

## part a

### raising awareness

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Kim Hendess



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This section is based on BEST's offramp workbook for secondary schools by Arthur Orsini.

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*For thousands of years streets have served two purposes. They were a space for people to move and an 'outdoor living room' for spontaneous social, cultural, and economic activity.*

”

*-David Engwicht,  
[www.playforchange.com](http://www.playforchange.com)*

## why do we need to reclaim our streets?

Our streets are the lifelines of our communities. More than just thoroughfares, they are extensions of our homes – the common spaces where neighbours chat, paths cross, and children play. At least that’s the way it should be ... but all too often, streets mean just one thing: traffic. Speeding cars, commuters short-cutting through neighbourhoods, unsafe crossings, asphalt everywhere. We’ve come to use cars a lot and our cities have been re-designed to accommodate them. In this section we’ll look at what impact this has, and why we need to do something about it.

Of course, cars are part of city life. They provide mobility and independence. But when automobiles dominate the landscape, everyone suffers. Residential streets are not intended to carry high volumes of traffic, nor cars travelling at high speeds. As daily traffic congestion spills over into residential areas, our neighbourhoods become dangerous and unpleasant places to live.

## we’ve let cars take over

In the past decade, many North American cities have experienced unprecedented levels of air pollution, with air that is often unsafe to breathe, especially for elderly people and children.

Our communities are being built so that walking or cycling are no longer the most common ways to get around to do our day-to-day activities. In catering to the needs of cars and drivers, we’ve made it harder for people to get around without a car, and we’ve made streets less safe for pedestrians, cyclists, and drivers.

Dedicating so much of our land to roads and parking has been costly. We all pay for the construction, the traffic services, law enforcement, lost farmland, and pollution whether or not we drive a car. What’s more, the personal cost of buying a car, insurance, maintenance and repairs is costing each of us more than we recognize.

But one of the worst parts of the problem is that we’re degrading the quality of life of our neighbourhoods and losing streets as common spaces in which to play, connect with neighbours, and engage in social, cultural, and economic activities. This is what street reclaiming aims to address.

### startling stats

In Canada, 5,000 people die prematurely every year as a result of air pollution.

*www.davidsuzuki.org*

Two-thirds of children and youth are not active enough to lay a solid foundation for health and well being.

Catherine O'Brian, Ph.D.: Children's Health and Transportation

Automobile crashes kill more young people in British Columbia than the next four causes of death combined.

*BC Children's Commission, 2002*

More than 3 vehicles are added to Greater Vancouver's road system every hour – or about 63 new cars per day.

*TransLink, Greater Vancouver Regional Traffic Growth Trends, 2000*

From 1996 to 1999, traffic volumes grew twice as fast as our population.

*TransLink, Greater Vancouver Regional Traffic Growth Trends, 2000*



## there goes the neighbourhood...

... a look at how the layout of a community influences how much we end up driving

### streets as outdoor living rooms <sup>1</sup>

Who can remember playing street hockey as a kid, yelling "car!" and moving the game aside for patient motorists to pass? Or children selling lemonade, and adults stopping to gossip or exchange the latest tips on home renovations and gardening? Nowadays, these are becoming rare occurrences in many neighbourhoods, as traffic increases and children are no longer allowed to play in the streets.

With fewer people and activities in the street, cars are free to drive faster. And as it becomes increasingly intimidating to be in the street, people shift their activities to their front yards or living rooms, and even cars are parked in driveways instead of on the street. Traffic speeds and volumes increase even more. Many streets now seem unsafe for children to even walk or cycle, and the majority of people in North America grow up making most of their trips by car.

So we've lost a sense of safety in our streets, a sense of community, and a place to play and interact with neighbours.

## eroding our sense of place

Traffic erodes our sense of place, and with it a sense of personal identity with our surroundings. Excessive traffic removes a feeling that our neighbourhood is our home territory. In his book, *Street Reclaiming: Creating Livable Streets and Vibrant Communities*, David Engwicht discusses the importance of the “home territory tradition” - a sense of place that is shared by a community and gives it a sense of identity.

