



Come Alive Outside

Design Challenge

Team Algonquin – Project Narrative

ALGONQUIN
COLLEGE

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The Challenge

We live in a time where we are more captivated by the notification sounds coming from our phones than by the songs of birds or the babbling of running water. Our younger generations spend the majority of their free time inside, with their focus and attention locked on the screen. Studies have shown that this is having a detrimental impact on our mental and physical health. We know that nature can teach us amazing lessons, but how can we convince a generation that it is better to put down our devices and step into nature?

“The current generation of young people in the North America spends less time outside than any generation in history, and this growing disconnect between people and nature is leading to a wide range of social, public health and environmental issues. As we look to a future in which more than 90% of North Americans will be living in urban areas by the year 2050, engaging outdoor learning environments provide an increasingly essential point of connection for young people to interact with nature. In the effort to create the sustainable and nature-rich cities of the future, there is also a great need to inspire the current generation of young people to play an active role in designing, building and maintaining great outdoor spaces in our urban and suburban environments through careers in landscape and horticulture professions.

The Come Alive Outside Design Challenge is a program that helps to reconnect children with nature and attract more young people into meaningful careers in the landscape profession. The program creates the opportunity for college, high school, elementary and pre-school students to work together with landscape professionals to design and build engaging outdoor learning environments at schools and childcare facilities.”

DESIGN CHALLENGE Canada

Who we are

Our whole team was inspired by this mission and by Scott Wentworth when he challenged us to find the “why;” to find the real purpose behind our design and the elements we intended to include.

Everyone on our team from Algonquin College is passionate about sharing the beauty and captivating aspects of nature with others. We all believe that outdoor activity and engagement with nature is a key part of a child’s upbringing.

Throughout this design narrative, we have included the profiles of our team members and a brief snapshot of our “why”.



Jaycey Ewald

"My older sister and I had a fort outside my parents home when we were very young. I can hardly remember what we were imagining out there but I know we would spend hours enjoying it. When I look at the fort now I see the two small boulders surrounded by a couple trees that it is. Since then I have created so much, from more complex forts in my later youth to landscape designs today. It all started with a couple rocks and trees."

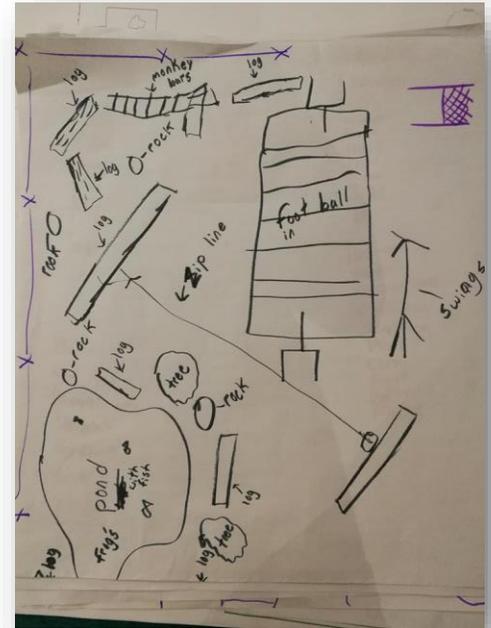
In the Field: Our Site Visit to Bellville

In October, our team spent a few days in Bellville visiting the site and meeting our clients: the families, teachers and students of First Adventure Child Development Centre and Georges Vanier Catholic School.

When we pulled up to the school, one of the first things we noticed was that the huge yard had very little shade. We would spend the morning and the afternoon chatting with the children and teachers gathering feedback from what their hopes were for the new yard. Here are some of the ideas they gave us:

Your Ideas, Our Design

- A Pirate ship playground with a plank
- Tree forts
- A zipline and obstacle course
- New soccer fields for the younger kids, a football field and a hockey rink



We quickly realized how important sports are to the Georges Vanier school community. For the First Adventure area we took note of their desire for potable water and shade. One of the key points that we took away from the site visit was the necessity for inclusive play and the vision to create a fully accessible playground so that anyone, even members of the community with special needs, can enjoy and connect with others in the school yard.



