

2017 LE SOLUTIONS PLANNING AND DESIGN AWARDS
ABORIGINAL LEARNING CENTRE REDEVELOPMENT & ADDITION



May 11, 2017

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

2.0 SCOPE OF WORK AND BUDGET

3.0 SCHOOL & COMMUNITY ENGAGEMENT

4.0 EDUCATIONAL ENVIRONMENT

5.0 PHYSICAL ENVIRONMENT

6.0 RESULTS OF THE PROCESS & PROJECT

1.0 EXECUTIVE SUMMARY

The Aboriginal Learning Centre is a major renovation and addition project to the existing Harold W. Riley School in the Calgary community. We were fortunate to be awarded this project, a unique opportunity to transform a basic and minimal rectilinear 1970's elementary school into a Learning Centre for the Aboriginal community, with a student population from pre-school age to Grade 5. The local Education Board's goal is to increase the success of Aboriginal students and support integration of Aboriginal culture and knowledge into the urban community.

Unique project challenges were many and varied, beginning with the development of program and design strategies through a visioning and charrette process early in 2014. Working with an Aboriginal Architectural Consultant, the small footprint of the school was transformed into a carefully crafted facility with culturally significant features and learning opportunities through its concept, form, layout and interior design.

The focus of the project is on creating indoor, with connected outdoor, learning spaces that educate and promote Aboriginal ancestry and heritage, as well as establish a meeting point for the regional Aboriginal community. First Nations, Inuit and Métis (FNMI) traditions and symbolism are highlighted throughout the building, from the natural materials chosen, to the orientation and connection of spaces to each other and the exterior, to the visual way finding cues throughout the school.



2.0 SCOPE OF WORK AND BUDGET

SCOPE	Total Redevelopment and Minor Addition for an Existing 1972 School into an Aboriginal Learning Centre
BUDGET	\$8.64 Million
LOCATION	Calgary, AB
DATE	Completion January 4, 2017
ROLE	Prime Consultant - Architectural
FORMAT	Design-Bid-Build



3.0 SCHOOL & COMMUNITY ENGAGEMENT

THE COMMUNITY

Aboriginal people referred to as the 'Indian, Inuit and Métis peoples of Canada' have different beliefs, cultures and heritages.¹ Lead by local public board of education, the Aboriginal Learning Centre focuses on early intervention of Aboriginal; First Nations, Métis and Inuit (FNMI) students aged 3 to 8 years old³. The centre is also designed to become a community gathering hub for the Aboriginal Community events, celebrations and programs.

STAKEHOLDERS



Local Communities

Local Education Board

- Local Board of Education Staff

Aboriginal Community

- Aboriginal Students
- Aboriginal Parents
- Elders

Service Providers

ASSETS

Local Education Board program leads

FNMI Leaders

International Architectural Aboriginal Consultant

CHALLENGES

Schools play a crucial role to bridge the achievement gap between Alberta's First Nations, Métis and Inuit (Aboriginal) students and non-Aboriginal learners. According to the article 'Ensuring First Nations, Métis and Inuit Student Success'¹ by Alberta School Boards Association, approximately 'one Aboriginal child in five currently attends on-reserve schools; four in five attend off-reserve schools. Although younger Aboriginals are pursuing more education than past generations, 'they have not kept pace with the increase in education among other Canadians'¹.

¹ Schmoltd Sig. 2011. Ensuring First Nations, Métis and Inuit Students Success: Leadership through Governance. Alberta School Boards Association. Available from: http://www.asba.ab.ca/wp-content/uploads/2014/07/Inuit_success_report.pdf

³ Calgary Board of Education. Aboriginal Learning Centre. Available from: <http://www.cbe.ab.ca/schools/building-and-modernizing-schools/Documents/Aboriginal-Learning-Centre-Flatsheet.pdf>

* FNMI: First Nations, Métis and Inuit

3.0 SCHOOL & COMMUNITY ENGAGEMENT

Some key factors from 2009/2010 Alberta Education Annual Report are outlined below¹:

- Aboriginal students' dropout rate is more than twice as high as the rate for students in total.
- Aboriginal learners' high school completion rate is lower than the percentage for overall Alberta students.
- Rates of Aboriginal students in Grades 3, 6 and 9 who accomplished standards on Provincial Achievement Tests have consistently fallen behind the results achieved by overall students.

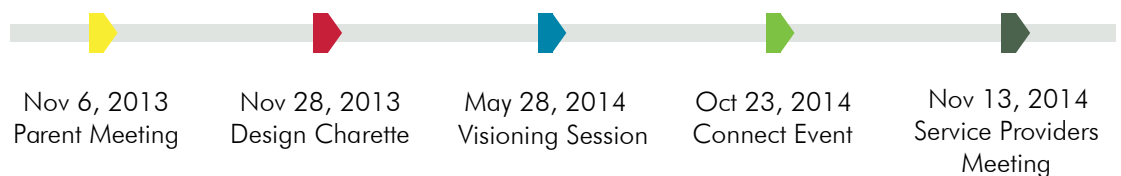
To summarize, the achievement gap demonstrated by the Education Report, clearly states a call to action for all Alberta's school boards to improve Aboriginal student learning outcomes. The Aboriginal Learning Centre is a part of the strategies developed by the local education board to meet the challenge of improving Aboriginal students' results.¹

COMMUNITY ENGAGEMENTS

The primary goal of the community engagement plan is to collaborate with stakeholders to enhance overall design & planning of the centre and the overall success for First Nations, Métis and Inuit students.

Five major community engagements were held throughout the design process in order to ensure that voices, ideas and concerns of Aboriginal community are reflected in the decisions that are developed. In addition to the meetings, regular one-on-one interviews with Elders and leaders from the Calgary Aboriginal community were held to gather feedback and thoughts.

FIVE MAJOR COMMUNITY ENGAGEMENTS



The Design Charette and Visioning Session were led by an Aboriginal Architectural Consultant engaged by the School Board.

Community engagements played a crucial role in the design and planning of the Aboriginal Learning Centre. Visioning Session held on May 28, 2014 concentrated on three important exercises to initiate a design direction for the school. The exercises were:

- Value Prioritization
- Cultural Design Strategies
- Traditional Ways of Learning and Teaching

¹ Schmold Sig. 2011. Ensuring First Nations, Métis and Inuit Students Success: Leadership through Governance. Alberta School Boards Association. Available from: http://www.asba.ab.ca/wp-content/uploads/2014/07/Inuit_success_report.pdf

3.0 SCHOOL & COMMUNITY ENGAGEMENT

VALUE PRIORITIZATION

In order to determine what the community's priorities are, a value prioritization exercise was held with Aboriginal community leaders, project architects, service providers, educators and parents. The exercise focused on refining ideas and understanding the Aboriginal Communities vision for the centre. The key outcomes of the meeting are listed below:

- Creating a place to share culture and history.
- Connection between learning, play and celebration.
- Bringing more natural light in.
- Designing a large gathering space for traditional activities such as pow wow, round dance or feasts.
- Honoring Blackfoot history and other FNMI cultures.
- Bringing nature indoors with a garden or living wall.
- Creating an experimental place for arts, music and drama, etc.
- Planning large sports and ceremonial space that can be locked off for after-hours use.
- Building a strong connection between the materials used and the culture where children can see themselves in the culture of the school and curriculum.
- Establishing a sense of family and connection in the school (school + home + community).
- Designing flexible spaces, openness, moveable walls.
- Providing a space for Elders (warm, perhaps with fire)
- Building connection between indoors and outdoors.
- Creating calm, small, quiet, safe and self-regulating spaces.
- Emphasizing entryway and way-finding.
- Creating both inside and outside spaces to celebrate success for the community.
- Designing magical / cultural room with symbolism that will create interest for children.

CULTURAL DESIGN STRATEGIES

The Cultural Design Strategies exercise focused on a range of design principals from various cultural facilities across Native North America. Design strategies included: Celestial Events; Worldview; Animals + Values; Creation Stories + Cosmology; Structure + Significance; Color + Symbols; Plants + Gardens; Elements; Sight lines; Materials + Meaning; Landscapes of Meaning; Sacred Landforms; Tradition + Ceremony; and Stories + History. Participants were asked to examine the design of the Aboriginal Learning Centre within their groups and to come up with a list of strategies that would be applicable for the school. Although various responses were received from different groups, participants' priority was identified as 'honoring Treaty 7 territory while respecting the diversity of cultures'.



3.0 SCHOOL & COMMUNITY ENGAGEMENT

TRADITIONAL WAYS OF LEARNING AND TEACHING

The final exercise, Traditional Ways of Learning and Teaching focused on traditional education techniques and ways these techniques could inform the design of the school. During the exercise, participants proposed strategies on incorporating cultural references, cultural activities and conventional teaching tools.

