

Douglas Park School



Jump-starting an Educational Renaissance in Canada

A Sustainable Innovation Network

Douglas Park School is a Pre-K - 8 School in Regina, Saskatchewan. It's the first of four new innovative schools and mixed use community facilities planned and designed by the same global leader in educational facilities. From these schools, new ways of teaching and learning will flow, and an educational network will light up the city, province, then the world.



Curriculum - Professional Development - Educational Environment
A Holistic System for 21st Century Learning



Established in 1882, Regina has experienced hardship and rebirth on several occasions throughout its rich history. In 1912, the Regina Cyclone destroyed much of the town. And in the 1930's, the drought and Great Depression hit the Canadian Prairies particularly hard with their economic focus on dry land grain farming. Thriving in the 1960's, Saskatchewan led the way for the creation of the Canadian Universal Health Care System. Throughout the late 20th Century however, Regina had limited economic and population growth while many of its citizens moved to pursue job opportunities elsewhere.

Now, in the early 21st Century, Regina is playing a key role in Saskatchewan's economic and cultural rebirth. The province's rich history of innovation has enabled them to take advantage of healthy grain prices and the development of their rich potash deposits and oil reserves. Regina Public Schools, through their long standing and continuing involvement with CEFPI, was ready and willing to lead an educational renaissance to meet the challenges of the 21st Century Creative Age. To this end, the Board of Education and a team of educators developed the Structural Innovation initiative.

Hardship, Rebirth and Innovation



Words From the Structural Innovation Initiative:

A number of years ago, the Regina Public Schools staff started thinking about how to innovate learning, teaching, and Pre-Kindergarten to Grade 12 education overall. In 2009, the school division challenged all of its educators to identify new ideas on how to improve teaching and learning in the classroom and how to enhance the overall school experience.

Structural Innovation will take the best and most successful learning practices and make them part of public schools. Some examples include:

- **Flexible teaching arrangements and instructional groupings:** students matched with several teachers to better meet learning needs.
- **Teacher collaboration:** teachers working together to share their expertise and experiences with each other and to help students succeed.
- **Interdisciplinary and inquiry-based teaching and learning:** teachers and students working together on projects and in groups that are not limited by grade level or subject matter.
- **Inclusive practices:** helping all students, regardless of their skills and needs, to learn and grow within their own neighbourhood schools and with their peers.



**STRUCTURAL
INNOVATION**
IN REGINA PUBLIC SCHOOLS

www.rbe.sk.ca

The Seeds of Change

Ron Christie, General Manager of Educational Facilities with the Regina Public School Division, lead the projects. Ron is a Recognized Educational Facility Planner (REFP) through CEFPI (Advanced Certificate in Educational Planning from San Diego State University). His credentials and familiarity with 21st century educational design made him an ideal liaison with the planners, designers and project architects.

Initial Stakeholder Meeting



Original School Building



The Douglas Park Project Description:

“Construction of a new elementary school, replacing the existing school on the same site, at 635 East Douglas Ave, Regina. The existing school will remain operational during construction. The school will include Pre-K, Kinder, and Grades 1 – 8, with a capacity of 300 – 350 students, and will be approximately 40,000 SF.

The school will be divided into four Learning Communities, include a Special Needs Developmental Centre, and multi-purpose spaces for First Nations cultural visits.”



Design Pattern Workshop: Participants map “Inside Out” and “Outside In” perspectives to generate ideas for the new school.

“A variety of spaces appropriate to the Learning Community age groups and addressing different developmental needs is important.”

Comment from Community Meeting 1,
Douglas Park School

Innovative Planning

A Dialogue for Innovation

Community Engagement:

It was important that the school community, including teachers parents and students, understand the concepts presented in Structural Innovation and how they would impact learning. The early workshops were designed to introduce 21st century educational best practice concepts, and to give all participants a common vocabulary to engage in the next steps of collaboration.

Left: Hopes and Fears exercise encourages participants to post both their positive and negative feelings about the school project.

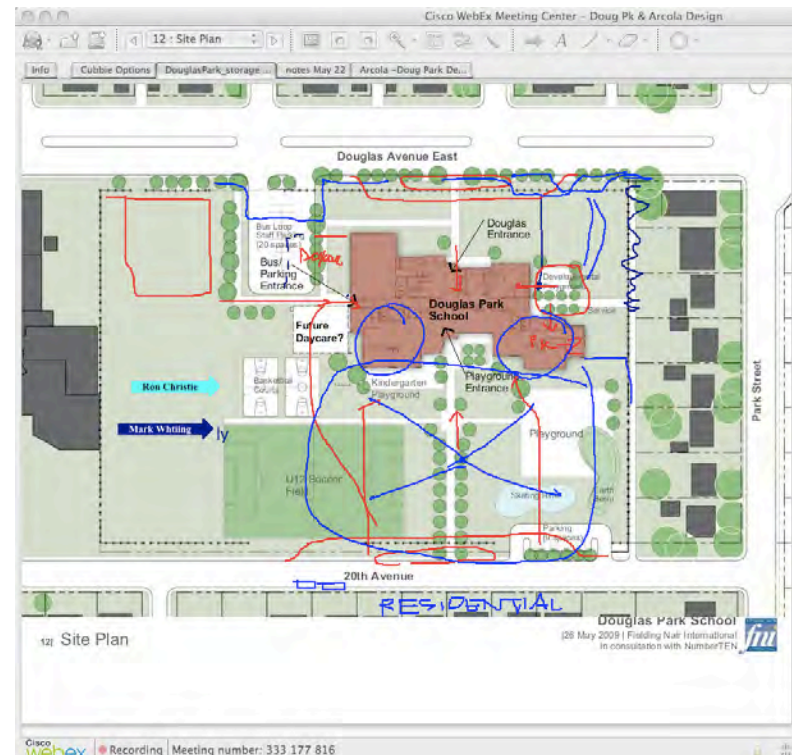
Below: Share Pair questions prompt the school community to discuss 21st century learning principles together.



