Development Management: Assessing the Impacts of Construction Traffic - Why Temporary Impacts Are Not Always So

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Development Management: Assessing the Impacts of Construction Traffic – Why Temporary Impacts Are Not Always So

- Background to the presentation
- Policy and Assessment Context
- Who Does Construction Traffic Impact upon?
- Calculating the impact
- Temporary impacts influencing travel behaviour
- Addressing “Temporary” impacts
Background to the Presentation

Emerging key issues for planning and highway authorities

Assumption: impacts are only temporary: WRONG!

Growth agenda requires wider thought in terms of impacts

Mitigation for temporary and permanent impacts required
Policy and Assessment Context

- The Department of Transport Guidance on Transport Assessment 2007
- Design Manual for Roads and Bridges Volume 11 Section 3 Part 3 and Volume 11 Part 5
Who Does Construction Traffic Impact upon?
Calculating the Impact

“The number of vehicles travelling through Bridgwater to and from the site in the evening rush hour will be less than the number of vehicles generated by a medium-sized supermarket.”
Calculating the Impact: Environmental aspects

- Noise
- Air Quality
- Severance
- Social impacts - health
- Economic impacts
- Travel Behaviour?
Calculating the Impact: Transport

- Hours of Operation
- Types of movement – work force, deliveries to site, removal of material, trips made by associated trades
- Construction Programme and phasing
- “Balance of severity of impact with duration” DMRB Vol 11 Section 3 Part 3 para 2.3
- “It may be better to cause greater disruption over a shorter period than less disruption over an extended period”
Calculating Impacts – What is Temporary?

- Temporal – time frames: 1 month, 6 months, 18 months….9 years!!

- Temporary means lasting only a short time, psychologically

- People’s coping strategies (acceptance and activities) depend on the circumstances surrounding the event – not currently included technical appraisals
Calculating Impacts – What is Temporary?
Travel Behaviour and Temporary Impacts

- Temporary impacts do affect travel habits – there is a need for mitigation and support
- These factors are ignored in traditional assessment techniques
- Assessment and Mitigation – applying the principles of habits discontinuity theory
Habit and Temporary impacts influencing travel behaviour

- To successfully alter habitual behaviour it is necessary to intervene at a time when the environmental cues or situations that trigger the behaviour have been disrupted: occurs during construction impacts.

- When this happens it is necessary for the person to think about their actions/behaviours and how they will carry them out. They may also then potentially seek information about new/alternative ways of carrying them out: opportunity to change travel patterns.
Therefore this period of ‘cue disruption’ offers a great opportunity to provide information and offer advice and change behaviour.
Travel Behaviour and “Temporary” Impacts: Coping Strategies
Addressing the Impacts – 10 Key Actions

- Ensure that temporal nature of the construction period is clearly understood and agreed.
- Clear recognition that any period over 6 months should not be considered temporary.
- Construction Management Plans are required to tackle the “traditional traffic impacts” – capacity issues, noise, air quality, freight and logistics.
- Travel Behaviour campaigns and supporting infrastructure measures are also required to support the socio economic impacts of disruption during construction.
Addressing the Impacts – 10 Key Actions

- Note that the site specific nature of these development results in limited use in predicting trip generation – first principles are often applied
- Require revisions to DMRB in terms of the assessment of disruption during construction for large scale long term projects
- Mitigation needs to be aligned with key phases of construction not just a blanket approach applied
Addressing the Impacts –
10 Key Actions

- Non motorised users and the mobility impaired should be afforded specific attention in assessing the impacts of disruption during construction.
- Take the opportunity to manage travel behaviour with positive campaigns to support mobility and mode share.
- Don’t accept that the impacts are necessary – positive management of impacts benefits both the construction team and the highways authority.
Lastly...

- make best use of every circumstance