

# Civil Engineering Department

## MNIT, Jaipur

### CORRIGENDUM

Tender No. F5(656)ST/MNIT/CIVIL/2019

Name of Lab : Geotechnical Engineering Lab

Date: 29-8-2019

A pre-bid meeting is held at the scheduled date and time i.e., 29-8-2019 (2:00 PM onwards) to address the queries of the tenders. After discussion department has finalised below mentioned modifications in the technical specifications of the equipment's of above-mentioned tender. Below mentioned revisions may please be considered.

| Item S.N. | Item Name & Specifications (Original)   | Item Name & Specifications (Revised)  |
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| 12        | <p><b>Automatic Triaxial Test Testing System-Electronic with data acquiring facility:</b><br/>As per IS-2720 (Part-XII and Part XI)<br/>Load Frame with control electronics: - Motorized, with minimum 34 speeds (Rate of strain (speed) should be 0.00001 to 9.99999 mm/min with true speed upto 5mm/min), Capacity minimum 50 KN, should be suitable for Triaxial, UCS and CBR, two pillar type with sliding top load bracket allowing locking at any desired height, the loading part should be detachable form the main unit,with digital Led Display with Microprocessor Based Closed loop feedback control , operation at 220 volts, 50Hz, single phase supplySpecimen size : - 38mm, 50mm, 75mm &amp; 100mm diameterTriaxial Cell: - Should be capable of testing specimens of 38, 50, 75 and 100mm diameter and should be supplied with all standard accessories- plain discs (38-100mm dia.)-1 each, Perspex loading pads (38-100mm dia.)-1 each, porous stones (38-100mm dia.)-1 each, Pedestal (38-100mm dia. preferably brass made)-1 each, sheath stretcher (38-100mm dia.)-1 each, rubber sheath (38-100mm dia.)-12 each, sand former (38-100mm dia.)-1 each, top loading pads-plain (38-100mm), O-rings (38-100mm dia.)-8 each, drainage tubes both short and long (38-100mm)-4 each.Pressure volume controllers: - Minimum 2 upto 1 MPa pressure, USB connectivity and 200 cc volumetric capacityData acquisition system and transducers:- Upto 8 channel data acquisition system with computer controlled gain ranges usable</p> | <p><b>Automatic Triaxial Test Testing System-Electronic with data acquiring facility:</b><br/>As per IS-2720 (Part-XII and Part XI)<br/>Load Frame with control electronics: - Motorized, with minimum 34 speeds (Rate of strain (speed) should be 0.00001 to 9.99999 mm/min with true speed upto 5mm/min), Capacity minimum 50 KN, should be suitable for Triaxial, UCS and CBR, two pillar type with sliding top load bracket allowing locking at any desired height, the loading part should be detachable form the main unit,with digital Led Display with Microprocessor Based Closed loop feedback control , operation at 220 volts, 50Hz, single phase supplySpecimen size : - 38mm, 50mm, 75mm &amp; 100mm diameterTriaxial Cell: - Should be capable of testing specimens of 38, 50, 75 and 100mm diameter and should be supplied with all standard accessories- plain discs (38-100mm dia.)-1 each, Perspex loading pads (38-100mm dia.)-1 each, porous stones (38-100mm dia.)-1 each, Pedestal (38-100mm dia. preferably brass made)-1 each, sheath stretcher (38-100mm dia.)-1 each, rubber sheath (38-100mm dia.)-12 each, sand former</p> |

