## **U.P. STATE BRIDGE CORPORATION Ltd.**

#### **E-TENDER DOCUMENT**

(Total no. of pages: 19)





#### NIT No.:1852/141 MBC/2018-19Date: 20-12-2018

Name of Work: Supply, erection, commissioning, test & trial of following lab testing equipment

1	Digital Rebound Hammer with Software (as per Annex. A-1)	01 Set
2	Profoscope Scanner (as per Annex. A-2)	01 Set
3	Ultrasonic Pulse velocity tester (as per Annex. A-3)	01 Set
4	Imaging Scanner for Concrete (as per Annex. A-4)	01 Set
5	Profometer rebar locatar with corrosion potentialassessment kit (as per Annex. A-5)	01 Set

Earnest Money Period of supply

:Rs. 1.50 Lac (Rupees one lac fifty thousand only): Within45 daysfrom the date of P.O.

S.No.	Description Date		Time	
1	Document downloading start date	22-12-2018	10:00a.m.	
2	Document downloading end date	05-01-2019	05:00 p.m.	
3	Bid submission start date	22-12-2018	10:00 a.m.	
4	Online bid submission closing date	05-01-2019	5:00 p.m.	
5	Tender hardcopy submission closing date	07-01-2019	1:30 p.m.	
6	Techno-commercial bid opening date	07-01-2019	3:00 p.m.	
7	Financial bid opening date	After evaluation	on of technical bid	

Note: Please visit our website www.bridgecorporationltd.com for details of terms & conditions and tender document.

Regd. Office :16, MADAN MOHAN MALVIYA MARG .LUCKNOW - 226 001 Phone No. 0522 – 2209933 Fax # 0522-2209798 e-mail : upsbcltd@gmail.com

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#### Section-1

#### Ref. No.1852/141 MBC/2018-19Date20-12-2018

#### **NOTICE INVITING E-TENDER(SHORT TERM)**

E-Tenders are invited only from themanufacturers/authorized distributors/dealers for Supply, erection, commissioning, test & trial of the following lab testing equipments for quality control of bridge construction.

Sl	Description of Items	Qty.	EMD	Description	Date	Time
No	(as per specifications		(Rs. in			
	described in		Lacs)			
	Annex. A-1 to A-5)					
01	Digital Rebound	01		Document	22-12-2018	10:00 a.m.
	Hammer with Software	Set		downloading start		
02	Profoscope Scanner	01		Document	05-01-2019	05:00 p.m.
		Set		downloading end		_
03	Ultrasonic Pulse	01		Bid submission	22-12-2018	10:00 a.m.
	velocity tester	Set	1.50	start		
04	Imaging Scanner for	01	Lacs	Online bid	05-01-2019	5:00 p.m.
	Concrete	Set		submission closing		_
05	Profometer rebar	01		Tender hardcopy	07-01-2019	1:30 p.m.
	locatar with corrosion	Set		submission closing		_
	potential assessment kit			_		
	_			Techno-	07-01-2019	3:00 p.m.
				commercial Bid		-
				opening		
				Financial Bid	After evaluation of technical	
				opening	bid	

**Note:** 1- Please visit our website www.bridgecorporationltd.com for details of terms & conditions and tender document.

2- Only those bids shall be considered for acceptance which clearly describe the specifications of equipments in accordance with requirements as per Annex. A-1 to A-5.

#### (Sanjay Srivastava) Dy. Project Manager (M)

#### Copy to following for information:-

- 1. Joint Managing Director (M) U.P.S.B.C. Ltd., Lucknow.
- 2. Financial Controller, U.P. State Bridge Corporation Ltd., Lucknow.
- 3. Chief Manager (M), U.P.S.B.C. Ltd., Lucknow.
- 4. Notice Board.

#### **TENDER DOCUMENT SPECIAL CONDITIONS**

U.P.State Bridge Corporation Ltd.(U.P.S.B.C.Ltd.) is an undertaking of Govt. of U.P. (India) hereby invites tender for supply, erection, commissioning, test and trial &transportation of above equipments, confirming to technical specifications of above equipments which are chronologically listed as per **Annexure-A-1**, **A-2**, **A-3**, **A-4**&**A-5** enclosed here with. These equipments are required for special quality tests to control and monitoring the quality of various structures of bridges.

The tender is invited in two-bid system. Part one will be **TECHNO-COMMERCIAL BID** which will beuploaded online as well assubmitted in hard copy with EMD (Earnest Money Deposit) in one sealed cover superscribed as **TECHNO COMMERCIAL BID** with the name of equipment on the top of the envelope.Part two will be **FINANCIAL BID** which will be uploaded online.

The bidders are advised to study the terms and conditions attached with this tender as Section-3GENERALCONDITIONS OF N.I.T.to avoid any risk of rejection. Prices should be quoted as per enclosed**Financial Bid Document** given in **Section-5**.

One set of tender document duly signed and stamped on each page with EMD and supporting documents should be submitted with Techno Commercial Bid as a token of acceptance of all terms and conditions of the N.I.T.