Blaise Mombourquette
"When I was growing up, I would spend hours outside in the sand box building roads and buildings for my Playmobile. I remember using twigs to make trees and bring some greenery into the sand box. The joy and creativity I got from spending those hours outside has carried me to where I am today, designing and building landscapes for other people to relax and take in the simple peace that the outdoors offers! Helping others get outside and enjoy nature, that's my why."

With our design criteria and the great ideas and wishes from the students and teachers, we went to the drawing board and produced what we believe to be a design worth installing.

First Adventure Play Area

We realized that there is a great need for more interactive play in the area, so we designed a space that would challenge the children's motor skills through interaction with a naturally built playground. We drew some of our inspiration from our visit to the Bridge Street campus. We loved that all the elements of the



playground were connected by the circular track. We also liked the concrete tunnels and the hill in the middle of the track.

Our design focuses around a large berm with slides in the middle of the play area surrounded by smaller, multi-functioning play areas. All of these areas are connected by a multi-surfaced and functional track. The track, made from Rubaroc, can

be built with dotted lines to resemble road markings; there is also a section of boardwalk and a parking area for the trikes. With its slides, tunnel, stairs, and slope, the central berm will kindle a sense of adventure in the children and help with the development of the primary motor cortex. The elevation will also provide an excellent source of 4-season enjoyment. The fill used to construct this key feature will be the excavation of the Georges Vanier phase one pathway. This will allow us to maximise our budget for other features in the play area.

The site grading will slope to the west, and move through a dry stream bed towards the new rain garden. From the shed, the rainwater will be collected into a rain barrel that can be used for watering plants within the area. All of the planting on this site has been intentionally chosen to create opportunities for the children to interact with nature and for the early childhood educators to teach the children about the importance of nature in our lives. For example, we have chosen a birch tree because of its attractive, paper-like trunk and a Turkish Hazel because of its soft, corky bark. These trees are a snapshot of how we plan to use nature to stimulate the senses, bring wildlife into the school yard, as well as create a shaded play area. For these reasons we have created a design that is heavy on the planting side with many inspired native plants which will not require much maintenance, yet will still achieve our goal of bringing nature back into play. What follows is a list of the plants that we have chosen and the inspiration and justification for their selection.



Jodi Wilson

"I grew up in a rural area where the river and forest were my playground. Now, I live with my children in an urban area but I do my best to offer them experiences similar to the ones I had. It is exciting to be a part of the design challenge because I am learning new ways to incorporate nature into designs for urban areas and in doing so hope to encourage kids to have fun outdoors in a natural environment. Throughout this entire design process, I put a lot of thought into how my own children would use and appreciate this space."



Plant List: First Adventure Play Area

- **Muhly Grass** is a native plant that works in rain gardens and is drought tolerant. Kids can feel the feathery foliage/flowers, hear it moving in the wind and enjoy the pink fan of flowers in fall

Muhlygrass (*Muhlenbergia capillaris*)
In flower



- **Joe Pye Weed** could be exciting for kids because of its height (planted near fence line so as not to block sight lines). Also, a native plant that is good for pollination and rain gardens

- Silver leaf dogwood offers visually appealing red stems in the winter and interesting variegated foliage in the summer. Also good for rain gardens.
- Paper birch - a different textured bark, native
- Red Maple - native, brilliant fall colour, shade
- Witch Hazel - native, very late flowering
- Turkish Hazel - spongy bark, edible, tolerant of urban conditions, shade tree, interesting nuts
- Autumn Blaze Maple - Shade, fall colour, cross between natives
- Purple Coneflower - Native, attracts pollinators, pretty flowers
- Eastern White Cedar - soothing to touch, native, evergreen provides more shelter for birds and other critters
- Summer Sweet - attracts butterflies, native, known for having very sweet-smelling flowers in mid-late summer, even when grown in shade.
- Prairie Smoke/Purple Avens - fun feathery flowers, low growing so does not block sight lines, native, rain garden
- Pawpaw - edible fruits, interesting spring flowers
- Pussy willow - This native shrub is almost everyone's favourite as a child because of the soft late season catkins, resembling the pad on a cat's paw. The male plants have showier catkins and should be purchased for its greater ornamental value. We chose this plant for its winter interest and because kids love to touch the soft catkins.
- Cattail - Native, unique flowerheads form in summer with an interesting texture. The plants will grow taller than the kids and can be pulled out as they begin to spread and used for crafts. Winter interest
- Meadowsweet Native, flowers in late summer attract butterflies, insects and birds. Flowers give way to seed pods that dry and split open-similar to milkweed
- Turtlehead - Flowerheads forming in late summer-early autumn resemble turtle heads. Native, attracts butterflies
- Wild beebalm/Wild bergamot - Native, attracts bees and butterflies. Good dry cut-flower. Blooms for a long period
- St. John's Wort - Showy yellow flowers attract pollinators
- Serviceberry - Native, flowers attract pollinators. Edible berries are persistent, attract birds and tasty for people too. Good fall colour
Serviceberry (<i>Amelanchier canadensis</i>) Fall colour