The land, animals, plants, environment, symbols and history are outlined as the significant cultural reference for traditional learning. Essential cultural activities required within the school are storytelling, ceremony, gathering, dance, art and music. Finally, conventional teaching tools mentioned were the tipi, medicine wheel, harvesting calendar, gardens, sky science, creation stories, outdoor explorations, sensory explorations, value systems, oral tradition and hands-on learning.



DESIGN PROCESS

01 Define

Design a centre for the Aboriginal community to learn about and celebrate Aboriginal culture and languages

02 Collaborate & Collect

Collaborate with public and collect ideas, dreams and concerns via community engagements and one-in-one interviews

03 Brainstorm & Analyze

Analyze the information collected and brainstorm ideas

04 Develop

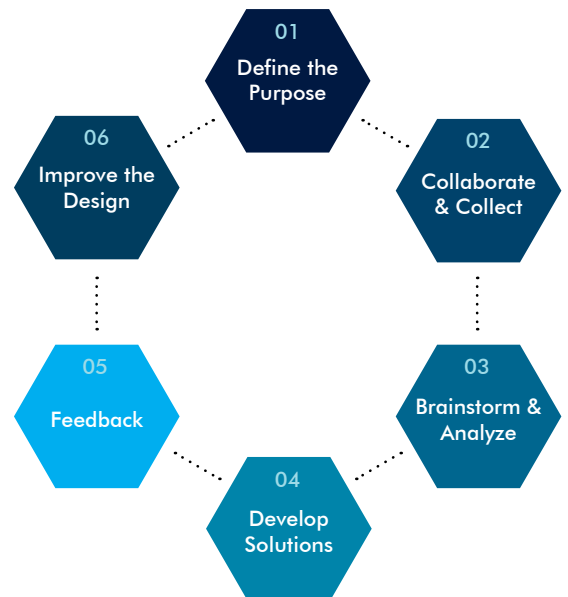
Develop design solutions based on the analysis

05 Feedback

Present ideas and display designs to receive feedback

06 Improve

Implement feedback received and improve the design



4.0 EDUCATIONAL ENVIRONMENT

EDUCATIONAL VISION THE HOLISTIC LIFELONG LEARNING MODEL

The design of the school was significantly led by community engagements as summarized in section 3. According to the Aboriginal Architectural Consultant, the outcomes of the community engagements echoed strategies that were emphasized in the research, 'Key Attributes of Aboriginal Learning' by the Canadian Council on Learning². The study stated that a more holistic approach that recognizes all perspectives of learning is required to measure the individual and collective well-being of First Nations, Métis and Inuit communities. These key aspects of learning, outlined below,² formed the foundation of the design of Aboriginal Learning Centre:

1. *Learning is holistic.* The learning process concurrently engages and improves all aspects of the individual—emotional, physical, spiritual and intellectual
2. *Learning is lifelong.* The Medicine Wheel—a circle divided into quadrants—outlines the lifelong learning process: the process begins before birth, it continues through old age and involves the intergenerational transmission of knowledge.
3. *Learning is experiential.* Learning is connected to lived experience, or *learning by doing*, and is structured by community interactions such as ceremonies, meditation, story telling, sharing circles, observation and imitation.
4. *Learning is rooted in Aboriginal languages and cultures.* Language is the essential vehicle for intergenerational transmission of cultural knowledge. It provides a method for interpreting shared experience, and is fundamental to Aboriginal identity and conservation of knowledge systems.
5. *Learning is spiritually oriented.* Recognizing the interconnectedness of all beings, the learning process involves knowledge that results from spiritual experiences including physical world activities such as ceremonies, vision quests and dreams.
6. *Learning is a communal activity.* Family, elders and community play a major role in the lifelong education journey. Elders teach responsibilities between family, community and creation, including the significance of intergenerational relationships.
7. *Learning integrates Aboriginal and Western knowledge.* Learning becomes an adaptive process that integrates the good and useful traditions from the past into contemporary contexts.

The domains or sources of knowledge developed into the three design themes guiding the Aboriginal Learning Centre:

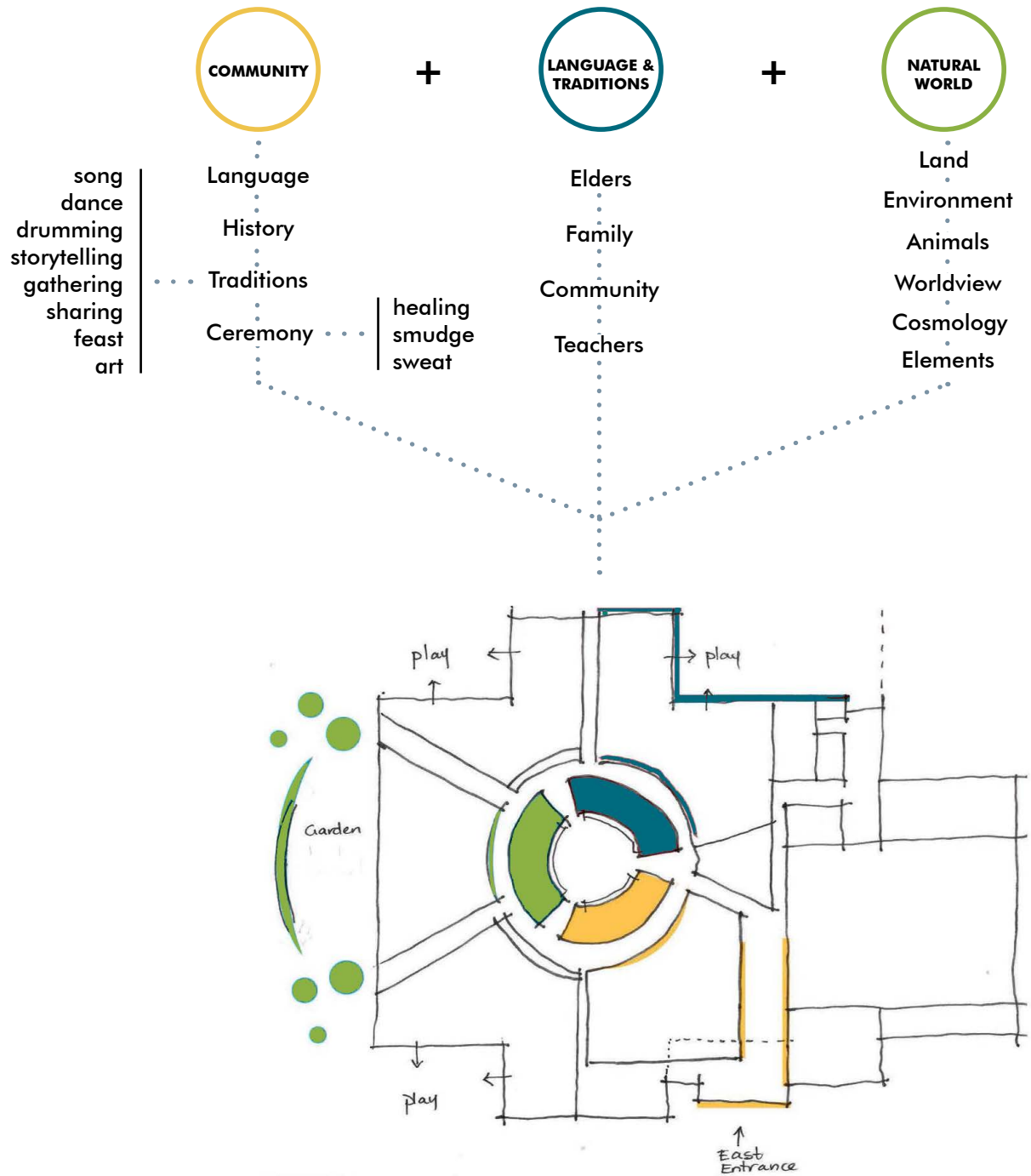
- (A) Welcoming Our Community
- (B) Language & Traditions and
- (C) the Natural World.



