

## Transport and Main Roads Technical Notes Amendment Register

This register captures amendments to Technical Notes from July 2019 onwards.  
Information about amendments prior to July 2019 may be incomplete or unavailable.

TN ref.	Title	Version date	Change type	Description of change
EN07	Conformance of modified polymer binders	April 2011		
EN10	Guideline for quarry assessment and registration	Prior to July 2019	Withdrawn	See <a href="#">Pavements, Materials and Geotechnical approved products and registered suppliers</a>
TN03	Measurement of ground vibrations and airblast	May 2013		
TN18	Design criteria for motor grids	November 2019	Amendment	Minimum concrete strength for motor grids to <a href="#">Technical Specification MRTS70 Concrete</a> shall be N32/30 for exposure classification up to B1 and S40/20 for higher classifications.
		July 2019	Amendment	Incorporates changes to <a href="#">Standard Drawings</a> SD1561–SD1565 from the revised <a href="#">Australian Standard</a> AS 3600 and approved supplier feedback.
TN19	Helical lock-seam corrugated steel pipe	Prior to July 2019	Withdrawn	See <a href="#">Technical Specification</a> MRTS03 <i>Drainage, Retaining Structures and Protective Treatments</i> .
TN23	Design criteria for precast drainage pits	November 2021	Amendment	Inclusion of Fibre Reinforced Concrete (FRC) pit design criteria and alternative design method by prototype testing for small drainage pits.
TN25	Post tensioning anchorage approval	June 2013		

TN ref.	Title	Version date	Change type	Description of change
TN27	Guidelines for design of precast concrete box culvert pipe and headwalls	December 2022	Amendment	<ul style="list-style-type: none"> <li>Requirement to use sloping headwalls are added for small culverts sizes.</li> <li>Driveable culvert endwalls are not permitted to use in Transport and Main Roads projects because they are not manufactured by Transport and Main Roads registered pre-caster. Also concerns have been raised within Transport and Main Roads that are associated with road safety, pedestrian safety, hydraulic efficiency and lack of ability to easily clean and maintain.</li> <li>The required grout strength for staple joints is added.</li> <li>Updated references to current Australian Standards.</li> <li>Technical note is amended to align with recent updates to Standard Drawing 1243. Accordingly, each headwall connection types, and its applicable situations are included. It was added an Annexure table for selection of headwall connection types for each culvert situation. That can easily select the appropriate headwall connection types.</li> <li>Cast in-situ headwall connection detail (SD1243 Drawing 1 &amp; 2) to be specified and applicable for all culvert sizes. This will be the Transport and Main Roads preferred connection detail.</li> <li>Bolted connection details are specified as an alternative detail for culvert sizes up to 1200 mm. (Example, where there are limitations to supply cast in-situ concrete)</li> </ul>
TN29	Duplex coatings on helical pipe culverts	Prior to July 2019	Withdrawn	Product no longer available.
TN38	Longitudinal grades for footpaths, walkways and bikeways	January 2010	Withdrawn	This document is now obsolete. Withdrawn in November 2023. Refer to harmonised guidance in Road Planning and Design Manual Edition 2 Volume 3 Part 6A.
TN45	Treatment of surfaces of precast octagonal piles	November 2015		
TN47	Conformance requirements for bridge barrier	Prior to July 2019	Withdrawn	
TN49	Theft proofing of aluminium bridge rail and balustrade	November 2015		

TN ref.	Title	Version date	Change type	Description of change
TN50	Treatment of top surface and 'construction joints' on deck units and girders	October 2015		
TN54	Fibre composite projects	January 2015		
TN59	How green is our concrete?	July 2022	Withdrawn	Content previously incorporated in TN193 <i>Use of Recycled Materials in Road Construction</i> .
		November 2015		
TN60	Materials test certificates acceptance	November 2015		
TN61	Use of storage and hydrogen-controlled electrodes	November 2015		
TN62	Assembly and tensioning of high strength bolts and nuts <ul style="list-style-type: none"> <li>• Part 1: Class 8.8</li> <li>• Part 2: Class 10.9</li> <li>• Part 3: Class 4.6.</li> </ul>	November 2015		
TN63	Assessment of electrical pit products to MRTS78 and MRTS91	April 2021	Editorial	Administrative change to batch approval certificates valid for five years from issuing date, instead of three years.
		March 2021	Amendment	Updated to reflect current requirements of <a href="#">Technical Specification MRTS91 Conduits and Pits</a> for pit product Batch Approval.
		March 2020	Amendment	Updated to clarify requirements of Transport and Main Roads pit supply and testing for pit product Batch Approval.
		November 2019	Amendment	Updated to reflect <a href="#">Technical Specification MRTS91 Conduits and Pits</a> November 2019.
		March 2020	Amendment	Inclusion of additional tests on pit covers: No cracking, collapse or failure, as required by the new <a href="#">Australian Standard AS 3996:2019</a> .
TN64	Tensioning and retensioning of slip base pole bolts	November 2015		

