
Ref. No:- NITMGH/ES/CPPP/CE/TE-LAB/2021-22/2374

Date: 29.12.2021.

**E-NOTICE INVITING QUOTATION (e-NIQ) FOR SUPPLY & INSTALLATION OF EQUIPMENT
IN THE DEPARTMENT OF CIVIL ENGINEERING (TRANSPORTATION ENGINEERING LAB),
NIT MEGHALAYA, SHILLONG**

NIT Meghalaya invites online Tenders through **CPP Portal <https://eprocure.gov.in/eprocure/app>** from eligible Bidders for procurement of equipment.

Prescribed Tender document, detailed fees and specifications, bid instructions and Terms & Conditions can be downloaded from the CPP Portal (<https://eprocure.gov.in/eprocure/app>) or from the Institute website (<http://www.nitm.ac.in/>). However, the bidding process (submission and finalization) will be done in online mode at CPP Portal. The bidders may submit their bid only through uploading in the CPP Portal <https://eprocure.gov.in/eprocure/app>

BID INSTRUCTIONS:

01. The offer must be submitted in Two Bid – Two Files/Covers only through uploading in the CPP Portal, before the last date & time for bid submission. Bidders must submit their digitally signed bids. The covers will contain the following documents:
 - i. Cover 1 which consists of technical requirements and general terms & conditions.
 - ii. Cover 2 which consists of the Price Bid (in BoQ Ms-Excel format).

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Ref. No. NITMGH/ES/CPPP/CE/TE-LAB/2021-22/2374

Date: 29.12.2021.

LAST DATE OF SUBMISSION:- on **31.01.2022 at 1:00 PM**

Technical bids will be opened on **01.02.2022 at 15:30 PM**

After evaluation of technical bids, financial bids of the successful bidders will be opened on a later date which will be duly notified.

02. **Submission of Compliance Certificate:** Duly filled and signed Compliance Certificates (as per formats at Annexure-I A & B) are must with the Technical bid.
03. **Bid not transferable:** The bid documents are not transferable and the seal and signature of the authorized official of the firms must appear on all the papers and envelopes submitted.
04. The quantity mentioned for each item in the Annexure-III may vary depending on requirements.
05. GST Registration Certificate should be enclosed along with the tender documents.
06. Relevant catalogue of the items (if any) must be enclosed.
07. For e-waybill the successful vendor has to apply online via <https://ewaybill.nic.in/ewb.html>.
08. **Interested vendors may interact with Dr. Pradeep Kumar Gautam, Assistant Professor, Department of Civil Engineering, for any queries.**

SIGNATURE OF BIDDER

NIQ TERMS & CONDITIONS:

01. **Rates:** Rates quoted in the Price Bid should be on DOOR DELIVERY NIT Meghalaya, Shillong as per BOQ.
02. Quotations have to be submitted in Indian Rupees only. If goods are to be imported, the quotations shall include all charges for customs clearance, clearing agent fees, landing port handling charges, insurance etc. and onward transportation of the goods from the port/airport of landing for door delivery upto NIT Meghalaya, Shillong, Meghalaya.
NIT Meghalaya has a valid registration with the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology, Government of India for availing Customs/Central Excise Duty exemption. NIT Meghalaya will provide all necessary certificates, authorizations and documents required for clearing the consignment and for onward transportation upto Shillong.
03. All documents submitted should be self-attested with seal of the bidder.
04. Bidder must unconditionally accept all terms and conditions stipulated in the tender document and all pages of the bid including all enclosures should be numbered and must be duly filled in, signed and stamped by the bidder or his authorized representative. Offers received without signature and seal on all pages are liable to be rejected.
05. The bidder must also upload a digitally signed copy of the **Tender Acceptance Letter** in the format given at Annexure-IV.
06. **Validity of Quotation:** Quoted rates must be valid for 120 days from the date of quotation.
07. **Warranty:** The quoted equipment and components must be warranted for a minimum of three Year for instruments along with accessories and annual maintenance contract.
08. **Literature must:** All the quotations must be supported by the printed technical data sheet/ literature and the specifications mentioned in the quotation must be reflected/ supported by such printed technical data sheet/ literature. The model no. and specifications quoted should invariably be highlighted in the data sheets/ literature for easy reference.
09. **Details of supply** of similar items to Institutes of National Importance (preferably those located in the Northeastern region) must be provided.
10. **Presentation:** Technically qualified bidders may be called upon to give full presentation of the quoted equipment at NIT Meghalaya campus before opening of Price bid as a support of their Technical Quotations and for any clarifications.
11. **Equipment breakdown:** Any Equipment breakdown must be attended to within 72 hours during the warranty period of the equipment free of cost.
12. **Training:** If required, free training is to be provided to NIT Meghalaya personnel on the operation, maintenance and trouble shooting of the supplied items. The vendor may arrange in-depth training program for research scholars at NIT Meghalaya campus, if required.
13. **After Sales Service:** Vendor should clearly state the available nearest after sales service facilities in the North Eastern region, without which the offer will be rejected.
14. **Dealership Certificate:** The bidder/tenderer should be either a manufacturer or authorized agent of the foreign/Indian manufacturer. Dealers or Agents quoting on behalf of Manufacturer must enclose valid dealership certificate.
15. **Quality Certificates:** Valid certificate to prove the genuineness of the products and of International standard, as mentioned below, must be enclosed
 - (a) Manufacturer's certificate and