- Black-eyed Susan - Native flower attracts pollinators. Long bloom time.
- Sedge - Low grass-like perennial creates a groundcover with a fine, interesting texture
- Goldenrod - Native, tall perennial that attracts pollinators. Showy yellow flower bloom late summer.

On the East side of the design, we have included a 12'x24' shed meeting the First Adventure staff's request for more storage and shade. This shed will be accessible from inside and outside the play area and will have running water connected to the interior of the shed so as to avoid any vandalism problems. The existing sandbox we have left in place and have planted a Red Maple to provide ample shade in the



Tom Hawley

"Outside has always been a huge positive influence in my life, so it has become a priority of mine to make sure other people, generations young and old have access to the fun and memories that I know the outdoors gives everyone. This means giving people a reason to want to play outside, now more than ever it's so easy to live on the couch, and designing a naturalized playground seemed like a great way to inspire getting outside. "

Planting and Grading

Besides the necessity for an accessible school yard, the other major need was for more shade. We addressed this issue by planting a number of trees around the school yard. These are placed in specific areas where they will most effectively cast shade. As with the First

Adventure Play Area, our plant selection was intentional as it will engage the senses and get the students excited about nature with the variety of interesting plants. We believe that the planting should be in phase one because this will maximise the time for growth in the school yard which will address the need for shade sooner and bring wildlife into the school yard. We can also plant trees with the knowledge that there is a functional plan in place with the trees being a major element of it.

Jeff Bedford

“Nature is a huge part of my life in so many ways; aside from providing basic sustenance and literally everything we all hold dear both organic and man-made, I have found strength, peace, adventure, and insight in the times I’ve found myself in nature. It takes me on new journeys all the time and nature makes me feel more alive than any other time I can think of. With spending time outdoors I believe that one can become in tune with nature and ones self. I have so many great memories growing up of my love of nature, I am still making more and I want for the younger generation to experience it and find some inspiration as I have.”



Georges Vanier Plant List:

Plants

Quantity	Botanical Name	Common Name
7	<i>Abies balsamea</i> 'Nana'	DWARF BALSAM FIR
1	<i>Abies concolor</i>	WHITE FIR
1	<i>Acer rubrum</i>	RED MAPLE
2	<i>Betula alleghaniensis</i>	SWAMP BIRCH
1	<i>Betula papyrifera</i>	PAPER BIRCH
1	<i>Cornus stolonifera</i>	RED OSIER DOGWOOD
2	<i>Gleditsia triacanthos</i> f. <i>inermis</i> 'Sunburst'	SUNBURST THORNLESS HONEY LOCUST
68	<i>Helictotrichon sempervirens</i> 'Sapphire'	SAPPHIRE BLUE OAT GRASS
3	<i>Juniperus sabina</i>	SAVIN JUNIPER
1	<i>Malus kansuensis</i>	CRABAPPLE
5	<i>Physocarpus opulifolius</i> 'Nanus'	NINEBARK (DWARF)
3	<i>Pinus banksiana</i>	JACK PINE
4	<i>Prunus virginiana</i>	CHOKECHERRY
4	<i>Quercus robur</i> 'Fastigiata'	FASTIGIATA ENGLISH OAK
1	<i>Quercus rubra</i>	RED OAK
8	<i>Spiraea alba</i>	MEADOWSWEET

- 8 Spiraea japonica 'Goldflame' GOLDFLAME JAPANESE SPIREA
- 1 Thuja occidentalis 'Yellow Ribbon' YELLOW RIBBON CEDAR
- 1 Tilia americana AMERICAN LINDEN

As we move along the pathway there are multiple areas for students to sit and socialize. These spots are surrounded by native planting and are often in shaded areas. In this way we are designing nature into the social lives of the George Vanier students. This is something that is very important to the older age groups. One of the key areas where we have placed benches and trees is at the south-east entrance of the school yard where the students wait for the bus.



