

HALIFAX

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Item No. 15.1.11
Halifax Regional Council
August 23, 2022

TO: Mayor Savage and Members of Halifax Regional Council

SUBMITTED BY:

Original Signed by 

Jacques Dubé, Chief Administrative Officer

DATE: August 11, 2022

SUBJECT: Natural Surfacing Trails of Western Common Wilderness Common

ORIGIN

June 8, 2021 Halifax Regional Council motion (item 11.4.2):

MOVED by Councillor Mason, seconded by Councillor Blackburn
THAT Halifax Regional Council request a staff report considering proposed amendments to the Western Common Wilderness Common Master Plan to consider the implementation of natural surface backcountry trails within interior areas of the Western Wilderness Common.

MOTION PUT AND PASSED UNANIMOUSLY.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, 2008, c.39:

Part I, The Municipality

Purposes of Municipality 7A

...The purposes of the Municipality are to

(b) provide services, facilities and other things that, in the opinion of the Council, are necessary or desirable for all or part of the Municipality

RECOMMENDATION

It is recommended that Halifax Regional Council direct the Chief Administrative Officer to insert Attachments A and C as Addendums to the Western Common Wilderness Common Master Plan, to address the development and management of trails in the Western Common Wilderness Common.

BACKGROUND

Western Common Wilderness Common Master Plan

The Western Common Wilderness Common is a wilderness recreation area on lands owned by Halifax Regional Municipality. The lands are located between Highway 103 to the north and Prospect Road to the south, extending from the Ragged Lake Industrial Park on the eastern edge to the Nine Mile River at the western edge (Attachment A).

The Western Common Wilderness Common Master Plan (Master Plan) was adopted by Regional Council on June 15, 2010. This guiding document supports the development of the Western Common Wilderness Common (Western Common) in a manner that promotes the preservation of its natural setting and ecological attributes. The implementation of the Master Plan is overseen in part by the Western Common Advisory Committee (WCAC). The WCAC's responsibilities include advising on public access and wilderness recreation programming, impact of land use within and adjacent to the Western Common, and park operational matters.

The Western Common is enjoyed by residents and visitors for a range of recreational activities, including hiking, fishing, camping, and paddling. As a result, the Master Plan is supportive of developing more formalized trail infrastructure to support these uses, while preserving its wilderness setting. The Master Plan recommends specific trail types, including the development of an extensive barrier free trail segment that would connect the Prospect Road Community Centre, through Goodwood, and Ragged Lake Business Park.

Section 6.1.4 of the Master Plan provides guidance for the development of the proposed trail system. In addition to identifying a desired route and phasing for development, the Master Plan also provides barrier free specifications. These include a minimum trail width of six feet, maintaining a gravel top layer, and ensuring the trail's grade is 5% or less (Attachment B).

Trail Construction

Formal trail construction based on the Master Plan, commenced in 2016. Starting from the rear of the Prospect Road Community Centre (Hatchet Lake), as an entry into the Western Common, the first phase of trail was envisioned to loop Nichols Lake. This section of trail is being constructed to the barrier free standard outlined in the Master Plan, to the largest extent possible, recognizing limitations due to factors such as existing grades.

Currently, there are approximately 1-2 km of trail that have been partially developed from the Prospect Road Community Centre into the Wilderness Common. The first segment of the trail has been developed along the eastern edge of Nichols Lake, to a small waterfall where a bridge has yet to be constructed. The bridge needs future capital funding in order to be completed. However, as the trailhead is also being used as the access point for construction, the trail has not yet been opened to the public.

Trail Construction Constraints

Trail development in the area places an emphasis on the barrier free trail segment identified in the Master Plan. These types of trails within a wilderness area have required thought, consideration, and time. This design opportunity has provided staff and the WCAC a chance to discuss and re-evaluate the current approach for trail development. The WCAC has consistently identified the importance of maintaining the natural setting of the Western Common, while also providing accessible opportunities for recreation.