SIGNATURE OF BIDDER

(b) ISO/ISI certificate.

16. **EMD:- As per OM No. F9/4/2020-PPD issued by the Department of Expenditure, Ministry of Finance, Government of India dated 12.11.2020 vendors are exempted from submission of EMD/Bid Security. However, in lieu of Bid Security, the vendor must submit a “Bid Security Declaration” accepting that if they withdraw or modify their bids during period of validity etc., they will be suspended for the time specified in the tender documents.**
17. **Performance Bank Guarantee (PBG):** The successful bidder shall furnish an unconditional PBG (as per format at Annexure II) for 3 % of the Purchase Order value from a Nationalized/Scheduled Bank of India, before release of the payment. Else 3 % of the billed amount will be deducted as security deposit. Where the PBG is obtained by a foreign bank, it shall be endorsed by a Nationalized/Scheduled Indian bank and shall be governed by Indian Laws and be subject to the jurisdiction of courts at Shillong. The PBG shall guarantee that,
- a) The Vendor guarantees satisfactory operation of the Equipment & components against poor workmanship, bad quality of materials used, faulty designs and poor performance.
 - b) The Vendor shall, at his own cost, rectify the defects/replace the items supplied, for defects identified during the period of guarantee/warranty.

The PBG shall remain valid for period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.

18. **Delivery:**

- a. Time Limit: 45 (Forty Five) days from the date of issue of purchase order.
 - b. Safe Delivery: All aspects of safe delivery shall be the exclusive responsibility of the vendor. At the destination site, the package will be opened only in the presence of NIT user/representative and vendor’s representative. The intact condition of the package and the seal/indicators for not being tampered with, shall form the basis for certifying the receipt in good condition.
 - c. Insurance: The supplier is to establish ‘All Risk Transit Insurance’ coverage till door delivery at NIT Meghalaya.
 - d. Part Delivery: Acceptance of part delivery shall be a prerogative of the Institute.
 - e. Penalty for delay in delivery: The date of delivery should be strictly adhered to otherwise the Director, NIT Meghalaya reserves the right not to accept delivery in part or full.
19. **Before delivering the items, the vendor may visit the Institute for finding the feasibility of laboratory and roof-top space.**
20. **Genuine Pricing:** Vendor is to ensure that quoted price for the particular item is not more than the price quoted to any other customer in India, particularly to IITs/NITs and other Government Organization. Copy of the latest price list for the quoted item, applicable in India, must be enclosed with the offer.
21. **Conditional tenders not acceptable:** All the terms and conditions mentioned herein must be strictly adhered to by all the vendors. Conditional tenders shall not be accepted on any ground and shall be rejected straightway. Conditions mentioned in the tender bids submitted by vendors will not be binding on NIT Meghalaya.
22. **Late and delayed tender:** Late and delayed tender will not be considered. In case any unscheduled holiday occurs on the prescribed closing/opening date the next working day shall be the prescribed date of closing/opening.

