The Kathleen Grimm School https://urbannext.net/the-kathleen-grimm-school/



### THE KATHLEEN GRIMM SCHOOL

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Categories: <u>Energy and sustainability</u>, <u>High</u> <u>Density</u>, <u>Middle Density</u>, <u>Project</u>, <u>SOM</u>, <u>Urban</u> <u>Paradigms</u>

Tags: Ecological agencies, Ecological researches, Education, Efficiency, Efficiency measures, Energetic Approach, Energy consciousness, Energy consumption, Facilities, Green roofs, Heliomorphism, New York, Project, Shade Shaping, Solar Energy, Sustainability, Sustainable, Sustainable construction, Urban Paradigms, Zero Energy

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The Kathleen Grimm School for Leadership and Sustainability at Sandy Ground is the first net zero energy school in New York City and one of the first of its kind worldwide. The 68,000-square-foot, two-story school serves 444 pre-kindergarten through fifth grade students. The cutting-edge building harvests as much energy from renewable on-site sources as it uses on an annual basis.



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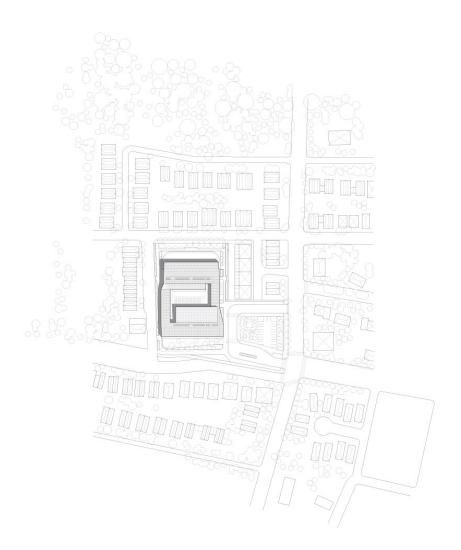
Designed to comply with the SCA Green Schools Guide in lieu of LEED<sup>®</sup> certification, the project is the NYC School Construction Authority's first "sustainability lab." This exploration into ultimate sustainability will provide substantial benefits to the City's School Design Program and help achieve PlaNYC goals for significant reductions in global warming emissions. SOM's design offers an energy-use reduction of 50% over a SCA standard public school.

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P.S.62 NET ZERO ENERGY SCHOOL

SITE PLAN

COMPLETED 2015



**Site Plan** 

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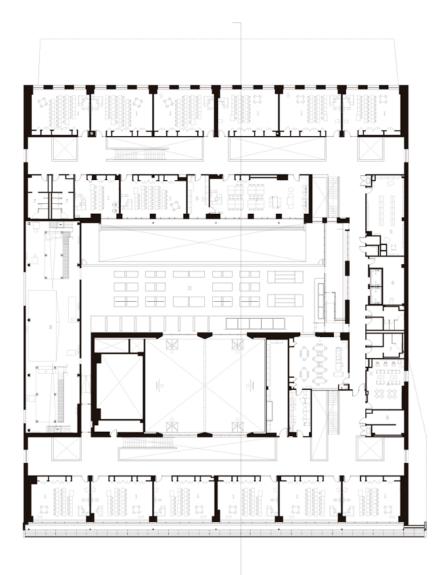
PROJECT NAME P.S.62 NET ZERO ENERGY SCHOOL

STATEN ISLAND, NEW YORK

SECOND FLOOR PLAN

COMPLETED 2015

LEGEND 1 CLASSROOM 2 GYMATORIUM 3 CAPETERIA 4 OFFICE 5 STORAGE 6 SERVICE 7 RESTROOM 8 MEP 9 LIBRARY 10 COURTYARD 11 CAPPON



**Plans** 

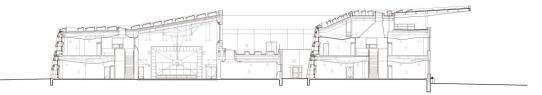
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NORTH SOUTH SECTION