However, establishing the trail to a barrier free standard, without being disruptive to the natural setting, proved to be challenging during the early phases of trail design and construction. While some features, such as the width and surfacing of the trail can be met, consistently achieving grades at 5% or less requires

either significant excavation or the development of extensive switchback trails (trails at a lower grade that cross back and forth across a slope). Based on these site considerations, the establishment of such trails may be more suitable in front country areas in the vicinity of trailheads, rather than interior or backcountry areas of the Western Common. Concerns were also identified related to the proposed extensiveness of the barrier-free trails as outlined in the Master Plan.

At its April 28, 2021 meeting, the WCAC passed a motion requesting a staff report to consider amendments to the Master Plan that would implement natural surface back country trails within the interior of the Western Wilderness Common, which was subsequently adopted by Regional Council.

DISCUSSION

In reassessing the trail types outlined in the Master Plan, an approach that respects the natural environment while providing accessible and inclusive opportunities has been sought. On this basis, a six-foot-wide trail and gravel surfacing trail standard that is specified in the Master Plan could continue to be implemented throughout the Western Common without significant disturbance to the natural environment. However, the topography of the Western Common makes the accessible trail grade of 5% or less difficult to achieve without being destructive to the natural landscape. A contractor engaged to develop the trail to date has identified that major grade changes would be required for the next phases of the trail development. This grade change would result in a significant number of switchback trails to maintain a 5% grade. The number of switchback trails required to address the slopes would result in large portions of the natural setting being significantly altered. This approach could also reduce the level of accessibility for people with visual impairments, due to the large number of directional changes in the trail.

Accessibility Standards and Guidelines

Consultation regarding wilderness park trail standards has included HRM's Office of Diversity & Inclusion to further understand strategies, policies, and practical implementations in addressing access and inclusion. Through these discussions, it has been identified that the standards and guidelines within the Master Plan outline a best practice and should be met as much as possible. In the case of the initial development of trails at the Prospect Road Community Centre, this best practice is being implemented. This segment of trail development includes barrier free sections that are being built to provide inclusive opportunities to access wilderness settings within the front country area of the WCWC. For other trailheads and adjoining trail segments, the same approach could be followed in providing accessible opportunities to the greatest extent that is practical, recognizing that interior trails, might be built to back country standard that is not necessarily fully accessible, depending on physical conditions.

Ongoing consultation is important as design for the next phases of the trail continues and would be integrated to support decision making related to accessibility and inclusion.

Updated Design Considerations

The Municipality has adopted the HRM Accessibility Strategy which recommends design of the barrier free trails. This strategy identifies several design considerations which are also applicable to be implemented to the Western Common trail system and include:

- **Access:** Barrier free trail systems should be accessible by a variety of transportation methods, including personal vehicles, active transportation, and public transit, which will be considered at the Prospect Community Centre and other future trailheads.
- **Accommodations:** The HRM Accessibility Strategy identifies the need to develop trails which have adequate benches and rest areas, to ensure a safe and enjoyable experience for trail users, which will be incorporated with the completion and further development of trails.

- Infrastructure: In addition to trail material and grade, features like railings and tactile contrast along the shoulders of trails, should be included to support trail users with low vision as well as trail users utilizing mobility devices.
- Wayfinding: It is important to clearly identify at the trailhead the start and end points, names of trails and the length of trail, to allow trail users to determine their participation level.

The approach of developing accessible trails to the greatest extent as practical, is consistent with the built environment standards of the *Nova Scotia Accessibility Act (Act)*. The aim of the Act is to ensure the province is accessible and inclusive by 2030. The trail specifications proposed for the Master Plan are also aligned with the guiding principles of the Shared Strategy for Trails in Nova Scotia and the Rick Hansen Foundation approach to “Front Country Trails”. This standard would be applied within the Western Wilderness Common to the extent to which topography permits, with consideration being given to accessing destinations, such as views and lookouts.