23. **Payment: 100% payment within 30(thirty) days from date of successful completion of integration and demonstration.**
24. **Enquiry during the course of evaluation not allowed:** After opening the Technical Bid, no enquiry from the bidder(s) shall be entertained during the course of evaluation of the tender till final decision is conveyed to the successful bidder(s). However, the Purchase Committee or its authorized representative may make enquiries/seek clarification from the bidders. In such a case, the bidder must extend full co-operation. The bidders may also be asked to arrange demonstration of the offered items, in a short period of notice.
25. At any time prior to the date of submission of bid, NIT Meghalaya may, for any reason, either of its own or in response to a clarification from a prospective bidder, modify the bidding documents by an amendment / corrigendum. **Any such amendment / corrigendum will be duly notified through the Institute's website only.** Prospective bidders are advised to check the Institute's website every now and then for any amendment / corrigendum. In order to provide reasonable time to take the amendment into account in preparing the bid, NIT Meghalaya may extend the date and time for submission of bids.
26. The acceptance of the quotation will rest solely with the Director, NIT Meghalaya, who in the interest of the Institute is not bound to accept the lowest quotation and reserves the right to himself to reject or partially accept any or all the quotations received without assigning any reasons.
27. **Force Majeure:**
- If the performance of the obligation of either party is rendered commercially impossible by any of the events hereafter mentioned that party shall be under no obligation to perform the agreement under order after giving notice of 15 days from the date of such an event in writing to the other party, and the events referred to are as follows:
- (a) Any law, statute or ordinance, order action or regulations of the Government of India,
 - (b) Any kind of natural disaster, and
 - (c) Strikes, acts of the Public enemy, war, insurrections, riots, lockouts, sabotage.
28. **Termination for default:** Default is said to have occurred
- (a) If the equipment or any of its component is found having poor workmanship, faulty designs, poor performance and bad quality of materials used.
 - (b) If the supplier fails to deliver any or all of the services within the time period(s) specified in the purchase order or any extension thereof granted by NIT Meghalaya.
 - (c) If the supplier fails to perform any other obligation(s) under the contract.
- Under the above circumstances NIT Meghalaya may terminate the contract / purchase order in whole or in part and forfeit the EMD/PBG as applicable. In addition to above, NIT Meghalaya may at its discretion also take the following actions: NIT Meghalaya may procure, upon such terms and in such manner, as it deems appropriate, goods similar to the undelivered items/products and the defaulting supplier shall be liable to compensate NIT Meghalaya for any extra expenditure involved towards goods and services obtained.
29. **Applicable Law:**
- (a) The contract shall be governed by the laws and procedures established by Govt. of India and subject to exclusive jurisdiction of Competent Court and Forum in Shillong / India only.
 - (b) Any dispute arising out of this purchase shall be referred to the Director, NIT Meghalaya, and if either of the parties hereto is dissatisfied with the decision, the dispute shall be

referred to the decision of an Arbitrator, who should be acceptable to both the parties, to be appointed by the Director of the Institute. The decision of such Arbitrator shall be final and binding on both the parties.

Sd/-
Registrar

Encl.: ANNEXURE-I, ANNEXURE-II, ANNEXURE-III, ANNEXURE-IV.

Annexure –I

A. COMPLIANCE CERTIFICATE FOR NIQ TERMS
(To be enclosed in the Technical bid)

Sl. No.	NIQ Terms and Conditions	Yes/No
01	Rate quoted as per instruction	
02	AMC rate after warranty provided	
03	Validity of quoted rate for 120 days agreed	
04	“Bid Security Declaration” accepting that if they withdraw or modify their bids during period of validity etc., they will be suspended for the time specified in the tender documents.	
05	PBG term agreed	
06	Payment term agreed	
07	Delivery terms agreed	
08	Warranty period agreed	
09	Literature: Printed Literature provided	
10	Dealership / distributorship certificate (in case of dealers/agents) provided	
11	Details of supply to other Institutes of National Importance provided	
12	Equipment breakdown clause agreed	
13	After Sales Service: address of nearest after Sales Service centre in the region provided	
14	Manufacturer certificate provided	
15	ISO/ ISI certification provided	
16	Applicable law terms agreed	

Signature with Seal:.....
Vendor: M/s.....

Annexure -I

B. COMPLIANCE CERTIFICATE FOR SPECIFICATIONS
(One for each item, must to be enclosed in the Technical bid)

Item Sl. No.		Item Name:	
Quoted Product:	Make:	Model No:	
Specifications as per Annexure-III		Quoted Item Specifications*	Complied/ Deviation
Parameter	Specification		

Signature with Seal:

Vendor: M/S

*** Vendor must quote the parameter specification of the quoted product in this column and not just copy the specification from the tender call document. Failure to do so will lead to rejection of the tender.**

Annexure -II

PERFORMANCE BANK GUARANTEE

To:
The Director,
National Institute of Technology Meghalaya
Bijni Complex, Laitumkrah, Shillong-793 003
Meghalaya

WHEREAS (Name of Supplier)
hereinafter called "the Supplier" has undertaken, in pursuance of Contract No..... dated,.....
20.. to supply..... (Description of Goods and Services)
hereinafter called "the order".

