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फोन-03592-251212, 251415, 251656
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सिक्किम विश्वविद्यालय
SIKKIM UNIVERSITY

(भारत के संसद के अधिनियम द्वारा वर्ष 2007 में स्थापित और नैक (एनएएसी) द्वारा वर्ष 2015 में प्रत्यायित केंद्रीय विश्वविद्यालय)
(A central university established by an Act of Parliament of India in 2007 and accredited by NAAC in 2015)

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Reply to pre-bid queries

Dated: 27-10-2021

Name of Work: Construction of Various Buildings for Sikkim University – Package II - Construction of Academic Zone (50 Seater Block II, Teaching Lab), Hostel zone (Boys Hostel, Girls Hostel , Kitchen & Dining for Hostel) , Residential Quarters (Type-II -30 Units, Type III 20 Units, Type IV 20 Units), Sikkim style elevation works including Civil, Electrical & Mechanical Works/Services/ External Work (Power House, Point of Supply, Potable UG Tank, STP, Recycled Water Storage Tank, Site Cutting, Filling & Retaining wall, Road work including Retaining Wall with Footpath, Entrance gate, Security shed, Internal Road, Footpath / Kerb Wall, Peripheral walk way, Parking, Internal & External Water supply, Sewage disposal system, Water heating system, internal and External electrical installations, Fire Fighting, Fire Alarm, Lift, Substation, DG Set, LAN Networking, Audio Visual System etc. and Finishing Work of Admin, Library and Faculty Building on EPC contract Basis.

RFP no.: SU/REG/ENGG/F3/10/01

The prospective bidders are requested to go through the pre-bid queries and the attachments of the same. The corrigendum to the tender has also been uploaded on the University website.

The pre-bid queries and all the corrigendum/addendum published with respect to the tender are a part of the Tender Document and shall also form a part of the agreement.

Sd/-
Registrar
Sikkim University

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
1						BID Security	BID Security of Rs.3.03 Cr BID Security of Rs.3.03 Cr. (Rupees Three crore Three Lakhs only) in the form of Bank Guarantee in the format at Appendix-II from a Scheduled Bank (to be submitted physically as well);	PDF Pg.09 of 1413 point no. 1.2.4	For bid security deposit, we would like to invite your kind attention to the Government of India office memorandum No. F.9/4/2020-PPD, dated 12.11.2020-issued by Ministry of Finance, wherein the submission of EMD has been exempted and Bid Security Declaration has been introduced in-lieu of that. We would earnestly request you to kindly consider the same for this tender to have wider participation in the bid.	As per present provisions, the EMD may be exempt. A declaration may be furnished for bid security. Please refer F.9/4/2020-PPD dated 12.11.2020 issued by MoF. Format of declaration has been attached.
2						Escalation	The clause of Price adjustment/escalation is deleted. The EPC contract is of fixed price for the entire duration of contract including justified hindrances.	PDF Pg.189 of 1413 Cl no. 19.10	Since the Contract period is 30 months, it requested to pay escalation as per CPWD formulae. Please confirm.	As per Tender condition
3						Mobilization advance payment	The Authority shall make an interest-bearing advance payment (the "Advance Payment") @equal to 10 % (ten percent) of the Contract Price, exclusively for mobilisation expenses	PDF Pg.184 of 1413 Cl no. 19.2	We request you to kindly provide us interest free mobilisation advance.	As per Tender condition
4						Secured Advance	NA	NA	We request you to provide us secured advance @80% of the value of the non- perishable materials brought to site.	As per Tender condition
5						Performance Security	(A) Within 30 (thirty) days of receipt of Letter of Acceptance, the selected Bidder shall furnish to the Authority an irrevocable and unconditional guarantee from a Bank in the form set forth in Annex-I of Schedule-G (the "Performance Security") for an amount equal to 3% (five percent) of its Bid Price(if the contract is awarded prior to 31.12.2021, if the LOA is awarded post 31.12.2021, then University may increase the Performance security upto 5% or as per government regulation whichever is higher)	PDF Pg.134 of 1413 Cl no. 7.1 (i)	We request you to kindly consider the Performance Security as 3% of the Bid Price.	Performance Security shall be 3% (three percent) of bid price irrespective of date of award of work.
6						Retention Money	From every payment for Works due to the Contractor in accordance with the provisions of Clause 19.5, the Authority shall deduct 6% (six per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the "Retention Money") subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price.	PDF Pg.136 of 1413 Cl no. 7.5 (i)	We request you to accept Bank Guarantee valid upto DLP in lieu of cash retention and to keep the ceiling value as 5% of Contract Value.	As per Tender condition