Beyond the accessible trail sections, trails would be developed to the Back-Country Hiking Trail standard identified in Appendix F (Attachment D) of the Master Plan, in order to ensure the wilderness setting of the Western Common is preserved. The b-country trail type is outlined in the Master Plan as follows:

- Average width of 60cm;
- Trail constructed with natural / site materials;
- Minimal site disturbance; and
- Allowance included for access to remote locations

If conditions or technology change, opportunities to extend the front country trail type Western Common would be considered to the greatest extent that may be practical.

Master Plan Addendum

Should Regional Council adopt the recommendation of this report, the addendum outlined in Attachment C would be included as an update to the Master Plan. The addendum outlines a flexible approach that includes assessments to ensure the integrity of the Western Common natural setting is maintained, while providing an inclusive recreational experience within the Western Common.

FINANCIAL IMPLICATIONS

The focus of this report is on the appropriateness of trail types given the various settings of the Western Common and the development of appropriate trail types. There are capital budget implications based on the trail types that may be specified within the Master Plan that would be outlined in future budget and business plans. This trail growth activity is currently included in the 10 year Capital Plan for Wilderness Park Development.

RISK CONSIDERATION

There are no additional risks based on the recommendation of this report.

COMMUNITY ENGAGEMENT

The WCAC discussed trail type and trail construction and helped inform the recommendations of this report.

ENVIRONMENTAL IMPLICATIONS

The recommendations of this report reduce the impacts of extensive trail development within the Western Common Wilderness Common.

ALTERNATIVES

1. Regional Council could direct the Chief Administrative Officer to consider an approach which has not been identified in this report, which may require an additional report to Regional Council.
2. Regional Council could direct the Chief Administrative Officer to continue construction of trails to accommodate a network of barrier free trails, as currently outlined in the Master Plan.

ATTACHMENTS

Attachment A - Western Common Wilderness Common Reference Map

Attachment B - Western Common Wilderness Common Trail Types

Attachment C - Western Common Wilderness Common Master Plan Addendum

Attachment D - Western Common Wilderness Common Master Plan Appendix F

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Gareth Evans, Recreation Planning Specialist, Parks & Recreation 902.292.1264