AND WHEREAS it has been stipulated by you in the said order that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the order.

AND WHEREAS we have agreed to give the Supplier a Guarantee:
THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the order and without cavil or argument, any sum or sums within the limit of (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until theday of.....20.....

Signature and Seal of Guarantors

.....
.....
.....

Date.....20....

Address:

.....
.....

All correspondence with reference to this guarantee shall be made at the following address:

The Director,
National Institute of Technology Meghalaya
Bijni Complex, Laitumkrah, Shillong-793 003
Meghalaya

ANNEXURE-III
(Technical Specification)

Annexure A	
Specifications	
Item No. 01	<p>Digital Marshall Apparatus, 50 kN, Single Speed, for 4" diameter sample Quantity: 01(One) Details: The equipment must comply with ASTMD1559, BS:598-197, EN-12697-34. The equipment is used for testing the stability, flow value of the bituminous mixes of 4" (4 inch diameter samples) having maximum aggregates size in mix upto 25.4 mm maximum size. The equipment comprises of following:</p> <ul style="list-style-type: none"> • Marshall Load Frame: -----1 No. • Capacity: 50kN • Speed-50.8mm/min; Precise Speed • The equipment should have screw-driven adjustable crosshead on columns attached to sturdy base shall produce a uniform vertical movement of 50.8mm/min • Maximum Vertical Clearance = 470mm (Platen Down, Cross-head up) • Minimum Vertical Clearance = 250mm (Platen up, Cross-head down) • Horizontal Clearance = 265mm • Platen Diameter = 133mm • Platen Travel = 25mm • Platen Speed = 50.8mm/min • Rated Power = 375W • Minimum Dimension (Lx W x H) (in mm) = 550×400×870 approx. • Breaking Head Stability shall consisting of upper and lower cylindrical segment having inside radius of curvature of 50.8mm accurately machines • Digital Indicator ----- 1 No. • Load Cell ,50kN----- 1 No. • LVDT,20mm ----- 1 No. • Adaptors for Load Cell ----- 2 Nos. • Tommy Pin-----1 No. • Steel Ball-----2 No. • Spanners-----3 Nos. • Power cable----- 2 Nos. • Calibration certificates-----1Nos. • Operating Instructions with General----- 1 No. • Compaction Pedestal----- 1 No. <ul style="list-style-type: none"> • Specification and dimension must strictly comply to ASTM D 6926 • The compaction pedestal shall consist of a wooden post of minimum dimension 203.2mm x 203.2mm and height 457mm • Average dry weight of wood used shall be in between 670 to 770kg/m³ • The wooden post should be clamped with Steel Plate of minimum diameter 304.8 x 304.8 x25.4mm • A Mold Clamp/mold holder is fitted to the top of the plate. • Mold Holder <ul style="list-style-type: none"> ▪ A holder shall be mounted on the compaction pedestal to center the compaction mold over the post center.

	<ul style="list-style-type: none"> ▪ The holders shall hold the compaction mold, collar, and base plate securely in position during compaction of the specimen. • Support Rod <ul style="list-style-type: none"> ▪ To hold the compaction hammer in perpendicular direction • Compaction Hammer----- 2 Nos. <ul style="list-style-type: none"> • The compaction hammer shall have a flat, circular tamping face. • The compaction hammer shall be equipped with sliding weight of 4536±9gm. • Free fall height of sliding weight 457.2±1.524 mm • May be equipped with finger safety guard
Item 02	<p>Automatic Compactor for Bituminous Mixes for 4" molds Quantity: 01 (One) Specification: The apparatus automatically compacts the 4" diameter Marshall molds and stops after a preset number of blows. The equipment comprises of following:</p>
	<ul style="list-style-type: none"> • Must comply for testing procedure as per ASTM D6927 - 06 • Should have compaction mold with base & extension collar is used for compaction. Mold have a internal diameter 101.4 mm x 87.3 mm height. • Wight of Rammer = 4.54 kg. • Diameter of rammer foot = 97.5 mm • The rammer should be attached to a chain drive mechanism and is used to pull the rammer up to standard height of 457mm from where free fall take place. • The chain mechanism should runs over Sprockets which in turn is connected to the reduction gear box coupled to the motor. • Rammer foot should be detachable and have facility of both preheating and Marshall mold compaction. • Free fall height = 457mm • A wooden pedestal with a 25mm thick surface plate on the top is secured firmly to a concrete base for compaction. • Mold can be clamped on the top of the pedestal with a spring-loaded mold holding plate. • Automatic compactor should have a digital controller <ul style="list-style-type: none"> ○ The number of strokes of the rammer required for compaction can be set/pre-set on the digital stroke counter. ○ The digital controller should display the number of blows/strokes and auto switchoff mechanism should be there once the number of blows are achieved. ○ The digital control should be unaffected by machine vibration • The body of the automatic compactor should be strong and durable.
Item 03	<p>Marshall Molds Quantity: 20 (Twenty) Nos. Marshall molds are used for casting 4" diameter bituminous mix samples.</p>
	<ul style="list-style-type: none"> • Molds with base plate and extension collar-----20 Nos. • Molds quality and dimensions complying to ASTM D 6926 • Shape: Cylindrical • Dimensions: Inside diameter 101.6 mm and height 76.2 mm

