced in January 2018, remains in place and will continue in this position.

The USVI St. Croix CS resigned from this position in April 2018. This position remains open because St. Croix DMRP work was put on hold during the hurricane damage assessments. The ABCs Team is awaiting clarification from the new administration to determine if a St. Croix CS will be hired in 2019. The USVI St. Thomas CS continues on a part-time/as-needed basis, and will lead project execution if additional DMRP projects are moved forward.

4.3 EAMS Coordinator

The three ECs that were in place at the end of Year 2 are still in place, and CNMI PSS is still moving forward with their own system and staff.

The American Samoa EC, advanced quickly in her position and is providing valuable leadership in system use and training of the local EAMS user group.

The Guam EC is resigning from the position in January 2019 and is working to provide basic EAMS training to a GDOE replacement staff member before transitioning out.

The USVI EC requires more assistance and training, but is progressing and will remain in place. EAMS PM assistance is expected to be required for system rollout to VIDE staff.

4.4 Administrative Assistant

The USVI AA position is no longer required because DMRP work is on hold pending guidance from VIDE. The USVI AA will continue part-time in January 2019 to assist with project closeout.

The American Samoa AA position was terminated as of December 2018, with the duties absorbed by the American Samoa EC. This situation will be reconsidered if project volume increases significantly.

The Guam PM continues to manage the work load for projects to date, but this situation will also be reconsidered if project volume increases significantly and the AA position deemed necessary.

5. 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. Training and Sustainability Program (TSP) Implementation for Year 3:
 - a. Preventive Maintenance Program
 - b. Facility Planning Components
3. EAMS Support, Buildout, and Preparation for Rollout

5.1 Design Review and Technical Assistance

The Honolulu office and its engineering team continued to provide A-E support services for project delivery including scope, specification, IFB/RFP preparation assistance, and the coordination of design review and technical assistance. These support efforts were needed most in USVI for project procurement documents, architectural (e.g., roofing specifications), structural repairs (e.g., floor slabs, structural support elements), mechanical (e.g., AC), and electrical engineering services (e.g., transformer relocation). Support was also provided to the embedded team in American Samoa particularly for roofing and structural work (e.g., floor/veranda slabs, roof structure).

5.2 TSP Implementation

As OIA's parallel objective in Phase 3, the TSP aims to address systemic issues that may be hindering facility management in various ways. The Organizational Sustainability Plan (OSP) created in Year 2 compiled recommended actions that can be taken to bolster existing practices. These actions are being grouped to the extent practicable and being advanced through the ABCs Initiative as TSP "modules." The TSP guides the ABCs Team in engaging host agency facility managers and maintenance personnel in related efforts. Work on these modules includes conveying best practices for addressing areas of concern and working with the host-agencies to create strategies that fit with local conditions (e.g., guidebooks, reference material, template documents, outside training, or job shadowing/hands on training). The TSP process also requires the Honolulu office to support the embedded teams to document progress. The long-term success of the TSP is highly dependent on the level of local engagement; the ABCs Team, led by the PMs, provides facilitation and leadership at a programmatic level, but success also depends on the participation of related public and private sector entities (e.g., training programs such as the American Samoa Community College or the Guam Contractors Association Trades Academy). The Year 3 TSP efforts included: the creation of a Preventive Maintenance Program report and Facility Planning Components report.

5.2.1 Preventive Maintenance Program

These reports outlined a preventive maintenance program to provide a basis for regularly scheduled maintenance work needed to keep building facilities and related components in good condition. Reports were provided to the host agencies in American Samoa (October 2018), Guam (September 2018), and USVI (September 2018). This report was not prepared for CNMI PSS because they declined this assistance for Year 3.

The reports and accompanying materials provide preliminary recommendations for frequencies, skill levels, and duration for maintenance tasks. To optimize the use of limited resources, the preventive maintenance tasks should be further grouped and planned for based on location, type of work, skill level, and amount of time required. An Excel sheet of tasks and scheduling details was prepared to help build scenarios for program planning, however, the number of preventive maintenance items that can be conducted is largely dependent on the number of maintenance staff available and their respective skill levels, what training can be undertaken, and which tasks can be outsourced.

