

2014 Exhibition of School Planning and Architecture

Valley View Middle School

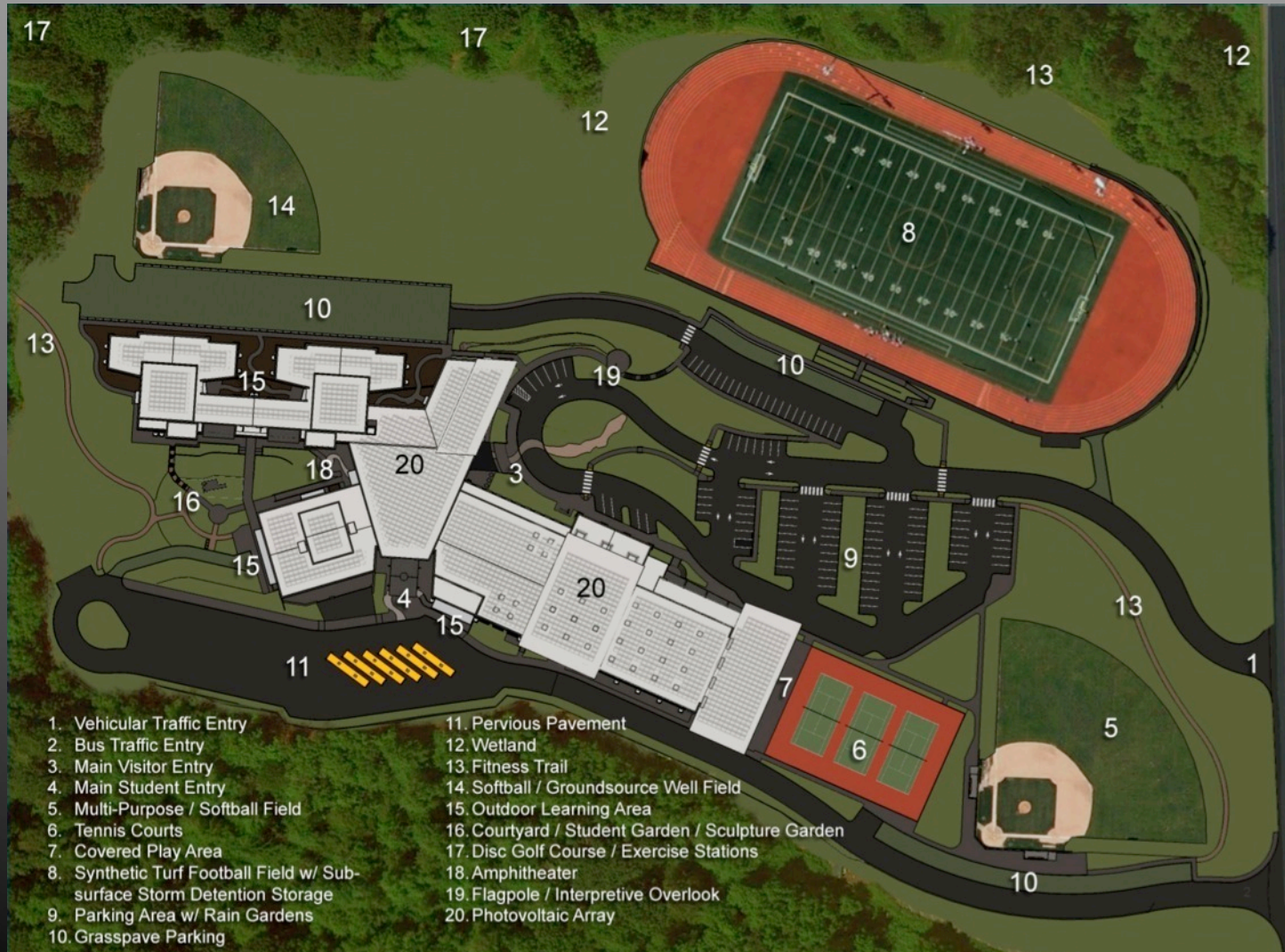
Snohomish School District
Snohomish, Washington, USA

Valley View Middle School



Main entry and library exterior

Valley View Middle School



Community Asset

Community Environment:

The scope included planning and design for a replacement Snohomish middle school. Work included demolition of the existing school and the design and construction management of a new 167,000 square foot, three-level, 950-student middle school.