	<ul style="list-style-type: none"> • Thickness:10-15mm approx.. • Each mold must have a base plate and Extension Collar, dimension of which must strictly comply with ASTM D 6926. • Molds, base plate and extension collar should be made of steel, protected against corrosion • Sample extruder or Sample ejector-----1 Nos. <ul style="list-style-type: none"> • Suitable for extracting compacted 4” diameter Marshall specimen from Marshall Mold without binding. • The sample ejector must have a steel disk that enter the mold without binding. <ul style="list-style-type: none"> ▪ Minimum diameter of steel disk: 100mm ▪ Minimum thickness of steel disk: 12.5mm • Extraction can be via hydraulic jack or lever arm provided the specimens do not deform during extraction
Item 04	<p>Asphalt Mixer, 5 Lt Capacity Quantity:01 (One) Details: The equipment is used for producing large and homogeneous batches of asphalt mix, ready to be compacted and tested. The equipment comprise of following:</p>
	<ul style="list-style-type: none"> • The mixer should be a mechanical mixer of the epicyclic type, which imparts both a planetary and a revolutionary motion to the mixer paddle. • Mixer Bowl capacity: 5 liters, • Mixing Capacity: 4 Kg±1kg • Temp Range: Room temp to 140° ±5° • Speed of Blade revolution: 0-80 Rpm, • Speed of Blade Rotation: 0-180Rpm, • Heater capacity: 1KW, • Testing Environment: 10-40° C & 80 % Relative Humidity, • At the low speed, the mixing paddle revolves at 140 ± 5 revolution/ minute, with a planetary motion of 62 ± 5 revolution/min. • At the high speed the mixing paddle revolves at 285 ± 10 revolution/ minute, with a planetary motion of 125 ± 10 revolution/minute. • The variable speeds controlled by the speed change lever. • Power Supply 220V,Single phase, AC supply • Material should be strong and durable and coated against corrosion
Item 05	<p>Serological Doubled walled water bath with Digital Controller Cum Indicator with stirring arrangement. Quantity: 01 (one) Specification: The equipment is used to incubate sample in water at constant temperature. The equipment comprises of following:</p>
	<ul style="list-style-type: none"> • Temperature Range = 5°C to 95°C ±0.2°C • Dimension (minimum) = 600mm x300mm x175mm • Size: Suitable for 8 racks • Should have a digital indicator to adjust the temperature value and display

