

Supplementary Specification

**MRC Supplementary Specification
8906 Patching and Pavement Repairs**

Revision 3.0

April 2026



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8906.1 Introduction

This Supplementary Specification refers to the patching and isolated repair of existing pavement and surfacing of less 500m², under the direction of the Superintendent.

8906.1.1 Definitions of Terms

The terms used in this Technical Specification shall be as defined in Clause 2 of MRTS01 *Introduction to Technical Specifications*.

Additional terms used in this Technical Specification are defined in the Table below.

Term	Definition as Applies to this Specification
Patching and Pavement Repairs	The repair of pavement or asphalt/bitumen surfacing of size less than 500 m ² by removal of the deteriorated pavement and/or asphalt/bitumen surface and replacement with new pavement material and asphalt or bitumen seal treatment, to profile. This may include treatment of subgrade materials and reworking, as appropriate.

8906.2 Referenced Documents

This supplementary specification shall be read in conjunction with the following:

- MRS01 and MRTS01 *"Introduction to Technical Specifications"*;
- MRS03 and MRTS03 *"Drainage, Retaining Structures and Protective Treatments"*
- MRS04 and MRTS04 *"General Earthworks"*;
- MRS05 and MRTS05 *"Unbound Pavement"*;
- MRS08 and MRTS08 *"Plant Mixed Heavily Bound (Cemented) Pavements"*
- MRS11 and MRTS11 *"Sprayed Bituminous Treatments (Excluding Emulsion)"*;
- MRS12 and MRTS12 *"Sprayed Bituminous Emulsion Surfacing"*;
- MRS17 and MRTS17 *"Bitumen and Multigrade Bitumen"*
- MRS21 and MRTS21 *"Bituminous Emulsion"*
- MRS22 and MRTS22 *"Supply of Cover Aggregate"*
- MRS30 and MRTS30 *"Asphalt Pavement"*;
- MRS45 and MRTS45 *"Road Surface Delineation"*;
- TMR *"Road Asset Management Contract (RAMC) Gen 2 – Sealed Surfaces"*;
- MRC Supplementary Specification 8905 *"Cold Milling"*; and
- Project Drawings.

8906.3 Description of Work Items

Work items incorporated by this specification are identified in Section 8906.6 and 8906.7 with individual activity/tasks for measurement and payment sourced from the bill of Quantities and listed in MRC Supplementary Specification 8906_1 Patching and Pavement Repairs Section 1.



8906.4 Quality Systems Requirements

The contractor shall prepare a quality plan reflective of the requirements of this Specification and comply with MRTS 50. The quality plan is to be submitted to the Superintendent for approval four (4) weeks prior to site works commencing.

MILESTONE

8906.4.1 Std Test Methods (Testing Regime)

The following minimum testing applies to this specification:

Production run test results from the material supplier must be submitted by the Contractor for review and approval 4 weeks prior to works commencing.

MILESTONE

Testing shall be carried on a cumulative quantity as required by the referenced specifications for the total contract or as required and directed by the Superintendent.

Unbound Pavement – as per MRTS05

Stabilised Pavement (if required) – as per MRTS08

Bitumen Surfacing - as per MRTS11/12/17/21/22 as applicable to the design drawings and/or pavement design

Asphalt Surfacing – as per MRTS30

Subgrade (if required) – as per MRTS04

“As Constructed” survey showing compliance with the respective construction tolerances for the activity layer.

8906.4.2 Hold Points, Witness Points and Milestones

Milestone

Milestone is a point within a project which marks the start or completion of an activity or compliance requirement. Generally associated with provision of records or data for verification with the projects contract and specification.

Hold Points

Hold points are noted on various Sections of this Specification.

“HOLD POINTS” are critical stages of the work, which require inspection by the Superintendent (or his nominated representative) and beyond which the Contractor will not be permitted to proceed without the written approval of the Superintendent.

A written “request for inspection” form shall be submitted to the Superintendent at least 48 hours prior to reaching the relevant “HOLD POINT”. One copy shall be submitted for each inspection. The signed copy will be handed back to the Contractor after the inspection to sanction work to proceed to the next stage or noting what work has to be done prior to re-inspection. This may involve inspection of the works by the Superintendent or approval of test results forwarded to the Superintendent by the Contractor.

Witness Points

Witness points are also important stages of work. However, these are not necessarily as critical work stages as defined by the hold points. Witness points are where the Superintendent (or his/her



nominated representative) may review, witness, and inspect the work. The activities however may continue to proceed.