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
7						Water	Contractor may use the water from the source exclusively reserved for University, with prior permission and depending upon availability. However University may charge for water consumed and tariff for water supply shall be charged as per Government applicable rates in the area. In such cases the maintenance of water pipelines from the source shall be the responsibility of Contractor.	PDF Pg.124 of 1413 Cl no. 4.7	We request you to kindly clarify the per unit charges for the use of Water and power.	As per Tender condition
8						Electricity	For Electricity supply the contractor may use the existing power substation of the University, However the responsibility for maintaining the power substation will lies with contractor. In case of any fault arises due to the default of contractor or shot circuit, contractor shall maintain the same in good condition. In any case the contractor shall not impose the load excess to the designed capacity of substation situated in the University.			As per local Electricity board rules & Sub charge .
9						Infrastructure	Contractor may Use the existing infrastructure for its office or go-down, however the contractor, shall pay the rent of such infrastructure at the rate of Rs 10/sqft per month. It will be responsibility of contractor to maintain the infrastructure of University rented by him in proper shape and condition.		We request you to kindly provide us the space free of cost for setting up our site office, batching plant, cement godown, store, quality control laboratory etc. within the site premises.	Vacant space within the campus premises can be utilized for the same upon prior approval of the University. No charges for the same shall be payable by the contractor.
10						Land For Labour Hutment	NA	NA	We presume that land for labour hutment will be provided within the site premises free of cost. Kindly confirm.	Vacant space within the campus premises can be utilized for the same upon prior approval of the University. No charges for the same shall be payable by the contractor.
11						Statutory Approvals	NA	NA	Kindly provide the list of statutory approvals already taken/ applied for.	Refer Clause 7, Scope of Work in Schedule 'B'
12						Additional Qualifying Criteria:	The intending firms should have successfully executed at least one building Project of minimum G+4 storied, in the last 5 (five) years ending 31st March 2021 in seismically active hilly regions of North East India.	pg.17 of 1413 point no. 2.2.2.2 (iii) (a)	May we request you to kindly modify the clause as "The intending firms should have successfully executed at least one building Project of minimum G+4 storied, in the last 7 (seven) years ending 31st March 2021 in North East India."	As per Tender condition

