

## 2019-2020 NACOE Research Program

Project Number	Project Title	PAVEMENTS
P10	Cost Effective Design of Asphalt Pavements at Queensland Pavement Temperatures_Y6	
P40	Benefits of Traffic Speed Deflectometer (TSD) Data in Pavement Analysis_Y5	
P43	Long Term Pavement Performance Project_Y6	
P45	Implementation of Thin Asphalt Surfacing in QLD_Y3	
P55	TIPES Evaluation Protocol for Innovative Road Surfacing Products_Y4	
P59	Best Practice Non-Destructive Testing in Assurance of Asphalt_Y3	
P60	Best Practice in Compaction Quality Assurance for Pavement and Subgrade Materials_Y4	
P69	Selection and Use of Unbound Granular Pavements with Thin Asphalt Surfacing_Y3	
P72	Investigate Moisture Susceptibility of Cement Treated Materials_Y3	
P75	Transferring CRM GGA Technology to QLD	
P76	The Use of Recycled Glass in Pavements_Y2	
P78	Investigate Skid Resistance Related Operating Requirements for Outcome Based Contracts_Y2	
P94	Optimising the Use of Recycled Materials in Unbound and Stabilised Pavements in QLD_Y2	
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_Y2	
P109	Borehole Investigation on Steep Sloping Ground_Y1	
P110	Development of TMR Geotechnical Database for Expansive Soils in QLD_Y1	
P111	Improved Crumb Rubber Modified Binder Sprayed Sealing Practices - Phase 1_Y1	
P112	Characterising Non-Standard Materials Using the Texas Triaxial Test_Y1	
P113	Road Construction Material Database_Y1	
P114	The Performance of BTB Pavements in QLD_Y1	
P118	Preliminary Assessment of the Use of Spinifex Fibres in Open Graded Asphalt	
P119	Preliminary Assessment of the Use of Spinifex Fibres in Foamed Bitumen Stabilisation Mixes	

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Project Number	Project Title	ASSET MANAGEMENT
A20	Improved Model to Predict the Remaining Life of Sprayed Seal Surfaces_Y6	
A34	Customer Based Level of Service in Road Maintenance_Y2	
A35	Identification of Residual Risk for each Element and Development of a Funding Allocation Methodology for Elements_Y3	
A41	Benchmarking Asset Management Practices and Developing Improvement Actions_Y2	
A42	Framework for the Evaluation of Business Cases for Road Maintenance, Preservation and Capital Renewal of Pavement Assets_Y1	
A44	Synthesis & Dissemination of Best Practice, Value for Money Asset Preservation & Management Strategies for Sealed Roads Based on NACOE and Other National Research Programs_Y1	
A45	Improved Design, Construction, Maintenance and Rehab for Qld Low Volume State and Local Govt. Controlled Roads: Technical Supplement & Dissemination of Best Practice for Unsealed Roads_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_Y3	
S33	Develop New Manual of Repairs for Non-Timber Bridges_Y3	
S44	Implementing Learnings from TMR/NACOE Research Projects into TMR Practice and Technical Documents_Y2	
S51	Suitability of the Use of Recycled Aggregate in Concrete_Y1	
S52	Deck Unit Bridge Management Recommendations_Y1 (Previously S29)	
S53	Asset Owners Assessment of FRP Strengthening Techniques (Durability and Benchmarking of FRP Strengthening Techniques) Final Title to be Determined_Y1	
S54	Use of Cathodic Protection to Increase the Remaining Life of Steel Culverts_Y1	
S57	More Flood Resilient Bridge Approaches_Y1	
S58	Review of AS/NZS 4058 and AS 1597.1/ AS 1597.2 Against TMR Performance (Strength and Durability) Expectations	
P52	Performance Evaluation of Spinifex in Concrete_Y3	
Project Number	Project Title	NETWORK OPERATIONS
R76	Development of Hybrid Data Model Prototype for the Enhanced Cost of Congestion (CoC) Methodology_Y2 (Outcomes of R22 and R47)	
R77	Real-Time Determination of Spare Capacity of Routes for Enhanced Management of Congested Road Networks_Y2	

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Project Number	Project Title	ROAD SAFETY
R54	Automated Systems for the Analysis of the Status of Road Safety and Conditions Using TMR's Vehicle Mounted Video and Pattern Recognition Techniques_Y3	
R70	Addressing Sub-Optimal Road Safety Barriers at Bridge Approaches_Y1	
R87	Development of Crash Reduction Factors_Y2	
R90	Effect of Different Roadside Embankment Slope Attributes on Crash Severity Outcomes_Y1	
Project Number	Project Title	SUSTAINABILITY
P108	Investigate the Effects of Native Vegetation and Erosion Control Matting for Protection of Soil Slopes_Y1	
O14	Critical Review of Design and Development Practices That Relate to Access for People With a Disability	
O16	Development of Trial Framework	
O17	Methods of Steel Pipe Rehabilitation That Can Achieve Fish Passage Conditions	
Project Number	Project Title	HEAVY VEHICLE & FREIGHT
R62	Heavy Vehicle Route Assessment Online Training_Y3	