

2023 Exhibition of School Planning and Architecture Northeast Region

Pen Y Bryn Upper School Building
Sandy Spring Friends School

Sandy Spring, Maryland



PEN Y BRYN UPPER SCHOOL BUILDING

Sandy Spring Friends School

Sandy Spring, Maryland

An aerial photograph of a modern school building with a courtyard. The building features a mix of white, grey, and red brick panels, with large windows and a central wooden section. The courtyard is green with several wooden picnic tables and a paved walkway. A person is walking on the path in the foreground. The background is filled with dense green trees under a blue sky with scattered clouds.

ALIGNS WITH COMMUNITY ENVIRONMENT

Sandy Spring Friends School, founded in 1961, offers a deep and rigorous academic curriculum rooted in universal Quaker principles and a diverse, international student body that reflects today's global community. Culturally, the school is rooted in the idea that collaboration engenders achievement, which can be traced to its Quaker heritage.

Pen Y Bryn Upper School Building

PLANNING PROCESS:

The new Pen Y Bryn Upper School combines traditions, identity, and sense of place into a new 42,000 SF progressive learning facility, serving 150 students in grades 9-12. The product of collaboration between students, teachers, administration, steering and design committees, and Trustees, the school's design reflects the group's collective aspirations to create a welcoming, light-filled, healthy academic environment. **Special attention was given to Quaker values – Simplicity, Peace, Integrity, Community, Equity, and Stewardship (SPICES) – with a commitment to the unique sense of community shared between the students and the teachers – the hallmark of a Sandy Spring Friends School (SSFS) education.**

The school retained the design team to develop a concept and fundraising materials for a new Upper School to replace the outdated and undersized facilities on the existing campus.

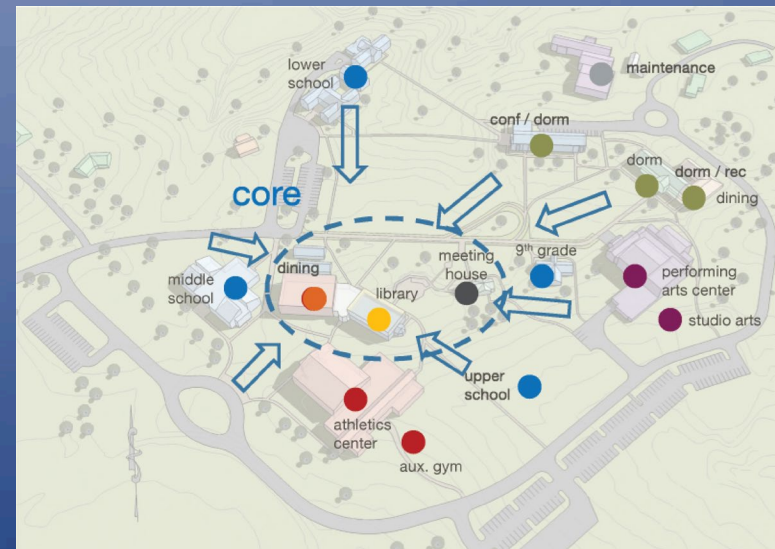
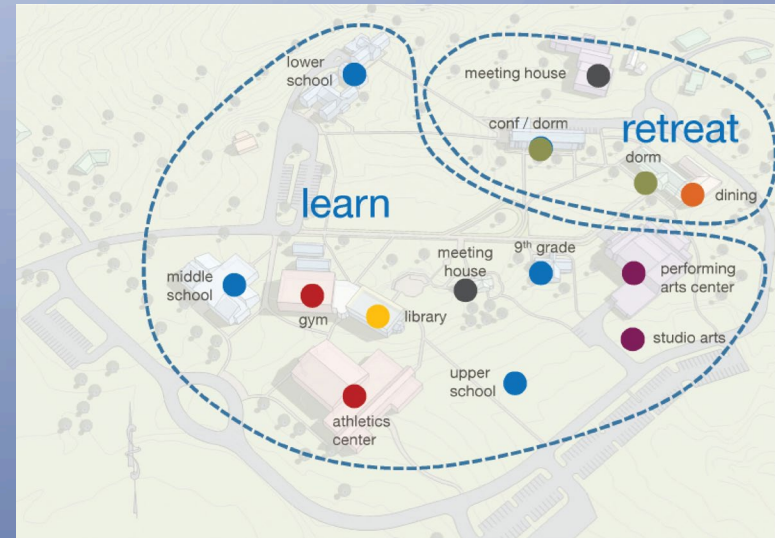
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- A detailed site plan of the Pen Y Bryn Upper School campus. The plan shows the layout of various buildings and outdoor spaces. Building 1, the new upper school, is highlighted in orange and is centrally located. Other buildings are shown in light grey. The campus is surrounded by greenery, with trees and lawns interspersed between the buildings. A north arrow is located in the bottom left corner. The plan is numbered 1 through 10, corresponding to the legend.
- 1 NEW UPPER SCHOOL
 - 2 EXISTING ATHLETICS COMPLEX
 - 3 YARNALL MODULARS
 - 4 YARNALL HALL
 - 5 MEETING HOUSE
 - 6 HARTSHORNE
 - 7 PERFORMING ARTS BUILDING
 - 8 WESTVIEW DORMITORY. DINING HALL + KITCHEN
 - 9 MOORE HALL
 - 10 MEDITATION GARDEN

