EVOLUTION | INSPECTION & TEST PLAN

PROJECT:	
CLIENT NAME:	**CONSTRUCTION PROGRESS:**
CONTRACT NO:	**SPECIFICATION:**

Item No: Task / Activity Description:		Inspection/Test Sequence				Responsible Personnel	Inspection (I), Hold (H), Witness (W), Review (R)	Hold Point Release/Review Comments	
		Frequency	Acceptance Criteria	Inspection/Test Method	Conformance Record			EVO	Client
1. General Preliminaries									
1.1	Job Inspection/Scope of works review	Prior to each separable parts of the works	Site Hazards and job specific requirements		Project Scope/SWMS & Risk Assessment	Supervisor, Crew Foreman Engineer			
1.2	Equipment and vehicles pre-start checks	Daily	As appropriate for items of plant and equipment	Visual and documentation. Test and Tag. Service History	Equipment/Heavy Vehicle Maintenance checklist	Plant Operators			
1.3	Toolbox meetings	Prior to commencement of works on site	Ensure all Site hazards are identified	Physical attendance	Attendance Record/Sign in Record	Client			

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1. Concrete Spalling Remediation									
2.1	Site Establishment [(Erection of scaffolding or EWP deployment) If required]	After site has been deemed safe and accessible	Access to repair is safe	Visual Inspection		ECM supervisor, workers	**(R) Review Point** Confirmation of correct temporary solution is established		
2.2	Hammer test intended repair area to identify any further hollow sections or delamination	After site is established to grant safe access to repairs	Sound concrete is achieved in the perimeter	Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor, workers	**(W) Witness Point** Confirmation all loose/hollow areas are marked, and sound concrete is reached		
2.2	Square up and break away loose concrete perimeter	After Identification of concrete spalling / Cracks as per scope of works	Area of spalling to be squared with a concrete grinder and min depth achieved shall be 10 - 25mm based on product specification	Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor, workers			
2.3	Treat any corrosion to reinforcement bars (If Applicable) (If rebars are identified, concrete must be broken further back approx. 20mm to allow new concrete to bond with reo)	After breaking away loose concrete and debris	Corrosion is cleaned with wire brush and treated with Nitoprime Zinchrich	Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor workers	**(H) HOLD POINT** Confirmation of depth and width is within allowance of product specification, if not notify the principal contractor immediately		

2.4	Install Formwork to repair area (If required)	After area is prepared as per specs		Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor Workers			
2.5	Saturate Concrete with clean water required by supplier	After Formwork Installation	Saturate according to product supplier	Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor workers	**(W) Witness Point**		
2.6	Saturate bonding coat (Primer)(If applicable) is to be brushed into damp substrate to receive repair mortar	After removal of excess water	Coat should be done according to product suppliers' recommendation. Entire substrate should be adequately applied	Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor workers	**(W) Witness Point**		
2.7	Mix and install repair shrinkage compensated mortar into prepared substrate	After bonding coat is applied	Installation should be done as per the product suppliers' requirements.	Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor Workers	**(W) Witness Point**		
2.8	Repair Mortar allowed to cure and treated with an appropriate concrete cure (If Applicable)	After repair mortar is placed	Apply according to AS 3799. Product specifications	Physical Application	TfNSW specification M774 - Concrete Bridge Repairs	ECM Supervisor workers	**(W) Witness Point**		

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1. Concrete Cracking Remediation									
3.1	Mark out cracked to be routed and sealed.	Prior to starting any work	Identification of visual crack on concrete surface	Visual Inspection	TfNSW specification TS 00080:1.0- Repair of Concrete Works	ECM Supervisor, workers	**(W) Witness Point**		
3.2	Chase crack with a V-Blade grinder to a depth of 15mm	After defect has been identified	Crack has been eliminated and solid concrete has been reached	Visual Inspection	TfNSW specification TS 00080:1.0- Repair of Concrete Works	ECM supervisor, workers			
3.3	Assess the cause of the crack, crack dimensions, and whether the crack is active or inactive	After Crack has been chased with a V – Blade	Determine if the crack is only surface crack, shrinkage crack, or settlement crack	Visual Inspection	TfNSW specification TS 00080:1.0- Repair of Concrete Works.	Ward Civil Engineers	**(H) Hold Point**		
Opt 1	If the concrete adjacent to the crack has deteriorated, the concrete must be treated as a cementitious patch repair of concrete	After Crack has been chased with a V – Blade	Concrete spalling is present	Visual Inspection	TfNSW specification TS 00080:1.0- Repair of Concrete Works. Clause 7.4	ECM Supervisor, workers			
Opt 2	Routing and sealing: Enlarging the crack along its exposed face and filling with a suitable joint sealant.	After Crack has been chased with a V – Blade	Crack is only on the surface and no visible crack is present further past the groove	Visual and physical inspection	TfNSW specification TS 00080:1.0- Repair of Concrete Works. Clause 7.5	ECM Supervisor, workers			
Opt 3:	Gravity feed: Filling and sealing of horizontally positioned cracks using low viscosity resins by pouring and	After Crack has been chased with a V – Blade	Crack is present past the groove introduced. A low viscosity crack	Visual and physical application	TfNSW specification TS 00080:1.0- Repair of Concrete Works. Clause 7.5	ECM Supervisor, workers			

	spreading onto surface or placing into purposely formed reservoirs.		injection shall be used to flood the surface groove						
Opt 4	Coating over cracks: Application of coatings with a crack-bridging capability or impregnation ability (such as silanes) for cracks of width of 0.2 mm or less. The method must be used only for cracks that are compatible with the functional requirements of the structure but are not associated with earth-retaining or water-retaining concrete components.	After Crack has been chased with a V – Blade	Crack is only on the surface and no visible crack is present further past the groove	Visual and physical inspection	TfNSW specification TS 00080:1.0- Repair of Concrete Works. Clause 7.5	ECM Supervisor, workers			

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EVOLUTION	Completion Sign Off	ABN: 81 140 124 858 51 Heathcote Road Moorebank NSW 2170 Ph 1300 880 476
	PROJECT:	

Evolution Civil Maintenance

Final Inspection: I confirm that the above works have been installed in accordance with the specification requirements. Any minor alterations to the standards are stated on the attached Daily Diary or Non-Conformance Report (NCR).

Print Name: Signature: Date: