# Pavement & Pavement Markings (Airside) Standard

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<th>Document Number</th>
<th>MAS-CVL-002 Pavements (Airside)</th>
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<tr>
<td>Approver</td>
<td>Luc Ramalinga, Airfield Manager</td>
</tr>
<tr>
<td>Maintainer</td>
<td>Richard Horton, Airfield Maintenance Manager, 0455 444 103, <a href="mailto:Richard.horton@melair.com.au">Richard.horton@melair.com.au</a></td>
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- Provide guidance to persons planning and performing those works as to airport specific requirements; and
- Promote consistency in utilities infrastructure across the airport generally.

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## GLOSSARY OF TERMS

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<th>Item</th>
<th>Description</th>
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<tr>
<td>ASI</td>
<td>Actuator Sensor Interface (remote I/O network system for machine control) used for conveyor systems control.</td>
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<tr>
<td>BHS</td>
<td>Baggage Handling System</td>
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<tr>
<td>CBS</td>
<td>Checked Bag Screening</td>
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<tr>
<td>ACCA</td>
<td>Australian Cement and Concrete Association</td>
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<tr>
<td>AHD</td>
<td>Australian Height Datum</td>
</tr>
<tr>
<td>AMG66</td>
<td>Australian Map Grid 1966 coordinate set</td>
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<tr>
<td>APSDS</td>
<td>Airport Pavement Structural Design System by Mincad Systems Pty Ltd</td>
</tr>
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<td>ARP</td>
<td>Aerodrome Reference Point</td>
</tr>
<tr>
<td>BM</td>
<td>Bench Mark</td>
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<tr>
<td>CAD</td>
<td>Computer Aided Design</td>
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<tr>
<td>CTGR</td>
<td>Cement Treated Crushed Rock</td>
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<tr>
<td>FAA</td>
<td>Federal Aviation Authority</td>
</tr>
<tr>
<td>FAARFIELD</td>
<td>FAA Rigid and Flexible Iterative Elastic Layer Design program</td>
</tr>
<tr>
<td>FCR</td>
<td>Fine Crushed Rock</td>
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<tr>
<td>GSE</td>
<td>Ground Servicing Equipment</td>
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<tr>
<td>ICBP</td>
<td>Interlocking Concrete Block Pavement</td>
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<td>JUHI</td>
<td>Joint User Hydrant Installation</td>
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<tr>
<td>LMC</td>
<td>Lean Mix Concrete</td>
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<tr>
<td>MTW</td>
<td>Maximum Design Taxi Weight</td>
</tr>
<tr>
<td>PCC</td>
<td>Portland Cement Concrete</td>
</tr>
<tr>
<td>PDF</td>
<td>Portable Document Format</td>
</tr>
<tr>
<td>PSM</td>
<td>Permanent Survey Mark</td>
</tr>
<tr>
<td>RESA</td>
<td>Runway End Safety Area</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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<td>--------------</td>
<td>---------------------------------------------------------------------------</td>
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<tr>
<td>RSCC</td>
<td>Rapid Set Cement Concrete</td>
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<tr>
<td>TBM</td>
<td>Temporary Bench Mark</td>
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<tr>
<td>Apron</td>
<td>A defined area on a land aerodrome intended to accommodate aircraft for the purposes of loading or unloading passengers, mail or cargo, fuelling, parking, or maintenance.</td>
</tr>
<tr>
<td>Maximum Design Taxi Weight</td>
<td>The maximum design taxi weight (also known as the maximum design ramp weight (MRW)) is the maximum weight certificated for aircraft manoeuvring on the ground (taxiing or towing) as limited by aircraft strength and airworthiness requirements. It includes the weight of taxi and run-up fuel.</td>
</tr>
<tr>
<td>Runway</td>
<td>A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.</td>
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<td>Shoulder</td>
<td>An area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface.</td>
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<tr>
<td>Taxiway</td>
<td>A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome from another.</td>
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1. OVERVIEW

1.1. PURPOSE

This Standard has been developed to ensure projects incorporate appropriate APAM operational and construction requirements in conjunction with best practice.