EXTENSIVE PLANNING PROCESS:

As planning began, it became clear there were a number of considerations that would influence the design of the new Upper School – all of which we needed to take into account. Questions such as: *What to do with the existing facilities vacated by the new building?* *What future projects does the campus have?* *What program needs does this building need to address?* In response, the scope of our project expanded to a master plan that examined the campus in a holistic manner.



As we learned, the Quaker way is thoughtful, reflective, and inclusive. As such, the design team needed to facilitate an open and inclusive conversation that involved many stakeholders, including board members, administrators, educators, parents, and students. The process included surveys of the existing facilities, analysis of relevant case studies, tours of similar facilities, stakeholder surveys, program analysis, brainstorming, and sustainability workshops.





PLANNING PROCESS — ENGAGEMENT THE QUAKER WAY

UNDERSTAND

The head of school and director of operations wanted a building that reflected a shift in teaching, one educators initially resisted. Stakeholder engagement typically includes collaborative visioning sessions, but the Quaker way is more regimented, like a town hall, where someone presents and then the community responds. With the proposed shift in pedagogy, the design team needed to take a different approach.

LISTEN

The team spent the summer going to teacher residences where they met in small groups of three, sometimes over dinner. The casual meetings led to intentional conversations that helped the educators clearly understand the design intent and how spaces would work. **Breaking bread together allowed the stakeholders to gain trust in the design team and to see the success of this project was rooted in inclusivity and idea-sharing.** This process helped them move toward a future-forward building.

ALIGN

Through many hours of visioning and community meetings, our team helped school staff shift the conversation from releasing ownership of classrooms for more collaboration space — an initially unpopular approach — to searching for new and exciting ways to begin new traditions that incorporate innovative learning environments. As a result, next-generation spaces, including classrooms, science labs, a makerspace, and numerous collaboration spaces, were embraced by all and are proudly at the heart of the new facility.



REVOLUTIONS IN LEARNING

Through the master planning effort, stakeholders identified the need for a new Upper School as the highest priority for the campus and located the building south of the existing Meeting House between Yarnall Hall and the Performing Arts Center.

Through the engagement process, a clear vision and success factors for the new Upper School were identified:

- 1** The Upper School must support evolving programs and pedagogies that promote collaboration, integrate technology, and serve a broad range of learning styles by providing a richness and variety of learning spaces.
- 2** The Upper School must serve as a catalyst for advancing the mission of SSFS.
- 3** The Upper School must foster a strong sense of place and meaningful connections within the SSFS campus and community.
- 4** The Upper School must honor and reflect Quaker Values (SPICES).
- 5** The Upper School must be a model for sustainable living.

SECTION VII.

Defining Sandy Spring Friends School Spirit

Below are words that attendees felt best represented SSFS. We aim to reference these words throughout the WELL certification process.



SECTION VIII.