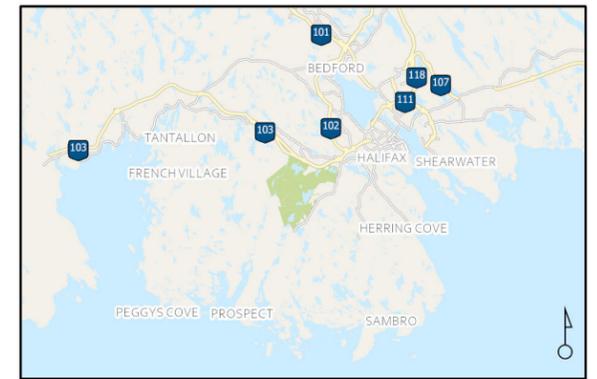
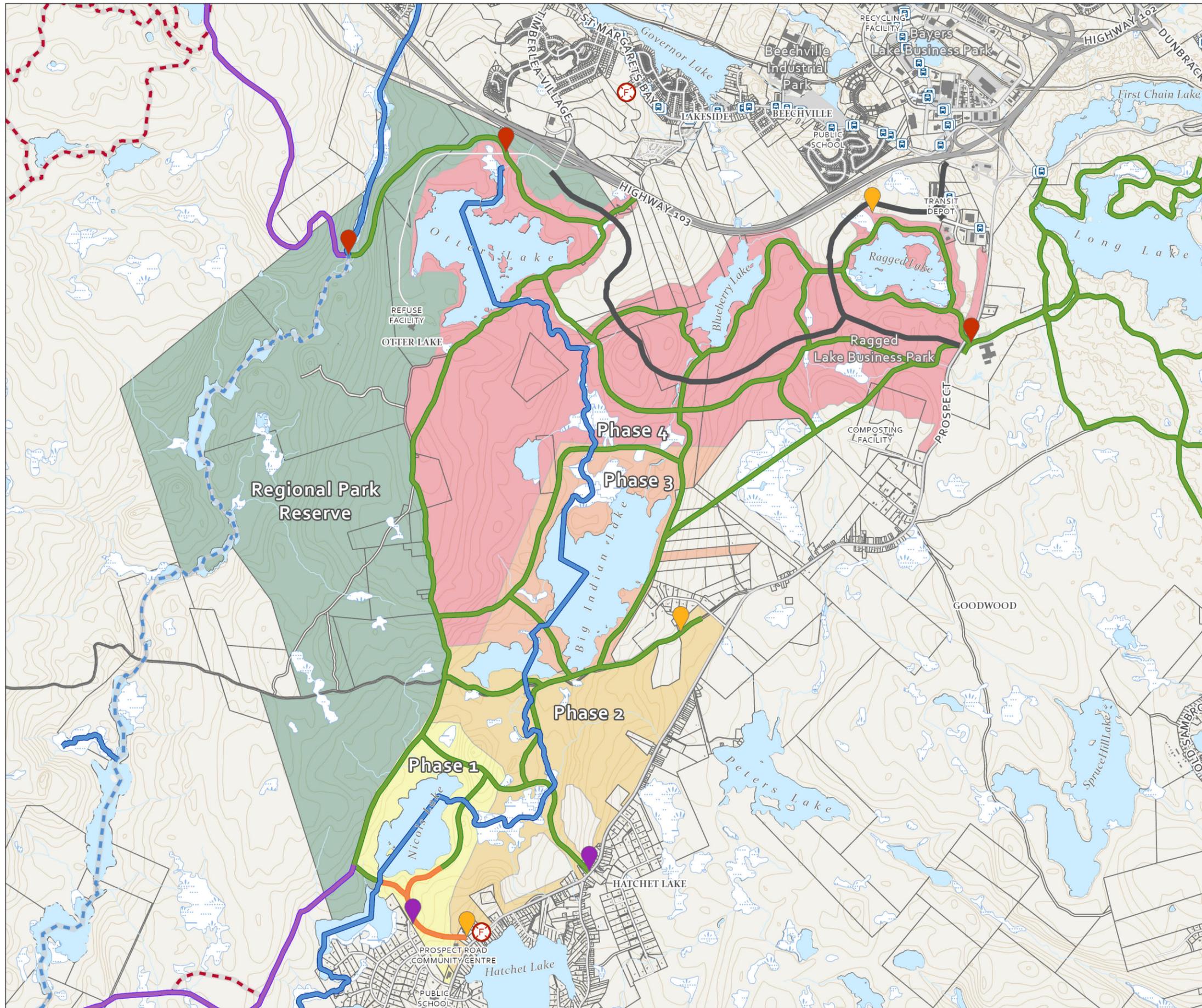


Figure 23A Phasing Strategy
June 2022

Trail Access Node

- Community
- Neighborhood
- Regional

Service

- Fire
- Bus Stop

Water Routes and Trails

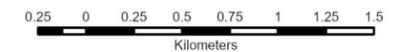
- Collector Road Reserve
- Open Water Route
- Limited Use Route
- Multi-Use Trail
- Established Trail, with Barrier-Free characteristics
- Limited Use Walking
- Back Country Hiking Trails, with Barrier-Free Trails to be evaluated and implemented adjoining trailheads

Master Plan Phasing

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5

HALIFAX

Parks & Recreation Policy & Planning



**WESTERN COMMON WILDERNESS
COMMON MASTER PLAN**

Western Common Wilderness Common Trail Types

6.1.4 Trails

The master plan calls for creation of 61 kilometres of trails within the Regional Park. These trails would be built to an accessible standard, and would be similar to trails found in locations like Point Pleasant Park. The trail types examined for this Master Plan are:

1. Shared-Use Trail (Motorized)
2. Shared-Use Trail (Non-Motorized)
3. Shared-Use Trail (Barrier Free Trail)
4. Shared-Use Trail (Back Country Hiking Trail)

Appendix F contains profiles of potential trail types. Most of the trails will be constructed using the Back Country Hiking trail profile. This trail type is a 2-foot-wide hiking trail constructed from site materials. A large section of trail will be a 6-foot-wide Barrier-Free Trail (see **Figure 6.1**).

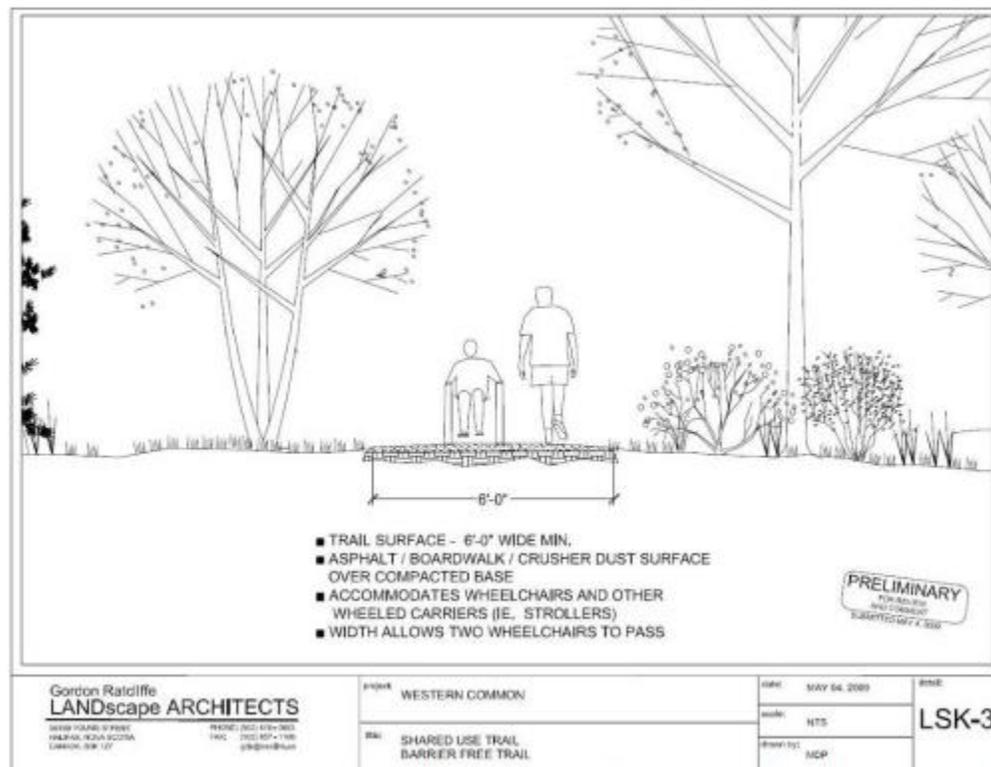


Figure 6.1: Trail Profile for Trails in the Wilderness Common

**Western Common Wilderness Common Master Plan – Trail Type Addendum
Spring 2022**

This addendum contains updates to the Western Common Wilderness Common Master Plan, as outlined below.

1. Section 6.1.4, *Trails*, and shall be replaced by the following:

The development phases and location of trails in the Western Wilderness Common shall be generally as outlined in Figure 23A Phasing Strategy. Trails shall be largely comprised of Back Country Trails within its core, and Front Country Trails in the vicinity of trailheads. The extent of Front Country Trails shall be determined through the design and construction of each phase, and may include consultation with user groups and specialists in the field of accessibility and inclusion.

