

2014 EXHIBITION OF SCHOOL PLANNING AND ARCHITECTURE

Duchess Park Secondary School

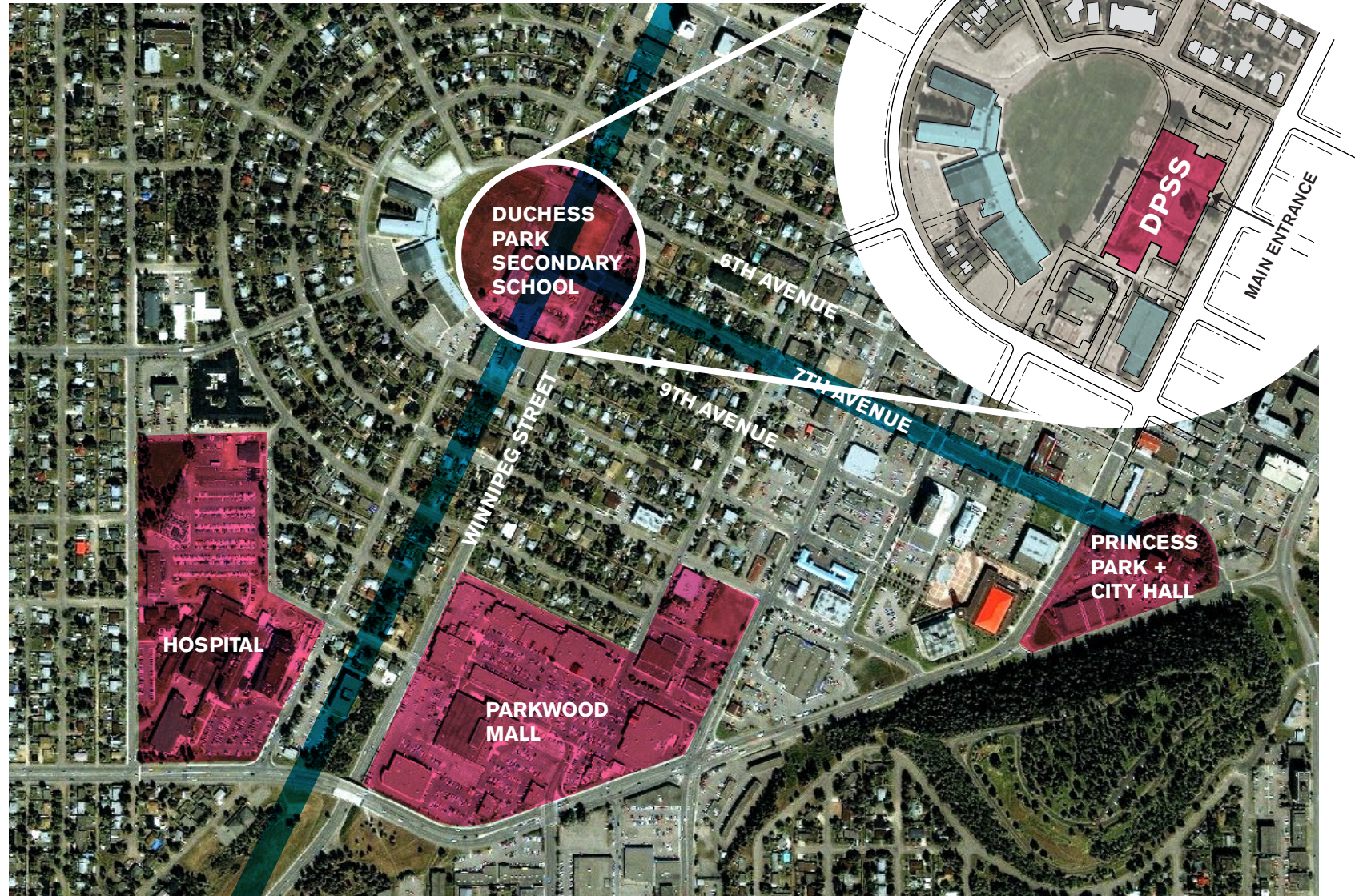
School District No. 57 *Prince George, British Columbia, Canada*



“Community acceptance for the new Duchess Park Secondary School has been extraordinary. Not only is the building exceeding the expectations of the staff, parents, and the students on a daily basis, the community has embraced it as one of the key components of the community renewal.”

