

## 2020-2021 NACOE Research Program

Project Number	Project Title	PAVEMENTS
P10	Cost Effective Design of Asphalt Pavements at Queensland Pavement Temperatures_Y7	
P43	Long Term Pavement Performance Project_Y7	
P49	Quantifying the Benefits of Geosynthetics for the Mechanical Stabilisation of Subgrade Soils_Y5	
P55	TIPES evaluation protocol for innovative road surfacing products_Y5	
P60	Best Practice in Compaction Quality Assurance for Pavement and Subgrade Materials_Y5	
P75	Transferring CRM GGA technology to QLD_Y3	
P76	The Use of Recycled Glass in Pavements_Y3	
P78	Investigate Skid Resistance Related Operating Requirements for Outcome Based Contracts_Y3	
P94	Optimising the Use of Recycled Materials in Unbound and Stabilised Pavements in QLD_Y3	
P104	Sprayed Sealing in Challenging Conditions and Environments: Phase 2_Y2	
P105	Intelligent Compaction - Assessment of the Benefits and Limitations for QA in Road Construction_Y3	
P107	Innovative Method of Slaking Quick Lime_Y1	
P109	Borehole Investigation on Steep Sloping Ground_Y2	
P110	Development of TMR Geotechnical Database for Expansive Soils in QLD_Y2	
P111	Improved Crumb Rubber Modified Binder Sprayed Sealing Practices - Phase 1_Y2	
P113	Road Construction Material Database_Y2	
P118	Preliminary Assessment of the Use of Spinifex Fibres in Open Graded Asphalt_Y1	
P119	Preliminary Assessment of the Use of Spinifex Fibres in Foamed Bitumen Stabilisation Mixes_Y1	
P120	Optimising the Use of Recycled and Reclaimed Plastic in Safe, Sustainable Future Road Infrastructure_Y1	
P121	Evaluation of the Performance Benefits of Geosynthetic Reinforcement in Asphalt Layers_Y1	
P122	Improved Characterisation of Lightly Bound Materials_Y1	
P123	Improved subgrade characterisation for pavement design purposes_Y1	
P123	Improved subgrade characterisation for pavement design purposes_Y2	
P124	Innovations in Pavement Technology (Scoping Study)_Y1	
P125	Slopes - Rainfall Threshold Criteria Assessment_Y1	
P126	Assessment of Current DTMR Practice of Driven Pile Verification Using High Strain Dynamic Testing (HSDT)_Y1	
P127	Harmonisation of Asphalt Compaction Standards_Y1	
P129	Monitoring the Performance of Concrete Pavements Fracturing for the M1 Upgrade Varsity Lake to Tugun (VL2T)_Y1	

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Project Number	Project Title	ASSET MANAGEMENT
A34	Customer Based Level of Service in Road Maintenance_Y3	
A35	Identification of Residual Risk for each Element and Development of a Funding Allocation Methodology for Elements_Y4	
A41	Benchmarking Asset Management Practices and Developing Improvement Actions_Y3	
A48	A Cross-Program Infrastructure Gap Analysis Considering Network Preservation, Safety, Connectivity and Resilience_Y1	
A49	Roadside and Road Surface Delineation Element Management Plan Review and Development_Y1	
A50	Investigation into Innovative Methods to Inform Network Management of Skid Resistance_Y1	
A51	Improved Basis for Seal Life Estimates in Asset Management: Implementation Stocktake and Validation of PMB and C170 Performance_Y1	
Project Number	Project Title	STRUCTURES
S26	Review of TMR WIM Systems and Strategies for Traffic Data Collection for Bridge Asset Management: Virtual WiM & Heavy Vehicle Tracking – Feasibility & Value_Y4	
S33	Develop New Manual of Repairs for Non-Timber Bridges_Y4	
S43	Improving Structures Asset Management Capability Systems_Y2	
S51	Suitability of the Use of Recycled Aggregate in Concrete_Y2	
S53	Asset Owners Assessment of FRP Strengthening Techniques_Y2	
S54	Use of Cathodic Protection to Increase the Remaining Life of Steel Culverts_Y2	
S57	More Flood Resilient Bridge Approaches_Y2	
S59	Feasibility of Detecting Load Capacity Deterioration in Bridge Deck Units Due at ASR Using Structural Monitoring_Y1	
Project Number	Project Title	NETWORK OPERATIONS
R76	Development of Hybrid Data Model Prototype for the Enhanced Cost of Congestion (CoC) Methodology_Y3 (outcomes of R22 and R47)	
R77	Real-Time Determination of Spare Capacity of Routes for Enhanced Management of Congested Road Networks_Y3	
R100	TMR Traffic Data Access Portal_Y2	
R102	Automated Matching of HERE Map Links to TMR Network_Y2	
R108	Review of Road Operations Interventions Levels_Y1	

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Project Number	Project Title	ROAD SAFETY
R70	Addressing Sub-Optimal Road Safety Barriers at Bridge Approaches_Y1 - Variation 2019/2020	
R87	Development of Crash Reduction Factors Fact Sheet_Y3	
R98	Development of Speed Management Activities Guideline_Y1	
R99	Safety of Narrow (4m) Seals_Y1	
R105	Identify Countermeasures to Reduce the Likelihood of Incidents Involving Members of the Public at Mobile Line Marking Operations on Two-Lane, Two-Way Undivided Roads	
R106	Identify Countermeasures to Reduce the Likelihood of Safety Incidents Involving Members of the Public at Short-Term Roadwork Sites	
Project Number	Project Title	SUSTAINABILITY
P108	Investigate the Effects of Native Vegetation and Erosion Control Matting for Protection of Soil Slopes_Y1	
P117	Sustainability Assessment Tool_Y1	
O17	Development of Framework for Fish Passage in Culverts_Y2	
O20	Recycled Materials Assessment Framework_Y1	
O21	Dispersive Soil Management_Y1	
O25	Use of Recycled Materials in Earthworks and Drainage_Y1	
Project Number	Project Title	OTHER
O18	Exploring the Use of Artificial Intelligence (AI) Solutions to Improve the Accuracy of Project Delivery Forecasts_Y1	