

**PART M62**  
**MAINTENANCE PAVEMENT**

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**1. GENERAL**

- .1 This Part specifies the requirements for maintenance of pavements.

**2. QUALITY REQUIREMENTS**

- .1 The Contractor shall prepare and implement a Quality Plan that includes detailed procedures, documentation and/or instructions as follows:
  - (a) Work instruction for repair of Pavement Digout defects;
  - (b) Work instruction for Crack sealing;
  - (c) Work instruction for repair of Edge break defects; and
  - (d) Work instruction for pothole repair.
- .2 If not provided beforehand, this documentation shall be submitted at least 28 days prior to the commencement of the Maintenance Period.
- .3 The following documents are referenced in this Part:
  - (a) Part M06 Maintenance Inspection and Reporting

**3. RESPONSE TIME**

- .1 Response times for pavement defects edge break (PE), digouts (PN), surface repairs (PS), and median kerb (RT). shall be in accordance with Table 3.1 Response Times.

<b>TABLE 3.1 RESPONSE TIMES</b>		
	<b>RURAL</b>	<b>URBAN</b>
Ram A	60 days	90 days
Ram B	60 days	90 days
Ram C	90 days	120 days
Ram D	90 days	120 days

- .2 Rectification of potholes repair (PP) shall be undertaken in conjunction with Part M06 Maintenance Inspection and Reporting, Clause 3.2 "Loop Inspections".
- .3 Pavement sweeping (PW) shall be undertaken in conjunction with Part M06 Maintenance Inspection and Reporting, Clause 3.2 "Loop Inspections" for road pavement, pedestrian crossings or walkways and 4 months at other non-pavement location.
- .4 Rectification of any specific maintenance pavement defects shall be undertaken within the timeframes agreed to between the Superintendent and the Contractor.

**4. RECORDS AND REPORTING**

- .1 The Contractor shall record the defect in accordance with Part M06 Maintenance Inspection and Reporting, Clause 4.2 "Reporting of Defects".

**5. ADDITIONAL REQUIREMENTS**

**Size of Repairs**

- .1 The Contractor shall include distressed pavement immediately surrounding the defect in the repair, regardless of the intervention parameters (i.e. the area of pavement repair at recording shall be the area required to meet the performance activity). The area of repair on pavements with a sprayed bituminous surface shall not include the 150 mm overlap required for the surface treatment "match in".

**Pavement Deterioration**

- .2 The Contractor shall:
  - (a) ensure the deterioration of recorded defects does not create a safety hazard to road users; and
  - (b) repair pot holes occurring within recorded pavement defects.

**Pavement Marking**

- .3 The Contractor shall replace all delineation, pavement marking and pavement bars removed during repairs within the following response times:
  - (a) no overtaking zone, separation lines and all holding bars - 1 month; or
  - (b) all other pavement marking - 6 months.
- .4 The Contractor shall maintain temporary delineation until permanent pavement marking is in place.
- .5 For 'No overtaking zone', Separation lines or Holding bars, the Contractor shall have in place and maintain temporary traffic devices until all have been reinstated.
- .6 Separate payment will not be made for these works. All routine and specific rates are to be inclusive of line marking.

**Pavement Repair Performance**

- .7 The Contractor shall ensure that the surface finish of pavement repairs shall match the surrounding surface and ensure water resistance and skid resistance values are greater or equal to those specified in Table 5.7.

TABLE 5.7 GRIPTESTER VALUES		
Road Situation	Minimum Grip No.	Maximum Vehicle Speed (km/h)
Difficult sites - steep grades, traffic light approaches, tight bends, roundabouts.	0.50-0.55	60-80
Urban Arterial Roads	0.45	60
Rural Arterial Roads	0.45	110
Urban/Lightly Trafficked	0.40	60

\*Note. Grip No. is the average measure of skid resistance over ten meter intervals when using the Griptester. The approximate conversion between British Pendulum No. and the Grip No. is Grip No.= 0.01x BP.