The loss of home territory was illustrated by a study conducted in 1970 by Donald Appleyard. This study showed the impact of traffic on a neighbourhood’s sense of community and home territory - the results of his comparisons of three similarly designed streets are illustrated by the image below.<sup>2</sup> Residents who live on the “heavy traffic” street have fewer friends or acquaintances among their neighbours, and their sense of “home territory” is much smaller than those on the “light traffic” street. Traffic pushes these residents into the backs of their homes, while those on “light traffic” street claim the whole block as their home.

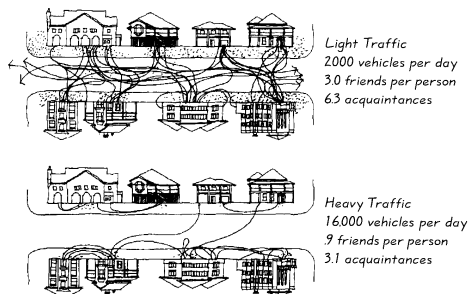


Fig. 1.1. Lines show where people said they had friends or acquaintances. (Adapted from D. Appleyard, *Livable Streets*.)

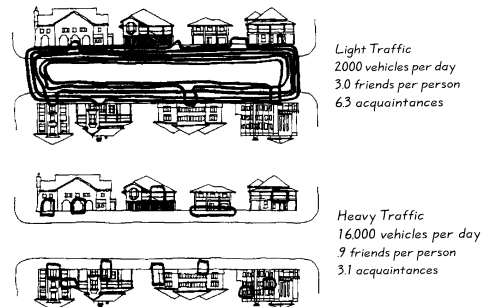


Fig. 1.2. Lines show areas people considered to be their 'home territory'. (Adapted from D. Appleyard, *Livable Streets*.)

## growing up or out?

As we’ve built more sprawling cities, with basic needs such as shopping, entertainment, and employment centers further and further apart, streets have become designed as places to drive, not to walk. Cities are a place for shopping, working, looking, meeting people and hanging out. All through our history (since we gave up hunting and gathering), people have had the tendency to create neighbourhoods where they can be close to one another and their daily needs. Before we began building massive parking lots and freeways, cities were compact and centralized – built to be people-friendly.

## expensive free parking

Parking lots are never free. They have construction and maintenance costs that we all pay for. They are often paved overtop of green fields. And shopping malls and big-box stores have set aside an enormous percentage of their property for 'free' parking. We all chip in for the parking – we just don't see it itemized on our receipts.

Expensive free parking is one way that we are making it harder for people to get around without a car. Many new communities are made with wide roads and ample parking surrounding the shops. All this extra 'car' space makes the walk across the parking longer and more dangerous.

not only in Toontown...

D: "...a construction plan of epic proportions! They're calling it a freeway. ...Eight lanes of shimmering cement running from here to Pasadena. Smooth, safe, fast. Traffic jams will be a thing of the past.

D: "I see a place where people get on and off the freeway, on and off, off and on the freeway all day and all night. Soon where Toontown once stood will be a string of gas stations, inexpensive motels, restaurants that serve rapidly prepared food, tire salons, auto dealerships and wonderful, wonderful billboards reaching as far as the eye can see. (pause) My God, it'll be beautiful!"

V: "Who's going to drive this lousy freeway when they can ride the Red Car (streetcar) for a nickel?"

D: "Oh they'll drive. They'll have to. You see I bought the Red Car so I could dismantle it."