TN ref.	Title	Version date	Change type	Description of change
TN66	Commercial and fabricated bolts and nuts	November 2015	Withdrawn	Withdrawn November 2020. Content incorporated into MRTS278 <i>Supply of Structural Fasteners</i> .
TN67	VMS gantry repair procedure	August 2015		
TN68	VMS gantry installation procedure	Prior to July 2019	Withdrawn	Content incorporated into MRTS61 Suite.
TN69	Banners on light poles	June 2022	Amendment	Technical Note TN69 reinstated with updated content.
TN71	Issue of Queensland Sprayer Certificate - requirements and process for the issue of a Queensland Sprayer Certificate	Prior to July 2019	Withdrawn	See <a href="#">Pavements, Materials and Geotechnical approved products and registered suppliers</a>
TN73	Use of combined steel and plastic pit covers for circular cable pits	Prior to July 2019	Withdrawn	Content incorporated in MRTS91 Suite.
TN74	Structural design procedure of pavements on lime stabilised subgrades	Prior to July 2019	Withdrawn	See <a href="#">Structural design procedure of pavements on lime stabilised subgrades guideline</a>
TN75	Registration of mix designs for asphalt manufactured using warm mix asphalt technologies	Prior to July 2019	Withdrawn	See <a href="#">Technical Note TN148 Asphalt Mix Design Registration</a> and the department's asphalt <a href="#">Technical Specifications</a> .
TN99	Sulphate reducing bacteria on steel structures	November 2015		
TN102	Selecting testing frequencies for acceptance sampling of pavement materials	Prior to July 2019	Withdrawn	
TN103	Vandalism of plastic pipe under roads, rail and similar infrastructure	July 2019	Administrative	Minor editorial changes.
TN104	Guidelines for asphalt mix design assessment	Prior to July 2019	Withdrawn	See <a href="#">Technical Note TN148 Asphalt Mix Design Registration</a> and the department's asphalt <a href="#">Technical Specifications</a> .
TN105	Grates	July 2015	Withdrawn	
		July 2012		

TN ref.	Title	Version date	Change type	Description of change
TN106	Crevice corrosion defect	November 2015		
TN107	Steelwork inspection requirements	November 2015		
TN108	Mid-block bicycle lane termination treatments	Prior to July 2019	Withdrawn	See <a href="#">Queensland Manual of Uniform Traffic Control Devices</a> Part 9 <i>Bicycle facilities</i> .
TN109	Video record keeping of traffic management at roadworks	Prior to July 2019	Withdrawn	See <a href="#">Queensland Manual of Uniform Traffic Control Devices</a> Part 3 <i>Traffic control for works on roads</i> .
TN110	Wildlife signage guidelines	Prior to July 2019	Withdrawn	See <a href="#">Traffic and Road Use Management (TRUM) manual</a> Volume 3 <i>Signing and pavement marking</i> Part 8 <i>Wildlife signage guidelines</i> .
TN111	Drive tourism and welcome signage guidelines	Prior to July 2019	Withdrawn	See <a href="#">TRUM manual</a> Volume 3 <i>Signing and pavement marking</i> Part 7 <i>Tourist, service and welcome signs</i> .
TN113	Diversion route signage	March 2020	Withdrawn	See <a href="#">TRUM manual</a> Volume 3 <i>Signing and pavement marking</i> Part 9 <i>Diversion route signage</i> .
TN114	Toll road signage guidelines	March 2020	Withdrawn	See <a href="#">TRUM manual</a> Volume 3 <i>Signing and pavement marking</i> Part 10 <i>Signing and pavement marking for toll roads</i> .
TN115	Signing and line marking for heavy vehicle interception sites	September 2022	Withdrawn	See <a href="#">Signage and line marking for heavy vehicle interception sites guidelines</a>
		April 2015		
TN117	Tourist signs for commercial tourist attractions on state-controlled roads	Prior to July 2019	Withdrawn	See <a href="#">TRUM manual</a> Volume 3 <i>Signing and pavement marking</i> Part 7 <i>Tourist, service and welcome signs</i> .
TN118	Sealing of unsealed roads with low traffic	July 2015		See <a href="#">Western Queensland Best Practice Guidelines</a> WQ35 <i>Paving materials and type cross sections for roads on expansive soils in western Queensland</i>
TN119	Changes to Technical Specification MRTS02 <i>Provision for Traffic</i>	August 2014	Withdrawn	This document is now obsolete. Withdrawn in November 2019.
TN120	Changes to Part 3 of the <i>Manual of Uniform Traffic Control Devices: Works on Roads</i>	Prior to July 2019	Withdrawn	See <a href="#">Manual of Uniform Traffic Control Devices</a> Part 3 <i>Traffic control for works on roads</i> .
TN121	Construction materials testing supplier registration system	September 2019	Withdrawn	Replaced by <a href="#">construction materials testing (CMT) laboratory registration system</a>