Valley View Middle School is active and alive year round, with numerous community and school-based events happening daily. The music, jazz, choir and drama programs can perform in a variety of scaled spaces designed for capacities of 50 to 950. Athletics programs and clubs thrive in the gym, on traditional fields, on running trails, and at exercise stations.



Valley View Middle School as seen from athletic field



Performing Arts hallway

School as Teaching Tool

Community Environment:

The school will help to prepare students in unique and innovative ways for challenges they will encounter in a rapidly changing world. The school not only facilitates the development of technical skills for diverse career opportunities, it also instills environmental awareness that will last for a lifetime. Sustainable design features integrated as educational tools help reinforce the importance of caring for and respecting the environment.

The on-site water management, the wetlands, the aggressive energy reduction strategies, and the on-site energy generation all model innovation and sustainability, teaching students the value of conserving valuable resources. Valley View students will pass their experiences on to their neighborhoods and workplaces.



Library space

Flexibility

Learning Environment:

At the core of the dream for Valley View was the need to build in flexibility so the facility could adapt to individual teaching styles, changing teaching strategies and the diverse learning styles of the student body. The key to achieving this flexibility was the creation of the Extended Learning Areas. The staff felt so passionate about these spaces that they collectively carved out program area from other functions to support enlarging these spaces. The classroom clusters are easily adaptable for both large and small groups of students. They can each accommodate just a single classroom or can provide a space for up to three classrooms of students. The Extended Learning Areas can also serve as a gathering place for a guest presentation, accommodating a range of educational delivery methods.



Flexible classroom spaces



Modular glass dividers

Student Spaces

Learning Environment:

Spaces specifically for the students were designed into the program. There are larger areas around the locker spaces that include window seats, informal seating options adjacent to the commons and amphitheater, and bistro seating that provides a more dynamic place to “hang out.” Window seats are designed into the library, classrooms and, of course, there are outdoor covered spaces adjacent to the building that bring the outside in and the inside out, providing students with informal “kid scale” places to “hang out.”

All of these spaces support the “learning anytime, anywhere” philosophy. Reinforcing this philosophy, the District’s technology policies are based on a future driven open device platform, providing open Wi-Fi throughout the school to encourage kids to use their own devices.



Locker bay social space



Commons amphitheater seating

Living Building Challenge

Physical Environment:

Valley View Middle School was designed to transition the learning community's current relationship with the environment from one of casual observation to one of respect and direct connection to nature.

The decision was made to target the Living Building Challenge as a measure of sustainability in order to incorporate full systems and not settle for "test cases" or "pilot programs." The design team believed that if the strategies made sense, then they should be implemented across the board.



Rainwater harvesting feature at entry

50-year Life Span

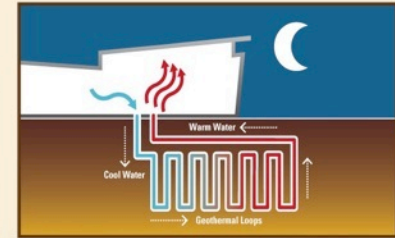
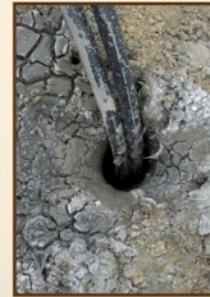
Physical Environment:

Meeting a 50-year life span and reducing operational costs are challenging goals. However, the design team took a collective approach, incorporating everything from building orientation (east/west), to durable and timeless materials (brick, concrete and zinc), to LED lighting and very efficient, cutting edge heat exchangers. In addition, the team took the entire heating and cooling system off of fossil fuel by employing a geothermal ground source heat loop.

Geothermal Heating

In a geothermal heating system, the pipes that are buried in the ground are called "geothermal loops". Each loop is routed within a well that penetrates 300 feet into the earth. There are 264 wells on site, located under the athletic field north of the classroom wings. The loops are filled with a mix of water

and antifreeze that absorbs the earth's heat as it flows through the loops and brings it back to the heat pump to create heating and chilled water. The thermal energy of the ground is free and infinitely renewable.



Geothermal Heating Systems

are a network of pipes, buried in the ground called "geothermal loops". These pipes start at one point, create a circuit under the ground and come back to that same point. The loops are filled with a mixture of water and antifreeze which absorbs the heat of the earth as it runs through the loops and brings it back to the heat pump to create electricity.

One of many interpretive signs showcased throughout the school site



Interior daylighting

Rainwater Collection

Physical Environment:

The school uses as much water from the site as possible. The rainwater collection system includes 32 cisterns and an underground vault combined for a total system capacity of 100,000 gallons. Rainwater for toilet flushing was selected as a strategy because 80% of the water use from a typical schools is wasted down the toilet.