-Judge Doom talking to Eddie Valiant in the film Who Framed Roger Rabbit, screenplay by Jeffrey Price & Peter Seaman

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*Excessive traffic, and the loss of our streets as outdoor living rooms, has resulted in the loss of many elements necessary for personal development and for the creation of a rich, diverse community life. Street reclaiming is therefore more than simply trying to reduce traffic levels. It is a process of reclaiming the street for life-enhancing activities.*

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*www.lesstraffic.com  
Foundation Principles*

## car sick

...how a neighbourhood overrun by cars can be hazardous to your health

### air hazards

The fossil fuels that burn in our automobiles generate air pollution that affects our respiratory system. Auto emissions are a cause of impaired lung function, shortness of breath, wheezing and asthma attacks that can lead to death. In Canada, about 16,000 deaths per year are related to urban air pollution.

Although governments have set acceptable standards for air quality, there are no 'safe' levels. In fact, the cumulative effects of day-to-day pollutants may be worse than short-term bouts of high pollution levels. A national study of 11 Canadian cities determined that 5 000 people per year died prematurely as a result of air pollution. In Canada, 1 of every 12 non-accidental deaths is likely responsible due to air pollutants.



Tyler P

### endangering our most precious asset

One of the most vulnerable groups to the effects of air pollution is our children. Research has shown dramatic increases in the hospitalization of young children for asthma. Physically and anatomically they are at a greater risk than adults. They are more sensitive to air-borne pollutants and they breathe in more air per kilogram than most adults. Moreover, children's activities may have them outside at times when pollutants are at a maximum.

We are also raising our children to have increasingly inactive lifestyles, as we drive them most places they need to go. A recent study determined that two thirds of children and youth are not active enough to lay a solid foundation for health and well being. <sup>3</sup>

### road safety

Car crashes are the leading cause of death and injury for youth in British Columbia – higher than the next four causes combined. In 2001, 77 youths (ages 13-21) were killed and 10, 328 youths were injured in car crashes. <sup>4</sup>

## ten top causes of death and disability

The Harvard School of Public Health predicts that, worldwide, deaths due to traffic accidents will jump from the 9th leading cause of death and disability to the third.

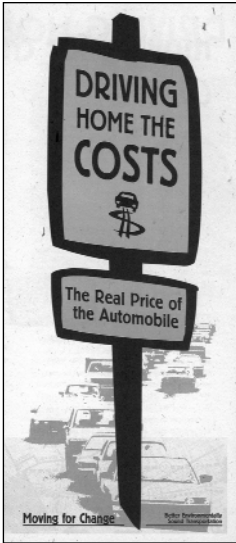
	1990	predicted for 2020
1	Respiratory Infections	Heart Disease
2	Diarrheal Diseases	Severe Depression
3	Complications of Birth	<b>Traffic Accidents</b>
4	Severe Depression	Stroke
5	Heart Disease	Chronic Pulmonary Disease
6	Stroke	Respiratory Infections
7	Tuberculosis	Tuberculosis
8	Measles	War Injuries
9	<b>Traffic Accidents</b>	Diarrheal Diseases
10	Congenital Anomalies	HIV/AIDS

Most car collisions are the result of driving without due care and attention. Wide streets with multiple lanes accommodate and in fact encourage high driving speeds. Road racing is an increasing concern, and road rage creates dangerous situations on neighbourhood streets. More cars, travelling more kilometres, is leading to a growing concern for the safety of pedestrians and cyclists in our neighbourhoods.

## a techno-fix is not enough

Alternative fuel technology is only part of the solution. The production of hydrogen and electricity requires energy, so the term “zero-emission” technology is a little misleading. And using low-emission fuel technology does not address concerns such as paving valuable land, inactive lifestyles, and impacts of excessive traffic. Problems such as sprawling land use and automobile-oriented design of our neighbourhoods must be addressed through other means than simply “re-fueling” our cars.





available from BEST  
[www.best.bc.ca](http://www.best.bc.ca)  
click resources - brochures.