	<p>temperature.</p> <ul style="list-style-type: none"> • Must have a stirring arrangement for homogeneous distribution of water throughout the water bath. • Inside and outside made of steel, outer surface powder coated. • Should have auto cut feature when reach the desired temperature. • Material should be strong and durable and non-corrosive.
Item 06	<p>Rice shaker automates sample agitation with Accessories Quantity: 01(One) Specification: The equipment is used to find the theoretical maximum specific gravity of bituminous sample and is used to cure the sample to study the moisture induced damage of samples. The equipment comprise of following:</p>
	<ul style="list-style-type: none"> • Must comply with AASTHOT209 and ASTM D2041. • Unit should allows three difference type of pycnometers of various size , heavy wall glass filter flask, aluminum pycnometer(2000g, 1500g) and plastic pycnometer (6000g) • Should be Consistent, repeatable agitation for asphalt rice and other specific gravity determination. • Should have Variable vibration control allows for setting optimum agitation • Speed controls allows setting of agitation to avoid stripping of asphalt. • Automatic operation feature • Should comply for specific gravity tests of fine aggregates (ASTM C128) and soil (ASTM D854) for sample preconditioning per ASTM D 4867 and AASHTO T 283. • Should have a digital timer 0-99min, 59 sec, with 0.25sec accuracy, vibration speed control, and a three position switch for manual or timed operation all front panel mounted for east use. <p>• Container:</p> <ul style="list-style-type: none"> ○ Glass, metal or plastic bowl complying to perform test as per ASTM T 283 and ASTM T 209 ○ Vacuum bowl-----2 Nos. <ul style="list-style-type: none"> ▪ Diameter: 180 to 260mm ▪ Height: 160mm ▪ Equipped with cover fitted with rubber gasket ▪ Connection for vacuum line ▪ Both the bowl and cover should be sufficiently stiff to withstand the applied vacuum ○ Vacuum flask-----1 No. <ul style="list-style-type: none"> ▪ Capacity: 4000ml approx. ▪ Fitted with rubber stopper with connection to vacuum line. ▪ Hose fitted with fine mesh ○ Heavy wall glass filter flask or aluminum pycnometer (2000gm)-1 No. ○ Pycnometer (6000gm) -----1No

	<ul style="list-style-type: none"> ● Vacuum Pump-----1 No. <ul style="list-style-type: none"> ○ Capable of evacuating air from the container to a residual pressure of 4.0 kPa (30 mm Hg) ○ Capable of applying a vacuum of 13-67kPa absolute pressure. ● Vacuum lid with suitable vacuum connection with vacuum opening covered with mesh or other suitable material. -----1 No. ● Calibrated Absolute Pressure Gage -----01 Nos. <ul style="list-style-type: none"> ○ Capable of vacuum pressure down to 4kPa (30mm Hg) or less ○ Capable of measuring 13-67KPa absolute pressure ○ It is to be connected at the end of the vacuum line using an appropriate tube and either a “T” connector on the top of the container or by using a separate opening (from the vacuum line) in the top of the container to attach the hose. Suitable accessory to be provided for desired connection. ● Manometer or Vacuum gauge-----01 Nos. <ul style="list-style-type: none"> ○ Capable of measuring vacuum being applied at source of vacuum or be in vacuum line close to the source. ● Bleeder valve to adjust the vacuum ● Rubber connecting tubing of length 1m to 3m
Item 07	<p>Buoyancy balance Quantity: 01 (One) Specification: The equipment is used to find the air weight and submerged weight of the sample. The Buoyancy Balance consists of a rigid support Frame, incorporating a Water Tank, mounted on a platform. A mechanical lifting device (jolted 25 times during test) is used to raise the Water Tank through the Frame height immersing the specimen suspended below the balance. The Balance supplied may also be used as a standard weighing system in the laboratory</p> <p>Details: The equipment comprise of the following:</p>
	<ul style="list-style-type: none"> ● Density Basket-----1 Nos. <ul style="list-style-type: none"> ○ Wire basket of not more than 6.3 mm mesh or a perforated container of convenient size, preferably chromium plated and polished, with wire hangers not thicker than one millimeter for suspending it from the balance. ● Weighing Balance-----1 Nos. <ul style="list-style-type: none"> ○ Balance or scale of capacity (minimum): 3kg, readable and accurate to 0.1 g ○ Weighing Balance should be such a type and shape as to permit the density basket containing the sample to be suspended from the beam and weighed in water. ○ Buoyancy Balance—16 kg±1kg x 0.1g ○ Suitable for operation on 220 V, 50 Hz, Single phase, AC supply. ○ A sample of not less than 2000 g of the aggregate shall be tested. ● Water Tank-----1 Nos. <ul style="list-style-type: none"> ○ Suitable enough to hold 15±1 lit of water ○ Material should be strong, durable and corrosion resistant or coated against corrosion.