Sl.	Description	Date	Time
No			
1	Document downloading start date	22-12-2018	10:00 a.m.
2	Document downloading end date	05-01-2019	05:00 p.m.
3	Bid submission start date	22-12-2018	10:00 a.m.
4	Online bid submission closing date	05-01-2019	5:00 p.m.
5	Tender hardcopy submission closing date	07-01-2019	1:30 p.m.
6	Techno-commercial Bid opening date	Bid opening date         07-01-2019         3:00 p.m.	
7	Financial Bid opening date	After evaluation of technical bid	

#### NIT No:1852/141 MBC/2018-19Date20-12-2018

E-Tenders are invited only from the manufacturers/authorized distributors/dealers for Supply, erection, commissioning, test & trial of the following lab testing equipments subject to the terms and condition mentioned in tender documents Section-3 only.

Sl.	Description of Items	Qty	EMD	Cost of tender document
No	(as per specifications described		(Rs. in	
	in Annex. A-1 to A-5)		Lacs)	
1	Digital Rebound Hammer with	01 Set	Rs1.50	Cost of tender document Rs.3000.00 +
	Software		Lacs	G.S.T. @ 18%, i.e. total cost
2	Profoscope Scanner	01 Set	(Rupees	Rs.3540.00.
3	Ultrasonic Pulse velocity tester	01 Set	one lac	Payment shall be made by demand
4	Imaging Scanner for Concrete	01 Set	fifty thosand	draft in favour of "U.P. State Bridge Corporation Ltd." payable at
5	Profometer rebar locatar with corrosion potential assessment kit.	01 Set	only)	Lucknow, to be submitted in separate envelope along with hard copy of tender.

#### Note:-

(1) All manufacturers/authorized distributors/dealers are advised to get them enrolled on e-tendering portal (http://etender.up.nic.in)

(2) Tender documents are available on website: www.e-tender.up.nic.in which can be downloaded.

(3) All interested firms are requested to upload their competitive bid at http://etender.up.nic.in on or before the scheduled closing date & time.

- (4) Cost of tender document is Rs.3000.00 + G.S.T. @ 18%, i.e. total cost Rs.3540.00 in the form of demand draft in favour of "U.P. State Bridge Corporation Ltd." payable at Lucknow to be submitted in separate envelop along with hard copy of tenders on or before date of submission.
- (5) In case of holiday on the date of opening, the tenders will be received on next working day at the same time at Head Quarter, Lucknow.
- (6) Earnest money of Rs. 1.50 Lac is to be deposited with the tender validupto 30-06-2019.Performance security deposit shall be submitted by successful bidder. EMD of unsuccessful bidders shall be returned back after finalization of tender.
- (7) Details given in the tender document are over riding on this tender notice. U.P.S.B.C. Ltd. Lucknow reserves the right to reject any or all tenders without assigning any reason thereoff.
- (8) The quantity is indicative only which may vary on either side, hence no claim in this regard shall be entertained.
- (9) Any conditional tender shall liable to be rejected without assigning any reason thereoff.

For U.P. State Bridge Corporation Ltd.,

(Sanjay Srivastava) Dy. Project Manager (M)

# <u>General Conditions of NIT</u> (For purchase of equipment)

1-	Definition	Purchaser means U.P.State Bridge Corporation Ltd. Lucknow and Biddermeans
-	Definition	such persons/firms/company or other authority as may supply or agree to supply
		plant and machinery or services to the purchaser.
2-	Submission of	One envelope, superscribed on top <b>TECHNO-COMMERCIAL BID</b> will be of Technical
	Tender	offer consisting of EMD, complete details of plant/machine/equipment being offered
	1011401	with all technical specifications, literature, name and details of buyers with their
		addresses, telephone number, e-mail address etc.
		The bidder shall submit authorization from OEM/Manufacturer addressed to
		the Managing Director U.P. Bridge Corporation Ltd., clearly mentioning the
		Tender No. This authorization is to be submitted in the Techno Commercial
		offer. Non submission of above authorization shall result in rejection of the bid.
		The second envelope will be of Earnest Money Deposit (EMD)in a separate sealed
		envelopsuperscribed on top EMD.
		It is essential to quote rates and taxes online in Financial Bid.
		Both the envelopes must be enclosed in a sealed cover which must have the NIT No.
		and date with due date of submission & date of opening with name of
		Plant/machine/equipment duly superscribed on top of it and tobe sent under
		registered post with acknowledgement/speed post/ courier /personally in tender box.
		Tender must be forwarded with due allowance to avoid any postal delay.
		U.P.S.B.C.Ltd. will not be responsible for any postal delay or loss of tender
		documents.
3-	Scope of Work (a)	Supply: The plant, machinery and equipment to be supplied shall be newly
	<b>-</b>	manufactured and strictly as per specification given in Section-5 (Annexure-A-1 to A-5).
	(b)	Commissioning & Testing: The supplier shall also carry out commissioning and
		testing of the equipment at the place/site as per instructions & schedule given by
		U.P.S.B.C. Ltd. Head Office.
		All facilities required for the above such as technical expertise, tools and tackles etc.
		shall also be the responsibility of the supplier. However U.P.S.B.C.Ltd. shall provide
		details of testing sites and other assistance required to carry out tests and inspections.
		Commissioning and testing shall be treated as complete only after the equipment
		gives trouble free service & testing results. Satisfactory testing reports shall be given
		by Incharge of Quality Cell.
4-	Tender opening	All hard copies of tenders must reach this office / dropped in tender box upto1:30
		p.m. on due date of opening of e-tenders. The Techno Commercial Bid will be
		opened on due date at scheduled time in the office of the undersigned or his
		authorized representative. Financial Bid, of only those firms will be opened who
		qualify after evaluation of Techno-Commercial Bid.
5-	Prices (1)	The price quoted shall be for the place (Lucknow) of delivery as per price schedule
		attached as per Section-8. All details of price which will be payable to the supplier
		including Freight, Insurance, Taxes & Duties should be clearly mentioned in the
		financial bid.
	(2)	Prices shall remain firm and no escalation shall be permissible. However any
		statutory variation in taxes in State / India, after the award of work till dispatch shall
		be paid / adjusted on production of documentary evidences.
6-	Currency	Prices and rates shall be quoted and paid in Indian Rupees (INR) only by the
		tenderer, manufacturer or authorized distributor.
7-	Delivery period	The delivery period for the supply of following equipments will be 45 days (Fourty
		Five days) from the date of P.O. The equipments must be supplied in good & intact
		condition in all respect. Thereafter one week for test and trial and commissioning.
		1- Digital Rebound Hammer with Software.
		2- Profoscope Scanner.
1	1	3- Ultrasonic Pulse velocity tester.