See also: [www.caa.ca](http://www.caa.ca)  
annual automotive driving  
costs brochure

## the real costs of the car

...a look beyond the price tag to see how much cars cost us all, and where else that money could be spent

### personal costs – up front

The average car owner spends \$8,400 per year on their car.<sup>5</sup> That includes insurance, license, registration, depreciation and financing as well as some variable costs like gas, oil, maintenance and tires. This amount works out to about 20% (1 out of 5 workdays) of an average household income. But for young, single, or retired people this amount can be more like 40% of their income.

### personal costs – surprises

For many people, buying a car can become the most likely reason to fall into debt. Judging from the 'low' advertised monthly payments, many car owners underestimate the complete cost of owning and maintaining an automobile. This leaves little spare funds for accidents that might happen and the resulting increase of 30% in insurance rates. Whether or not you do have an accident, there is always the chance and cost of unexpected repairs.

### society's hidden costs - subsidies

Each car-owner's expense of \$8,400 does not include an estimated public subsidy of \$2,700 per vehicle in road construction, parking, accidents and protection services.<sup>6</sup> So, the true price of a car includes both figures – \$11,000 a year. In Greater Vancouver, that subsidy amounts to \$2.7 billion a year, paid by taxpayers. Furthermore, employers bear significant costs in providing parking for employees, and in lost productivity and morale due to road frustrations and other automobile-related illness.



## the automobile and planet earth

...a look at the high priority we've given to the automobile

### driving is affecting our environment

The large number of cars we drive has demanded more and more roads. Expensive highways and wide freeways lead further out into communities on cheaper land. Roads and lower housing prices have encouraged more and more people to live further out from the city that they rely on and use their car for most daily needs. Low population densities don't warrant transit services, and cars are used for just about every trip or errand we make. This perceived 'cheaper', more convenient lifestyle is costing the planet a bundle: the health of the earth.

Our expanding road network and increasing number of car trips affect the ecosystem in many ways:

- Urban runoff: almost half of all cars leak hazardous fluids such as anti-freeze, transmission fluid, motor oil, and hydraulic fluid. This toxic runoff washes down storm drains, poisoning fishbearing streams and agricultural soil.
- Energy consumption: road transportation consumed approximately 71 % of all energy used in the transportation sector in Canada, and approximately 76% in the United States.
- Paving green space: up to 42% of the valuable Greater Vancouver area has been paved over into roads, driveways and parking spaces. Between 1971 and 2001, twelve thousand square kilometres of land in Canada was converted to urban uses - equivalent to twice the size of Prince Edward Island.
- Automotive waste: only 18% of used tires are re-used; 62% are simply discarded into landfills. Every year in Canada, 19.5 million tires are thrown into landfills. Non-metallic car components such as plastics, fluids, and rubber compose 25% of every vehicle and are very difficult to recycle.
- Air pollution: air pollution creates smog, causing respiratory and cardiovascular problems.
- Noise pollution: cars are the major cause of ambient noise in cities. The total property values lost to noise add up to \$60.48 million per year in

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*The popularity of sports utility vehicles, trucks and minivans, which now account for 50 per cent of new vehicles sales, has had a highly negative impact on average fuel efficiency.*

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*[www.davidsuzuki.org/  
Climate\\_Change/Solutions/  
Transportation](http://www.davidsuzuki.org/Climate_Change/Solutions/Transportation)*

*2003*

### Greater Vancouver

- Harm to wildlife: countless plants and animals suffer illness or death due to being hit by cars, loss of habitat, and pollution of food, air, and water sources.

### paving over the food on our plates

In every earlier civilization, agricultural lands have been treated as an important resource. Now, as we deal with an increasing population, agriculture and human settlements are competing for a very limited supply of arable land in North America. Between 1981 and 1986, prime agricultural land accounted for 59% of all land in Canada that had been converted to urban uses.<sup>7</sup> This increasing urbanization means less green space and food production in our cities and neighbourhoods, and less access to fresh, local food.