North and west of the football field are wetlands and seasonal stream channels that collect water from the school site. The wetlands flood in the winter and are moist all year long. These natural systems were kept and enhanced for curriculum use by this project.



Rainwater harvesting cisterns

Stormwater collection pipe and water management illustration



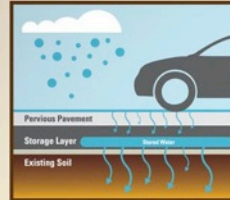
Pavement & Fill Material

Physical Environment:

Pervious concrete & reinforced grass pavement keeps the Earth's groundwater at the right level, reduces runoff and erosion, and filters harmful pollutants out of the water. These systems were used as visible educational tools that further reduce the need for stormwater detention. The pervious concrete installation is the largest on the west coast.

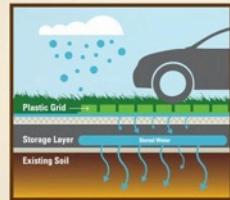
Portions of the original Valley View were recycled and reused as part of the new Valley View. The concrete from the floors and columns, as well as concrete masonry blocks from the walls of the original building were broken up and ground into pieces. This material was then used as a sub-base for driveways and parking areas on campus. This eliminated landfill space off site and reduced import of fill material.

Pervious Concrete & Reinforced Grass Pavement



Pervious Concrete Pavement

The concrete in the parking lot is different from traditional concrete pavement. This pervious concrete contains voids between the gravel pieces that allow water to flow through into the ground. This keeps the Earth's groundwater at the right level, reduces runoff and erosion, and filters harmful pollutants out of the water.



Reinforced Grass Pavement

The overflow parking lot surface at the Practice Field is made of a plastic grid layer filled with soil in which grass can grow. This reinforced grass pavement is set on a crushed stone base and provides a structural framework for the soil. This allows cars and fire trucks to drive without causing ruts or getting stuck in mud. This type of roadway reduces runoff because water can infiltrate into the soil below instead of creating focused flows on the surface. This system also reduces heat gain that happens on asphalt roads, and allows soil and roots to filter out pollutants from cars.

One of many interpretive signs showcased throughout the school site



Onsite recycled materials

Value Messaging

Physical Environment:

Value messaging and sustainable theme integration reinforce school and district values throughout the site.



Value messaging in locker bay



Value messaging window wall overlooking commons

Community-based Planning

Planning Process:

The success of this project is rooted in the early, community-based planning process. Long before the project was envisioned by the design team, Snohomish School District created a Citizens Advisory Committee to directly engage the community in prioritizing needs and setting goals for the project; the committee also provided input on capital campaigns. As a result of this collaborative, community-based effort, voters successfully passed a capital bond in 2006. Almost as soon as the bond passed, the District initiated a campaign to complete the capitol projects envisioned in the original scoping. From 2006 to 2008 the School District embarked on a community outreach and bond research effort that was guided by a new set of Citizen Advisory Committees.