—Bryan Mix
Secretary Treasurer, District No. 57

DUCHESS PARK SECONDARY SCHOOL



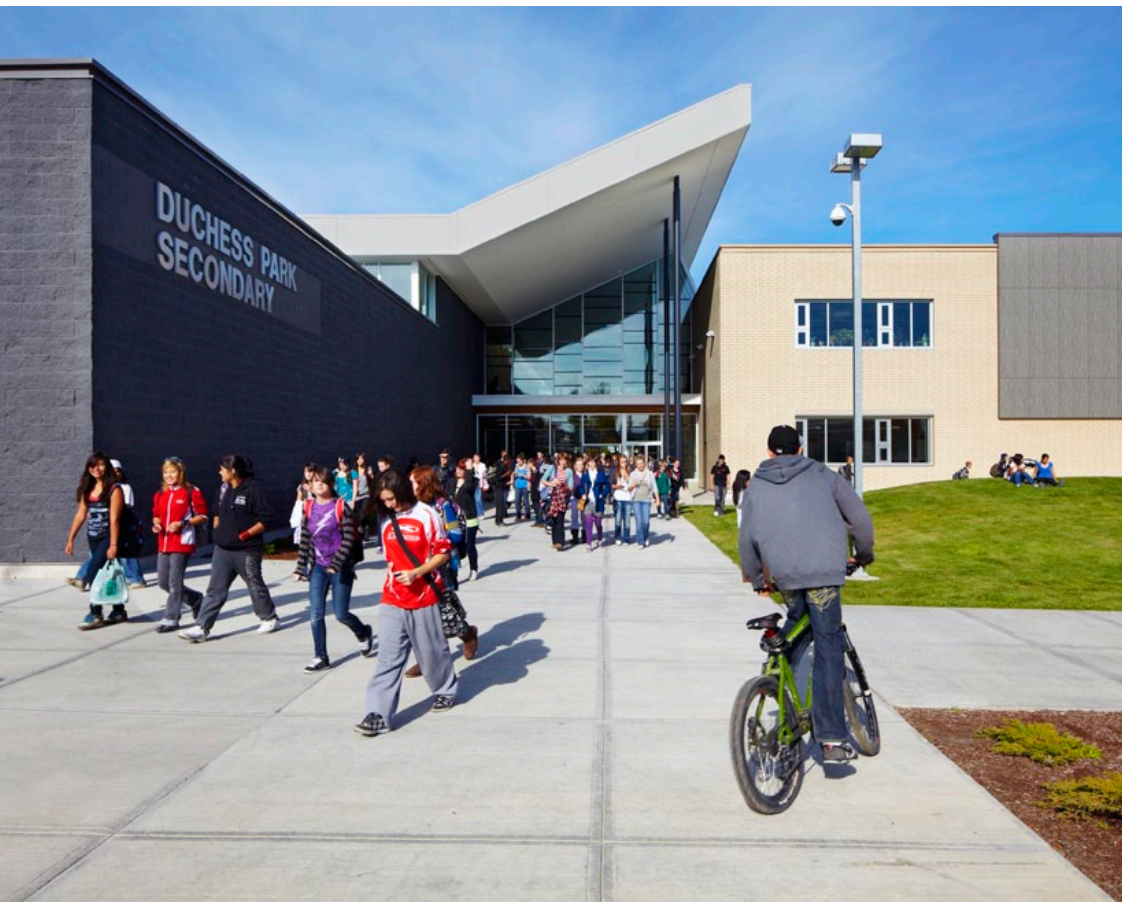


COMMUNITY ENVIRONMENT *ENGAGEMENT*

The Duchess Park Secondary School project was a collaborative effort, in which the shared aspirations and goals for the school motivated and influenced every decision. What makes the project unique was the exceptional involvement of the community in the process. The General Contractor is a well respected local company with strong community ties. Many of the subcontractors working on the project were graduates of the school or would have children attend the new school. The local perception of the new school is unfalteringly positive, and understood as having a strong sense of renewal for the regional community as well as the school community. Absenteeism has drastically decreased since the new facility opened and students take pride in their new environment.

Much of the school was shaped by the input of student and staff consultation groups. The needs of its future population were considered continuously during design and construction. Regular student and teacher tours of the construction site also provided a deeper understanding of the building's systems and sustainable strategies.

An underlying focus of the project is that of sustainability. The school has achieved a rating of LEED® Gold with one innovative credit provided by the General Contractor. They established a 5-year sustainability scholarship to be awarded each year to students making significant contributions to advancing sustainability in the school and community.





COMMUNITY ENVIRONMENT

THE SCHOOL'S COMMUNITY

A school is much more than simply a learning community; it is more often the social hub of a student's life and a place where learning and social interaction go hand-in-hand.

Duchess Park Secondary School has a population in excess of 1000 students that are served a "triple-track" curriculum with three main programs: Mainstream, French Immersion, and Francophone. The student body is culturally diverse, demanding facilities and a school as diverse and capable as the community itself. It was also important that the design promote a sense of identity within the student body to foster a strong and vibrant community. The effect being, student dedicated spaces throughout the school, such as the centrally-located Student Union room, the high lounge above the main entry, or the expanded study area in the Library mezzanine.

The school practices a "success for everyone" model and offers a path for all students regardless of aptitudes and skills. Duchess Park Secondary School houses state of the art workshops, athletic facilities, academic amenities, and performance theatre which help to furnish the students with the abilities and confidences required to succeed in their chosen path. Special attention was also given to a large woodshop in response to the large local wood industry.

LEARNING ENVIRONMENT *ENGAGE TO FOSTER LEARNING*



The building is designed to maximize student and staff interaction and engagement through a bright and open design with maximum glazing. Classrooms overlook the atrium, and there are glazed walls between the multipurpose space and the library, as well as the gymnasium and administration, promoting openness and participation.

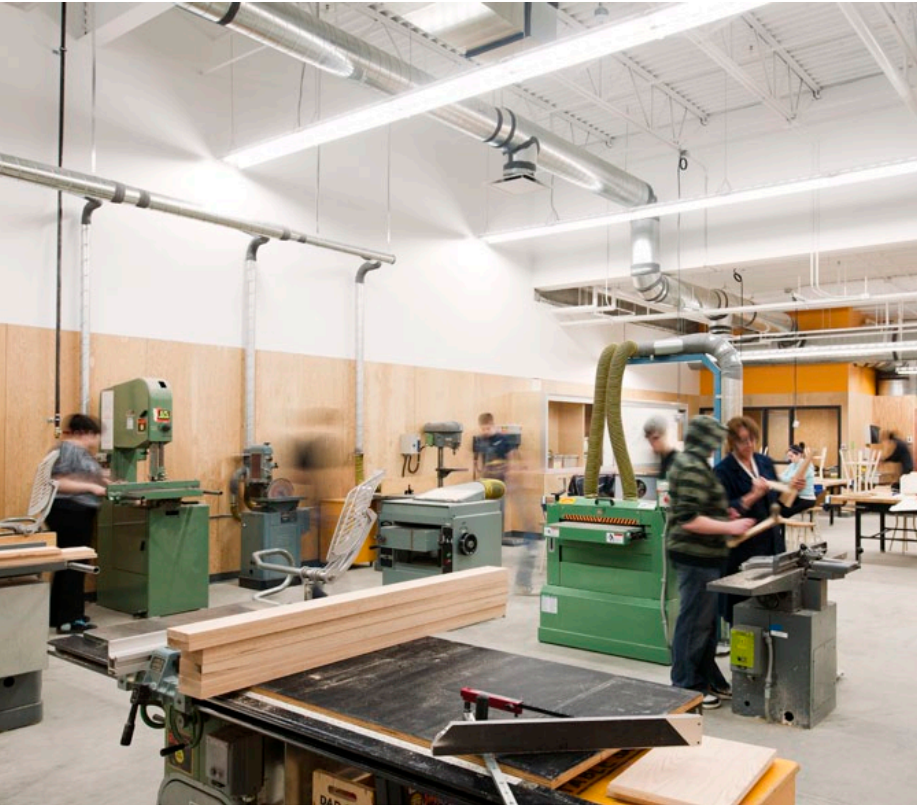


Student lounge overlooking
main entrance

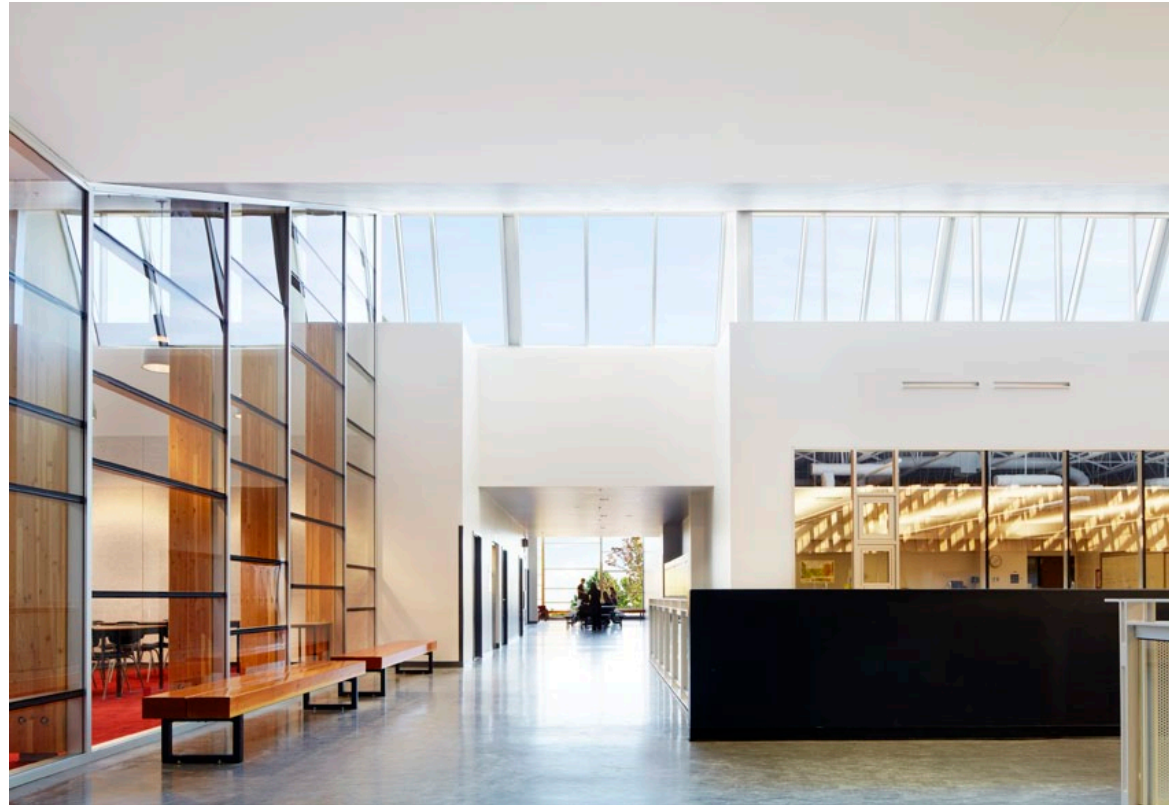
Natural daylight and natural ventilation support a healthy indoor environment and the classrooms facing the street have floor to ceiling glazing with operable panes.

LEARNING ENVIRONMENT

ROOM TO LEARN



While a school's focus is typically the learning that happens within the workshops and classrooms, more and more learning happens outside of the class and in smaller groups. Duchess Park provides numerous spaces for interaction between 2-12 students throughout the building, featuring natural light and benches made of reclaimed wood from the original school.



The colour and material scheme enhances the learning environment without distraction, through subtle colour and material choices with an emphasis on white and bright splashes of colour and a feature wall of natural wood.



PHYSICAL ENVIRONMENT *SOCIAL HEART*

It was important to the Design Team that the school have a Social Heart. This Social Heart would be a space for students and community to interact, while remaining open and flexible with a modern design that relates to the school, the community and the environment.

