A Road Safety Policy for Transport and Main Roads

2018 IPWEAQ Conference
Presented by:
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About us
How big is the global road safety challenge

- Bubonic Plague: WHO 2012
- 20th Century Road deaths: WHO 2015
- World War II
- World War I
Transport Safety – A Queensland Context
Over 85% of fatalities occur on the coastal strip and are 4 main crash types:

- Pedestrians and bicycle riders
- Intersections
- Run-off road
- Head-on

6,499 serious casualties = 18 people each day
243 fatalities in 2015
Safety on state and local government roads

Serious casualties as a result of crashes, Queensland, 2011 to 2016

<table>
<thead>
<tr>
<th>Speed Limit</th>
<th>Fatalities</th>
<th>Hospitalised Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Locally controlled</td>
<td>548</td>
<td>35.7%</td>
</tr>
<tr>
<td>State controlled</td>
<td>989</td>
<td>64.3%</td>
</tr>
</tbody>
</table>

Note: 20% of fatalities and 45% of hospitalised occur on 60 km/h roads and the opposite on 100 km/h roads.
Demand on Health System
Qld Public Hospitals: 2011-12 to 2015-16

<table>
<thead>
<tr>
<th>External cause</th>
<th>0-14 years</th>
<th>15-34 years</th>
<th>35-64 years</th>
<th>65+ years</th>
<th>All ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road trauma</td>
<td>13.9%</td>
<td>23%</td>
<td>18.7%</td>
<td>5.4%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Falls</td>
<td>42.9%</td>
<td>13.2%</td>
<td>34.2%</td>
<td>79.7%</td>
<td>46.9%</td>
</tr>
<tr>
<td>Assault</td>
<td>1.6%</td>
<td>11.1%</td>
<td>6.6%</td>
<td>0.4%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Other</td>
<td>41.6%</td>
<td>46.7%</td>
<td>40.6%</td>
<td>14.6%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

Vallmuur K, Pillard C. Injury hospitalisations in public acute hospitals in Queensland: a five year snapshot 2011-12 to 2015-16 Metro North Hospital and Health Service, 2017
Using the 1973 fatality rate of 32.10, the number of fatalities during 2017 would have been 1,582.
Queensland’s Road Toll

Road Fatalities
Queensland

Road Fatalities

Actual
Target
Road Safety Strategy
Our key drivers

- National Road Safety Strategy 2011-2020
- Queensland Road Safety Strategy 2015-21
- Queensland Road Safety Action Plan 2017-19
  - 29 Actions
Fatalities vs serious injuries – the ‘fatal five’

The Fatal Five are only associated with one third of serious injury road crashes

Vulnerable road users are an increasing proportion of our fatal crashes (38% in 2017)
Safe System

HUMAN TOLERANCE OF CRASH IMPACTS

- Safe Roads & Roadsides
- Safe Speeds
- Safe Vehicles
- Safe Users

Innovation
Monitoring, management and coordination
Data analysis, research and evaluation
Licensing and registration
Education and information
Road rules and enforcement
Safe Systems Video
Road Safety Policy
Road Safety Policy

Policy Statement

TMR will implement safety standards which will be actively applied in the planning and design of road infrastructure and operations projects, as detailed in Appendix A (Safety Intervention and Improvement Guidelines). These standards reflect default requirements to manage safety risk unless justification is documented in a design exception or planning report.