Community-based planning session

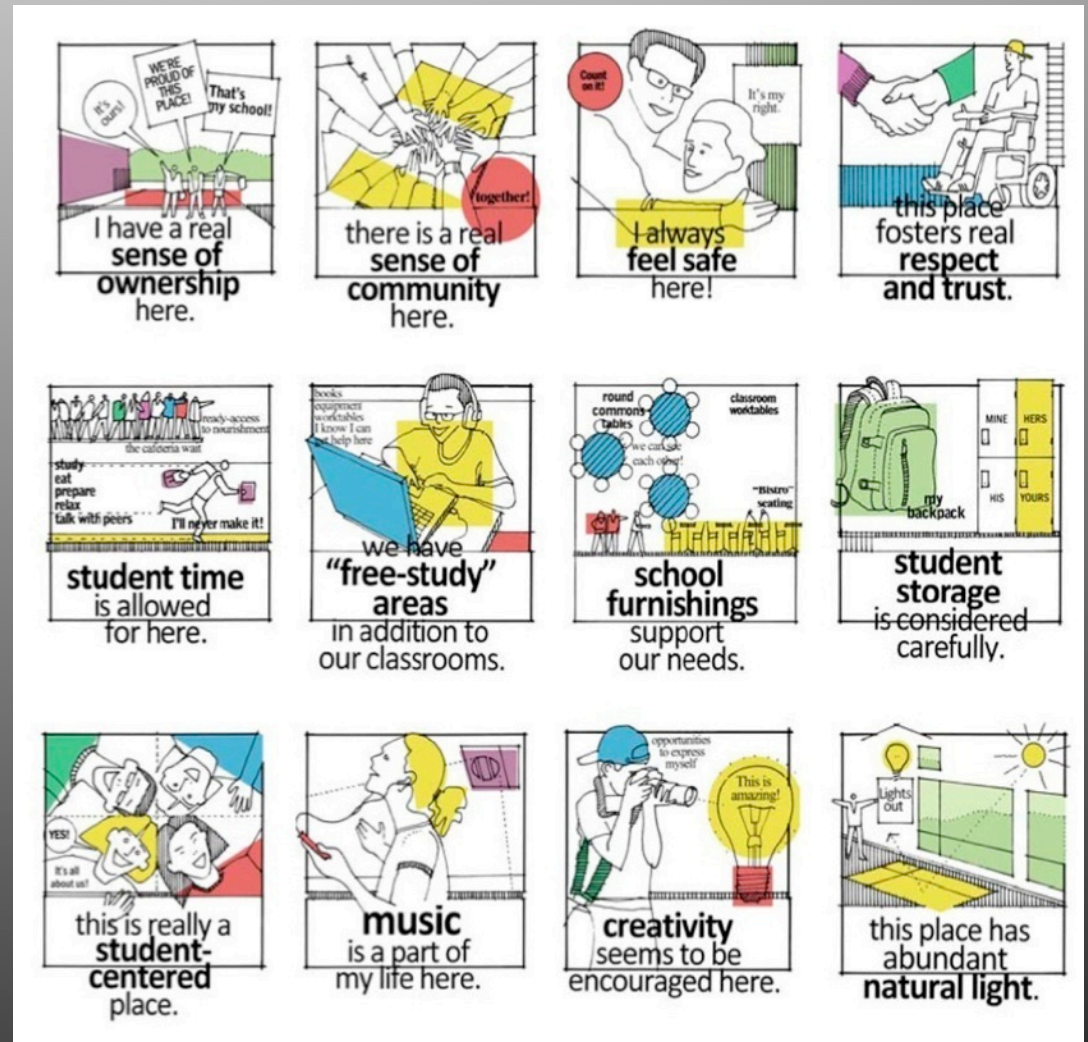


Staff planning and review session

Student-based Planning

Planning Process:

Throughout the Educational Specification process, it became evident that a new, student-centered paradigm for school design must be achieved. Before Schematic Design had begun, conversations took place with the students of Valley View Middle School in order to garner preliminary observations and interests that would inform the design. Students wanted a school facility that would foster social and emotional growth, help develop meaningful relationships between adults and kids, ignite wonder and curiosity, encourage exploration, and facilitate risk-taking. Students also articulated a desire for a space that could engage a wide variety of students. Because the student body was comprised of diverse individuals with a wide range of talents and interests, students wanted their school buildings to reflect that diversity.