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|    | <p>with transducers in tri-axial cell. Should come with Windows 7 PC with 2 GB RAM, 120 GB HDD and Pentium Core 3 DUO installed with Data acquisition software. The software should have modules for UU, CU and CD Test and pore pressure measurements. The software should also have modules for specifying stress path testing, Ko consolidation, permeability, unsaturated testing and advanced loading test. The software output files should be able to export to MS Excel. Digital Indicator/ Display: - Alpha numeric display for all simultaneous channel, operation on 220V, 50Hz, Single Phase Load cell Capacity: - 10kN (with resolution : 0.01kN) Displacement Transducer: -LVDT 0 to 20mm range Pore Pressure Transducer: - 20 Kg/cm<sup>2</sup> capacity, (maximum overload capacity up to 150% (of rated)- it should be specified while quoting), resolution – 0.01 Kg/cm<sup>2</sup> Data Acquiring/Acquisition System: - Should be windows compatible. Software should also be supplied along with the whole setup for analysing the standard three types of Triaxial tests.</p> | <p>(38-100mm dia.)-1 each, top loading pads-plain (38-100mm), O-rings (38-100mm dia.)-8 each, drainage tubes both short and long (38-100mm)-4 each.</p> <p><b>Pressure control System: -Constant Pressure System-Pneumatic wall mountable</b> Pressure volume controllers: - Minimum 2 upto 1 MPa pressure, USB connectivity and 200 cc volumetric capacity Data acquisition system and transducers:- Upto 8 channel data acquisition system with computer controlled gain ranges usable with transducers in tri-axial cell. Should come with Windows 7 PC with 2 GB RAM, 120 GB HDD and Pentium Core 3 DUO installed with Data acquisition software. The software should have modules for UU, CU and CD Test and pore pressure measurements. The software should also have modules for specifying stress path testing, Ko consolidation, permeability, unsaturated testing and advanced loading test. The software output files should be able to export to MS Excel. Digital Indicator/ Display: - Alpha numeric display for all simultaneous channel, operation on 220V, 50Hz, Single Phase Load cell Capacity: - 10kN (with resolution : 0.01kN) Displacement Transducer: -LVDT 0 to 20mm range Pore Pressure Transducer: - 20 Kg/cm<sup>2</sup> capacity, (maximum overload capacity up to 150% (of rated)- it should be specified while quoting), resolution – 0.01 Kg/cm<sup>2</sup> Data Acquiring/Acquisition System: - Should be windows compatible. Software should also be supplied along with the whole setup for analysing the standard three types of Triaxial tests.</p> |
| 16 | <p>Plate Load Test Apparatus: As per IS 1888 Square shape Plain Bearing Plates (Preferably MS Made) with sizes 300mm, 450mm, 600mm, 750mm and thickness between 23-25mm -1 each Top End Plate 50mm diameter with male thread for rod fitting and adjusting of dial gauge-4Nos. Base plate (preferably magnetic) with female thread-4 Nos. Datum Bars-2 Nos., Columns-150 mm diameter and 250mm long- 2 Nos., Column-150 mm</p>   | <p>Plate Load Test Apparatus: As per IS 1888 Square shape Plain Bearing Plates (Preferably MS Made) <b>with Girder System (Capacity upto 300 kN)</b> plates with sizes 300mm, 450mm, 600mm, 750mm and thickness between 23-25mm -1 each Top End Plate 50mm diameter with male thread for rod fitting and adjusting of dial gauge-4Nos.</p>   |

