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|  | Inspection and Test Plan - Control and Supervision of the Works | Document # ITP-008 Revision : 2 Date : 20/03/24 |
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| Client: Yarra Trams Project: St Kilda Rd Tram Track Renewal Contract No: 8B4500 | Construction Process: Hot Mix Asphalt Specifications: VicRoads Standard Specification – Section 407 Structure / Component: Pavement Location: ST Kilda | Prepared by: Name: Cedric Guico Signed : Date : 20/03/24 | Reviewed by : Name: Charles Bate Signed : Date : 20/03/24 | Approved by : Name: Shaun Kent Signed : Date : 20/03/24 |
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| Lot No: | Lot Details: | Lot Size/ Quantity: |
|---------|--------------|---------------------|

| Item No. | Task/Activity Description | Inspection / Controls and Verification Detail | | | | | HP/ WP/ AP/ IP/ TP/ SCP | Responsibility Project Engineer Site Engineer Superintendent Surveyor Foreman | Checked by: | | | | |
|----------|--|---|--|--|---|--|-------------------------|--|-------------|--------------|---------------------|------|--|
| | | Frequency | Acceptance Criteria | Reference Documents | Inspection / Test Method | Record of conformity | | | Client | Fulton Hogan | FH's Sub-contractor | Date | |
| 1 | Construction Works | | | | | | | | | | | | |
| 1.1 | Submission of Mix Design | Prior to commencing paving | Ensure the correct mix design has been registered and is approved by Superintendent prior to laying mix according to standard track structure drawings | VicRoads Spec. Cl.407.09 | Correspondance of receival of mix design | Superintendent approval Completed ITP | HP | Site Engineer/ Asphalt Supervisor / Superintendent | | | | | |
| 1.2 | Site Inspection and Base Condition | Prior to commencing paving | Surface on which asphalt is to be placed is essentially dry and free from puddles and defects (holes, cracks, unstable material and edge irregularities) and loose materials. | 407.17 AS2150 10.1 AS2150 10.3 | Visual Inspection | ITP Signed | WP | Site Engineer/ Asphalt Supervisor | N/A | | | | |
| 1.3 | Ambient Conditions for Placing | Prior to commencing paving | The majority of the surface area to be paved has a temperature greater than or equal to the following: Base & Intermediate Courses: 5°C for conventional binders or 10°C for PMBs & Class 600 Wearing Courses: 10°C for conventional binders or 15°C for PMBs | VicRoads Spec Cl.407.17 | Verify | Thermometer | IP | Site Engineer/ Asphalt Supervisor | N/A | | | | |
| 1.4 | Planning of Joints | Prior to commencing paving | Runs to be marked to ensure placement of joints satisfy the following unless otherwise approved by the Client: Transverse Joints Offset from layer to layer by at least 2m Longitudinal Joints Offset from layer to layer by at least 150mm and be within 300mm of the lane line or centre of lane. Wearing course shall be on lane lines. | VicRoads Spec Cl.407.21 (b) & (c) Pavement Drawings | Measure and mark out runs by tape measure or survey | Paving Plan | WP | Project Engineer/ Asphalt Supervisor | N/A | | | | |
| 1.5 | Longitudinal Joints with existing Pavement | Prior to commencing paving | Where new pavement abuts an existing pavement, the existing pavement shall be removed in steps to achieve an offset from layer to layer of not less than 150mm. Depth of step to be cut to the full depth of each individual layer. | VicRoads Spec Cl.407.21 (c) Project Specs. Section 3040.06 (d)(vii) | Visual Inspection | ITP Signed | WP | Project Engineer/ Asphalt Supervisor | N/A | | | | |
| 2 | Asphalt Placement works | | | | | | | | | | | | |