Thumbnail vignettes developed during student planning sessions

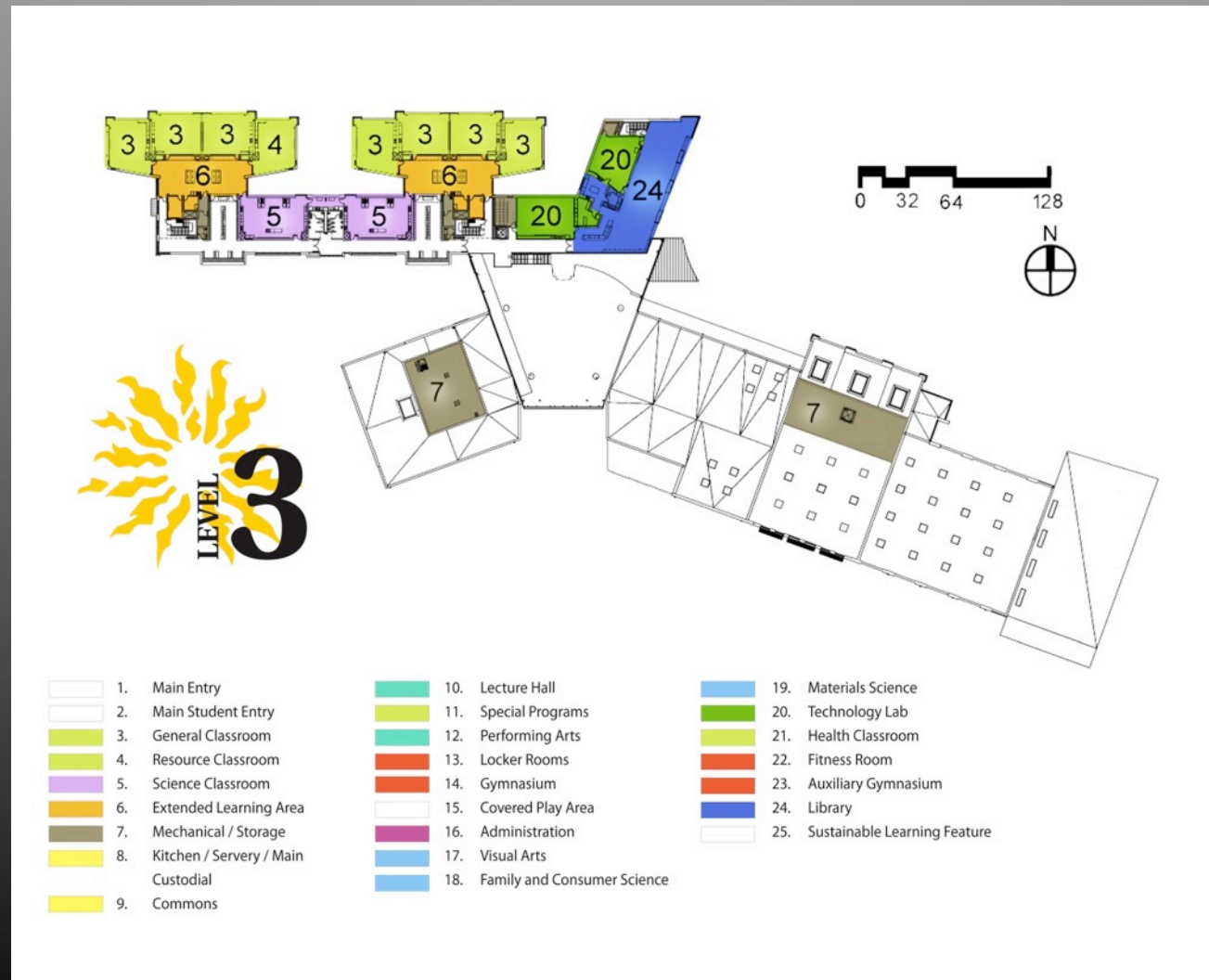
Level 1 - Floor plan



Level 2 - Floor plan



Level 3 - Floor plan



Exhibition of School Planning and Architecture

Project Data

Submitting Firm :	Dykeman, Inc.
Project Role	Architect
Project Contact	Tim Jewett
Title	Principal
Address	1716 West Marine View Drive
City, State or Province, Country	Everett, WA, USA
Phone	425.259.3161

Joint Partner Firm:	Dull Olson Weeks Architects
Project Role	Consulting Architect
Project Contact	John Weekes
Title	Principal
Address	907 SW Stark Street
City, State or Province, Country	Portland, OR 97205, USA
Phone	503-226-6950

Other Firm:	Coughlin Porter Lundeen
Project Role	Structural Engineer
Project Contact	Cory Hitzemann
Title	Engineer
Address	413 Pine St., Suite 300
City, State or Province, Country	Seattle, WA 98101, USA
Phone	206-343-0460

Other Firm:	Harmsen & Associates
Project Role	Civil Engineer
Project Contact	David Harmsen
Title	Principal
Address	16778 146th St SE
City, State or Province, Country	Monroe, WA 98272, USA
Phone	360-794-7811

Exhibition of School Planning and Architecture

Project Data

Other Firm:	Cascade Design Collaborative
Project Role	Landscape
Project Contact	Kas Kinkad
Title	Principal
Address	911 Western Ave #210
City, State or Province, Country	Seattle, WA 98104, USA
Phone	206-628-9133

Other Firm:	Hargis
Project Role	Mechanical & Electrical Engineer
Project Contact	Brian Haugk
Title	Principal
Address	600 Stewart St, Suite 1800
City, State or Province, Country	Seattle, WA 98101, USA
Phone	206-448-3376

Construction Firm:	Absher Construction Company
Project Role	General Contractor
Project Contact	Curt Gimmestad
Title	Director of Operations
Address	1001 Shaw Rd
City, State or Province, Country	Puyallup, WA 98372, USA
Phone	253-845-9544