Initial calculations of the time required to execute all of the proposed maintenance tasks (based on assumptions described in the reports):

- American Samoa: 28 schools/290 buildings is estimated to total 167,721 maintenance staff hours (approximately 80 full-time-equivalent (FTE) staff).
- GDOE: 35 schools/653 buildings (i.e., not including leased schools) is estimated to total 362,381 staff hours (approximately 174 FTE).
- VIDE: 34 schools/411 buildings is estimated to total 234,605 maintenance staff hours (approximately 113 FTE).

It is important to note this calculation is inflated by the assumption that mobilization and demobilization time for each task is 1 hour regardless of task size. As determinations are made regarding which tasks will be conducted and how they will be grouped, man-hour estimates can be refined. Initial selection and grouping of preventive maintenance tasks will be required to start assigning work (e.g., via EAMS). Ongoing refinement will be needed to balance school administration, facility manager, and maintenance staff needs and capabilities. Ongoing evaluation of preventive maintenance tasks and work completed will also be needed to determine effectiveness of program. Dedicated maintenance funding is also critical for program success.

5.2.2 Facility Planning Components

This effort was undertaken to establish the technical components required for annual comprehensive CIP plans and/or facility master plans and set related goals and standards. Reports were provided to the host agencies in American Samoa, Guam, and USVI (November 2018). This report was not prepared for CNMI PSS because they declined this assistance for Year 3.

These reports provide a template for a working document that establishes foundational school facility Capital Improvement Program (CIP) planning components that can be updated annually to provide local decision makers with high level facility-need information regarding the current state of the school facility inventory (e.g., existing facility conditions and functionality, enrollment trends, and overall school CIP needs) to provide timely information for budgeting and project sequencing. This document also outlines recommendations for larger-scale planning efforts (i.e., master planning) that should be conducted on a recurring basis (e.g., every five to ten years). Related efforts include the definition and vetting (or reconsideration) of facility standards (e.g., facility requirements for each school level: elementary, middle/junior high, and high school), population projections and demographic analysis, and planning factors that should be informed by and agreed upon through broader public engagement such as CIP prioritization criteria.

5.3 EAMS Support, Buildout, and Preparation for Rollout

EAMS efforts for Year 3 included buildout to enable work order, job plan, and asset template functions and facilitate system rollout to host agencies with three primary objectives: 1. complete asset collection/data entry, 2. define host-agency user groups so credentials can be established for system

training and host-agency use, and 3. discussing service request and work order operating procedures with host agencies to ensure understanding and concurrence on how to proceed.

Asset collection and data entry continued to delay EAMS rollout, though this effort was largely completed in 2018 (final school data is being entered for Guam and USVI).

Host agency groups and user license requirements are understood and the ABCs Team will work to establish user credentials and appropriate permissions for individuals that will require or benefit from having access to the system as the Initiative transitions into Year 4.