TN ref.	Title	Version date	Change type	Description of change
TN122	Quarry specific testing frequency project system	October 2019	Withdrawn	Replaced by <a href="#">Transport and Main Roads quarry registration system (QRS)</a>
TN123	Flow charts for selection of gantries for Intelligent Transport Systems (ITS) devices	September 2014		
		March 2024	Withdrawn	This publication has been superseded by the <a href="#">Queensland Guide to Smart Motorways (QGSM)</a>
TN124	Durability issues of reinforced concrete driven piles	September 2014		
TN125	Long distance transport and extended placement times for concrete	July 2022	Amended	Updated to align with July 2022 update to <a href="#">Technical Specification MRTS70 Concrete</a> .
		September 2014		
TN126	Pavement design supplement	Prior to July 2019	Withdrawn	See <a href="#">Pavement Design Supplement</a>
TN127	Asphalt procurement harmonisation with Roads and Maritime Services	Prior to July 2019	Withdrawn	
TN128	Selection and design of cycle tracks	October 2019	Withdrawn	Replaced by <a href="#">Selection and design of cycle tracks guideline</a>
TN128 App. B	Drawings	October 2019	Withdrawn	Incorporated in <a href="#">Selection and design of cycle tracks guideline</a>
TN129	LUMS system performance specification	April 2015		
TN130	Speed management on shared paths	November 2014	Withdrawn	See <a href="#">Speed management on shared paths guideline</a>
TN131	Shared path and bicycle path termination treatments	Prior to July 2019	Withdrawn	See <a href="#">TRUM manual Volume 1 Guide to Traffic Management Part 6 Intersections, Interchanges and Crossings</a> .
TN132	Maintenance minimisation guidelines for walking and cycling facilities	November 2014	Withdrawn	See <a href="#">Maintenance minimisation for walking and cycling facilities guideline</a>
TN133	Guidance on the widths of shared paths and separated bicycle paths	Prior to July 2019	Withdrawn	See Austroads <a href="#">Guide to Road Design Part 6A Paths for Walking and Cycling</a>
TN136	Providing for cyclists on roundabouts	August 2015	Withdrawn	See <a href="#">Providing for people walking and riding at roundabouts guideline</a>

TN ref.	Title	Version date	Change type	Description of change
TN136	Providing for cyclists on roundabouts: Appendix B – Bicycle crash prediction tool for Queensland roundabouts	August 2015	Withdrawn	See <a href="#">Providing for people walking and riding at roundabouts guideline</a>
TN137	Bicycle activated warning signs	Prior to July 2019	Withdrawn	See <a href="#">TRUM manual</a> Volume 1 <i>Guide to Traffic Management Part 10 Traffic Control and Communication Devices</i> .
TN138	Verge parking and indented parking	January 2015	Withdrawn	See <a href="#">Road Planning and Design Manual</a> Volume 3 Part 6B <i>Roadside environment</i>
TN139	Use of on-street space (kerbside road space) for safer cycling	January 2015	Withdrawn	See <a href="#">TRUM manual</a> Volume 1 <i>Guide to Traffic Management Part 11 Parking management techniques</i> .
TN140	Source material assessment for subtype 2.5, subtype 3.5 and type 4 unbound pavement materials	March 2015		
TN141	Using statistical cluster method to group deflection data for the purpose of pavement performance assessment and structural overlay	January 2015	Withdrawn	See <a href="#">Guideline: Statistical cluster analysis of deflection data for pavement structural identification and design</a>
TN142	High modulus asphalt (EME2) pavement design	Prior to July 2019	Withdrawn	See <a href="#">Pavement design supplement</a>
TN143	Rehabilitation technique and treatment prioritisation method of Plain Concrete Pavements (PCP)	May 2021	Updated	Minor updates (updated references, rewording some clauses to improve clarity). Technical content unchanged.
		May 2015		
TN144	Paint systems for MRTS88	November 2022	Updated	Multiple updates to ensure currency of information.
		July 2021	Updated	Multiple updates including the removal of Section 6.
		Dec 2018		
TN145	Use of residual current devices in departmental infrastructure	July 2015		
TN146	Long term maintenance issues for bridges	January 2016		