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
13						Additional Qualifying Criteria:	Bidder should have completed at least one Non-Industrial Multistoried Building work including Architectural finishing work, water supply, drainage and sanitary installation works on Design & Construction basis having 60% of the project area mentioned in Schedule-B (for individual bidder and proportionate for JV) and having atleast 15 Mtr high during last five years ending 31st March 2021.	pg.18 of 1413 point no. 2.2.2.2 (iii) (b)	We presume that project area is hereby referred to as built up area which is 45736 sqm. Kindly confirm the same.	Project area is 45736 Sq.m
14						Submission in support of Financial capacity	In case the annual accounts for the latest financial year are not audited and therefore the Bidder cannot make it available, the Bidder shall give an undertaking to this effect and the statutory auditor shall certify the same. In such a case, the Bidder shall provide the Audited Annual Reports for 5 (five) years preceding the year for which the Audited Annual Report is not being provided.	pg.21 of 1413 point no. 2.2.2.8 (ii)	We hereby request you to kindly modify the clause as "In case the annual accounts for the latest financial year are not audited and therefore the Bidder cannot make it available, the Bidder shall give an undertaking to this effect and the statutory auditor / Chartered Accountant shall certify the same. In such a case, the Bidder shall provide the Audited Annual Reports for 5 (five) years preceding the year for which the Audited Annual Report is not being provided."	As per Tender condition
15						Financial & Technical Capacity	Statutory auditors	pg.21, 22 & 56 of 1413	May we request you to kindly replace the word "statutory auditors" by "Chartered Accountant" or keep any of the options as Statutory auditors / Chartered Accountant	Statutory Auditor will remain as per Tender Document. " Statutory Auditor", for companies/organisations is an auditor appointed by it's Board of Directors or appointed by the Government.
16						Schedule of Bidding Process	Last date of Request for BID Document 07/11/2021 , up to 17.00 PM	pg.10 of 1413 point no. 1.3 (5)	Looking at the magnitude and details of work to be done for said tender submission we hereby request you to kindly extend the time of bid submission from 07/11/2021 , up to 17.00 PM to 08/12/2021, up to 17.00 PM.	Last date of submission extended upto 17:00 hrs on 22/11/2021 The revised schedule for the tender has been published as a corrigendum, the bidders may refer to the same.
17						Bid Security	A Bidder is required to submit, along with its BID, a BID Security of Rs.3.03Cr. (the "Bid Security"), refundable not later than 180 (One hundred & eighty) days from the BID Due Date,	NIT, Clause 1.2.4 Section I Page No 9 of 86	As per the Central Govt. notification, EMD has been waived Off and a declaration for the same is to be submitted with the Tender for all Govt. Tenders, owing to the Covid 19 and Pandemic situation. As such, we request you waive off the submission of Earnest Money.	As per Sl. No. 1
18						Additional Eligibility Criteria	(a) The intending firms should have successfully executed at least one building Project of minimum G+4 storied, in the last 5 (five) years ending 31st March 2021 in seismically active hilly regions of North East India.	NIT Clause 2.2.2.2 (iii) a, b. Section I page No 17 of 86	We would like to bring to your kind attention that this clause denies entry to capable bidders with proven track record in the country entering the North-Eastern States for the first time. This avoids fair competition and may encourage higher bidding amongst local bidders. This is against CVC guidelines. Hence, we request you to kindly waive off this clause for fair and better competition. Further, we presume that any completed Non-Industrial Multistoried building shall be accepted as eligible projects for calculation of threshold capacity.	As per Tender condition

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
19						Price Escalation	The clause of Price adjustment/escalation is deleted. The EPC contract is of fixed price for the entire duration of contract including justified hindrances.	GCC 19.1 page No 189	Considering the current market scenerio, all of the major materials rates (mainly Sand, Aggregates and POL) including the Labour rates are abruptly fluctuating and it is impossible for us to determine the furture rates based on this situation. The duration of the Project is 30 months and as such considering the situation, we request you to kindly provide Escalation as per CPWD Clause 10CA & 10 CC	As per Tender condition
20						Retention Money	The authority shall deduct 6% from monthly RA Bill subject to the condition that the maximum amount of Retention Money is 5% of Contract Value	GCC Cl. 7.5 page No 52	We request you to consider upfront Bank Guarantee in lieu of Cash Retention from monthl RA Bill as this would impact the cash flow of the project and would as such impact the progress of work	As per Tender condition
21						Pre-bid meeting	Pre-bid Meeting: 21.10.2021	NIT 1.3 Page No 10	We request you to kindly allow us to submit another set of pre-bid queries by 30.10.2021	As per Tender condition
22						Estimated Project Costs	As per NIT the Estimated Value is - 303.25 Cr. As per Section I, Estimated Value is - 302.25 Cr.	Nitice Inviting Tender, page 4. Section I, Introduction, Clause 1.1.1, page. 7	Please clarify the Estimated Value of the Project.	Estimated Value of the Project is 303.25 Cr.
23						Maintenance obligations of the Contractor	Contractor shall also be responsible for the maintenance of the project during the Defect Liability Period.... which is 3 years. The Contractor shall maintain the Project for a period of 5 (five) years, Defect liability period of 24 months and Annual Maintenance for 3years from end of DLP corresponding to the Defects Liability Period, commencing from the date of the Completion Certificate	Section I, Introduction, Clause 1.1.2, page. 7 & 8. Article 14, Clause 14.1, Page 170 of 1413 of PDF	Kindly clarify the period of maintenance and Defects liability period.	Annual Maintenance for 3 years from date of successful handing over of the project. This includes DLP of 24 months.
24						Water and Power during Maintenance period	The obligations of the Contractor in respect of Maintenance Requirements shall include repair and rectification of the Defects and deficiencies as approved by the Authority Engineer/ University.	Schedule E, page 1341 of 1413 of PDF	We presume that Water and Power will be free supplied by Client during the Maintenance Period. Kindly confirm.	The water and power for maintenance work shall be made available during the maintenance period.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
25						Grade of Cement	Grade of Cement - 43 grade OPC	Particular Specification, under Civil works specification, Page 578 of 1413 of PDF	We propose to allow use of OPC 53 Grade Cement for RCC works. Kindly confirm.	53 Grade OPC for Concreting work.
26						Water for Construction	In case, if the water is supplied by University from the sources located any where in the campus, then the contractor shall be charge @Rs100/10000 litres.	Conditions for Water, Additional Specifications, Clause 7.2, Page 705 of 1413 of PDF	We presume that Construction water is available at Site and would request you to provide us the same free of costs at a single point within the site. Contractor will arrange for the distribution of the same.	As per Tender condition
27						Payment terms for New Buildings under Phase II	ii. Structure Work RCC frame of the entire building from plinth level to terrace, stair roof, overhead tank, Lift machine room,PT & RCC Beams, Sunshade,Sill Beam,Lintel Beams etc., complete.	Price Bid - Breakup Details - Summary, Page 1368 of 1413 of PDF	We request you to include the payment for Sunshade,Sill Beam,Lintel Beams etc., under Brickwork payment schedule.	As per Tender condition
28						Payment terms for New Buildings under Phase II	Payment schedule for the following heads - Brickwork, Flooring, Doors & Windows, External Glazing, GRC Jali, Aluminium & Glazing works, False ceiling, Plastering & Painting - Single percentage payment breakup provided	Price Bid - Breakup Details - Summary, Page 1368 of 1413 of PDF, Point iii to vii.	We request you to provide Floorwise and Itemwise Payment Breakup schedule for those heads.	As per Tender condition
29						BOQ	Not received with the Tender	Not Received with the Tender	Requested to provide us the Excel BOQ for submission of Price Bid.	As this is an EPC Contract no BOQ will be provided.
30						Soil Investigation report	Not received with the Tender	Not Received with the Tender	Requested to provide us the available Soil Investigation report for the Project as Phase I construction is in Progress.	Contractor has to asses by conducting the soil investigation through reputed agency, for reference purpose the soil investigation report is uploaded on University website(www.cus.ac.in)

