What are the needs of potential bicycle users?

Presentation to the Canterbury Regional Transport Committee, 13th February 2012

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What sort of cycle infrastructure?

\begin{itemize}
\item Research for New Zealand Transport Agency
\item \textit{Assessment of the type of cycle infrastructure required to attract new cyclists}
\begin{itemize}
\item To assess the type of infrastructure needed to attract ‘\textit{new}’ cyclists
\item Investigate the barriers and motivations for cycling
\end{itemize}
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\item \url{http://www.nzta.govt.nz/resources/research/reports/449/index.html}
\item Kingham S, Koorney G and Taylor K (2011) Assessment of the type of cycle infrastructure required to attract new cyclists. NZ Transport Agency research report 449. 152pp
\end{itemize}
Methods - Questionnaires

- To get an understanding of current transport patterns
  - University of Canterbury Travel Survey 2008
    - 4,772 responses from staff and students
  - Recreational Cyclists Questionnaire
    - 376 Intercept and online questionnaire respondents
  - Community Cycle Survey
    - 122 Online questionnaire respondents
Methods – Focus Groups

- Focus groups of 3-6 ‘potential’ commuter cyclists
  - discuss transport and cycling in general
  - series of diagrams of cycle facilities shown
    - Participants asked to rate facility and discuss
      - Would Frequently cycle
      - Sometimes cycle
      - Rarely cycle
      - Never cycle
Findings

- Major barriers:
  - Safety (most significant)
    - concerned about traffic numbers and driver behaviour
  - Showering and changing facilities
    - dependent on workplace
  - Enjoyment of journey
    - needs to be relaxing and pleasant
Findings

- Minor Barriers:
  - Bicycle parking
  - Work vehicles
  - Luggage capacity
  - Cycling equipment (lights & fluoro-vests)
  - Helmets (mandatory in NZ)
  - Clothing
  - Children
  - Weather
  - Logistics
  - Trip chaining
  - Night time cycling
  - Confidence
Findings

- People were prepared to cycle 5-10 minutes longer for a more attractive (off-road) route

- Infrastructure
  - Consistency was important (most significant)
    - same facilities across the city
    - continuous facilities
  - Type of infrastructure
C3 - Right Turn Facility
Advance Stop Box
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Advance Stop Box
Intersections – Right Hand Turn Manoeuvre

- Head-start lights
- Hook Turn
- Advanced Stop Box
- Cycle Lane
- Right turning traffic lane
- No Specific Traffic Provision

Legend:
- Red: Never
- Orange: Rarely
- Yellow: Sometimes
- Green: Frequently
Underpasses
Cycle path with cyclist priority
Cycle path without cyclist priority
Directional cycle lanes
Cycle Lane
No Specific Cycling Provision

Roundabouts
Findings

▪ Danger is main barrier!

▪ Network of off-road routes is favoured
  ▪ If not possible, then clearly marked cycle lanes are preferred (not just white lines)

▪ Some level of separation was preferred to sharing facilities with traffic or pedestrians

▪ If shared facilities are necessary, with pedestrians is preferred

▪ Different needs of experienced vs inexperienced cyclists
  ▪ Policy and consultation implications
Conclusions

- Safety/Danger is the main barrier to people cycling
- If we want to encourage more/new people to cycle we have to separate them from traffic
- Health benefits are so great, that even if expensive it is a good investment

- In Christchurch, now is the opportunity
  - Much transport infrastructure will be repaired/rebuilt in the coming months and years – we must build it right... and start now