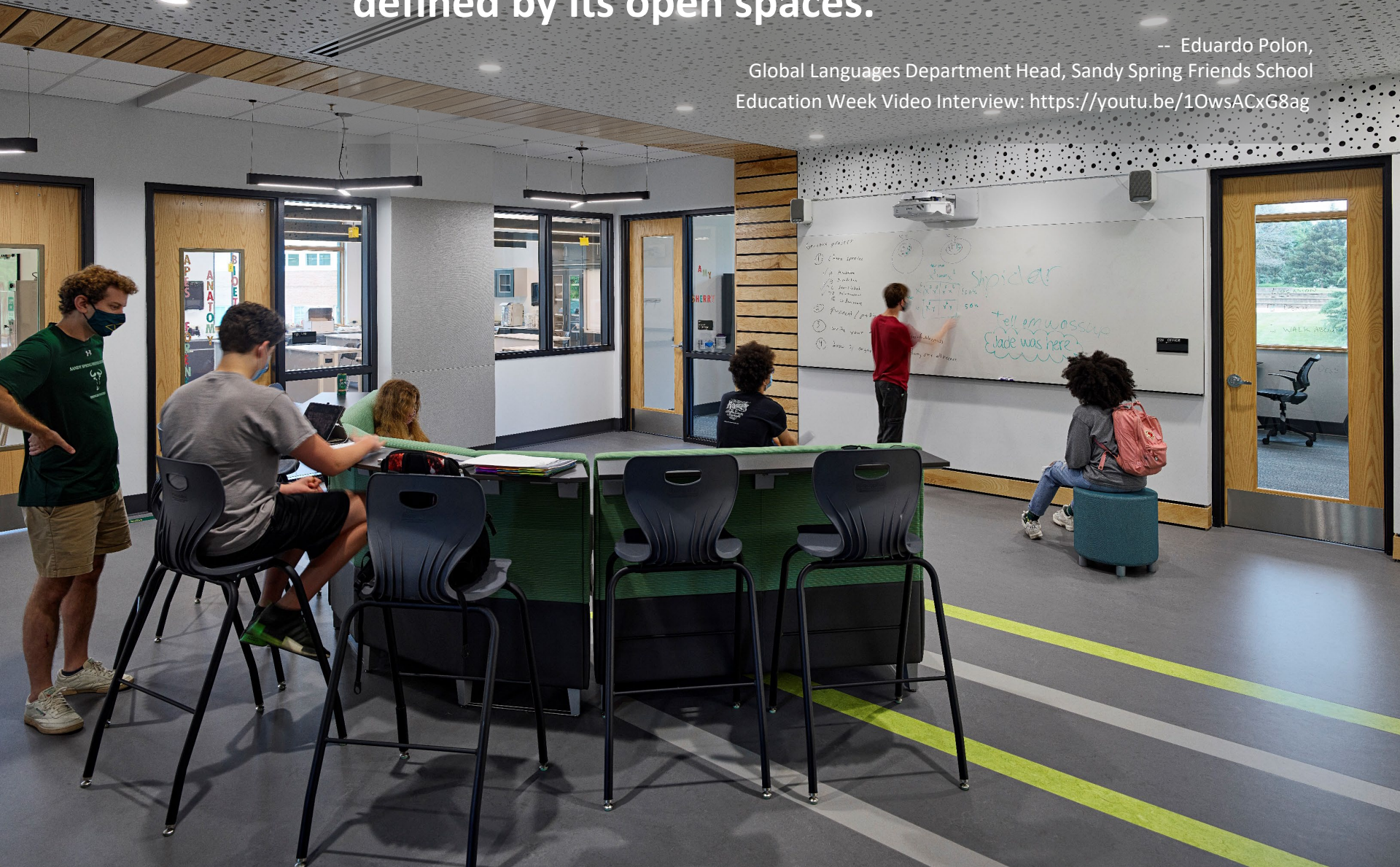
Conclusion

Throughout the Wellness Charrette, participants identified key elements to be incorporated into the new Upper School that they felt would be integral determinants of their health and well-being. All ideas were compiled into this comprehensive report to help inform the project team and community of SSFS moving forward.

LEARNING ENVIRONMENT

“Schools have sort of been defined by their walls and classrooms. And what I like about Pen Y Bryn is that it’s not defined by its walls. It’s actually defined by its open spaces.”

-- Eduardo Polon,
Global Languages Department Head, Sandy Spring Friends School
Education Week Video Interview: <https://youtu.be/1OwsACxG8ag>



LEARNING ENVIRONMENT

The design creates community with ample collaboration space and gathering areas within, coupled with equity in providing flexible learning environments that will carry the school into the future.





