Inspection and test plan – Bulk Earthworks

Project no. CC0399 **Project name** MREH BESS **Date** _____ **SGJV Approval** _____

ITP no. CC0399-ITP-003 **Revision no.** A **Revision date** 15.01.2024 **Layer thickness** _____

Plant and equipment used Excavator, Dozer, Moxy, Stabiliser, Grader, Roller, Tandems, Trucks & Trailers, Dozer

Lot no. _____ **Location (chainages, detailed description or marked up plan)** _____

Attach Dockets, Certificates and QA Documents to ITP

						Verify of acceptance by					Remarks / record (eg. test reports, certificates, checklist etc)
						Symal Infrastructure			SGJV		
Item no.	**Activity**	**Ref docs**	**Acceptance criteria**	**Acceptance**	**Freq**	**Key**	**Resp**	**Sign Date**	**Key**	**Sign date**	
1.0 Preliminaries											
1.1	Determine lot size	N/A	What is the lot size?	..... m^2	Prior to start of Works	S	SE		S		☐ Lot Map
1.2	Survey set-out	IFC Dwgs	Is the most current survey file what the team is working to and has the work area been set out for line and level?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	W	**SE**		S		Photos
1.3	Water management	EMP	Where necessary, have batters been rounded and catch drains constructed to allow for potential surface runoff during the course of excavation?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	S	SE		S		Photos
1.4	Clearing	CC0399-ITP-002	Has the area been cleared and grubbed in accordance with ITP-002?	☐ Yes ☐ No ☐ N/A	Prior to start of Works	W	SE		S		Photos
Is the area in **cut / fill / both?** If in **cut** proceed to step 2.0 and strike out section 3.0. If in **fill** please strike out section 2.0 and proceed to section 3.0 If in **both** proceed to step 2.0 as well as section 3.0											
2.0 Bulk earthworks – Cut											
2.1	Excavation material classification	MRH/00/P/00-PM/SPC/0003 rev 3 page 53	Has the material being excavated been inspected with category agreed upon by Superintendent? Tick category below:	☐ Yes ☐ No ☐ N/A	Prior to start of Works	W	SE		S		Test reports

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						Key	Resp	Sign Date	Key	Sign date	
			☐ Topsoil ☐ Unsuitable material ☐ Fill material ☐ Other: _____								
2.2	Stockpile	N/A	Has the stockpile location been approved by SGJV.	☐ Yes ☐ No ☐ N/A	Prior to start of Works	H	SE		H		SGJV approved stockpile plan
2.3	Subgrade preparation	MRH/A0/B/00-CV/DWG/0040	Has the cut surface been trimmed to an even surface free from lose material? Have surface levels been checked to avoid over excavation?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	S	SE		S		Test reports/as-built survey
2.4	Lime mix	MRH/A0/B/00-CV/DWG/0040	Has lime demand testing been completed and submitted?	☐ Yes ☐ No ☐ N/A	Prior to starting	H	SE		H		☐ Test reports
2.5	Lime stabilisation	MRH/A0/B/00-CV/DWG/0040	Has the prepared subgrade been lime stabilised as per the IFC design?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	S	SE		W		Photos/As-built report
2.6	Compaction	IFC drawing MRH/A0/B00-CV/DWG/0008	Compaction Scale: minimum 3 tests per lot, or 1 test per 1000m2 Has the stabilised subgrade been adequately compacted achieving 100 SDD for subgrade. Is the subgrade material within +/- 2% of the optimum moisture content. Has a minimum 3% CBR been achieved?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	W	SE		S		☐ Test reports

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						Key	Resp	Sign Date	Key	Sign date	
2.7	Test Rolling	MRH/A0/B/00-CV/DWG/0040	Does the layer withstand test rolling without visible deformation or springing? List Attendees:	☐ Yes ☐ No ☐ N/A If 'no' please see below. If 'yes' please proceed.	Each lot & Each possession	H	SE		H		☐ Proof Roll Inspection Checklist
Identification of soft wet or unstable material		IFC Dwg	What quantity of soft, wet, or unstable material is present?	……. m^2 …… m^3	As required	W	SE		S		Photos
Treatment of unsuitable material		N/A	Has rectification process been submitted to SGJV for review. What was the rectification process used.	☐ Yes ☐ No ☐ N/A	As required	W	SE		S		Acconex Correspondence
3.0 Bulk earthworks - Fill											
3.1	Fill material classification	MRH/00/P/00-PM/SPC/0003 page 53	Has the material to be used as fill been approved for use?	☐ Yes ☐ No ☐ N/A	Prior to start of Works	S	SE		H		Material Acceptance correspondence/Certificate
3.2	Stripped surface - test rolling (If applicable)	MRH/A0/B/00-CV/DWG/0040	Does the stripped surface to be filled withstand test rolling without visible deformation or springing? List Attendees:	☐ Yes ☐ No ☐ N/A If 'no' please see below. If 'yes' please proceed to item 3.2	Each lot & Each possession	H	SE		H		☐ Proof roll checklist

