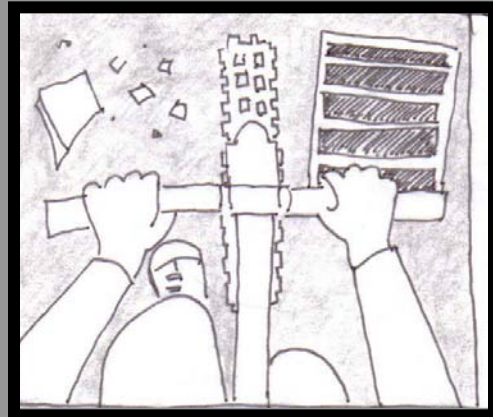
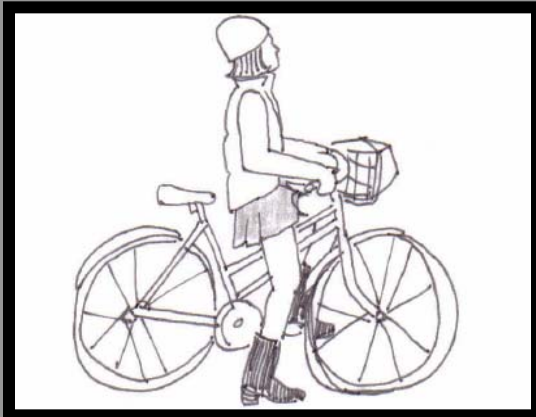
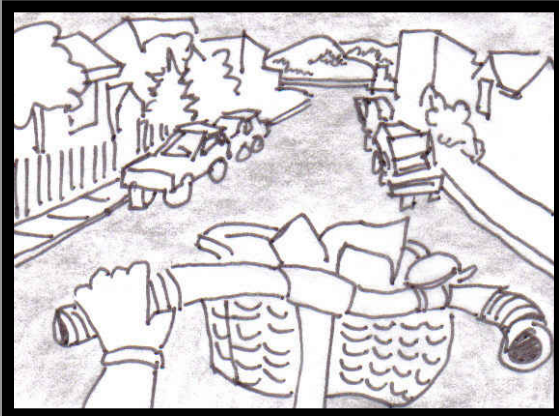


WAY TO GO

Yellowknife Bike Routes



Transportation Issues Committee

March 21, 2007

CONTENTS

INTRODUCTION	1
EXPERT ADVICE	1
Making choices	2
Having choices.....	2
Summary of Recommendations.....	3
SIGNS OF CHANGE	4
Integration	4
Infrastructure and Promotion	4
Taking Care.....	5
Promotional Materials and events.....	5
Worth it for Winter	6
RULES AND THE ROAD	7
Why did the bike cross the road?.....	7
Perks for bikes.....	7
SHOWING THE WAY	8
Map of Routes.....	9
5 Hot Spots.....	10
ADDITIONAL INFORMATION.....	16
Resources	16
Further Study	16

INTRODUCTION

From a cycling point of view Yellowknife has a lot going for it, despite the weather! The city is small, the terrain mostly flat, and automobile traffic is still relatively light in most areas (compared to Toronto or Calgary for example!). There is also a good mix of trails and roads to choose from.

Combining responsible energy use with active living, cycling is a transportation choice that Ecology North's Transportation Issues Committee wants to promote. This study was commissioned to map bike routes used by residents, to provide recommendations to the City to assist them in prioritizing and budgeting for improvements, and to promote the routes to residents and visitors.

The work in this report follows on the heels of the City of Yellowknife Community Energy Plan, released in July, 2006, and the 'Integrated Parks, Trails and Open Space Development Plan' released in April 2005. The participation of knowledgeable members of the community in these kinds of studies is critical.

Financial assistance from the NWT Recreation and Parks Association, support from the City of Yellowknife, and advice from project participants are gratefully acknowledged.

EXPERT ADVICE

This study gathered information from experienced Yellowknife cyclists in a workshop held on Sunday February 18, 2007 and through individual surveys. Over 20 individuals provided their insights and advice. The intention was not to gather information about how many people use bikes, or to make a case for the benefits of cycling. Rather, the purpose was to identify commonly used routes and strategies for improving cycling as a transportation choice in Yellowknife.



Vicky Johnston talks about the routes she uses with Ann Peters at the workshop.

The information gathered in this report is offered for consideration as planning is done to meet the current and future needs of the public for transportation and recreation. Responsibility for turning these suggestions into actions could be taken on by the municipality, by private land-owners and businesses, or by community organizations.

Note: Suggestions that were received about improving conditions for cycling outside the city limits, or about biking as a sport have been acknowledged in an appendix to this report, but do not form part of the recommendations.

Making Choices

Our advisors consider that their choice to travel by bike is a reasonable and responsible one: allowing them to combine active living and responsible energy use while commuting to work, shopping, and getting out to community events or social outings. Some of the reasons people gave for their choice included:

reduce number of cars on the road
use vehicle less
less hassles than owning a vehicle
reduce greenhouse gas emissions
save money, cheaper
easier and faster than walking and sometimes driving
makes me feel better!
the sheer joy of it!