LEARNING ENVIRONMENT

Simplistic, minimal, movable lab-casing creates huddle-like environments for the school's unique teaching style.



LEARNING ENVIRONMENT

Acoustic wood ceiling products blended with reclaimed lumber and soft flooring with underpadding allows collaborative areas to be active and engaging while the noise is controlled and not distracting to any of the learning going on in any of the areas.



LEARNING ENVIRONMENT

Makerspace surfaces were selected to respond to the program such as an indestructible concrete floor, a grid of lights, and steel bars to hang projects.



LEARNING ENVIRONMENT

The Pen Y Bryn Upper School was planned in such a way to honor and support the school's Quaker values by combining time-honored teaching and learning traditions with contemporary learning spaces and common areas.

The project sought to understand the task at hand in its largest context – both with regard to the stewardship of their facilities and the vision for the community. Both the building and the engineering systems are flexible and will allow this building to adapt and grow with the SSFS community.





PHYSICAL ENVIRONMENT

The three-story structure houses three learning communities composed of five learning studios, one dry lab, one wet lab, study/team rooms, a resource room and faculty workspace surrounding a learning commons/maker space. The building also houses a large group gathering space, administration, and support space for the Upper School programs. The design balances the school's tradition of honoring instructor's unique gifts with the need for flexible, student-centered space. Modular planning allows for the learning environment to be easily adapted as programs evolve.



CLASSROOMS	SCIENCE LABS	COLLABORATION	ADMIN	TERRACES
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PHYSICAL ENVIRONMENT

Reclaimed diseased ash wood from the site was placed throughout the building. Large common spaces with views and connection to nature are abundant in this building.



PHYSICAL ENVIRONMENT

The building reflects student-requested equity features such as access to outdoor areas and the gender-neutral bathrooms. The stunning wood wall and outdoor terrace offers students and staff a reprieve during the day and the opportunity to enjoy the outdoors, contributing to their overall wellness.





PHYSICAL ENVIRONMENT

The highly contextual building fits seamlessly within the campus and is oriented to create three main facades, with one acting as a main door to receive visitors and the other two entrances highlighting the student quad and the Quaker meeting house, respectively.

PHYSICAL ENVIRONMENT

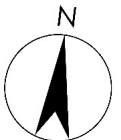
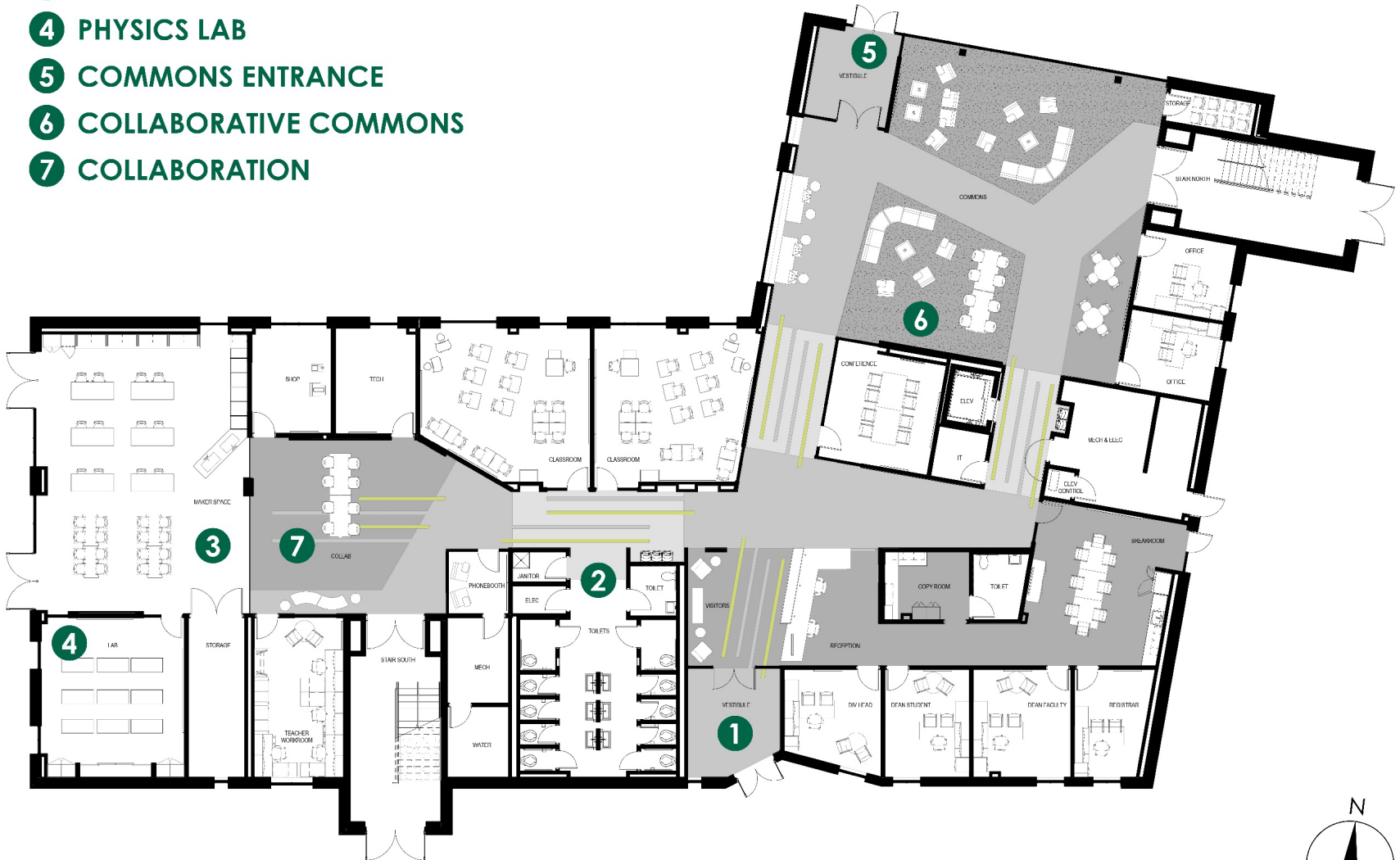
A large front porch, oriented toward the quad and meetinghouse serves as a threshold where people can meet, socialize, and prepare for their day of classes and on the way out, that porch also provides an area to chat or reflect on the day before leaving campus.

