

2017-2018 NACOE Research Program

NACOE Project
Number

Title

PAVEMENTS

P2	Stabilisation practices in Queensland
P56	Ensuring the long-term performance of asphalt pavements through maximising bonding between layers
P57	Implementing the use of Reclaimed Asphalt Pavement (RAP) in TMR registered dense grade asphalt mixes
P60	Best practice in compaction quality assurance for pavement and subgrade materials
P55	TIPES evaluation protocol for innovative road surfacing products
P49	Quantifying the Benefits of Geosynthetics for the Mechanical Stabilisation of Subgrade Soils
P8	Monitoring and reporting performance of flood repairs in Queensland
P43	Long Term Pavement Performance Project
P45	Implementation (of TIPES approved supplement) thin asphalt surfacings in Queensland
P40	Benefits of Traffic Speed Deflectometer (TSD) data in pavement analysis
P66	Facilitating the use of 'glassy basalt' in pavement materials
P69	Selection and use of unbound granular pavements with thin asphalt surfacing
P70	Develop acceptance criteria for asphalt with low in situ or production air voids
P71	Evaluation of Thermal Stability of Geosynthetic Material in Asphalt Application
P72	Investigate the moisture susceptibility of cement treated materials
P73	Review of pavement support conditions under heavy-duty asphalt pavements
P74	Better characterising bituminous binders to manage risk and aid development of performance-based binder specifications
P75	Transfer Gap Graded asphalt with crumb rubber to QLD and WA
P76	The use of recycled glass in pavements
P10	Cost Effective design of asphalt pavements at Queensland pavement temperatures
P59	Best practice non-destructive testing in assurance of asphalt (also for use in performance based specifications)
P77	Investigate the use of APT Devices to Improve the Link between Laboratory Testing and Field Performance
P78	Appropriateness of SCRIM investigatory levels in Qld
P79	Effect of geology on Foamed Bitumen strength

2017-2018 NACOE Research Program

NACOE Project Title
Number

ASSET MANAGEMENT

A20	Improved model to predict the remaining life of sprayed seal surface
A28	Investigate and compare life cycle cost / benefits and performance of line marking and delineation
A34	Customer Based Level of Service in Road Maintenance
A35	Identification of Residual Risk for each Element and Development of a Funding Allocation Methodology for Elements
A36	Implementation of Skid Resistance Management Plan including Training
A37	Effectiveness and appropriate application of road drainage in mountainous, high rainfall terrains (micro drainage)

STRUCTURES

S15	Long term performance of FRP replacement structures components'
S20	Understanding/managing risk associated with buried metal culverts
S14	Review of timber bridge load rating procedures (previously Timber Bridge Manual Review)
S41	Geopolymer in Concrete - development of a performance-based specification
S26	Review TMR WIM strategy and benefits for the purpose of managing bridge stock.
S27	Bridge bearings - best practice for legacy bridge replacements and new bridges
S28	Review of performance of concrete pipes and culverts
S29	Deck unit bridge deck analysis under live load - development of improved guidance/specification for calibrated grillage models
S30	Review of WhichBridge utilisation in TMR
S31	In-line timber bridge replacement options
S32	Review of transverse stressing bar replacement techniques
S33	Develop new manual of repairs for non-timber bridges
S34	Cross Drainage and Bridge Abutment Backfill/Treatments - potential construction methodology changes
P52	Performance evaluation of the spinifex in concrete (Previous year project (2016-17) evaluated spinifex in asphalt mixes)

2017-2018 NACOE Research Program

NACOE Project Title
Number

NETWORK OPERATIONS, ROAD SAFETY, HEAVY VEHICLE & FREIGHT

Network Operations

R47 Review and update ARRB / TMR methodology for measuring excessive congestion cost and emerging data source considerations

Road Safety

R52 Reducing rear-end crashes on state-controlled roads

R54 Automated systems for the analysis of the status of road safety and conditions using TMR's vehicle mounted video and pattern recognition techniques

R71 Development of technical guideline on the application of calcined bauxite

R72 Milled Rumble Strips

Heavy Vehicles & Freight

R61 Investigating the use of IAP and other telematics to deliver messages to drivers (trucks)

R62 LG Route Assessment Guidelines

Other

O10 Implementing the International Climate Change Adaptation Framework for Road Infrastructure in Queensland TMR