Community Engagement

Seven Step Process:

1. Design for the Creative Age:
Community meeting and presentation on January 6, 2009
2. Design from the Inside-out and the Outside-In: Community Visioning Workshop on January 31, 2009
3. Site & Building Design Concepts:
School Committee Webex on March 17, 2009
4. Site & Building Design Refinement:
School Committee Webex, April 22, 2009
5. Site & Building Design Refinement:
School Committee Webex on May 13, 2009
6. Design Presentation & Feedback:
Community Meeting in Regina on June 4, 2009
7. School Committee Comments:
Webex June 17, 2009





Community Engagement:

(Above) Community members of all ages weigh in on a site map of the campus. Student opinion was carefully considered, as a child's point of view is a major factor in the Structural Innovation key points, like Inquiry-based Learning and Inclusive Practices.

(Right) Even the very youngest students gave input through the My Learning Story exercise. Thinking about with who, what, when, where, how they liked to learn, then expressing it, gave yet another point of view to the planning team.

Input from All Ages

My Learning Story

Tell a story about a learning experience that was important to you.
Experiences are not limited to school—they may be after-school, during free-time, or family-related

In your story, try to answer the five questions below:

1. Who did you learn with? 2. When did you learn? 3. Where did you learn?
4. What did you learn? 5. How did you learn?

If you would like more space for the story or illustration, attach additional pages

One cold, wintery weekend, my big sister and I were playing school. We were in our parents' bedroom and she was the teacher. She brought the white board and said "Today we are going to learn about adding." Then she drew apples on the board with a red marker. She told me that '+' means add, '-' means take away and '=' means equals.

My big sister drew two apples on one side and two more on the other side. When I counted all the apples on the board I discovered that there were four apples. This is called adding.

I like it!

Make a drawing or paste a picture below that illustrates your story.



Bird's-eye View shows Three Learning Communities Surrounding the "Heart of School Commons"

"There is a strong interest in bringing the outdoors into the interior of the school and establishing a green signature or identity for the school."

Comment from Community Meeting 1,
Douglas Park School

Designing for Innovation

Structural Innovation and the Learning Community Model

Douglas Park School is designed to launch the Structural Innovations initiative by providing spaces that support the practices outlined there. Flexible teaching arrangements and instructional groupings are provided by the learning community model; in this case several grade levels make up each community. Rather than teaching 30 students in one classroom, teachers share an office space to promote collaboration.



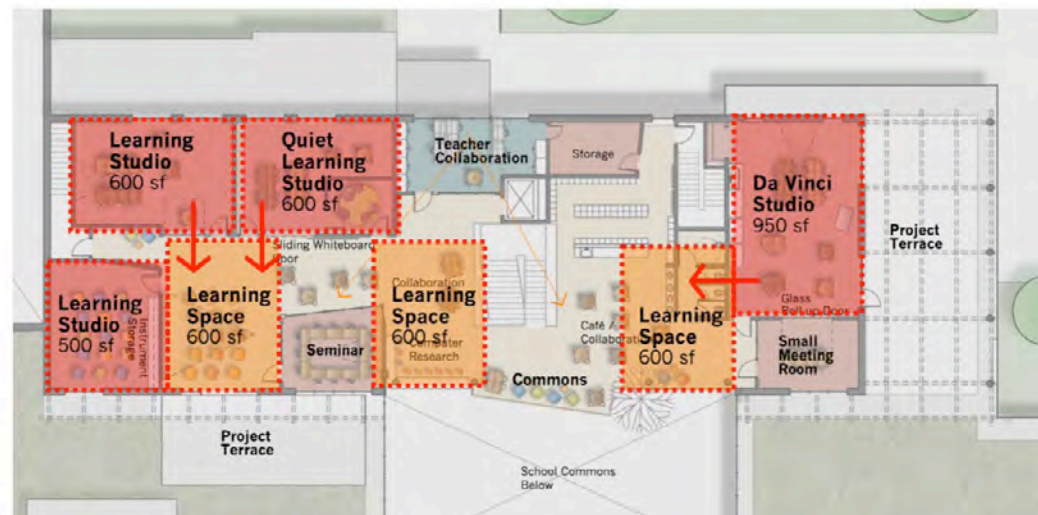
Space for project-based learning is provided in flexible commons space, and inclusive practices are represented in the Developmental Centre, and throughout the campus. The building is organized to provide convenient community access to the main entrance from the north; the gym from the parking on the west side of the site; and safe and secure access for students from the south. Students move directly from the buses to their respective playgrounds and into the school through separate entrances for each learning community, or smaller grade grouping. This organization can help prevent bullying, provide visibility to all playgrounds, and orchestrate bus drop-offs from one supervision point.