The following table represents the minimum inspection requirements for this specification;

Activity	Inspection Type	When	Reference
Preliminary Documentation as described in 8906.5	Milestone	4 weeks prior to works commencing	8905.5
Material delivery compliancy	Hold Point	Upon delivery to site	8906.6.2
Final location of site works extents	Hold Point	During site survey layout.	8906.6.3
Pavement markings and location of services and depth of excavation	Witness Point	During site survey layout prior to saw cutting commencing	8906.6.4
Excavation of material	Witness Point	At completion of excavation	8906.6.5
Bed/Subgrade Excavation Floor compaction and preparation	Hold Point	At completion of excavation and compacting	8906.6.5
Pavement layers proof roll	Hold Point	Prior to installation of next pavement layer or surfacing	8906.6.6
Initial seal of pavement using emulsion	Witness Point	After pavement proofroll, any test result submission, and approval to proceed	8906.6.7
Pavement seal work	Hold Point	After Superintendent approves to proceed with seal works or asphalt works	8906.6.7
Reinstatement of pavement marking as per design drawings including temporary TRPM's.	Hold Point	At completion of works prior to opening to the public	8906.6.9
Clean up of site	Witness Point	At completion of all works	8906.6.9
Works as Executed documentation including certification of utilities	Hold Point	4 weeks prior to practical completion being requested.	8906.7.1
"On Maintenance" monitoring and rectification, a required	Hold Point	During the 12 months "On Maintenance" period	8906.7.2



8906.4.3 Construction Tolerances

Unless otherwise approved by the Superintendent the following construction tolerances shall apply as to this Specification;

The construction activity outcome shall not depart from the widths, lengths, heights, and shapes specified by the relevant specifications as applies to this specification;

- Earthworks tolerances in accordance with MRTS04 General Earthworks;
- Pavement tolerances in accordance with MRTS05 Unbound Pavement;
- The finished surface shall conform to the shape of the surrounding road surface. The deviation from a 3 m straightedge placed along the wheel paths shall be no more than + 8 mm, - 5 mm, due allowance being made for design shape, where relevant;
- Asphalt finishes shall be such that the final passes of the compaction equipment leave no impressions on the restored surface;
- No ponding of surface water on the finished surfacing.

Tolerances specific to the project are detailed on the design drawings and are included in Clause 2 of MRC Supplementary Specification Annexure 8906_1 Patching and Pavement Repairs

8906.5 Preliminary

The Contractor is to submit the following documentation 4 weeks prior to works commencing or a prestart is conducted:

- Construction procedure;
- Bitumen seal or Asphalt surfacing design;
- Workplace Health & Safety Plan;
- Traffic Management Plan and TGS's based on the site location/s;
- Environmental Plan (including erosion and sediment control for each site);
- Production run material test results for each proposed material to be used;
- Quality plan showing compliance with the minimum requirements of 8906.4;

Other requirements unique to the project will be listed in the MRC Supplementary Specification Annexure 8906_1 Patching and Pavement Repairs.

MILESTONE

8906.5.1 Materials

Supply of materials to site is the responsibility of the Contractor at their cost, where items are Principal supplied the nominated storage site shall be obtained from MRC Supplementary Specification Annexure 8906_1 Patching and Pavement Repairs Section 3 and shall be the point of supply.

All materials supplied shall comply with the relevant referenced specification for that material type.

The Superintendent will determine what materials are to be stockpiled for reuse and the location of this stockpile site, refer to 8906_1 Section 4. Where the excavated materials are not required for reuse the Contractor shall dispose of them as per their environmental plan or as directed by the Superintendent.



8906.5.2 Contractor's Personnel

The Contractor shall provide documented evidence for the Superintendent's approval to demonstrate the experience, qualification, skills and training of proposed personnel, sub-contractors a minimum 4 weeks prior to works commencing.

MILESTONE

8906.5.3 Environmental Plan

The Contractors Environmental Plan shall be reflective of the requirements of MRTS51 and MRS51 and be submitted for approval by the Superintendent 4 weeks prior to site works commencing.

MILESTONE

8906.5.3.1 General

The Contractor shall remove all rubbish, debris, disused materials etc., from the Site. The Site shall be maintained in a clean state.

The Contractor shall be responsible for ensuring no debris is deposited on public or private rights of way because of the works outside of the immediate work area, including any deposits arising from the movement of plant and vehicles.

The Contractor shall keep pollution in the vicinity of the Works within reasonable minimum limits noting that this clause does not exempt the Contractor from complying with the limits controlled or required by legislation.

The Contractor shall collect, transport and dispose of waste at a registered waste facility.