A sunny makerspace patio to the west and a quiet roof terrace on the third floor extend learning to the outdoors.



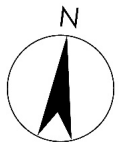
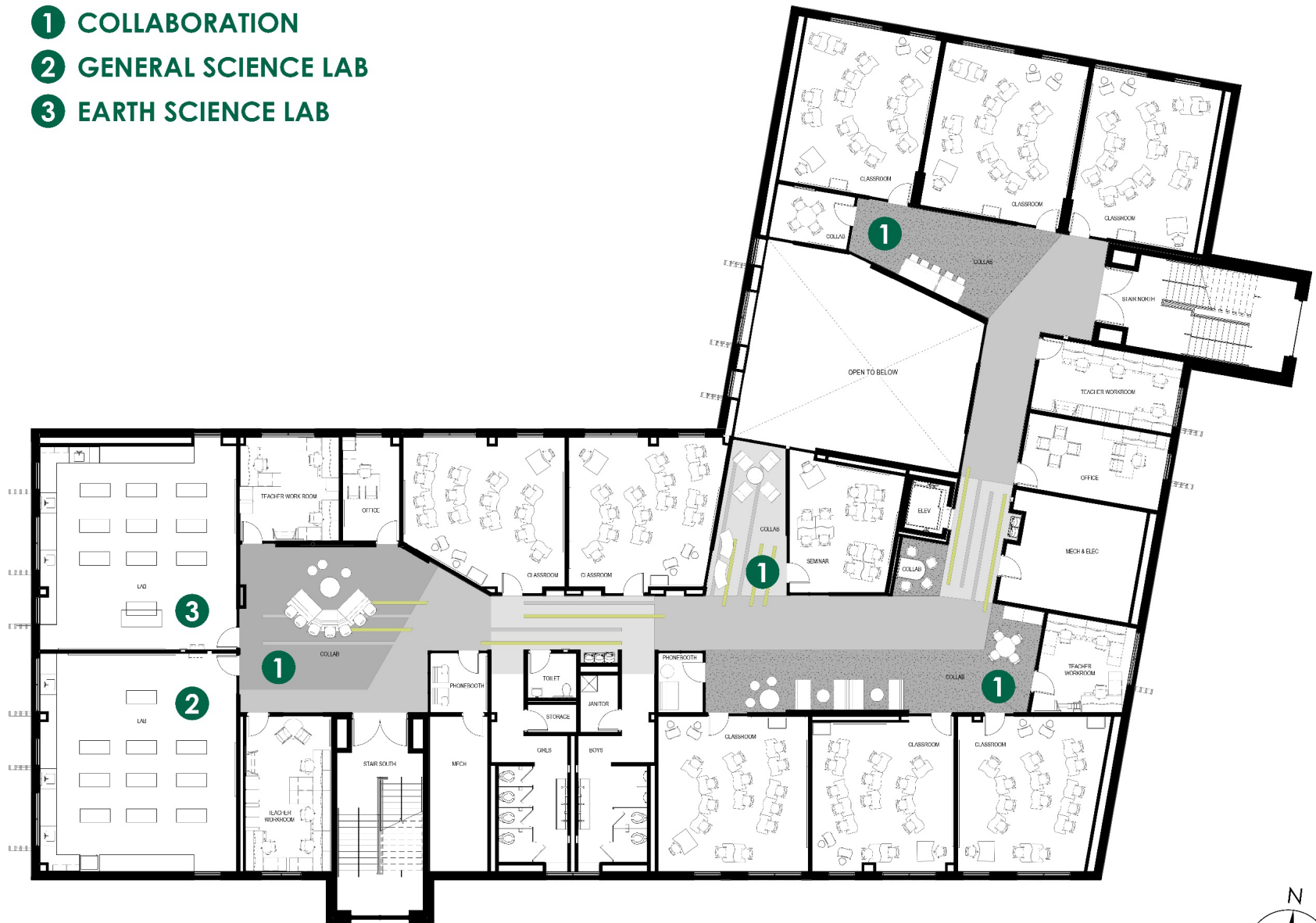
FIRST FLOOR