² Canadian Council on Learning. 2007. Redefining How Success is Measured in First Nations, Inuit and Métis Learning. Ottawa: CCL. Available from: http://www.afn.ca/uploads/files/education/5._2007_redefining_how_success_is_measured_en.pdf

4.0 EDUCATIONAL ENVIRONMENT

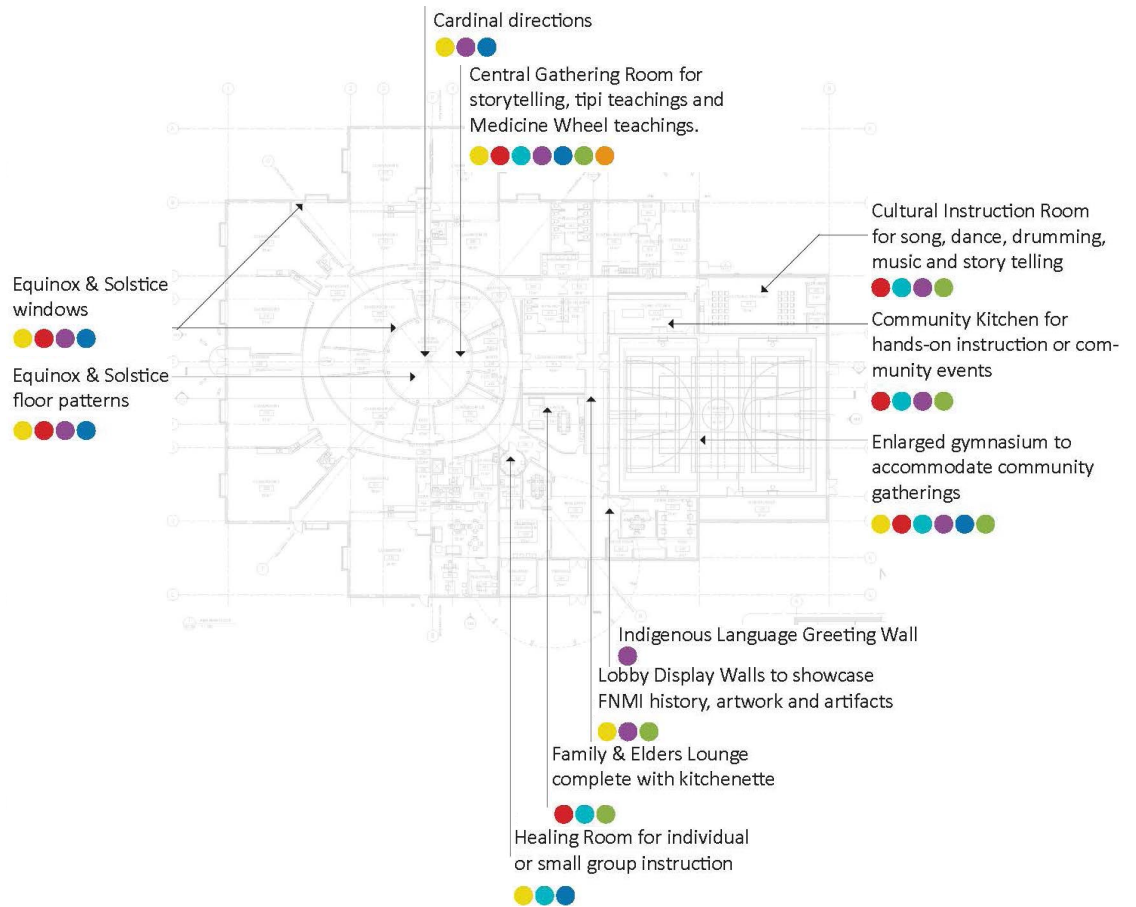
SOURCES OF KNOWLEDGE



4.0 EDUCATIONAL ENVIRONMENT

DESIGN SUMMARY

KEY ATTRIBUTES OF ABORIGINAL LEARNING



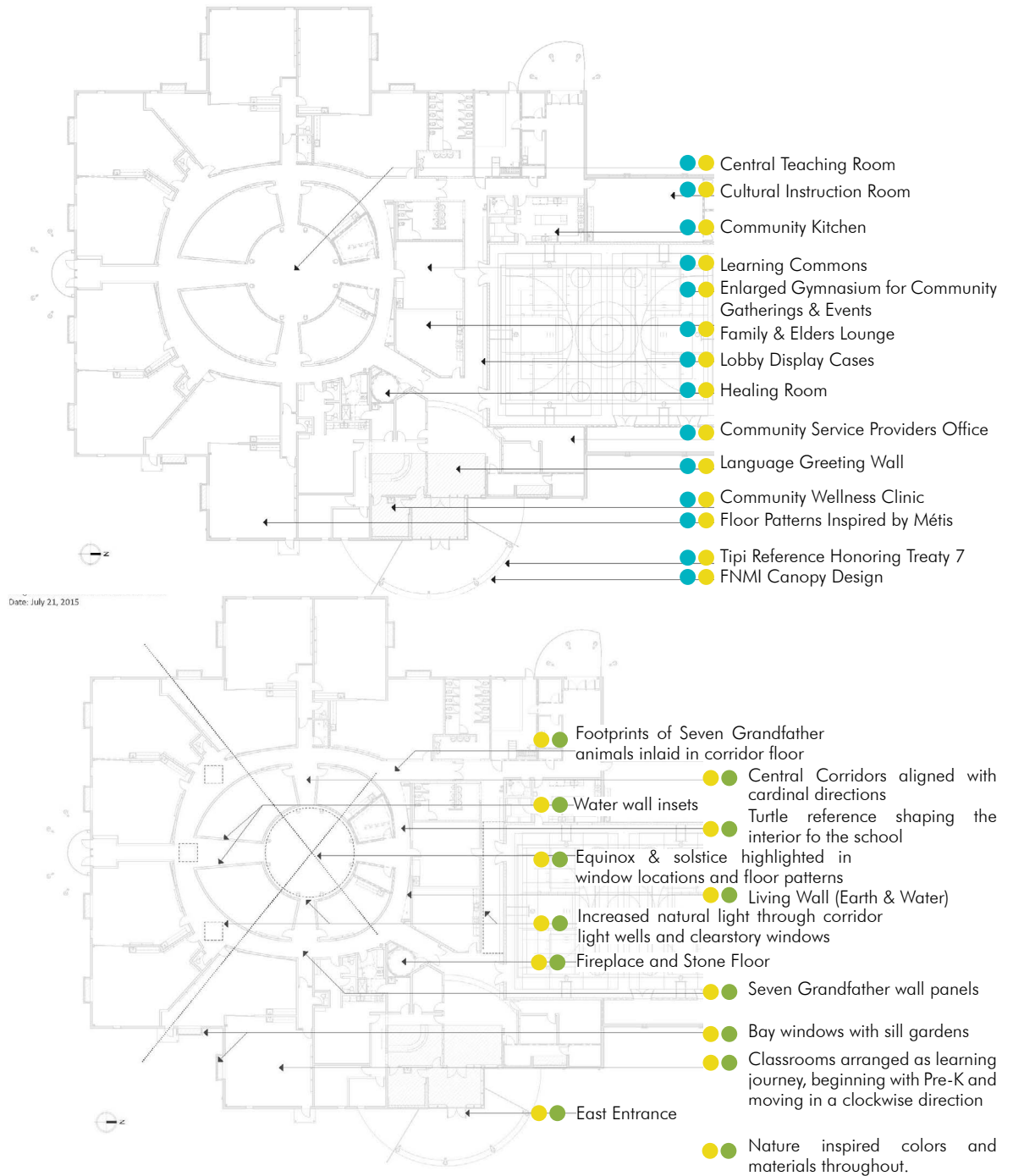
- Learning is holistic.
- Learning is lifelong.
- Learning is experiential.
- Learning is rooted in Aboriginal languages and cultures.
- Learning is spiritually oriented
- Learning is a communal activity.
- Learning integrates Aboriginal and western knowledge.

4.0 EDUCATIONAL ENVIRONMENT

DESIGN SUMMARY

KEY ATTRIBUTES OF ABORIGINAL LEARNING

- Design Principle 1 Welcoming our Community
- Design Principle 2 Language & Traditions
- Design Principle 3 Natural World

