



REPAIR & MAINTENANCE

UPDATE



Before



After

BEFORE: Francisco Mendiola Sablan Middle School's (formerly San Antonio MS) roof lacked adequate slope and retained pockets of ponding water. Wire mesh and a thin concrete topping were added to create positive drainage. Contractors worked into the evening to cover the entire roof in a single pour.

AFTER: The new sloped surface was primed and coated with a new fluid-applied roofing. Roof drain inlets were cleaned and new drains added at the perimeter.

ABCs Implementation Progress

Having boots-on-the-ground, local involvement is critical to ABCs success. Rod Brickey, ABCs Program Manager with HHF Planners, actively manages all ABCs activities and projects jointly with the Facilities Development & Management (FDM) group. The ABCs work is executed based on local market conditions (e.g., material and contractor availability) and PSS's prioritized needs. ABCs primary focus has been on health and safety needs such as restroom and roofing repairs.

The ABC program expects to complete approximately \$2M in projects by the end of 2017.

Restroom Repairs

Repairs focused on refurbishment using durable assets. Wall hung fixtures (that had been separating from walls) are being replaced with ground-mounted fixtures. Wood countertops (subject to wood rot and termites) are being replaced with tiled, reinforced concrete countertops -- see "Durable Construction Details."

Roofing Repairs

Roofing repairs are a priority for the ABCs program. Water penetration causes mold and can quickly damage adjacent electrical and interior finish systems. Over time, this can lead to structural damage. Addressing the problem immediately can help lower total repair costs.

Insular ABCs

The Assessment of Buildings and Classrooms (ABCs) initiative is a partnership between the US Department of Interior's Office of Insular Affairs (OIA) and CNMI. The US Army Corps of Engineers manages the ABCs program through its Contractor, HHF Planners.

ABCs is focused on (1) improving the physical condition of CNMI Public Schools and (2) supporting capacity building initiatives to manage school facilities. Status reports are available at hhfplanners.com.

This effort would not be possible without the dedication and support of PSS led by Commissioner Cynthia Deleon Guerrero and Facilities Development and Management Director Rachel Fusco.

To repair delaminating roofing, adhesion tests are used to help select the proper materials. Proper bonding to the roof substrate extends the durability of repairs and reduces the chance of future delamination. When concrete roofs are not properly sloped, the ABCs program corrects this deficiency before applying a new roof coating (see photos, above).



Roofing failure due to membrane delamination.

Fire Protection

Fire protection, communication, and electrical system repairs are currently in the design phase. Brickey hopes that PSS will hire at least one Fire Maintenance Technician who could be trained by the fire alarm manufacturer and regularly service new systems.

Without ongoing preventative and predictive maintenance, major capital assets, including fire systems, electrical, roofing, and HVAC systems will have a shortened useful life. This not only jeopardizes occupant health and safety but can also void warranties and require additional capital funding for replacement due to premature failure.

Maintenance Requests

Effective January 2017, School Principals should direct all trouble calls and maintenance requests to:

FDM Facilities & Maintenance Services Program Manager
Glenn Smith

Staff Training

In collaboration with the ABCs program and Facilities Development & Management (FDM), about 20 PSS maintenance staff attended 80 hours of HVAC maintenance training in 2016 (see photo).

In 2017, PSS maintenance staff were offered an additional 80-hour training course on Plumbing. Attendees that pass an exam are offered certification upon course completion. Future training sessions may cover electrical maintenance and carpentry.

One of the goals of this training effort is to build PSS' in-house capabilities, reduce contracted work, improve efficiencies, and increase job satisfaction.

FDM's internal analysis identified PSS was spending approximately \$200,000, contracting HVAC repair specialists. Brickey suggested that amount could be reduced significantly if PSS added HVAC Technicians to its staff. Recruitment is in process.



Rod's Remarks

Brickey has seen a lot of positive changes in the PSS since he arrived 16 months ago. "Originally there were some procurement challenges but that has improved. I have had a lot of good luck combined with good people who have a passion to improve the PSS and its school facilities," he says.



Rod Brickey, ABCs Program Manager with HHF Planners

Being integrated into the PSS community and fostering a collaborative environment has been very important to making a positive difference.

Principal Feedback

The following message is from Hopwood Middle School:

Hello hardworking FDM,

This week we celebrate Teacher Appreciation Week! But we also like to appreciate the FDM and the Mr. Rodney Brickey, our Insular ABCs Program Manager for their hard work and for all the help that you provide to Hopwood Middle School. We still have a lot of renovations to do but I see how passionate you all are in helping out the schools.

Especial thanks to Mr. Glenn Smith, Mr. Ando, and Mr. Eric Magofna for consistently coming to our school to check and help us with our projects. Thanks also to Mr. Rodney for providing the resources needed to complete the projects.

You are all doing an awesome job!

*Rizalina M. Liwag
HMS Principal*



Durable Construction Details

To improve durability and reduce student damage, wood lavatory countertops are being recast in concrete (photos below). The counters are built using formed concrete with steel reinforcing. The work is finished with tile to provide a clean, non-absorbent finish that matches adjacent surfaces. The result should be more resistant to damage and hopefully student-proof. These countertops will last longer and require less maintenance than wood.



Above, left: Wood countertops are being replaced with more durable materials (steel-reinforced, cast-in-place concrete). Above, right: Concrete lavatories with tile finish.