		4- Imaging Scanner for Concrete.
		5- Profometer rebar locatar with corrosion potential assessment kit.
8-	Delay in (a)	
8-	Delay in (a) Delivery	Please note that delivery is the essence of N.I.T./ P.O. and the supplies must be made within the delivery period mentioned in clause no (07). If the tenderer can not arrange the supply during above stipulated period, an alternative delivery period may be
		offered in clear terms, but the delivery period mutually agreed will be firm & binding on the supplier.
	(b)	If the delivery is not completed within prescribed time or within any time extension given by U.P.S.B.C.Ltd., the supplier shall be liable to an unconditional penalty of
		0.5% of the basic price of the machine/equipment per week subject to the maximum of 10% of the total cost of machines. In addition the purchaser will have the right to cancel the purchase order and make purchases from alternate source.
9-	Erection, test-trial	
	and commissioning	the supplier as per stipulated time given in clause no. 07
		Test, trial and commissioning of above all equipments shall be done in presence of In-Charge of Quality Cell and authorized officerswho will also make all necessary arrangements for test & trial of these equipments at fewconstruction sites.
10-	Earnest Money	Rs. 1.50 Lacs (Rupees onelac fifty thousand only)
	Deposit(EMD)	The amount mentioned above must be deposited separately as earnest money along with the tender in the form of A/C Payee Demand Draft in favour of <b>U.P.State Bridge Corporation Ltd.</b> payable at <b>Lucknow</b> or in the form of FDR the same should be duly pledged in favour of <b>U.P.S.B.C.Ltd. Lucknow</b> or Bank Guarantee on the enclosed format (Section-6) from any Scheduled Bank of India valid upto30-06-2019. The validity of the offer given by the firm shall also be valid up to 180 days (Six months) from the date of opening of the tender.
		The copy of EMD draft/FDR/Bank Gurantee to be uploaded alongwith Techno Commercial Bid documents. If the bidder withdraws/modifies his bid for any reason during validity of the bid. E.M.D. shall be forfeited. Tenders received without earnest money shall not be
		considered and EMD in the shape of B.G. if not in proper form shall be liable to rejection. Earnest money deposit of unsuccessful bidderswill be returned after finalization of the tender.
11-	Performance Security Deposit(PSD)	The successful bidder shall be required to submit performance security deposit of 10% of the value of the P.O. within 10 days from the date of the receipt ofletter of acceptance (LAO). After submission and verification of PSD, Purchase Order will be issued.
		An unconditional, irrevocable Performance Security Deposit in the form of account payee demand draft in favour of U.P.S.B.C.Ltd. Lucknow or in the form of F.D.R., the same should be pledged in favour of U.P.S.B.C.Ltd. Lucknow or Bank Guarantee on the endorsed format (Section-7) for a period of 15 months from the date of letter of acceptance. In case of failure to deposit Performance Security Deposit within given time, the earnest money deposit will stand forfeited for which no separate notice will be issued. The Performance Security Deposit shall be released after completion of above period and satisfactory performance of Machine.
13-	Warranty	The manufacturer/bidder shall provide complete warranty against any manufacturing defect, design and such other defects for a period of 12 months from the date of commissioning. All such defects shall be removed by the bidder at his own cost within a reasonable period of time as agreed with U.P.S.B.C. representative.
14-	Arbitration	In case of any dispute arising out of agreement or related to any matter there to
	settlement of	whether during or after expiration of the agreement the same will be referred to the
	disputes	sole arbitrator of any person nominated by M.D. of U.P.S.B.C.Ltd. and award of sole
	_	or arbitrator given in such reference shall be final and binding on the parties to this agreement.
15	Jurisdiction	The contract shall in all respect be construe and operative in conformity with the Indian law and be subject to the jurisdiction of Lucknow courts(INDIA)
16-	Force-Mejeure	Force Mejeure shall mean unforeseen cause beyond the control and without the fault
	č	or negligence including but not restricted to acts of God or cause by war, civil commotion riots, flood, epidemics, freight embargoes and obstruction of navigation port or exit on entry or acts of Governments.
17-	Payment Terms:	90% payment along with 100% taxes, duties, transit insurance and transportation
1/-	i ayment i erms:	20% payment along with 100% taxes, tuttes, transit insurance and transportation