This central space reflects these relationships through transparency, a flexible design with a student run storefront, durable materials and most of all, the eye catching wood feature wall. This wall consists of local western red cedar with acoustic absorptive material behind, thus serving dual purpose as an aesthetically pleasing, sound-dampening wall.

Social Heart, lovingly referred to as
'The Canyon' by the students.

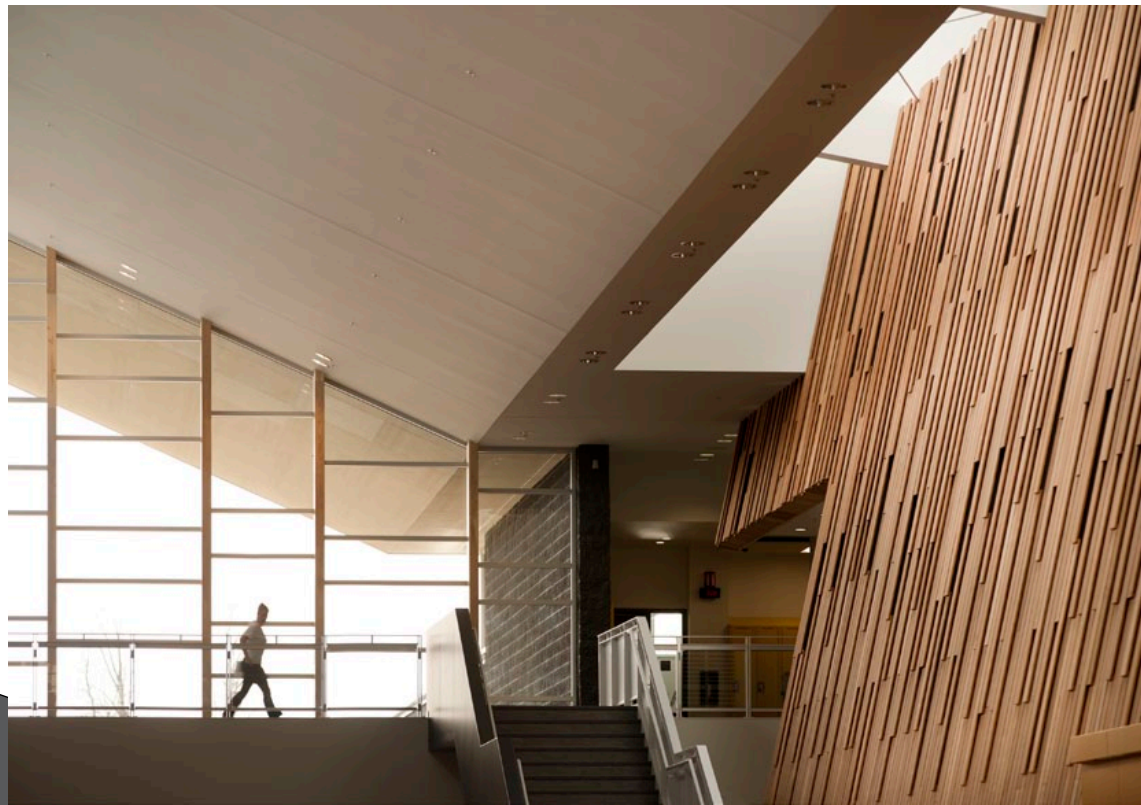
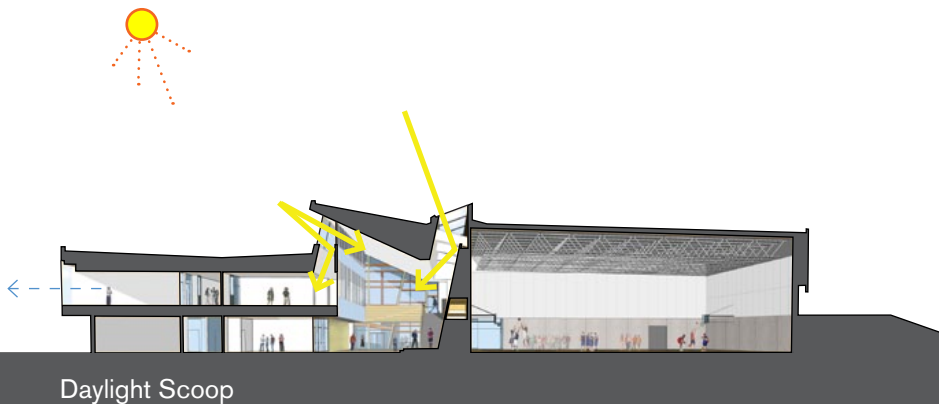
PHYSICAL ENVIRONMENT