Having Choices

Not all cyclists are alike. What is suitable or preferable in terms of infrastructure can be a matter of personal choice, or depend on weather and traffic conditions. Having choices allows for a wider range of people to bike safely.

Some of the advice we gathered came from people who bike year round, but most came from people who bike from May to September. Some prefer taking the most direct routes, other like to take side routes. Some bike with kids (in trailers or on their own bikes). Some are kids!

A variety of routes are available within the city. Through much of the city there are alternatives to riding along busy streets including using multi-use trails or taking a secondary traffic routes. However, there are still a number of places where there is no choice but to share the road with fast motor vehicle traffic.

Summary of Recommendations

The information gathered through this study is not meant to provide an exhaustive review of cycling conditions in the City of Yellowknife. The recommendations here are given from the perspective of cyclists who participated in this study.

An over-riding recommendation is for Yellowknife to adopt the principle that biking is a legitimate and good transportation choice, and not only a recreational activity. As expressed in a popular slogan used on t-shirts and stickers:

“I’m not blocking traffic – I am traffic”

Other specific recommendations include:

1. Work to make alternatives to travelling on busy roads available to cyclists throughout the city and particularly to major commercial and institutional destinations.
2. Create a layer on the Explorer’s Map available from the City of Yellowknife website showing bike route alternatives and identifying sections of multi-use trails that are bikeable. Advertise this feature on the main page and on the Ecology North website.
3. Carry out education and awareness activities and programs about sharing the road and trails at least once a year.
4. Introduce modifications to the ‘rules of the road’ that give cyclists a ‘perk’ when it can be done without much affect to other users.
5. Explore the option of establishing formal rights-of-way across privately owned commercial and institutional properties where this would provide a better bike route connection than making improvements on public lands.
6. Consult community bike experts as part of transportation planning. Conduct site tours on bikes when engineering infrastructure improvements or establishing maintenance plans.
7. Integrate improvements for bike with any infrastructure work being done for motor vehicle traffic or pedestrians to minimize additional costs and eliminate duplication.
8. Give priority to infrastructure and maintenance work that will improve the continuity, condition, and choice of commuting routes when considering improvements for cycling in the city.
9. Adopt a new approach to signs related to bikes that focuses on sharing the road or giving directions where trails or permitted uses are not obvious.



Tasha Stephenson and Christa Domchek get their thoughts on paper at the February workshop.

SIGNS OF CHANGE

Yellowknife, like many other cities these days, is studying the social, economic, and environmental impacts of development and transportation. The “Yellowknife Community Energy Plan”, released in July 2006 recommends changes to how all aspects of energy use are considered. The “Integrated Parks, Trails and Open Space Development” plan completed in April 2005 identifies a vision of being leaders in Canada’s green commuting plans with citizens being able to move safely throughout the city using non-vehicular alternatives. The recognition of cycling as a form of active transportation is consistent with how our expert advisors use their bikes. This indicates a need to change the emphasis on planning for cycling in Yellowknife from a primarily recreational activity, to considering it also as a transportation issue. Every action taken to improve cycling routes will make a statement about changing community values.

Integration

Cycling allows people to integrate exercise and transportation, saving them time and money. Cycling routes can be integrated with public roadways or multi-use trails, which can also save time and money. By integrating planning and design of infrastructure for bikes with any work being done for cars or pedestrians, any additional costs to accommodate bikes – perceived or real – can be minimized.

Destinations need to be considered when planning routes to accommodate bikes. There need to be safe ways to get to all of the common places people go in a day – work, shopping, school, and community events. When it’s possible to take a scenic route, so much the better, but it shouldn’t be the primary consideration. Cyclists want to be able to choose fairly direct routes with the option of taking more scenic or out of the way routes.

The public transit system offers another opportunity for integration. In many other cities provisions are made for bikes, allowing people to combine travel modes to suit the weather or travel greater distances.

Infrastructure

Infrastructure like signs, bike racks, and designated multi-use trails can all help promote cycling. Some care needs to be taken to understand how different elements function however, so they are effective. Our expert advisors pointed out:

- bike signs add awareness, reminding motorists to share the road
- signs are not very useful as a way of helping cyclists get around except where they indicate access to trail connections that are not easy to see
- signs are needed to identify multi-use trails, distinguishing them from sidewalks (especially confusing when asphalt surfaces are used)
- cyclists were not aware of existing bike route signs throughout the city
- dedicated bike lanes can be good to have, but they create difficulties at intersections and the cost to construct and maintain might be hard to justify until cycling rates increase

- designated bike lanes on busy roads can make cyclists overconfident when the traffic still presents a hazard
- when lines are used to mark where motorists should not be enforcement is needed
- having infrastructure in place sends a positive message to the public that can be tied into promotional campaigns
- infrastructure needs are different in different seasons
- Bike racks on buses would allow people to combine travel by bike and bus

