



Main Entrance

Community Environment:

The underlying goal of the new middle school design is to create an environment for learning that captivates the imagination of the students and actively encourages exploration and growth. The space intends to simultaneously stimulate teachers, staff and visitors through their experience within the school. The result is a design that creates a series of carefully considered, light-filled spaces which seamlessly integrate into the natural landscape.

The School is to be located in the Village of Anmore, British Columbia. 25 KM east of Vancouver, Anmore lies above the Burrard Inlet, a route used heavily by industry for its ease of shipping. Nestled in the base of the mountains, the village is an idyllic community which has managed to maintain its semi-rural, natural environment. Bordered by parkland, old growth forests and lakes, the surrounding scene typifies the relationship between the residents of Anmore and the natural landscape.

Central Hall

Community Environment:

Rather than advancing with a response based on the idea of “teaching”, the design team consciously redirected point of view and formalized a creative response from the standpoint of “learning”. Understanding the manner in which children learn, interpret and discover our world provided the underlying design methodology for the design of the new middle school which focused on education through interaction. This approach was a fundamental means of informing and ultimately formalizing an architectural response which was a direct result of the act of interpretation and discovery. It allowed the design team to approach the design process without preconception or reticence. The derivative is a design which innovatively responds to the specific program, the client’s needs, budget constraints and simultaneously addresses the unique challenges of this particular site. As a synthesis, the product is a design concept which places emphasis on student exploration and provides a learning-based environment which has been conceived “through the eyes of the students”.

Courtyard

Learning Environment: *narrative*

21st CENTURY LEARNING

MEDIA

Gaining a better understanding of 21st Century Learning has led to new learning initiatives and pedagogy within our current school systems. It is obvious that media shapes the direction of our current society and influences the direction of 21st century learning environments. Are computers taking over classrooms? There are numerous lectures, articles and books relating to the influence of computers in the classroom. Understanding how technology will be used within the curriculum was a vital component that directed the design and helped shape the programmatic response of the West Coast Middle School.

PROJECT BASED LEARNING

The 21st century learning environment is fast paced and less predictable. As a result, personalized learning has developed which focuses on teamwork which involves project based learning with a focus on collaboration. This strengthens the student's ability to work effectively and communicate with others. Project based learning allows the teacher to act as a guide. The ideology that the teacher holds all of the knowledge which can be delivered to students has been redirected through accessibility to digital information. Project based learning capitalizes on the student's initiative and ability to work remotely or with others. Blended learning is often referenced which acknowledges that content is available online at all times and the teacher becomes the facilitator to produce active learning. The teamwork areas which actively join the classroom pods facilitate project based learning and promote student collaboration.

INTERDISCIPLINARY LEARNING

Future trends in learning focus on interdisciplinary learning which crosses traditional segmented course work. This concept relies on the open exchange of ideas which has resulted in the emergence of themed learning academies. Interdisciplinary learning by nature is collaborative. Collaborative environments employ "Appreciative Inquiry" which is a process of inquiry and requires action and the collaboration is generative. The elevated courtyard brings the nature indoors and provides a contemplative space to effectively bind all of the learning environments together.

HANDS ON LEARNING

The act of making or doing is a key component to learning and is outlined in numerous books related to 21st Century Learning such as "Shop Class as Soul-craft" by Matthew Crawford. This is an approach which operates with the act of engagement at the core with the overall methodology being active and applied. The gymnasium, project spaces, classrooms and media centre are all highly visible which display all aspects of the educational curriculum.

Daycare

Learning Environment: *Continued*

SOCIAL LEARNING

Learning is a social experience and factors such as comfort have been shown to enhance learning. Social engagement provoke interaction between students, teachers and our natural environment. Learning takes place within the confines of the school and beyond. The overall design of the school placed the spaces between the classrooms as the primary spaces that encourage interconnection. The inwardly focused central courtyard and the central hall become the spatial heart of the school.

EXERCISE AND LEARNING

Exercise and learning are not disconnected. Recent studies accumulated and presented by leading developmental molecular biologists make direct correlation between cognitive ability, and student aptitude when it follows exercise. Studies such as these are helping to inform modifications to the current teaching curriculum which is typically defined. Schools have emerged that allow students to start their day with 50 minutes of an exercise of their choice. An open gymnasium encourages activity and promotes activity. Direct connection to the outdoor environment was also a design element which inspires students to explore the natural environment.

Daycare

Learning Environment: *Continued*

CREATIVITY

Words such as passion and creativity did not arise as often as they do in current teaching pedagogy. The identification of multiple intelligences has diverged from the historical measure of intelligence, which was based primarily based on mathematics and linguistics. This shift in measuring intelligence has evolved around the four "C"s which are Creativity, Critical thinking, Communication and Collaboration / Life skills. One example of this shift in the educational paradigm is evident in the revision made to "Blooms Taxonomy Chart" which has been revised and now places creativity at the top of the pyramid. Current trends acknowledge that when the arts are integrated into core learning, learning goes up. The design of the school was directed by the desire to create comfortable spaces which were filled with natural daylight and views which encourage creativity.