- ① MAIN ENTRANCE
- ② ALL GENDER RESTROOMS
- ③ MAKER SPACE
- ④ PHYSICS LAB
- ⑤ COMMONS ENTRANCE
- ⑥ COLLABORATIVE COMMONS
- ⑦ COLLABORATION



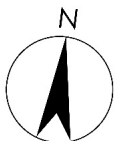
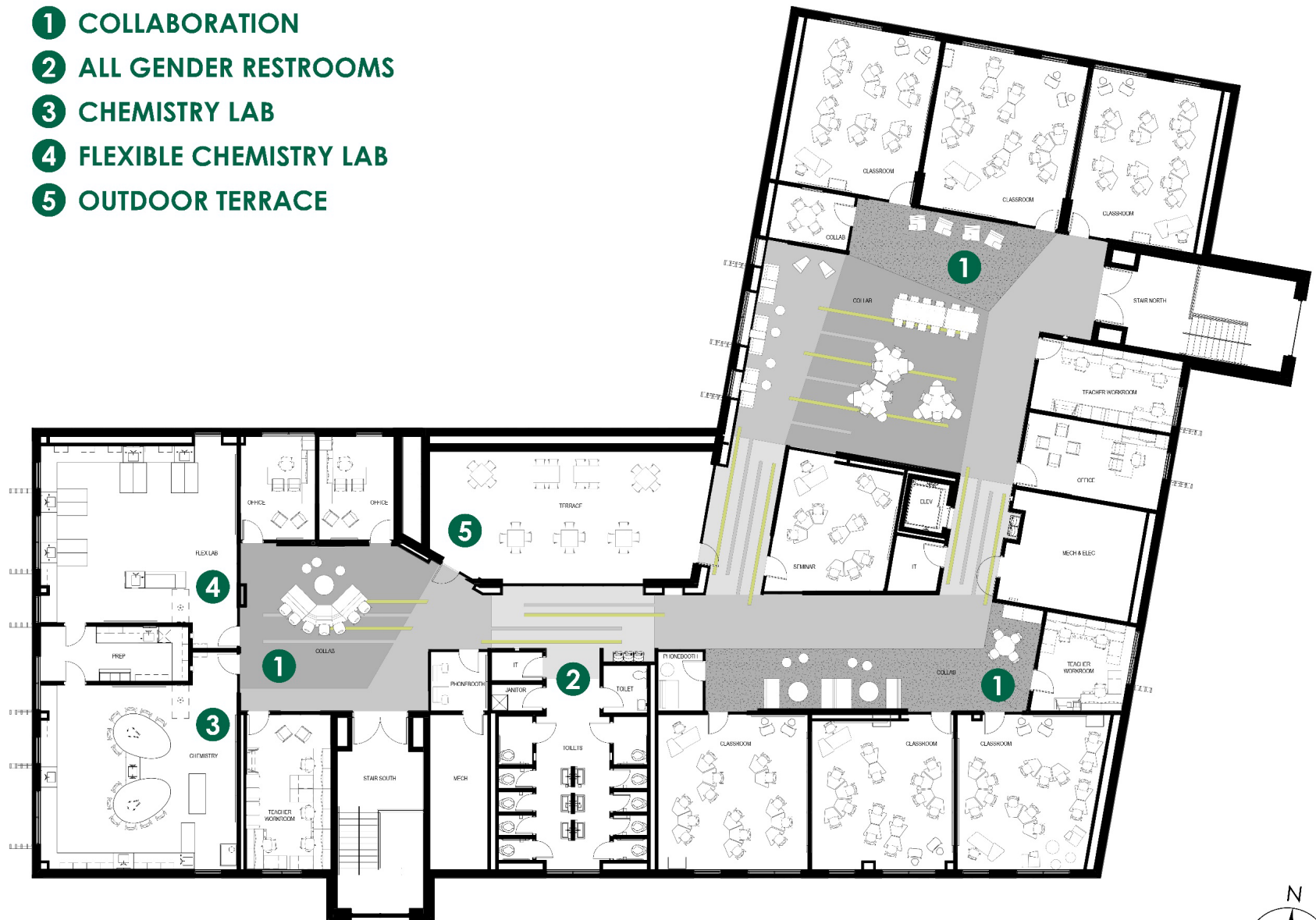
SECOND FLOOR