Projects will follow the Safe Systems Project Management Control Checklist and Austroads Safe System Assessment Framework across the planning, concept, development, implementation and finalisation phases before project management gating sign off and approval by Infrastructure Investment Committee, General Manager, Regional Director and District Director.
### SIIG - examples

<table>
<thead>
<tr>
<th>Safety Issue</th>
<th>Safety Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motorcyclists</strong></td>
<td>All new installations of road safety barriers shall be fitted with underrun protection.</td>
</tr>
<tr>
<td><strong>Vulnerable users</strong></td>
<td>In areas with demand projects will include provisions for pedestrians, cyclists and people with a disability. Lower speed limits in areas of high pedestrian and cyclist use as per MUTCD Part 4.</td>
</tr>
<tr>
<td><strong>Intersection – Pedestrian</strong></td>
<td>Pedestrian crossings to be provided on all approaches at signalised intersections. Pedestrian crossing protection (delayed start to vehicle movements) is required.</td>
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<tr>
<td><strong>Intersection – Urban</strong></td>
<td>New and upgraded signalised intersections must have protected right turn lanes on the major road. Green arrows for right turns to be included unless justified through a risk assessment.</td>
</tr>
<tr>
<td><strong>Intersection – Rural</strong></td>
<td>Where there is high left turning volumes on high speed rural roads, sight lines must not be obscured for traffic entering from the minor road.</td>
</tr>
<tr>
<td><strong>Head on – Rural</strong></td>
<td>Rural roads with AADT greater than 4,000 vehicles per day should have a wide centreline and ATLM.</td>
</tr>
<tr>
<td><strong>Run off road – Rural</strong></td>
<td>Audible Tactile Line Marking (ATLM) will be installed on edge lines and centre lines on all rural roads with sealed shoulder greater than 0.5m and a history of fatigue related crashes.</td>
</tr>
<tr>
<td><strong>Rest Areas and Stopping Bays</strong></td>
<td>On rural roads, ensure there are safe stopping locations every 30km. Rest areas to be provided every 80km.</td>
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<tr>
<td><strong>Enforcement</strong></td>
<td>On all motorway upgrades, provision must be made for:</td>
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<td></td>
<td>• Point to point camera infrastructure, including provision of footings with associated structures and electrical supply, suitably placed for enforcement during operation.</td>
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<tr>
<td></td>
<td>• Provide for the construction of enforcement pads/bays for use by mobile speed camera vehicles/trailers encompassing electrical power supply with concrete base at appropriate locations during and at the completion of construction.</td>
</tr>
</tbody>
</table>
Safety Intervention and Improvement Guidelines

Examples of Interim safety standards:

Rural roads with volumes greater than 4,000 vehicles per day should have a wide centreline and audio tactile line marking.
Safety Intervention and Improvement Guidelines

Examples of Interim safety standards:
Safety Intervention and Improvement Guidelines

Examples of Interim safety standards:

All new installations of road safety barriers (and terminals) shall be fitted with motorcyclist injury countermeasures (such as underrun) suitable to the barrier type.
Safety Intervention and Improvement Guidelines

Examples of Interim safety standards:

Where a high volume of left turning traffic is present on high speed rural roads, sight lines must not be obscured for traffic entering from the minor road.

*Figure 4A.5 - Offset rural CHL treatment*
Safety Intervention and Improvement Guidelines

Examples of Interim safety standards:
Road Safety Policy – Policy Statement

Projects will follow the Safe Systems Project Management Control Checklist and Austroads Safe System Assessment Framework across the planning, concept, development, implementation and finalisation phases before project management gating sign off and approval by Infrastructure Investment Committee, General Manager, Regional Director and District Director.
The Benefits of Early Project Planning across project life cycle and disciplines
Safe Systems Project Management Control Checklist

Control objective: To prompt the Project Manager as part of the project management processes on Safe Systems. Further guidance is provided in the Austroads Safe System Assessment Framework (AP-R509-16) as a tool with specific references below. The following checklist should be considered as site-specific for a project across the planning, concept, development, implementation and finalisation phases before project management gaining sign off and approval by IIC/GM/Regional/District Director.

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- Prepared-by: ............................................
- Checked-by: ............................................
- Date: ............................................
- Project-name: ............................................
- Project-number: ............................................
- Project-Management-Phase: □ Strategic □ Concept □ Development □ Implementation □ Finalisation
Thank you