Audio Tactile Pavement Markings (ATPM) and Raised Reflectorised Pavement Markings (RRPM), otherwise known as rumble strips.

New Zealand research bibliography

Reference Type: Report
Record Number: 563
Author: S. Charlton and P. H. Baas
Year: 2006
Title: Speed change management for New Zealand roads
Series Title: Land Transport New Zealand Research Report 300
City: Wellington
Pages: 144pp
Publisher: L. T. N. Zealand
Short Title: Speed change management for New Zealand roads
Report Number: research report 300
Keywords: roads
road hierarchy
self-explaining roads
speed
speed reduction
traffic calming
traffic management (Traffic control)
LATM
RRPM
Abstract: The goal of the present research, carried out between July 2004 and June 2005 was to identify and develop New Zealand speed management
approaches that influence drivers' speed choices by manipulating road features that evoke correct expectations and driving behaviours from road
users.
The research first reviewed the available published research in the areas of traffic calming, self-explaining roads, and perceptual countermeasures. A
range of speed management designs were identified for threshold treatments that clearly indicate a change in speed, and treatments that encourage
drivers to maintain an appropriate speed in the zone.
A sample site survey of driver speeds was conducted to compare vehicle speeds at several locations and provide an indication of whether the variables
reported in the overseas literature would have equivalent effects on New Zealand roads. A questionnaire was then prepared to obtain road safety
researchers' ratings of the effectiveness (speed compliance), sustainability (resistance to habituation), and suitability (road user acceptance) of road
designs for speed change and speed maintenance. The results of the questionnaire were summarised and used to develop a list of speed
management designs with the greatest promise for implementing sustainably safe, self-explaining roads in New Zealand.
URL: http://www.nzta.govt.nz/resources/research/reports/300/docs/300.pdf
'File' Attachments: internal-pdf://300-2923842816/300.pdf

Reference Type: Conference Paper
Record Number: 561
Author: V. Dravitzki, D. Walton, T. Lester and R. Jackett
Year: 2007
Title: Measuring the effects of audio tactile profiled roadmarkings
Conference Name: New Zealand Road Markers Federation Conference 2007
Keywords: ATPM
RRPM
audio tactile profiled road marking
raised pavement marking
rumble strips
URL: http://www.nzrf.co.nz/techdocs/conferencepapers2007/Effects-ATPR-Dravitzki.pdf
'File' Attachments: internal-pdf://audiotactileprofiledmarkings-1463422720/audiotactileprofiledmarkings.pdf
Access Date: 16 August 2010

Reference Type: Report
Record Number: 564
Author: H. Mackie and P. H. Baas
Year: 2007
Title: The cost effectiveness of delineation improvements for safety
Series Title: Land Transport New Zealand Research Report 322
Pages: 30pp
Publisher: L. T. N. Zealand
Short Title: The cost effectiveness of delineation improvements for safety
Report Number: research report 322
Keywords: road safety
delineation
Audio tactile profiled road marking
benefit
cost
RRPM
ATPM
ATP
Abstract: The purpose of this research was to develop a cost management tool that would assist road controlling authorities and their consultants to prioritise
delineation treatments that have added safety benefits compared with standard road markings. A spreadsheet-based cost management tool was
developed and then applied to a range of typical road marking situations. It would appear that audio tactile road markings provide significant safety
benefits that outweigh the treatment costs even at relatively low traffic volumes. This report recommends that audio tactile profiled road markings
be installed on a much more widespread basis where road conditions allow and policy changes should reflect this. Further research should be conducted
to determine the appropriateness of their use in situations where little sealed shoulder exists, such as near residential dwellings and where the road is
commonly used by cyclists.
URL: http://www.nzta.govt.nz/resources/research/reports/322/docs/322.pdf
'File' Attachments: internal-pdf://322-3712627968/322.pdf

Reference Type: Report
Record Number: 562
Author: J. P. Edgar, H. Mackie and P. H. Baas
Year: 2009
Title: The Usability and Safety of Audio Tactile Profiled Road Markings
City: Wellington
Publisher: N. Z. T. Agency
Short Title: The Usability and Safety of Audio Tactile Profiled Road Markings
Report Number: 365
Keywords: Audio tactile profiled road marking
benefits
centreline
costs
delineation
edgeline
line markings
profiled
road markings
road safety
rumble strips
RRPM
ATPM
ATP
Abstract: Audio Tactile Profiled (ATP) road markings (also known by road users as rumble strips) have been used at selected locations on New Zealand roads in recent years. However, a recent Land Transport Research report established that more extensive use of these markings over a wider range of traffic volumes and roadway situations would result in cost-effective crash reductions. The potential benefit of ATP road markings is recognised by KiwiRAP, the New Zealand Automobile Association's New Zealand Road Assessment Programme partnership with government and transport agencies, dedicated to helping achieve the government's Road Safety to 2010 strategy through road driver awareness and improvement measures.
Land Transport New Zealand (now NZTA) therefore commissioned this project to investigate possible impediments to the wider use of ATP road markings and to consider whether the existing guidelines for their use need to be reviewed. Based largely on consultation, the report provides an overview of practice and technology currently applied to the use of ATP road markings in New Zealand. It recommends best practice guidelines and changes to decision making processes, technical standards and some
further research.
The project provides information needed by highway managers and ATP road marking installation contractors. The recommendations inform the development of changes to rules and decision making procedures and, when adopted, should result in significantly increased usage of ATP road markings and a corresponding increase in crash savings
URL: http://www.nzta.govt.nz/resources/research/reports/365/
'File' Attachments: internal-pdf://RR365 Audio Tactile Road Markings-2906622976/RR365 Audio Tactile Road Markings.pdf

Reference Type: Report
Record Number: 565
Author: D. Walton
Year: 2006
Title: Balancing the needs of cyclists and motorists
Series Title: Land Transport New Zealand Research Report 273
Publisher: L. T. N. Zealand
Short Title: Balancing the needs of cyclists and motorists
Keywords: Cycling
RRPM
ATPM
ATP
perception of cycle safety
Safety
Stability
Abstract: Study 1: The effects of roadside obstacles on cycle stability
Study 2: The effects of trucks passing on cycle stability
Study 3: The effects of roadside obstacles on cyclists' behaviour
Study 4: Parents' perceptions of cycle safety for high-school children

Between 2002-2004 a four-part research programme was undertaken to identify hazards to cyclists from features of the road network that are designed to benefit motorists. The four studies were: 1: The effects of roadside obstacles on cycle stability; 2: The effects of trucks passing on cycle stability; 3: The effects of roadside obstacles on cyclists' behaviour; 4: Parents' perceptions of cycle safety for high-school children.
The perspective of the research is to recognise and understand the conflicting needs of cyclists and motorists who share a road corridor. The outcome is to facilitate more informed decisionmaking in design, maintenance and management of the road corridor by balancing the needs of cyclists and motorists.
URL: http://www.nzta.govt.nz/resources/research/reports/273/docs/273-summary.pdf
'File' Attachments: internal-pdf://273-summary-1414361856/273-summary.pdf
Access Date: 16 August 2010