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WORK INSTRUCTIONS FOR ENGINEERS

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CH-033. CHECKLIST FOR BORED PILE INSTRUMENTATION INSTALLATION

G&P GEOTECHNICS SDN BHD

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No.	CHECKLIST ITEMS	CHECKED BY G&P GEOTECHNICS	Remarks
	Project No. : Project : Contractor : Date : Supervised by :	Tick (√) if done , or else mark cross (X) if not available at site.	
1.0	PLANNING		
1.1	The instrumentation contractor submits full details on instrumentation equipment and method of statement before the commencement of installation work?		
2.0	EQUIPMENT		
2.1	Load Cell /Hydraulic Jack a) Type of Load cell: ton Nos. to be Adopted: Calibration Date: b) Type of Hydraulic Cell: Capacity: ton Nos. to be Adopted: Calibration Date:		
2.2	Are all the load cell(s) and/or hydraulic jack(s) sufficient to load up to extra (additional) 20% of the intended maximum test load??	Yes	
2.3	Strain gauges Strain gauges details, specification and calibration certificate (vadility not more than 6 months) provided to G&P before commencement of installation works?		
2.3.1	levels of strain gauges with Nos. of strain gauges per level		
2.3.2	Details of welding/mounting of strain gauges at * reinforcement bars / * sister bars?		
2.3.3	Any damage protection on strain gauges? If we nlease specify:		

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2.4	<u>Extensometer</u> Extensometer details and specification provided to G&P before commencement of installation works?	
2.4.1	Nos. levels of extensometer with Nos. of extensometers per level	
2.4.2	Details of attachment of extensometer at * reinforcement bars / * sister bars ?	
2.4.2	Any damage protection on extensometer? If yes, please specify	
3.0	* SETTING UP OF PILE HEAD/CHAIR FOR INSTRUMENTED PILE	
3.1	Does the pile head setting-up designed and endorsed by Professional Engineer? If Yes, designed calculation submitted on If No (Reason):	
3.2	Does the fabricated steel pile head comply as per design/drawing? Diameter: mm Thickness of the upper base plate: mm Number of stiffener: mm Thickness of the sttiffener: mm Thickness of the lower base plate: mm Thickness of mid plate: mm Butt weld size: mm	
3.3	Does the steel pile head flat or level and fit enough to attach to the bore pile head?	
4.0	REINFORCEMENT/STEEL CAGE	
4.1	Nos. of main reinforcement bar of size of mm Shear link spacing of mm with size of mm Design cover = mm	
4.2	Has the anchorage/lap length been checked?	

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4.3	Has adequate spacer been incorporated in the reinforcement cage? Type of spacer:	
4.4	Has the rubber protection around the steel plate been fixed as per drawing to prevent further influx of concrete grout into the pile base?	
4.5	Has the polystyrene at the bottom of the steel cage been fixed? • Thickness of polystyrene = mm • Diameter of polystyrene = mm	
4.6	Zinc plate installation at soil-rock interface ? If yes: From : m to m below ground level	
5.0	CASINGS	
5.1	* Temporary casing / * Permanent casing ?	
	Temporary casing Casing level: from m to m below ground level	
5.2	Permanent Casing Casing level: from m to m below ground level	
5.3	Detail of the steel casing: Outer Diameter = mm Inner Diameter = mm Thickness = mm Length = mm	
5.4	Does the position of the casings maintain in axial direction relative to the instrumented test pile during and immediately after placing the casing?	
5.5	Does the temporary casing cause any lifting of concrete grout when being extracted from the boring hole?	
6.0	INSTRUMENTATION INSTALLATION	
6.1	The computerized device/data logger recording the parameter adopted and the output readings used in good order?	
6.2	Does every strain gauge and respective signal cable and rod extensometers be named and marked to avoid controversy when taking reading during pile test?	
6.3	Does the extensometers and strain gauges securely installed/attached to the reinforcement cage/bar as per detail/drawing? If no, any recommendation?	

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6.4	Does the cable and wire connecting to strain gauges and extensometers in good order and sufficiently strong to withstand additional loading so that no component is displaced during placing of reinforcement cage or concreting?				
6.5	Does the extensometers and strain gauges in good order and their respectively readings being checked at the following conditions? • During installation/attachment to the reinforcement cage?				
7	RECORDS				
7.1	Does all the data checked and rectified by the instrumentation contractor for errors prior to submission?				
Note: * in	Note: * indicates delete where appropriate				
		G&P	Contractor Supervisor		
Signature by Engineers or Site Representatives :-					