				Construction Process:	Start RP			INSPECTION AND	TEST PLAN - VERSION CONTROL	Α	В	С	0 - IFC
	WAKA KOTAHI			Modified Basecourse Layer	Finish RP		Prepared by Paveme	nt Designer:	PE name	dd/mm/yy			
-	Downer						Reviewed by Construction Manager:		PM name	dd/mm/yy			
		DOMILLI		Project Name: T2W - Tirau to Waiour	u - Rehabilitation Work	S	Reviewed by Surf./ P	avmt Manager:	Surfacing or Pavement Manager	dd/mm/yy			
				Specifications			Approved Quality M	anager.:	Nominated by Group Quality Lead	dd/mm/yy			
Client's Re	p. : Neil Payne / Deena Tapara (Stellar Projects Ltd. (SPL)	Contractor's Rep. : Wayne Bowden (CN Rudani (PM)	۸) / Sid	NZTA M32 Specification For High Modul Note: Binder Specification for EME2 is in			Approved by: Pavem	ents SME.:	Responsible Group SME	dd/mm/yy			
	(Stellar Projects Ltd. (SPL)	Rudani (PW)		Note: Binder Specification for EME2 is if	1 IVI/32		Issued by: Project Di	rector	PE name	dd/mm/yy			
Action (Automotive Action)		Inspection/Test				Record documents			Checked by (RACI) R = Responsible, A = Approve, C = Consult, I = Informed				
Item	Task/Activity/Description	Detail of Activity / Test	Action (Hold, Monitor, Witness)	Minimum Test Frequency (Lot = 1 day's production)	Inspection / Test method	Acceptance Criteria	(QCP - Quality Control Portal	Responsibility	Project Specific Notes / Instructions	Designer	Eng. Rep / NZTA	Contractor	Date
1.0. Pre-0	Commencement Activities												
1.1	Approved JMF for Asphalt Base or Wearing Course	JMF reference in here	Н	Before Works commence	Confirm requirements are followed	JMF Validated in accordance with NZTA M/32:2021	Mix Design Report	Paving Contractor	JMF expiry date and validation details in here and to make sure the mix design is sent to Engineer's Representative for approval prior to paving on site.	А	I	R	
1.2	Site Conditions	Weather suitable, Site extents marked, surface suitable for paving (Depths/milling/cleanup complete etc), Environmental Controls in place	Н	Before Works commence	Confirm requirements are followed	Weather conditions and Site is suitable for paving	Site Diary	Paving Contractor			I	R	
1.3	Roughness	Previous layer checked for suitability to achieve Specified Ride	Н	Before Works commence	Confirm Specified Ride requirements can be met	Site is suitable for paving; The surface to be paved on must have a smooth longitudinal profile, and where a layer of Asphalt is to be placed over a previously constructed pavement layer, the ride quality must be confirmed with the observation of a holdpoint in the previous layer ITP.	NASSRA Report	Paving Contractor	Where FBS & Chipseal has been previously constructed ensure NASSRA is viewed and signed off as acceptable for paving. However, if no previous pavement done, roughness test will not be applicable.		-	R	
1.4	Traffic Loops	Communication with affected parties	Н	Minimum of 7 days Before Works commence	Visual	Notify RC at least 7 days before surfacing is programmed	Communication	Paving Contractor	only required where existing traffic loops are present		А	R	
1.5	Paving Plan	Paving Plan to be completed	Н	Before Works commence	NZTA M/32:2021 Clause 9.5.1	Paving Plan to be completed for each shift with dimensions, location and type of (hot/cold) joints, areas and tonnages, compaction plant (type/weight/no. of rollers) and established rolling pattern, production and transport plan including mix type (code), binder grade (with product name) to be ordered.	String Sheet Paving Plan Placement Trial Records	Paving Contractor			ı	R	
						•							
Client Fina	I Inspection - the signature below verifies t	hat this ITP has been completed in accordan	nce with the	e Specifications and verifies lot compliand	ce.		Н	Hold Point	Work Shall not proceed past the HP until r by the Eng. Rep.	eleased			
Contracto	r's Rep Name:	S	Signature:_		_	Date:	W	Witness Point	An Inspection which must be witnessed				
Engineer's	Rep. Name:	s	Signature:_		_	Date:	M	Monitor Point	by the Eng. Rep. Intermittent monitoring of any stage of the	e work in progres	ss by the Eng. Rep		