Taking Care

Bike routes require a different level of care than that provided for cars or pedestrians. Some improvements that could be made to road and trail maintenance that would make a big (positive) difference to cyclists include:

- getting street sweepers to clean right to the curb, without leaving a line of accumulated gravel at the side of the road where bikes travel - this is a problem along all major roads in the city including the Old Airport Road and Highway 4
- paving the apron where all gravel lanes and roads join Franklin Avenue so that gravel isn't brought out across the intersection (this is particularly bad at the road to Fritz Theil Park)
- regular sweeping of gravel accumulations at the base of hills (even slight ones) and curves on the Frame Lake trail

Promotional materials and events

While printed maps, brochures and reports can be useful they are not necessarily the best way to get information out to people who already live in YK. Although they provide a tangible product for people wanting to take action, the cost of production could be put to better use. One of the workshop participants noted that “all the brochures in the world won't have the impact of having good routes and visible bike stands”. Diagrams and descriptions can however, be the best way to explain traffic rules or describe safety concerns.

Timing and distribution are important for promotional materials to be effective, and some suggestions include:

- bike map accessible from the City of Yellowknife website “Explorer” maps, and/or the Ecology North website with links to other web-based cycling information sites
- flyers or notices mailed out in May, when many people are getting their bikes out again for the summer
- upbeat radio spots made for summer and winter conditions
- newspaper features illustrating common problems and good habits
- issue bike safety brochures with automobile registrations and parking tickets
- circulate bike safety brochures to taxi companies

Everyone who uses roads and trails needs to be reminded or educated about safety and courtesy. In many cases it isn't a matter of regulation, but common civility that allows cyclists and pedestrians to share paths without conflict. Cyclists find that automobile drivers sometimes treat people on bikes with openly hostility. Cyclists admit that they have some bad habits too.

Suggestions for promotional activities and events to raise awareness about cycling and sharing the road:



Downtown bike rally on Car-Free day organized by Ecology North, September 22, 2006

- create a summer bike lane down the Franklin Avenue hill as a demonstration project (the route is well travelled, the road is wide, there is already no parking there)
- celebrate 'bike to work days' or a 'bike to work week' with prizes and incentives (like closing off a street to vehicle traffic or putting additional bike racks on the parking lane of downtown streets)
- allow, encourage or require building owners to convert car parking areas to bike parking areas (tax incentives or zoning bylaws could be used)
- short term promotional signs along busy roads (similar to elections) with information about the benefits of cycling

Worth it for Winter

The number of people using their bikes over the winter in Yellowknife seems to be increasing. While not yet a large number, these cyclists have different needs from 'fair weather cyclists'. People are conscious that accommodating winter cycling might take more effort and cost than can be publicly supported at this time. However, there are some low-cost or no-cost options that should not be ruled out. For example, sidewalks along major road routes could be designated as multi-use trails in the winter. Extending sidewalk snow clearing would benefit cyclists and pedestrians.

RULES AND THE ROAD

Most cyclists understand they are vehicles and that there are ‘rules of the road’ they are supposed to follow. However, cyclists are often perceived as falling somewhere in-between a vehicle and a pedestrian when they are on the road. This can be particularly unclear for kids and teens. If bikes are going to have a higher profile as a good transportation choice, some work is needed to clarify how the rules of the road apply and possibly to modify them.

Two general issues that warrant particular attention follow.

Why did the bike cross the road?

They really do just want to get to the other side. But, crossing busy roads can be difficult or simply not safe for cyclists. Bicycles don’t activate traffic signal where vehicle sensors are used. Strategies that cyclists often use in these situations include:

- taking alternate routes
- getting off bikes and crossing as a pedestrian
- getting off bikes and pushing pedestrian push button signal

This isn’t a huge problem, but it undermines the status of bikes as legitimate vehicles. If bikes are to be promoted as a good means of getting around in the city, then attention needs to be paid to how they should be crossing busy streets.

Perks for bikes

Bikes don’t create some of the problems that the rules of the road are made for. They don’t take up much room on the road, don’t make much noise, don’t produce exhaust, and don’t present as big a danger to pedestrians as automobiles. In recognition of cycling as a good transportation choice a few legitimate ‘perks’ for cyclists should be considered. Situations where cyclists would like to have some advantage over automobile traffic include:

- being able to travel both ways down one way streets
- using pedestrian connector trails in suburban areas
- mandated bike parking near the entrance to all public and commercial buildings
- allowing bikes to travel on sidewalks in winter (while giving pedestrians the right-of-way)

Allowing these kinds of ‘perks’ could be used to help promote cycling, adding to the other benefits cyclists enjoy.