TN ref.	Title	Version date	Change type	Description of change
TN147	Recommended interim treatment for crash-damaged public domain steel beam guardrail infrastructure	March 2023	Amendment	<p>The document has been restructured, and editorial changes have been made throughout to improve readability.</p> <p>Advice regarding the use of non-MASH (as well as MASH) tested products has been included to reflect our latest guidance with respect to barrier products.</p> <p>The section on interim treatment has been updated to reflect current traffic engineering standards, <i>Manual of Uniform Traffic Control Devices (MUTCD)</i>.</p>
TN148	Asphalt mix design registration	July 2023	Amendment	<p>Clause 3 has been added to explain the requirements of registering an asphalt manufacturing plant.</p> <p>Clause 4.1 has been expanded to clarify the difference between using a laboratory versus production mix for mix design submission testing and the associated restriction on use.</p> <p>Clause 4.3.1 (b)(ii) has been simplified by removing information provided elsewhere in the document.</p> <p>Clause 4.4 has been amended to clarify a time frame for the testing of production trial asphalt prior to mix design submission.</p> <p>Clause 4.5.1 has been amended to allow a reduced level of testing for asphalt mixes that contain up to 15% RAP, where the mix design has the same binder content and grading of a registered 0% design.</p> <p>Clause 4.8 is a new clause outlining the requirements surrounding the use of asphalt rejuvenating oils.</p> <p>Clause 4.10 has been updated to require the relevant TMR Quarry Reference number to be added to the mix design certificate and updated guidance on what to include in the statement when the mix design does not fully comply with the Technical Specification requirements.</p> <p>Clause 5 has been updated to allow for a 3-year mix design duration if the contractor provides submits their aggregate test results on an annual basis.</p> <p>Clause 7 has been added to address registration of non-standard and nonconforming mix designs.</p> <p>Appendix A1 has been updated to include the use of recycled glass aggregate and crumb rubber binder and appendix A2 has been updated to reflect the current list of contractors prequalified to manufacture asphalt for TMR.</p>



TN ref.	Title	Version date	Change type	Description of change
		July 2020	Amendment	<p>Cluses 3.1.1.1, 3.1.2.1 and 3.4.3 have been updated to include option of using recycled glass in asphalt.</p> <p>Clause 3.1.1.1 has been updated to inform contractors that <a href="#">Technical Note TN183</a> must be followed where they intend to incorporate more than 15% RAP in an asphalt mix.</p> <p>Clause 3.4.3 has been amended to clarify requirements when more than 15% RAP is incorporated into an asphalt mix.</p> <p>Clause 4 has been changed to include an explanation about the mix design expiry timeframe for EME2 mixes and formalises arrangements that are already in place.</p> <p>Table A2 has been updated to reflect current departmental asphalt contractors and Appendix C has been added to provide an example of a mix design certificate for high RAP content asphalt.</p>
TN149	Testing of materials for cement or cementitious blend stabilisation	Prior to July 2019	Withdrawn	See <a href="#">Materials Testing Manual, Part 2: Application, Section 1</a>
TN150	Testing of materials for foamed bitumen stabilisation	Prior to July 2019	Withdrawn	See <a href="#">Materials Testing Manual, Part 2: Application, Section 3</a>
TN151	Testing of materials for lime stabilisation	Prior to July 2019	Withdrawn	See <a href="#">Materials Testing Manual, Part 2: Application, Section 5</a>
TN152	Temporary use electrical generators for traffic signals	Prior to July 2019	Withdrawn	
TN155	Wide centre line treatment - interim advice	Dec 2019	Withdrawn	Content incorporated in the Supplement to Austroads Guide to Road Design, the <a href="#">Road Planning and Design Manual, Volume 3</a> , (August 2018).
		April 2017		
TN156	Use of remote piloted aerial system (RPAS)	October 2019	Withdrawn	Technical Note withdrawn 16 October 2019 as content is out of date.
		September 2016		
TN157	Underground Asset Information (Transport and Main Roads Surveying Standards)	December 2021	Amendment	Revised to reflect recently amended <a href="#">TMR Surveying Standards</a> .

