

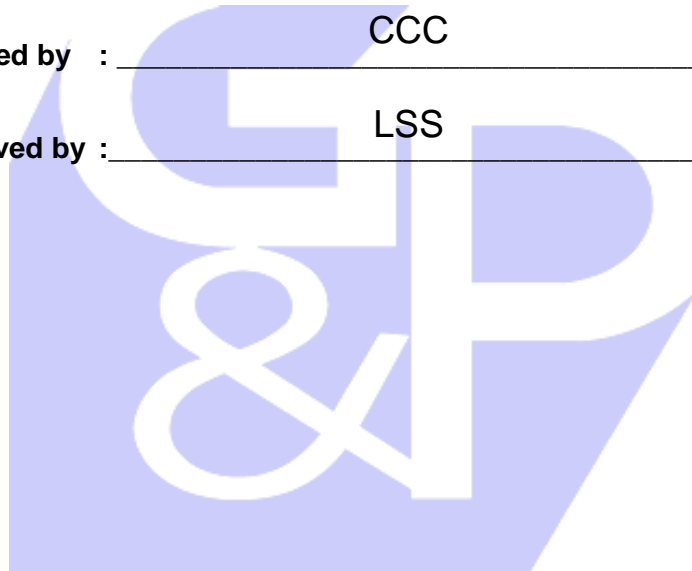


**WORK INSTRUCTIONS FOR ENGINEERS**

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**OP-3-73. CHECKLIST FOR LABORATORY VISIT**

## CHECKLIST FOR LABORATORY VISIT

## 73.0 CHECKLIST FOR LABORATORY VISIT

	CHECKLIST ITEMS	Checked By G&P Geotechnics	Remark
<b>1.0</b>	<b>LABORATORY INFORMATION</b>		
1.1	Laboratory (lab) Name, Address and Telephone No.		
1.2	Confirm with the laboratory on the visiting date and time		
1.3	Person-in-charge and contact number		
1.4	Location and Road Map of the laboratory		
1.5	Check with other Engineer who has visited/deal with the laboratory for brief information of the laboratory and the location		
<b>2.0</b>	<b>DESK STUDY</b>		
2.1	Obtain necessary information (such as laboratory tests procedures e.g. Atterberg Limit test, sample extrusion, sample preparation for 1D consolidation test (oedometer), etc.)		
2.2	Literature findings -based on BS 1377, operating procedures, checklist for 1D-consolidation testing, Checklist for CIU test and etc		
2.3	Bring along any Checklist/Technical Manual (TM) for laboratory visit: <ul style="list-style-type: none"> <li>• Checklist for 1D-Consolidation Laboratory Test</li> <li>• Checklist for Isotropic CIU Test</li> <li>• TM-Laboratory Testing</li> </ul>		
<b>3.0</b>	<b>EQUIPMENT</b>		
3.1	Pen, pencil, notepad, checklist, TM, etc		
3.2	Digital Camera <ul style="list-style-type: none"> <li>• <b><u>Important to Note:</u></b> Shall take as many photos as possible, especially during the process of witnessing tests (extruding the samples, preparation of samples cutting, etc).</li> <li>• Ensure Memory Card is Empty</li> <li>• Ensure Main Battery is Fully Charged</li> <li>• Spare Batteries</li> </ul>		
3.3	Check mileage by setting the car/motor meter to zero.		
<b>4.0</b>	<b>DURING THE LABORATORY VISIT</b>		
4.1	Numbers of tests equipment: <ul style="list-style-type: none"> <li>• Oedometer</li> <li>• Triaxial test</li> </ul>	<p>_____ nos</p> <p>_____ nos</p>	



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	<ul style="list-style-type: none"> <li>- with pore water pressure measurement                             <ul style="list-style-type: none"> <li>a) 38 mm dia. specimen</li> <li>b) 50 mm dia. specimen</li> <li>c) 70 mm dia. specimen</li> </ul> </li> <li>- without pore water pressure measurement                             <ul style="list-style-type: none"> <li>a) 38 mm dia. specimen</li> <li>b) 50 mm dia. specimen</li> <li>c) 70 mm dia. specimen</li> </ul> </li> <li>• Direct Shear Box test                             <ul style="list-style-type: none"> <li>a) 60mm x 60mm</li> <li>b) 100mm x 100mm</li> </ul> </li> <li>• Point Load Test</li> <li>• Sieve Analyses</li> <li>• Hydrometer Test (application only if more than 10% of soil is of fine grained material)</li> </ul>	<p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p> <p>_____ nos</p>	
<p>4.2</p>	<p>How often the calibration is done? (Check the last date of calibration for the equipments that will be used for the project)</p> <ul style="list-style-type: none"> <li>• Oedometer</li> <li>• Triaxial test                             <ul style="list-style-type: none"> <li>- with pore water pressure measurement                                     <ul style="list-style-type: none"> <li>a) 38 mm dia. specimen</li> <li>b) 50 mm dia. specimen</li> <li>c) 70 mm dia. specimen</li> </ul> </li> <li>- without pore water pressure measurement                                     <ul style="list-style-type: none"> <li>a) 38 mm dia. specimen</li> <li>b) 50 mm dia. specimen</li> <li>c) 70 mm dia. specimen</li> </ul> </li> </ul> </li> <li>• Direct Shear Box test                             <ul style="list-style-type: none"> <li>a)60mm x 60mm</li> <li>b)100mm x 100mm</li> </ul> </li> <li>• Point Load Test</li> <li>• Sieve Analyses</li> <li>• Hydrometer Test</li> </ul>	<p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p> <p>Date: _____</p>	
<p>4.3</p>	<p>Is the laboratory certified by ISO or any other certification scheme?</p>		
<p>4.4</p>	<p>If yes, what is the common non-compliance?</p>		
<p>4.5</p>	<p>What type of oven does the lab use?</p> <ul style="list-style-type: none"> <li>a) Conventional oven-type</li> <li>b) Microwave-type</li> </ul>		
<p>4.6</p>	<p>Are they using de-aired water in their testing?</p>		
<p>4.7</p>	<p>Does the lab have de-aired water facilities/machine?</p>		
<p>4.8</p>	<p>If yes, where is the machine?</p>		

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4.9	How the de-aired water is stored? Any air in the container or in vacuum condition?		
4.10	Sample extrusion Is there any sample extruder? [Electrical/manual (spindle)]?		
4.11	What type of extruder, horizontal or vertical extruder?		
4.12	Observe the extruding procedure, is it appropriate? Record down any sample disturbance, signs of damage or distorted sampler tube.		
4.13	What type of device used for Liquid Limit test? Cone penetration or Casagrande method? Casagrande type is applicable when the soil sample is not adequate for the cone penetration test.		
4.14	Request the laboratory to demonstrate the Atterberg Limit test by the laboratory technician.		
4.15	Any automatic data logger used for CIU, shear box test, oedometer, etc?		
4.16	Will any tests be affected by power blackout? Any alternative power supply?		
4.17	Who is carrying out the test? (His/Her Position-Laboratory technician, engineer, etc) Confirm name, position and qualification (SPM, STPM, undergraduate, post graduate, etc)		
4.18	Is fresh graduate allowed to carry out tests like CIU, oedometer tests, etc.?		
	<b>Signature by Engineer</b> <b>Date :</b>		