

## Project Title: Burns Lake Arboretum Trail

### Future site of Burns Lake Arboretum Trail



#### Summary:

On the Soccer field below CNC, on School District 91 property, a strip of unutilized land is proposed for development into an Arboretum Trail. This strip has a width of 20m and is approximately 250m long, and parallels the fence-line below the running track. The Trail will be a gravel walking trail with native trees of BC planted on either side with an educational plaque depicting the significance and range of the various trees.

The currently location is an abandoned piece of weed-infested land, with invasive weed species that resist any attempt to manage. The intent of establishing a trail through this area will be encourage residents and visitors to expand their use of the soccer fields and to divert walkers from the running track to a more relaxing walkway. The trees will provide an educational and recreational experience, will beautify the area and provide a visual screen to the industrial activities of CN rail. In addition the trees will reduce the wind, greatly reducing water evaporation off the main field and reducing water consumption. (Currently the fields are watered 2-3 times a week on the main field, whereas the lower field, which is sheltered by trees, requires no watering at all). Dust and wind is a major detracting feature to people using this area and the trees will provide a windbreak that will improve utilization substantially.



2012 is the 15<sup>th</sup> Anniversary of the Burns Lake Soccer Club and the 100<sup>th</sup> Anniversary of the BC Forest Service (currently the Ministry of Forests, Lands and Natural Resource Operations), and in addition to the planned arboretum, Pat Brochez is coordinating an informational kiosk and display to illustrate the role of forestry in developing the Nadina Forest District on behalf of the centennial project. A kiosk with informative displays and a picnic table will be established at the entrance to the trail.

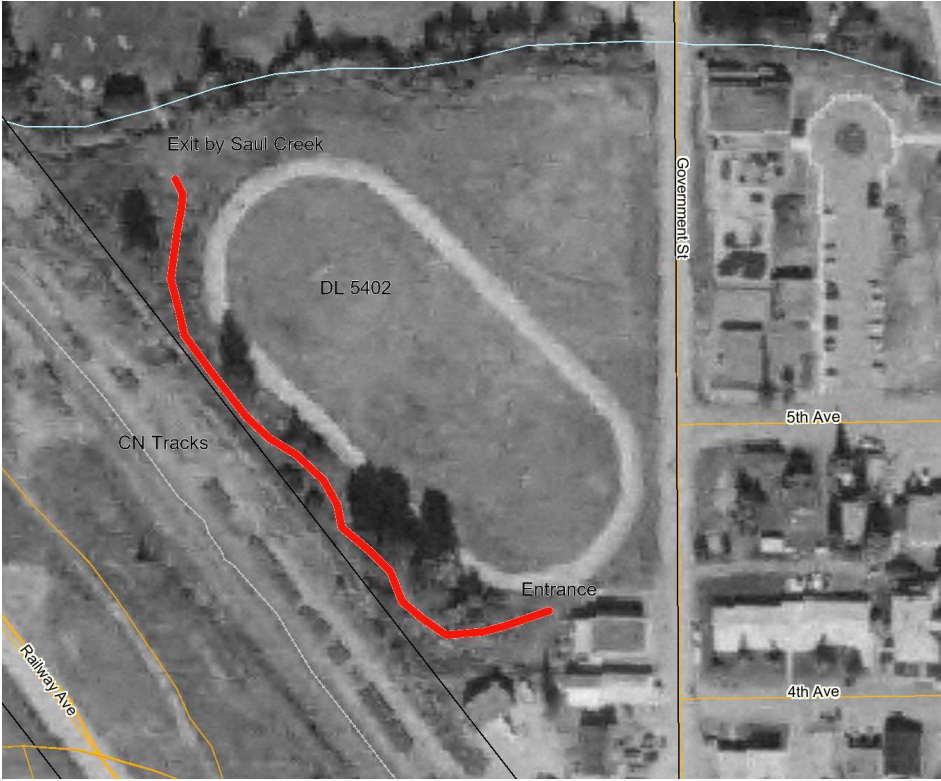


Figure 1: Map showing location of proposed Arboretum Trail.

**Project Background:**



The Burns Lake Soccer Club is the area’s largest youth sport program with an annual membership of 250 kids aged 4-17 and with 30-40 adult volunteers. The club has been actively promoting the development of soccer in the area and hosts tournaments that brings in participants from surrounding communities with our annual tournament estimated to attract over 1000 people to Burns Lake. The Club’s mandate has always been to promote the sport of soccer and to encourage wider use of the fields and area to broaden the recreational experience for the entire community.

Over the years, the soccer club has coordinated and provided to the area:

- a) Washroom project - \$44,000.00
- b) Soccer Shack - \$15,000.00
- c) Goal Posts - \$8000.00
- d) Soccer Nets - \$1000.00
- e) French Drain on the lower field – (SD funded project)



These projects have significantly improved the use of the fields to where the area is being used almost continually throughout the day, all week long and rarely is empty. The Village clears the track of snow, allowing users to continue using the area year-round. The lack of green space in Burns Lake means areas like the soccer fields are popular for a variety of users and while many people use the track for jogging, just as many walk for fitness or pursue family activities such as picnics, kite-flying, dog-walking, or use the fields for soccer, baseball, softball, Frisbee, etc.