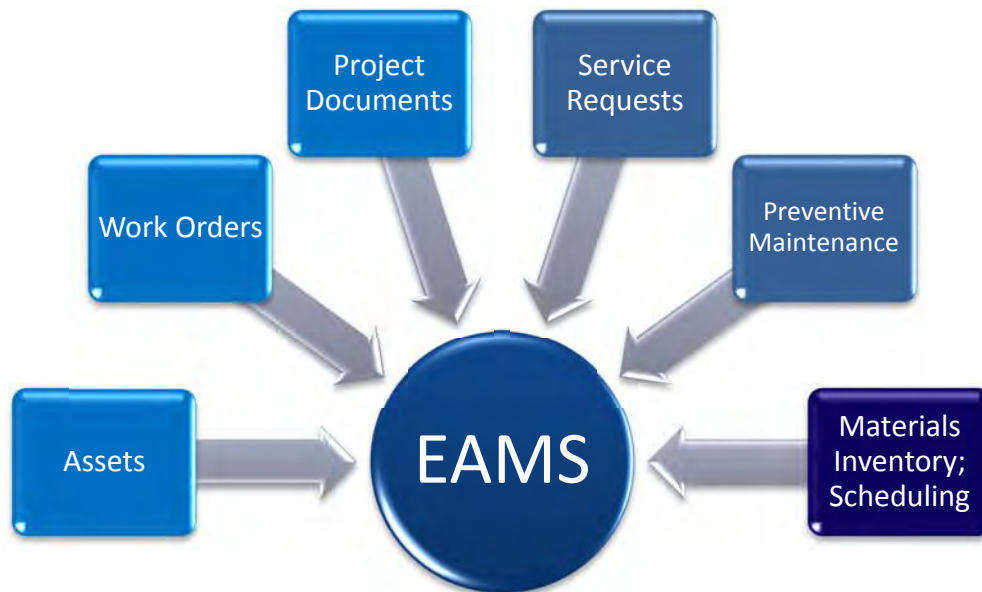
Service request and work order operating procedures have been agreed upon by host agencies in American Samoa and Guam, and will be defined for USVI once the new administration can provide its input. Basic steps established through discussions with Guam and American Samoa contacts include:

1. School staff reports service request to the school office contact.
2. School office contact, or designee, submits service request in EAMS (requires establishment of free “self-service” user credentials) or reports to maintenance office (via phone or email).
3. The maintenance office creates the work order (entry fields include: school, date requested, description of problem, work category (e.g., plumbing, electrical), employee assigned to the work order, notes/comments (e.g., to describe extenuating circumstances), date and times completed (automatically recorded in EAMS), outcome and follow on work if needed.
4. The maintenance office contacts the respective maintenance manager requesting action on the work order. Maintenance managers prioritize the service requests when creating work orders (e.g., emergency [HVAC, broken water line, exterior lockset or window], urgent [interior lockset], routine [light out]), and coordinate assignments. The maintenance managers assign the work to the appropriate maintenance staff or supervisor (e.g., electrical, fire protection, carpentry, plumbing, HVAC), and lets the maintenance office know who is doing the work.
 - Note: tool and material sign-out protocol may need to be established.
5. Tradesman signs in at the school office upon arrival or alerts the maintenance manager if redirected to another task after issuance of the work order.
6. Tradesman reports to the school office once the work is complete and gets school office contact signature to confirm the issue was addressed, and signs out.
7. Tradesman submits the work order to the division head.
8. Division head submits the completed work order to the maintenance office for closeout.

These steps may seem simple but will help give structure to how service requests are addressed and provide useful data for monitoring trends over periods of time. The need to add other steps (e.g., prioritizing and scheduling) can be addressed as maintenance offices engage schools. The EAMS is ready to support host agencies, and training for this will begin in Year 4 as host agencies are able to allocate staff time (already begun in American Samoa). Honolulu staff will continue to provide remote quality assurance and oversight of EAMS deployment and technical support. The ABCs Team will continue to

add functionality to the EAMS software as needed to support host-agency operations (e.g., inventory, scheduling).

Figure 2 shows the current and planned EAMS functionality to date.



	<p>In place/ready for use:</p> <ul style="list-style-type: none"> • Assets: collection/definition, creation within the EAMS, and assignment to respective locations (e.g., schools, buildings, and classrooms) is complete for buildout purposes and will continue to be updated as additional details are needed or assets are replaced. • Work orders: can be created, tracked, and closed out; EAMS is capable of reporting costs of existing and completed work orders • Project documents: can be saved within work orders; documents can also be attached to locations to allow for storage of photos or site/ floor plans, or diagrams that can help identify equipment or repair steps.
	<p>In progress:</p> <ul style="list-style-type: none"> • Service requests: steps are defined; embedded staff are working with the host agencies in bringing school contacts into system use. • Preventive maintenance: tasks and job plans are preliminarily defined; once actions to be taken, staff assignments, and frequencies are defined these will be activated in EAMS and dispatched as sequenced and recurring work orders.
	<p>Continued buildout:</p> <ul style="list-style-type: none"> • Materials/inventory: This module could be activated and deployed for managing the ordering and issuance of equipment, materials, tools, or spare parts. Could be pursued in Year 3 or Year 4.