SHOWING THE WAY

The routes people choose and the strategies they use to get around town on a bike can tell us a lot about what makes for good biking conditions. Overall, workshop participants feel that Yellowknife is a great city to get around by bike:






the city has great trails and most roads in Yellowknife are easy to bike on, and the city is fantastic for bikes (everything is so close)

the Frame Lake trail – best thing the City ever did – don't have to breathe exhaust, nice ride too.

44th street route down to School Draw is a good route to suggest to tourists because it's scenic and there isn't too much traffic

A general map followed by 5 detailed maps illustrate the knowledge and advice of workshop and survey participants.

Understanding the maps

	Busy road	The legend accompanying the maps that follow uses coloured lines to represent the location and conditions of routes that bikes can use in the featured area. The best choice depends on the style and ability of individual cyclists. Different choices need to be available for bikes to be a safe choice for children and adults, recreational cyclists and commuters, and summer and winter cyclists.
	Good secondary road route	
	Bikeable trail	
	Short cut	
	suggestion	

Busy Roads can be used by cyclists, but come with hazards, usually not a good choice for slower cyclists including kids.

Good Secondary Road Routes with less traffic these are usually safer routes, but sometimes less direct.

Bikeable trails are often just portions of multi-use trails where there is a good compacted gravel surface or pavement, and where cyclists need to pay more attention to being cautious and courteous to other users.

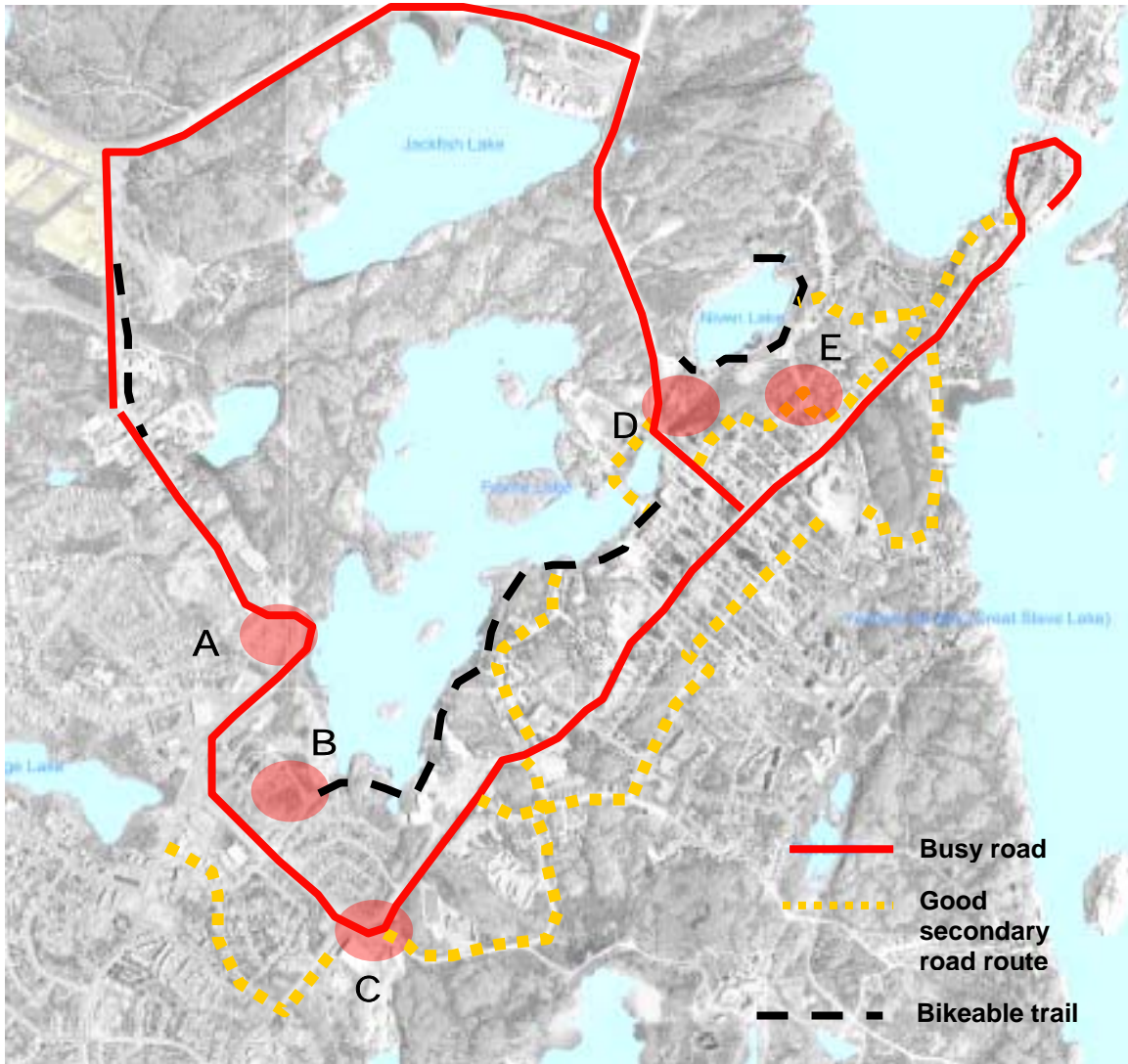
Short cuts are commonly used paths or routes not located on public roadways or trails.