The Standard is intended for use by APAM, Melbourne Airport tenants, consultants and contractors undertaking projects within Melbourne Airport’s land.

This Standard must not be used to supersede or replace minimum regulatory Standards or procedures such as those required by Australian Standard documentation or Work Safe. In the instance the Standard conflicts with regulatory Standards, please contact the relevant Project Manager for clarification.

2. SCOPE

The Standard applies to:

- The purpose of the Airfield Pavements Standard is to define the typical airfield pavement types, materials and relevant standards for use at Melbourne Airport.
- This Standard applies to all airside pavements at Melbourne Airport including runways, taxiways, aprons, haul roads and services roads. This Standard excludes storm water drainage.

Please confirm the relevance of this Standard for your project with the relevant APAM contact.

2.1. MANDATORY AND NON-MANDATORY REQUIREMENTS

The following language key describes the requirements of imperative statements within this Standard:

- **MUST** - describes mandatory requirements;
- **SHOULD** - describes non-mandatory best practice recommendations; and
- **MAY** - describes possible options that are not mandatory or best practice.
2.2. LIMITS OF STANDARD

Users of this Standard shall explicitly demonstrate compliance with this Standard. Compliance shall be demonstrated through:

- Adopting appropriate standards and providing explicit reasons for their selection; or
- Providing an explicit, evidence based, business case supporting compliance with this standard.

The general statement “in accordance with Melbourne Airport Standards”, shall not be deemed acceptable without further detail.

Please check on the applicability of this Standard to Terminal 1 as there could be limited applicability in some circumstances.

Questions regarding this Standard shall be addressed to your relevant APAM contact.

2.3. DEVIATION FROM STANDARD

APAM Standards have been developed from a combination of knowledge, professional judgement and experiences and must be adhered to at all times. Exemptions to this may only apply in very limited circumstances, if any.

Where the requirements of this Standard are not able to be met through the design process, evidence of APAM’s approval for deviation MUST be sought.

Approval of a deviation from this Standard is not guaranteed. Approval of a deviation does not create implicit approval for the same deviation in other projects.
3. REFERENCES

The following normative documents contain requirements which, through reference in this text, constitute requirements of this Standard. For dated references, subsequent amendments or revisions shall not apply. For undated references, the latest edition of the normative document referred to applies.

- **AC 150/5320-6E**: FAA Advisory Circular: Airport Pavement Design and Evaluation
- **ACI 305R-10**: American Concrete Institute: Guide to Hot Weather Concreting
- **ACI 306R-10**: American Concrete Institute: Guide to Cold Weather Concreting
- **AP-T41-06**: Austroads: Specification Framework for Polymer Modified Binders and Multigrade Bitumen's
- **AS 2008**: Residual bitumen for pavements
- **AS 2150**: Hot mix asphalt - A guide to good practice
- **AS 3972**: General purpose and blended cements
- **AS 3996**: Australian Standards: Access Covers and Grates
- **CASA MOS Part 139**: Civil Aviation Safety Authority: Manual of Standards Part 139 – Aerodromes
- **MES-P412**: Mobil Oil Australia: Protection of hydrant pipelines
- **NFPA 415**: National Fire Protection Association: Standard on Airport Terminal Buildings, Fuelling Ramp Drainage, and Loading Walkways
4 General

The fundamental importance of runways to air safety and airport operations shall be reflected in all design, construction and maintenance activities associated with them. Taxiways and aprons are secondary only to runways in importance and in the priority which shall be given to them.

The performance of pavements shall be recognised in the design and construction of the formation and its drainage system. Flexible pavement structures shall be designed for a minimum of 20 year design period and rigid pavement shall be designed for a minimum of 40 year design period.

Flexible pavement typically requires maintenance from Year 4 to 5 and replacement resealing after 15 years due to environmental effects.