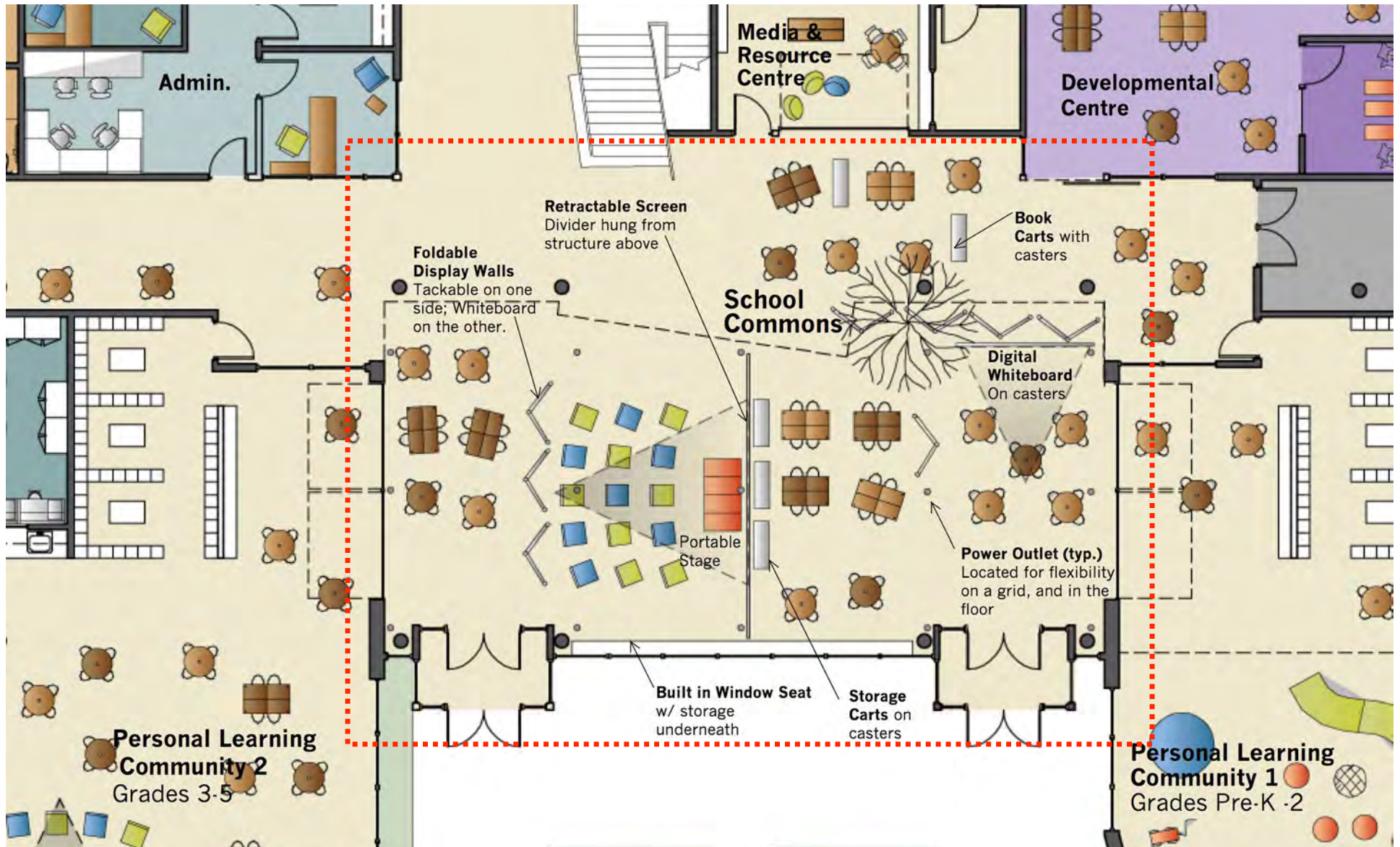
Flexible Spaces Define the Learning Community, Enhance Curriculum

They offer teachers the flexibility of choosing the right size and type of space for each learning activity from a variety of spaces rather than being confined to a classroom. Additionally, the spaces in each Learning Community have been designed for maximum flexibility, many with roll-up glass doors that allow classrooms to open to each other.

The teacher collaboration workroom in each has views to the commons area, allowing them to passively supervise students even while meeting together. This space also provides a think-tank type area for teachers to be able to relax, collaborate and share ideas and research materials.

The plan at the lower right shows how commons spaces can be utilized for larger groups, or for smaller groups and individuals to work outside a learning studio. Inquiry-based learning needs spaces for groups to form and individuals to work alone, often at the same time.





The School Commons: The school commons acts as the heart of the school, unifying the three LCs, and providing core learning space for multiple leaning modalities. LCs 1 and 2 connect to the School commons with glass roll-up doors, allowing each to expand and borrow space from the School Commons as needed. Like a theatre or stage for learning, the school commons can be rearranged to accommodate school meetings, performances and films.

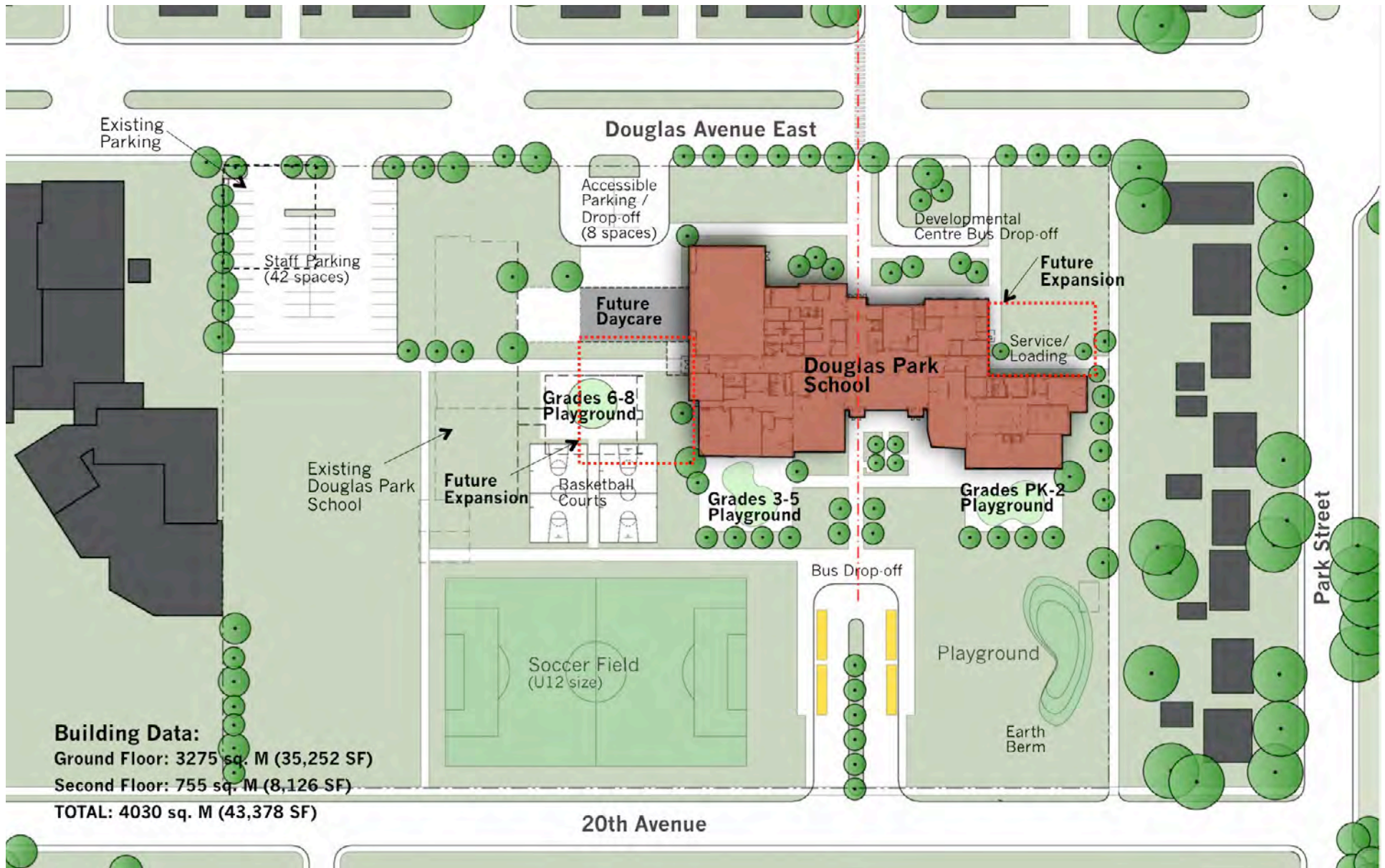
Quiet Learning Studios, also sized for 20-30 students, are located away from the activities of the PLC commons for students who need more focus, and are designed with soundproofing to support students with special needs, such as those in the Behavioral Alternative Resource Program (BARP).