Exhibition of School Planning and Architecture

Project Details

Project Name	Valley View Middle School
City	Snohomish
State	Washington
District Name	Snohomish School District
Supt/President	William A. Mester, Ph.D
Occupancy Date	2012
Grades Housed	7-8
Capacity(Students)	950
Site Size (acres)	38.8 acres
Gross Area (sq. ft.)	167,000 sq. ft.
Per Occupant(pupil)	176 sq. ft./student
gross/net please indicate	
Design and Build?	Yes
If yes, Total Cost:	\$60,300,000
Includes:	
If no,	
Site Development:	
Building Construction:	
Fixed Equipment:	
Other:	
Total:	



Overlooking commons



School exterior from courtyard



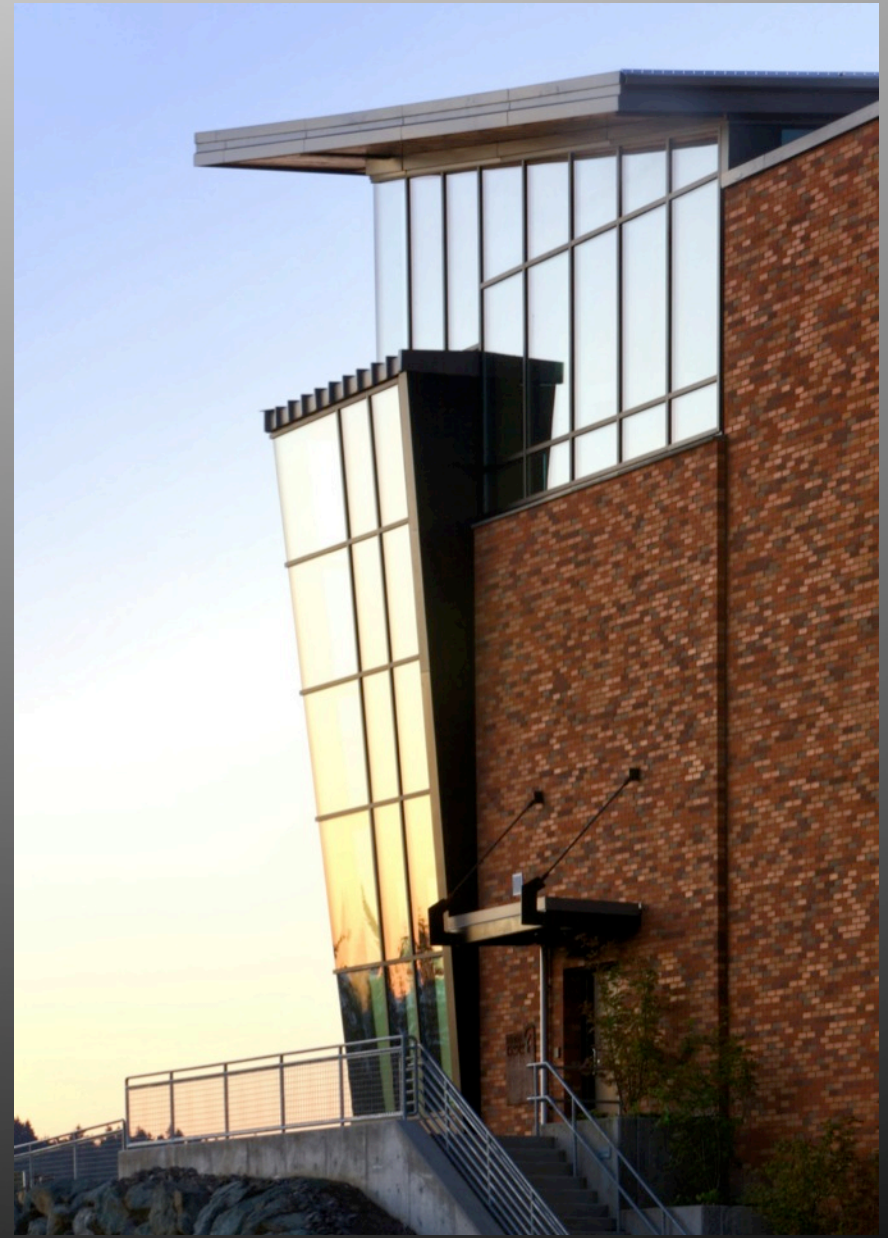
School library



Second floor of commons



School exterior from courtyard



School exterior looking East



Ceiling and lighting in library



School exterior from courtyard