Melbourne Airport has a preference for new taxiway and apron pavements to be constructed as rigid concrete pavements.

To reduce maintenance expenditure and whole life cycle costs, Melbourne Airport requires airfield pavements to be designed and constructed to “FFA / AU standards. For the safety and guidance of aircraft while manoeuvring on the ground, take-off and landing airfield pavements are marked with airfield pavement markings in accordance with CASA MOS 139.

Airfield markings shall be applied by a specialist subcontractor with proven experience at recognised airfields in Australia.

4.1 Airfield Pavement Design Methods and Inputs

Airfield pavement thickness shall be design in accordance with AC 150-5320-6E (FAARFIELD) and/or using the latest APSDS software or other as approved or agreed design methods with Melbourne Airport.

The selection of pavement types and surface materials shall be based on the location, intended operations such as tight turns, landing, braking, departure, extended period of static loading and operational constraints.

The structure of aircraft pavements shall be designed to accommodate the most critical aircraft using MAUM over the assumed design period. Flexible pavements shall be designed such that when that life is reached they are capable of being resurfaced without the need for total reconstruction.

The type and number of aircraft, tug and GSE vehicles over the design life shall be agreed with Melbourne Airport.

Runway and taxiway shoulders shall be designed in general accordance with the guidelines contained within AC150-5320-6E / MOS 139 unless agreed otherwise with Melbourne Airport.

If flexible pavements are used for aircraft parking, concrete pads/inserts of an appropriate size and thickness shall be used under nose-wheels and under-carriages.
4.2 Topographical Survey and Existing Features

All survey results are required to be presented to Melbourne Airport in both Hardcopy / PDF and CAD (Microstation) formats to the Melbourne Airport CAD Standard. These shall include the following details:

- Survey projection
- Survey company
- Staff involved / role;
- Date of survey;
- Purpose of survey;
- Details of instruments used;
- Accuracy of survey; and a
- Coordinate table of control marks used.

Topographical and ground features surveys shall be completed to an appropriate grid and level of survey accuracy suitable for detailed design. Cover and invert levels of all utilities pits shall be also be surveyed along with identification of pipe sizes.

The datum for all surveys shall be as follows:

- Horizontal: Melbourne Airport Grid Datum. Coincident to AMG (66) Zone 55 at E=309696.165, N=5828053.471, physically represented by the Aerodrome Reference Point (ARP). Bearings preserved from AMG (66) Zone 55 at a 1.00000000 scale.
- Vertical: AHD. ARP=112.693

4.3 Permanent Survey Marks and Bench Marks

The Melbourne Airport CAD and Survey section keeps a record of PSMs and BMs to be used as references to the Melbourne Airport Grid and AHD. The coordinates of marks relevant to each project should be obtained via a CAD request.

The potential disturbance or destruction shall be reported to the relevant Melbourne Airport programme manager and/or Melbourne Airport stakeholder for the consideration of preservation or replacement.

Replaced PSMs and BMs shall be constructed in accessible locations and to minimise potential movement and disturbance from aerodrome operations.

Plans from survey data shall show all referenced PSMs, BMs and TBM along with physical descriptions and observed coordinates.

For renewal or development of project areas, provision is to be made for the inclusion of “new” survey control suitable for use and in accessible locations.

Examples of survey marks and their construction can be provided upon request from the Melbourne Airport CAD and Survey section.

Mapbase information shall only be used for Preliminary Designs.
4.4 Geotechnical Conditions and Investigation

The subgrade at Melbourne Airport is known to include expansive soils. Melbourne Airport has some records and geotechnical reports which may be referred to, to ascertain general information on ground conditions.

All pavement designs shall consider geotechnical conditions, surface drainage requirements, sub-surface drainage requirements, pavement construction tolerances, construction staging requirements, detailing to minimise future maintenance activities and environmental requirements including noise.