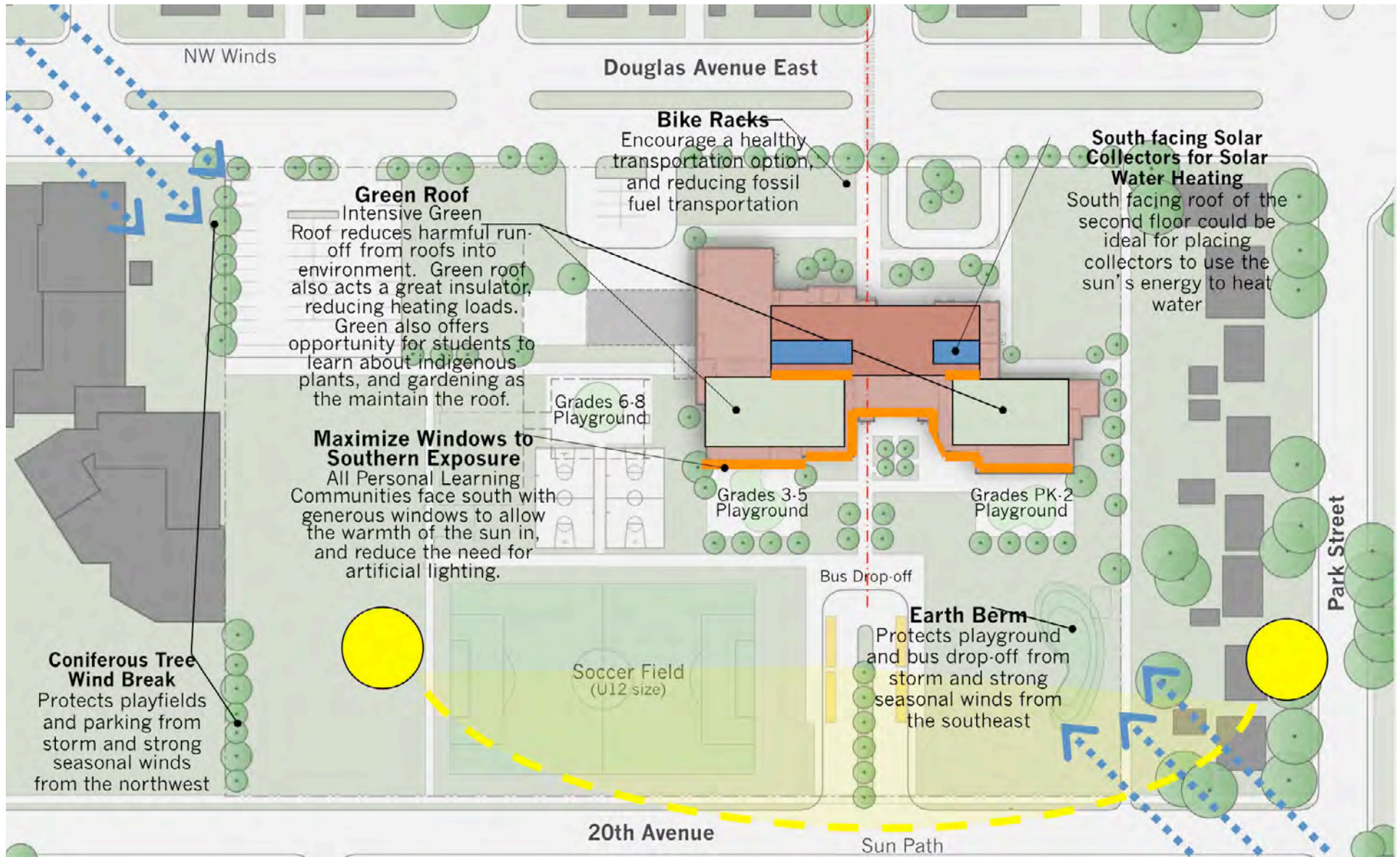
Learning Studios: Varied & Agile

The new Douglas Park School moves away from a 20th century “cells and bells” model of classrooms and corridors, to embrace a more flexible and varied model where teachers can choose from a variety of spaces to find the space that best suits the learning activity, and students have the space to be creative, working on projects as individuals or in groups, either with their hands or with the latest technology.