		charges shall be payable against delivery of machine in good and intact condition at
		consignee's place, within seven days from the date of receipt of machines. Balance
		10% payment shall be payable after satisfactory commissioning and testing of
		equipment and training of U.P.S.B.C.Ltd. personnels, within 30 days from the date of
		commissioning and training of equipment. The payment will be made through Demand Draft/RTGS.
18	Name of	Sri ArvindDev, Manager Equipment, Quality CellU.P.S.B.C. Ltd. Lucknow.
	Consignee	Mobile No. 0-8765977738
19	Training of	The supplier shall have to provide free of cost training of U.P.S.B.C.Ltd staff at its
	UPSBC Ltd.	premises to handle, operate and carry out various tests as well as to make them
	Personnels	enable to interpret the results and reports in desired manner.
20	<b>Documents:</b>	Following documents shall be submitted with :
	(1	Techno-Commercial Bid:
		• Technical specification in prescribed format enclosed at section-5 (Annexure
		A-1 to A-5) with printed catalogues.
		Earnest Money Deposit
		• Tenders Specific authorization letter from OEM.
		• List of purchasers with their addresses, phone numbers details.
		• All filled in formats and statements to be attached, except Section-8. If more
		space is required then other information should be submitted in a separate
		sheet in same sequence.
		• Annual Sale Turn Over for the last five year along with audited statement
	(2	Financial Bid:
	,	• To be submitted online in the format of financial bid.
		Please fill the rate of IGST @
		• Please fill the rate of SGST @
		• Technical specification of the Plant/Machinery/Equipment offered.
	(3)	DOCUMENTS /CERTIFICATES TO BE SUBMITTEED ALONGWITH THE
		INSTRUMENT/EQUIPMENT
		1-Operation and maintenance manual : 2 sets
		2-Commissioning and trouble shooting instructions : 2 sets
		3-Write-up on safety measures / provisions : 2 sets
		4-List of service centres with name and number of contact person : 2 sets
		5-Provisions of demonstration and training of UPSBC staff.
21	Right of	U.P.State Bridge Corporation Ltd. Lucknow reserves the right to reject any or all
	acceptance:	tenders without assigning any reason thereof and tenderer shall have no claim on this
		account. Any conditional tender or tenders not in accordance with the above
		instruction and conditions may be summarily rejected.
22	Variation Clause	The quantity mentioned in the tender can vary on either side to any extent and no
		claim will be entertained for reduced quantity on any account.
23	Note (1	•
		last three years.
	(2)	In case of any failure of equipments during test, trial and commissioning, the same
		shallbe replaced / rectified by supplier at his own cost.
	(3	
	(4	
	( =	•••
	(5	
		snan de rejected.
	(3 (4 (5	<ul> <li>The defective parts are to be replaced free of cost by the supplier during the warranty period of the equipment</li> <li>In case of any technical dispute regarding Technical Specification of machine, the decision of Managing Director. U.P.S.B.C. Ltd. will be binding on the tenderer.</li> </ul>

(Sanjay Srivastava) <u>Dy. Project Manager (M)</u>

#### **REQUIREMENT/SPECIAL CONDITION FOR TECHNO-COMMERCIAL OFFER**

The tenderer/manufacturer/authorized distributor should submit following particulars.

Sl.No.	Question	Answer to be given by the manufacturer/authorized dealer.
1	Name, address, fax & e-mail of the company	
2	Complete General and Techno Commercial profile of the company may be given in brief including its operation in India.	
3	Annual sales turn over for last three years (enclose audited statement for last three years.)	
4	Type of Technology being offered (complete Technical literature to be furnished for Evaluation)	
5	Name of client their address, phone no. and fax etc. with location where these equipments have been used.	
6	The manufacturer/authorized/distributor/dealer should have a registered office in India and authorization of the appropriate authority for its operation in India must be enclosed.	
7	The bidder should have a service and repair facility with a team of qualified and trained engineers in U.P./Delhi. Details of location of such facility along with address, phone number and fax should be attached with the offer.	
8	Please fill the rate of IGST	
9	Please fill the rate of SGST	
10	The bidder should have sufficient operational back-up and training facilities to train U.P.S.B.C. operating and maintenance staff.	

Note: If more space is required then this format can be typed on a separate sheet in the same Chronicle order.