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
31						Drawings	PDF drawings received	PDF drawings	Kindly provide us the AutoCAD drawings for all the structures of the Project.	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
32						Space for Site establishment and Labour hutments	General	General	We presume that space for Site establishment and Labour hutments will be provided inside the Site free of costs. Kindly confirm.	Vacant space within the campus premises can be utilized for the same upon prior approval of the University. No charges for the same shall be payable by the contractor.
33						Due Date of Submission	Due Date of Submission: 07.11.2021	NIT 1.3 Page No 10	<p>You will appreciate that considering the scope of work which involves detail design, quantification, planning and also a thorough logistic plan considering the terrain of the project site, which shall take a considerable amount of time.</p> <p>Furthermore, considering the ensuing festive season, all the offices are either closed or are working in a skeletal fashion.</p> <p>In view of the above mentioned scenario, we request your kindness to kindly extend the due date of submission by atleast 30 days i.e. upto 07.12.2021 to enable us to submit our most</p>	Last date of submission extended upto 17:00 hrs on 22/11/2021 The revised schedule for the tender has been published as a corrigendum, the bidders may refer to the same.
34						CIVIL & MEP Works Draft BOQ	Not received with the Tender	Not received with the Tender	We request you to provide Draft BOQ Item Descriptions in Excel format.	As this is an EPC Contract no BOQ will be provided.
35						Drawings	PDF drawings provided with the Tender	PDF drawings provided with the Tender	We request you to please provide MEP Layouts drawings in Auto Cad Format.	The GAD drawings are submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
36						Drawings for MEP Services works	PDF drawings provided with the Tender	PDF drawings provided with the Tender	Kindly clarify the scope whether we have to Quantify the scope from provided drawings or provided layouts are only for reference.	The GAD drawings are submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
37						Maintenance obligations of the Contractor	The Contractor shall maintain the Project for a period of 3 (three) years commencing from the date of the successful Handing over	Article 14, Clause 14.1, Page 170 of 1413 of PDF	Kindly clarify whether this Maintenance is Comprehensive or Non Comprehensive ? Also whether we have to do Operations as well ?	Tender condition prevail
38						Water and Power during Maintenance period	The obligations of the Contractor in respect of Maintenance Requirements shall include repair and rectification of the Defects and deficiencies as approved by the Authority Engineer/ University.	Schedule E, page 1341 of 1413 of PDF	We presume that during DLP period and maintenance period, consumables like Power, water, Fuel shall be in client scope. Kindly confirm.	Yes confirmed
39						BOQ for MEP High Side	BOQ for MEP High Side - External Electrification work & Lift, VRF, Fans provided.	Tender document ET23 – Page no 424/1413	Kindly clarify whether this BOQ will be final for External Work & Lift & VRF High Side, Fan work ? Whether we need to develop BOQ for Internal work only based on available layouts ? Please clarify the above points.	Minimum requirements are given in schedules. For Internal work Contractor has to assess the requirements based on detailed design.
40		General			Bid Security				Bidder requests to provide Employer Bankers details to prepare Bank Guarantee. Bank Name: Branch with address: Bank Account Name: Bank Account No.: IFSC Code:	Account Holder's Name: Sikkim University Account no. : 112010100231541 Account Type: Savings Account IFSC Code: UTIB0000112 Branch: Gangtok, Sikkim Bank: Axis Bank
41		Bank Guarantee for Bid Security	Appendix-II	66 of 86	1.RFP Document dated 14/06/2021 issued in respect of the Project and other related documents....	-			Bidder presumes that the RFP document date '14/06/2021' as underlined, is a typographical error and should be '08/10/2021'. Kindly confirm / reissue the format.	Yes confirmed
42		Bank Guarantee for Bid Security	Appendix-II	68 of 86	15. Deleted.....	-			Bidder understands that sl no. 15 along with the table should be deleted from the Bank Guarantee. Kindly confirm / reissue the format.	Yes