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Identification of soft wet or unstable material		N/A	What quantity of soft, wet or unstable material is present?	..... m^2 ..... m^3	As required	H	SE		S		Photos /Visual check
Treatment of unsuitable material		N/A	What rectification process is to be undertaken	☐ Yes ☐ No ☐ N/A	As required	S	SE		S		Acconex Correspondence /Approval from SGJV
3.3	Preparation of surface	MRH/A0/B/00-CV/DWG/0040	Has adequate water been added to the stripped surface to ensure adhesion to the next layer?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	S	SE		S		Photos
3.4	Fill Placement	IFC drawing MRH/A0/B00-CV/DWG/0008	Has fill been placed in maximum 300mm and minimum 100mm compacted layer thickness? Rock in the fill should be less than 75 mm. - Fill should be free of clay and free from organic.	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	S	SE		S		Photos
3.5	Moisture	MRH/A0/B/00-CV/DWG/0040	Has the material maintained at optimum moisture content (within +/- 2% of optimum moisture), with additional water being added if required during compaction?	☐ Yes ☐ No ☐ N/A	As required	S	SE		S		Test Reports
3.6	Lime mix	IFC Dwgs MRH/A0/B/00-CV/DWG/0040	Has mix demand testing been completed and submitted?	☐ Yes ☐ No ☐ N/A	Once	H	SE		H		☐ Test reports
3.7	Lime stabilisation	MRH/A0/B/00-CV/DWG/0040	Has the prepared subgrade been lime stabilised as per the IFC design?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	S	SE		W		Photos/As-built report

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3.8	Compaction	IFC drawing MRH/A0/B00-CV/DWG/0008	Compaction Scale: minimum 3 tests per lot, or 1 test per 1000m2 Has the stabilised subgrade been adequately compacted achieving 100% SDD for subgrade. Is the subgrade material within +/- 2% of the optimum moisture content. Has a minimum 3% CBR been achieved?	☐ Yes ☐ No ☐ N/A	Each lot & Each possession	W	SE		S		☐ Test reports
3.9	Test Rolling	MRH/A0/B/00-CV/DWG/0040	Does the layer withstand test rolling without visible deformation or springing? List Attendees:	☐ Yes ☐ No ☐ N/A If 'no' please see below. If 'yes' please proceed	Each lot & Each possession	H	SE		H		☐ Proof Roll Inspection Checklist
Identification of soft wet or unstable material		IFC Dwgs	What quantity of soft, wet or unstable material is present?	……. m^2 …… m^3	As required	S	SE		S		Photos

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Treatment of unsuitable material		IFC Dwgs	Has rectification process been submitted to SGJV for Review? What was the rectification process used?	☐ Yes ☐ No ☐ N/A	As required	H	SE		S		Photos
4.0 Conformance check											
4.1	Width and alignment	IFC Dwgs	Has the pavement been constructed at the correct width and alignment as detailed in the construction drawings?	☐ Yes ☐ No ☐ N/A	Once	W	SE		H		☐ As built report
4.2	Subgrade level and shape	IFC Dwgs	Has the prepared subgrade been surveyed in accordance with and verifying specified requirements? Is the subgrade within +/- 20mm of design surface.	☐ Yes ☐ No ☐ N/A	As required	W	SE		H		☐ As built report

Comments:

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Works complete (signer SS) _____ **Date works complete** _____

Lot conforms (signer SE) _____ **Date lot closed** _____ **NCR/s no. raised** _____ **Date NCR closed for this lot** _____

Responsibility (Resp.) Key: **PM** - Project Manager, **PE**-Project Engineer, **SE**- Site Engineer, **CS**-Civil Superintendent, **SS**-Site Supervisor, **SV**-Surveyor, **CR**-Client Representative

Inspection key: W – Witness, H **–** Hold Point, **S -** Surveillance