ITP-M32-EME - (with BB Test)_R2 M32 EME Pre Construction

WAKA KOTAHI					Start RP	INSPECTION ANI			D TEST PLAN - VERSION CONTROL	Α	В	С	0 - IFC			
WAKA KOTAHI NZ TRANSPORT AGENCY	_		_				Modified Basecourse Layer	Finish RP		Prepared by Paveme	nt Designer:	PE name	dd/mm/yy			
A		Downer		Project Name: T2W - Tirau to Wajouru - Rehabilitation Works			Reviewed by Construction Manager:		PM name	dd/mm/yy			1			
		DOMITCI		Project Name: T2W - Tirau to Waiouru	ı - Rehabilitation Work	S	Reviewed by Surf./ P	avmt Manager:	Surfacing or Pavement Manager	dd/mm/yy	/mm/yy /mm/yy /mm/yy /mm/yy /mm/yy	1				
	Tient's Ren : Neil Payne / Deena Tanara Contractor's Ren			Specifications			Approved Quality Ma	anager.:	Nominated by Group Quality Manager	dd/mm/yy						
Client's Rep. : Neil Payne / Deena Tapara (Stellar Projects Ltd. (SPL)		Contractor's Rep. : Wayne Bowden (C Rudani (PM)	CM) / Sid	NZTA M32 Specification For High Modulus Asphalt (EME 2); Note: Binder Specification for EME2 is in M/32			Approved by: Pavem	ents SME.:	Responsible Group SME	dd/mm/yy			1			
(Stellar Projects Ltd. (SPL)		Rudaiii (Fivi)		Note: Binder Specification for EME2 is in	IVI/ 32		Issued by: Project Di	rector	PE name	dd/mm/yy			1			
				Inspection/Test												
				This pection, rest	1		Record documents			R = Respoi	nsible, A = Appro	ve, C = Consult, I	= Informed			
Item		Detail of Activity / Test	Action (Hold, Monitor, Witness)	Minimum Test Frequency (Lot = 1 day's production)	Inspection / Test method	Acceptance Criteria	(QCP - Quality Control Portal	Responsibility	Project Specific Notes / Instructions	Designer	Eng. Rep / NZTA	Contractor	Date			
2.0. MAI	NUFACTURE OF ASPHALT															
2.1	Temperatures	Mixing of aggregates and bitumen	M	Constant monitoring of temperature by calibrated equipment	Plant temperature probes	EME2 binder Mixing range 170 - 190°C NZTA M/32:2021 states max. 190 deg.C	Plant site diary	Asphalt Manufacturer		1	1	R				
2.2		Particle Size Distribution	М	1 per 200t at asphalt plant	NZS 4407 Test 3.8.1	NZTA M/32:2021 Refer to Table 5.3	IANZ accredited test cert	Asphalt Manufacturer		1	1	R				
2.3	_	Binder Content	М	1 per 200t at asphalt plant	16363.6.1	NZTA M/32:2021 Individual Test Result: ± 0.5 Mean of Three Test Results: ± 0.3	IANZ accredited test			-	-	R				
2.4	Production Asphalt	Max. Specific Gravity (MSG) of mix	М	1 per 200t at asphalt plant		Report	IANZ accredited test cert	Asphalt Manufacturer		1	1	R				
2.5		Air Voids at lab design compaction	М	1 per 600t at asphalt plant		NZTA M/32:2021 Individual Test Results: +2.0, -1.0 Mean of Three Test Results: +1.2, -0.6	IANZ accredited test cert	Asphalt Manufacturer		1	1	R				
3.0. PLA	CING AND FINISHING															
3.1	Milling	Surface strung to ensure milling Depth is achieved	М	Before Asphalt placement commences	Confirm requirements are followed	Site is suitable for paving	String Sheet	Paving Contractor			1	R				
3.2	Proof Roll and Benkelman Beam Testing	Treatment of identified soft spot based on proof rolling and Benkelman Beam Testing	Н	All identified soft spot	Proof roll/Benkelman Beam Testing	Refer to Pavement Rehabilitation Report under section 4.4 Pavement Contingency Measures	IANZ accredited test cert	Paving Contractor	Design specifications will be uploaded in CONQA.	1	ı	R				
3.3	Tack Coat, OR	Application of Tack Coat	М	Per Lot	Dip bitumen emulsion tank before and after	Target Between 0.2l/m2 - 0.6l/m2 +/- 0.1l/m2 From Target Application Rate	Site Diary	Paving Contractor		1	1	R				
3.4	Membrane Seal	Application of Membrane Seal	М	Per Lot	Sealing Records	Application rate, chip type and binder as per membrane seal design	Sealing Records	Paving Contractor		1	1	R				
3.5		Pavement Surface	М	Start of shift and every 1 hour until temperature rising	Infrared gauge	≥ 5°C for Structural, or as otherwise agreed with NZTA	Site diary	Paving Contractor	Must get NZTA approval if < 5°C for Structural	1	1	R				
3.6	Temperature	Asphalt Delivery temperature	М	Every Load on delivery to the Paver Hopper	Temperature Probe	Target ≥ 170 deg.C. in the Paver Min. ≥ 150 deg.C in the Paver <130°C to be Rejected	Site Diary	Paving Contractor		ı	I	R				
3.7		Compaction Temperature	М	During compaction	Temperature Probe/Infrared gauge	≥ 135°C at commencement of compaction. < 80°C - Stop Rolling	Site diary	Paving Contractor		1	1	R				