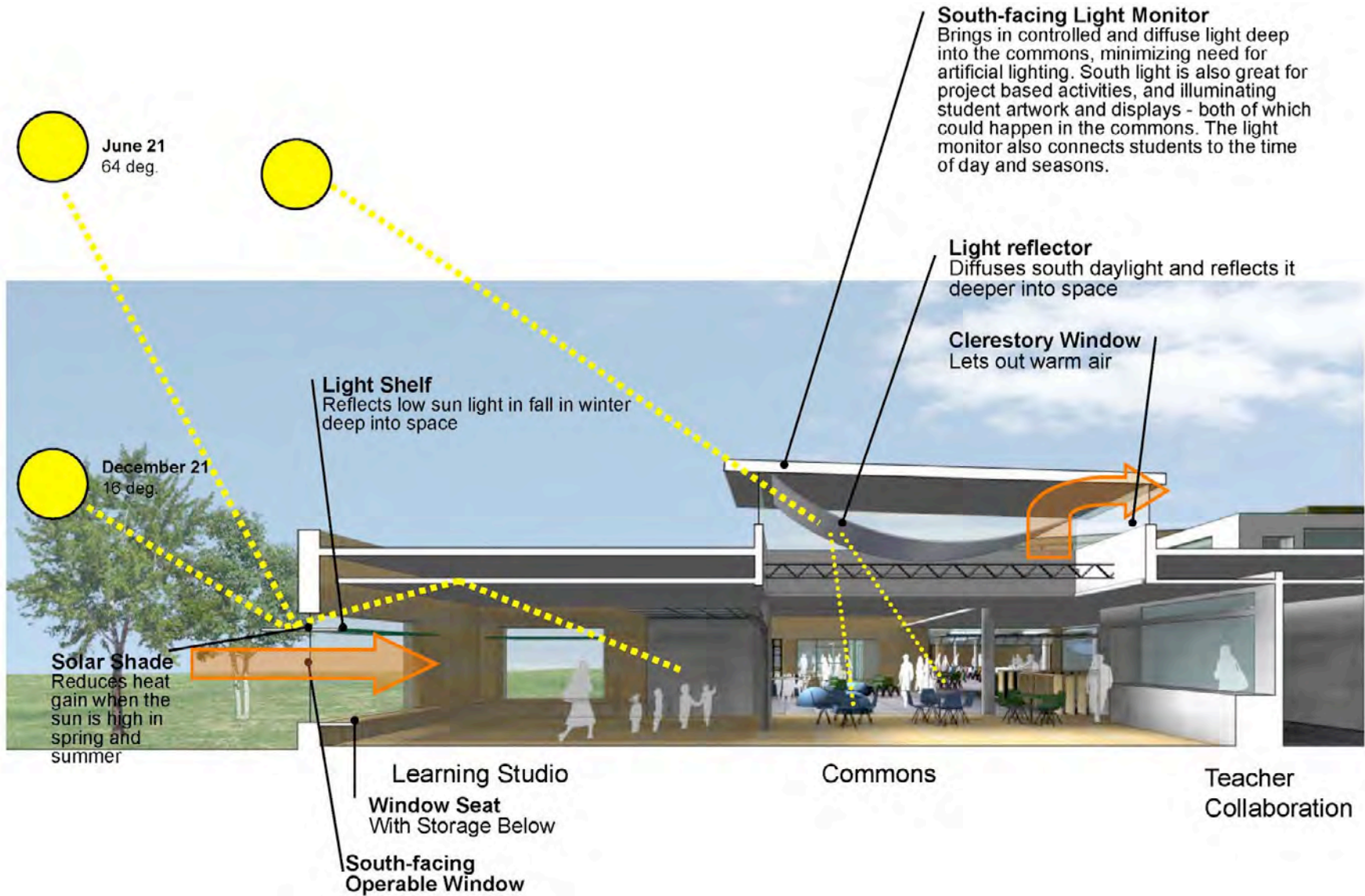
Learning Studios, sized for 20-30 students, are variable spaces that can be re-configured for a variety of learning modalities from the traditional lecture, to project-based learning, small group work, student presentations, and individual learning.



Site Plan: This clearly shows each learning community playground, just outside their space. The bus drop-off area is separated from car access for safety.



Sustainable Design Features: The northern climate was carefully considered throughout the design process. Building placement, and window configurations create passive solar opportunities throughout the day. Berms and trees block strong prevailing winds, and green roofs and solar collectors become part of the school curriculum through monitoring systems.



Maximizing Daylight for Health & Economy

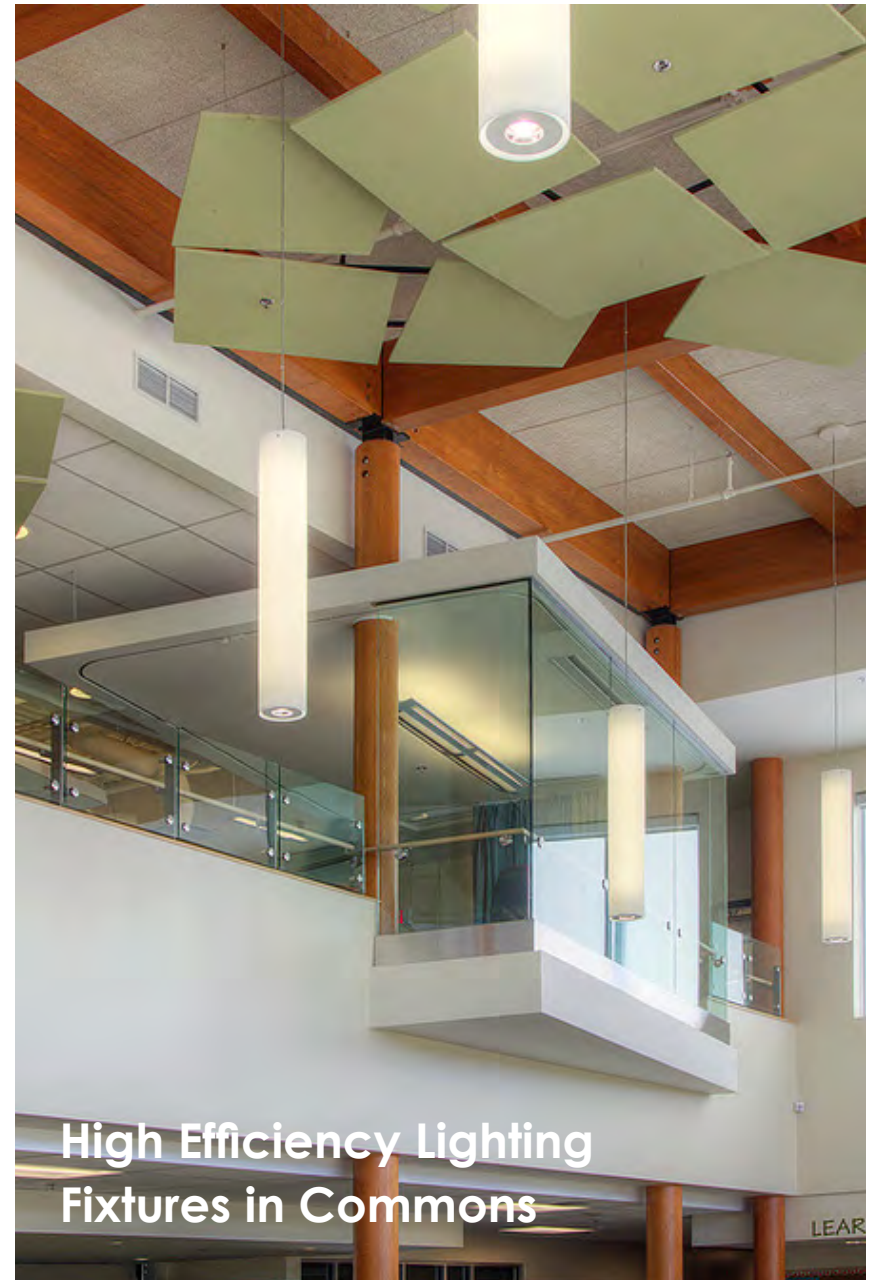
Sustainable Design Features

Electrical Design Features:

- Daylighting harvesting - sensors automatically turn lights off when natural light levels are adequate
- High efficiency lighting fixtures - T5 direct/indirect lighting at below 1 watt per square foot
- Occupancy sensors automatically turn lights on & off depending on occupancy
- Dimmable fixtures provide greater controllability and energy efficiency
- Auditory assist system provides built-in teacher microphone and speaker system in all learning areas

Mechanical Design Features:

- Water efficient plumbing fixtures
- Distributed air to water heat pump system controlled by temperature or carbon dioxide sensors, time clock programming and motion detectors
- In-floor perimeter radiant heating and cooling
- Heat Recovery via heat wheel
- Solar wall preheats incoming fresh cold winter air
- DDC controls utilizing a web-based, open protocol, fully automated control system



High Efficiency Lighting
Fixtures in Commons

The building's exterior and interior design are based on the project's signature concept; Douglas Park School as "THE SCHOOL IN THE PARK."

Forest's Edge:

- Durable, lightweight and colorful composite panels in a variety of shapes and sizes give the school a light, contemporary expression that reflects the welcoming, non-institutional feeling the community desired
- The exterior windows have a variety of widths and colors that dance along the façade like a stand of trees in a forest

Canopy's Light:

- Natural daylight from above through roof monitors utilizing translucent (Schott Okalux) and green colored glass
- Fun, colorful "leaf like" acoustic panels hang from the ceilings

Outcroppings Surprise:

- Sense of arrival and unexpected point of interest – welcoming entry opens up to the central commons with colorful furnishings, forest-themed graphics and hanging translucent light fixtures

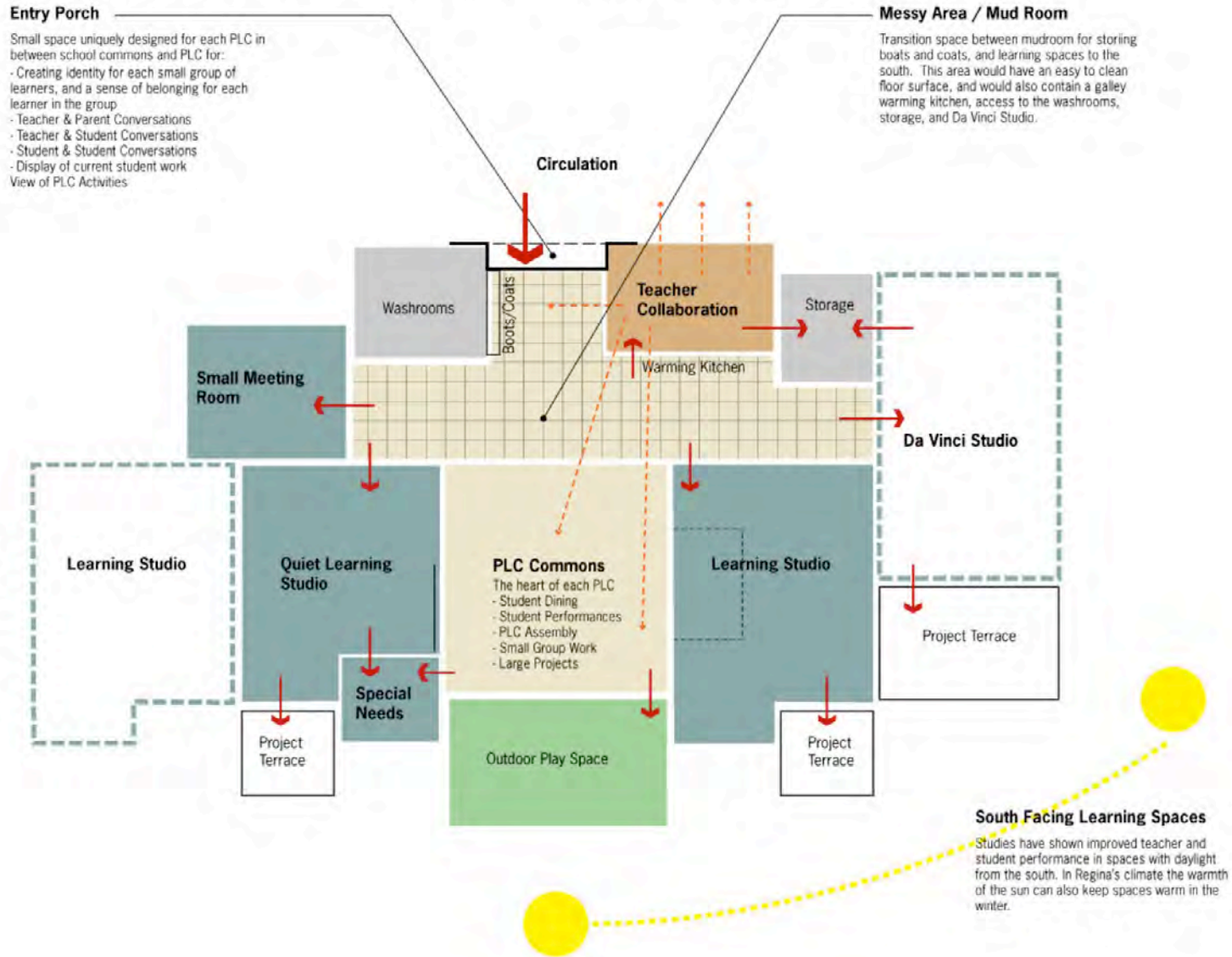


The School in the Park



The School in the Park

Supporting Regina Public Schools Structural Innovations & 21st Century Best Practice



