

Memorial Avenue Upgrade, Kellyville Client: Transport for New South Wales (TfNSW) Principal's Authorised Person: Mark Jajou	Job No. 1680	Area No.	01
		Activity Type	Cut Foundation

INSPECTION AND TEST PLAN	EARTHWORKS – R44.03 Ed 5 / Rev 0 (Sep-2014)	Checklist No.	1680-CHK-R44-003
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Item	Activity	Reference		Acceptance Criteria	Frequency	Acceptance By			Record / Comments
		Spec	Method			DG	TfNSW	Other	
	In work sequence	OHSR, Environment, Quality aspect Specification, standard or				See key on final page			Identify relevant records Add notes to assist.
1.1	SWMS, EWMS and EPL	G22 CL3.2.2, G36 G38	-Ensure SWMS & EWMS are in place, understood and signed off by all personnel involved in completing the task -Ensure EPL criteria are confirmed with	Per Lot	PE	✓		Refer to 1680-CHK-R44-003	
1.2	Erosion and Sedimentation control plan	G38 CL3.1.1	Ensure ERSED plan has been developed and communicated to site team.	Per Lot	ENM	✓		Prior to commencement	
1.3	Traffic Control	G10 CL2.8.3	-Traffic control is in place. -Relevant TPC and VMP are approved	Per Lot	TM	✓		Prior to commencement	
1.4	Construction lot identification and traceability	Q6, CL7.5.3 and Annexure L1.	-Set the bounds for each construction lot as per Q6 requirements -Lot Number assigned -Lot size as per specification -This lot number as an identifier on all quality records -Lot map is prepared for traceability	Per Lot Activity	PQR	✓		Prior to commencement	

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2.1	Foundation treatment within cuttings	R44 CL3.4 R44 A2.2		-Remove and replace any unsuitable material -Prior to carrying out any foundation treatments, determine the CBR & PI values CBR _{10 day} : As shown on Drawings PI: 25 max	Per Lot Activity	ENG SS	✓		Refer to 1680-CHK-R44-003
2.2	Replacement of unsuitable material HOLD POINT	R44, CL2.4.1		- Notification that unsuitable material has been removed as directed - The Principal will inspect the excavation and may direct removal of further material	Per Lot Activity	ENG SS	HP		Refer to 1680-CHK-R44-003
2.3	Inspection of floors of cuttings HOLD POINT	R44 CL3.4		(a) Notification of completion of excavation to: (i) Designed Floor Level, or Foundation Level, as appropriate; and (ii) depth specified for Cut/Fill Transition Zone (refer to Clause 3.5); (b) CBR and PI test results	Per Lot Activity	ENG	HP		Refer to 1680-CHK-R44-003

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2.4	Survey of floor of cutting before placing material for foundation treatment or formation	R44 CL3.4 R44 CL7.7.1		-Designed Floor Level in cutting before foundation treatment: (i) Type C1: +10 mm / –40 mm (ii) Type C3 (Insitu material): +10 mm / –40 mm (iii) Type C4: +0 mm / –40 mm -Foundation Level in cutting before foundation treatment: (i) Type C2: +10 mm / –40 mm (ii) Type C3 (imported stabilized material): +10 mm / –40 mm (iv) Type C5 - Drainage layer in: - rock cutting: +10 mm / –150 mm - other than rock cutting: +10 mm / –40 mm	Per Lot Activity	ENG SU	✓		Survey report / Refer to 1680-CHK-R44-003
2.5	Treatment Type C1 – Loosen and Recompact	R44 CL3.4.1 R44 CL7 R44 CL7.7.1		-Loosen the material below the floor of the cutting by ripping to a depth of bet. 300 to 400 mm for the width of the SMZ - The max particle dimension in the loosened material < 100 mm -Relative compaction: 98% -Moisture content: 60-90% -Level survey tolerance: +0 mm / –40 mm	Per Lot Activity	ENG SU	✓		Survey report Test result / Refer to 1680-CHK-R44-003

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2.6	Treatment Type C2 – Excavation and Backfill	R44 CL2.8.4 R44 CL3.4.2 R44 CL7.7.1		- After excavation to the Foundation Level backfill, trim the floor of the cutting to conform to the tolerance: +0 mm / –40 mm -Relative compaction: 98% -Moisture content: 60-90%	Per Lot Activity	ENG SU SS	✓		Survey report Test result / Refer to 1680-CHK-R44-003
2.7	Type C2 Backfill material	R44 CL2.8.4 R44 CL3.4.3 R44 CL7 R44 A2		Backfill material properties: -CBR10 day: 8 min -PI: 25 max -be free from stone > 100 mm -have no less than 50% passing the 19.0 mm AS sieve	Per Lot Activity	ENG	✓		Test result / Refer to 1680-CHK-R44-003
2.8	Treatment Type C3 – Working Platform	R44 CL3.4.3 R50		-Chemical stabilization of the material in accordance with Specification RMS R50 -After stabilizing, the Controlled Subgrade Layer (Working Platform) material must have a CBR > 8%	Per Lot Activity	ENG SS	✓		Test report / Refer to 1680-CHK-R44-003