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|    | <p>diameter and 500mm long- 1 No. High Pressure Pipe (preferably metallic) at least 5m long-1No.</p> <p>Ball and Socket Arrangement-1No.,Extension Rods for taking dial gauge readings-16 Nos.,Spikes (for Anchor) -10 Nos.,Quick Release Clamp for dial gauges brackets,Dial gauges – 25mm travel with 0.01mm least count-4 Nos. ,Hand Operated Hydraulic Jack-50,000 Kgf-1No.,Hydraulic Pump - Hand Opertaed-50,000 Kgf-1No. with 200mm Diameter load Gauge</p>  | <p>Base plate (preferably magnetic) with female thread-4 Nos. Datum Bars-2 Nos.,Columns-150 mm diameter and 250mm long- 2 Nos.,Column-150 mm diameter and 500mm long- 1 No. High Pressure Pipe (preferably metallic) at least 5m long-1No.</p> <p>Ball and Socket Arrangement-1No.,Extension Rods for taking dial gauge readings-16 Nos.,Spikes (for Anchor) - 10 Nos.,Quick Release Clamp for dial gauges brackets,Dial gauges – 25mm travel with 0.01mm least count-4 Nos. ,Hand Operated Hydraulic Jack-50,000 Kgf-1No.,Hydraulic Pump - Hand Opertaed-50,000 Kgf-1No. with 200mm Diameter load Gauge</p>  |
| 26 | <p>LARGE DIRECT SHEAR APPARATUS, 50 KN CAPACITY:-</p> <ul style="list-style-type: none"> <li>• The direct shear apparatus must be in compliance with IS:2720(Part 39, Section 1) and IS :11593 for testing sands, gravel, gravelly clays and clay gravels for use in rolled fill embankments with motorized operation.</li> <li>• The equipment must have minimum 72 speed rates of strain ranging from 0.0014 to 10.16 mm/min.</li> <li>• The specimen size to be tested in the shear box assembly should be 300X300X150mm.</li> <li>• The shear load capacity of the apparatus must be 50 KN.</li> <li>• The equipment must be supplied with standard accessories like Plane Gripper Plate, Perforated Gripper Plate, Base Plate.</li> <li>• The equipment must be supplied with 9 Nos surcharge weights each to give 50 KN/m<sup>2</sup> and 2 Nos, each to give 25 KN/m<sup>2</sup></li> <li>• The equipment must be supplied with Dial Guage of 50 mm travel and 0.01 mm least count and Proving Ring of capacity 50 kN compression.Geostar software to be provided for installation in windows based PC System/laptop for Analysis and reporting of Direct Shear Test results with single user license.</li> </ul> | <p>LARGE DIRECT SHEAR APPARATUS, 50 KN CAPACITY:-</p> <ul style="list-style-type: none"> <li>• The direct shear apparatus must be <b>fully automatic and</b> in compliance with IS:2720 (Part 39, Section 1) and IS :11593 for testing sands, gravel, gravelly clays and clay gravels for use in rolled fill embankments with motorized operation.</li> <li>• The equipment must have minimum 72 speed rates of strain ranging from 0.0014 to 10.16 mm/min.</li> <li>• The specimen size to be tested in the shear box assembly should be 300X300X150 mm.</li> <li>• The shear load capacity of the apparatus must be 50 KN.</li> <li>• The equipment must be supplied with standard accessories like Plane Gripper Plate, Perforated Gripper Plate, Base Plate.</li> <li>• The equipment must be supplied with 9 Nos surcharge weights each to give 50 KN/m<sup>2</sup> and 2 Nos, each to give 25 KN/m<sup>2</sup></li> <li>• Geostar software to be provided for installation in windows based PC System/laptop for Analysis and reporting of Direct Shear Test results with single user license.</li> </ul> |

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| 29 | <p>Unconfined Compression Tester for Rocks<br/> Ref. Standard : ASTM 2938<br/> Minimum load frame capacity 200 kN, 12 speed<br/> Proving ring 2 Nos 100 kN &amp; 200 kN<br/> Dial gauge least count 0.01 mm<br/> Platen set as per ASTM 2938</p> | <p>Unconfined Compression Tester for Rocks<br/> Ref. Standard : ASTM 2938 This equipment is used for determining unconfined compressive strength of intact rock core specimens. The rock sample is cut to length and the ends are machined flat. The specimen is placed in a loading frame and if required heated to the desired test temperature. Axial load is continuously increased on the specimen until peak load and failure are obtained.</p>   |
| 30 | <p>Point Load Index Tester<br/> Ref. Standard - IS:8764<br/> 100 kN capacity<br/> Conical loading platens<br/> Loading frame fitted with hydraulic jack capacity 100 kN<br/> Load gauge 0- 100 kN × 0.5 kN</p>                                   | <p>Point Load Index Tester<br/> Ref. Standard - IS:8764 Point Load Index Tester, is used for determining the Diametral Point Load Strength Index of rock cores and irregular lumps which can be tested without any treatment. The Point Load Test is primarily an Index Test for strength classification of rock materials. This instrument is mainly intended for field measurements on rock specimen but it can also be used in the laboratory. The results of the test may also be used to predict the uniaxial compressive strength of rock from correlations. The apparatus is light and portable. It can be used in the laboratory as well as in the field.</p> |

The EMD which was required in the shape of Demand Draft as per clause 18 of our E-NIT, now may also be furnished in the shape of Fixed Deposit Receipt (FDR) having the validity for minimum THREE MONTHS period from the date of opening of the tenders.

**Note: Other specifications and conditions shall remain same as in the original tender**

**Deputy Registrar  
(Store & Purchase)**