ITP-M32-EME - (with BB Test)_R2 M32 EME Construction

WAKA KOTAHI								Construction Process:	Start RP			INSPECTION ANI	TEST PLAN - VERSION CONTROL	Α	В	С	0 - IFC
				Modified Basecourse Layer	Finish RP		Prepared by Pavement Designer:		PE name	dd/mm/yy							
NZ TRANSPORT AGENCY	Downer					Reviewed by Constru	iction Manager:	PM name	dd/mm/yy								
-		DOMILEI	Proje		Project Name: T2W - Tirau to Waiouru - Rehabilitation Works			avmt Manager:	Surfacing or Pavement Manager	dd/mm/yy							
Client's Rep. : Neil Payne / Deena Tapara (Stellar Projects Ltd. (SPL) Item Task/Activity/Description			Specifications			Approved Quality M	anager.:	Nominated by Group Quality Manager	dd/mm/yy								
Client's R		Contractor's Rep. : Wayne Bowden (CM) / Sid	NZTA M32 Specification For High Modulu			Approved by: Pavem	ents SME.:	Responsible Group SME	dd/mm/yy							
(Stellar Projects Ltd. (SPL)		Rudani (PM)		Note: Binder Specification for EME2 is in M/32			Issued by: Project Di	rector	PE name	dd/mm/yy							
				Inspection/Test			, ,			777	Checked	by (RACI)					
				inspection, rest			Record documents			R = Respor	nsible, A = Appro	ve, C = Consult, I	= Informed				
Item	Task/Activity/Description	Detail of Activity / Test	Action (Hold, Monitor, Witness)	Minimum Test Frequency (Lot = 1 day's production)	Inspection / Test method	Acceptance Criteria	(QCP - Quality Control Portal	Responsibility	Project Specific Notes / Instructions	Designer	eng. Rep / NZTA	Contractor	Date				
3.8		Load Locate	M	Each load	M/32	Each load can be indentified to a location using a diagram. Record includes: - Truck ID/Rego/Driver - Depart Plant Time - Arrive Site Time - AC Temp on Arrival - Tonnage - Run Width - Estimated Run Length - Calculated Area - Calculated Average Depth	Paving Run Sheet	Paving Contractor		1	ı	R					
3.9		Thickness Monitoring	М	Continuously	Dipping	Target Loose Thickness -0mm / +10mm		Paving Contractor		1	ı	R					
3.1		Compaction - NDM	М	Plateau to be completed on 1st run, thereafter monitor compaction/roller passes to achieve target density.	Insitu density and air voids	NZTA M/32:2021 - section 9.8		Paving Contractor	Use a calibrated NDM with established core correlation. Locate and mark cores, record NDM Bulk density by core location (including any offset used).	1	I	R					
3.11	Mat	Compaction	н	Mat: 1 per 300m2/min. 8 per Lot Joint: 1 per 100m/min. 3 per Lot, In the event of a day's production being > 301 but < 2400m2, then it will be permissable to reduce the number of cores to; Mat: 1 per 300m2 with a minimum of 4 per Lot, and Joint: 1/100m with a minimum of 3 per Lot	Insitu density and air voids	NZTA M/32:2021 - section 9.8	IANZ accredited test cert.	Paving Contractor	A pavement lot shall be an essentially homogeneous section of work completed within a shift of production. The lot shall be divided into an appropriate number of approximately equal sub-lots and a core shall be taken randomly within each sub-lot. The Engineer or their delegate shall use a random method for locating each core position, such as ASTM D5361 or a similar process.	A	ı	R					
3.12		Thickness	Н	Average of 4 measurements per core	Measure Cores	LCV ≥ Specified Depth (Minimum) NZTA M/32:2021 - section 9.7	IANZ accredited test cert.	Paving Contractor		А	1	R					
3.13		Shape	М	Continuously	3m Straight edge	Where the length of the site or the geometry is such that a road roughness-measuring vehicle cannot be used then the straight edge can be used for checking the surface shape. Refer NZTA M/32:2021 - section 10. Not more than Smm under a 3m Straight Edge.	Straight Edge Record	Paving Contractor		ı	I	R					
3.14		Texture	М	Per Site (If Required)	Sand Circle or HSD	NZTA T/10: 2013	IANZ accredited test cert.	Paving Contractor	Only required if EME will be the final wearing course or final road surface.	ı	I	R					
3.15	Paving Quality	Level	М	Per Site (If Required)	As Built Survey	The level at the top of each layer of EME 2 shall not be less than or more than 10mm higher than the specified level. NZTA M/32:2021 - section 10.1	Survey As builts	Paving Contractor	Only required if EME will be the final wearing course or final road surface.	1	1	R					
3.16	16	Alignment	М	Per Site (If Required)	As Built Survey	±50 mm from drawings NZTA M/32:2021 - section 10.2	Survey As builts	Paving Contractor	Only required if EME will be the final wearing course or final road surface.	1	ı	R					

