


STATE OF HAWAII
DEPARTMENT OF EDUCATION
KA 'OIHANA HO'ONA'AUAO
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE DEPUTY SUPERINTENDENT OF OPERATIONS

February 8, 2024

TO: The Honorable Ken Kuraya
Chairperson, Finance and Infrastructure Committee

FROM: Curt T. Otaguro 
Deputy Superintendent of Operations

SUBJECT: Update on Status of Schools' Fire Alarm Systems

1. EXECUTIVE SUMMARY

Since the Finance and Infrastructure Committee (FIC) meeting update on January 11, 2024, the Hawaii State Department of Education (Department) accomplished key tasks aligned with the Strategic Plan Goal 3.1.2. This goal focuses on ensuring that our school facility systems are responsive, efficient, and capable of addressing all needs promptly.

- There were three fire alarm projects successfully completed.
- There are 12 schools utilizing a fire watch plan. Each of those schools have projects initiated with estimated completion dates ranging from June 2024 – July 2026.
- The Department is in the third week of its fire alarm systems and equipment inventory initiative. This systematic approach with 187 completed school visits, 116 uploaded photos, and an average system age of 16 years old, will continue to ensure accurate insights for informed decision-making on maintenance, upgrades, and safety measures.
- The Department successfully completed a total of 11 projects for School Year (SY) 2022-2023, with a current queue of 40 active projects in progress.
- The Department is working on creating a Fire Safety Program to assist with proactive maintenance, replacement of fire alarm systems, and fire protection equipment.

2. DESCRIPTION

Status update on the Department's Fire Safety Program and current state of the Department's fire alarm systems and fire alarm projects.

3. UPDATE

Since the FIC meeting on January 11, 2024, the Department has presented information regarding 11 school projects employing a fire watch plan due to non-functional fire alarm systems. Additionally, on January 11, 2024, two more schools were included, bringing the total to 13 schools on the fire watch list.

Three fire alarm projects have been successfully completed, with one of these projects involving a school previously on the fire watch plan. Consequently, one school has been removed from the fire watch list.

As of January 31, 2024, there are 12 schools employing a fire watch plan due to inoperable systems. The details below offer additional insights into the completed projects and the list of schools on a fire watch plan.

Fire Alarm Projects - Completed		
School	Action Taken	Date
Kapaa HS	Upgraded Fire Alarm Control Panel (FACP) Removed from Fire Watch	January 2024
Kahaluu ES	Upgraded FACP	December 2023
Nuuanu ES	Upgraded FACP	December 2023

Active Fire Watch List	
School	Status
Heeia ES	Active Construction / Construction schedule approved by school
Kahuku HIS	Active Construction / Construction schedule approved by school
Kainalu ES	Maintenance Service Contractor replacing Control Panel Replacement: Permit approval
Kapalama ES	Maintenance Service Contractor scoping Control Panel replacement Replacement: Final Design
Kaumualii ES	Active Construction / Construction schedule approved by school
Konawaena ES	Prequalified Small Contractor Bid Replacement: Preliminary Design
*Lanai HIS	Active Construction / Construction schedule approved by school
Laie ES	Active Construction / Construction schedule approved by school
*Moanalua MS	Maintenance Service Contractor ordered parts to replace defective devices
Pearl City HS	Active Construction / Construction schedule approved by school
Solomon ES	Maintenance Service Contractor confirmed fix is possible once the leaky roof that destroyed the Control Panel is repaired
Sunset Beach ES	Active Construction / Construction schedule approved by school

**New schools added to the fire watch list.*

Asset Inventory

The Office of Facilities and Operations (OFO) has commenced its asset inventory initiative for fire alarm systems and equipment, now entering its third week. Utilizing consultants, the OFO is collecting data on the make and model of fire alarm systems, installation dates, and discontinued equipment manufacturing. Following this, the Department will establish a criteria to assess the critical nature of each system across all schools statewide.

In order to comprehensively assess and maintain our schools' fire alarm system, a meticulous data collection workflow has been established. This process ensures accurate insights into the system's condition, facilitating informed decision-making.