**Work in the Vicinity of Traffic Signal Loops and Bridge Abutments**

- .8 The Contractor shall give 7 days notice to the Superintendent prior to undertaking pavement work for standards PC, PN and PS within:
  - (a) 1 m of traffic signal loops; and
  - (b) 5 m of bridge abutments.

- .9 The Contractor shall submit a work plan at least 7 days prior to the commencement of work. Provision of the work plan shall constitute a **HOLD POINT** (refer Part M62 Maintenance Pavement Clause 6 "Hold Points"). The Contractor shall immediately notify the DPTI Traffic Management Centre on 1800 018 313 if detector loops are damaged.

**Sweeping**

- .10 The Contractor shall use a vacuum broom adjacent to sensitive locations such as schools and hospitals or where dust is likely to cause a nuisance to nearby residents or businesses.

**Surface Treatment**

- .11 All spray seal pavement repairs shall include 150 mm overlap outside the perimeter of the repair to "match in" with the existing surface. The 150 mm overlap shall be applied using 5 mm aggregate.

**Low Castings**

- .12 The Contractor shall monitor the network and record any localised irregularities as a result of depressed water or sewer top stones or other castings.
- .13 Any depressed castings with deformation > 20 mm under a 1.2 m straight edge in either a transverse or longitudinal direction and within a distance of 1 m surrounding the casting shall be recorded in the Maintenance Defect Register as a LC. Depth, area of depression, and service authority owner shall be recorded in the Maintenance Defect Register.
- .14 Any depressed castings with deformation > 20 mm under a 1.2 m straight edge in either a transverse or longitudinal direction and within a distance surrounding the top stone exceeding 1 m shall be treated as per activity Pavement Digouts (PN/PJ).

**Excavation or Trenching By Others**

- .15 The Contractor shall monitor the network and record any localised irregularities as a result of depressed trenches.
- .16 Any depressed trenches with deformation > 20 mm under a 1.2 m straight edge shall be recorded in the Maintenance Defect Register as a TR.
- .17 Depth, area of depression, and owner of trench (if known) shall be recorded in the Maintenance Defect Register.

**6. HOLD POINTS**

- .1 The following is a summary of Hold Points referenced in this Part.

CLAUSE REF.	HOLD POINT	RESPONSE TIME
5.9	Work in the Vicinity of Traffic Signal Loops and Bridge Abutments	1 week

## 7. ATTACHMENT M62A LOCAL SHAPE CORRECTION (PL)

- .1 **Application:** This standard applies to the correction of localised irregularities to the pavement surface

Defects	Intervention Level	Compulsory Intervention Level	Performance Requirement
<p><b>Routine Maintenance:</b> Nil.</p> <p><b>Specific Maintenance:</b> Shoving, depressions, corrugations, rutting, lumps or ridges &gt; 10 m<sup>2</sup>.</p>	<p>Defects with deformation &gt; 20 mm under a 1.2 m straight edge in a transverse direction, And Deformation under a 3.0 m straight edge &gt; 30 mm longitudinally.</p> <p><b>MDR Recording:</b> Defects shall be recorded on the MDR as PL.</p>	<p>Nil.</p>	<p><b>Shape:</b> Deformation of the surface shall be <math>\leq 10</math> mm in a longitudinal direction under a 3 m straight edge and <math>\leq 10</math> mm in a transverse direction under a 1.2 m straight edge.</p> <p><b>Surface:</b> The finish of the final surface shall match the existing surfacing.</p> <p><b>Permeability:</b> The repair shall ensure water resistance.</p> <p><b>Environmental:</b> Surplus material shall not impede surface drainage or be left on the shoulders or verge.</p>

## 8. ATTACHMENT M62B EDGE BREAK REPAIR (PE)

.1 **Application:** This standard applies to the reinstatement of nominal edge of seal