TN ref.	Title	Version date	Change type	Description of change
TN158	Guide to the use of LED road lighting luminaires	November 2017		
TN159	Treatment of under-depth Underground Wiring Systems (UWS) in brownfield installations	November 2020	Amendment	To specify that if an existing earth rod is found to be damaged or corroded, it must be replaced with a 316 stainless steel equivalent.
		August 2019	Amendment	To clarify the use of the 1.8 m earth rod in brownfield installations only.
		February 2017	New	Address the problem of non-compliant or under-depth underground wiring systems in brownfield sites which pose electrical risks to workers and members of the public.
TN160	Vehicle Activated Signs (VAS)	April 2021	Amendment	Updated to reflect corporate standards, general formatting and consistency. Reference to standards and clause numbers also updated.
		August 2016		
TN161	Registering extended design domain and design exception summary reports into GIMS	November 2021	Withdrawn	Content incorporated into the <a href="#">Drafting and Design Presentation Standards Manual</a> , Volume 1, Chapter 1: Introduction.
		August 2017		
TN162	Trench drains	December 2016		
TN163	Third party utility infrastructure installation in state-controlled roads	July 2023	Amendment	The document has been revised in line with current industry standards and provides additional clarity for improved design and management of Third-Party Utility infrastructure installations that meet the departments expectations.
		July 2020	Amendment	Includes references to new <a href="#">MRTS56 Construction Surveying Technical Specification suite</a> and amendment to Section 3.1 Approvals.
TN165	Survey Marks (Transport and Main Roads Surveying Standards)	December 2021	Amendment	Revised to reflect recently amended <a href="#">TMR Surveying Standards</a> .
		February 2017		
TN167	A new approach to asphalt pavement design	February 2017		
TN168	Asphalt warranty and register of asphalt works not warrantied	March 2017		

TN ref.	Title	Version date	Change type	Description of change
TN169	Fencing and edging treatments for cycling infrastructure	Prior to July 2019	Withdrawn	See <a href="#">Fencing and edging treatments for cycling infrastructure guideline</a> and associated <i>Evaluation Tool</i>
TN170	Township entry treatment (TETs)	January 2022	Amendment	<ul style="list-style-type: none"> <li>Section 8.4 <i>Lane pavement treatment</i> updated to reference the recently published Technical Specification MRTS110 <i>Coloured Surface Treatments</i>.</li> <li>Reference updated to new <i>National Roads Safety Strategy 2021–2030</i></li> <li>Contact details updated for Engineering and Technology's Pavements, Research and Innovation Unit if further information regarding MRTS110 is required</li> </ul>
		April 2021	New	This technical note is applicable to the site assessment and installation of Township Entry Treatments (TETs) on state-controlled roads and aims to assist professionals and practitioners to improve road safety by outlining best practices for the installation of TETs.
TN171	Use of high standard granular (HSG) bases in heavy duty unbound granular pavements	July 2017		
TN172	36-core multicore cable for traffic signal installation	April 2017		
TN173	Tensioning hexagon nuts on lantern mounting bolts	August 2017		
TN174	Purchasing guidelines for Transport and Main Roads major sign structures	October 2017		
TN175	Selection and design of sprayed bituminous treatments	October 2017		
TN176	Vinyl sheet piles	September 2018	New	Vinyl sheet pile is a new product to Transport and Main Roads and is an option to consider for emergency applications where there is limited access for heavy machinery to drive steel sheet piles, given its low cost and ease of transport and installation.
TN177	Guidelines for the installation of electric vehicle charging station signs	March 2021	Withdrawn	Content incorporated in <a href="#">Queensland Manual of Uniform Traffic Control Devices</a> Appendix F2.

TN ref.	Title	Version date	Change type	Description of change
		June 2020	Amended	To specify the pavement marking colour code for use on the pavement patch for parking bays.
		August 2017	New	To ensure consistent signing of electric vehicle charging bays and direction signing to the charging stations.
TN178	Testing of materials for plant-mixed cement or cementitious blend stabilisation	Prior to July 2019	Withdrawn	See <a href="#">Materials Testing Manual Part 2: Application, Section 2</a>
TN179	Testing of materials for plant-mixed foamed bitumen stabilisation	Prior to July 2019	Withdrawn	See <a href="#">Materials Testing Manual Part 2: Application, Section 4</a>
TN180	Yellow box marking at signalised intersections	July 2023	Withdrawn	Content is now included in AS 1742.2-2022, which is accepted in Queensland.
		January 2019	New	Provides guidelines for the installation of yellow box marking at signalised intersections that are subject to frequent queueing within the intersection.
TN181	Guidelines for Design of Innovative Intersections 'Diverging Diamond Interchange'	December 2021	New	Provides interim advice on the geometric design methodology for Diverging Diamond Interchange (DDI) Intersection treatments on the Queensland State Controlled road network.
TN182	Traffic management of border crossings and closures	May 2023	Withdrawn	Withdrawn as no longer necessary in managing COVID-19 as per Queensland Government policy of this time.
		April 2020	New	Provides examples and considerations for temporary traffic management (TTM) at border crossings and closures as part of the ongoing quarantine efforts in response to the novel coronavirus.
TN183	Use of high percentages of reclaimed asphalt pavement (RAP) material in dense graded asphalt	March 2019	New	Provides guidance to asphalt contractors about how to demonstrate ongoing compliance with the binder blend requirements specified in MRTS30 for higher RAP content mixes.

