Inspection and Test Plan – 01 Localised Expansion Joint Repair
Fulton Hogan

SECTION 1 – GENERAL DETAILS									
Site / Road Name:	Fulton Hogan- Hume Freeway, Tallarook XJS works			**Inspection Key**		**Responsibilities**			
						Role Key		**Name**	**Initial**
Project Number:	569			**A**	Action	**ST**	Superintendent		
				B	Report by Breach	**DM**	Delivery Manager		
Chainage From:	N/A			**C**	Check	**PM**	Project Manager		
				D	Dimension	**PE**	Project Engineer		
Chainage To:	N/A			**DO**	Docket	**SE**	Site Engineer		
				E	Examine	**S**	Supervisor / Surveillance		
Lot ID Number:	N/A			**HP**	Hold Point	**SV**	Surveyor		
				I	Inspection	**CR**	Client Representative		
Area / Sub-System:	Tallarook	**Client:**	Fulton Hogan	**MS**	Material Sheet	**CR**	Client Representative		
ITP Number:	01	**Rev:**	0	**M**	Measure	**CR**	Client Representative		
ITP Description:	Expansion Joint Repair – XJS to XJS System			**R**	Review				
Specification:	VicRoads Standard Section 160, 166, 168, 660, 689 Bridge Technical Note 004, AS 5100			**RE**	Report				
				S	Subcontractor				
Quality Specified:	VicRoads Standard Specification, Australian Standards			**TR**	Test Result				
Prepared By:	Arun Muruganantham	**Date:**	19/09/24	**V**	Visual Inspection				
Approved By:		**Date:**		**W**	Witness Point				

SECTION 1 – SIGNATURES – CLOSE-OUT & APPROVAL						
ITP Close-Out: **(PM / PE / SE)**	**Name:**		**Signature:**		**Date:**	
Fulton Hogan Approval (PM):	**Name:**		**Signature:**		**Date:**	
Notes:						

SECTION 1 – EXPANSION JOINT REPAIR											
Item No.	**Activity/ Task Description**	**Inspection Point: Quality Control Activity**	**Acceptance Criteria**	**Verifying Document**	**Waratah Rep**			**Client Rep**			
					Key	**Rep**	**Initial / Date**	**Key**	**Rep**	**Initial / Date**	
1.1	Preparation & Admin; Safe Work method statements	**HP: Documents listed below shall be provided at least 14 days prior to the commencement of works. No works shall commence until Fulton Hogan has approved the submitteddocuments.** • The Contractor shall provide FH with an exhaustive list ofpersonnel that will be undertaking or facilitating the works at least 7 days prior to any such person being on site. • Where additional personnel are required to undertake the works, the Contractor shall provide FH with additional personnel names and employers to allow forauditing. • The Contractor shall submit the SWMS, and contract vehicle and mobile Pre-acceptance checklist.	Documents submitted and Approved Crew Signed SWMS Signed ITP	SWMS Vehicle and Mobile Pre-Acceptance Check List Induction ID VicRoads 177 VicRoads 160 VicRoads 168	**HP** MS R	PM PE SE S					
1.2	Quality Management (ITP'S)	**HP: The Contractor shall submit proposed ITP's to FH at least 14 days prior to their use.** • The Contractor shall remain responsible for all Quality Assurance requirements as per VicRoads Section 160, inclusive of the submission of ITPs and completion of documentation. • ITP includes all the Hold points required for each stage of the project.	ITPs submitted and approved	Contract Conditions and Specifications	**HP** R	PM PE SE S					

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1.3	Surface Preparation – Remove Bridge Joint Area	• Silspec 900 PNS must be applied to clean, dry and sound surfaces for effective bond. • Existing nosing material to be sawcut to depth of 40mm. • All unsound material must be removed by handheld jack hammer or similar means. • All loose material must be removed by brushing, vacuuming or blowing.	Depth of cutting existing nosing material – 40mm Signed ITP	VicRoads 660.04 VicRoads 689.08 Manufacture Specifications	V	PM SE S					
1.4	Surface Preparation – Preparing the Bridge Joint Area	• Grit blast the blockout so that all residue from the asphalt, and any other “old” or loose material is removed. • Grit blast any exposed reinforcement to provide a clean surface. • After grit blasting thoroughly sweep area and blow out the blockout so that there are no loose particles or dust left in the blockout that could prevent adhesion of the Silspec material. • Whilst the Silspec can tolerate some moisture it is preferable to have the blockout as dry as possible – blow dry the surface to remove moisture.	Signed ITP	Megapoxy P1 Manufacture Specifications	V	PM SE S					
1.5	Install Foam (Formwork) to Create Joint	• Place formwork in the middle of the blockout to form the expansion joint gap to the desired expansion joint gap width. • The upper surfaces of the joint shall be parallel with the longitudinal grade and cross-fall of the completed road or footpath surface.	Signed ITP	VicRoads 660.04 Manufacture Specifications	V	PM SE S					

