Transport Assessment of Quay Street Streetscape Project

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Site Location

Quay Street

Auckland City Centre Masterplan 2012
CCMP on Quay Street

• “Quay Street ... will progressively change over the life of the masterplan, from a car-dominated road to an important meeting and greeting place and a world class waterfront boulevard”

CCMP objectives for Quay Street

• Calming vehicle speeds
• Increasing space dedicated to pedestrians and cyclists
• Limiting private vehicle use to local traffic, service vehicles and cruise ship-related activity
• Enhancing role as a public transport route

Transport Assessments of Streetscape Projects

Modelling Issues (1)

Modelling Issues (2)

• Types of traffic
  – Local
  – Through
• Modelling different road users
  – Buses
  – Effects of pedestrians
Modelling Issues (3)

• Changes in vehicle demands due to a project?
  – Traditionally: fixed trip techniques
  – Trip suppression
  – Inverse of trips being induced?
  – “What if” tests

Modelling Issues (4)

• Model inputs v model outputs
  – Input assumptions on trip suppression
  – Change in speed environment v change in delay

Importance of Inter Peak

![Graph showing number of vehicles per hour vs. hour period with three lines representing Monday Average, Saturday, and Sunday]

• Covers most of the day
• Important for essential business and freight trips
• People expect satisfactory level of service in inter peak period

Levels of Service

• “Poor” level of service may be acceptable
  – In some locations
  – At certain times
• Tension between intensification and “good” levels of service
Reductions in Level of Service

- Traditionally: reduction in level of service = reduction in efficiency
- Assessments focus on travel time benefits
- BUT
- Reduction in speed environment may be a good thing

Questions to be considered

- Targeted level of service?
  - Specific to project area
- Acceptable increase in travel time?
- Specific triggers?
  - eg queues affecting buses
  - eg unacceptable effects on adjacent street
  - eg removal of through traffic
- Reliability targets?

Consideration of other road users

- Buses
  - Person times, not vehicle times

<table>
<thead>
<tr>
<th>Consideration of other road users (Worked Example units)</th>
<th>Increase in Vehicle Travel Times</th>
<th>Increase in Person Travel Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Traffic</td>
<td>+100 hours</td>
<td>+130 hours</td>
</tr>
<tr>
<td>Buses</td>
<td>+4 hours</td>
<td>+120 hours</td>
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</tbody>
</table>

Consideration of other road users

- Pedestrians
  - Crossing times
  - Vehicles/day
  - Vehicles/lane
  - Need for evidence/numbers

Conclusions on Transport Assessments of Streetscape Projects

- Some modelling issues
  - Trip suppression
- Greater focus on inter peak
- Need for local objectives/triggers
- Greater focus on effects on all modes
  - More evidence needed
NZMUGS 2013 Conference

- 9-10 September in Wellington
- Themes:
  - New approaches to modelling and innovation
  - “Beyond travel time savings”

Questions?