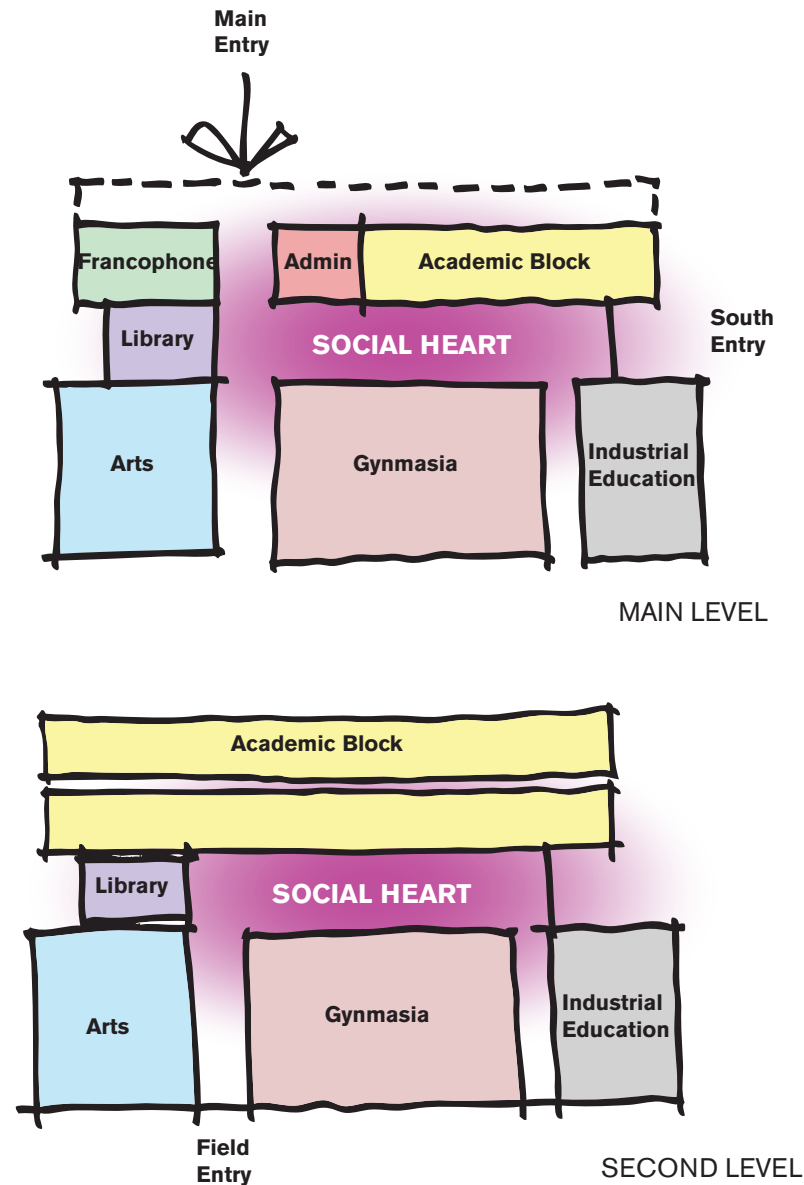
VISIBLE LIGHT

An important focus of Duchess Park's design is in harnessing natural light. A prominent feature of the school, the large skylights, are expressly directed towards the sun, reflecting its light to illuminate the school's core and classes naturally.

The effect of the large "sun scoop" filling the heart of the school is a bright atmosphere for the faculty and students to enjoy. The indirect bounced lighting has a soft airy quality, as opposed to harsh direct sunlight or overhead fluorescents. In addition to the health benefits of additional natural light exposure for the users, the reduction in electrical usage represents an operating cost reduction for the school.

Glass walls separating spaces serve a functional purpose while positively influencing the design. They accentuate the school's open atmosphere while still providing necessary sound insulation for classrooms to function well.





PLANNING PROCESS

DESIGN CONCEPT

The themes of the design approach are:

- Transparent and clear organization
- Compact configuration
- A central “social heart” for the school

A compact configuration for the school was favoured to reduce heat loss during winter months, which would in turn drastically reduce operating costs for the school (*coupled with additional efficiency improvements the annual energy cost is reduced by 58% as compared to a reference building defined by Canada's Model National Energy code for Buildings*).

The creation of a central multi-purpose space gives the school a vibrant and versatile “social heart” where all students can feel welcome to interact, play, and hopefully develop connections between one another and to the school itself. The “heart” is meant to foster a sense of recognition and identity for this northern learning community.

The social heart space, ‘The Canyon’, is central to the school and is the first interaction for all guests and students as they enter the school. From here the primary educational blocks are clearly visible to help faculty and visitors intuitively find their way.



“Attendance improved, tardiness decreased, [and newfound] pride in the appearance of the building but also in the quality of work is shown. Students enjoy all the daylight and the general esthetics of the building”

—*Sherry Thibault*
Principal of Duchess Park Secondary

PLANNING PROCESS

DESIRED OUTCOME

The Duchess Park Secondary School project is an example of a truly integrated process of planning, design and construction. The design-build arrangement ensured effective communication between the School District, construction team and the consultant team from the onset.

