

“The works of the past always influence us, whether or not we care to admit it, or to structure an understanding of how that influence occurs. The past is not just that which we know, it is that which we use, in a variety of ways, in the making of new work.... The typology argument today asserts that despite the diversity of our culture there are still roots of this kind, which allow us to speak of the idea of a library, a museum, a city hall or a house. The continuity of these ideas of type, such as they are, and the esteemed examples which have established their identity and assured their continued cultural resonance, constitute an established line of inquiry in which new work may be effectively grounded.”

The Harvard Architectural Review. Volume 5. Precedent and Invention. Between History and Tradition: Notes Toward a Theory of Precedent. John E. Hancock.

crossing the divide

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Trails are essential to the well being of all Canadians. Trails create healthy and strong individuals, communities and economies, as well as contribute to the conservation and appreciation of the natural environment. Trails help build partnerships among private companies, landowners, neighbouring municipalities, local government, and support groups. Canadian trails connect conservation areas, provincial parks and natural reserves across the country.

Canada is in the process of constructing the world's longest recreation pathway, the Trans Canada Trail. Once completed this 17,000 km pathway will run from coast-to-coast; one continuous trail connecting Canada's diverse natural landscapes and cultures by way of a continent-wide system of walkways, scenic country lanes, abandoned railway lines and historic water routes. This "shared use" trail was designed to accommodate hiking, cycling, horseback riding, cross-country skiing and snowmobiling that are accessible to Canadians of all ages.¹



The Trans Canada Trail will differ according to local needs; topography and the type of trail use. Differing in width from one metre to five metres to accommodate all activities. The trail is compiled of hundreds of local trails such as the; Galloping Goose in British Columbia, Prince Edward Island's Confederation Trail and the Petit Temis in Quebec and New Brunswick, as well as abandoned railway lines that have been resurfaced with gravel to complete one grand national trail.

Canadians have always been a nation of trail builders. Natives used waterways and woodland trails for their trade and travel until the modern railway and highways linked western and eastern Canada together. Building the Trans Canada Trail will further connect the regions of the country together.

The Ontario government believes that trails play an important role in building a healthier and more prosperous province. With this belief, the government created, The Ontario Trails Strategy, which is a long-term plan that establishes strategic directions for planning, managing, promoting and using trails in Ontario. This trails strategy would contribute to ACTIVE2010, the government's strategy to increase sport participation and levels of physical activity among Ontarians as well as The Ontario Tourism Strategy, the plan for Strong Rural Communities, the Healthy Weight Strategy and the Greenbelt Plan.²

Trails are important to Ontarians since they support an active lifestyle that improves health. Studies have shown that physical activities help to prevent heart disease, diabetes, osteoporosis, obesity and depression as well as reduce stress and improve mental health.³ Trails provide moderate to challenging outdoor activities that are inexpensive and accessible to most citizens. Trails also attract tourist to Ontario communities, creating jobs and revenue, an estimated two billion dollars a year.⁴ The Ministry of Tourism and Recreation found in 2004,

that Canadians are taking shorter vacations that are closer to home. This allows vacation dollars to be spent locally.

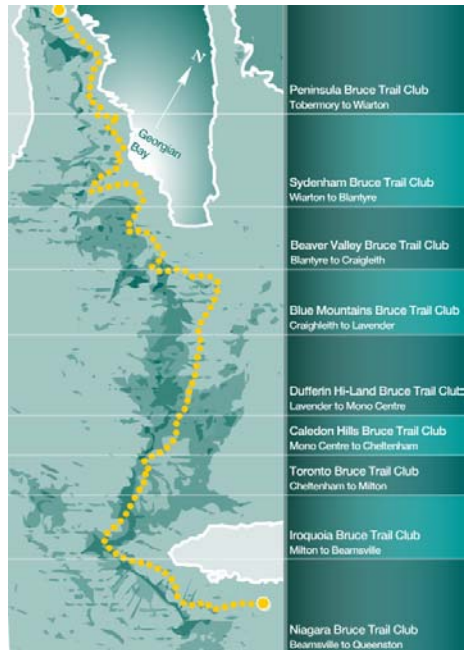
Trails strengthen the social fabric of a community by allowing people to together while volunteering for a meaningful activity. “An important by-product of trails is improved self-image and social relationships, reduced crime, a livelier community atmosphere and a lifestyle which encourages young people to find their entertainment in healthier and more wholesome ways.”⁵ Trail construction and maintenance builds and solidifies partnerships among community groups, businesses, property owners, local government, community residents and trail club members. The province as a whole is also strengthened as people from all income brackets; age groups and cultural backgrounds are able to experience the same trail-based recreation.

Trails lead users through the ever-changing landscapes of Ontario, through diverse plants and animals habitats that include the wetlands and forests, historic buildings and canals and rivers. Trails often cross-lands, which are becoming environmentally sensitive. By leading the users along paths, trails keep users distant from the more sensitive natural features that could not withstand traffic. Well-developed trails provide buffers, such as board walks and foot bridges, that protect the wetlands while allowing the users to experience a variety of plants and animal wildlife.⁶ Ontario trails play an important role in supporting environmental education and building a public commitment to environmental conservation.