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
43		Time of Completion	NIT Section-1 Introduction EPC Agreement Schedule J	4 of 86 7 of 86 66 of 145 58	30 Months 913th day from the Appointed Date shall be the scheduled completion date	10.3(i) 5			Bidder requests to modify Time of Completion from 30 months to 36 months	Duration of project is revised from 30 months to 36 months. The timeline including milestones shall be proportionately adjusted.
44		Authority not Responsible	Section-2 Instructions to Bidders	23 of 86	The Authority shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFP, including any error or mistake therein or in any information or data given by the Authority	2.5.3			It is presumed that the Authority shall be responsible for information furnished, which a bidder cannot foresee	Since the project is to be executed on EPC basis it is therefore the responsibility of contractor to access the scope of work mentioned in the tender document. However the contractor has to bid for the total quantum of work such that the building shall be fully functional and ready for use in totality and upto the satisfaction of the University. This also include the site development works/Electrical work as per tender document.
45		Performance Security	Section-2 Instructions to Bidders EPC Agreement	32 of 86 50 of 145	...for an amount equal to 5% (five percent) of its Bid Price ...for an amount equal to 3% (five percent) of its Bid Price(if the contract is awarded prior to 31.12.2021	2.21.2 7.1			Please confirm amount of Performance Security	Performance Security shall be 3% (three percent) of bid price irrespective of date of award of work.
46		Release of Performance Security	Section-2 Instructions to Bidders	32 of 86	The Performance Security shall be valid until 60(sixty) days after the Defects Liability Period.	2.21.2			Bidder requests to release half of the Performance Security (2.5% of Contract Price) after completion of physical work	Tender condition prevail
47		Deemed Termination upon Delay	EPC Agreement	35 of 145in the event the Appointed Date does not occur, for any reason whatsoever, within 90 days of signing of the Agreement and submission of the full Performance Security by the Contractor, the Agreement shall be deemed to have been terminated. The Authority shall pay damages to the Contractor equivalent to 1% of the Contract Price. All other rights, privileges, claims and entitlements of the Contractor under or arising out of this Agreement shall be deemed to have	3.4			The Authority shall immediately release the Performance Security and additionally pay for the bank charges incurred for the Performance Security	Tender condition prevail
48		Electricity, water and other services	EPC Agreement	40 of 145	Contractor may use the water from the source exclusively reserved for University, with prior permission and depending upon availability. However University may charge for water consumed and tariff for water supply shall be charged as per Government applicable rates in the area. ..For Electricity supply the contractor may use the existing power substation of the University, However the responsibility for maintaining the power substation will lies with contractor.	4.7			Bidder requests to confirm the water and power tariff	As per local Electricity board rules & Surcharge .