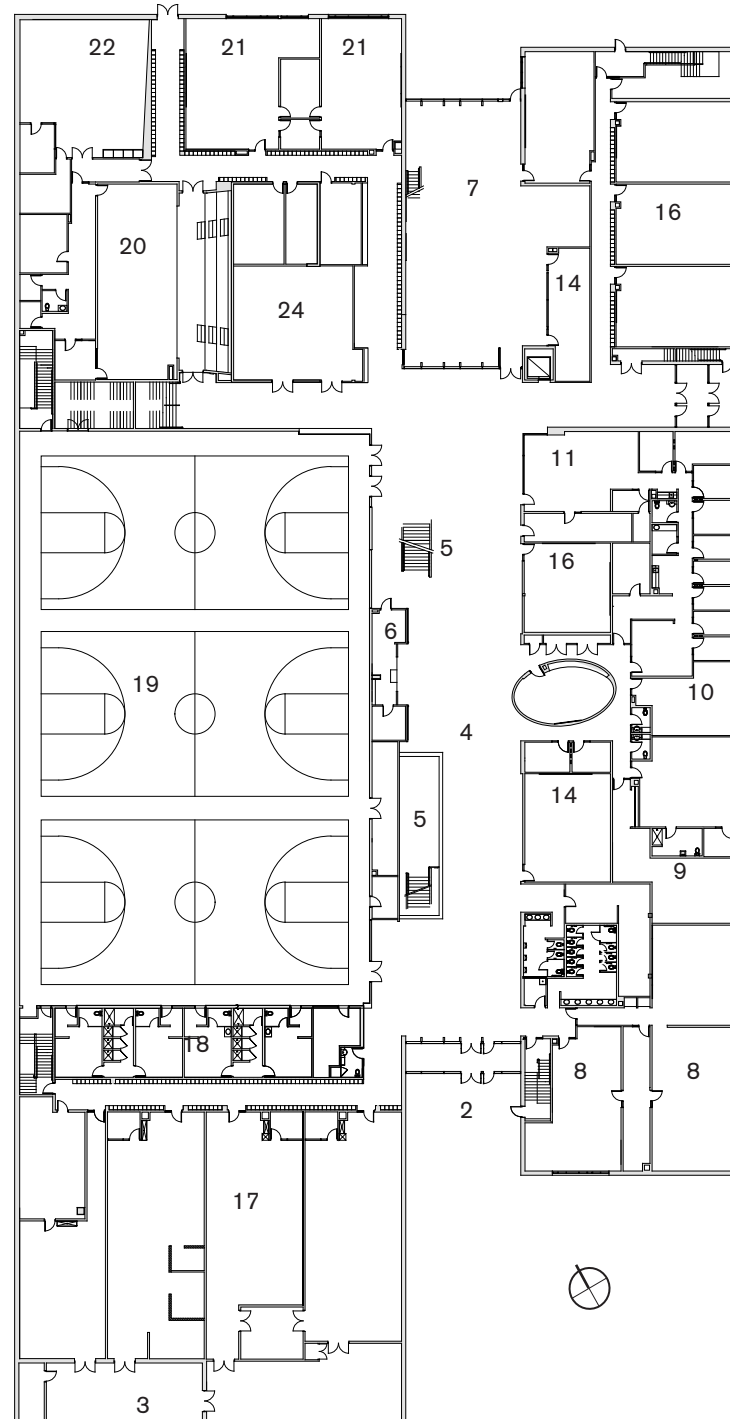
A comprehensive list of desired outcomes was developed by the school district and a third-party consultant team. These were the basic objectives the project had to meet:

- Must accommodate a diverse range of programming for at least 900 students in grades 8 through 12.
- In all cases the school's design must be future-oriented, meeting the needs of academic and athletics for years to come.
- The project must meet the Board's stated financial commitment and maximize the return on investment.
- Integrate the services of two public School Boards, both the Prince George School District No. 57 and the Conseil Scolaire Francophone de la Colombie-Britannique District No. 93.