TN ref.	Title	Version date	Change type	Description of change
TN185	Project recognition signs	June 2022	Amended	<ul style="list-style-type: none"> <li>Updated to include a reference to project signage within Appendix A that has been specifically developed for the Natural Disaster Recovery Funding Arrangements (DRFA)</li> <li>Updated reference to address June 22 release of Technical Note TN69 <i>Banners on light poles</i></li> <li>Updated reference to Australian Standard AS 4687.</li> </ul>
		September 2021	Amended	<ul style="list-style-type: none"> <li>References to TC1842_1 and TC1842_2 replaced in Appendix A with TC1842_3 and TC1842_4 as per Transport Infrastructure Development Scheme Project Recognition policy.</li> </ul>
		April 2021	Amended	<ul style="list-style-type: none"> <li>Editorial changes to various clauses to assist readability</li> <li>Amendments to structural requirements following advice from Transport and Main Roads structural unit (regarding signs, horizontal and vertical banners, and mesh fencing)</li> <li>Additional design guidance for mesh screening</li> <li>Updates to district approval processes</li> <li>Replacement of the government tag line to 'Unite and Recover' on Traffic Control (TC) signs TC1240</li> <li>Inclusion of the new federal road safety program sign TC2349</li> </ul>
		August 2020	Amended	Updated to reflect the new government identifier 'Unite and Recover' replacing the previous 'Advancing Queensland' visual identity.
		June 2020	Amended	Details on out of scope, indemnification, added; design advice expanded, reference to PVC removed
		April 2020	New	Provides information on objectives of project signage, location of signage; warrants for project signage, signage layouts and templates, and guidance on design, erection, installation, maintenance, removal of signs
		TN186	Sealing in cold weather conditions	August 2019
July 2019	New			Provides guidance about the risks of constructing sprayed seals during cold weather conditions

TN ref.	Title	Version date	Change type	Description of change
TN187	Controlled low-strength material for pipe installation	August 2019	New	Provides guidance for Contractors wishing to employ an alternative method for backfilling stormwater drainage pipes
TN188	Geometric design of innovative intersections 'displaced right turn'	August 2019	New	The 'displaced right turn' intersection treatment represents new and innovative design thinking for road infrastructure within Australia. Transport and Main Roads has initiated the development of preliminary design guidelines for such treatments to provide industry guidance and encouragement to consider this type of treatment as acceptable design solutions.
TN190	Construction and trafficking of high modulus asphalt (EME2)	June 2020	New	Assists people involved in Transport and Main Roads projects that include EME2 to understand more about the construction and trafficking of EME2, based on the experience of early projects that were monitored by Transport and Main Roads' Engineering & Technology.
TN191	Reducing pedestrian delays	August 2020	New	Intended for use by local governments and road operators in areas of high pedestrian activity. The additional treatments not yet included in existing guidance include setting an optimal maximum cycle time and pedestrian green wave. This Technical Note provides the description of the treatments, investigations to complete to determine if this treatment is effective for improving pedestrian delays and other considerations required for implementation.  See also <a href="#">Options for reducing pedestrian delays at traffic signals guideline</a> .
TN192	Pavement rehabilitation – Investigation and analysis	Sept 2020	New	Provides guidance to project managers, pavement designers and pavement material testing personnel and contractors on how to assess the available pavement information and site conditions to plan and undertake pavement investigation work more accurately and efficiently.
TN193	Use of recycled materials in road construction	Sept 2020	New	Relates to the use of recycled materials in road construction and maintenance which summarises and highlights the requirements of current Technical Specifications as well as areas of research.