For each “major” airfield project, a site specific geotechnical investigation shall be undertaken by a suitably experienced and qualified Geotechnical Consultant who shall ascertain such information as (but not be limited to) water table level, the depths of topsoil and soft/unsuitable ground, the levels of concentration of contaminants in the soil (PFAS), soil properties information from both insitu and laboratory soils testing, the thicknesses of each layer of existing pavement, strength of the subgrade etc.

The geotechnical investigation and soil survey shall identify whether the insitu soils are expansive in nature and the geotechnical consultant shall provide recommendations for mitigation of these which may include: removal of the soil and replacement with non-expansive fill, surcharge of the material to limit its swelling potential, control of moisture changes in the soil both during and after construction, stabilisation of the soils with chemicals e.g. lime.

4.5 Subsoil Drainage

All aircraft pavements shall be designed to prevent saturation of the subgrade by installation of subsoil pipes.

Subsoil drainage shall be installed below the pavement layers. Subsoil drainage shall be connected to storm water drainage pits and/or pipes within the drainage network at intervals no more than 100 m. Flush-out points with appropriate covers shall be included where intervals exceed 100 m.

The minimum diameter of subsoil drains shall be 100 mm. All subsoil drain outlets shall be fitted with a pest proof flap.

4.6 Recycled Materials

Recycled materials shall not be used under aircraft pavements, unless agreed with Melbourne Airport and considered as part of the design.

The use of recycled materials in other pavements shall be considered on each project and its inclusion agreed or otherwise with Melbourne Airport. Particular consideration should be given to the use of recycled materials for the design of roads, GSE pavement and blast protection pavement.
5 Runways

The structure of runways, RESAs and runway shoulders may be of rigid, flexible or composite construction as dictated by each area's intended usage, overall performance and cost considerations at the time of construction having regard to the nature and strengths of the subgrade and aircraft loading.

The surface of dense graded asphalt surfaced pavements (except shoulders) shall be grooved. For new construction, the first 250 m at the ends of all runways shall be constructed in materials capable of resisting fuel damage and oil spillage. These areas should normally be constructed in rigid concrete pavement unless agreed otherwise with Melbourne Airport.

New concrete pavements shall be surface finished to meet operational requirements by brush finishing or grooving without the addition of a porous friction course and meet the friction characteristic requirements contained in CASA MOS 139.

Runway shoulders should have a surface finish consistent with the occasional need for aircraft and emergency service vehicles to brake on in wet conditions. Stop Ways should be grooved so they have the same characteristics as the runway.

Where practicable the design should allow for a minimum 1% grade in either the transverse or longitudinal direction to mitigate any risk of ponding.

The longitudinal regularity of runways shall be recognised as of prime importance to the comfort of passengers, the reduction of dynamic loading on the aircraft and to the surface drainage pattern.

Where permitted, edge steps shall not exceed 25 mm, refer MOS 139.

All services pits and manholes shall be located outside the runway pavement. All services cover within the runway strip shall be heavy duty Class G (900 kN to AS 3996) rated. Services covers outside the runway strip can be of lower grade as dictated by the location and likely loading.
6 Taxiways

The structure of taxiways may be of rigid, flexible or composite construction as dictated by each area’s intended usage, overall cost and performance considerations at the time of construction having regard to the nature and strengths of the subgrade and the aircraft loading. Melbourne Airport have a preference for new build taxiways and aprons to be of rigid concrete pavement construction.

The surface of asphalt surfaced pavements used as Rapid Exit Taxiways shall be grooved. Where practicable the design should allow for a minimum 1\% grade in either the transverse or longitudinal direction to mitigate any risk of ponding.

All manholes and services pits shall be located outside the pavement surface wherever possible. All services covers within the taxiway strip shall be heavy duty Class G (900 kN to AS 3996) rated. Services covers outside the taxiway strip can be of lower grade as dictated by the location and likely loading.