The Club is working with the School District (SD91) to replace the main field with a new field and running track with an underground sprinkler system and a projected cost of \$300,000. This upgrade is scheduled for the summer of 2012 and the proposed walking trail will allow people to continue to use the area while the new field is allowed to mature and the grass become established.

**Project Summary: Total cost of \$41,760.00**

Phase 1: Trail Construction

Phase 2: Sapling Establishment

Phase 1: Trail Construction (Quoted All-found Cost: \$10,000)

This phase involves the layout and construction of the walking trail. The trail to be excavated to a depth of approximately 10cm, lined with geo-textile and filled with gravel. The borders of the trail to be made of 4x4 treated landscape ties. The intent is to establish a low maintenance trail that is well-drained and firm for walking (gravel) and lined by landscape ties to create a border to avoid erosion and to maintain people on the path. As the trees planted on either side of the path grow, the trail will be a relaxing and educational walk.



Figure 2: Example of a gravel footpath.

Phase 2: Establishing the Trees (Estimated Costs: \$31,760.00)

The trees to be used will be selected by a committee of local representatives. Their primary task will be



to select trees that represent native tree species of British Columbia that are ecologically suited to our area and capable of surviving. Approximately 50 saplings are targeted to create an arboretum that occupies the area and provides adequate diversity. While there are more than 50 species native to BC, some species will be replicated to allow group establishment representing how

these species develop naturally. Some exotics may also be established such as sugar maple. Each tree will be identified by a plaque that identifies the species, it's historic range and any special significance the trees might have. The plaque will also have room to identify a sponsor or memorial statement.

Some trees of commercial forestry significance will be donated by provincial nurseries and about 7 species are already promised including, ponderosa pine, yellow pine, hybrid poplar, douglas fir, western larch, white spruce and lodgepole pine. There are mature Black cottonwoods currently on site and these will be retained and augmented by other species. The use of saplings ranging from 3-5m in height will allow an immediate impact that over time will improve. Many of the species planted will thrive for centuries and the legacy of this project will outlive all of us.



#### Phase 2 Costs:

- a) Sapling procurement – price vary from \$250-\$300/sapling – estimated to \$15,000.00
- b) Sapling transportation - \$50/tree – estimated to \$2500.00
- c) Topsoil – 15m<sup>3</sup> @ \$200 x 3 loads - \$600.00
- d) Excavator and skid steer – 32 hours x \$80/hr - \$2560.00
- e) Labour 2 people – 64 hours x \$25/hr - \$1600.00
- f) Plaques – 50 plaques x \$75 - \$3750.00
- g) Water Cistern - \$250.00
- h) Fertilizer - \$100.00
- i) Kiosk and installation - \$600.00
- j) Picnic Table and installation - \$700.00
- k) Clean-up + initial maintenance – 24 hours x \$25/hr - \$600.00
- l) Project Administration – 100 hours x \$35/hr - \$3500.00

Phase 2 Sub-Total: \$31,760.00\*

\*prices quoted above are based on oral quotations from various local suppliers – sapling costs and transportation estimates are from nurseries in southern BC.



**Total Project Costs: \$41,760.00**

Phase 1:	\$10,000.00	Trail Construction
Phase 2:	\$31,760.00	Establishment of Arboretum
<b>Project Total:</b>	<b>\$41,760.00</b>	

**Conclusion:**

Current Partners:

Nechako Kitimat Development Fund: \$5000.00 towards Phase I.

Ministry of Environment: Kiosk and picnic table for BC Centennial: \$1300.00

Burns Lake Soccer Club: In-kind - \$5100.00 in Project Administration and Labour.

Total already committed: **\$11,400.00**

## **Benefits:**

1. This would be a trail for local residents initially but it would become widely known over time as the soccer club has almost 250 kids and during the spring program, our 4-500 parents and the mini-tournament brings up to a 1000 adults to the fields. As the trees increase in visibility and impact, knowledge of the trail will become widespread. And providing an opportunity for people to see mature trees of a variety of species would attract them to the area.
2. It would enhance the recreational use of the area in a low-maintenance venture.
3. It would provide a visual and sound screen to users of the area as the tree canopies would block the sound of trains and often the idling diesel engines of track maintenance equipment. This is relevant to anyone using the soccer field, the running track and to CNC. A visual backdrop of vibrant trees, less dust and wind would dramatically improve the air quality and aesthetic value of the fields.
4. The trees would provide a wind break, decreasing wind-speeds, dust and evaporation during the summer and reducing the need for watering to keep the fields green. Environmentally the establishment of trees acts as a carbon sink and results in cost-savings on field maintenance. An example is the lower fields adjacent the high-school where the shade from the nearby trees means the area requires no watering, whereas the upper field is watered every two-three days in a normal summer, to keep the grass growing and reduce the dust-bowl conditions that can rapidly develop.
5. Flowering shrubs and trees will beautify the area.
6. Currently this area is not used for any purpose, with some expenditure of development costs, a trail capable of long-term use could be constructed. The trees are all capable of living for several centuries; this is a legacy project that will outlast all of us.
7. Low maintenance. The site appears productive and the southern exposure conducive to good growing condition. Cottonwood are rich site indicators and there is no reason to believe trees would not thrive in this environment.