8906.5.4 General Workplace Health and Safety Requirements

As a condition of this document, it is required that the Contractor and its workers (including all sub-contractors etc., and their workers) engaged to perform a service or work on site must at all times ensure (so far as reasonably practicable) the health and safety of all persons who are, or may be, affected by work under this Supplementary Specification or the services provided.

8906.5.4.1 Legislative Compliance

Without limiting the Contractor's other obligations, the Contractor must comply with all Acts, Regulations, Standards and Codes of Practice about work health and safety matters that are applicable to the scope of work undertaken or services being provided.

8906.5.5 Works Procedure

The Contractor shall prepare a works procedure for all activities required under this specification which also address WH&S specific requirements for the site, this shall include but not be limited to the following;

- i. Site setup, including traffic management and public consultation;
- ii. Staging of works;
- iii. Individual activity construction procedures, under-layers, drainage, subgrade, pavement, sealing works, concrete works, and testing and inspections as required;
- iv. Timeline of works;
- v. Collection of "As Constructed" data.

The works procedure shall be submitted to the Superintendent for approval four (4) weeks prior to site works commencing.

MILESTONE



8906.6 Construction

This section lays out the works operations with more detail based on specific requirements of this supplementary specification. Some activities may appear to include items which are stated within other specifications, the purpose is to reinforce that requirement specific to this supplementary specification.

Specific construction requirements associated with these works is detailed in MRC Supplementary Specification Annexure 8906_1 Patching and Pavement Repairs Section 5

8906.6.1 Work Operations

Work operations included in these items shall be in accordance with TMR Road Asset Management Contract (RAMC) gen 2 – Sealed Surfaces activity specification 170 – Pavement Repairs, those included in Clause 2.1.5 of MRS01 “Introduction to Standard Specifications”, and the following work scope activities and associated sub activities;

8906.6.1.1 Work Scope

The scope of works (including all associated sub activities) covered under this specification is as follows:

- Procure, supply, and store all materials as required;
- Site Establishment and dis-establishment;
- Mark layout of site works;
- Pavement works (removal and reinstatement);
- Pavement seal works, as required;
- Clean up site;
- Survey conformance of finished surface levels; and
- Collate and submit “As Constructed details.

8906.6.2 Supplying all Materials Inclusive of Unbound Pavement, Bitumen Seal and Asphalt

All materials, plant, equipment, and labour required to carry out the works under this Specification is to be supplied by the Contractor, where the materials are Principal supplied the designated storage site will be the point of supply for the purposes of this Specification.

All materials shall be inspected at delivery to site prior to use to ensure those delivered are compliant with the material type and test results. Any items which do not comply are not to be used and are to be returned to the supplier.

HOLD POINT

8906.6.3 Site Layout and Confirmation of Pavement Design with Superintendent

The final location of the pavement to be repaired is to be marked out by the Contractor on site including services and excavation depths based on pavement design. Prior to saw cutting commencing the extents shall be inspected and approved by the Superintendent.

HOLD POINT

8906.6.4 Saw Cut of extremities of the Area Identified for Patching or Repair

Saw cut as required by the design drawings and MRC Supplementary Specification 8900, care should be taken to ensure no damage to the underlying infrastructure. If any infrastructure is damaged the contractor is to inform the Superintendent immediately in order to ascertain the extent of damage and any required repair/s. Scope and cost of repairs will be at the discretion of the Superintendent and at no cost to the Principal.

WITNESS POINT



8906.6.5 Carrying Out Excavation to Failed Areas

Excavation shall be carried out to the failed area as approved and as required to the pavement design depth including the removal of any loose material from the area to be repaired. Where a road profiler is used only areas inaccessible by the profiler drum (i.e. generally at corners of the repair) will be accepted at a lesser depth than that approved. In these areas a minimum depth shall be specified by the design drawings.

The milling operations shall be compliant with MRC Supplementary Specification 8905, including testing and inspections as approved by the Superintendent.

Excavation of material to level and grade as per design drawings, vertical tolerances shall not exceed +5mm/-10mm and be squared off to expose a vertical excavation face within the box out.

Bottom of excavated material is to be inspected for areas of unsuitable material.

HOLD POINT

If unsuitable material is identified this is to be removed and replaced with approved material as per the instructions of the Superintendent

The Contractor shall reinstate of any drainage assets, as required.

WITNESS POINT

Where applicable, compaction of the excavated surface (where the surface has been loosened) shall be carried out to the relevant formation or pavement layer specification standard.

HOLD POINT

The preparation of the existing surface shall include brooming prior to any layer being covered.