Suggestions are shown where a new section of bikeable trail might be used to join disconnected routes, or where cyclists could consider alternate routes to avoid hazards.

Map of Routes

What emerged in putting together the map of routes was a picture of choices that can be organized into three distinct zones. Relatively good bike route choices can be made to get around much of the built up areas of Yellowknife (although there are definitely locations where improvements can be made). The Old Airport Road was cited as the most problematic area in the city for cycling because development has been so clearly focused on the use of cars. Finally, the highway loop provides a good circuit that can be used for recreation or commuting, but doesn't have to be used to get around town conveniently.

Using a combination of rails and roads cyclists can travel anywhere in the city, but there are several gaps where it is difficult to connect from one section of the route to the next.



5 Hot Spots

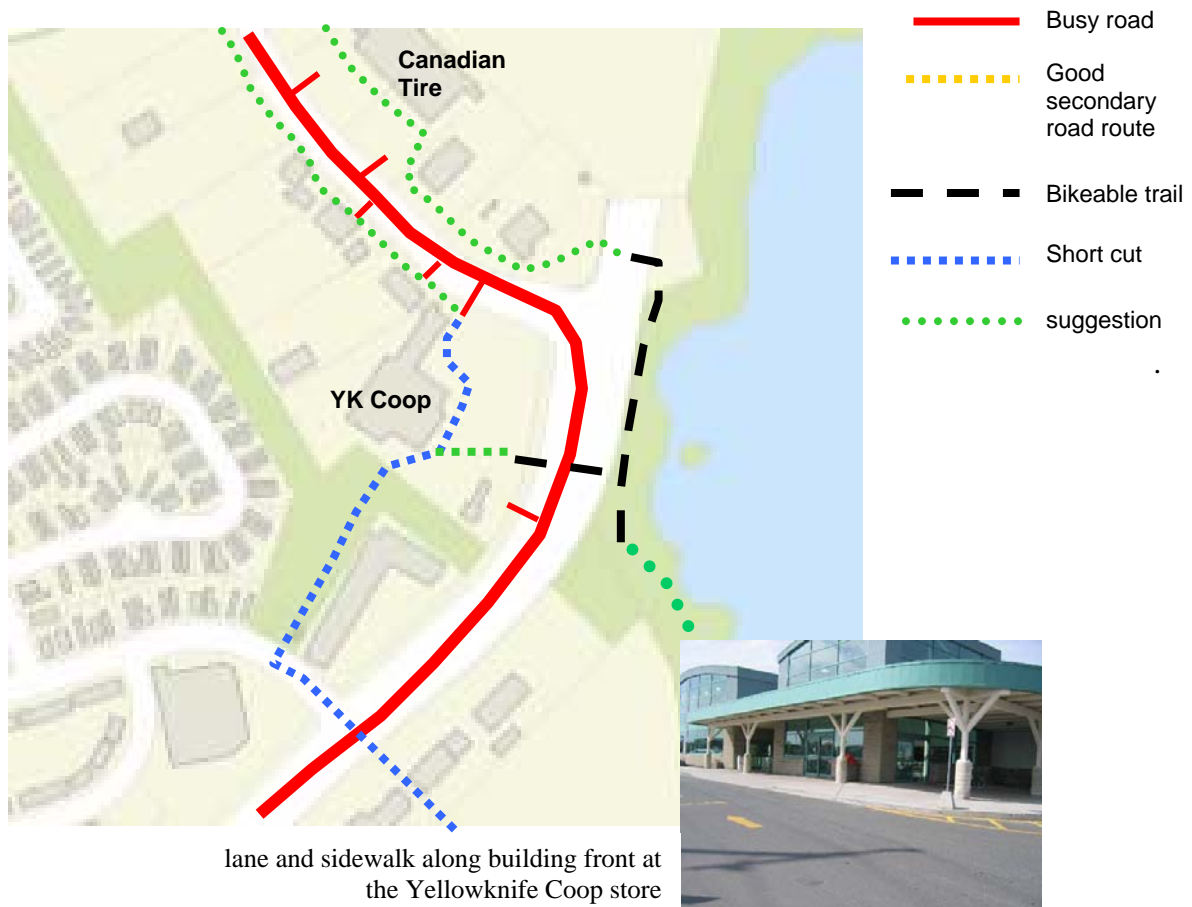
Detailed maps and commentary are included for the five ‘hot spots’ shown on the map on the previous page. These spots were identified by our advisors as places that should be given high priority for improvements. Short-cuts have been marked, as these provide a very obvious clue that the ‘official’ route choices aren’t safe or that a more direct route is available. Developed over time where it makes sense to go, short-cuts don’t usually go where it is obviously dangerous or clearly off limits, though they sometimes cross privately held lands.