Signature & Seal of Bidder

# Section-5 <u>ANNEXURE-A-1</u>

#### TECHNICAL SPECIFICATIONS FOR DIGITAL REBOUND HAMMER WITH SOFTWARE

SL. No.	Description	-		Whether bidder's equipment meets required specifications	
			Yes	No.	
01	Values	Automatic conversion of rebound values (Q values)			
02	Wireless equipment	Portable and user friendly, the instrument should be wire free during testing and be able to carry out tests at critical places. Display should be interactive.			
03	Battery option	Internal battery with low power consumption			
04	Measuring range	Measuring range should be between 10 to 100 N/mm <sup>2</sup>			
05	Connectivity	PC connectivity (through USB) to transfer the stored readings			
06	Self-correction	Automatic self-correction of readings based upon the impact direction			
07	Result	Able to calculate median, mean value and standard deviation automatically			
08	Charging option	USB charging port.			
09	Interface language	Language free user interface			
10	Button interface option	Single button user interface			
11	Correction option	Possibility to check the strength through carbonation corrections			
12	Carry bag	Instrument should have a safe carry case			
13	Data export option	Provision to export the data to third party software			
14	Conversion curves	User should be able to define the conversion curves (Polynomial or exponential)			
15	Angle	Provision for testing using the instrument in any angle without any correct ions			
16	Testing standards	ASTM C805 EN 12504-2, JGJ/T-23-2001			
17	Impact energy	2.207 Nm			
18	Operating temperature range	$10^{\circ}C - 50^{\circ}C$			
19	Memory capacity	Around 400 series with 10 Values per series			
20	Maximum number of impacts per series	99			
21	Battery Life	5000 impacts between charges including demonstration etc., complete.			
22	Tilt angle	Equipment should have +/-15 deg. Tilt function			
23	Functions	Equipment should have predefined curves, custom curves, form factor correction function; impact angle correction; carbonation correction; user defined and standardized statistics etc.			
24	Software	User friendly software to down load the data should be provided.			
25	Accessories	Grinding stone, USB cable.			

Note :1- Bidder must fill above last two columns and submit in hard copies with Techno-commercial bid. 2- Catalogue & Literature must be attached with make & model offered.

#### TECHNICAL SPECIFICATIONS FOR PROFOSCOPE SCANNER

SL. No.	Description	Requirement	Whether bidder's equipment meets required specifications	
			Yes	No.
01	Measuing Range	Upto 185mm		
02	<b>Rebar Diameter Estimation</b>	Upto cover of 64mm (2.5 inch)		
03	Power Supply	Power source 2X1.5 Volt AA(LR6) batteries Voltage range 3.6 Volt to 1.8 Volt		
04	Current Consumption	Power on, backlight off ~ 50 mA		
		Power on, backlight on ~ 200 mA		
		Sleep mode ~ 10 mA		
		Power off $< 1uA$		
05	Battery Lifetime	Backlight off > 50 h		
		Backlight on > 15 h		
06	Time Outs	Sleep mode 30 s		
		Auto shut down 120 s		
07	Environmental Conditions	Temperature range $-10$ <sup>o</sup> C to $60$ <sup>o</sup> C		
		Humidity range – 0 to 100 rH		
		Protection Class – IP54		
		Standard and Regulations Applied – BS1881 Part		
		204; DIN1045; SN 505 262; DGZfP B2		
08	Storange range	49,500 measurements total (500 objects with 99		
		measurements)		
09	Software	Compatibility ProfoLink: Windows 2000, XP, Vista, 7, 8		

Note :1- Bidder must fill above last two columns and submit in hard copies with Techno-commercial bid. 2- Catalogue & Literature must be attached with make & model offered.

#### **ANNEXURE-A-3**

#### TECHNICAL SPECIFICATIONS FOR ULTRASONIC PULSE VELOCITY TESTER

SL. No.	Description	Requirement	Whether bidder's equipment meets required specifications Yes No.		
01	Functions	The equipment Housing should be specially designed to be used on-site in harsh environments	165	110.	
		Screen should have high resolution for allowing best possible analysis of the measured waveforms.			
		Dual Core Processor for supporting diverse communication and peripheral interfaces			
		Modular and Expandable with Pulse Velocity and Pulse Echo transducers.			
		Compressive strength and SONREB method			
		Capable for determination of crack depth			
02	Scan Modes	A-Scans ; Line Scans ; Data Logging ; Area Scan			
		Zoom and scroll function for precise A-Scan inspection			
		Able for on board storage and review of waveforms			
		Settings should be directly accessible on measuring screen of the equipment			
		Dual cursor for manual A-Scan evaluation			
		Separate cursor to measure signal amplitude			
		Automatic and manual triggering and user adjustable trigger threshold			
03	Range	0.1 – 7930 us			
04	Resolution	0.1 us			
05	Display	Touch screen 7" colour display 800x480 pixels			
06	Pulse Voltage	UPV 100-450Vpp			
07	A Scan update rate	Upto 40 Hz			
08	Transducer	54 kHz – 2 no.			
09	Bandwidth	20 to 500 kHz			
10	Receiver Gain	1x - 10000(0-80dB)[11steps]			
11	Memory	Internal 8GB Flash memory			

Note :1- Bidder must fill above last two columns and submit in hard copies with Techno-commercial bid.

