

7. Providing for children and youth as pedestrians

Guideline 4. Identify where children and youth want to go or need to go and, to the extent possible, provide ways of getting there by foot.

Travel by foot should be the priority for children and youth who can walk. Walking can provide the maximum of exercise for the minimum financial outlay. Walkers encounter their surroundings and other people at a pace that facilitates beneficial contact. Walkers inhabit sidewalks and other paths in ways that add to the safety of other walkers. Similar considerations apply to children and youth who use wheelchairs. (Consideration of children and youth as cyclists is addressed in Guidelines 8-11.)



The travel patterns of children and youth can be identified by observation, by questioning them, and by questioning their parents and other household members. Such interventions have to be carried out with proper preparation and great care because of sensitivities about observing children and asking questions about them. In many cases, especially for school-related trips, the cooperation of schools could be a key factor. (See Box 3.)

Once travel patterns have been identified, each route should be assessed as to the degree it provides continuous pedestrian access:

- Are there sidewalks or off-road paths for the whole route?
- Can sidewalks or paths be installed where there are none?
- Are there pedestrian crossings or traffic signals at road crossings, however minor, or could they be installed?
- Do wide roads have two-stage crossings, with a protected island between traffic streams?

Of course, when new residential communities are being planned, there are no children to observe or household members to ask questions of. Experience with existing communities has to be applied. Destinations have to be presumed and routes figured out. The

Box 3. Registering 'children's tracks', Vestfold County Council, Norway⁷⁹

This local government incorporates information from children in its land-use planning. The phrase 'children's tracks' is analogous to 'game tracks', also used in county planning. With parental approval, groups of children aged 8-13 plot their own tracks while at school, under the guidance of planning officials. The results are used to assess need and identify locations for numerous facilities. Plans that do not make use of children's tracks and other information about the needs of children and young people are likely to be returned for further work.

checklist above may be helpful. After occupation, the new neighbourhood can be assessed using input from residents.

A Swedish study explored the use of geographic information systems (GIS) to facilitate incorporation of the travel patterns and destinations of young people in urban planning. “Our findings suggest that GIS is effective in engaging children and a good tool for accumulating and processing children's knowledge about their environment. Students and teachers can use it with a reasonable investment of time. The results also suggested that the method could lead to trustworthy and meaningful information for improved traffic safety in children's local environments.”⁸⁰

Guideline 5. Assess pedestrian routes used or to be used by children and youth to ensure that they are as safe and suitable for them as possible.

Availability of a route does not ensure its suitability for children. How suitable it is can be determined by walking or wheeling a child through the route or walking with a person who is wheeling a stroller. Here are some questions to be asked:

- Is the route clear to a child, including which part of the path is to be used?
- Are signs visible to, say, a nine-year-old child?
- At road crossings, is the pedestrian crossing area maintained at the same grade as the sidewalk, i.e., vehicles use ramps, not pedestrians?
- Where there are changes in grade, as at curbs, are there ramps for strollers and other aids used on sidewalks?
- Are motorized vehicles prohibited on the route's paths, trails and sidewalks?

The special problems posed by icy and snowy paths are addressed in Guideline 7 below.

In terms of the safety of young people as pedestrians, the primary danger is usually from road traffic, as discussed in Section 3.3. There can be heightened concerns about danger from strangers and, in some places, danger due to the nature of the terrain and other features of the route. Here are some questions:



- Are walking routes separated from traffic moving faster than about 30 kilometres/hour (see Guideline 6 and Guideline 18 below)?
- Where walking routes must be close to traffic, can traffic speeds be reduced to safer levels for children and other pedestrians?
- Are pedestrian crossings fully visible to drivers with clear advanced signage?
- Are road crossings supervised during high traffic times, particularly on routes to school?
- Are there ‘eyes’ on the route; i.e., it is well travelled, or does it pass through places where people are watching who walks or wheels by?
- Are there places along the route, e.g., variety stores, where children could take refuge if they feel in danger?
- Are dangerous areas well fenced, e.g., construction sites, slopes, and bodies of water?
- Are walking routes illuminated for use during hours of darkness?

Manitoba’s Active & Safe Routes to School program promotes ‘Neighbourhood Walkabouts’ to identify problems and solutions concerning trips to and from school.⁸¹

As well as safety from traffic and strangers, there is also concern about pollution from nearby traffic, also addressed in Guideline 6.

Guideline 6. Separate sidewalks used by children and youth from heavily travelled roads.

The obvious reasons to keep young people away from road traffic and other motorized vehicles is to avoid injury. Less obvious reasons are to reduce their exposure to noise, which may be harmful (see Section 3.5 above) and to the high levels of pollution that may exist near traffic.

Information in Section 3.2 above suggests that atmospheric concentrations of harmful vehicle emissions can be higher in the breathing spaces of pedestrians on sidewalks than elsewhere, particularly in heavy traffic, and particularly when passing or idling vehicles have curbside tailpipes. The breathing spaces of walking children or children in strollers may be especially heavily polluted because of their proximity to the vehicle tailpipes. Here are some questions:

- Where heavily travelled roads must be used—for example, because children’s destinations are located on them—are sidewalks wide enough to avoid proximity to heavy traffic?

- In new development and perhaps elsewhere, could sidewalks be separated from traffic by at least three metres, to avoid high concentrations of vehicle-related pollution?
- In other cases, would it be feasible to consider directing the operation of vehicles with curbside tailpipes away from curbside lanes where there are heavily used sidewalks?

On the last point, the ideal solution would be for manufacturers to locate tailpipes on the offside of the vehicle, i.e., away from the curb, which should be considered. However, the majority of vehicles on the road today appear to have nearside tailpipes, and most of these vehicles will be around for many years. Because sidewalk pollution can be extraordinarily high in the vicinity of nearside tailpipes,⁸² action to separate sidewalks from such traffic may be especially important.

An additional point is that buffering against traffic should not become barriers to pedestrians, for example, preventing them from crossing roads at the best possible places.

Guideline 7. Ensure that sidewalks are always cleared of ice and snow.

It's hard to push a stroller or wheelchair through uncleared snow or on an icy sidewalk, or to expect a toddler or even a slightly older child to walk there. Thus, car journeys may be made in winter on days when walking would be possible if paths were cleared.

If accommodation of young children's needs were to have a higher priority, snow- and ice-clearing from sidewalks, trails and other paths might be given a higher priority in the setting of municipal budgets. Where sidewalk clearing is the responsibility of adjacent property owners, there could be more diligent enforcement of relevant by-laws. (See Box 4.) It wouldn't be only young children and their caregivers who would benefit. Elderly people and others who may have mobility challenges could benefit even more from proper removal of snow and ice.

Box 4. Snow-clearing helps Duluth, Minnesota, win award⁸³

Walking magazine nominated Duluth as one of "America's best walking communities" in 2000, partly on account of how well sidewalks are cleared of snow. Here's the citation: "Residents here don't let the winter ice and snow keep them from walking. Downtown has a heated skywalk system. City ordinances require residents to quickly remove snow from their sidewalks, while the city takes care of public byways and the three-mile lakeshore walk. Along the scenic Skyline Drive walkway, snowshoes and cross-country skis help people exercise all winter. The city is pursuing a plan to connect all its trails."