Ontario houses 64,000 km of trails that include; footpaths, natural surfaces, on-road cycle routes, walkways, boardwalks, sidewalks, rail lines, multi-use tracks with manufactured surfaces, and waterways and portage routes. The Bruce Trail, for example, opened in 1967, is Canada’s oldest and one of the longest footpath. Running along the Niagara Escarpment, a UNESO World



Biosphere Reserve, the Bruce Trail serves as a major link for other trail systems, such as the Trans Canada Trail, the Caledon Trailway, and the Cambridge to Hamilton Rail Trail.⁷ The Bruce Trail is over 290 km in length, with its end points at Niagara Falls and Tobermory, and connects conservation areas, provincial parks and nature reserves. The trail is home to 300



species of birds, 53 different mammals, 35 reptiles and amphibians, 90 kinds of fish and rare thousand-year-old white cedars.⁸ More than six million Ontarians live within a ninety-minute drive of the Bruce Trail, allowing the trail to receive 410,060 visitors a year and generate a direct economic impact of \$26,084,817 a year, with a gross economic spin-off of \$60,255,926 annually.⁸ The Bruce trail is maintained by 100,000 hours of volunteer work a year and supports 1,138 full-time jobs in Ontario.⁸

The Bruce trail is a vital component to the lives of all Canadians, by allowing the Niagara Escarpment to be accessible to the public, promoting physical exercise and education of a World Biosphere Reserve. The Bruce Trail connects neighbouring trails and communities as well as protecting the wildlife and maintaining the ecosystem. The trail brings volunteers together and allows citizens an opportunity to contribute to their community, bringing them a feeling of self worth and accomplishment.

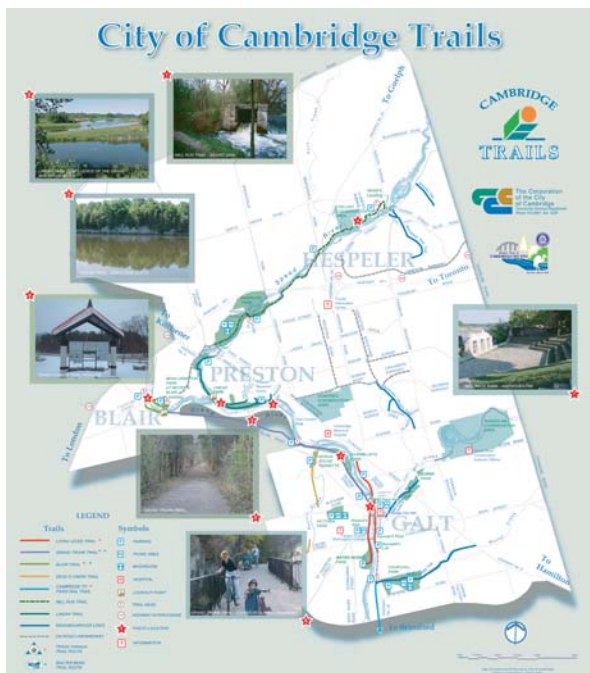
The Grand River divides the east and west in Cambridge Ontario, while acting as a connection to the three amalgamating towns, Galt, Hespeler, and Preston. When a city is divided by a body of water the points at which you can cross dictates the flow of traffic through the city. In the town of Galt there are four bridges that connect the east and west ends of the city, starting

from the south, the Concession St. bridge, the Main St. bridge, the Park Road bridge and finally an elevated railroad bridge. There is no point of crossing that is specifically for the pedestrian to use.



Trails play an important role as transportation routes throughout the city of Cambridge and to its neighbouring cities. Cambridge trails connect heritage buildings, portage routes, public parks, residential neighbourhoods, and numerous conservation areas. Cambridge trails connect not only to provincial trail, like the Bruce Trail, but also to the Trans Canada Trail, which runs from coast to coast across Canada. By allowing major trails to pass through the city, Cambridge is encouraging recreation and education of the Grand River to

both locals and tourists. The citizens of Cambridge have access to numerous trail routes including; Living Lieve Trail, Grand Trunk Trail, Blair Trail, Devils Creek Trail, Mill Run Trail,



and Linear Trail.

With the Grand River dividing the east and west trails, the trail users are forced to cross the river at the same bridges that the automobiles use. This is not an ideal situation for the trail users, as they must dismount their bikes and cross the busy intersections of the city to continue on their trail.

A pre-stressed ribbon pedestrian

footbridge bridge was located just north of the elevated railway bridge to connect the two Trans Canada trails that cross through Cambridge, the Living Lieve trail and the Grand Trunk trail. It

was at this point that the Living Levee Trail began to reroute its self through the residential streets of Galt, rather than following the contours of the Grand River. This was an optimal site for the placement of a pedestrian footbridge because it would connect two large residential communities, two trails and parks, a high school, and a rowing club. This footbridge would further promote recreation and physical activity by promoting students to walk to school, and rowing member to walk to the club.

Two pre-stressed steel ribbons were chosen as the structure of the bridge to ensure that columns or wires did not disrupt the river activities or natural environment. The bridge was designed to allow two bikes to pass comfortably, but narrow enough to discourage motorized vehicles from crossing. This lightweight bridge is an opportunity for the citizens of Cambridge to further enjoy their accessibility to the provincial, national and local trails, while gaining environmental exposure and physical activity.

Education is the key to the future of trails in Canada. Canadians need to learn about the health and economic benefits of using trails as well as ways to protect the environment to preserve trails for the future. The public should be educated about the diverse ecosystems and become aware of the significant natural and cultural heritage features that can be appreciated through trail use. Trails support an active and healthy lifestyle that is accessible to all at a low cost in order to meet the physical activity needs of Canadians. This allows trails to become an essential part in the lives of Canadians.

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Bruce Trail Sign

<http://www.beavervalleybrucetrail.jpg>

Map of Bruce Trail

<http://www.brucetrail.org/explorethetrail.jpg>

Map of Galt Crossings

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Trails of Cambridge

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