1. Onsite School Visit
 - Team conducts thorough onsite visits to capture essential data and high-resolution photos of the FACP. This step serves as the foundation for our comprehensive analysis.
2. Photo and Data Upload
 - The collected data and images are promptly uploaded to our secure system, streamlining accessibility and collaboration among relevant stakeholders.
3. Identifying Install Date, Make, and Model
 - If the installation date, make, and model are readily identifiable, the team leverages this information to calculate the fire alarm system's age, ensuring accurate maintenance schedules.
4. Calculation of Fire Alarm System Age
 - Utilizing identifiable information, the team performs a calculation of the fire alarm system's age. This data becomes instrumental in planning for necessary upgrades and replacements.
5. Research for Unidentifiable Information
 - In cases where the install date, make, or model are not easily identifiable, our team initiates a thorough research. This includes reviewing "as-built" documents and proactive communication with the system manufacturer.
6. Manufacturer Communication
 - To bridge any information gaps, we engage directly with the manufacturer, seeking details that are crucial for determining the fire alarm system's age. This collaborative approach ensures the most accurate and up-to-date information.

This systematic workflow provides the Department with a comprehensive understanding of our fire alarm system, enabling the Department to make informed decisions regarding maintenance, upgrades, and overall safety measures.

Metric	Quantity	Progress
School Visits (completed)	187	71%
School Visits (remaining)	76	29%
Uploaded Photos	116	44%
Confirmed Fire Alarm Systems	49	17%
Average Age of Fire Alarm Systems	16 years	

Fire Alarm Projects

The Department successfully completed a total of 11 projects worth \$5.4 million for SY 2022-2023, with an active list of 40 projects, worth an estimated cost of \$46.2 million in progress.

Completed Projects			
School	Project Description	Cost of the Project	Completion Date
Holomua ES	Fire Alarm System Replacement	\$728,646	2023
Kaaawa ES	Fire Alarm System Replacement	\$294,689	2022
Kaewai ES	Fire Alarm System Replacement	\$583,601	2023
Kalama IS	Fire Alarm System Replacement	\$641,453	2023
Kalihi Uka ES	Fire Alarm System Replacement	\$205,425	2022
Kamiloiki ES	Fire Alarm System Replacement	\$467,150	2022
Kapaa MS	Fire Alarm System Replacement	\$934,158	2023
Kapunahala ES	Fire Alarm System Replacement	\$285,447	2023
Keonepoko ES	Fire Alarm System Replacement	\$786,045	2023
Kilauea ES	Fire Alarm System Replacement	\$362,711	2023
Puuhale ES	Fire Alarm System Replacement	\$121,436	2023

Active Fire Alarm Projects					
School (* Under Fire Watch)	Project Name	Date Reported Inoperable	Cost of the Project	Project Status	Target Completion Date
Fern ES	Fire Alarm System Replacement		\$430,322	Construction	June 2024
*Heeia ES	Fire Alarm System Replacement	December 2019	\$664,700	Construction	June 2024
Kahaluu ES	Fire Alarm System Replacement		\$357,701	Construction	July 2024
*Kahuku HIS	Fire Alarm System Replacement	December 2020	\$1,008,223	Construction	July 2024
Kaimuki HS	Fire Alarm System Replacement		\$1,517,700	Construction	October 2024
Kaimuki MS	Fire Alarm System Replacement		\$790,181	Construction	March 2024

Active Fire Alarm Projects					
School (*) Under Fire Watch	Project Name	Date Reported Inoperable	Cost of the Project	Project Status	Target Completion Date
Kalaniana'ole EIS	Fire Alarm System Replacement		\$823,525	Construction	March 2024
Kauluwela ES	Fire Alarm System Replacement		\$444,515	Construction	February 2025
*Kaumualii ES	Fire Alarm System Replacement		\$1,233,406	Construction	July 2024
**Kekaulike HS	Fire Alarm System Replacement		\$1,240,900	Construction	December 2023
Ke Kula O Ehunuikaimalino	Fire Alarm System Replacement		\$75,304	Construction	July 2024
Kuhio ES	Fire Alarm System Replacement		\$290,647	Construction	September 2024
Lahainaluna HS	Fire Alarm System Replacement		\$2,505,500	Construction	October 2024
*Laie ES	Fire Alarm System Replacement	December 2020	\$583,100	Construction	September 2024
Nuuanu ES	Fire Alarm System Replacement		\$263,204	Construction	June 2024
*Pearl City HS	Fire Alarm System Replacement	December 2021	\$1,810,777	Construction	October 2024
*Sunset Beach ES	Fire Alarm System Replacement	December 2019	\$966,842	Construction	January 2025
Waipahu IS	Fire Alarm System Replacement		\$1,638,220	Construction	June 2024
Konawaena HS	Bldg-P Replace Fire Alarm System		\$128,000	Pre- Construction	July 2025
August Ahrens ES	Fire Alarm System Replacement		\$1,872,890	Design	June 2025
Ewa ES	Fire Alarm System Replacement		\$2,026,230	Design	July 2026
Hawaii School for the Deaf and Blind	Fire Alarm System Replacement		\$1,717,360	Design	July 2026
Jarrett MS	Fire Alarm System Replacement		\$1,975,230	Design	July 2026