Figure 2 - EAMS Capabilities – Current and Planned

6. YEAR 4-5 OVERVIEW

Years 4 and 5 represent the last two years of the 5-year MOU period agreed to between the four territorial governors and OIA (for purposes of this report, Years 4 and 5 correspond with calendar years 2019 and 2020). The Year 4-5 overview also follows the three basic scope of work tasks: (A) Work Plan Execution (i.e., ABCs Initiative Management), (B) Embedded Team, and (C) A-E Support Services.

6.1 Work Plan Execution

During this final two-year period, the DM CIP funds allocated by the Insular Governors of Guam and American Samoa will be fully encumbered. Because DMRP work is on hold in USVI, it is not likely that allocated funds will be fully encumbered and may be redirected for other purposes. DMRP work is planned to move forward in CNMI, but the full extent is not yet clear due to the recent typhoon. Work plan execution efforts will include updating Work Plans and NEPA RECs as needed. 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 amicable relationships with host agency leadership, ensure that embedded team actions are advancing program goals (i.e., program direction/accountability), and provide project level accounting support such as maintaining financial records, invoicing, ensuring compliance with local government regulations. This effort includes maintaining weekly status reporting with embedded teams, providing regular progress updates, and conducting regular calls with OIA, USACE, host-agencies and impromptu calls to address issues that arise. Management of the ABCs Initiative also includes territory visits by the Honolulu team members, twice a year, to meet with related agency contacts in person, provide briefings on work products, discuss host-agency needs and Initiative goals at a deeper level, review/update operating agreements and other local government agreements as needed, receive feedback on embedded team performance, and continue to ensure that ABCs efforts are providing meaningful support to the host agencies.

6.2 Embedded Team

Embedded team staff arrangements are in flux as host agencies work through various situations. DMRP work in CNMI and USVI were put on hold due to hurricane impacts and the FEMA assessment process. The CNMI PM is working part time and can continue with capacity building efforts and repair projects at schools that are not being assessed for FEMA assistance. The USVI team will continue closing out projects executed in Year 3, and then will be on hold, other than the EC, until the new VIDE administration is in place and able to provide direction (February/March timeframe). DMRP program funding was reduced by the American Samoa Governor, so it is expected that CS efforts will taper before the end of Year 5 (dependent on procurement and construction timeframes). The embedded team in Guam will continue as initially envisioned, with full DMRP funding and no complications to school facility conditions. The EC is transitioning out and a GDOE staffer is being trained to assume the EC position. Current status for each embedded team position is shown in Table 5.

Table 5 - Embedded Team Position Statuses

Territory	PM	CS	EC	AA
AS	To remain through program completion	To remain through program completion	To remain through program completion	Position terminated related to taper
CNMI	Currently part time and expected to continue at this level through program completion	Not currently needed (PSS provided)	Not currently needed (PSS funded directly by OIA)	Not currently needed (PSS provided)
Guam	To remain through program completion	To remain through program completion	HHF EC to be backfilled by GDOE employee	May fill position if warranted by project volume
USVI	DMRP program status unclear; PM position in caretaker status until the new administration stands up	DMRP program status unclear; St. Thomas CS position winding down due to declining work load	To remain through program completion	Position terminated due to declining workload.

6.3 A-E Support Services

6.3.1 Design Review and Technical Assistance

Honolulu-based team members will continue to provide technical assistance to implement projects from the approved work plan and support scope, specification, construction detail, and design review. The Honolulu-based engineering team, including architects, civil, structural and MEP engineers, provide technical input and resource contributions to the process in maintaining timely project delivery. The Honolulu office will assist in coordinating the design review/technical assistance provided by the engineering team.

