



Case Study: **Chief Sealth International High School – Hamilton Intermediate School**

Renovations Respect **Architectural History** of Seattle Schools



Part of **any renovation** in the Seattle school districts incorporates an **obligation to preserve and maintain** its existing **architecture and heritage**.

As one of Seattle's largest school campuses, Chief Sealth and its co-located facility Denny International Middle School are undergoing a complete renovation and rebuild. Although the changes are happening simultaneously, the project is split into building phases: Phase One is the renovation of Chief Sealth, and Phase Two is the rebuild of Denny with a light-filled gallery joining the two campuses.

Renovation of the 230,000-square-foot Chief Sealth school was completed with an emphasis

on life safety issues and energy and environmental conservation, while revitalizing the school's appearance inside and out. The objective was to create a superior educational environment, including classrooms with technology upgrades, new foreign language classrooms, a renovated auditorium and full Americans with Disabilities Act accessibility.

Catering to roughly 1,000 students, who comprise one of the most ethnically and culturally diverse student bodies in Washington

Project:

Educational Facilities
Seattle, Washington

728



Intelligent Detectors

687



Horn Strobes

291



Strobe Devices

96



Intelligent Duct

7



Beam Detectors

state, Chief Sealth has undergone periodic upgrades to its fire and life safety system prior to this renovation. Already equipped with NOTIFIER® and System Sensor products, the newly designed system was required to maintain that standard and reuse as much as possible.

Because of its specific experience with NOTIFIER and System Sensor devices, Chubb Fire & Security, a UTC Fire & Security Company – a fully licensed fire, life safety and security contractor with expertise at retrofitting properties to current safety standards – worked with Tres West Engineers of Tacoma, Wash., to design and manage the installation of the fire and

International Fire Code. But that didn't always prove to be easy. "One of the challenges in the building was the number of beams that crossed corridors," says Dennis Lane, Sales Engineer at Chubb.

The driving factor was to provide a code-compliant system. "The nice part about the current fire alarm system is it is easily expandable to accommodate additional notification devices or the smoke detectors, beam detectors, heat detectors, what have you. The device compatibility and expansion becomes a non-issue," says Bartling.

"System Sensor devices are working together in a networked fire alarm situation,

Hamilton is fortunate from an architectural design standpoint to be endowed with a lot of high ceilings. From the perspective of fire and life safety system design, similar to Chief Sealth, the ceilings created obstacles for installing devices. Because the goal was to maintain the existing architecture as much as possible to showcase the historic elements of the school, the team – which consisted of Hargis Engineering Inc. of Seattle, Chubb and Steele Corp. – had to work around the building's many open beams and rooms with partial partitions. This made it difficult to get complete coverage. "However, using standard System

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— Dennis Lane, Sales Engineer at Chubb

life safety system for the renovation.

Because Chief Sealth has serviced the community since its opening in 1957, the school district was concerned about maintaining its heritage and existing architecture, including its beautiful, arched ceilings. This was one of the factors that played into the fire and life safety system design.

"There were some complications in the actual design of the fire alarm system related to accommodating unblemished ceilings, which in turn created obstacles in installing the devices," says Tony Bartling, Project Manager at Chubb.

"The goal was to do as little exposed pipe work as possible, which caused some additional challenges in determining the locations of the smoke detectors and of the audible visible devices."

Overall, detectors and notification devices were placed throughout the campus in accordance with the

thereby providing increased fire protection for one of the crown jewels of the Seattle school district," says Lane.

Similar to Chief Sealth, Alexander Hamilton Intermediate School has undergone a two-year renovation that emphasized architectural preservation while modernizing the building to create a superior educational environment, including classrooms with technology upgrades.

The restoration of the 134,000-square-foot, multi-story Hamilton building entailed preservation of existing decorative plaster ceiling scrolls and of the historic exterior façade. The modernization focused on fire and life safety issues and energy and environmental conservation in order to adapt to today's needs. This included the expansion of an existing mechanical systems tunnel, complete overhaul of the fire and life safety systems, and a seismic retrofit to meet current safety standards.

Sensor devices, including beam detectors to cover some of the high ceiling areas, we were able to resolve all the detection and notification issues while preserving the architectural and aesthetic integrity of both schools," concludes Lane.



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