The use of proprietary modelling software (e.g. Simtra Aerotech AB PathPlanner) shall be used to design fillet geometry.

Taxiway shoulders shall be sealed with AC to a minimum width of at least 3.5 m on both sides of the taxiways unless agreed otherwise with Melbourne Airport. Jet blast pavement areas shall be provided in areas as agreed with Melbourne Airport Operations and Planning Departments. It shall also be compliant to the largest code of aircraft. MOS 139 (6.45)

7 Aprons and Aircraft Manoeuvring Areas

New apron areas should be constructed from rigid concrete pavement construction unless agreed with Melbourne Airport.

New rigid concrete pavements used on aprons shall be surface finished by brush texturing to achieve a minimum average of approximately 0.7 mm by Sand Patch Test.

The overall grading shall prevent any surface ponding.

Grated drains shall be designed to capture potential fuel contaminated runoff or fuel spills with flame traps and shall be in accordance with the requirements of NFPA 415.

Services covers within the apron and aircraft manoeuvring areas shall be heavy duty Class G (900 kN to AS 3996) covers.

Any asphalt surfacing used on aprons should be protected against damage due to fuel spills using a Fuel Resistant Membrane or special asphalt mixes.
8 Haul Roads and Services Roads

The design and construction of roads on airfield areas shall conform to the current appropriate recommendations and standards developed and adopted by Hume City Council.

The selection of flexible, rigid or composite pavement construction should be decided on economic grounds having taken subgrade strength, fuel and oil contamination, heavy channelization of traffic and in the case of improvements to existing roads the existing road structure into account.

Haul roads shall be not less than 8m wide. Roads for vehicle movements within aircraft manoeuvring areas shall be delineated as clearly defined routes marked upon aircraft pavements. The pavement structure for roads within aircraft manoeuvring areas shall be the same as the aircraft pavement.

The design of services roads should be checked for the loading imposed by aircraft towing tugs or fire trucks wherever such vehicles may have an operational need to use them. The type and weight and number of movements of aircraft tugs and fire vehicles to be used in the design shall be agreed with Melbourne Airport.

Services covers located on haul roads and services roads shall be designed to withstand the vehicles intended to use the roads.

9 Materials

9.1 Asphalt

Asphalt mix designs shall be in accordance with Australian Standards and Australian Airports Association testing methods for the intended aircraft traffic and operations.

Where used on runways or taxiways, the asphalt mix shall incorporate basalt coarse aggregates and a PMB to Austroads AP-T41-06 (or latest Australian Standard) with a successful track record of performance on airfields in Australia.

All cold joints shall be sealed with Rubberised Bituminous Bandage on surfaces suitably cleaned and prepared.

9.2 Tack Coat and Prime Coat

Tack coat (bitumen emulsion) shall be applied to all existing surfaces on or against which asphalt is to be placed in accordance with AS 2150. Tack coat shall not be applied between layers of freshly placed asphalt unless the surface has been contaminated or is greater than three days old. All pavement edges shall be tack coated.

Prime coat shall be applied to all base course layers for airside flexible pavement. Bitumen used to manufacture primer and primer seal shall be Class 170 residual bitumen complying with the requirements of AS 208.

Consideration to proprietary polymer modified bond coats shall be given in high stress areas.
9.3 Fine Crushed Rock

Fine crushed rock for base and sub-base pavement shall be crushed basalt rock of a suitable grading, quality and strength unless approved otherwise by Melbourne Airport.

All layers of fine crushed rock materials shall be placed by use of tracked self-propelled pavers.

9.4 Cement Treated Crushed Rock

Crushed basalt rock shall be of a suitable grading, quality and strength unless approved otherwise by Melbourne Airport.

Cement used shall be Type GP Portland cement complying with AS 3972.

The mean 28 day compressive strength of the CTCR at the nominated slump plus or minus 10 mm shall be a minimum of 10 MPa and a maximum of 20 MPa.