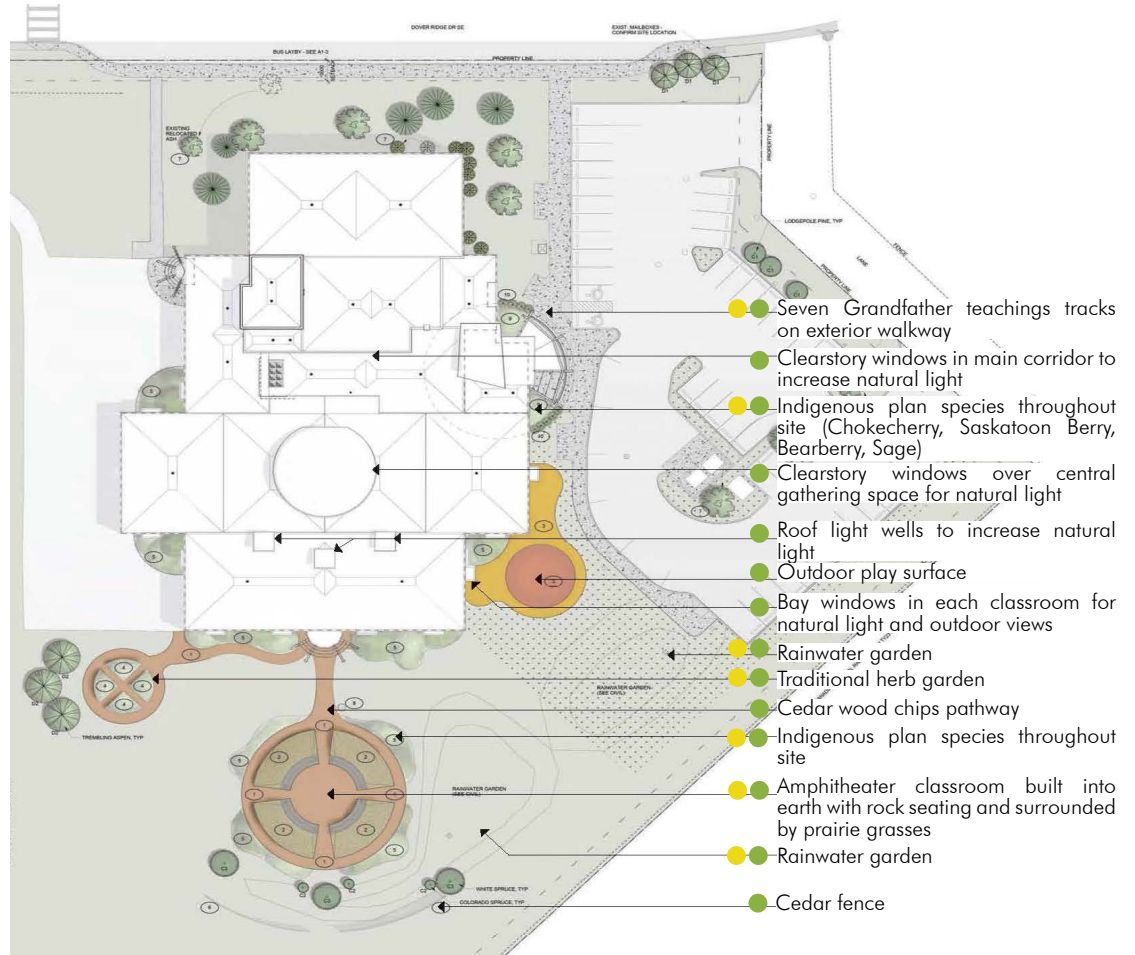


4.0 EDUCATIONAL ENVIRONMENT

DESIGN SUMMARY

KEY ATTRIBUTES OF ABORIGINAL LEARNING

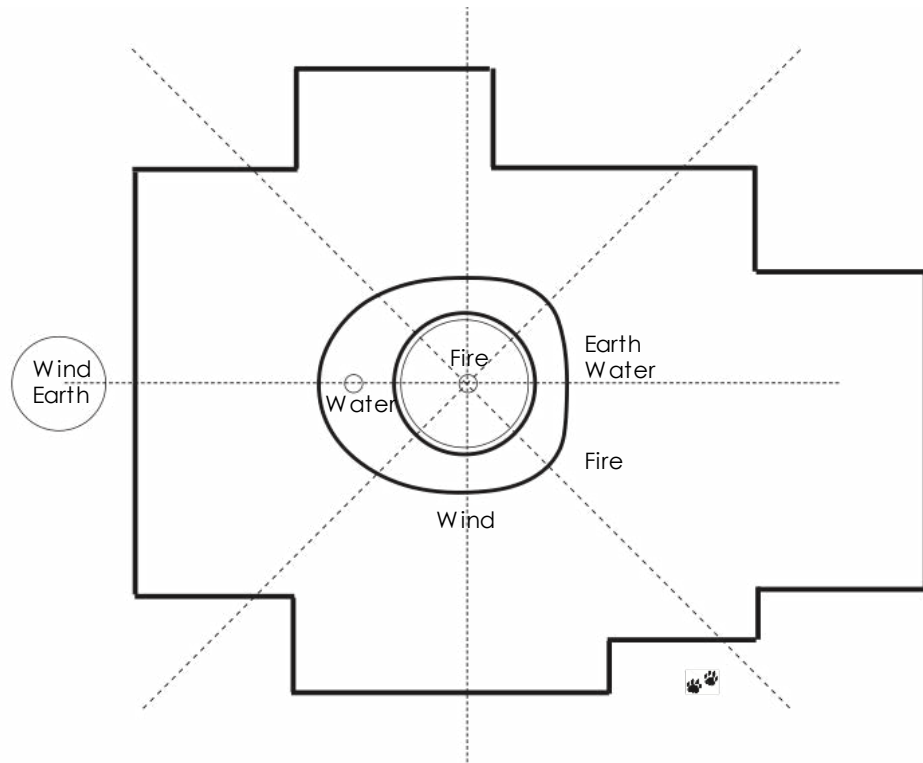
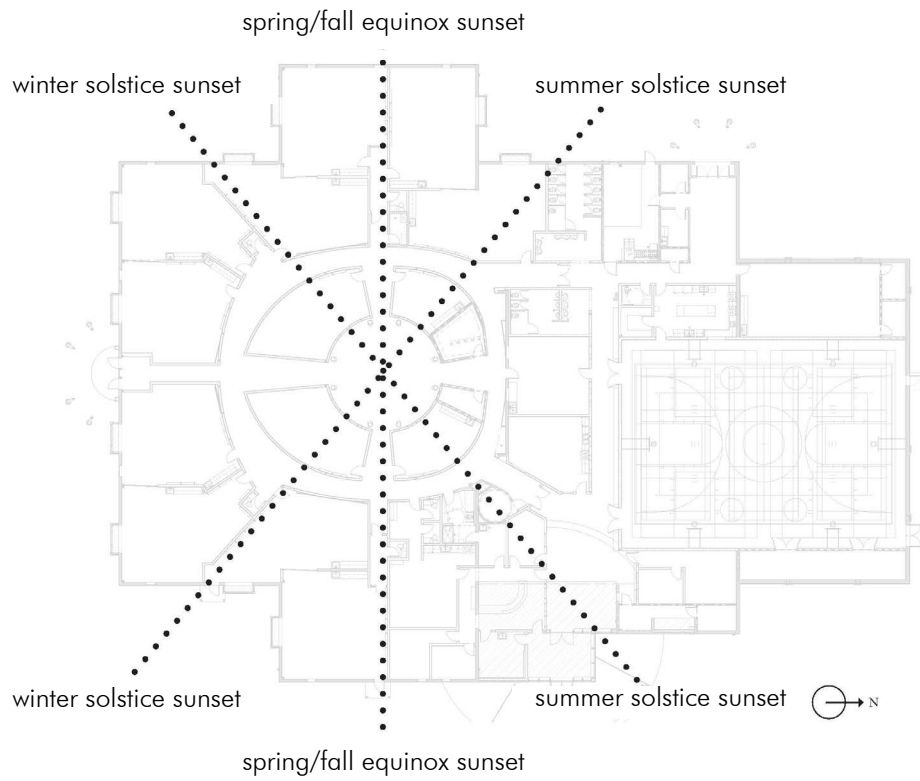
- Design Principle 1 Welcoming our Community
- Design Principle 2 Language & Traditions
- Design Principle 3 Natural World