Suggestions for improvement are shown at some locations. Some of the suggestions complement recommendations included in the 2005 ‘Integrated Parks, Trails and Open Space Plan’. Others may reinforce the need for improvements already planned and budgeted for. It is recognized that before any action can be taken on other recommendations further discussion with the City of Yellowknife, and in some cases private property owners, will need to take place.

HOT SPOT A.

This is a situation where it's very hard for cyclists to share the road and feel safe. The road is very busy and there are no legitimate alternate routes. There is gravel on shoulders, multiple turn-offs to big box stores, and a concrete barricade at the coop turn-off. There are no pedestrian facilities that can be shared if travelling with children. Large parking lots are another problem as bikes need to be able to get close to the front door and bike racks.

The automobile-centred nature of development in this area makes it very unfriendly to bikes and pedestrians. Only when you reach the laneway closest to buildings is it really safe to travel outside of a car. A suggestion for improvement is to create a pedestrian/bike alley through parking lots and along the building frontage – marked by planting or paving. This could be incorporated into zoning and development requirements. The Coop has set a good example by locating the bus stop in front of the store - maybe they would be willing to work on something for bikes as this parking lot is in a key location for connecting existing trails and popular routes.

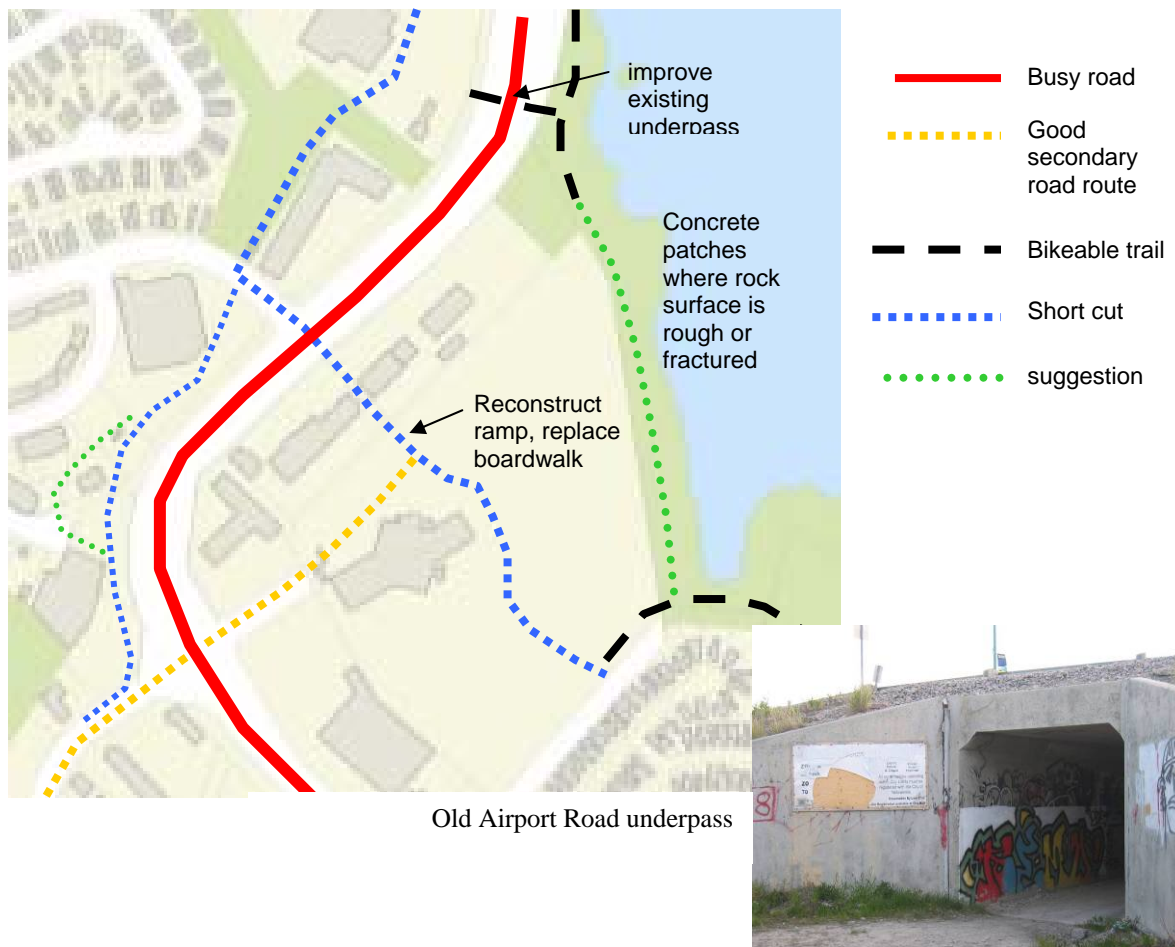


HOT SPOT B.