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1.6	Adhesion of Exposed Reinforcement to Silspec & Protection from Corrosion	If Reinforcement is exposed after jack hammering, the following procedure will be carried out, • MEGAPOXY P1 will be used for protection of reinforcing steel. • Part “A” and Part “B” are thoroughly mixed before use with correct mixing ratio (1:1) Applied to exposed Reinforcement using a paint brush before placing Silpsec	Inspection by Supervisor of prepared surface	Megapoxy P1 TDS	V	PM SE S				

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1.7	Mix and Install Silspec	The expansion joint shall be installed in accordance with the supplier's recommended procedure. • Silspec 900 PNS must be thoroughly combined prior to use in a separate container. • Mechanical mixing, using a heavy-duty low speed drill motor with paint-type paddle stirrers is recommended. Mixing time should not be less than 3 minutes. • The blended batch must be applied to the surface in 5-10 min. Once spread out, working time will be approximately 1/2 hour. • In cold weather, it is recommended that liquid and aggregate to be stored in a heated area until just prior to use. **Installation Tolerances** The following tolerances shall apply to joint installation: • joint gap ± 3 mm • deviation from plan alignment 5 mm maximum over the total length of the joint • the top surface of the joint shall be level with the adjacent road surface with a tolerance of 0 to 2 mm when measured with a 2.5 m straight edge at 90º to the joint. **HP: After concreting and prior to installation of the joint seal, the vertical face of the concrete under the full length of the joint shall be inspected for the presence of voids and other imperfections. If the joint or any of its component parts is damaged during construction, the Contractor shall repair the damage to the satisfaction of the Superintendent**	Joint gap tolerance ± 3 mm 150mm Minimum width of XJS Nosing when asphalt adjacent 100mm Minimum width of XJS Nosing when concrete adjacent Signed ITP	VicRoads 660.04 VicRoads 660.05 Manufacture Specifications	**HP** V	PM SE S					

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1.8	Curing Silspec	• Indirect heating system to be installed as per the attached drawing. • Heating to be monitored and maintained during entire repair process (as practicable). • The arrangement shouldn't be removed until curing period of grout is achieved (As practical within the time frame) • Higher temperatures will shorten the cure while lower temperatures will lengthen the cure time. • Temperature monitored using a Thermometer.	20°C for 3-4 hours (as practicable) Signed ITP	Contract Conditions and Specifications Manufacture Specifications	V	PM SE S					
1.9	Chamfer Requirements	• The edges of the gap should be ground (using an angle grinder) to form a 5mm x 5mm chamfer.	Signed ITP	Manufacture Specifications	V	PM SE S					
1.10	Primer Application	• Paint the Dow Corning P5200 primer on the sides of the gap using a small paint brush. • The primer will only take a few minutes to dry.	Signed ITP	Manufacture Specifications	V	PM SE S					

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1.11	Install Backing Rod and Silicone Seal (Joint Seal)	• The joint surfaces must be thoroughly dry and clean. • Remove all laitance, curing compounds, form release agents, loose materials and any contaminating foreign matter from joint faces. • Depending on the joint configuration, place with pressure fit, backing rod into the joint to support internal back of the sealant. • Road seal is applied from 600 ml sausages or bulk containers into the joints using a suitablesealant gun. • The Road seal does not require any tooling and the road can be opened to traffic soon after pouring and pack up.	Backing rod to be pressure fit 25mm below the surface of joint. Silicone Seal minimum 12 mm below pavement surface. Signed ITP	VicRoads 660.04 VicRoads 660.05 Manufacture Specifications	V	PM SE S					
1.12	Sign off Upon Completion	**HP: Client Representative (FH) to sign off upon completion of works.**	Signed ITP	Contract Conditions and Specifications	**HP**	PM SE S					

SECTION 2 – EXPANSION JOINT REPAIR (PROVISIONAL ITEM)											
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2.1	Concrete Spalling works under the Expansion Joint (If present & Method agreed by the Client) Mix and install	• The joint surfaces must be thoroughly dry and clean. Be sure repair area is not less than 5 mm deep. • Remove all laitance, curing compounds, form release agents, loose materials and any contaminating foreign matter from joint faces. • Mechanically mix in an appropriately sized mortar mixer. Wet down all tools and mixer to be used. • Start with 2.1 liters of water added to the mixing vessel. Add 1 bag of SikaQuick®-2500 while continuing to mix. Add up to another 0.3 liters of water to achieve desired consistency. Do not over water. • Overall Water used for mixing should be within 2.1 – 2.4 Liters per 20 Kg Bag • The prepared mortar must be scrubbed into the substrate. Be sure to fill all pores and voids. force materials against the edge of the repair, working towards the center. After filling the repair, screed of excess. • Allow concrete to set to desired stiffness, then finish. • Open to Foot traffic in 45 Mins. (at 23 degrees Celsius) • Open to Vehicle Traffic in 1 Hour (at 23 degree Celsius)	Mortar Thickness is Min 5mm and Maximum 150mm. Mixing, placing and finishing should not exceed 15 Minutes Maximum. Curing Temperature 23°C for 30 mins – 1 hour (as practicable) Manufacturer Specification. Inspection by Supervisor of prepared surface Signed ITP	VicRoads 660.04 Manufacture Specifications	V	PM SE S					