4.0 EDUCATIONAL ENVIRONMENT

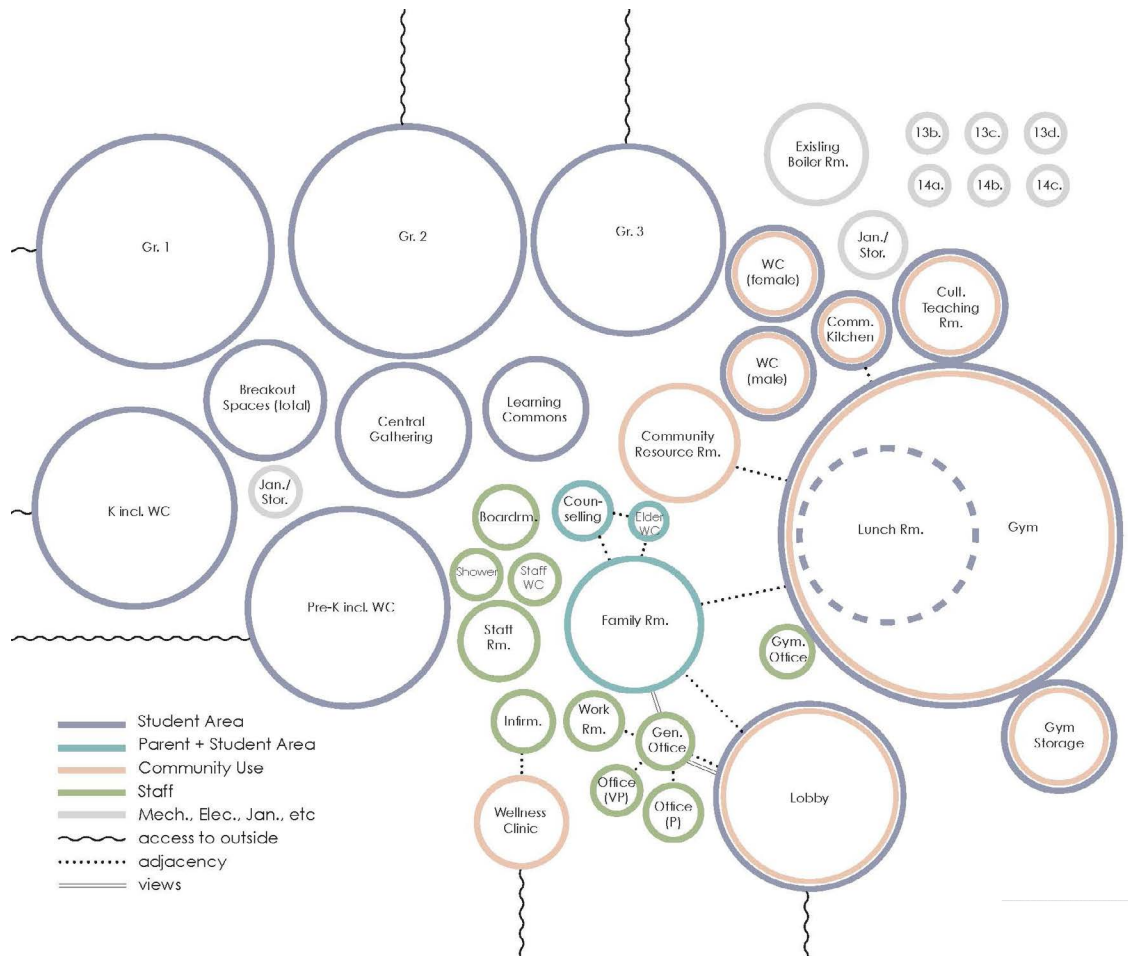
DESIGN SUMMARY

KEY ATTRIBUTES OF ABORIGINAL LEARNING



4.0 EDUCATIONAL ENVIRONMENT

RELATIONSHIP DIAGRAM



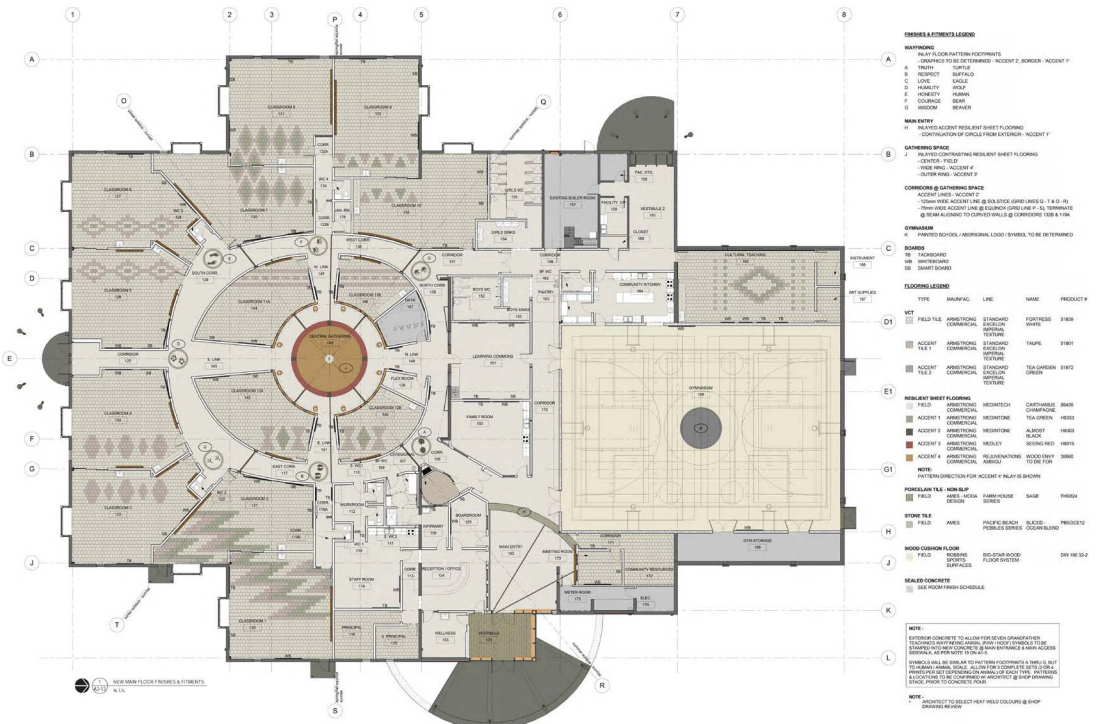
ABORIGINAL LEARNING CENTRE PROGRAM *

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. Lobby 2. Admin <ul style="list-style-type: none"> 2a. Office P 2b. Office VP 2c. General Office 2d. Work Rm. 2e. Boardroom 2f. Staff Rm. 2g. Infirmary 2h. B.F. Washroom w Shower 3. Family Room 4. Counselling (Elder Consultation) 5. Cultural Teaching Rm. 6. Learning Spaces <ul style="list-style-type: none"> 6a. Pre-K with 1 WC 6b. K with 1 WC 6c. Gr1 6d. Gr2 6e. Gr3 6f. Breakout Spaces 6g. Learning Commons | <ul style="list-style-type: none"> 7. Central School Gathering 8. Indoor Rec. <ul style="list-style-type: none"> 8a. Gym 8b. Gym Storage 8c. Gym Staff 9. Commercial Kitchen 10. Community Resources Rm. 11. Wellness Clinic 12. Washrooms <ul style="list-style-type: none"> 12a. Children female 12b. Children male 12c. Staff 12d. Elders 13. Mechanical <ul style="list-style-type: none"> 13a. Exist. Boiler Rm 13b. Exist. Gas 13c. Exist. Water 13d. New Sprinkler Tree 14. Electrical <ul style="list-style-type: none"> 14a. Exist Main Power 14b. New Fire Alarm Panel 14c. New Server Rm. |
|---|--|