The shortcut behind the hospital provides an important connection that is well used by cyclists and pedestrians. But the boardwalk and ramp were really designed only for pedestrians. The institutional and commercial land-owners should be approached to secure rights-of-way and to have their assistance acknowledged so that work could be done to improve this connection. The parking lot crossing would also have to be made safe.

The Frame Lake trail is not bikeable along the entire length (and doesn't have to be) but the connection shown here could be made bikeable. Instead of a continuously paved surface, 'patching' rough or fractured rock surfaces with concrete would improve the trail for bikes, without sacrificing the natural character of the rock. It would also make the existing underpass a viable option for bikes (though it could stand some improvements).

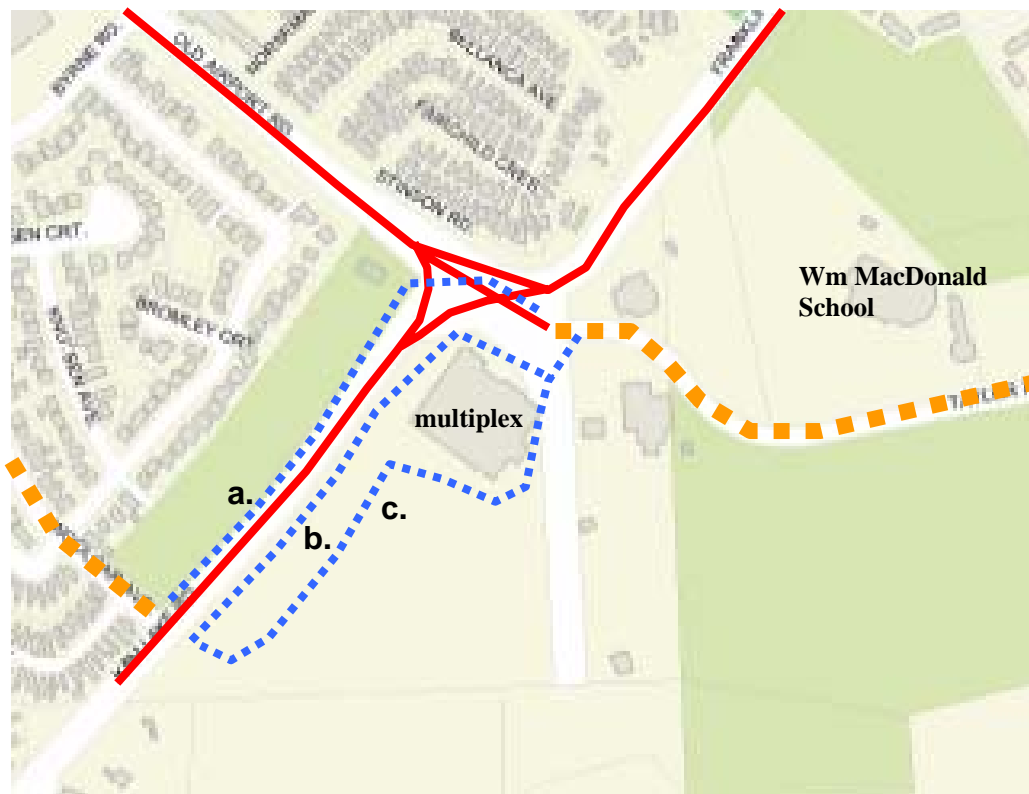
A multi-use sidewalk or trail along the busy road route could serve the needs of some cyclists, but will never create a route that feels safe for many.








HOT SPOT C.

Several different short-cuts through the multi-plex site are frequently used by cyclists, clearly indicating this is a better alternative than facing the traffic at the busy intersection. The need for connecting trails through the multi-plex site was identified in the Integrated Parks, Trails and Open Space Development Plan. A route suited to bicycle travel should be identified that facilitates the connection to Woolgar Avenue.

Allowing bikes to use the left turn at the City maintenance compound (currently restricted to City vehicles) should be considered. The 30 kmh school zone could also be extended to the main intersection to make this a safer option.

