## **2022-2023 NACOE Research Program**

Development of Performance Based Evaluation Protocol for Non Standard and Marginal Granular Materials_Y4  Long Term Pavement Performance Project_Y9  Intelligent Compaction - Assessment of the Benefits and Limitations for QA in Road Construction_Y5  Innovative Methods of Slaking Quicklime_Y3  P111 Improved Crumb Rubber Modified Binder Sprayed Sealing Practices_Y4  P121 Evaluation of the Performance Benefits of Geosynthetic Reinforcement in Asphalt Layers_Y3  P127 Harmonisation of Asphalt Compaction Standards_Y3  P131 Sustainable Sprayed Sealing Practices_Y2  P132 Queensland's Foamed Bitumen Mix Design and Structural Design Procedure: Review and Improved Methods_Y2  P133 Performance Relationships & Specifications for Asphalt Pavement Design in QLD_Y2  P134 Investigation of Warm Mix Asphalt Compaction Temperature_Y2  P135 Optimisation of Quarried / Recycled Pavement Material Blends_Y2  P137 Stability of Bridge Abutments – on the Influence of Pore Pressures on Scouring of Supporting Slopes_Y2  P139 Slopes – Development of Wireless Sensor Network to Predict and Prevent Rainfall-induced Landslides_Y2  P139 Standard Test Methods Data Set_Y1  P144 Development of Laser Texture Depth Method to Replace Sand Patch Method_Y1  P159 Strategy, Research Program, Implementation Plan, Resource Planning for the Full-Scale APT Testing (Pavement Rehab. + PR&I)  Method for Determining Design Parameters of Reinforced Paved Flexible Pavement	
Intelligent Compaction - Assessment of the Benefits and Limitations for QA in Road Construction_Y5 Innovative Methods of Slaking Quicklime_Y3 Improved Crumb Rubber Modified Binder Sprayed Sealing Practices_Y4 Improved Crumb Rubber Modified Binder Sprayed Sealing Practices_Y3 Improved Methods_Y3 Instainable Sprayed Sealing Practices_Y2 Instainable Sprayed Sealing Practices_Y3 Instainable Sprayed Sealing Practices_Y3 Instainable Sprayed Sealing Practices_Y3 Instainable Sprayed Sealing Practices_Y4 Instainable Sprayed Sealing Prac	
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P160 Method for Determining Design Parameters of Reinforced Paved Flexible Pavement	
P161 Maximising the Use of TSD Data for Pavement	
P162 Accurate Binder Content Determination of Crumb Rubber Asphalt Mixes (and potentially metal content testing)	
P163 Performance Assessment of Selected LTPP Sites	
Optimised and advanced Geotechnical Solutions (Merge of the Scope of New Geotech Projects)	
P165 Development of a Soft Soils and Expansive Soils Databases	
P166 Synthesis and Dissemination of Research Findings and Implementation Concepts for Pavements and Sustainability	
The Use of OTR Tyre Rubber in Asphalt and Spray Seals	
P168 Improved Resilience of Unbound Granular Pavements	

## 2022-2023 NACOE Research Program

Project Number	Project Title ASSET MANAGEMENT
A43	Value for Money Asset Management Maintenance and Rehabilitation Design Guidelines (RoadTek)_Y2
A44	Synthesis and Dissemination of Best Practice, Value for Money Asset Preservation Solutions and Management Strategies for Sealed Roads_Y3
A56	Pavement Drainage Performance_Y2
A60	Rural Road Network Line Marking and Crash Reductions from Connected and Automated Vehicles
A61	New Generation iPAVe: Optimising its Use for Road Asset Management Stage 1
A62	Asphalt Service Lives - Component 2 - Development of a Ravelling Model (Suggested Combined Scope Covering Cracking and Including Sprayed Seals)
A63	ITS Pole Structural Inspections Guidelines Creation
Project Number	Project Title STRUCTURES
S54	Use of Cathodic Protection to Increase the Remaining Life of Steel Culverts_Y4
S57	More Flood Resilient Bridge Approaches_Y4
S62	Management of Structures with Concrete Halving Joint - Scale Model Testing Project_Y2
S63	Buried Metal Culverts – Implementation of Remedial Options
S64	Revision and Updating of TN03 - Measurement of Ground Vibration and Air Blast
S65	Tunnel (Busway and Road) Condition Assessment and Gap Analysis
S67	Future Availability of Fly Ash for Concrete Production in Queensland
S68	Detailed Review of Current Timber Bridge Barrier Technology and Practice
S69	Mapping Bridges That do Not Meet Height or Width Requirements
Project Number	Project Title NETWORK OPERATIONS
R100	TMR Traffic Data Access Portal_Y4
R102	Automated Matching of HERE Map Links to TMR Network_Y4
R117	The Impact of Using Hybrid Data Versus Normal Data Source for Travel Time Reliability Measurement
R118	Review of TMR's Existing Bluetooth Travel Time Algorithm and Opportunities for Real-Time Use
R136	Designing a New Approach for Annual Average Daily Traffic Estimation

## 2022-2023 NACOE Research Program

Project Number	Project Title ROAD SAFETY
R106	Identify Countermeasures to Reduce the Likelihood of Safety Incidents Involving Members of the Public at Short-Term Roadwork Sites_Y4
R121	Evaluation of Traffic Control Measures and Technologies at Roadwork Sites_Y2
R133	Enhancing the Safety of Personal Mobility Devices (PMDs) in Queensland
R134	Traffic Controller Scout – Scoping Study
R135	Research into Conflicts between Right Turn Vehicles and Following Through Vehicles on Rural Roads
Project Number	Project Title HEAVY VEHICLE & FREIGHT
R112	Review of Possible Changes to Heavy Vehicle Mass and Dimensions Through the Adoption of Low and Zero Emission Technologies.
Project Number	Project Title SUSTAINABILITY
P117	Sustainability Assessment Tool_Y4
P155	Sustainability Framework for Seals
O17	Development of Framework for Fish Passage in Culverts_Y3
O24	Recycle Materials in Stabilisation_Y2
O25	Use of Recycled Materials in Earthworks and Drainage_Y3
O28	Recycled Materials Supplier Database
031	Regulated Waste Reduction Through Recycling Paint Wash Water and Raised Pavement Markers (RPMs)