Defects	Intervention Level	Compulsory Intervention Level	Performance Requirement
<p><b>Routine Maintenance:</b> The 'edge of seal' is fretted, broken or irregular.</p> <p><b>Specific Maintenance:</b> Nil.</p>	<p>Defects where:</p> <ul style="list-style-type: none"> <li>Broken seal exceeding 100 mm from the nominal edge of seal, or</li> </ul> <p>Fretting of seal where</p> <ul style="list-style-type: none"> <li>Fretted edge exceeding 50 mm for 60% on any one side of a segment, or</li> <li>Edge drop off &gt; 50 mm.</li> </ul> <p><b>MDR Recording:</b> Defects shall be recorded on the MDR as PE.</p>	<p>Defects where:</p> <ul style="list-style-type: none"> <li>Broken seal exceeding 200 mm from nominal edge of seal, or</li> <li>Encroaching into the edge line of the road, or</li> </ul> <p>Fretting of seal where:</p> <ul style="list-style-type: none"> <li>Edge drop off &gt; 80 mm.</li> </ul>	<p><b>Longitudinal:</b> Deformation in the reinstated edge shall be <math>\leq 15</math> mm under a 3 m straight edge.</p> <p><b>Transverse:</b> deformation in the reinstated edge shall be <math>\leq 10</math> mm under a 1.2 m straight edge.</p> <p><b>Shape:</b> The edge repair shall maintain the crossfall of the adjacent traffic lane. Longitudinally the edge repair shall 'feather' into the existing seal, such that the edge of seal forms a continuous smooth line. The repair shall be flush with the existing pavement at the join.</p> <p><b>Surface:</b> The finish of the final surface shall match the existing surfacing.</p> <p><b>Permeability:</b> The repair shall ensure water resistance.</p> <p><b>Environmental:</b> Surplus material shall not impede surface drainage or be left on the shoulders or verge.</p>

**9. ATTACHMENT M62C CRACK SEALING (PK)**

.1 **Application** This standard applies to the sealing of cracks or joints in the pavement surface.

Defects	Intervention Level	Compulsory Intervention Level	Performance Requirement
<p><b>Routine Maintenance:</b> Nil.</p> <p><b>Specific Maintenance:</b> Cracking includes the following types: block, crescent shaped, crocodile, diagonal, longitudinal, meandering and transverse as defined in the Austroads "Guide To Visual Assessment of Pavement Condition".</p> <p>Crocodile cracking, where the average least dimension of the cells is less than 300 mm, shall be repaired in accordance with Activity PS/PT.</p> <p>Crack-sealing of open grade surfaces.</p>	<p>Cracks width &gt; 3 mm.</p> <p>Crocodile cracking &gt; 1 m<sup>2</sup>.</p> <p><b>MDR Recording:</b></p> <p>Specific Maintenance shall be recorded on the MDR as PK.</p>	<p>Not applicable.</p>	<p><b>Shape:</b> The resultant surfacing shall be uniform and "level" with the road surface.</p> <p><b>Surface:</b> The skid resistance of the surface shall not be reduced by the treatment.</p> <p><b>Permeability:</b> The repair shall ensure water resistance.</p> <p><b>Environmental:</b> Surplus material shall not impede surface drainage.</p>

**10. ATTACHMENT M62D PAVEMENT DIGOUTS (PN / PJ)**

.1 **Application** This standard applies to the repair of pavement failures.

Defects	Intervention Level	Compulsory Intervention Level	Performance Requirement
<p><b>Routine Maintenance:</b> Shoving, depressions, corrugations, rutting, lumps or ridges with cracking or pumping &lt; 20 m<sup>2</sup>.</p> <p><b>Specific Maintenance:</b> Defects &gt; 20 m<sup>2</sup>.</p>	<p>Defects with deformation &gt; 20 mm under a 1.2 m straight edge in any direction.</p> <p><b>MDR Recording:</b> Defects greater than 1 m<sup>2</sup> shall be recorded on the MDR as PN.</p> <p>Specific Maintenance shall be recorded on the MDR as PJ.</p>	<p>Defects where deformation under a 1.2 m straight edge exceed:</p> <ul style="list-style-type: none"> <li>• 20 mm at bridge abutments,</li> <li>• 30 mm in bicycle lanes, pedestrian crossings and walkthroughs, or</li> <li>• 50 mm in traffic lanes.</li> </ul>	<p><b>Shape:</b> Deformation of the surface shall be ≤10 mm in a longitudinal direction under a 3 m straight edge and ≤10 mm in a transverse direction under a 1.2 m straight edge.</p> <p><b>Pavement:</b> The repair shall have the equivalent mechanical properties to the adjacent pavement.</p> <p><b>Surface:</b> The finish of the final surface shall match the existing surfacing.</p> <p><b>Permeability:</b> The repair shall ensure water resistance.</p> <p><b>Environmental:</b> Surplus material shall not impede surface drainage or be left on the shoulders or verge.</p>