Active Fire Alarm Projects					
School (*) Under Fire Watch	Project Name	Date Reported Inoperable	Cost of the Project	Project Status	Target Completion Date
*Kainalu ES	Repair inoperable FACP and horn	December 2016	\$5,040	Construction	June 2024
	Replace Fire Alarm Control Panel		\$700,000	Design	TBD
Kapaa HS	Fire Alarm System Replacement		\$2,404,905	Design	July 2026
*Kapalama ES	Replace Fire Alarm Control Panel	December 2017	\$75,000	Bid / PSC	June 2024
	Fire Alarm System Replacement		\$1,500,000	Design	July 2026
Kauai HS	Fire Alarm System Replacement		\$4,000,000	Design	December 2026
Kealakehe IS	Fire Alarm System Replacement		\$1,400,000	Design	June 2026
Kohala MS	Fire Alarm System Replacement		\$2,500,000	Design	June 2026
*Konawaena ES	A REPAIR FIRE ALARM CONTROL PANEL	December 2020	\$128,000	Bid / PSC	September 2024
	Fire Alarm System Replacement		\$1,500,000	Design	July 2026
Leilehua HS	Fire Alarm System Replacement		\$2,600,000	Design	September 2026
Maemae ES	Fire Alarm System Replacement		\$286,000	Design	June 2025
Leilehua HS	Fire Alarm System Replacement		\$2,600,000	Design	September 2026
Maemae ES	Fire Alarm System Replacement		\$286,000	Design	June 2025
*Moanalua MS	Repair zone controller and smoke detectors	January 2024	TBD	Assessment	June 2024
	Fire Alarm System Replacement		\$429,000	Design	June 2026
Waimea HS	Fire Alarm System Replacement		\$2,438,941	Design	July 2026

Active Fire Alarm Projects					
School (* Under Fire Watch)	Project Name	Date Reported Inoperable	Cost of the Project	Project Status	Target Completion Date
Wilcox ES	Fire Alarm System Replacement		\$1,331,390	Design	December 2025
Keaau HS	Fire Alarm System Replacement		TBD	Planning	TBD
Keaau MS	Fire Alarm System Replacement		TBD	Planning	TBD
Koloa ES	Fire Alarm System Replacement		\$546,321	Planning	December 2026
Pahoa HIS	Fire Alarm Assessment & Repairs		TBD	Scoping	TBD
Waianae IS	Fire Alarm System Replacement		TBD	Scoping	TBD

*Completion dates are subject to change pending variables such as material and equipment lead time, permit approval time period, etc. **Kekaulike HS – The Maui Fire Department (MFD) performed its final inspection, and verbally signed off. The official sign off by MFD is currently on hold until further notice due to priorities of the Lahaina wildfire.*

Fire Safety Program

The Department remains committed to its ongoing initiative of developing a Fire Safety Program in alignment with the asset inventory project and remains dedicated to proactive maintenance and replacement of fire alarm systems and fire protection equipment. The Department will continue to actively assess system lifespans, prioritize replacements, and establish advance budgets to ensure timely actions. This includes integrating asset inventory data with completed work orders and projects, maintaining a comprehensive database for informed decision-making. The Department will continue to actively pursue streamlined processes, prioritizing the safety of our students and staff.

CTO:jk

c: Keith T. Hayashi, Superintendent
 Audrey Hidano, Interim Assistant Superintendent, Office of Facilities and Operations
 Facilities Development Branch