COMPLETED 2015

LEGEND 1 CLASSROD 2 GYMATORI 4 OPFICE 5 STORAGE 6 SERVICE 7 RESTROOM 8 MEP 9 LIBRARY 10 COURTVARI 11 GARDEN



0 5 10 20 40

**North South Section** 

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EAST ELEVATION

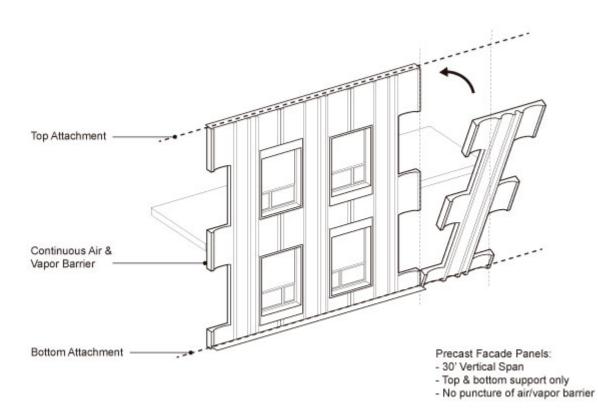
COMPLETED 2015



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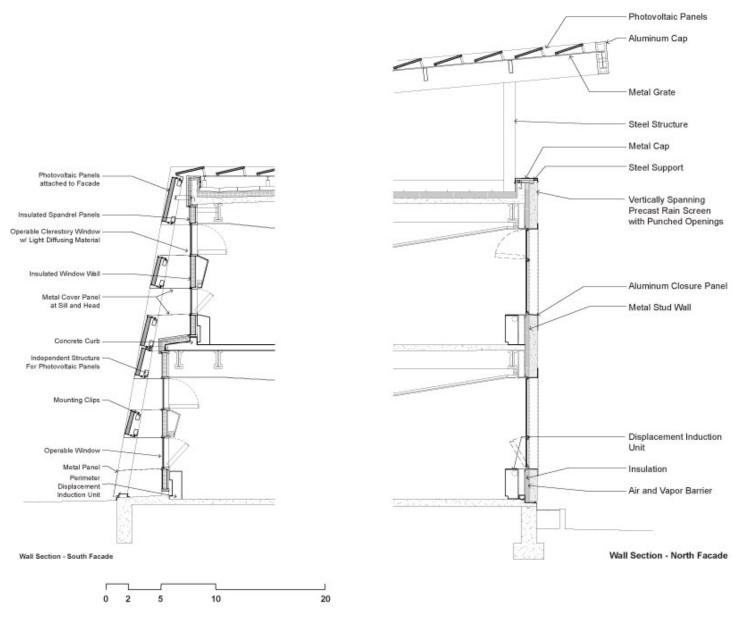
**East Elevation** 

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**Precast Diagram** 

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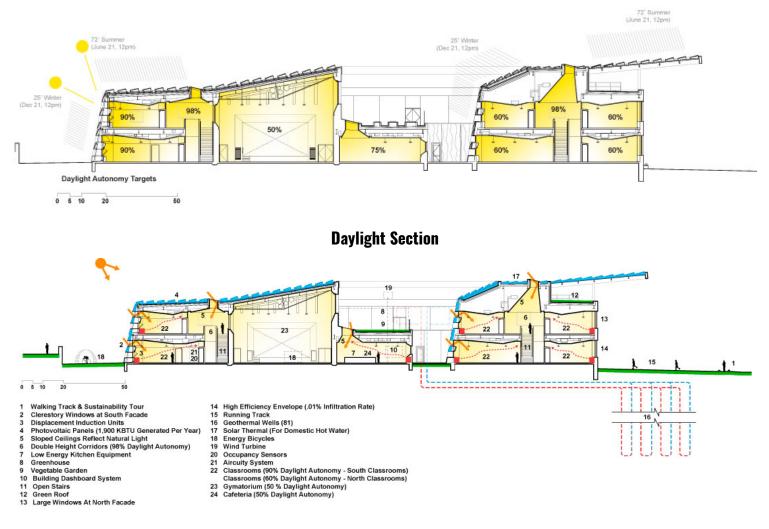


### **Wall Sections**

SOM optimized the orientation and massing of the courtyard-shaped building to take advantage of sunlight for both ample daylighting and photovoltaic arrays on the roof and south facade. Other sustainable and low-energy features incorporated in the design include an ultra-tight high-

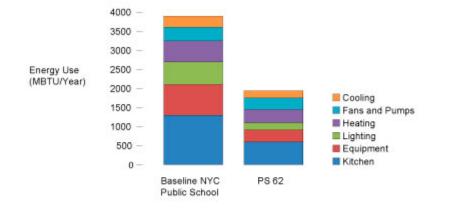
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performance building envelope, daylit offset corridors, energy-efficient lighting fixtures, low-energy kitchen equipment, a greenhouse and vegetable garden, a geo-exchange system, energy recovery ventilators and demand-control ventilation, and a solar thermal system for hot water.

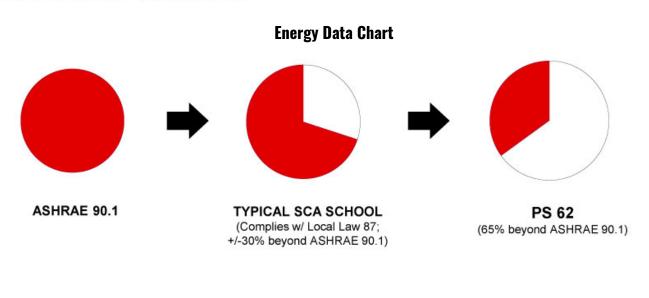


**Sustainability Section** 

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Information depicted is based on design analysis, preliminary in nature, and will need to be verified through the course of the building's operation.



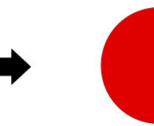
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TYPICAL SCA SCHOOL (Complies w/ Local Law 87; +/-30% beyond ASHRAE 90.1)



PS 62 (50.4% beyond typical SCA School)

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ENERGY USE

**Comparative Energy Use** 

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