

# 2016-2017 NACOE Research Program

NACoE Project Title  
Number

## PAVEMENTS

### Stabilisation & Modified Pavements

P2 Stabilisation Practices in Queensland

### Asphalt

P10 Cost Effective design of asphalt pavements at Queensland pavement temperatures  
P56 Ensuring the long-term performance of asphalt pavements through maximising the bonding between asphalt layers  
P57 Implementing the use of reclaimed asphalt pavement (RAP) in TMR registered dense graded asphalt mixes  
P59 Best practice non-destructive testing in assurance of asphalt (also for use in performance based specifications).  
P60 Best practice in compaction quality assurance for pavement and subgrade materials  
P61 Use of Hamburg Wheel Tracker in aggregate resistance to degradation in asphalt and thin surface products

### Unbound Granular & Marginal Materials

P15 Monitor high standard granular base & seal trial (Trackstar Alliance Project)  
P34 Development of Performance Based Evaluation Protocol for Non-Standard Granular Pavement Materials  
P47 Development of an Advanced Performance Model for Unbound Granular Pavements

### Surfacings

P55 TIPES evaluation protocol for innovative road surfacing products

### Geotech

P49 Quantifying the Benefits of Geosynthetics for the Mechanical Stabilisation of Subgrade Soils

### Flood Recovery

P8 Monitoring and reporting performance of flood repairs in Queensland

### Other

P43 Long Term Pavement Performance Project  
P53 Wide Centreline Treatment and impact on Pavement Performance  
P54 Effective expansive subgrade treatments across Queensland

## ASSET MANAGEMENT

A20 Improved model to predict the remaining life of sprayed seal surface  
A21 Impact on pavement surface conditions (roughness, rutting, cracking, potholing) of substantially reduced surface maintenance  
A26 Incorporation of the Pavement Risk Score into the Pavement Condition Index  
A28 Investigate and compare life cycle cost / benefits and performance of line marking and delineation.

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## STRUCTURES

S3	Deck unit bridge deck analysis under live load
S15	Long term FRP performance review
S10	Determination and development of targeted routine maintenance requirements in order to provide optimum benefits
S14	Ttimber Bridge Manual Review
S20	Understanding/managing risk associated with buried metal culverts including business case and strategic program
S12	Application of Bridge performance/deterioration Modelling
S21	Heavy Vehicle Historic Data Extraction and Analysis for Structural Applications

## NEWORK 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
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### Road Safety

R46	Network-wide review of intersection crashes in Queensland
R52	Reducing rear-end crashes on state-controlled roads
R53	Identifying Higher Risk state-controlled Roads for Speed Related Crashes

### Heavy Vehicles & Freight

R34	Monitoring in-service for Road Friendly Suspensions - Pilot of Compliance using on-board vehicle technologies
R56	Mobile Mapping Solutions for Heavy Vehicles