TN ref.	Title	Version date	Change type	Description of change
TN194	Conversion from PE cell controlled power to 24/7 power and electrical clearance hazard remediation for Rate 3 switchboards	July 2023	Amended	<ul style="list-style-type: none"> <li>Title change, notable NPL 3 to Rate 3.</li> <li>Edits to tariff terminology.</li> <li>Clarification of when changeover activities should occur.</li> <li>Improved advice when warning sticker should be placed on pillar mounted switchboards.</li> </ul>
		June 2021	New	Provides guidance on the conversion of PE cell controlled power to 24/7 mains controlled power and the removal of screws from the facing escutcheon plate for departmental owned NPL 3 switchboards.
TN195	Traffic Guidance Scheme (TGS) worked examples	Dec 2021	Amended	<p>Updates to Example 1.</p> <ul style="list-style-type: none"> <li>Updated Figure 4.1 due to changes in the technical standard.</li> <li>Updated Note 8 due to a change in technical standards for the location of the QUEUED TRAFFIC AHEAD text panel which is now required to be closest to traffic.</li> <li>Updated Notes 13 and 15 due to a change in technical standards to allow a larger distance between the lane status sign and the taper when the speed limit on the road is 80 km/h or greater.</li> <li>Added new Figure 4.1(a) to show the impact of changing how speed limits are reduced impacts other signs and sign spacings.</li> <li>Updated Note 20 to include details of other options for the 1200 x 300 multi-message sign panel for the lane not required to merge.</li> <li>Updated Note 33 to correct terminology of the Primary PREPARE TO STOP sign and add Item (d) to include the possible relation of the ROADWORK AHEAD sign due to the new Primary PREPARE TO STOP sign location.</li> </ul>
		July 2021	New	Provides worked examples of the Traffic Guidance Scheme (TGS) development applicable for various work and road type scenarios, based on Australian Standard AS 1742.3, Austroads' <i>Guide to Temporary Traffic Management</i> , the Queensland <a href="#">Manual of Uniform Traffic Control Devices</a> , <a href="#">Queensland Guide to Temporary Traffic Management</a> and Transport and Main Roads' <a href="#">Guideline – Traffic Management at Works on Roads</a> .

TN ref.	Title	Version date	Change type	Description of change
TN197	Provision of shade along paths	July 2021	Amended	Changed 'Institute of Public Works Engineering Australasia' to the 'Institute of Public Works Engineering Australasia, Queensland'. The two are separate legal entities.
TN198	Placement and operation of Temporary Variable Message Signs (TVMSs)	July 2022	Withdrawn	Content incorporated in <a href="#">Queensland Guide to Traffic management</a> Part 3 Section 6.10 July 2022 release
		Dec 2021	Amended	<ul style="list-style-type: none"> <li>New Clause 6 added for 'Other location requirements' to address the need to consider the location of other traffic control devices, sight lines and the presence of roadside advertising in determining the best location for the Temporary Variable Message Sign.</li> <li>Existing Clauses 6 and 7 renumbered as 7 and 8 respectively.</li> </ul>
		August 2021	New	The Austroads <a href="#">Guide to Temporary Traffic Management</a> (AGTTM) version 1.1 (yet to be published as of August 2021) proposes to include a new section <i>Placement and operation of Portable Variable Message Signs</i> in Part 3. The guidance contained in this new Technical Note is based on the information proposed to be included in the future publication update of AGTTM version 1.1, with additional material added which is specific to Queensland.
TN199	Guidance for the design of temporary roads	December 2021	New	<p>The following road design parameters have been identified where some guidance has been produced with regards to road design guidelines for temporary roads and there is evidence of design exceptions previously being successfully applied:</p> <ul style="list-style-type: none"> <li><i>Cross section – lane widths, shoulder widths and barrier edge clearance.</i></li> <li><i>Sight distance – particularly stopping sight distance.</i></li> <li><i>Coordination of horizontal and vertical alignment.</i></li> <li><i>Horizontal alignment.</i></li> <li><i>Vertical alignment.</i></li> <li><i>Site access – acceleration and deceleration lanes for works vehicles at road worksites.</i></li> <li><i>Temporary road safety barriers – warrants for use.</i></li> <li><i>Turn treatment warrants for unsignalised intersections with short periods of higher traffic volumes.</i></li> <li><i>Drainage.</i></li> </ul>



