Ka Mala Lani: Re-Planning School Grounds for Growing Pono

The Blanche Pope Elementary School, a roughly 10-acre area, is located on Hawaiian Homestead lands in Waimānalo, Oʻahu, Hawaiʻi. Waimānalo, a country town on the Windward (East) side of Oʻahu, has a larger percentage of Native Hawaiians than most communities. The School’s vision is E Kūlia I Ka Pono Loa - Strive for Excellence. Blanche Pope Elementary is a culturally responsive school that provides students with a strong foundation for future academic and life endeavors. Students are respectful, cooperative, and active participants in a student-centered curriculum that integrates technology, collaboration, and problem-solving.

Despite its strong community, Waimānalo faces many challenges, such as high rates of single parents (which can increase the risk of delinquency), aggressive behaviors, and somatic complaints, as well as externalizing and internalizing problems. Partly in response to this need, two key projects were created at Blanche Pope to offer after school and family oriented programs: The Growing Pono Schools Project, and Nā Pono no nāʻōhāna.
2. Site Conditions

All images below were extracted directly from RICORDI, 2015.

1. Although water can be an abundant resource during winter months, most of the buildings had issues with drainage, as rain water accumulate around the buildings increasing the maintenance along pathways.

2. All school runoff was diverted to the drainage channel on the north side of to the school, draining into the ocean with no treatment.

3. The school garden programs used a shared tent. This resulted in conflict of schedules and periods with no shelter for classes and gatherings.

4. The school garden “Ka Māla Lani” is unique in a sense that it is comprehensive in its concept and practices. It addresses topics such as life cycles, food production, composting, environmental consciousness, anti-bullying, respect, life goals, and others, from a “growing pono” point of view. It has naturally evolved over the years and expanded greatly.

5. The school garden “Ka Māla Lani” evolved to a point where students visited farms in neighboring communities and the University of Hawai’i Waimānalo Research Station for education and exposure to activities in the community.

6. The large school back yard is used for recess, recreation, and school functions such as graduation. However, there was no screening from surrounding houses, exposing the students to activities in private homes and vice-versa.
3. Master Plan

All images below were extracted directly from RICORDI, 2015.

1. The first step for development of the Master Plan was the identification of school assets and issues, through dialogue with the school and site observation. These areas are represented through a plan called “Areas of Work”.

2. Drainage was studied and represented in a storm water drainage plan, for easy interpretation of the school staff.

3. All impervious surfaces were considered to calculate the amount of runoff from building roofs and parking areas. This graphic was used with the Master Plan by Hui o Ko‘olaulo‘opokolo to install a Rain Garden in 2015, through a community project.

4. The circulation and use of the school garden “Ka Māla Lani” was studied and a Hawaiian Hale was proposed to provide shelter for gathering before entering the garden and for outdoor learning spaces. It can also support culture and place-based learning.

5. The project also incorporated teaching methods through planning, design and digital media, and teachers have utilized the outdoor spaces to plan and develop curriculum and instruction in all content areas, especially Ethnomathematics, which is the integration of culture and place-based learning STEM (Science, Technology, Engineering and Mathematics).

6. The “Areas of Work” plan evolved to a “Site Plan,” taking all assets and issues into consideration. This plan offers a broad view of each individual project area and integrates them in a systematic way. Now, with all issues and areas of work laid out, it is possible to develop each design solution, to be implemented in phases.
4. Implemented Projects - 2015 - Rain Garden

1. The Rain Garden was the first part of the Master Plan to be implemented. Teachers from the school contacted Hui o Ko'olaupoko, a local non-profit whose mission is "to protect ocean health by restoring the 'aina: mauka to makai". Hui o Ko'olaupoko worked with the student and used the master plan graphics and data to design the rain garden and organized a community project event during a Saturday to install the rain garden. Image source: Image source: RICORDI, 2015.

2. The Rain Garden was installed in 2015. The school partnered with Hui o Ko'olaupoko and the student to design the rain garden and plan the community day. Hui o Ko'olaupoko donated the plants and materials necessary for the rain garden. The school asked the student to name the garden, which was named "Sponge Garden" to reflect the rain garden environmental benefits and a popular activity among BPES students: bodyboarding. Above and below: photos from the Student archives. Image source: Author archives.

3. The work group circle up to introduce the project and prepare for the community event. This was an opportunity for education and for the community to discuss the storm water issues and how to mitigate pollution into the ocean. Image source: Author archives.

4. Students and their families working together for the installation of the rain garden. This type of multi-generation experience is very important to foster stewardship and school culture identity. Image source: Author archives.

5. The rain garden is currently used during classes to teach sustainability, community resources, storm water pollution, native plants, and ecosystems with hands-on approach. Image source: Author archives.
5. Implemented Projects - 2016 - Liliko‘i Hale in the School Garden

1. The Liliko‘i Hale was installed in 2016 as part of the Green Apple Day of Service in partnership between Blanche Pope Elementary School, the USGBC Hawai‘i Chapter, HHF Planners, Blue Zones and Waimānalo Co-op, besides other individuals and organizations including the student. Teachers from Blanche Pope Elementary School handed the Master Plan to the project committee to help installing the hale. Image source: RICORDI, 2015.

2. The Liliko‘i Hale, project led by HHF Planners with support of the student, was inspired by the traditional Hawai‘ian Hale and a trellises concept for shelter, with the ultimate goal of providing students with a sense of embracing and protection. Image source: Lily Utai

3. One of the earliest drawings in the student project, developed with participation of 3rd grade BPES students during school garden class, show a liliko‘i trellis at the center of the garden to provide fruits and shade. Image source: RICORDI, 2015.

4. Students, friends, family, and volunteers work together in the community day to improve the school garden. Image source: Green Magazine

5. The entire group that participated in the 2016 Green Apple Day of Service at BPES: more than 4 organizations and an estimated 200 volunteers. Image source: Green Magazine


1. The Garden of Eden is the latest plan to be implemented; it promotes wellness, self-sufficiency, and food sustainability. The Principal from BPES contacted the student to assist in planting trees on the perimeter of the school backyard, following the "Garden of Eden" concept from the Master Plan. Working with PBR HAWAII, the school was awarded $9,985 by the Kaulunani Urban and Community Forestry Program to install a 1/8 mile long mulch pathway along a breadfruit tree grove plus five 25-gallon native and canoe trees to shade the playground. The project was launched during Earth Day and will continue thru 2018, with a total of 45 trees to be planted throughout the campus. Image source: RICORDI, 2015

2. PBR HAWAII provided BPES with a site plan (left) based on the student’s design from his Doctorate of Architecture Master Plan (top right). This plan was used to raise funding, grant applications, and for planning and design meetings with the school. Image sources: Above Left: PBR HAWAII; Above Right: RICORDI, 2015.

3. Plan developed for Earth Day. After studying the site and considering the resources, time, and expected number of volunteers, the team decided to limit the pathway to 1/8 mile. The design incorporated breadfruit trees every 100 ft. Additional fruit trees will be planted as class projects. Image source: PBR HAWAII

4. Another project where students and families worked together for inter-generational activity, characteristic of Waimānalo community. Image source: PBR HAWAII

5. A total of 87 volunteers participated on Earth Day: one landscape contractor company, students from Tokai University, volunteers from PBR HAWAII, and members from BPES community. Image source: PBR HAWAII

6. The students at BPES enjoying the pathway, using during recess and to support the physical education and wellness programs. Image source: Lily Utai