Trail guidelines are as follows:

Front Country (Barrier Free) Trails:

- located at trailheads that may have infrastructure such as accessible parking;
- are as outlined in Appendix F: Trail Profiles, to a maximum grade of 5 percent, which may be exceeded over limited sections where adaptations such as railings, seating, and rest areas are provided; and
- are developed to a barrier-free standard, to a maximum extent that is practical, relative to factors such as grades and the natural environment.

Trail guidelines may be updated to incorporate best practices and other accessibility guidelines and standards of the Municipality.

Back Country Hiking Trails:

- located throughout the Western Common Wilderness Common; and
- as outlined in Appendix F: Trail Profiles.

Trailheads shall be developed with signage which outlines the name and type of trail, length and duration of trail, surface type of trail.

2. Figure 23 Phasing Strategy shall be replaced by Figure 23A Phasing Strategy as attached.
3. Section 6.2.6, Phasing and Costs and the maps contained therein relative to trail types, shall be considered relative to the updated Figure 23A Phasing Strategy.

Final Report

Western Common Recommended Trail Construction Costs July 20, 2009

Trail construction costs will be determined by topography and drainage conditions along the selected route. The following recommended costs are based on average unit rates from recent experience with trail construction and provided for budget and planning purposes only.

Shared-Use Trail (Motorized Vehicles, max. design speed 50 km/h)

- avg. width 12 feet
- trail surface compacted Type 1 gravel
- route selected to avoid gradients steeper than 15%
- allowance made for design / construction to “off-road vehicle” standards including
- engineering of plan and profile, cut and fill, stabilization of side slopes, subsurface drainage
- no allowance for water / wetland crossings
- recommended unit rate: \$130.00 / lineal foot

Shared-Use Trail (No Motorized Vehicles, max. design speed 20 km/h)

- avg. width 10 feet
- trail surface crusher dust on compacted Type 1 gravel base
- route selected to avoid gradients steeper than 10%
- no allowance for water / wetland crossings
- recommended unit rate: \$40.00 / lineal foot

Barrier-Free Trail

- avg. width 6 feet
- trail surface crusher dust on compacted Type 1 gravel base
- route selected to avoid gradients steeper than 5% (i.e. no ramps, curbs or rails required)
- no allowance for water / wetland crossings
- recommended unit rate: \$25.00 / lineal foot