ITP-M32-EME - (with BB Test)_R2 M32 EME Construction

		200 000		Construction Process:	Start RP			INSPECTION ANI	D TEST PLAN - VERSION CONTROL	Α	В	С	0 - IFC
	WAKA KOTAHI			Modified Basecourse Layer	Finish RP		Prepared by Paveme	ent Designer:	PE name	dd/mm/yy			
WAKA KOTAHI NZ TRANSPORT AGENCY		Downer					Reviewed by Constru	uction Manager:	PM name	dd/mm/yy			Ī
		DOMICI		Project Name: T2W - Tirau to Waiou	ru - Kenabilitation Worl	KS	Reviewed by Surf./ Pavmt Manager:		Surfacing or Pavement Manager	dd/mm/yy			Ī
			Specifications			Approved Quality M	anager.:	Nominated by Group Quality Manager	dd/mm/yy			1	
Client's Rep. : Neil Payne / Deena Tapara (Stellar Projects Ltd. (SPL)		Contractor's Rep. : Wayne Bowden	(CM) / Sid	NZTA M32 Specification For High Modu			Approved by: Paver	nents SME.:	Responsible Group SME	dd/mm/yy			
		Rudani (PM)		Note: Binder Specification for EME2 is	in M/32		Issued by: Project Director		PE name	dd/mm/yy			1
				Inspection/Test			Record documents	s Responsibility		Checked by (RACI) R = Responsible, A = Approve, C = Consult, I = Information			
Item	Task/Activity/Description	Detail of Activity / Test	Action (Hold, Monitor, Witness)	Minimum Test Frequency (Lot = 1 day's production)	Inspection / Test method	Acceptance Criteria	(QCP - Quality Control Portal		Project Specific Notes / Instructions	Designer	Eng. Rep / NZTA	Contractor	Date
3.17		Site clear and cleanup	w	Each Site/Shift	Visual	Site is cleared of plant (or parked in safe location) cleanup of all waste mix, paper and detritus is complete	Site Diary/Photo	Paving Contractor			1	R	
3.18		Pavement Marking	W	Each Site/Shift	Visual	Roadmarking is complete	Site Diary/Photo	Paving Contractor				R	
3.19	Post Paving Completion Checks	Cold Joint Bandaging	W	Each Site/Shift	Visual	Cold joint bandaging is complete	Site Diary/Photo	Paving Contractor			1	R	<u> </u>
3.20		Service Covers Checked	w	Each Site/Shift	Visual	Check that service covers are cleared and level with the pavement	Site Diary/Photo	Paving Contractor			1	R	
3.21		Traffic Loops Reinstated	W	Each Site/Shift	Visual	Check that affected traffic loops have been reinstated	Communication	Paving Contractor			1	R	
Client Final	Inspection - the signature below verifies	that this ITP has been completed in accor	dance with t	he Specifications and verifies lot complian	nce.		н	Hold Point	Work Shall not proceed past the HP until by the Eng. Rep.	released		·	
Contractor ¹	's Rep Name:		Signature			Date:	w	Witness Point	An Inspection which must be witnessed by the Eng. Rep.	ed			
Engineer's	Engineer's Rep. Name: Sign			re: Date:				Monitor Point	Intermittent monitoring of any stage of the work in progress by the Eng. Rep.				