Arthur Orsini

### smog

Smog, or more precisely, photochemical smog, occurs in the lower portion of our atmosphere. It can be seen in practically every urban or industrialized area and, in Canada, the worst smog problems exist along the Windsor-Quebec City corridor. Those conditions are a combination of automobile emissions and heavy industry on both sides of the Great Lakes. In the Greater Vancouver region, with the second worst problems in the country, cars are the most significant contributors to smog.

### climate change

The average weather around the planet is changing. This is not new – but the global climate change taking place today is happening faster than ever before. The 11 hottest years on record have occurred since 1982 and some studies suggest that 1998 was the hottest year in the past 600 years.<sup>8</sup>

Transportation is the single largest source of greenhouse gas (GHG) emissions in Canada, accounting for 25 per cent of the total. Americans are the leading global per capita producer of greenhouse gas emissions due to automobile use, and Canadians are second.<sup>9</sup>

Climate change isn't just about "global warming". It is causing an increase in the frequency and severity of strange weather patterns and disasters such as hurricanes, ice storms, and droughts. Around the world, climate change is projected to:

- threaten forests with pest infestation, vulnerability to diseases, fire risk, competition from migrant species;
- alter water supply & increase human need for water;
- raise the sea level, causing floods, loss of coastal land, altered harbour dredge-ways and channels;
- increase ocean temperature, affecting growth rate, sexual maturity and distribution of fish species;
- encourage the movement of tropical diseases such as malaria northward, where populations have little or no immunity;
- change our ability to grow food adding costly changes to current farming methods;
- affect human health from frequent heat waves and filthy urban air;
- melt the Arctic permafrost causing landslides and problems for the maintenance of pipelines, roads, bridges and railways;
- the list goes on...

## neighbourhood solutions

...why we all need to be part of the solution

So, people are driving further distances more often to go more places. And this is having increasingly negative impacts on health, neighbourhood livability, personal safety, access to basic needs, and the environment. These impacts are being felt broadly – from the global scale of climate change to the sense of security you feel when you walk out your front door.

These problems may seem overwhelming and out of our control. But we can all make a difference in our own lives and in our communities, with our choices about where we live, shop, and play, how we get around, and how we interact with one another in our streets.

*Find out how many tonnes of greenhouse emissions you typically generate in a year. Is it lower than our provincial average?*

*climate change calculator  
<http://www.climcalc.net>*

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*We need to create places not just to walk, but to live with civility, pride and passion and to celebrate urban life.*

*Every trip begins and ends with walking.*

”

*-Dan Burden  
www.walkable.org*

### car problems

It's worth noting that the car itself is not the problem. The problem is our habit of owning big cars and using them for three-quarters of our trip. The problem is our habit of building more and wider roads to solve traffic congestion. And the problem is our tendency to value the mobility of cars more than the safety and comfort of people on neighbourhood streets.

### choosing mixed use

Mixed-use communities bring together different housing types around shopping, employment, school, and play. They meet the needs of different people with a variety of housing (types, sizes and price tags), services, workplaces, public buildings, shops, and entertainment nearby.

People living and working in a mixed-use community generate a steady flow of pedestrians and transit users to support local shops and services. They live, work, shop, play and go to school near to each other and they can (and generally do) walk to more places than they drive.

### choosing walkable communities

Walkable communities provide people with an environment in which they feel comfortable and welcome. Wide sidewalks, crosswalks, storefronts facing the street, street banners, and planters all create an atmosphere that welcomes people to walk, cycle, or enjoy the scene.

Walkable and transit-oriented communities are important for meeting the needs of people and families of all types and ages. Pleasant places to walk and a variety of transportation choices encourage young people to develop active lifestyles, adults to remain fit, and aging people to maintain a good quality of life.

## reducing car use

Because so many things in our life rely on fossil fuel energy, reducing our dependency won't be easy. But every day we have an opportunity to lessen our contribution to climate change by traveling on foot, cycling, taking transit or hopping into a carpool. The more we recognize the links between our driving habits and their environmental impacts, the better off we will all be.