2- Catalogue & Literature must be attached with make & model offered.

#### ANNEXURE-A-4

#### TECHNICAL SPECIFICATIONS FOR IMAGING SCANNER FOR CONCRETE

SL.N.	Description		Requirement	Whether	bidder's
	_			equipment meets	
				requi	
				specific	ations
				Yes	No.
01	Functions of	The equip	oment Housing should be specially designed to be used		
	Equipment	on-site in	harsh environments		
		Screen sh	nould have high resolution for allowing best possible		
			of the measured waveforms.		
		Control U	Init of the equipment should have 8 GB Flash memory		
		or more.			
			e processor forsupporting diverse communication and		
			l interfaces		
	Consist of 8 channel array type antenna with up to 24 Nos of				
		transduce			
		transduce	ers in the antenna array should be of low frequency		
			be. Dry point contact transducers with ceramic wear		
		tips are pi			
			perform the thickness measurement in thick concrete		
			and bridges.		
		Capable f	for Determination of Voids, honeycombing and depth		
			t of delaminations		
		Capable t	o provide Real-time B-scan visualization		
			to provide Panorama mode for extended scans over		
		several m	eters		
		Zoom and	d scroll function for precise A-Scan inspection		
		Settings s	should be directly accessible on measuring screen of		
		the equip	ment		
		Dual curs	or for manual A-Scan evaluation		
		Transduc	er array should have Display for status information and		
			e feedback		
			er array should have Buttons to control main scanning		
		functions			
Speci	fication of Array T	ransduce	er		
02	Gain		0 to 80 GB		
03	Analog Bandwith		15 to 100 kHz		
04	Nominal Transducer Fr	equency	50kHz shear wave		
05	Measuring Range		Ca. 1m depending upon the concrete quality		
06	Range Resolution		0 to 1000 us/1us		
07	Pulse Shape		Square wave		
08	Pulse Delay		8 to 200ms		
09	Number of Channels		8 (with upgrade option to 16)		
10	Battery Lifetime >4h				
11	Dimensions	240 x 273 x 153mm			
12	Weight ~3KG				
	fication of Control	Unit			
13	Display		Touchscreen Display 7" colour 800 x 480 pixels		
14	Memory		Internal 8 GB flash memory		
15	Language		Regional setting Metric and imperial units and		
			Multilanguage and time zone supported		
16	Power		Input 12V +/-25 % 1.5A		
17	Battery		3.6V, 14Ah		

SL.N.	Description	Requirement	Whether bidder's equipment meets required specifications	
			Yes	No.
18	Battery Lifetime	>8 h(in standard operating mode)		
19	Humidity	<95% RH, non -condensing		
20	Operating Temperature	$-10 \text{ to} + 50 ^{0}\text{C}$		
21	IP Rating	IP54		
22	Dimension	250 x 162 x 62mm		
23	Weight	~1.65 Kg(including Battery)		

Note :1- Bidder must fill above last two columns and submit in hard copies with Techno-commercial bid. 2- Catalogue & Literature must be attached with make & model offered.