4.0 EDUCATIONAL ENVIRONMENT

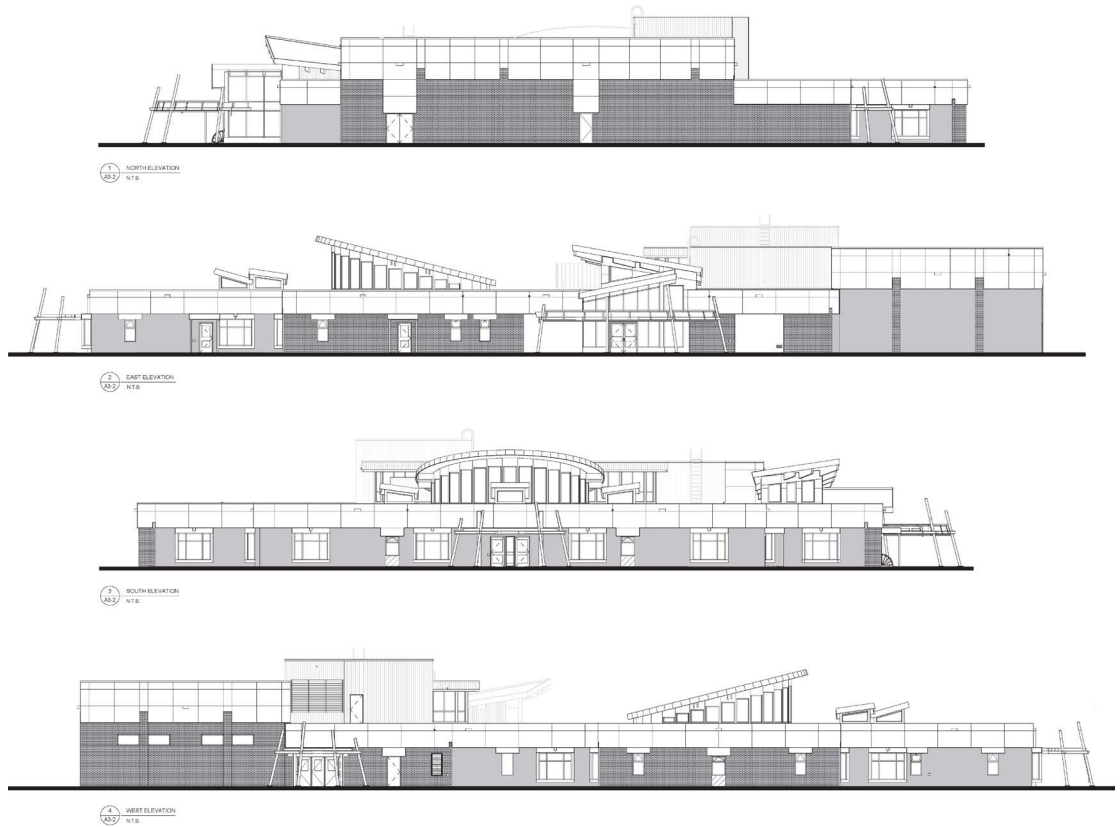


Landscape Plan



Main Floor Plan

4.0 EDUCATIONAL ENVIRONMENT



Elevations



View of Central Gathering Space

4.0 EDUCATIONAL ENVIRONMENT

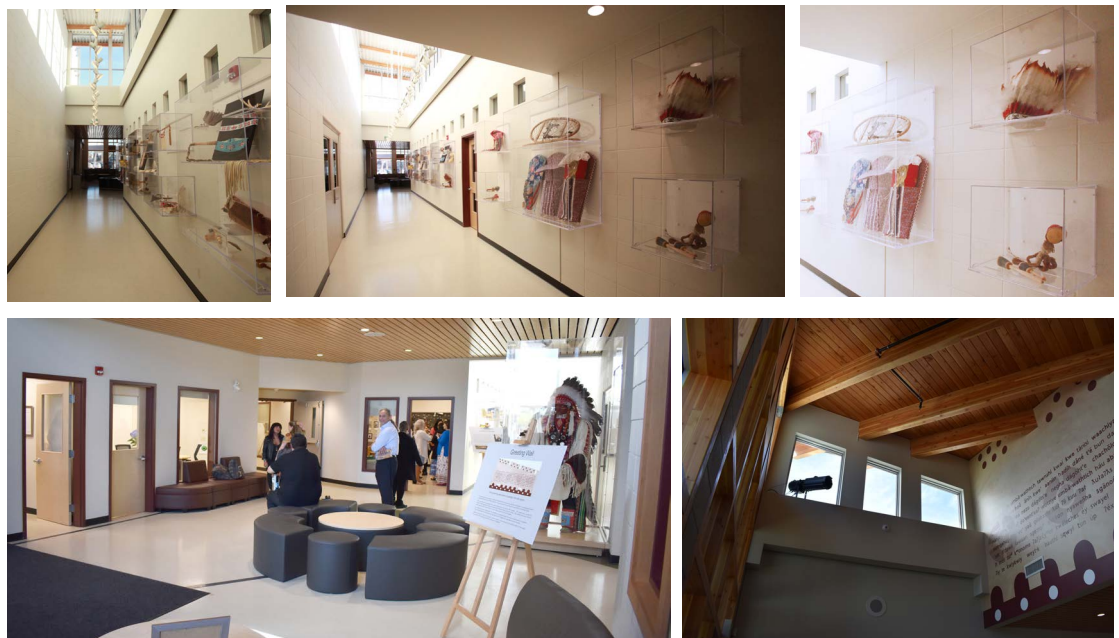
A. WELCOMING OUR COMMUNITY

Elders, family members, mentors and the community all play a crucial role in the lifelong education process. Therefore, creating a welcoming environment for all people involved was significant. The synthesis of this extended network of supports is referred to as 'Collective Well-Being' (First Nation), the 'Regenerative Learning Process' or 'Knowledge Transmission' (Métis) and 'Sources of Knowledge' (Inuit) by the Holistic Learning Model². In this regard, the following aspects have been incorporated in the design of the school:

- Canopy fascia opanel designs by a local indigenous artist reflecting First Nation, Métis and Inuit culture in Canada



- Entry lobby displays history, artwork and artifacts from all FNMI group



² Canadian Council on Learning. 2007. Redefining How Success is Measured in First Nations, Inuit and Métis Learning. Ottawa: CCL. Available from: http://www.afn.ca/uploads/files/education/5_2007_redefining_how_success_is_measured_en.pdf

4.0 EDUCATIONAL ENVIRONMENT

A. WELCOMING OUR COMMUNITY

- Community Gathering & Event Space for pow wow, feasts, events and recreation with the option for after-hours access
- Food Preparation Room (or 'Community Kitchen') and enlarged gymnasium can accommodate hands-on instruction or community events, Pow Wows, cultural dances and feasts
- Family & Elders Lounge complete with kitchenette, provides residential type meeting space
- Wraparound Services include a Wellness Clinic and Service Providers Office Space
- Learning Commons (or Library) with the option for after-hours teaching and mentoring
- Main entry corridor display cases showcase history, artwork and artifacts from all FNMI groups
- Exterior tipi reference at East, South and West entrances honoring Treaty 7 territory
- Story boards surrounding Central Cultural Teaching Room to share culture and student achievements.
- Floor patterns, classroom names and in-class wall displays, represent the Métis and the six major geographical groups (Woodland, Plains, Plateau, N.W. Coast, Subarctic, Arctic).



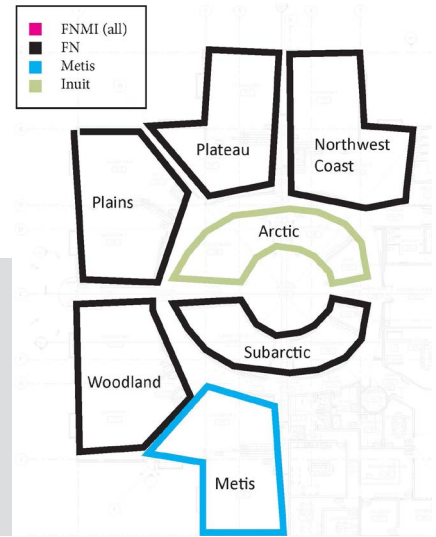
2 Canadian Council on Learning. 2007. Redefining How Success is Measured in First Nations, Inuit and Métis Learning. Ottawa: CCL. Available from: http://www.afn.ca/uploads/files/education/5_2007_redefining_how_success_is_measured_en.pdf

4.0 EDUCATIONAL ENVIRONMENT

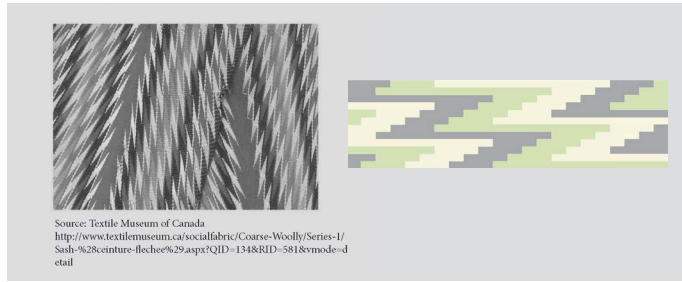
A. WELCOMING OUR COMMUNITY

PATTERN RESEARCH & DEVELOPMENT

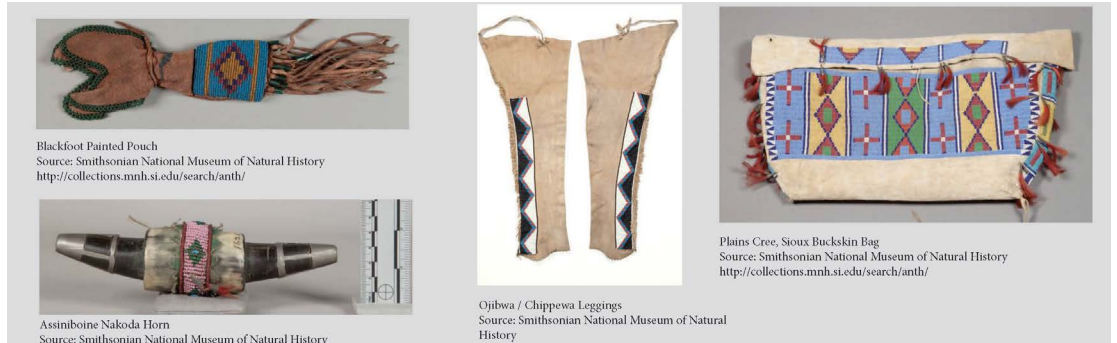
Six geographical groups + Métis
Regional designs and geometric patterns influence the floor tile design.