- 1 COLLABORATION
- 2 GENERAL SCIENCE LAB
- 3 EARTH SCIENCE LAB



THIRD FLOOR

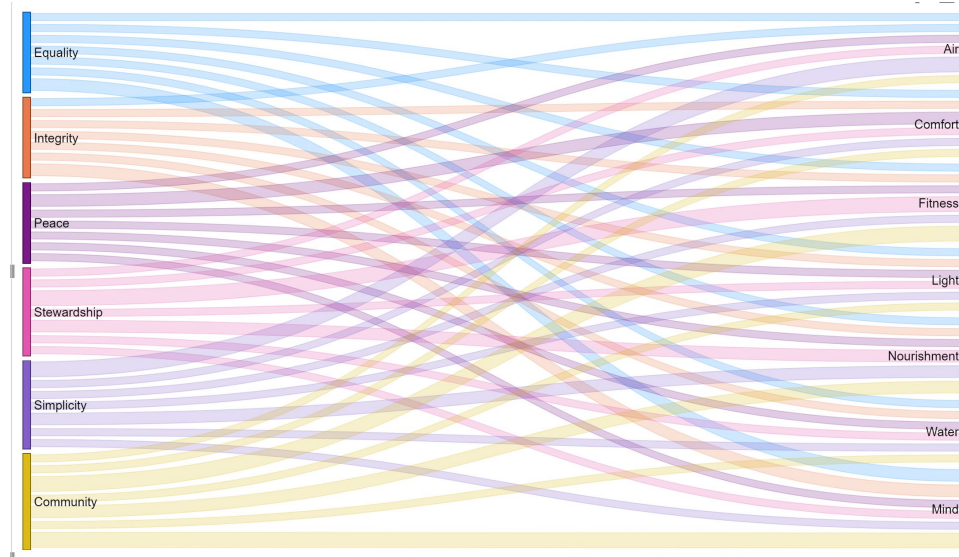
- 1 COLLABORATION
- 2 ALL GENDER RESTROOMS
- 3 CHEMISTRY LAB
- 4 FLEXIBLE CHEMISTRY LAB
- 5 OUTDOOR TERRACE



SUSTAINABILITY

Stakeholders also established aspirational sustainability goals for the Upper School. They selected sustainability targets that fit their values —simplicity, peace, integrity, community, equity, and stewardship (SPICES) and operational needs.

Quaker Values = SPICES



WELL Standards

This new Upper School is not only NetZero Ready, but it's also the first WELL Gold Certified high school in the United States and one of only six such projects in the world.