Back-Country Hiking Trail

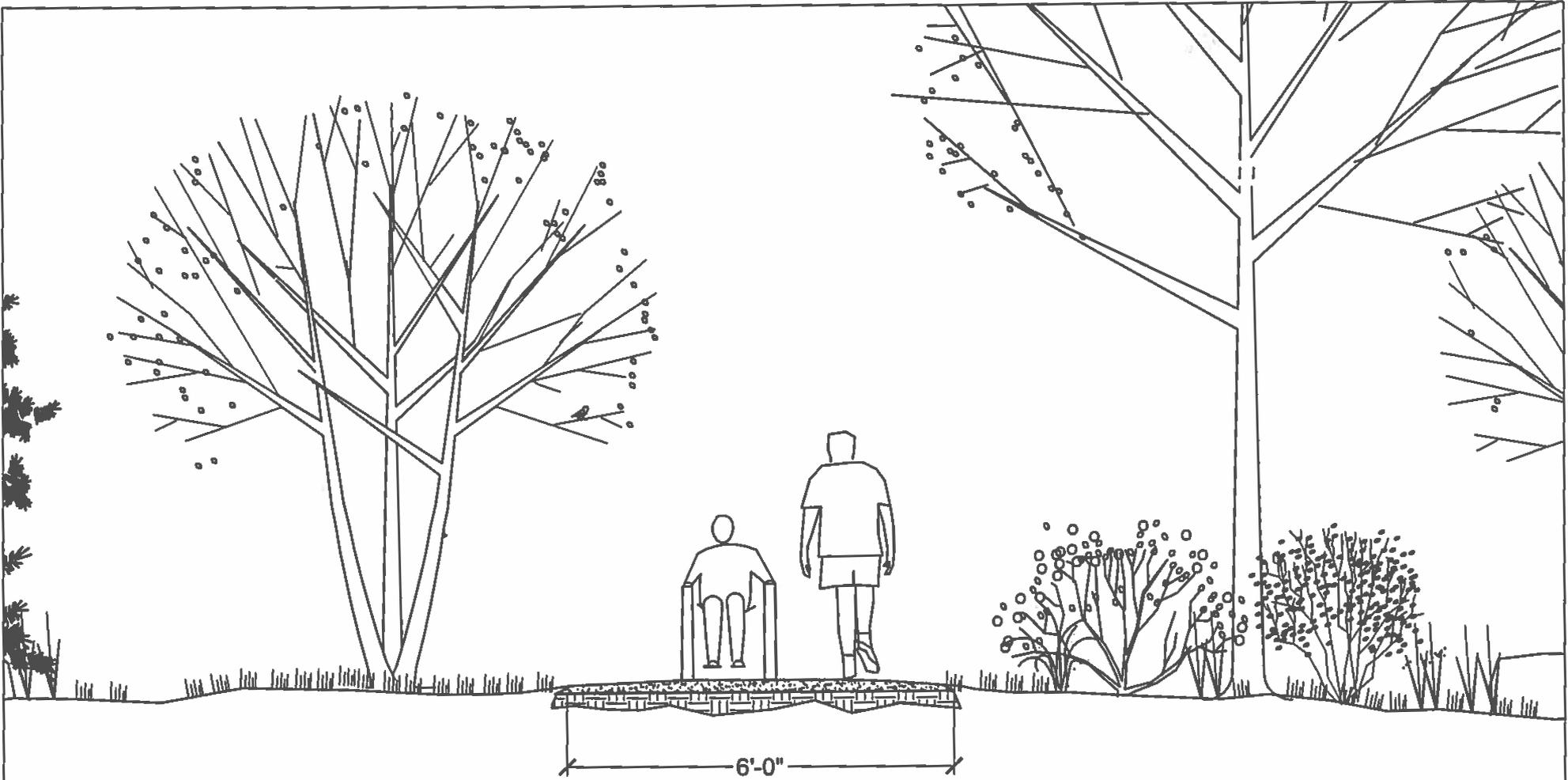
- avg. width 24 inches
- trail constructed with natural / site materials
- minimal site disturbance
- allowance included for access to remote locations
- recommended unit rate: \$10.00 / lineal foot

Bridges

- wood deck, steel span with abutments
- recommended unit rate: \$170.00 / square foot

Wetland Crossings

- boardwalk on piles
- recommended unit rate: \$100.00 / square foot



- TRAIL SURFACE - 6'-0" WIDE MIN.
- ASPHALT / BOARDWALK / CRUSHER DUST SURFACE OVER COMPACTED BASE
- ACCOMMODATES WHEELCHAIRS AND OTHER WHEELED CARRIERS (IE. STROLLERS)
- WIDTH ALLOWS TWO WHEELCHAIRS TO PASS

