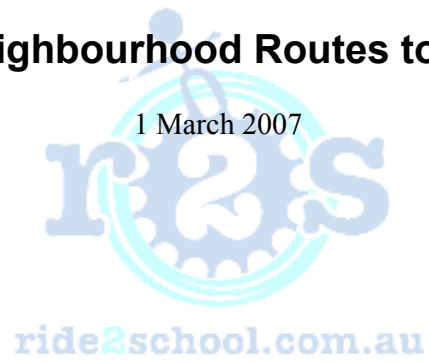




Quiet Neighbourhood Routes to Schools

1 March 2007



Quiet Neighbourhood Routes

The Ride2School program has identified a number of barriers that stand in the way of more children walking and riding to school.

One of those barriers is a perception by some parents that traffic makes it too dangerous for their children to travel to school by any other means than car.

To overcome this perceived (and sometimes actual) barrier and increase the momentum behind the movement towards active transport, we are encouraging the development of Quiet Neighbourhood Routes that students can use to ride or walk.

Quiet neighbourhood routes use footpaths and off road trails as the students will be walking and riding sometimes accompanied by adults with baby pushers. On road routes will supplement the quiet neighbourhood routes from time to time.

The quiet neighbourhood routes process is in two parts: identification and development.

Identification of the Quiet Neighbourhood Routes is based on factors such as:

- the catchment of the school
- 'Lines of desire' and directness
- Observations
- Existing pedestrian and cycling infrastructure
- Ambient traffic speeds and volumes

The routes are developed along desire lines and are enhanced so that the walking and riding trips are concentrated along the intended routes.

The development of the routes draws on standard traffic engineering practice and in particular from a toolbox of measures that have been used and shown to be effective.

Successful quiet neighbourhood routes will:

- Attract high usage
- Have a lower risk of collision with motor vehicles and
- Be perceived as 'safer'.

The community perception of 'safety' around walking and riding to school is an amalgam of sound risk assessment and fear. Possible severe events such as collisions are combined with fears of kidnapping for example that are possible and severe but unlikely.

The routes tackle both of these issues. First the routes are developed to reduce actual risk so that all stakeholders can be confident in supporting walking and riding to a particular school. Improving routes is more cost effective than dispersing road safety improvements across the whole school catchment. Second the attractive and developed quiet neighbourhood routes attract a high number of students. High usage goes a long way to meeting some of the perceived but unlikely risks such as kidnapping.

Social outcomes from developing quiet neighbourhood routes

- **Consideration**
The development of the routes is done in a participatory style involving students, parents, school staff and municipal officers. This discussion enables some to consider walking and riding for the first time.
- **Quieter alternatives**
Many parents do not realise that the best route to ride or walk is likely to be different from the best route to drive. The routes do not always follow the motor vehicle routes and ideally will have lower ambient traffic volumes and speeds. This can make the routes objectively and perceptually safer and allow some to consider supporting walking and riding.
- **Distance perception**
Few realise how near most students live to school. The perceived distance is reduced by identifying routes and then publishing distance and travel times.
- **Build confidence**
Once identified, and as they are developed, the routes allow more and more parents to feel confident that their child can ride or walk to school.
- **Navigation**
The routes can be signed either permanently, or temporarily on Ride2School Day, to help children find their way easily. Children who have been 'taxied' around have poor navigation skills. Signing the routes helps them and removes a concern of some parents.
- **Increase passive surveillance**
As the routes are populated with young cyclists, scooter riders, and pedestrians, as well as their parents, passive surveillance increases. This helps parents overcome the fear of Stranger Danger – another barrier to participation.
- **Recommendation**
The routes allow schools and others to recommend a route with confidence.

Route development methodology

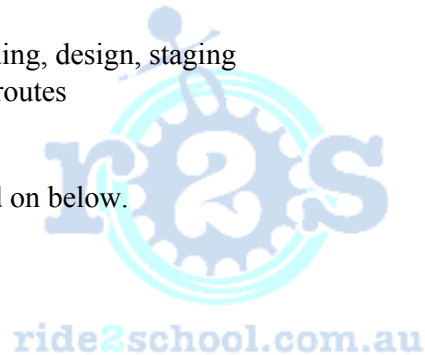
Route development takes the following steps:

1. Identify catchments
 - Identify the student catchment
 - Identify the route boundaries

2. Identify the quiet neighbourhood route network
 - Identify main gate and main crossing options
 - Identify potential routes (streets and shared paths)
 - Identify features that will support the routes (pedestrian crossings etc).
 - Identify trailheads
 - Confirm proposed network with stakeholders

3. Implementation
 - Choose measures from the toolbox to enhance the routes
 - Confirm measures on those routes with local government authority and VicRoads
 - Costing, Funding, design, staging
 - Prioritise the routes
 - Construction

These steps are expanded on below.



1. Identify the student catchment and route boundaries

The GIS Dot Map identifies where the students live

The catchment is identified by mapping enrolled student addresses on a GIS map of the neighbourhood. Route development is based on the spread and direction of the student catchment. There are two key criteria:

- **Direction:** The development of the routes will be weighted to the areas that will allow the routes to serve the most students in the shortest distance.
- **Distance:** The length of the routes will be decided by the spread of the catchment.