#### ANNEXURE-A-5

#### TECHNICAL SPECIFICATIONS FOR PROFOMETER REBAR LOCATOR WITH CORROSION POTENTIAL ASSESSMENT KIT

No.	Description		Requirement		
01	Functions of Equipment		upment control should be touchscreen with we display and assisted workflow.		
			llow the On-site post processing of the measured		
		data	now the on-site post processing of the measured		
			ave Rugged housing for harsh environments		
			e processor for fast data acquisition		
			d software for efficient custom reporting		
			perform both rebar location and corrosion mapping		
		through s			
			osion mapping the equipment should have the		
			b be upgraded to wheel electrodes which allow the		
			nd most efficient on site testing.		
			user friendly interface for data acquisition		
		Buttons	on equipment should indicate measuring path		
		direction			
			Customizable text options that can be entered for		
		the speci			
			d digital filtering to remove the effect of external		
			vil and industrial power sources).		
			zable Distribution, Cumulative Distribution,		
			g Graph Views		
C		Predefine	ed ASTM compliant layout		
	ification of Control Unit	722 1	1. 1. 0003/400		
0.1			r display 800X480 pixels		
01	Display				
02	Memory	Internal 8	3 GB flash memory		
	* *	Internal 8 Regional	B GB flash memory settings Metric and imperial units and multi-		
02 03	Memory Language	Internal 8 Regional language	B GB flash memory settings Metric and imperial units and multi- and time zone supported		
02 03 04	Memory Language Power	Internal 8 Regional language Input 12	8 GB flash memory settings Metric and imperial units and multi- and time zone supported Volt +/-25%/1.5Amp.		
02 03 04 05	Memory Language Power Diamensions	Internal 8 Regional language Input 12 250X162	8 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm		
02 03 04 05 06	Memory Language Power Diamensions Weight of Display device	Internal 8 Regional language Input 12 250X162 About 15	3 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)		
02 03 04 05 06 07	Memory Language Power Diamensions Weight of Display device Battery	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt,	8 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)         14 hr.		
02 03 04 05 06 07 08	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s	8 GB flash memory         settings Metric and imperial units and multi-         and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)         14 hr.         tandard operating mode)		
02 03 04 05 06 07 08 09	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F	8 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)         14 hr.         tandard operating mode)         RH, non-condensing		
02 03 04 05 06 07 08	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature	Internal 8RegionallanguageInput 12 $250X162$ About 15 $3.6$ Volt,>8h (in s< 95 % F	8 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)         14 hr.         tandard operating mode)         RH, non-condensing         +50°C		
02 03 04 05 06 07 08 09 10 11	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc	8 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)         14 hr.         tandard operating mode)         RH, non-condensing         +50°C         treen IP54, universal probe IP67		
02 03 04 05 06 07 08 09 10 11	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature IP rating	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc	8 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)         14 hr.         tandard operating mode)         RH, non-condensing         +50°C         treen IP54, universal probe IP67		
02 03 04 05 06 07 08 09 10 11 <b>Spec</b>	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature IP rating <b>ification for Cover Mete</b> Cover measuring range	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc <b>r/ Rebar I</b>	8 GB flash memory         settings Metric and imperial units and multi- and time zone supported         Volt +/-25%/1.5Amp.         2X62 mm         525 g (incl. battery)         14 hr.         tandard operating mode)         RH, non-condensing         +50°C         creen IP54, universal probe IP67         Locator		
02 03 04 05 06 07 08 09 10 11 <b>Spec</b> 01 02	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature IP rating <b>ification for Cover Mete</b> Cover measuring range Cover measuring accura	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc <b>r/ Rebar I</b>	8 GB flash memorysettings Metric and imperial units and multi- and time zone supportedVolt +/-25%/1.5Amp.2X62 mm225 g (incl. battery)14 hr.tandard operating mode)RH, non-condensing $+50^{\circ}$ Cereen IP54, universal probe IP67LocatorUp to 185 mm (7.3 Inch) $\pm 1$ to $\pm 4$ mm (0.04 to 0.16)		
02 03 04 05 06 07 08 09 10 11 <b>Spec</b> 01 02 03	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature IP rating <b>ification for Cover Mete</b> Cover measuring range Cover measuring accura Measuring resolution	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc <b>r/ Rebar 1</b>	8 GB flash memorysettings Metric and imperial units and multi- and time zone supportedVolt +/-25%/1.5Amp.2X62 mm525 g (incl. battery)14 hr.tandard operating mode)RH, non-condensing $+50^{\circ}$ Creeen IP54, universal probe IP67LocatorUp to 185 mm (7.3 Inch) $\pm 1$ to $\pm 4$ mm (0.04 to 0.16)Depending on diameter and cover		
02 03 04 05 06 07 08 09 10 11 <b>Spec</b> 01 02	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature IP rating <b>ification for Cover Mete</b> Cover measuring range Cover measuring accura	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc <b>r/ Rebar 1</b>	8 GB flash memorysettings Metric and imperial units and multi- and time zone supportedVolt +/-25%/1.5Amp.2X62 mm525 g (incl. battery)14 hr.tandard operating mode)RH, non-condensing +50°C+50°Ccreen IP54, universal probe IP67LocatorUp to 185 mm (7.3 Inch) $\pm 1$ to $\pm 4$ mm (0.04 to 0.16)Depending on diameter and cover $\pm 3$ mm (0.12 inch.) 0.5 % to 1.0 % on		
02 03 04 05 06 07 08 09 10 11 <b>Spec</b> 01 02 03 04	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature IP rating <b>ification for Cover Meter</b> Cover measuring range Cover measuring accura Measuring resolution Path measuring accuracy	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc r/ Rebar I	8 GB flash memorysettings Metric and imperial units and multi- and time zone supportedVolt +/-25%/1.5Amp.2X62 mm525 g (incl. battery)14 hr.tandard operating mode)RH, non-condensing+50°Cereen IP54, universal probe IP67LocatorUp to 185 mm (7.3 Inch) $\pm 1$ to $\pm 4$ mm (0.04 to 0.16)Depending on diameter and cover $\pm 3$ mm (0.12 inch.) 0.5 % to 1.0 % on smooth Surface of measure length		
02 03 04 05 06 07 08 09 10 11 <b>Spec</b> 01 02 03	Memory Language Power Diamensions Weight of Display device Battery Battery Lifetime Humidity Operating Temperature IP rating <b>ification for Cover Mete</b> Cover measuring range Cover measuring accura Measuring resolution	Internal 8 Regional language Input 12 250X162 About 15 3.6 Volt, >8h (in s < 95 % F -10 <sup>0</sup> C to Touch sc r/ Rebar I	8 GB flash memorysettings Metric and imperial units and multi- and time zone supportedVolt +/-25%/1.5Amp.2X62 mm525 g (incl. battery)14 hr.tandard operating mode)RH, non-condensing +50°C+50°Ccreen IP54, universal probe IP67LocatorUp to 185 mm (7.3 Inch) $\pm 1$ to $\pm 4$ mm (0.04 to 0.16)Depending on diameter and cover $\pm 3$ mm (0.12 inch.) 0.5 % to 1.0 % on		

