Fulton Hogan	Inspection and Test Plan - Hot Mix Asphalt Placement	Document # ITP-0004 Revision: 1.00 Date : 08/11/2024

Client: Fulton Hogan Construction TAS **Project: MacQuarrie Davey St** **Contract: C3741** **Date:** **Lot No:**	**Construction Process:** Hot Mix Asphalt Placement **Specifications:** *VicRoads Sections 407 Hot Mix Asphalt (2022); Section 404- Stone Mastic Asphalt (2018); Section 417- Open Grade Asphalt (2018) and AS2150 (2020) Hot Mix Asphalt – A Guide to Good Practice* **Location:**	Prepared by: Name: Darren Rozario Site Engineer	Reviewed by : Name: **Andrew Hinkley** Fulton Hogan	Approved by : Name: **Johan Kilian** Client

Carriageway: **Chainage:** **Layer (circle) :** **SC** **WC** **IC1** **IC2** **BC** **Asphalt Type and Quantity:**

Item No.	Task/Activity Description	Inspection / Controls and Verification Detail					HP/ WP/ AP/ IP/ TP/ SCP	Responsibility				
		Frequency	Acceptance Criteria	Reference Documents	Inspection / Test Method	Record of conformity		Project Engineer Site Engineer Superintendent Surveyor Foreman	Fulton Hogan Industries	Client	Date	Comments
1	**Preliminary Works**											
1.1	Mix Design approval	Prior to commencing paving	Mix design to be used has been approved by project superintendent, prior to use	407.09 Mix Design Registration	Approval Correspondence	Supply of registration certificate	**HP**	Engineer				
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, defects (holes, cracks, unstable material and edge irregularities) and loose materials.	407.17 AS2150 10.1 AS2150 10.3	Visual Inspection	Completed ITP Photograph	**WP**	Asphalt Supervisor				
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 Where the above temperatures cannot be achieved, asphalt must be laid under the "Fulton Hogan Cold Weather Paving Plan"	407.17	Infrared Thermometer	Completed ITP Weather forecast Thermometer reading	**IP**	Asphalt Supervisor or Foreman		N/A		
1.4	Planning of Joints	Prior to commencing paving	Runs to be marked to ensure placement of all Longitudinal Joints satisfy the following unless otherwise approved by the Client: Transverse Joints Offset from layer to layer by at least 2m Longitudinal Joints for the final Wearing Course are located on lane lines Longitudinal Joints for Intermediate and Base Layers offset from layer to layer by 150mm, and no more than 300mm from lane lines	407.21	Measure and mark out runs by tape measure or survey	Preliminary join plan submission & photograph on site	**WP**	Engineer / Supervisor / Asphalt Foreman				
1.5	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 **0.25-0.50 L/m2 of CRS60.** This rate is to be doubled on joints and chases. Tack coat must be allowed to fully cure . *NOTE: Tack coat is not required on clean, freshly placed asphalt or primed surfaces* ***Photographical evidence must be obtained (with an identifiable landmark)*** **from 1st July 2023, "trackless Tack Coat" must be used*	407.19 AS2150 11	Spray area and inspect	Completed ITP Photograph	**IP**	Asphalt Foreman		N/A		

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1.6	Selection of compaction equipment to satisfy clause 160	Prior to commencing paving	An oscilating roller will be used if available or static rolling will be conducted on site. Number of rollers and appropriate rolling paterns will be determined prior to the works to achieve the required compaction of the mix. This will be assessed by compaction testing.	401.04 & 160	Nuclear Density Test, DGA Compaction Procedure	Completed ITP, Compaction reports	**AP**	Fulton Hogan Laboratory Technician, Asphalt Foreman / Engineer				
2	**Asphalt Placement works**											
2.1	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's nominated authority.	407.23	Visual Inspection	Completed ITP Email corresponance	**HP**	Asphalt Supervisor / Superintendent				
2.2	Delivery of Mix	Each lot	Check correct mix design has been supplied, as per pavement design.	Pavement Design Details 407.20	Check asphalt delivery docket	Traceability sheet	**IP**	Asphalt Foreman		N/A		
2.3	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.	407.11 Table 407.111	Visual Inspection & Delivery Docket	Traceability sheet	**WP**	Asphalt Foreman		N/A		
2.4	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	Measure and Record on Daily Lot Record	Traceability sheet	**IP**	Fulton Hogan Foreman/ Engineer		N/A		
2.5	Layer Thickness and Level Control	Regularly during paving	Thickness of asphalt layer conforms to asphalt thickness on drawings or specifications	Pavement Design Details 407.25(a),(b)	Dips using ruler or dip stick	Level and stringline record	**WP**	Asphalt Foreman				
2.6	Paver Stoppages	If paver stops	A transverse joint shall be constructed if the asphalt in front of the screed cools to below 120°C	407.25 (c)	Thermometer	Traceability sheet	**WP**	Asphalt Foreman		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	407.25 (c)	Visual Inspection & straightedge	Completed ITP or photograph	**WP**	Asphalt Foreman		N/A		
2.8	Kerb and Channel	During paving and after final roll	The edge of the wearing course shall be either flush with or not more than 5 mm above the lip of the channel unless otherwise specified	407.29 (a)(ii)	Visual Inspection & Measurement	Completed ITP or photograph	**WP**	Asphalt Foreman		N/A		
2.9	Trafficking pavement after placement	After final roll	Trafficking or placement of asphalt over type SF asphalt is not permitted unless the majority of the SF asphalt has a surface temperature of 50°C or less and Falling. Where trafficking of SF asphalt results in deformation, further trafficking shall cease until such time that the type SF asphalt has adequately cooled to allow works to continue without further damage. For Stone Mastic Asphalt, this must be 40°C	407.28, 404.14	Visual Inspection & Thermometer	Completed ITP & thermometer reading	**HP**	Asphalt Foreman		N/A		

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3	**Testing**											
3.3	Compaction Testing (Dense Graded Asphalt)	Per Lot	**Test Lots >500m2**, Per lot, the Characteristic Density Ratio must meet the following Minimum Limits: >50mm layer depth = 96.0% <50mm layer depth = 95.0% Additional Test must be undertaken on the longitudinal joints for wearing courses **Test Lots 50m2-500m2**, may be treated as a small area, in which the mean of 3x test sites must exceed the appropriate compaction requirement by 2.0% **Test Lots <50m2**, compaction for all lots shall be accepted on a procedural basis **Mix Types where total contract supply <300t,** compaction for all lots shall be accepted on a procedural basis	Section 407.27(a),(c.) 407, Section 173, Dense Graded Compaction Procedure	Nuclear Density Test, DGA Compaction Procedure	Completed ITP, Compaction reports	**TP**	Fulton Hogan Laboratory Technician, Asphalt Foreman / Engineer		N/A		
3.4	Level Conformance	Each Lot	The mean surface level and the variation in surface level for the base, intermediate and wearing courses within each lot shall meet the requirements as specified in 407.30 (b) Scale A: +/- 5mm Range, +/- 8mm standard deviation	407.30, 407.29	Survey Results	Completed ITP, Survey Conformance Results	**WP**	Surveyor / Superintendent	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: _____

Legend

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 may be witnessed by the Superintendent or Client	**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	**SC**	Surfacing Course	**WC**	Wearing Course	**IC1**	Intermediate Course 1	**IC2**	Intermediate Course 2	**BC**	Base Course

Revision Register

Revision #	Item Revised	Discription	Date	Author
Version 1.00	Draft	ITP-0004 ammended to meet project specific requriements	8/11/2024	Darren Rozario