Arterial roads and other features will define the boundaries of the quiet neighbourhood routes

Other features that define the boundaries might include public transport stops or stations as well as barriers such as rivers and freeways.

The start of the route will be defined by a trailhead and students who live beyond the route boundaries will make their way to the trailheads.

Most routes will be around one kilometre long as the majority of students live less than three kilometres from their primary school, and many live less than one kilometre.

The routes will be treated both on the roads and on footpaths.

The treatments will be more frequent and intensive closer to the school and where routes join. The treatments will be less intense the further the route is from the school and the fewer students who might use it.

The trailhead marks the end of the route development.

The trailheads can also become places for parental drop-offs.

2. Identify the quiet neighbourhood route network

Inside the route boundaries route identification results from an iterative process that considers the following features and how they relate to each other.

Define the main walking and riding gate

The school is asked to identify a preferred entrance or entrances to the school. There will be a number of considerations the school will bring to this choice. From a walking and riding point of view they will consider:

- Location of the bike shed
- The location that most favours the catchment.

A new gate may have to be installed to optimise walking and riding. A school may need two 'main' walking and riding gates.

Identify the main crossing

The main crossing will be at the main gate. Ideally this crossing will be supported by engineering measures on a continuum from speed restrictions and staffed school crossings up to pedestrian signals or road closures.

New measures may have to be considered to support walking and riding across the main crossing.

Trailheads

Trailheads are sited on the route boundaries. From these locations the neighbourhood routes head directly towards the school.

Ideally trailheads are features such as pedestrian crossings, bridges, overpasses and other facilitators of walking and riding.

Sometimes the trailhead will be a location on the route boundary.

These trailheads represent sites where students who do live further out can be dropped off by their parents, either on foot or bike, or if need be, by car. From these trailheads students will be able to travel safely with fellow students and families utilising the designated route.

The routes in detail

Direct routes are then identified which will serve the student catchment.

These are then prioritised with those that tap the most productive parts of the catchment given the highest priority.

Wherever possible the identified routes utilise pedestrian signals, school crossings, pedestrian underpasses, existing "Safe Routes to School" infrastructure and so on.

The routes are then audited and any barriers are identified. These barriers may include:

- Absence of pram ramps
- Obstructions in the path
- Uncontrolled crossings

Measures to improve the route are proposed from the walking and riding to school toolbox of standard traffic engineering measures.



3. Implementation

Quiet neighbourhood routes Toolbox

Once the route has been identified it can be audited and measures implemented to achieve the aims of the quiet neighbourhood routes.

The chosen measures will:

- Identify the route to users and others using the road network
- Improve access and amenity
- Establish priority for walking and riding
- Reduce ambient motor vehicle speeds and volumes
- Treat areas with a record of collisions

The enhancements will:

- Increase consolidation of walking and riding trips on the intended routes.
- Reduce the chance of collisions with motor vehicles
- In turn these will improve perceived safety



Traffic engineering aims and measures

On road

- **Increase priority of walking and riding routes**

Route development includes increasing the route priority through measures such as:

- Installing or moving staffed school crossings to support the QNRs
- Installing priority at crossings through zebras and signals
- Indicating the crossing with slow points and table tops
- Improve call up times and crossing times on signals. 1m/per second is desirable for pedestrians.



Zebra crossing at Elsternwick Primary



Wombat crossing –(poorly aligned)



- **Reduce ambient traffic speeds**
 - Slowing motor vehicles with speed cushions, narrowed lanes etc
 - Using the 40kmh school zone to support the routes
 - Review the extent of the 40kph school zones

- **Reduce ambient traffic volumes**
 - School time turn bans that disallow turns into the street with the main walking and riding entrance.
 - School time road closures

- **Move school-related motor vehicle movements away from walking and riding routes**
 - School time parking bans

- Identify drop off points at the trailheads of the quiet neighbourhood routes
- Develop separate car passenger and walking & riding gates

Off road

- **Increase desirability of routes for walking and riding**
- Develop measures along desire lines that increase the attractiveness of the routes.
 - Develop complete routes with no drop outs
 - Improve width
 - Improve directness of routes
 - Improve smoothness of routes
 - Unmade or undefined footpaths
 - Improve attractiveness of routes
 - Improve wheel – ability of routes by installing pram ramps
 - Bikes
 - Baby pushers
 - Shopping trolleys
- Remove physical barriers such as:
 - Illegal parking across routes
 - Poles and bollards in the middle of the path
 - Vegetation

Identify the route to users

- Stencils are an inexpensive and youth friendly form of signage. Two options include:
 - Permanent, high quality stencils in permanent road-marking paint in the manner of VicHealth’s, “Taking it to the Streets” campaign.
 - Impermanent, short term stencils using temporary road-marking paint like that used for the Commonwealth Games or drain stencilling for clean waterways. Impermanent stencils will publicise the route around event times.



VicHealth Stencil on Station St, Fairfield

Identify the route to those using the road network

- Coloured pavement at intersections
- Raised pavement at intersections



Coloured and raised pavement at Spotswood Primary