SL. No.	Description	Requirement	Whether bidder'sequipment meetsrequiredspecificationsYesNo.	
08	Applications	Cover Measurement Diameter Estimation 1-Layer NRC Cover Calibration Single-Line Scan Multi-Line Scan Area Scan Cross-Line Scan		
Speci	ification for Corrosion Po	tential Kit		
01	Voltage measuring range	-1000 to + 1000 mV		
02	Voltage resolution	1 mV		
03	Impedance	100 ΜΩ		
04	Sampling rate	900 Hz		
05	Standards and guidelines	ASTM C876, RILEM TC 154-EMC, DGZfP B3, SIA 2006, UNI 10174, JGJ/T 152, JSCE E 601,		
06	certification			

Note :1- Bidder must fill above last two columns and submit in hard copies with Techno-commercial bid. 2- Catalogue & Literature must be attached with make & model offered.

The Bidder shall complete either the following form of Bank Guarantee or may provide another security acceptable to the purchaser.

#### FORM OF EMD (BANK GUARANTEE)

#### (To be submitted on the prescribed Stamp as per prevailing Stamp Act in U.P.State)

KNOW ALL PEOPLE by these presents that we......(Name of Bank) of......having our registered office at......(Name of purchaser)(Hereinafter called" the purchaser") in the sum of .....(A) for which payment will and truly to be made to the said Purchaser the Bank binds himself, his successors and assigns by these presents.

A-The Bidder should insert the amount of the guarantee in words and figures.

SEALED with the Common Seal of the said Bank this.....day of......20.....

(1)If the bidder withdraws his Bid during the period of Bid validity specified in the form of Bid.

Or

(2) If the bidder, refuses to accept the correction or errors in his Bid.

Or

(3) If the bidder having been notified of the acceptance of his bid by the purchaser during the period of bid validity.(a) Fails or refuses to execute the form of agreement in accordance with the instruction to bidders, if

required

Or

(b) Fails or refuses to furnish the Performance Security, in accordance with the terms and conditions.

We undertake to pay to the purchaser up to the above amount upon receipt of his first written demand without the purchaser having to substantiate his demand provided that in his demand the purchaser will note that the amount claimed by him is due to his owing to the occurrence of one or both of the two conditions specifying the occurred condition or conditions.

The Guarantee will remain in force up to and including the date 180 days after the date of expiry of the bid validity deadline for as stated in the terms and conditions or as it may be extended by the purchaser, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Ban k not later than the above date.

DATE;..... SIGNATURE OF THE BANK..... WITNESS..... SEAL....

SIGNATURE, NAME & ADDRESS.....

#### <u>PERFORMANCE BANK GUARANTEE(UNCONDITIONAL)</u> (To be submitted on the prescribed Stamp as per prevailing Stamp Act in U.P.State) (Performance Security Deposit)

To.....(Name of purchaser) .....(Address of the Purchaser)

dt.....to supply......(Name of contract and brief description of supply(Herein after called "the contract") a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the contract.

And where as we have agreed to give the supplier such a Bank Guarantee.

Now therefore, we hereby affirm that we are the Guarantor and responsible to you on behalf of the supplier for total of Rs.....(amount of guarantee)......(amount in words)'A" and we undertake to pay you upon your first written demand and without cavil or argument, any sum or sums within the limits of......(amount of Guarantee) as aforesaid without any need to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said amount from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract or of the works to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the date.....

An amount is to be inserted by the guarantor, representing the percentage of the contract price specified in the contract.

#### SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank..... Address..... Date.....

#### **U.P. State Bridge Corporation Ltd. Lucknow**

(NIT No.1852/141MBC/2018-19 dt.20 / 12/2018)

Sl. No	Description of Equipment (as per Section-5 : Annex. A-1 to A-5)	Qty.	Basic rate including Pkg./Insurance/ Frieght (Rs.)	IGST @ (Rs.)	SGST @ (Rs.)	Net FOR Price (Rs.)
1	Digital Rebound Hammer with Software.	01 Set	Fright (KS.)			
2	Profoscope Scanner.	01 Set				
3	Ultrasonic Pulse velocity tester.	01 Set				
4	Imaging Scanner for Concrete.	01 Set				
5	Profometer rebar locatar with corrosion potentialassessment kit.	01 Set				
	Grand Total:					

#### FINANCIAL BID DOCUMENT

#### CONDITIONS:

- 1- The prices quoted as above will remains firm during the period of the purchase order. It may please be clearly noted that offer with stipulations for escalation in price during this period are liable to our right rejection.
- 2- The quantity indicated in the N.I.T. may vary on either side to any extent and no claim will be entertained for reduced quantity on any account.
- 3- Tenders shall be submitted along with the following documents.
  - a. Income Tax clearance certificate.
  - b. Duty executed power of attorney in original along with two certified copies.

Signature and seal of Tenderer