	<ul style="list-style-type: none"> • A rigid frame, strong, durable and resistant against corrosion, containing facility to mount water tank and a mechanical lifting device to raise the Water Tank through the Frame height immersing the specimen suspended below the balance.
Item 08	<p>Indirect Tensile Test Attachment for Marshall Test Apparatus Quantity: 1 (One) Specification: The indirect tensile test attachment is used to study the failure of the marshal sample under tensile loading. The attachment shall be compatible with the digital marshal testing assembly. Details: The equipment comprises of following:</p>
	<ul style="list-style-type: none"> • Comply with ASTM D6931-17; AASTHO T283; IRC 111 • Splitting device for 4-inch Marshall sample diameter • Steel Manufactured, plated against corrosion. • Should be compatible with Marshall Apparatus, 50 kN, for 4" diameter sample
Item 09	<p>Laboratory California Bearing Ratio Test Apparatus, Electronic. Quantity:01(One) Specifications: The equipment is used to find the relative bearing ratio and expansion characteristics under known surcharge weight. The equipment shall comply with IS : 2720 (Part XVI), BS 1377; 1924; EN 13286-47/ ASTM D 1883; AASTHO T 193 Details: The equipment comprises of following:</p>
	<ul style="list-style-type: none"> • Load Frame----- 1 No. <ul style="list-style-type: none"> ○ 50 kN Capacity, ○ Three Speed 1.5, 1.25 & 2.5 mm/min ○ Two pillar type ○ Electrical cum Manual Operation ○ Can also be used in Mobile Laboratories ○ Horizontal Clearance: 265mm ○ Vertical clearance:-700mm ○ Maximum Platen diameter: 157mm ○ Maximum Platen Travel:-100mm ○ Specimen diameter: 38 to 100mm ○ The load frame should be for conducting Unconfined, Triaxial, CBR and other subgrade related routine tests ○ Loading system should comprises of a screw jack with detachable handle. ○ The lower platen should move up and down. ○ The top bracket is adjustable for vertical clearance and has an adaptor for connecting standard proving rings or load cells. ○ A diameter l gauge mounting bracket should be provided on one of the two pillars ○ Rate of strain: 1.25, 1.5 and 2.5mm/min ○ Suitable for operation on 220 V, 50 Hz, single phase, AC supply • Electronic cum manual operation • Compact, bench top design • Rapid Platen Adjustment • Complete with stabilizing bar • Options for mechanical or electronic measurement • Suitable for operation on 220V, 50Hz, single phase, AC supply • Penetration Piston

	<ul style="list-style-type: none"> ○ Length: 50mm ○ Piston face diameter: 50mm ○ Should be strong, durable and anti-corrosive. ● Adjustable Bracket for Penetration Diameter Gauge ● Digital Indicator-----1 Nos. <ul style="list-style-type: none"> ○ Display Mode: Micro controller multi line alpha numeric VFD display for all simultaneous channel ● Load Cell-----1 Nos. <ul style="list-style-type: none"> ○ Capacity: 50KN Compression type with atleast 3 m long cable. ○ Maximum overload:110% of rated capacity sensing. ○ Strain gauge in full bridge configuration. ○ Displacement transducer: 1 Nos. ○ Range ± 10mm with 3m long cable, sensing element LVDT) ● Rammer 4.9kg\pm50gm 450\pm0.5mm drop-----2 Nos. <ul style="list-style-type: none"> ○ Should have a guide pipe, the length of guide pipe should allow a free fall of 450\pm0.5mm ● Tommy pin----- 1 Nos. ● Spanner: 10 x 11, 20 x 22 1 Each ● Handle: 1 Nos. ● Alley Key: 1 Nos. ● Operating instructions ● Calibration certificate(minimum)-----1Nos. ● The material should be strong and durable.
Item 10	<p>CBR Mold with Accessories Quantity: 02 (Two) Specification: The equipment are used for casting the CBR samples. All dimension, material, and quality of CBR molds and accessories must comply with IS:9669 The equipment comprises of following:</p>
	<ul style="list-style-type: none"> ● Dimensions, quality must confirm to IS:9669 ● Cylindrical mold-----2Nos. <ul style="list-style-type: none"> ○ Inside diameter of 150mm and height 175mm. ○ The mold should be smooth from inside with two ears casted integrally with mold. ○ It shall have suitable seating at the ends for positioning the collar and the base plate. ● Perforated plate----- <ul style="list-style-type: none"> ○ suitable seating about 2 mm deep shall be provided on the top face for proper seating of the mold , and shall be of same material as mold. ● Extension Collar-----2 Nos. <ul style="list-style-type: none"> ○ 150 mm ID x 50 mm high, The collar shall be made from same material as that of mold. Two similar ears as in the case of the mold shall be cast integrally with the body ● Circular Metal Spacer Disc-----2 Nos <ul style="list-style-type: none"> ○ Dimensions:148 mm diameter x 47.7 mm high, with detachable handle diameter 115mm and 75mm height. ● Annular Surcharge Weight-----2Nos <ul style="list-style-type: none"> ○ Weight 2.5 kg, 147 mm diameter with 53 mm diameter central hole. ● Slotted Metal-----2Nos.