SUSTAINABLE LEARNING

Sustainability in our built world is all important in today's architectural discourse; however, the sustainable initiatives encompassed in the design of the school act not only to address environmental concerns but to create a setting where students can interact with nature and learn from their environment. Exposure to a building which provides palpable green building systems creates critical educational opportunities in every area of the school. These opportunities play a large part in the student's education while challenging future generations to re-evaluate their relationship with the natural environment, and become inspired, sustainability-conscious thinkers. What is learned within schools today and the years to come will shape the future. The direction of our future cities and the environment are in the hands of our youth.

Model Photo

Physical Environment– Narrative

SITE STRATEGY

The overall site strategy for the placement of the building was influenced by a number of factors. A desire to reduce the amount of trees to be removed and minimize the impact of the natural forest was at the forefront of design decisions. Recognizing the significant existing grade difference on site, as well as acknowledging the municipal requirement, which dictated that it was mandatory to deliver a two-story structure which provides easy and direct firefighters response, ultimately led to a tiered building strategy. The tiered building design is characterized by an earth-bermed lower level which supports the elevated main level classroom level where the building effectively acts as a new connective link between the upper Anmore Village and the lower Port Moody side adjacent to an existing Secondary School. A number of challenges presented themselves in maintaining a two-level structure, and in order to achieve this requirement the gymnasium has been depressed one full story and has been oriented in an east / west direction to allow for optimal egress as well as the ideal orientation for the control of natural daylight into the space.

The result is a “U-shaped” configuration where the two primary classroom wings and the centrally located library open onto a common elevated courtyard space which optimally binds the program spaces in which students learn.

Site Diagram

Physical Environment – Continued

The placement of the building takes advantage of the natural surroundings. Visual and audible connections with the adjacent park, encompassing scenery, sloping terrain and open sky were incorporated into the scheme. These links with the natural world will play a critical role in the education of the students.

Section

Planning Process: Narrative

To connect spaces is to connect all ways of learning. By opening and linking the learning environments within a school, we bridge varied educational scenarios while encouraging a dynamic and rich environment in which new ideas and concepts emerge without boundaries. The connection to nature and specifically the adjacent forest creates a place where children learn to interact with their environment, while playing without structure or program. The students are positively impacted and provided with a tangible connection with the environment which encourages creative thinking and independence. The green courtyard and its proximity to the classrooms bridges the indoor learning environment to nature. By connecting the classrooms and the courtyard, the design encourages teachers and students to look at the outdoors as a space for learning and exploration. As a core philosophy, there is a belief that sustainability is ultimately achieved through education. By connecting the classrooms and the courtyard, the design encourages teachers and students to look at the outdoors as a space for learning and exploration. The creation of these microclimates will allow the local bird habitat to flourish which reinforces a visually and audible connection to nature. As a core philosophy, there is a belief that sustainability is ultimately achieved through education.

Elevations

Planning Process: Continued

The arrangement of spaces in conventional schools typically create separations - separation of spaces, as well as separation between teaching and applied studies. Reorganizing these spaces and removing separations allow for the students to become immersed in their environment by providing links and removing boundaries which expand the domain of learning beyond the classroom walls. By creating links to the natural environment, as well as incorporating sustainable initiatives, students are encouraged to break free of the chalkboard and interact with their surroundings. The outside walls of the elevated courtyard have been aligned with the gymnasium walls below to allow for simple and efficient structural loading.

Submitting Firm :	B+H BuntingCoady
Project Role	Architect
Project Contact	Dwayne Smyth
Title	Principal
Address	#200 – 1132 Alberni Street
City, State or Province, Country	Vancouver, BC, Canada
Phone	604.685.9913

Other Firms:	
Structural	CWMM Consulting Engineers Ltd.
Mechanical & Electrical	MCW Consultants Ltd.
Landscape	Sharp + Diamond Landscape Architecture Inc.
Interiors	B+H BuntingCoady Architects Inc.

Project Name	West Coast Middle School
City	Anmore
State	British Columbia
District Name	Coquitlam School District No. 43
Supt/President	n/a
Occupancy Date	2013
Grades Housed	7 – 9
Capacity(Students)	500
Site Size (acres)	10.165
Gross Area (sq. ft.)	58,400
Per Student t(pupil)	116.8
gross/net please indicate	Gross
Design and Build?	Design-Bid-Build Procurement Method
If yes, Total Cost:	TBD
Includes:	
If no,	
Site Development:	
Building Construction:	
Fixed Equipment:	
Other:	
Total:	TBD