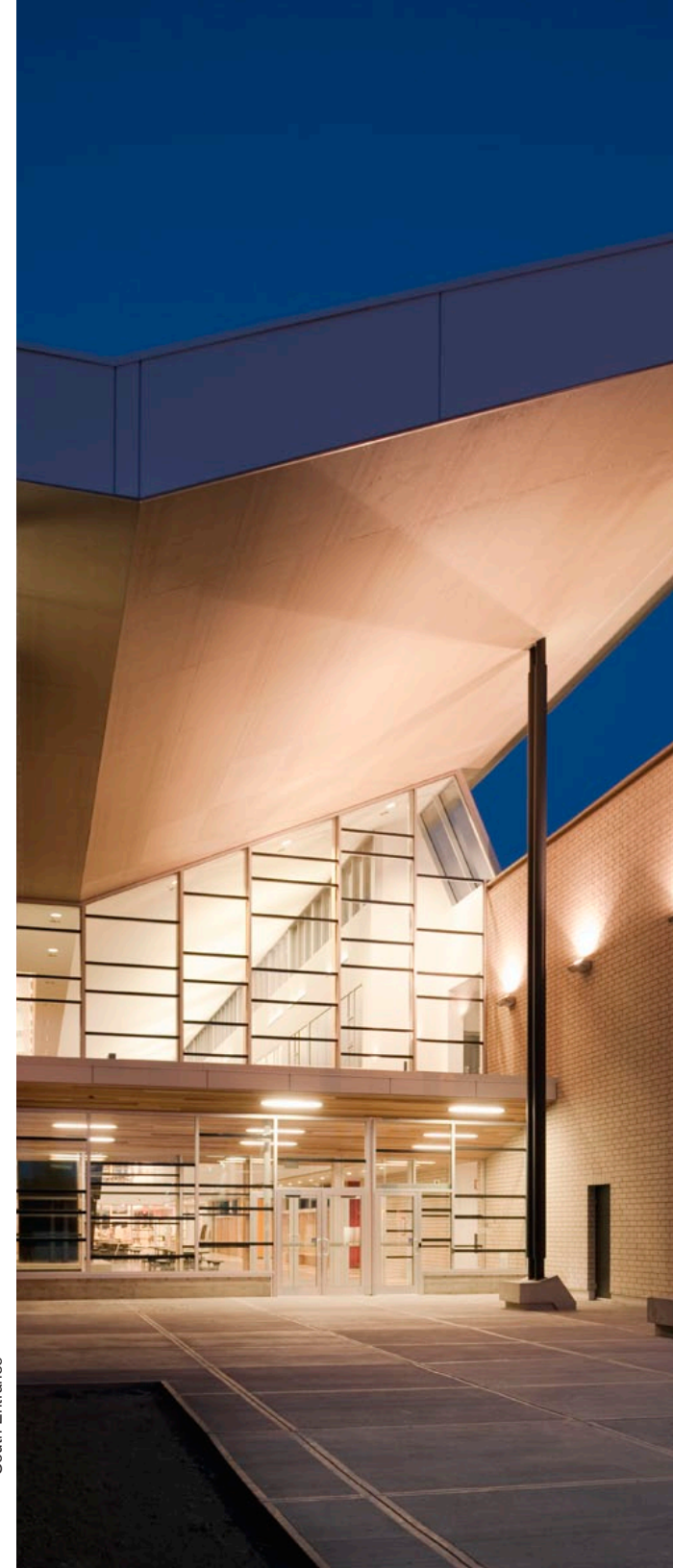
FLOORPLAN

GROUND FLOOR

- 1 Main Entrance
- 2 South Entrance
- 3 Woodshop Supplies Entrance
- 4 Multipurpose
- 5 Stairs to 2nd Floor
- 6 Student Store
- 7 Library
- 8 Home EC Classrooms
- 9 Staff Room
- 10 Learning Assistance
- 11 Reception & Offices
- 12 Records
- 13 Restroom
- 14 Computer Classrooms
- 15 Boardroom
- 16 Classrooms
- 17 Shop Classrooms
- 18 Change Rooms
- 19 Gymnasia
- 20 Theatre
- 21 Arts Classrooms
- 22 Double Height Band Room
- 23 Francophone Classrooms
- 24 Storage

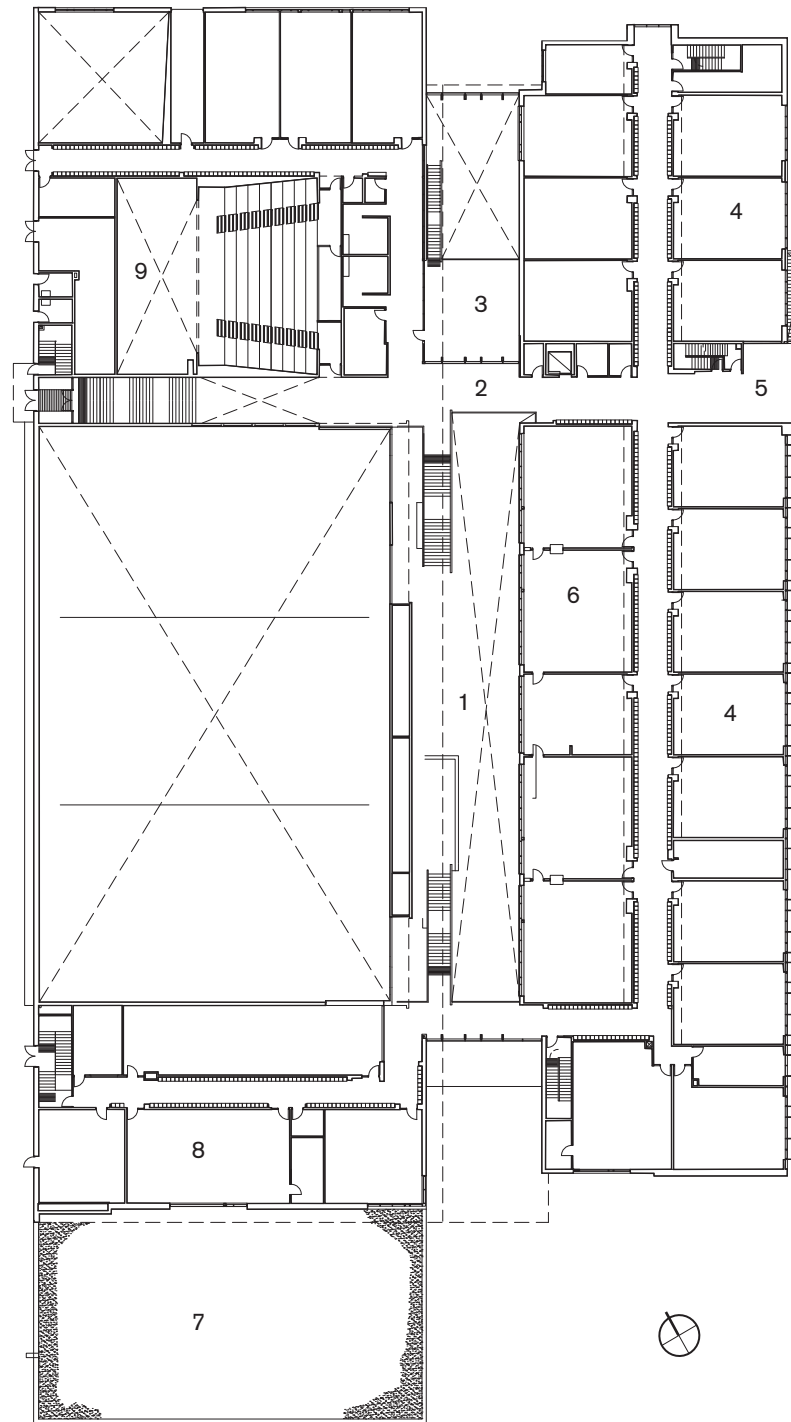


South Entrance





Administration



FLOORPLAN

2ND FLOOR

- 1 Multipurpose (Below)
- 2 Bridge
- 3 Upper Library
- 4 Classrooms
- 5 Student Lounge
- 6 Science Classroom
- 7 Roof of Shops
- 8 IT Classrooms
- 9 Theatre