ITP-M32-EME - (with BB Test)_R2 M32 EME Construction

7000	and the state of t			Construction Process:	Start RP			INSPECTION AN	D TEST PLAN - VERSION CONTROL	Α	В	С	0 - IFC	
WAKA KOTAHI NZ TRANSPORT AGENCY				Modified Basecourse Layer	Finish RP		Prepared by Paveme	nt Designer:	PE name	dd/mm/yy				
		Downer		Proiect Name: T2W - Tirau to Waiouru	Bullia Direction and a direction		Reviewed by Construction Manager:			dd/mm/yy				
		DOMICI		Project Name: 12w - IIrau to Walouru	i - Kenabilitation Work	Reviewed by Surf./ Pavmt Manager:		Surfacing or Pavement Manager	dd/mm/yy					
								anager.:	Nominated by Group Quality Manager	dd/mm/yy				
Client's Rep. : Neil Payne / Deena Tapara (Stellar Projects Ltd. (SPL)		Contractor's Rep. : Wayne Bowden (CN Rudani (PM)	1) / Sid	NZTA M32 Specification For High Module Note: Binder Specification for EME2 is in			Approved by: Pavem	ents SME.:	Responsible Group SME	dd/mm/yy				
	(Stellar Frojects 2tal (SF2)			Note: Bilder Specification for EMEZ is in	111/32		Issued by: Project Di	rector	PE name	dd/mm/yy				
	Task/Activity/Description			Inspection/Test		Acceptance Criteria	Record documents	Responsibility		Checked by (RACI) R = Responsible, A = Approve, C = Consult, I = Informed				
Item			Action (Hold, Monitor, Witness)	Minimum Test Frequency (Lot = 1 day's production)	Inspection / Test method		(QCP - Quality Control Portal		Project Specific Notes / Instructions	Designer	Eng. Rep / NZTA	Contractor	Date	
1.0. As B	uilt Records	· · ·												
11	Assessment of all test results for conformity	Review against ITP Requirements	Н	For each site on the project	Review	Reporting of any non-conforming results to Engineer via NCR	NCR	Paving Contractor		1	А	R		
4.2	RAMM pavement and surface records	RAMM surfacing pavement data spreadsheet updated	w	For each site on the project	Prepare Data	Over milled and Deep lift extents recorded and verified by Contract Engineer / QA Spray sheets for membrane area received by Contract Engineer from Sealing Team. Surfacing layer extents recorded and verified by Contract Engineer.	RAMM Spreadsheet	Paving Contractor		ı	А	R		
lient Fina	al Inspection - the signature below verifies t	that this ITP has been completed in accordan	ice with ti	ne Specifications and verifies lot compliance	2.		Н	Hold Point	Work Shall not proceed past the HP until by the Eng. Rep.	released			•	
ontracto	r's Rep Name:	S	ignature:		-	Date:	w	Witness Point	An Inspection which must be witnessed					
ngineer's	s Rep. Name:	S	Signature:		-	Date:	М	Monitor Point	by the Eng. Rep. Intermittent monitoring of any stage of the	e work in progre	s by the Eng. Rep			

ITP-M32-EME - (with BB Test)_R2 M32 EME Post Construction