Teachers Shaping Spaces:

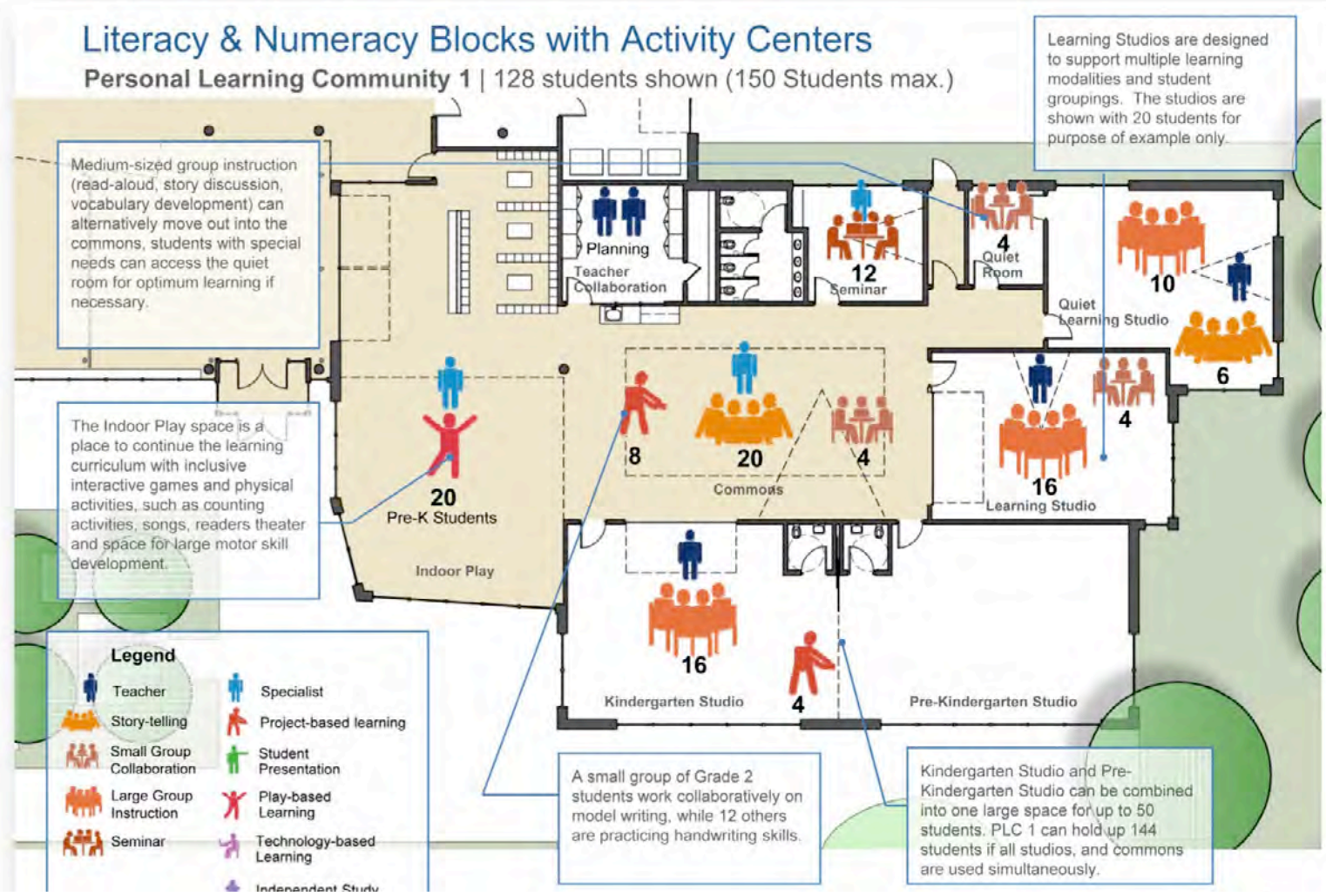
A basic block plan is formed for the Pre-K to 2nd grade Learning Community.



Teachers Shaping Spaces:

The same space after the design process, with furniture in place.

Mapping Learning to Space



Teachers Shaping Spaces:

Curriculum Mapping exercise with teachers explores the possibilities of the space, and reveals any problems in the design.



The School Commons, with Flexible Furnishings and Plenty of Room for Multiple Learning Modalities

“This is a place of innovation, creativity, expression and learning. We’re all so excited to see all what this place has to offer and what it becomes.”

Katherine Gagne, (RPS) board chair, Regina Public Schools

Spaces for Innovation

Douglas Park School provides innovative space for Regina students

BY EMMA GRANNEY, LEADER-POST SEPTEMBER 18, 2012 10:07 AM



The unveiling of the newly constructed Douglas Park School took place in Regina Saskatchewan September 17 2012. This is the common area as a student addresses the crowd gathered.

Photograph by: BRYAN SCHLOSSER, Regina Leader-Post

Andrew Montgrand can claim something rather unique - he helped shape his new school.

The Grade 7 Douglas Park student joined the new school's design committee when he was in Grade 3 and, when the school officially opened its doors this month, he was pleased to see some of his ideas had been taken up.

September 17, 2012:
Launching Day, Douglas
Park School

Transparency = Safety



Students Entering Through the Main Entrance:

Extensive glass facing south to capture sunlight. Transparency adds to safety as the outside entry area is visible from indoors.



Transparency = Safety

Students Entering Through Entrance Two:

Double-loaded entry prevents cold air from entering, and has a built-in shoe-rack, a great idea for northern climates.



School Commons:

Contains a variety of furnishings that students can easily move themselves. Moveable walls like the set shown here help block sound when needed. Note the ceiling acoustical panels which provide the same function.



Signature Windows, Two Views:

Ample lighting without the glare because of the outdoor baffle, colored panels and segmentation.



School Commons, View from a Learning Community:

Transparent garage-style link this Learning Community with the School Commons.



Early Childhood Learning Studio:

Learning stations with organized activity zones. A transparent garage-style door links the two learning spaces.



Early Childhood Learning Studio:

Transparency here gives a clear view of the main entrance and playgrounds directly outside.



Developmental Centre:

Storage and sink areas with first-aid kits are placed in every Learning Commons for hygiene, and wet or messy projects.



Furnishings that Move Create Better Project Spaces:
Even storage units are on wheels, so teachers can change formations daily.



Furnishings that Move Create Better Project Spaces:
Same space: new project assignment, new formation.



Acoustical Treatments Make Better Project Spaces:

Here, ceiling panels, garage-style doors, and a moveable curtain reduce noise, but retain visual connection with other spaces.



Main Entrance:

The entrance is marked with a strong green glass element; an overhang gives shelter for students waiting to be picked up. Ample bike racks encourage students to ride to school.



Good Storage Improves Learning Spaces:

Cubby-style locker areas are a must in a northern climate that requires lots of clothing layers. The location of these stations need to be close to, but not in the middle of Learning Communities.



The Nest:

Tucked into the upper grade Learning Commons, the Nest is a curtained off area for quiet study.



The Gym:

Day-lighting extends to the gym. Indoor play is important to the well-being of students in Regina.



Outdoor Access:

Students play in the snow directly outside their Learning Community.



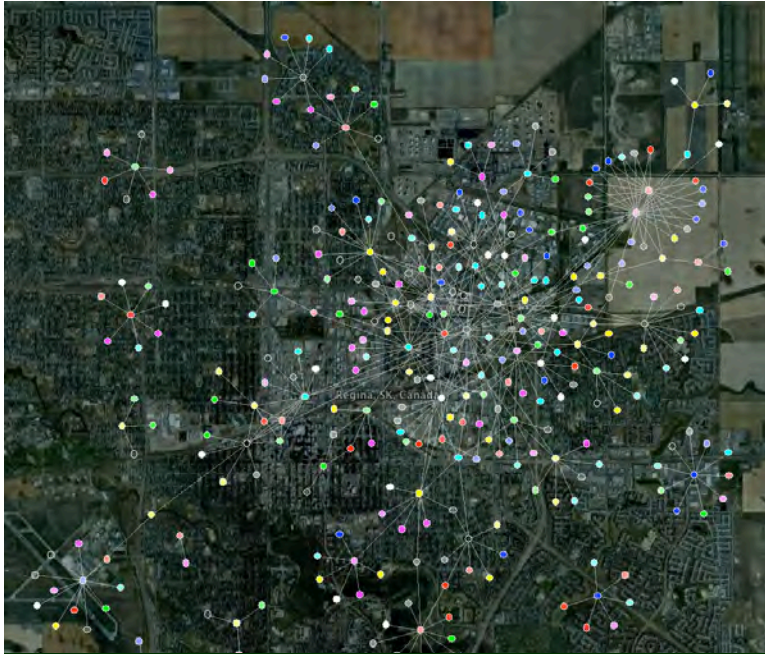
The School Building as a Textbook:

Building systems can be observed and monitored here, allowing teachers and students to integrate the building into their teaching and learning.



Performance in the Commons:

Flexible space supports Structural Innovation. The ability for curriculum and spaces to evolve and grow together is the Douglas Park School launch base.



The City of Regina is Forming a Network of Teaching and Learning to Reflect the Values of Structural Innovation

“The role of the teacher will evolve from directing learning to coaching students to construct their own curriculum. Students will be made familiar with district/province learning objectives and coached on how to integrate these standards into their own plans, which are driven by passion rather than obligation.”

Lead Planner of Douglas Park School,
Speaking About the Future of Learning

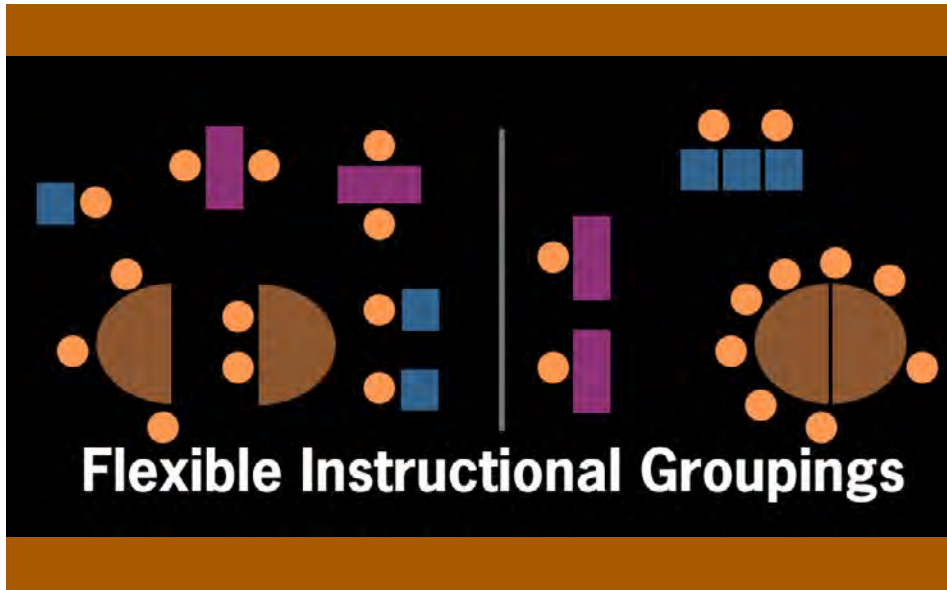
Innovative Networking

Creative Age Teacher Network

Understanding the four cornerstones of structural innovation.



These Networks Will Encourage Teachers and Students to Learn from Each Other as They Develop Innovative Ways of Teaching and Learning



**Four Critical Modalities for Structural Innovation Form
a Base for Developing New Teaching Practices**

Not the open classroom



Acoustical
Treatments

**The Network Will Help Teachers Better Use the New Schools,
Including Douglas Park**

Change the World!

A Regina Student Project Network.



Project-based Learning and
Community Outreach Combine
to Better Regina and the World.



A Student Network Will Become a Resource for Project-based and In- quiry-based Learning

Change the World Process

1. Student groups brainstorm projects based on a given theme
2. Projects are implemented and documented via video and the website
3. Videos are posted and Regina community is given access
4. Community votes for winning projects at the three grade cohort levels

The Regina Innovative Network will continue to reinforce Structural Innovation as the base for educational change management in Regina. The spaces in Douglas Park form a living laboratory for a 21st Century education that will lead the school system of Regina to better ways of teaching and learning.



A Launchpad for Innovation!