MÉTIS



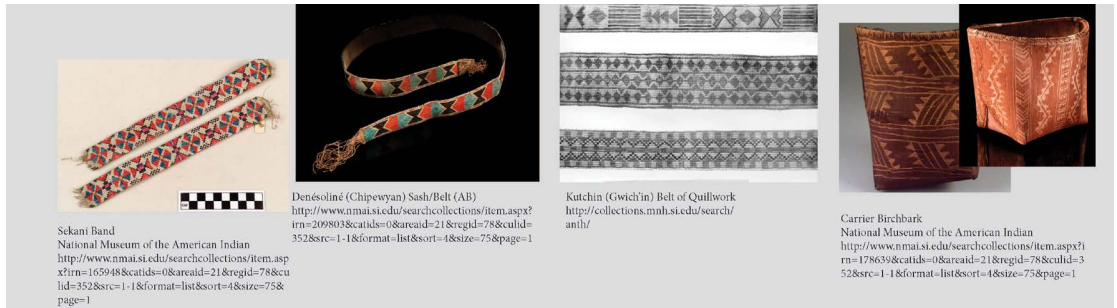
PLAINS



NORTHWEST COAST



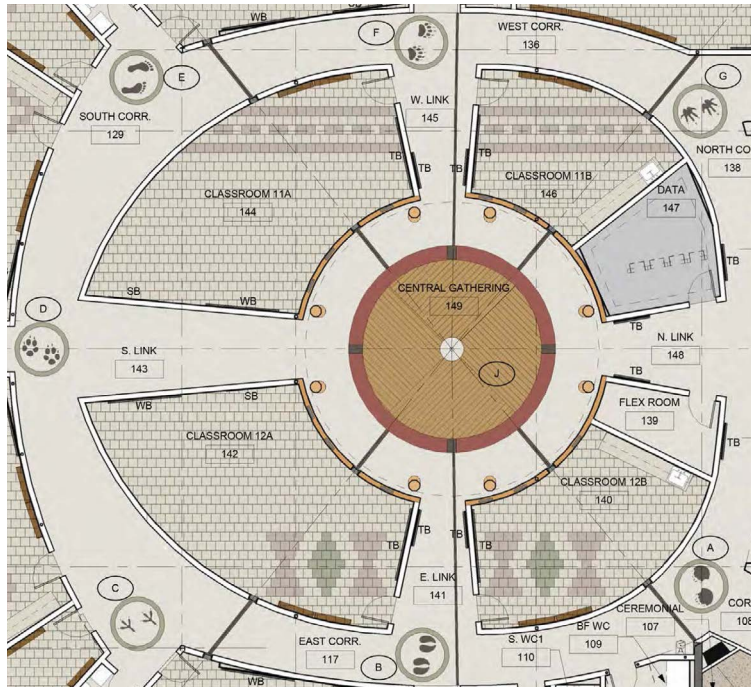
SUBARCTIC



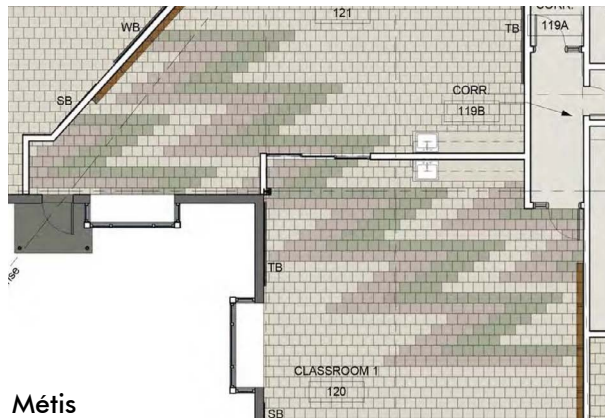
4.0 EDUCATIONAL ENVIRONMENT

A. WELCOMING OUR COMMUNITY

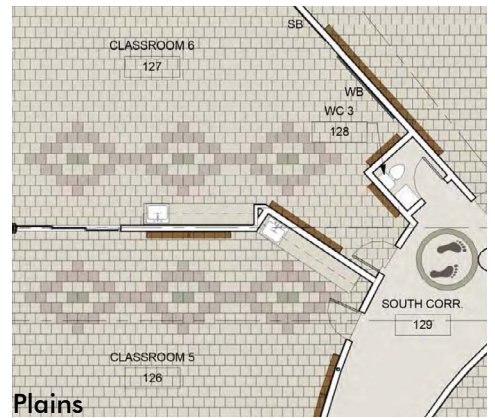
FLOOR PATTERN



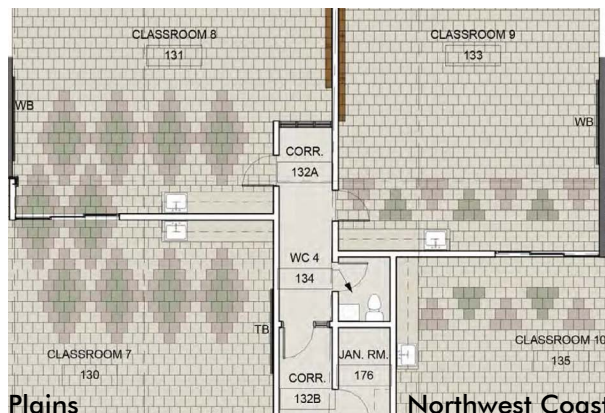
-  A. Truth - Turtle
-  B. Respect - Buffalo
-  C. Love - Eagle
-  D. Humility - Wolf
-  E. Honesty - Yeti
-  F. Courage - Bear
-  G. Wisdom - Beaver



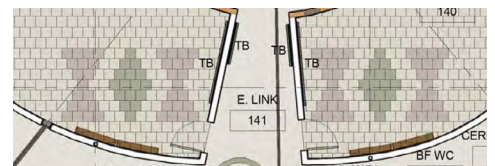
Métis
Classroom 1 & 2



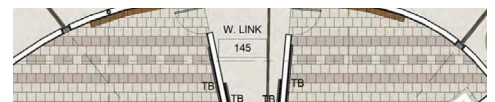
Plains
Classroom 5 & 6



Plains
Classroom 7, 8, 9 & 10



Subarctic
Classroom 12A & 12B



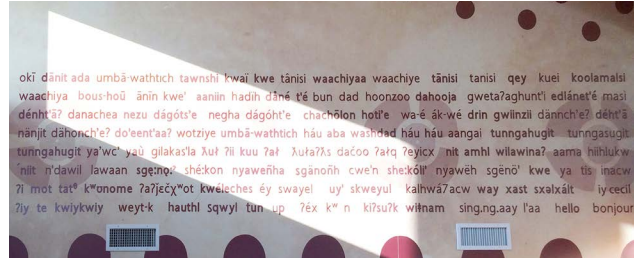
Subarctic
Classroom 11A & 11B

4.0 EDUCATIONAL ENVIRONMENT

B. LANGUAGE & TRADITIONS

We understand that traditions, ceremony, and language form a vital part of the learning journey. Our goal was to create a place to foster cultural activities. We also wanted to emphasize the importance of language. In this aim, the school has incorporated the following:

- Language greeting wall with greetings from all indigenous languages across Canada



- Cultural Instruction Room for learning the history, culture and experience sharing



- Central Teaching Room is a circular room located at the heart of the classroom zone. The ceiling was increased in height to accommodate a tipi. Clearstories allow for ample natural light with windows at the solstice sun. The quadrants of the medicine wheel are outlined in the wood floor pattern and entrance corridors align with the four cardinal directions. Equinox and solstice are highlighted through window placement and floor patterns.



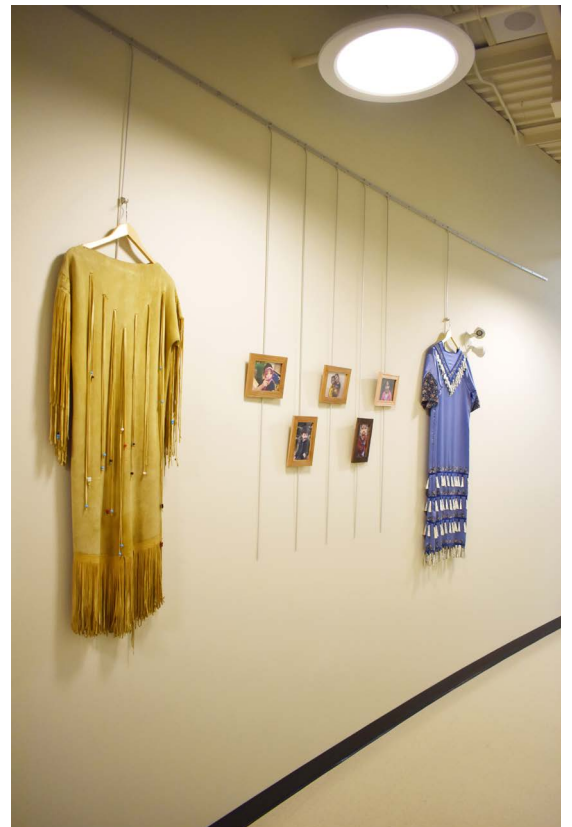
- All teaching styles are accommodated from Central Gathering (above) and Community Gathering in the Gym.