6.3.2 Training and Sustainability Program (TSP) Implementation for Year 4-5:

TSP actions were established based on the OSP recommendations made in Year 2, and ongoing discussions with host-agencies. Action selected for Years 4 and 5 included:

- Year 4
 - Continue facility planning support: the facility planning components documents prepared in Year 3 provide a template for building context and reporting facility needs, and also provide steps that could be taken for visioning/goals setting, establishing facility requirements to support those goals, assessing current conditions based on those goals, and defining objective criteria for determining funding priorities. These steps require a public engagement process to provide a transparent process, stakeholder input, and local consensus/support for the plan. With goals, standards, and prioritization criteria in place, the host agencies will be in a better position to reestablish

the DM and CIP needs for their public school facilities through condition and functional adequacy assessments.

- School facility conditions assessment to compare with the 2013 baseline condition and update EAMS work orders for remaining DM backlog.
 - Staffing configuration and mentor/apprenticeship model recommendations: host agency research/consultation, best practices analysis, incorporate agency input in developing recommendations
 - Trades training program implementation (AC, electrical, plumbing, safety, etc.): working with local training program and sponsoring off island trainers as needed
 - Review/evaluation of OSP progress and coordination with host agencies to determine if there are any other actions to pursue prior to the conclusion of the ABCs Initiative
- Year 5
 - Asset management benchmarks (key performance indicators)
 - Compile document libraries and institute cross-training programs (e.g., project delivery and documentation)
 - Transfer responsibilities to host agencies

6.3.3 EAMS Support and Rollout

Year 4 marks a critical milestone where EAMS buildout is substantially complete (as an asset management system it will continuously be updated as conditions change and assets are replaced) and ready for host-agency staff to start using the system for DM/CIP project work orders, school service requests, and regular/preventive maintenance tasks. The American Samoa team started working with ASDPW staff on system use in May 2018. These staff made valuable contributions to system buildout and are progressing well with system use. The Guam team started cross-training GDOE staff in November 2018. VIDE engagement is limited, but the team provided a system demonstration in March 2018 that was well received, and the team is looking forward to engaging VIDE staff further when the new administration is in place.

In Year 4, the ABCs team will engage local stakeholders in training and system use. The support of the Honolulu-based EAMS Manager is critical for guiding these efforts because of the administrative requirements needed to establish user credentials based on appropriate security groups (which provide the appropriate level of access for the various system users—and will be delegated to the appropriate user as the user group becomes more defined and capabilities more apparent) and modified as appropriate. More importantly, the EAMS PM is critical for ensuring that rollout follows a deliberate process focused on successful adoption.

This effort requires management of several facets of system use including:

1. Work order creation and tracking;
2. Service request protocol;
3. Maintenance program initiation, programming, refinement, buildout;
4. Creation of progress reports and queries for various data requests.

Furthermore, the EAMS Manager is also required to:

1. Provide remote quality assurance and oversight to ECs including training as needed and coordination of activities to ensure consistency in approach and delivery of services;
2. Assist with engaging and training host agency staff in system use as work order, maintenance, and reporting functions transition to host agency responsibility;
3. Ensure that appropriate standards and data entry protocols are followed and that adequate training resources are available to the embedded ECs and other EAMS stakeholders;
4. Maintain DM work order data on EAMS, serve as the primary liaison with EAMS software engineer and technical support professionals;
5. Continue to add functionality to the EAMS software (e.g., equipment and materials inventory and maintenance scheduling functions);
6. Manage system logistical support (e.g., DST monitoring/licensing, transition to DOI software as a service hosting, and managing servers prior to the transition)
7. Ensure that OIA and USACE team members are assigned appropriate viewing credentials and have executive level access to the system.

Maintenance programming elements were defined in the Year 3 report, and create tasking and resource scenarios for EAMS. The next steps for implementing the maintenance program include: selecting and grouping tasks (based on host-agency input), training to prepare staff and start a process for knowledge transfer and continuance of service, monitoring the execution of work orders, and tracking work completed to inform asset and resource management. The EAMS Manager's oversight and guidance through these steps is critical for implementation.

In Year 5, the EAMS Manager will ensure that data are appropriately compiled and reported to deliver key performance indicators to facility managers and host-agency leadership, as well as document and compile work scopes and cost schedules to inform CIP and maintenance program planning as well as to serve as reference material for future training and work delivery efforts.