Buying smaller, more fuel efficient vehicles can also minimize the impact of the cars we do drive. Driving 10km/hr slower saves 10% on fuel costs and cuts emissions. And keeping car tires fully inflated reduces fuel consumption by 8%.

### adopt the 'Five Rs' of traffic reduction:

#### REPLACE car trips:

- Walk, cycle, and/or take public transit instead.
- Walk your children to school, and start a Walking School Bus for their schoolmates. (see Resources section for school programs)

#### REMOVE unnecessary trips:

- Save and combine trips
- Share rides or car pool
- Telecommute or work from home

#### REDUCE trip lengths:

- Shop locally. Try to meet most of your shopping needs within walking distance.
- Live locally. Try to focus your social and recreational activities close to home.
- Work locally. Living close to work isn't possible for everyone, but less commuting time means a healthier and less stressful lifestyle.





[www.lesstraffic.com](http://www.lesstraffic.com)

### REUSE street space

- Reclaim streets for social and cultural activities – hold a block party!
- Share street space with cyclists, walkers, in-line skaters, and scooters.
- Encourage the introduction of cycling paths and routes in your area.
- Work with local authorities to create more vibrant local neighbourhoods through mixed-use planning (where you can live, work, shop, and play in the same neighbourhood).

### RECIPROCATE – set up community solutions that benefit others.

Start or join a:

- Car share club
- Walking School Bus
- Local incentive schemes like a discount for cyclists at local businesses
- Universal Transit Pass
- Traffic Reduction Treaty for your street or neighbourhood (see [www.lesstraffic.com](http://www.lesstraffic.com))

### reclaiming our streets

Perhaps the easiest way to be part of the solution is in how we perceive and make use of the public spaces that are our streets. By taking simple actions in our own streets, we can re-establish the value of walking, cycling, and chatting with neighbours in the street, and having a neighbourhood free of excessive and speeding traffic. By creating a unique and friendly environment in your street, you can actually slow traffic down, and remind car drivers that they are travelling through a neighbourhood.

Reclaiming the traditional role of the street, a sense of community, and the ability to use street space for activities other than driving, is a powerful way to

be part of the solution. It's certainly not the only solution, but it is an inspiring and fun way that each of us can be involved in re-creating the kinds of communities we want to live in.

The rest of this guide describes principals of street reclaiming and provides you with the tools and inspiration to get out, be part of the solution, and reclaim your street!

#### **resources used in this section**

1. David Engwicht: [www.playforchange.com](http://www.playforchange.com)
2. *Street Reclaiming: Creating Livable Streets and Vibrant Communities* by David Engwicht, New Society Publishers 1999; p.14
3. Catherine O'Brian, Ph.D.: Children's Health and Transportation
4. [www.icbc.com](http://www.icbc.com)
5. [www.caa.ca](http://www.caa.ca)
6. based on information calculated for Greater Vancouver, Transport 2021 Long-range and Medium Range Plans, GVRD, 1993
7. [www.greenontario.org](http://www.greenontario.org)
8. [www.davidsuzuki.org](http://www.davidsuzuki.org)
9. Transport Canada:  
[www.tc.gc.ca/programs/environment/climatechange](http://www.tc.gc.ca/programs/environment/climatechange)

#### **for more information, check out:**

[www.best.bc.ca/resources/brochures.html](http://www.best.bc.ca/resources/brochures.html)

[www.davidsuzuki.org/climate/index.html](http://www.davidsuzuki.org/climate/index.html)

[www.aircare.ca](http://www.aircare.ca)

[www.smartgrowth.bc.ca](http://www.smartgrowth.bc.ca)

[www.ec.gc.ca/climate/fact/science.html](http://www.ec.gc.ca/climate/fact/science.html)

<http://climatechange.gc.ca/english/html/index.html>

