

Flora Arca Mata Elementary Modular Spaces

Case Study



CLIENT

Flora Arca Mata Elementary
Stockton Unified School District
Stockton, CA

CHALLENGE

Provide a flexible and comfortable learning space for educators and students by designing an innovative, energy-efficient, future-proof modular campus

RESULTS

A flexible and high-performing daylighting solution was integrated into the modular design to prioritize health, productivity and performance.

PRODUCT

60 Solatube SolaMaster 750 DS units

MODULAR BUILDER

American Modular Systems (AMS)

ARCHITECT

Teter Architects and Engineers

BACKGROUND: Strict design constraints can sometimes be a real challenge. But in the case of Flora Arca Mata Elementary School in Stockton, CA, they resulted in a beautiful and non-traditional new 46,752 SF fully customized modular school.

CHALLENGE: After a survey showed the immediate need for a new school was essential to serve the growing enrollment, Stockton USD was pushed to think fast and creatively to design and build a new K-8 school within two years.

Faced with a tight budget and even tighter timeline, the school district needed an innovative solution and flexible design that could adapt and accommodate future needs while prioritizing health, productivity and performance.

“We’ve used Solatube for over a decade. It’s a standard for all GEN7 Buildings and available as an option on all other project lines. It’s familiar, reliable, flexible and the industry leading daylighting solution for schools.”

- Tony Sarich, VP of Operations,
American Modular Systems (AMS)



During the design phase, there were several challenges. One of the biggest challenges for the project was finding a way to bring daylight into the space. Stockton USD's specification called for smaller height windows located higher up the wall to limit student distractions of looking out the window, but this also limited the amount of natural light available to each classroom.

SOLUTION: To properly daylight the campus and meet design goals, the design team utilized the Solatube SolaMaster Series 750 DS - perfectly illuminating each classroom with broad spectrum daylight, alleviating the natural light loss from having small windows. Solatube Daylight Dimmers were also fitted to each Solatube system allowing teachers and staff to adjust room daylight levels simply and easily.

The design team at American Modular Systems (AMS) selected Solatube over other daylighting options due to its quality, reliability and adaptability.

The flexible design of the Solatube Tubular Daylighting System was able to work within the limited attic space available in the modular building and still leave plenty of space on the rooftop for HVAC units and the associated mechanical screens.

One advantage of the Solatube systems is that the roof location and ceiling location don't have to line up completely. The tubing allows for angular capability within the plenum space. The tubing takes up less real estate and offers more flexibility than a traditional skylight.

Additionally, the adaptable tube design will allow for future interior layout flexibility. If the building needs change, the Tubular Daylighting System's light distribution lens and tubing can easily be realigned to new locations. Fixtures can be updated by swapping out or adding new accessories to customize the new space.

RESULTS: The lighting solution created by AMS, Teter Architects and Engineers and Solatube International provided a custom aesthetic that unifies the modular and traditional buildings. Blending seamlessly into the design, the Solatube Tubular Daylighting Systems were the perfect solution for daylighting a modern and high-performing educational environment that promotes health and well-being. The affordable and adaptable design will support the school's need now and will allow the district to meet future needs seamlessly.



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