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| 2.1 | Tack Coat | Prior to commencing paving | Tack coat to be sprayed in a uniform film over the surface to be paved at a rate of 0.15-0.30 L/m ² of residual binder (60% bitumen) or 0.30 to 0.60 litres/m ² (30% bitumen content). This rate is to be doubled on joints and chases. Tack coat must be allowed to turn from brown to black before paving. NOTE: Tack coat is not required on clean, freshly placed asphalt or primed surfaces or when the layer to be placed exceeds 50mm unless directed by the Client | Vicroads Spec 407.19 AS2150 11 | Visual Inspection | ITP Signed | WP | Site Engineer/ Asphalt Supervisor | N/A | | N/A | |
| 2.2 | Commencement of Placing | Prior to commencing Paving | The placement of asphalt on the sub-base or granular base for a new pavement or for an overlay of an existing bituminous surfaced pavement shall not commence until the consent to proceed is obtained from the Client. | VicRoads Spec Cl.407.23 | Visual Inspection | ITP Signed | HP | Site Engineer/ Asphalt Supervisor / Superintendent | | | | |
| 2.3 | Mix Design Confirmation | Each lot | Check correct mix design as per pavement design has been delivered prior to laying mix. Asphalt wearing and base layer mixes must abide to IFC drawings and be as specified in standard tram track drawings. | VicRoads Spec. Cl.407.09 STD_T9010 | Visual Inspection & Delivery Docket | Delivery docket Completed ITP | HP* | Site Engineer/ Asphalt Supervisor | N/A | | | |
| 2.4 | Delivery of Mix | Each load | Asphalt is not segregated, binder is not separated or does not contain uncoated particles and the temperature from mixing plant is not more than 175°C. | VicRoads Spec Cl.407.20 Table 407.111 | Visual Inspection | Delivery Docket | WP | Site Engineer/ Asphalt Supervisor | N/A | | | |
| 2.5 | Traceability | Each lot | Ability to locate asphalt test results placed in three dimensions i.e. start/end chainage, offset/lane and layer | Fulton Hogan Quality Plan | Verify | Daily Lot Record | IP | Site Engineer/ Asphalt Supervisor | N/A | | | |
| 2.6 | Layer Thickness and Level Control | Regularly during paving | Thickness of asphalt layer conforms to asphalt thickness on drawings or specifications | VicRoads Spec Cl.407.27 (a) & (b) Drawings | Verify | Dips using ruler or dip stick | WP | Site Engineer/ Asphalt Supervisor | N/A | | | |
| 2.7 | Surface Finish of Wearing Course | During paving and after final roll | The finished surface of asphalt wearing course shall be of uniform appearance, free of dragged areas, cracks, open textured patches and roller marks | VicRoads Spec Cl.407.29 (a)(i) | Visual Inspection | ITP Signed | WP | Site Engineer/ Asphalt Supervisor | N/A | | | |
| 2.8 | Alignment of layers not placed against concrete edge | During paving and at completion of work | The edge of asphalt layers shall not be more than 50mm inside nor more than 100mm outside, the designed offset from centreline or design line. The rate of change of offset of the edge of layer shall not be greater than 25mm in 10m | VicRoads Spec Cl.407.29 (a)(iv) Drawings | Visual Inspection | ITP Signed | IP | Site Engineer/ Asphalt Supervisor | N/A | | | |
| 3 | Testing | | | | | | | | | | | |

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| 3.1 | Compaction | Per Lot | For wearing course layers <50mm, if characteristic density ratio is: 94.0% or greater Accept lot 91.0% to 93.9% Lot may be accepted at reduced rate Wearing course shall be tested at a frequency of 6 per lot, where the lot is either of 4000m ² or one days production | VicRoads Spec Table 407.271 | Verify | Test Report | TP | Site Engineer/ FH Lab Technician | N/A | | | |

Final Inspection
 The signature below verifies that this ITP has been completed in accordance with the FH's Quality system Procedures and verifies lot compliance with specifications.

Print Name:
 Position:
 Signature:
 Date: / /

| Legend | | | | | |
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| HP | Hold Point | Work shall not proceed past the HP until released by the Superintendent | IP | Inspection point | Formal Inspection to be done and recorded |
| HP* | FH Hold Point | Work shall not proceed past the HP* until released by FH | TP | Test Point | Product compliance test to be undertaken and recorded/reported |
| WP | Witness Point | An inspection which must be witnessed by the Superintendent | SCP | Survey conformance point | A qualified surveyor to check product/section/structure and report |
| AP | Approval Point | Written or verbal approval given by the Superintendent | | | |