TN ref.	Title	Version date	Change type	Description of change
TN200	Slip base pole clamping bolt tethering system installation	July 2022	New	Provides step-by-step installation instructions to minimise the risk of harm to road users, damage to vehicles and road infrastructure.
TN202	Vinyl wrapping of traffic signal controller cabinets	October 2022	New	Provides instruction on the use of an external vinyl film wrapping system for traffic signal controller cabinets (TSCCs). This Technical Note aims to specify the minimum and desirable requirements for the use of externally-applied vinyl cast film wrapping system for TSCCs. It describes the application and removal of vinyl cast film wrapping system for TSCCs to avoid the potential damage. This Technical Note must comply with the requirements of Australian Standard AS 2578 <i>Traffic signal controllers</i> , Technical Specification MRTS201 <i>General equipment requirements</i> and other relevant Transport and Main Roads Technical Specifications and Australian Standards. A vinyl wrap may be desirable as a deterrent for graffiti or tagging on a TSCC.
TN203	Footpath or shared path speed zones for PMDs	November 2022	Withdrawn	TN203 was published in relation to new rules and increased penalties apply for people riding personal mobility devices, such as e-scooters, in Queensland enacted from Tuesday 1 November 2022. A process was developed to determine whether the speed limit for personal mobility devices on a shared path should be 12km/h or 25 km/h and included in the Queensland Road Safety Technical User Volume (QRSTUV) <i>Guide to Speed Management</i> as part of the <i>Queensland Guide to Road Safety</i> harmonisation, released 30 November 2022.
		October 2022	New	Provides technical guidance to jurisdictions regarding the speed limit setting process for PMDs on shared paths.
TN204	Mix design registration of plant-mixed cementitious stabilised pavement material	November 2022	New	Published for the mix design registration system for plant-mixed cementitious stabilised pavement material. Outlines the process and requirements for submission, evaluation, registration, and mid-term review of mis designs. Mix design requirements removed from <a href="#">Technical Specifications MRTS08 Plant-Mixed Heavily Bound (Cemented) Pavements</a> and <a href="#">MRTS10 Plant-Mixed Lightly Bound Pavements</a> and instead included in this Technical Note.

TN ref.	Title	Version date	Change type	Description of change
TN205	Use of extended design domain for the lateral placement of road safety barriers	June 2023	Admin update	<p>June 2023 administrative update: Updated Ramshield W-Beam product advice contact to Safe Direction.</p> <p>March 2023 – NEW Technical Note TN205: A new technical note that provides clarification regarding TMR's definition of the Normal and Extended Design Domains for the lateral placement of the road safety barrier with respect to the hinge point. This clarification has been prepared in response to issues, raised by internal stakeholders, encountered in retrofitting road safety barriers in constrained corridors where funding is limited; particularly those funded under the Targeted Road Safety Program (TRSP). This Technical Note outlines the potential use of EDD, rather than designing costly road widening works to achieve NDD in the lateral placement of a road safety barriers.</p>
TN206	Guide to coding crashes	May 2023	New	<p>A new technical note that sets out the process for the coding of crashes in Queensland including definitions and terminology, crash type classification, Descriptive Road User Movement (DRUM) codes, the DRUM coding decision tree, the DRUM groups and DRUM coding examples. The terminology DRUM replaces the previous description for coding of crashes called Definitions for Coding Accidents (DCA). This technical note supersedes and replaces:</p> <ul style="list-style-type: none"> <li>• <i>Queensland Road Crash Database Manual Section 5</i></li> <li>• <i>Queensland Guide to Road Safety Part 2: Safe Roads Appendix A</i></li> </ul> <p>To be read in conjunction with <a href="#">TN206 Drum information</a> supporting document.</p>
TN207	Planning for safe transport infrastructure at schools – Bicycle parking	May 2023	New	<p>This new technical note provides up-to-date guidance on the provision, design and location of bicycle, scooter and skateboard parking facilities in Queensland schools. The technical note takes precedence over and replaces bicycle parking-related content in the <a href="#">Planning for Safe Transport Infrastructure at Schools Technical Guidance</a>. The technical note has been updated following a review of best practice approaches to school bicycle parking facilities and provides greater flexibility in determining the amount of bicycle/scooter/skateboard parking to be provided as part of new and upgraded schools. It also includes more detailed guidance on where to locate these facilities and best practice design features that should be incorporated. The inclusion of scooter and skateboard parking facilities is a key change to the previous guidance, which only considered facilities for bicycles.</p>

<b>TN ref.</b>	<b>Title</b>	<b>Version date</b>	<b>Change type</b>	<b>Description of change</b>
TN208	Managing Slaking and Dispersive Soil risks in transport infrastructure projects	June 2023	New	New technical note providing guidance on the management and treatment of Slaking and Dispersive Soils, to assist planners, designers, project managers, construction contractors and maintenance personnel in minimising the risk of issues arising during construction and underperformance of road assets in-service.
TN209	Reduced Working Width for Single Slope Concrete Barrier Design	November 2023	New	New technical note that provides advice on the design of single slope concrete barriers for reduced working widths under the domain of Design Exception (DE). This advice has been developed in response to issues raised by internal stakeholders regarding the 0.9 m working width, which was adopted for single slope concrete barriers designed according to the 2014 version of RPDM Volume 3 Part 6. This width is significantly narrower than the up to 2.4 m requirement in the current 2022 version of RPDM Volume 3 Part 6. This technical note outlines the potential use of DE, rather than costly road widening particularly where significant roadside structures (e.g. bridge piers) limit the adoption of Normal Design Domain (NDD) design parameters.