4.0 EDUCATIONAL ENVIRONMENT

B. LANGUAGE & TRADITIONS



- Ceremonial Room - An intimate Ceremonial Room enhances Elders' teaching and storytelling in small groups or one on one interaction.



- Central Corridors

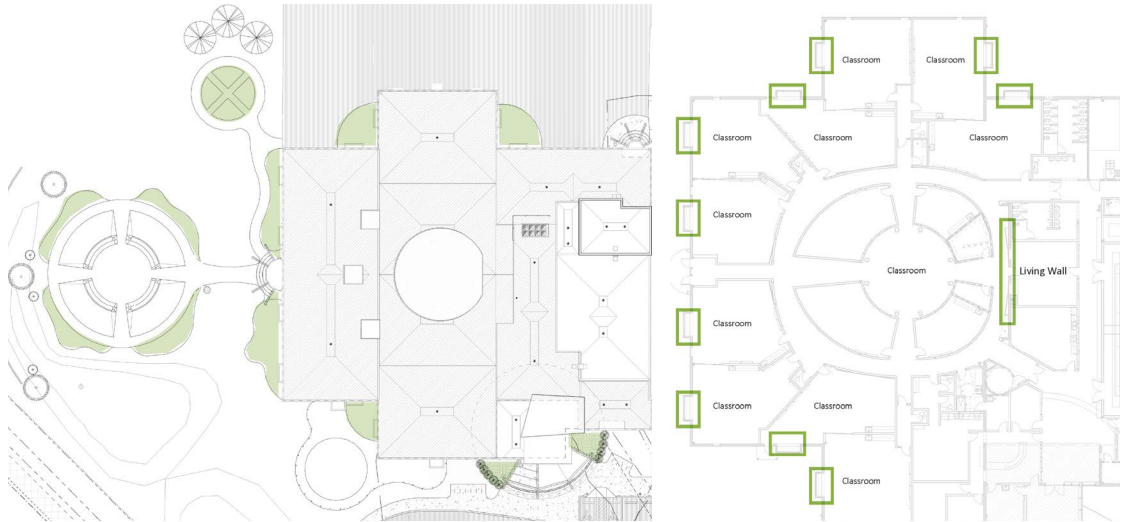


4.0 EDUCATIONAL ENVIRONMENT

C. NATURAL WORLD

The interconnectedness of all life and the notion of experiential learning are key concepts within the school. The Natural World encompasses the land, animals, elements, and cosmology, all of which act together to reinforce worldviews, values and beliefs. We have incorporated the following in the Aboriginal Learning Centre:

- Indoor and outdoor gardens including: Sill gardens within each classroom's bay window, living wall (indoor garden), outdoor gardens to be planted by the students, with defined areas by age group, outdoor planters using indigenous species including Chokecherry, Saskatoon Berry, Bearberry & Prairie Sage and, outdoor herb garden.



4.0 EDUCATIONAL ENVIRONMENT

C. NATURAL WORLD

- Outdoor amphitheater classroom built into the earth with rock seating and prairie grasses;



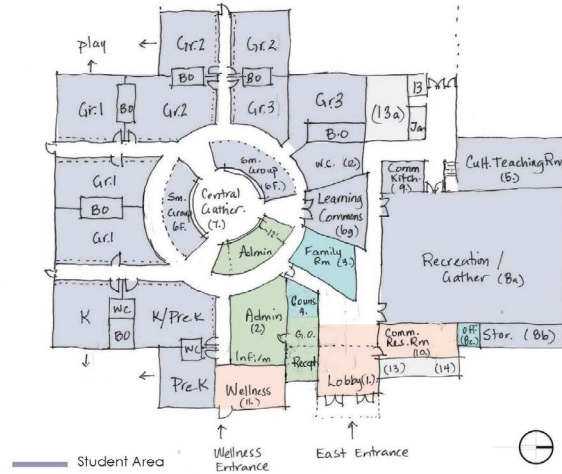
- Seven Grandfather teachings highlighted through way-finding, artistic wall panels on interior surfaces, and tracks inlaid in the floor surrounding the Central Gathering.
- Turtle reference shaping the central area (the Turtle is a sacred figure representing Mother Earth and North America or 'Turtle Island' and is a symbol of longevity and part of many Creation stories)
- Circular pathway through the school with classrooms ordered from youngest to oldest students in a clockwise directions in line with the learning journey of the Medicine Wheel teachings;
- Reference to cardinal directions in the Central Gathering with four access links honoring the four directions
- Elements represented: Fire reflected by the central smudge location in the Central Gathering and the fireplace in the Healing Room; Earth by the living wall and the exterior gardens; Water by two water features on the South Link corridor walls; Wind by the four directions of the outdoor teaching amphitheater
- Natural light was increased throughout the building by the use of bay windows in classrooms, clearstory windows in the Central Gathering, clearstory windows in main lobby and corridor, and three ceiling light wells in the classroom corridor
- Natural materials, including wood finished walls for the Central Gathering and stone floor in the ceremonial healing room
- Colors derived from nature, with earth tones predominating, including accents of ochre and sage.

4.0 EDUCATIONAL ENVIRONMENT

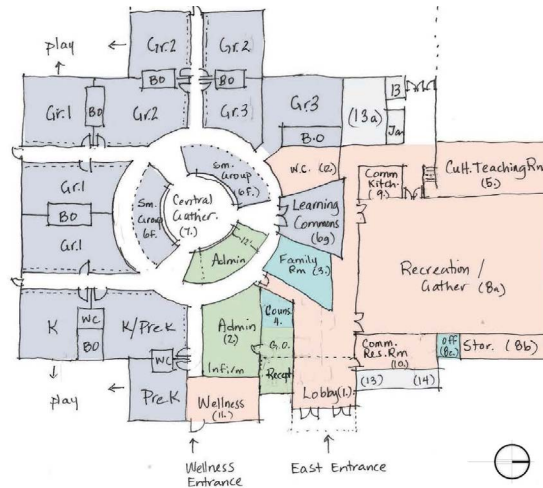
FLEXIBLE LEARNING ENVIRONMENT

Adaptability and flexibility of the teaching and community use environment was enhanced from early programming. Sliding glass walls between classrooms, corridors FN utilization of breakout teaching artifact display, storytelling, and cultural teaching were developed as design progressed. Mobile wifi smart boards allow set up of impromptu teaching and cultural opportunities.

DAYTIME



AFTER HOURS



- Student Area
- Parent + Student Area
- Community Use
- Staff
- Mech., Elec., Jan., etc
- ~ access to outside
- adjacency
- views



5.0 PHYSICAL ENVIRONMENT

The traditional east facing tipi entrance with its low protective canopy and greeting wall immediately inside is a welcoming form intended to allow pre-k to grade 3 students and visitors to feel safe, sheltered, and at home. Exterior finishes include wood veneer siding an upper wall areas of the original block and brick school.

The small footprint of the original school lent itself well to redevelopment of a brown field site to an appropriately- sealed design response. Curvilinear circulation was developed within the rectilinear existing building footprint which fortunately was oriented perfectly to the four cardinal directions.

The interior of the school is finished with exposed wood roof structure where new roof areas were added, and wood ceilings in corridor areas. Floors are sheet vinyl with footprint patterns, and classrooms have patterned vinyl composite tile representing imagery from First Nations, Metis and Inuit cultures.



Each classroom has a low bay window providing a visual connection to the natural environment immediately outside as well as a window seat/reading/indoor garden surface flooding the room with daylight.

The project has been very well received by the Aboriginal Community, the school board, the local community, and local and regional governments.

The recent grand opening, four months after occupancy January 4, 2017, brought all stakeholders together and all celebrated by gathering in prayer, song, drumming and dancing to dedicate the school to education of current and future Aboriginal generations.



6.0 RESULTS OF THE PROCESS & PROJECT

As intended, the detailing programming and design development have resulted in an inspirational, welcoming facility which has achieved and exceeded educational, school district and community goals. It has repurposed a shuttered school to the benefit of the Aboriginal, educational, local and regional communities, and reinvigorated the community at large.

Unintended results and achievements include the fact that the children, as young as they are, do not want to leave their school at the end of the day.



LE SOLUTIONS DESIGN AWARDS
ABORIGINAL LEARNING CENTRE