**Gordon Ratcliffe
LANDscape ARCHITECTS**

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project: WESTERN COMMON

title: SHARED USE TRAIL
BARRIER FREE TRAIL

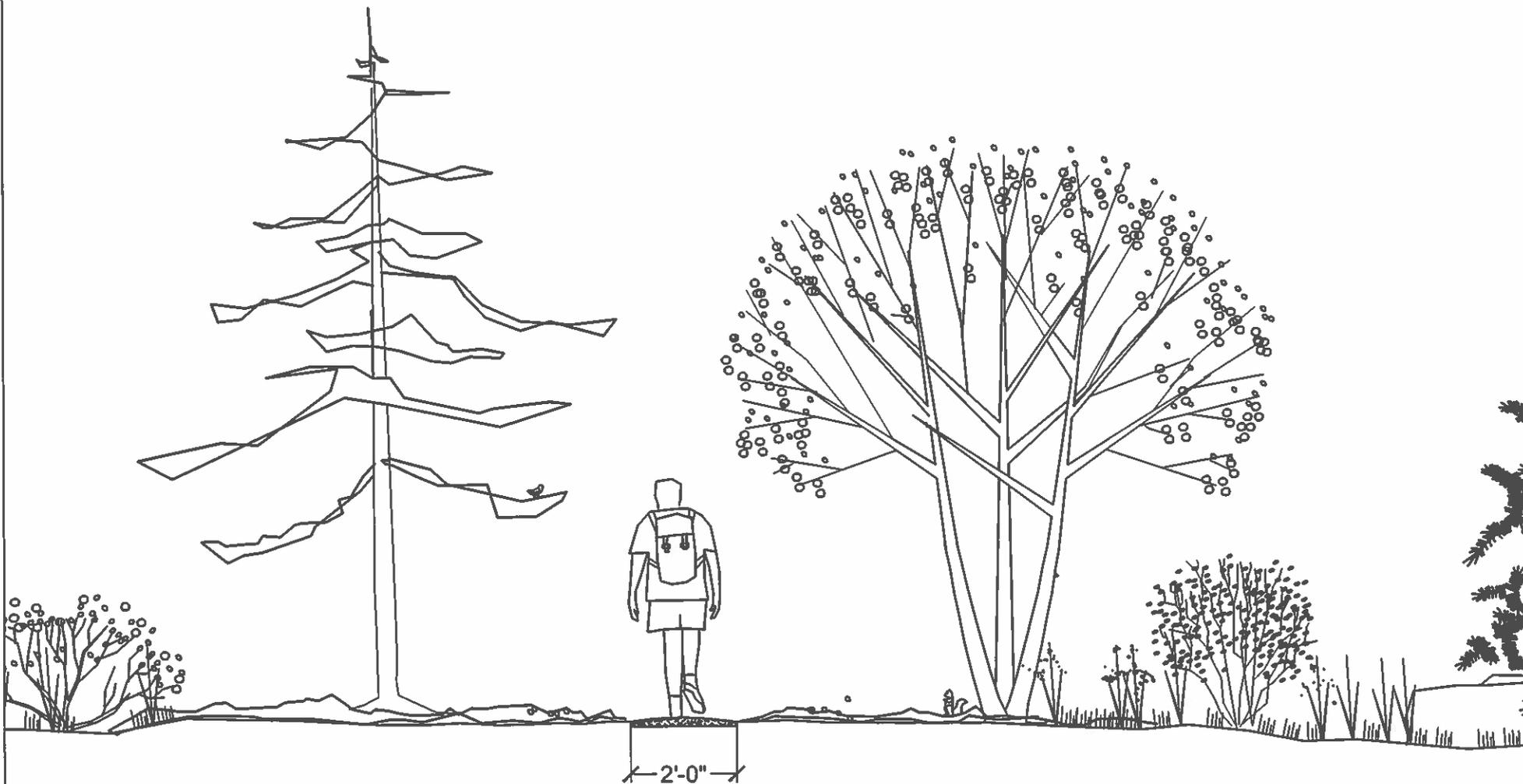
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LSK-3



- TRAILSURFACE - 2'-0" WIDE MIN. WITH MINIMAL SITE DISTURBANCE
- SURFACE IS MADE FROM NATURAL MATERIALS OR IMPORTED GRAVELS WHERE REQUIRED
- DESIGNED ONLY FOR WALKING

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project: WESTERN COMMON

title: SHARED USE TRAIL
BACK COUNTRY HIKING TRAIL

date: MAY 04, 2009

scale: NTS

drawn by: MDP

detail:

LSK-4