	<ul style="list-style-type: none"> ○ Weight 2.5 kg, 147 mm diameter, with 53 mm diameter slot ● Perforated Plate-----2Nos <ul style="list-style-type: none"> ○ 148 mm diameter 5mm thickness , with adjustable stem of 105mm long having 10mm diameter and lock nut M10 ● Cutting Collar-----2Nos. ● Wing nut and washer-----8 Nos.
Item 11	<p>Sieve Set Quantity: 01 (one) of each set. Specification: The equipment are used for assessing the particle size distribution of the samples. The sieve set must comply with IS:460 (part I) 1985, ISO 3310:1982 Details: The equipment comprise of the following:</p>
	<ul style="list-style-type: none"> ● Comply with IS:460 (part I) 1985, ISO 3310:1982 ● Frame shape: Round ● Sieve Set Size for coarse aggregates-----1 Nos. each ● Internal diameter of sieve: 45cm each ● Sieve Sizes: 75mm, 63mm, 53mm, 45mm,37,5mm, 22.4mm, 19mm, 13.2mm, 11.2mm, 9.50mm, 6.3mm, 4.75mm,Pan ● Sieve Set Size for fine aggregates-----1 Nos. each ● Internal Diameter of sieve: 20cm diameter each ● Sieve Sizes: 4.75mm, 2.36mm, 1.18mm, 0.85mm, 0.60mm, 0.425mm, 0.300mm, 0.180mm, 0.150mm, 0.075mm, Pan and Lid ●
Item 12	<p>Laboratory Hot Air Oven Quantity: 01(One) Specification: The equipment is used for dry heat the samples. Details: The equipment comprise of following</p>
	<ul style="list-style-type: none"> ● Temperature Range: 50°C to 250°C ±1°C ● Inside diameter: 600x900x600mm ● Air circulation via fan for even heat distribution. ● Digital Indicator Cum Controller with Safety Alarm
Item 13	<p>Deep Freezer Quantity:01(One) Specification: The equipment is used for deep freeze the sample, and carry out freeze and thaw study. Details: The equipment comprise of the following:</p>
	<ul style="list-style-type: none"> ● Capacity: 110 lit ● External Chamber: MS sheet with powder coating paint ● Internal Chamber: 304 Stainless steel sheet ● Type of cabinets: Vertical/Horizontal ● Freezer body: Anti corrosive, Galvanized steel. ● Temperature range 30° to -20° C ● Temperature uniformity: ±1°C ● Display resolution: 0.1°C ● Cooling purpose: Compressor ● Power source: 230V, 50 Hz, Single phase

Item 14	<p>Weighing Balance Quantity:01 (One) Specification: The equipment is used to measure the weight of samples Details: The equipment comprise of following:</p>
	<ul style="list-style-type: none"> • Maximum capacity: 30kg • Least Count: 0.1gm • Tare Range: 100% of full scale capacity. • Power supply: Mains and can be battery operated • Battery type: Rechargeable, with 24 hr battery backup. • Battery voltage (min): 6V • Tabletop with digital display. • The body of the weighing scale should be made of strong and durable material, Stainless steel body preferred. • Display Screen: Digital display.
Item 15	<p>Laboratory Jaw Crusher Quantity: 01 (one) Specification: The laboratory jaw crusher is to be used for crushing ore and hard objects into specific size. Details: The equipment comprises of the following:</p>
	<ul style="list-style-type: none"> • Designed to crush hard materials. • Preferred Dimension: 715±5x350±10mmx460±10mm • Feeding size (Width x Length) = 60x100 mm² • Material Input size=40-45mm • Crushed material output size: 10mm to 3mm • Power supply: 230V, 50 Hz, 1ph, 1100 W • Weight: Not more than 130 kgs±10kgs • Capacity: 0.2 to 0.6m³/h • Confirming to steel cabinet, CE safety directive, collection pan. • Material should be strong, durable and coated against corrosion.

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ANNEXURE-IV

TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Ref. No.

Date:

To,

The Registrar
National Institute of Technology Meghalaya
Bijni Complex, Laitumkrah
Shillong 793003, Meghalaya

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No.: NITMGH/..... dated2021

Name of Tender:-

Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned Tender from the web site of NIT Meghalaya, Shillong as per your advertisement, given in the CPP Portal and the above mentioned website.
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No.....to (including all annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s), if any, issued from time to time by NIT Meghalaya, Shillong, have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then NIT Meghalaya, Shillong shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)
