

Cycle Facilities at Traffic Signals

Presentation to Network Operations
Team

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Content

- Standard layouts (in some depth)
- Kerbside cycle lanes (in some depth)
- Hook turns (very briefly)
- Advanced stop lines (briefly)
- Advanced stop boxes (in some depth)

Standard Layouts

- Cycle lane between thru and LT lane
 - Most desirable layout
- Kerbside cycle lane next to shared thru / left lane
 - Undesirable, but often unavoidable
 - Two distinctly different cases
- No cycle lane (but perhaps an advanced stop box)
 - cyclists use the unmarked kerbside lane
- Special Case – cycle lane for RT cyclists
 - Examples Clyde into Croyke, and North Parade into New Brighton



Cycle lane between thru and LT
lane

Cycle lane between thru and LT lane

- How are left or right turning cyclists accommodated?
 - Often not an issue (speed differential)
 - Sometimes ASB's help

Kerbside Cycle Lanes

- Wide traffic lanes
 - Cycle lanes don't work – motorists form separate queues
 - LT queue in cycle lane
 - Upcoming trial – does colour make a difference? (Clyde south @ Creyke / Kotare)
- Narrow traffic lanes
 - 3.0m traffic lanes – motorists generally form single queue



Kerbside Cycle Lanes - Wide
Traffic Lane



Kerbside Cycle Lanes - Narrow
Traffic Lane

Hook Turns

- Official LTSA trial at Greers / Memorial
- Before study has been done
- Post study has not been done
- LTSA would like to see Council trial more than this one site
 - for statistical relevance of the results

Hook Turns



Advanced stop lines

- Makes cyclists more visible to motorists
 - Motorists may change their mind and want to turn
 - Cycle lane might be a kerbside facility
 - At mid-block signals, motorists might want to turn into a driveway beyond the signals
- **Always use ASL when there's a cycle lane**



Advanced stop lines

Advanced stop boxes

- Distinctly different applications
 - In front of a lane & no approach cycle lane & simple signal phasing
 - In front of a lane & no approach cycle lane & complex signal phasing
 - Approach cycle lane & in front of a LT lane
 - Approach cycle lane & in front of a thru/LT lane
 - Approach cycle lane & in front of a thru/RT lane (special case)



ASB & no cycle lane & simple phasing



ASB & cycle lane & in front of
LT lane

ASB & kerbside cycle lane





ASB & cycle lane & in front of thru / RT lane

Concluding Remarks

- There are no easy answers
- Every case needs to be examined in depth