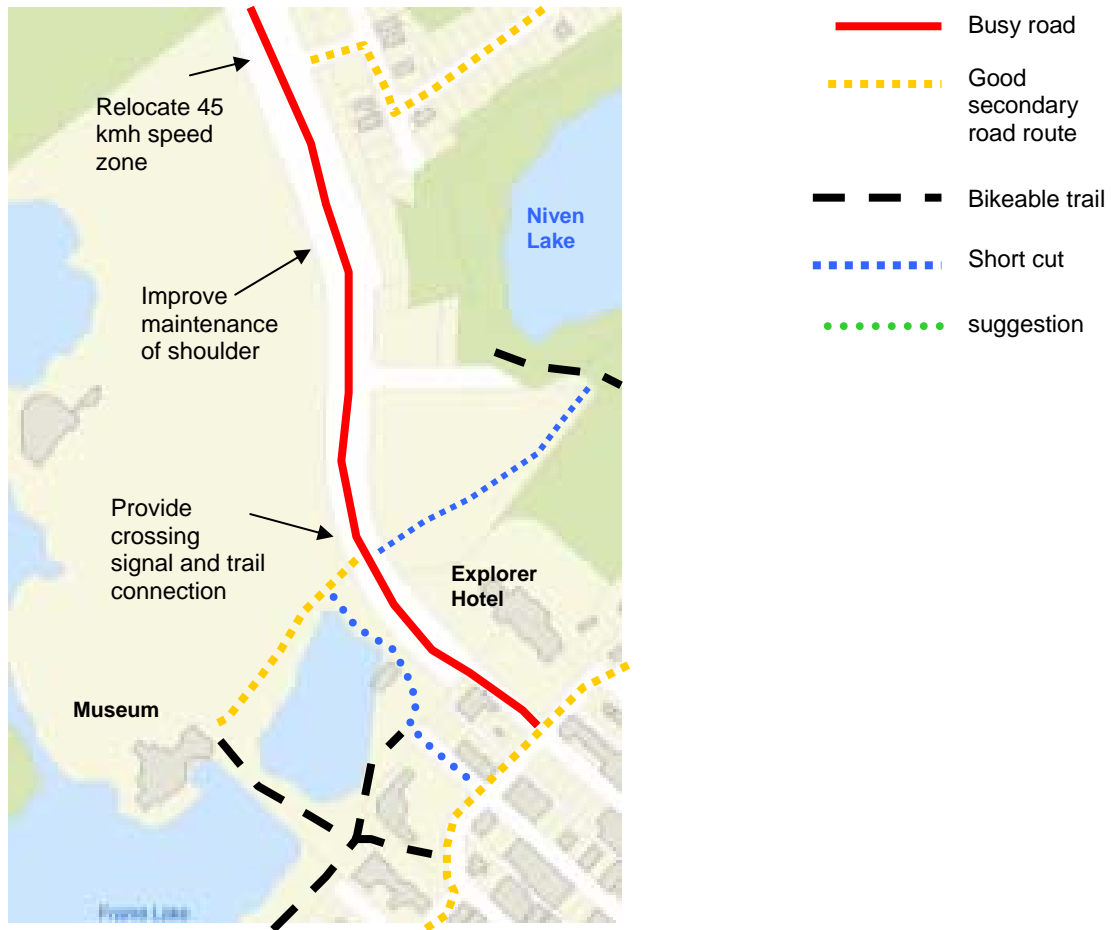


-  Busy road
-  Good secondary road route
-  Bikeable trail
-  Short cut
-  suggestion

HOT SPOT D.

Another location also identified in the Integrated Parks, Trails and Open Space Development Plan is the missing link between trails on either side of Highway 4 at the entrance to the city. A couple of immediate improvements would be to relocate the speed limit sign that currently changes from 45 kmh to 70 kmh, and to improve street sweeping so that the shoulder is safe for bikes to use.

A level crossing with flashing pedestrian/bike crossing lights that could be activated when required should be considered. The cost of underpasses, their inevitable gloominess, and the need to negotiate ramped approaches makes them an undesirable choice for many cyclists.



ADDITIONAL INFORMATION

Resources

A lot of information about cycling is available on the websites of other cities. From maps and safety brochures, to comprehensive plans, these resource materials demonstrate a commitment to active transportation that Ecology North's Transportation Issues Committee would like to see in Yellowknife.

City of Whitehorse commuter bike map rider tips and brochure	www.city.whitehorse.yk.ca
City of Saskatoon Comprehensive Bike Plan Share the Road brochure	www.city.saskatoon.sk.ca <i>go under 'Municipal Engineering'</i> <i>look for 'cycling and walking'</i>
City of Calgary Bike Calgary Big List of Links Bike Roots	www.calgary.ca www.bikecalgary.org www.CalgaryBikeRoots.org
City of Kelowna iGO Central Okanogan	www.city.kelowna.bc.ca
City of Toronto Shifting Gears bike plan	www.toronto.ca/cycling/bikeplan

While not strictly related to bike routes, the importance of good bike racks was raised over and over in the bike route workshop. Some clear recommendations for good bike racks that deserve mention are available on www.duq.ca.

Further Study

Some areas of the city did not receive much attention in this project – possibly because they are not problematic, or because people that use these areas did not participate. In particular the Frame Lake and Range Lake suburbs were not represented, and another effort to gather information from people living in this area should be made.

A better understanding of bike use and potential improvements would be gained by a summer study when the maximum numbers of cyclists are out. Observation studies and on-site surveys would allow better information to be gathered.

- Other suggestions that were received, that were not specific to cycling as transportation within the city, but indicated an interest in improving the Ingraham Trail and Hwy 3 for cycling, and improving trails and sidewalks in the city for rollerblading.

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