**11. ATTACHMENT M62E POTHOLE REPAIR (PP)**

- .1 **Application:** This standard applies to the repair of small pavement failures during loop inspections.

Defects	Intervention Level	Compulsory Intervention Level	Performance Requirement
<p><b>Routine Maintenance:</b> Potholes and small delaminations &lt;1 m<sup>2</sup> in area.</p> <p>Defects that extend to the full depth of the wearing course.</p> <p><b>Specific Maintenance:</b> Nil</p>	<p><b>Carriageway:</b> Defects that extend to the full depth of the wearing course.</p> <p><b>Bicycle lanes, pedestrian crossings and walkthroughs:</b> Defects that are 20 mm deep or &gt; 100 mm diameter.</p> <p><b>MDR Recording:</b> Defects shall be recorded on the MDR as PP.</p>	Not applicable	<p><b>Shape:</b> The perimeter of the repair shall be flush with the existing surface and of regular shape.</p> <p><b>Pavement:</b> The repair shall comprise materials that are compatible with, or of better quality than the existing pavement.</p> <p><b>Surface:</b> The finish of the final surface shall match the existing surfacing.</p> <p><b>Permeability:</b> The repair shall ensure water resistance.</p> <p><b>Environmental:</b> Surplus material shall not impede surface drainage or be left on the shoulders or verge.</p>



**12. ATTACHMENT M62F PAVEMENT SURFACING (PS/PT)**

.1 **Application:** This standard applies to the repair of the pavement surface.

Defects	Intervention Level	Compulsory Intervention Level	Performance Requirement
<p><b>Routine Maintenance:</b> Flushing, ravelling, stripping, delamination, or crocodile cracking where deformation has not reached the Intervention Level for pavement digouts and &lt; 20 m<sup>2</sup> for asphalt &lt; 100 m<sup>2</sup> for other surfaces</p> <p>Crocodile cracking, where the average least dimension of the cells is greater than 300 mm and crack width &gt; 3mm shall be repaired in accordance with Activity PK.</p> <p><b>Specific Maintenance:</b> Defects &gt; 20 m<sup>2</sup> for asphalt &gt; 100 m<sup>2</sup> for other surfaces.</p>	<p>Delamination, or crocodile cracking &gt; 1 m<sup>2</sup></p> <p>Crack of width &lt; 3 mm with visual inspection of 'pumping of fines'.</p> <p><b>Bleeding binder:</b> &gt; 30% Distressed area over 20 m length in wheel path.</p> <p><b>Seal stripping:</b> 30% Loss of aggregate over area of 100 m<sup>2</sup>.</p> <p><b>MDR Recording:</b> Defects greater than 1m<sup>2</sup> shall be recorded on the MDR as PS.</p> <p>Specific Maintenance shall be recorded on the MDR as PT.</p>	<p>Defects &gt; 50% of the area within a 20 m lane length</p> <p><b>Bleeding / Flushed Areas:</b> (Picking up on tyres or hazardous to traffic) &gt; 1 m<sup>2</sup>.</p>	<p><b>Shape:</b> Deformation of the surface shall be ≤ 10 mm in a longitudinal direction under a 3 m straight edge and ≤ 10 mm in a transverse direction under a 1.2 m straight edge.</p> <p><b>Pavement:</b> The repair shall have the equivalent mechanical properties to the adjacent pavement.</p> <p><b>Surface:</b> The finish of the final surface shall match the existing surfacing.</p> <p><b>Permeability:</b> The repair shall ensure water resistance.</p> <p><b>Environmental:</b> Surplus material shall not impede surface drainage or be left on the shoulders or verge.</p>