A layer of CTCR (or LMC) shall be directly under PCC in order to improve the load transfer mechanism at concrete joints in accordance with AC 150/5320-6E.

All layers of CTCR or LMC shall be placed by use of tracked self-propelled pavers.

9.5 Portland Cement Concrete

Cement used shall be Type GP Portland cement complying with AS 3972. Cement replacements shall not be used without the approval of Melbourne Airport.

Basalt coarse aggregates shall be used.

Concrete shall have a minimum flexural strength of 5.0 MPa at 28 days.

PCC shall be wet cured for a minimum period of seven days.

Construction joints shall be dowelled. Contraction joints shall be formed by sawn.

Joints shall be chamfered (minimum 5 mm) and shall be sealed with Dow Corning 888 flexible sealant or similar approved by the Airfield Maintenance Manager / Airfield Manager.

Slabs shall generally be square and to an adequate size for their thickness and shall follow guidance contained in AC 150/5320-6E. Sizes shall take into account that the subgrade may be on expansive soil. Where practicable the size of the slab shall not exceed 5 m by 5 m.

Irregular shaped slabs with an aspect ratio greater than 1.25 shall be adequately reinforced to prevent cracking.

The property of concrete to expand in hot weather will in certain circumstances necessitate the provision of expansion joints. Expansion joints are to be formed between new and existing PCC pavements, at junctions and around structures.

Concrete shall be de-bonded to the immediate underlying layer by a suitable media.

Adequate precautions shall be taken to protect the concrete against cracking and damage and to ensure the strength development in both hot and cold conditions. Guidance provided in ACI 305R-10, ACI 306R-10 and the ACCA and also by UK Britpave shall be followed.
9.6 Interlocking Concrete Block Pavement

Unless agreed with Melbourne Airport, ICBP shall not be used on airfield pavements at Melbourne Airport.

9.7 Lean Mix Concrete

The mean 28 day compressive strength shall be minimum 10 MPa and maximum of 20 MPa.

9.8 Rapid Set Cement Concrete

RSCC is not a preferred material and shall only be used with the approval of Melbourne Airport and where PCC concrete cannot reach the specified strength at time of hand over for aircraft operations.

The minimum flexural strength of the RSCC at time of handover shall be 3.5 MPa unless agreed otherwise with Melbourne Airport.

RSCC shall be designed, supplied and installed by specialist subcontractors with a successful track record in RSCC on airfields in Australia.

9.9 Spray Seal

Spray seals shall be of a nature and type to not cause any incidence of FOD. Specifications for spray seals shall be the AAPA Specification dated May 2004.

9.10 Paint Type

Waterborne or Oil based paint products using approved colours as stated in CASA MOS 139 shall be used on runways (with the exception of all white markings RWY) aprons and taxiways in accordance with the manufacturer’s recommendations.

Water based paint product (Wattyl Industrial Coatings - Airpave TM13.00) shall be used on runways in accordance with the manufacturer’s recommendations (only applies to white paint markings).

Longer lasting thermoplastic paint shall be considered in areas that are not subject to aircraft or tug traffic. Should this thermoplastic paint not be suitable, waterborne or oil based paint product shall be used.
10 Join User Hydrant Installation

The JUHI high pressure hydrant Pipelines are the main source of fuel supply to customers at Melbourne Airport. Any Works that impact on these Pipelines have the potential to damage the fuel line potentially resulting in a leak, rupture, fire or explosion. As such when working in the vicinity of the high pressure fuel line, every possible precaution must be taken to ensure that the Works are undertaken in such a manner as to not risk the integrity of the Pipeline.

The JUHI hydrant Pipeline carries Jet Fuel A1.

Any works undertaken in the vicinity of JUHI pipeline and its associated infrastructure must be made in consultation with the local JUHI representative Mobil Engineering. Guidance on works in the vicinity of the JUHI can be found in the Mobil Engineering Standard MES-P412 Protection of Hydrant Pipelines.