EXHIBITION OF SCHOOL PLANNING AND ARCHITECTURE PROJECT DATA

Submitting Firm:		HUGHES CONDON MARLER ARCHITECTS
Project Role		Lead Architect
Project Contact		Karen Marler
Title		Principal
Address		Suite 300, 1508 W. 2 nd Ave. V6J 1H2
City, Province, Country		Vancouver, BC, Canada
Phone		(604) 732-6620

Construction Firm:		WESTERN INDUSTRIAL CONTRACTORS LTD.
Project Role		Contractor
Project Contact		Brian Savage
Title		Vice President
Address		4912 Hart Highway V2K 3A1
City, Province, Country		Prince George, BC, Canada
Phone		(250) 981-2146

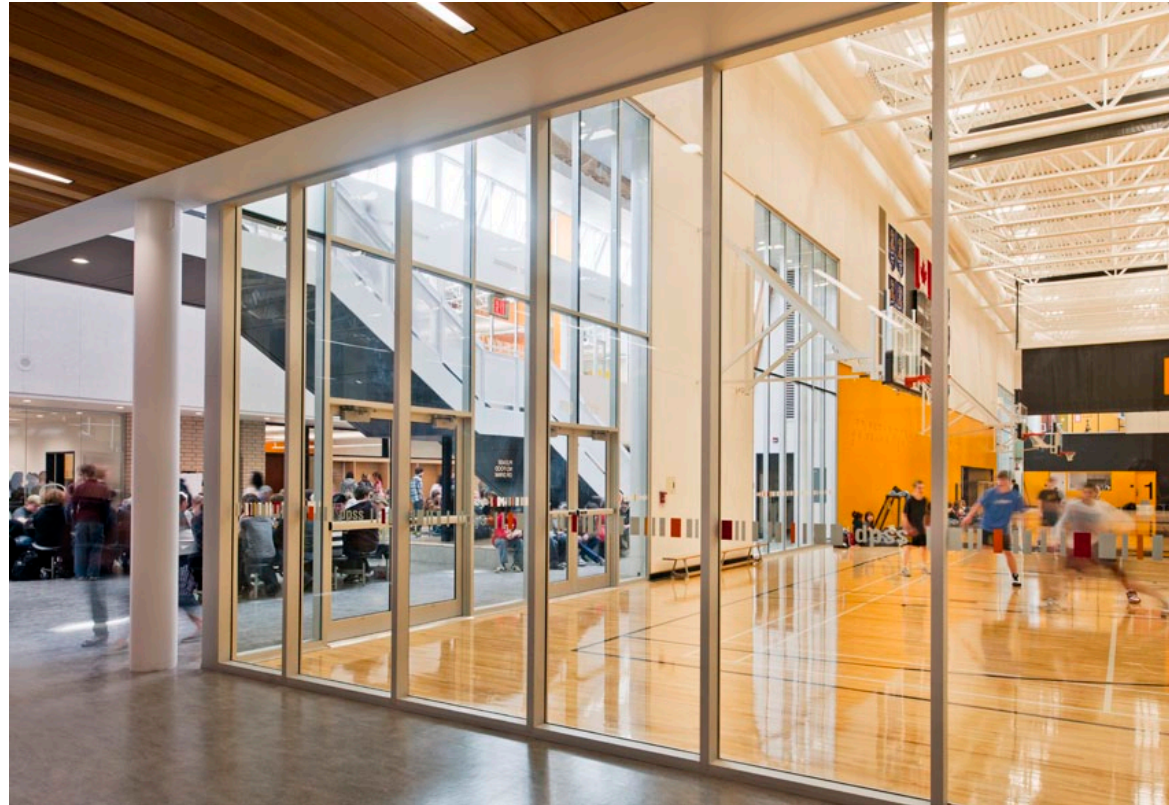
EXHIBITION OF SCHOOL PLANNING AND ARCHITECTURE PROJECT DETAILS

Project Name:	DUCHESS PARK SECONDARY SCHOOL
City	Prince George
Province	British Columbia
District Name	School District No. 57 Prince George
Supt/President	Brian Pepper
Occupancy Date	March 2010
Grades Housed	8 – 12
Student Capacity	1000
Site Size (<i>acres</i>)	6.5 acres
Gross Area (<i>ft²</i>)	118,800 ft ²
Per Occupant (<i>pupil</i>)	118.8 ft ² per pupil
Please Indicate Gross/Net	1.2
Design and Build?	Yes
If Yes, Total Cost	\$36.5M
Includes	\$32.3M Construction Budget
Total	\$36.5M

SCHOOL FEATURES



The library adjoins 'The Canyon' in the centre of the school, and features quiet, comfortable spaces for students to study and explore written works.



Views through to various activities creates a dynamic, rich, and integrated experience for the students.



Duchess Park Secondary School has a strong Physical Education program. Their sports teams are a subject of pride and represent a large portion of the school's community and heritage. The new school provides students with a large indoor gymnasium to accommodate all sports teams and their spectators.

The gym consists of three parts, with dividers that can be opened for larger events, or closed for classes and training. Included is a sophisticated score-keeping system, exceeding standard requirements, that gives a grandeur to matches uncommon amongst secondary schools.



Branching off the central core of the school is the school auditorium, a welcoming performance theatre for community events, school productions, and home to the school's performance groups.

Whether it's a theatrical performance, music exhibition, or student demonstration, the 250 seat theatre is fully accessible, and equipped to provide a high-quality theatre experience for all.