The formation excavation shall have a vertical face to a minimum depth equal to the pavement design (measured from the top of the excavation) for the full length of the excavated edges. Where a road profiler is used a nominated reduced depth of vertical face will be accepted in areas where the shape of the profiler's drum does not allow the design depth to be achieved. The repairs shall be rectangular in shape.

8906.6.6 Reinstatement of Formation/Pavement to Failed Area

The contractor shall carry out pavement works where the supply, placement and compaction of crushed granular pavement material, cement treated if required, is to be carried out in accordance with MRTS05 or MRTS07B, a proof roll shall be carried out unless otherwise approved by the Superintendent.

HOLD POINT

8906.6.7 Surface Seal Works

Surface seal works shall be carried out with the supply and application of a bitumen emulsion tack coat as applicable with the relevant MRTS Specifications and design drawings. All exposed and bare surfaces shall be covered with the tack coat.

WITNESS POINT

Surfacing works shall be planned and include the supply, placement and compaction of the asphalt or the supply and application of a bitumen seal treatment to profile, as required.

HOLD POINT

For all activities where there is a joint between the existing pavement and the repair works, the Contractor is required to provide the following:



- A seal around the edges of the newly completed patches with a strip of an approved bitumen emulsion, covering approx. 30-50 mm either side of the joint between the existing and the new asphalt. The proposed bitumen emulsion product specification is to be approved by the Principal's Representative and/or delegates prior to its use.
- This bitumen emulsion strip shall be gritted with an approved coarse sand or fine aggregate to provide adequate skid resistance. Gritting is to be carried out before the site is open again to traffic.
- The sand used for this purpose will be a course screened sand similar to that used for insitu density sand replacement testing (refer QDMR test Method Q111B). The grading of the sand is 90% passing 1.18 mm sieve, and 90% retained 0.600 mm sieve, it should also be used in a dry state.

WITNESS POINT**8906.6.8 Utilising or Disposing of Excavated Material;**

Excess excavated materials shall be disposed of by the contractor or utilised as per Superintendents instructions. Material stockpiled shall ensure that all Environmental ESC measures are in place and maintained.

If materials are to be disposed of the Contractor shall dispose of existing materials to a legal disposal site as per their approved environmental plan and as approved by the Superintendent at no cost to the Principal; .

8906.6.9 Reinstatement of Pavement Markers and Linemarking and Clean Up of Site;

The supply and installation of temporary raised pavement markers (TRPM's) or line spotting as required if immediate installation of permanent line marking not completed,

Reinstatement of all affected traffic delineation and linemarking in lieu of the reinstatement of traffic delineation as required by the design drawings or as directed by the Superintendent in accordance with MRTS45.

HOLD POINT

The clean up of the site including the disposal of any waste / excavated material in accordance with any State Government legislation or Local Government By-laws that are applicable.

WITNESS POINT**8906.7 Post Construction**

Items which close out the project, and readies the project for the "On Maintenance" inspection. All items below **MUST** be complied with prior to the Contractor requesting an "On Maintenance" inspection and/or as required during the Defects/Liability (On Maintenance) period.

8906.7.1 Collection and Submission of All As Constructed Data

Contractor is to supply and submit "As Constructed" documentation as required by *MRC D20 - Drawings and Documentation* for approval by the Superintendent 4 weeks prior to requesting a "On Maintenance" inspection.

HOLD POINT

Certification that the product meets the requirements of the Restoration Standards, including all necessary visual inspections, compliance and audit testing.

Format of submitted "As Constructed" documentation shall be compliant with MRC Supplementary Specification 8919.



8906.7.2 “On Maintenance” Monitoring

During the 12 month “On Maintenance” period the Contractor shall monitor the pavement and every 3 months carry out straight edge measurements to ensure the finished surface is within the tolerances of Clause 8906.4.3 and does not pond water. These recordings shall be submitted to the Superintendent for Council’s records.

Where movement of the pavement surface has occurred the Contractor shall inform the Superintendent and submit a rectification methodology for approval. It is expected any required rectification works must occur within 10 days of approval of the rectification methodology by the Superintendent.

HOLD POINT

8906.8 Measurement and Payment

Provision for these works shall be deemed to be included in the scheduled unit rates for the items shown at Clause 8906.3 of this Supplementary Specification and annexure. The calculation of these quantities shall be measurable on site and/or by the survey conformance report. No separate payment will be made for the works specified within this Supplementary specification or it’s annexure.

Version Control:

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1.0	Original issue		07.01.2022
2.0	Review of Specification	C. Sultana	16.02.2024
3.0	Full Review of Specification	C.Sultana	30/04/2026