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2.9	Treatment Type C4 – Geotextile/Geogrid Layer(s) WITNESS POINT (R63) HOLD POINT (R63)	R44, CL3.4.4 R44, A3 R63		-Carry out a Type E4 treatment, consisting of placing a layer (or multiple layers) of geotextile and/or geogrid -Supply and placement of the geotextile and geogrid will be in accordance with Specifications RMS R63 and RMS R67 -Certificate of Compliance for Geotextile/Geogrid	Per Lot Activity	ENG SS	WP HP		Refer to 1680-CHK-R44-003
2.10	Treatment Type C5 – Drainage Layer	R44, CL3.4.5 R63		--Carry out a Type C5 treatment, where shown on the Drawings or specified or directed or authorised by the Principal, the drainage layer consisting of a rock layer enclosed by geotextile -Minimum layer thickness is 300 mm -Top of formation level tolerance: +20 mm / –40 mm	Per Lot Activity	ENG SU SS	✓		Survey report / Refer to 1680-CHK-R44-003

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2.11	Type C5 – Drainage Layer material	R44, CL3.4.5 R44, A2.2	-Drainage Layer Material Properties		Per Lot Activity	ENG	✓		Test report / Refer to 1680-CHK-R44-003
			Property	Requirement					
			Maximum particle dimension	125 mm					
			Percentage passing:						
			19.0 mm AS sieve	0 – 15%					
			1.18 mm AS sieve	0 – 5%					
			75 µm AS sieve	< 0.5%					
			% of +19.0 mm fraction with Is(50) < 1Mpa min	10% (max)					
Wet/Dry Strength Variation	35% max								
2.12	Proof Rolling WITNESS POINT	R44, CL7.6.1	-All surfaces within 1.5m of the underside of the SMZ -In accordance with RMS T198 -Proof rolling for each layer to be immediately after compaction -At least 1 working day prior to the proof rolling, notify the Principal and provide verification that the subject layer (test result) conforms in all respects except proof rolling		Per Lot Activity	ENG SS	WP		Refer to 1680-CHK-R44-003
2.13	Benkelman Beam test WITNESS POINT	R44, CL7.6.2	At least 1 working day prior, notify the Principal of the time, date and location of Benkelman Beam testing and results of proof rolling		Per Lot Activity	ENG	WP		Refer to 1680-CHK-R44-003

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2.14	Benkelman Beam test HOLD POINT	R44, CL7.6.2 R44/A4		-At least 3 working days prior, submit deflection test results, Survey Report of the finished surface and verification of conformity of each Lot of formation - Conduct deflection testing using the Benkelman Beam in accordance with Test Method RMS T199 - Carry out deflection testing by within 3 days of compaction -A Lot shall be homogeneous, continuous and of at least a single carriageway width -Max characteristic deflection (CD) Top of SMZ: 1.0 mm Underside of SMZ: 1.2 mm	Per Lot Activity	ENG SS	HP		Refer to 1680-CHK-R44-003
3.1	Identification and control of non-conforming products or services	Q6 CI 8.3		NCR to be opened & closed prior to closing of construction Lot	Per Lot Activity	PQR	✓		Non-Conformance Report
3.2	Verification that rectified work conforms HOLD POINT	Q6 CI 8.3		Verification that rectified works conform to accepted rectification method and specifications within the NCR	Per Lot Activity	PQR	HP		NCR number Refer to 1680-CHK-R44-003

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3.3	Final verification of construction Lot Records	Q6 CI 8.2.4.3		To confirm that all inspections and tests have been carried out to completely verify conformity.	Per Lot Activity	PQR	✓		Refer to 1680-CHK-R44-003

KEY	H	Hold point	ENM	Environmental Manager
	W	Witness point	ENG	Responsible Engineer
	S	Surveillance	PQR	Project Quality Representative
	T	Test	SS	Site Supervisor
	IR	Identified Record	SA	Site Administrator
			SU	Surveyor
			TM	Traffic Manager

Prepared by: Tamer Mohamed	Authorised for Use: Andrew Rigby	Date: 10/05/2021
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