Nick Selby

"My inspiration for participating in the Come Alive Outside competition comes from my love of nature and desire to be creative. Nature has always been a place where I can express myself and my creativity and to be able to bring those elements to work and design with children to inspire their education was an opportunity I couldn't pass up. I want everyone to be able to experience nature the way I did and being able to implement my idea of nature into a schoolyard and playground design will hopefully allow and inspire everyone that experiences it."

Jr. Soccer Field

Connected with the planting is a concept for a soccer field for the younger grades. One of the key ways we incorporated nature as well as the wishes of the students into our design was to plant four trees on the north-west side of the school yard to act as soccer nets. When asked what they would like in a new playground, one of the first things that a group of boys, who had set up goal posts with their backpacks, said was that they wanted an area where they, the younger boys, could play soccer.

Later Phase Projects:

The following features are elements that we have included in our design to inspire and guide future playground expansion. These features are inspired from the value that the school and students have for sports, the goal to utilize the outdoors as a teaching environment and the necessity for accessibility.



Hockey Rink

In recognition of the deeply rooted sports atmosphere and inspired by Georges Vanier student engagement, we propose a new ministicks/ ball hockey rink built out of Ruberoc, marked with lines and surrounded by boards.

Outdoor Classrooms

Our team also took some of the ideas that were cycled around on our visit to Bellville and designed an outdoor classroom. We believe that the outdoor classroom, surrounded by plants and wildlife, will offer an excellent opportunity for the teachers and the students to engage with and experience nature while learning.

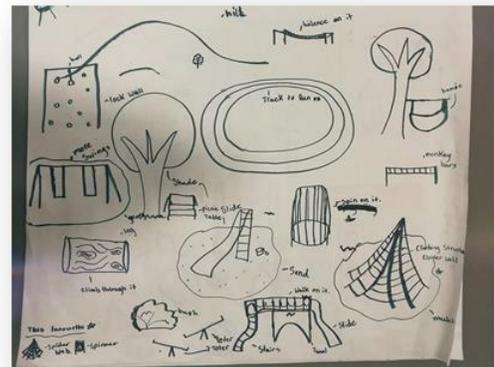


North-West Nature Playground

We have designed a new natural play area adjacent to the swing set based off of the student's feedback. This area is comprised of a pirate ship, a log obstacle course and a sitting area among the trees. We believe that this playground, made from logs, is an excellent way to connect children with nature and stimulate the 5 senses. We also know that challenging play is important for the development of confidence in children and will teach them to take healthy risks.

East Side Playground

For this area of the school yard we have designed a playground, based off of inspiration from the students, that is geared towards social interaction. The Spider Web feature and log structures provide an opportunity for the students to hang out with their friends in an accessible and inclusive environment.



Georges Vanier Budget:

<u>Georges Vanier</u>	<u>Cost per unit</u>	<u>Units</u>	<u>Estimate cost</u>	<u>Source</u>
Phase 1				
Limstone path (Phase 1)		38	125	5000
Tree Planting		825	18	15000
Garden beds and planting on phase 1 path				4000
Grading berms				2500
Benches at bus loading zone	300	2		1000
Pirate Ship and surrounding playground and surfacing				7500 custom built- logs
Phase 1 Total			\$35,000	
Future Phases				
Limstone path (Seccond Extension)		38	467	18000
West Side Play Area (Spider Web, Features and Safty Surfacing)				6500
Garden beds on Seccond Extension path				5000
Outdoor classroom near school (north)				2000
Outdoor classroom near west corner				7500
Benches (logs) along Seccond Extension pathway				1000
Ministick arena - rubber safety surface + boards				20000
Limstone path (Third Extension)				3500