Contact phone numbers for JUHI representatives:

- Mobil Oil Australia Pty Ltd (03) 9338 2114
- JUHI Tullamarine (03) 9338 3828

11 Markings and Layout

Paint marking layout and setting out dimensions should conform to the requirements of CASA MOS 139.

Authority to paint must be provided either through a Melbourne Airport authorised line marking plan or instruction provided by the Airfield Operations Compliance Manager or their nominated delegate prior to commencement of works.

Any staging requirements for line marking must be provided to the Airfield Operations Department for review and written consent must be provided prior to commencement of works.

Markings shall be conspicuous and provide the maximum practicable contrast under all conditions. If the line marking is not clearly visible and able to safely provide guidance to aircraft while landing, taking off or manoeuvring on the ground, the line marking shall be re-marked. Black edging shall be provided as agreed with Melbourne Airport so as to provide maximum practicable contrast under all conditions however black margins shall be kept to a minimum on runways and taxiways as the extension of painted areas increases the area of surface slipperiness.
12 Removal of Existing Paint Markings

It shall be necessary to remove existing markings:

12.1 To correct an incorrectly located or changed marking;
12.2 Prior to remarking when the existing markings are excessively thick or are flaking;
12.3 Prior to sealing; or
12.4 Prior to application of a Surface Enriching Pray Treatment (unless they are in a “good condition and then they should be masked).

Pavement markings shall be removed by specialist sub-contractors or appropriately trained Melbourne Airport employees.

The recommended method of removing existing markings from surfaces is controlled high pressure water jetting using a rotating jet. The water pressure used must be adjusted to suit the particular surface to avoid erosion damage. When used on asphalt surfaces, it can easily erode the fine aggregate and binder from the surface and dislodge coarse aggregate from segregated areas (e.g. at joints).

On concrete pavements, joint sealant (including cork) can be severely damaged by this removal technique and it is essential to either protect the sealant from the water jet (perhaps by masking with a steel plate) or avoiding traversing across the sealed joints.

A vacuum sweeper should always be in attendance during paint removal operations to remove paint residue. Particular care is needed to prevent the paint residue from entering the storm water drainage system.

All waste materials collected through the paint removal process must be treated and disposed in accordance with Melbourne Airport and EPA guidelines.

13 Glass Beads

Glass beads will be considered for airfield paint markings on aprons (centreline, lead-in line, push back markings). Beads: Potters EHS7030 (70% Type DHR/30% Type BHR as per AS2009:2006) Specification: 500um WFT (Wet Film Thickness) paint with 500g/m2 EHS7030 beads

In areas where grit is required in the paint marking (pedestrian crossings), fine washed sand or alternative shall be applied without causing a FOD risk. Paint: Wattyl/Valspar Rapidline waterborne paint (60% solids) tip size further to 439 tip (or 539).

14 Set Out

Markings shall be uniform, have clean well defined edges and conform to specified set out tolerances. Drips, overspray, paint tracked by traffic shall be removed.
15 Preparation of Surfaces for Re-Marking

For airfield ground markings to be durable, the pavement surfaces must be clean and dry before the markings are applied. Where practicable all equipment, vehicles and other obstructions must be removed from the works area to allow for unrestricted and continuous painting to occur.

Where existing markings are to be over-painted or touched up, all loose paint should be removed. If any only localised touching up is proposed, loose and flaking paint should be removed with a stiff wire brush, preferably power driven. Paint build-up in excess of 5 mm thick may be prone to flake and the integrity should be checked before repainting.

All paint residues must be swept up and removed from the pavement.

If new concrete pavement is to be marked, all traces of the curing compound within the areas of the paint markings must be removed using a stiff wire brush or high pressure water. Immediately prior to the application of the markings, surfaces should be cleaned and dried using oil-free compressed air. Use of heating equipment to dry the pavements shall not be permitted because of its potential for damaging the surfaces.
# 16 Document Control

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(Pavement Airside MAS-CVL-002)