**13. ATTACHMENT M62G TRAFFIC ISLAND / MEDIAN AND KERB MAINTENANCE (RT / RI)**

.1 **Application:** This standard applies to the repair of all islands and medians

<b>Defects</b>	<b>Intervention Level</b>	<b>Compulsory Intervention Level</b>	<b>Performance Requirement</b>
<p><b>Routine Maintenance:</b> Damaged, misaligned kerbing or median noses, interrupted longitudinal drainage flow, tripping hazards.</p> <p>Localised hazard on the median surface.</p> <p><b>Specific Maintenance:</b> Accident damage, reshaping, re-sheeting, or paving of medians and defects exceeding 25 m in length.</p>	<p>Defects where: Median kerbing and watertable is misaligned &gt; 50 mm</p> <p>Tripping hazard &gt; 30 mm</p> <p>Drainage water ponding &gt; 5 m.</p> <p><b>MDR Recording:</b> Defects shall be recorded on the MDR as RT.</p> <p>Specific Maintenance shall be recorded on the MDR as RI.</p>	<p>Defects where: Median kerbing is misaligned &gt; 100 mm.</p> <p>Tripping hazard &gt; 50 mm.</p> <p>Water ponding &gt; 20 m.</p> <p>Defects likely to cause accidents or property damage.</p>	<p><b>Shape:</b> The resultant median surface shall be compacted, even and free of tripping hazards.</p> <p><b>Position:</b> The defect shall be reinstated to its original position.</p> <p><b>Material:</b> The defect shall be reinstated with similar material as the parent material.</p> <p><b>Surface:</b> Kerbing shall be continuous and feather into the existing kerb.</p> <p><b>Permeability:</b> The crossfall of the median shall shed water to the pavement.</p> <p><b>Drainage:</b> Kerbing shall not impede longitudinal drainage flows.</p> <p><b>Environmental:</b> Behind median kerbings no vegetation within 100 mm of interface with an impervious surface.</p>

**14. ATTACHMENT M62H PAVEMENT SWEEPING (PW)**

- .1 **Application:** This standard applies to the removal of loose material from the road surface and around road furniture during loop inspections.

Defects	Intervention Level	Compulsory Intervention Level	Performance Requirement
<p><b>Routine Maintenance:</b> Accumulations of aggregate, sand, dirt and other detritus occurring :</p> <ul style="list-style-type: none"> <li>• on pavement, medians or shoulders, surrounding street light bases, traffic signal bases or signpost/gantry bases greater or equal to 100 mm diameter,</li> <li>• surrounding safety barrier and wire rope posts and anchor footings, crash cushions tracks,</li> <li>• on pedestrian crossings or walkways, or footpaths on structures and</li> <li>• any glass in bicycle lanes.</li> </ul> <p><b>Specific Maintenance:</b> Nil.</p>	<p>Defects exceeding:</p> <ul style="list-style-type: none"> <li>• 1 m<sup>2</sup> at intersection segments in urban areas, bicycle lanes, pedestrian crossings or walkways,</li> <li>• 20 m<sup>2</sup> at rural intersections and aprons or</li> <li>• 10 m<sup>2</sup> in other road pavement locations.</li> </ul> <p>Defects covering 20 m length of edge line.</p> <p>Any glass in bicycle lanes.</p> <p>Defects on structures diverting water flow from its normal course.</p> <p>Street lighting base, traffic signal bases, or signposts/gantries greater or equal to 100 mm dia, safety barrier and wire rope posts, anchor footings, crash cushions tracks: Loose material build-up of more than 50 mm high at any point around the base.</p> <p><b>MDR Recording:</b> Defects shall be recorded on the MDR as PW.</p>	Not applicable	<p><b>Surface</b> All loose material removed and surface shall be free draining.</p> <p>Street lighting base, traffic signal bases or signposts/gantries greater or equal to 100 mm diameter, safety barrier and wire rope posts and anchor footings, crash cushions tracks: built-up material shall be removed.</p> <p><b>Delineation</b> Pavement marking shall be visible.</p>