The design incorporates highly-efficient building systems in conjunction with a high-performing building envelope. All building systems were integrated into the architectural design to allow the building to target an EUI that could easily be offset by SSFS's existing 477 kW solar photovoltaic ground-mounted array. The building design includes an intentionally flat roof that can accommodate future photovoltaic panel installation to further offset energy needs beyond the building consumption.

SECTION V.
Quaker Values and WELL Concepts Overlap

The following shows each Quaker value, how the WELL concepts fall into each value, and examples of features that we identified align or show overlap with that value.

Simplicity

AIR

- 1. Air Quality Standards
- 4. VOC Reduction
- 19. Operable Windows

NOURISHMENT

- 38. Fruits And Vegetables
- 39. Processed Foods

WATER

- 30. Fundamental Water Quality

LIGHT

- 54. Circadian Lighting Design

Peace

LIGHT

- 60. Automated Shading and Dimming Control

COMFORT

- 74. Exterior Noise Intrusion
- 75. Internally Generated Noise

MIND

- 89. Adaptable Spaces
- 87. Beauty and Design
- 88. Biophilia
- 90. Healthy Sleep Policy

Integrity

MIND

- 97. Material Transparency
- 98. Organizational Transparency

Community

NOURISHMENT

- 51. Food Production
- 52. Mindful Eating

FITNESS

- 66. Structured Fitness Opportunities
- 67. Exterior Active Design
- 68. Physical Activity Spaces

COMFORT

- 75. Internally Generated Noise

MIND

- 85. Integrative Design
- 92. Building Health Policy
- 96. Education Space Provisions

Equality

MIND

- 97. Material Transparency
- 98. Organizational Transparency

Stewardship

NOURISHMENT

- 51. Food Production
- 52. Mindful Eating

FITNESS

- 66. Structured Fitness Opportunities
- 67. Exterior Active Design
- 68. Physical Activity Spaces

WELL Gold
Certified
NZE Ready

SUSTAINABILITY

The new building offers extensive outdoor views from classrooms, offices, social areas, and stair towers. The interior palette is inspired by the school's ropes course, a well-known local amenity amidst a beautiful natural setting, and incorporates large areas of ash wood walls created from diseased trees reclaimed onsite. A large atrium offers a warm, welcoming atmosphere reminiscent of a tree canopy. Lighting in the main commons and adjacent conference room echoes the "tree canopy" interior design scheme and resembles an abstract tree branch. Continuing the design theme to the building's exterior, natural wood is a key element of the rooftop terrace.



Exhibition of School Planning and Architecture

Project Data

Submitting Firm :	Stantec Architecture Inc.
Project Role	Architect
Project Contact	Matthew Kavanaugh
Title	Senior Project Architect
Address	609 East Market Street, Suite 202
City, State or Province, Country	Charlottesville, Virginia 22902
Phone	434-825-5769

Joint Partner Firm:	
Project Role	N/A
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

Planner on Record:	
Name	Stantec Architecture Inc.
Address	609 East Market Street, Suite 202
City, State or Province, Country	Charlottesville, VA 22902
Phone	434-825-5769
Email	

Construction Firm:	Keller Brothers, Inc.
Project Role	General Contractor
Project Contact	Philip Keller
Title	President
Address	1012 Rising Ridge Road
City, State or Province, Country	Mount Airy, Maryland 21771
Phone	301-607-9300

Exhibition of School Planning and Architecture

Project Details

Project Name	Sandy Spring Friends School, Pen Y Bryn Upper School
City	Sandy Spring
State	Maryland
District Name	Sandy Spring Friends School
Supt/President	Dr. Rodney Glasgow
Occupancy Date	10/05/2020
Grades Housed	9 - 12
Capacity(Students)	320
Site Size (acres)	30
Gross Area (sq. ft.)	42,029
Per Occupant(pupil)	131
gross/net please indicate	Grossing Factor 1.4
Design and Build?	Design, Bid, Build
If yes, Total Cost:	\$13,491,474
Includes:	
Project Costs	
If no,	
Site Development:	\$ 1,166,817.00
Building Construction:	\$12,324,657
Fixed Equipment:	By Owner, Not Available
Other:	
Total:	Final Construction Cost USD \$13,491,474