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
49					During the execution of work if the existing utilities like, pipeline, electric supply line or footpath need to be shifted then same can be shifted by Contractor. The cost of shifting is deemed to be included in the rates quoted in his bid.				Bidder requests deletion of the last sentence "The cost of shifting is deemed to be included in the rates quoted in his bid."	Tender condition prevail
50		Unforeseeable difficulties	EPC Agreement	40 of 145	(a) the Contractor accepts complete responsibility for having foreseen all difficulties and costs of successfully completing the Works; (b) the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs; and (c) the Scheduled Completion Date shall not be adjusted to take account of any unforeseen difficulties or costs	4.8			Bidder requests to allow extension of time and reimbursement of cost for removal of unforeseeable hindrances.	Tender condition prevail
51		GRIHA	EPC Agreement	41 of 145	...contractor shall abide the GRIHA compliance norms and shall maintain the documents for same	4.10(ii)			Part of the project is already constructed. If that part is not designed or built as per GRIHA norms, it is requested to delete the clause	Tender condition prevail
52		Retention Money	EPC Agreement Annex-II Schedule G	52 of 145 13	From every payment for Works due to the Contractor in accordance with the provisions of Clause 19.5, the Authority shall deduct 6% (six per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the "Retention Money") Form of Guarantee for Withdrawal of Retention Money (B) In accordance with Clause 7.5.3 of the Agreement, the Contractor may withdraw the retention money (hereinafter called the "Retention	7.5(i)			Bidder refers to Annex II- Schedule G, Form of Guarantee for Withdrawal of Retention Money as per Cl 7.5.3 is mentioned. There is no such clause found in EPC Agreement. Bidder requests to allow submission of Bank Guarantee after award of work in lieu of Cash retention	Tender condition prevail
53		Obstructing Utilities	EPC Agreement	58 of 145	...it shall be the responsibility of the Contractor to ensure that the respective entities owning the existing roads, right of way, structures, or utilities on, under or above the Site are enabled by it to keep them in continuous satisfactory use, if necessary, by providing suitable temporary diversions with the authority of the controlling body of that utilityThe cost of such shifting, as per estimates prepared by the entity owning the utility and approved by	9.1, 9.2			Scope of work of shifting of existing utilities not found in Schedule B. Bidder requests to furnish layout drawings of existing utilities. Bidder requests to allow extension of time for delays in shifting existing utilities for which the Contractor is not attributable.	To be assessed jointly and finalized during execution of the work.
54		Approval of Design & Drawing	EPC Agreement	64 of 145	the Contractor shall ensure that all the designs and drawings shall be approved from the Authority's Engineer within 90 days (ninety) from the Appointed Date.	10.2(iii)(h)			(i) Bidder requests to allow 150 days time from Appointed Date for approval of Structural Drawings from Authority's Engineer (ii) Bidder requests to allow 180 days time from Appointed Date for approval of Drawings of all Services from Authority's Engineer (iii) Architectural and other detail drawings shall be submitted for approval along with the progress of relevant part of the works	Tender condition prevail

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
55		Defect Liability Period/ Maintenance Period	NIB Section-1 Introduction EPC Agreement	4 of 86 8 of 86 86 of 145	The Contractor shall maintain the Project for a period of 3 (three) years commencing from the date of the successful Handing overand maintenance of the Project during the Defect Liability Period, which shall be 3 years. The Contractor shall maintain the Project for a period of 5 (five) years, Defect liability period of 24 months and Annual Maintenance for 3 years from end of DLP corresponding to the Defects Liability Period, commencing from the date of the	1.1.2 14.1(i)			These clauses are contradictory. Bidder requests to modify DLP to 1 year and 2 years Maintenance thereafter	Annual Maintenance for 3 years from date of successful handing over of the project. This includes DLP of 24 months.
56		Extension of Defect Liability Period	EPC Agreement	94 of 145	...the Defects Liability Period for and in respect of any Structure having a construction cost exceeding Rs.50 crore (Rupees fifty crore) each, as estimated in accordance with the provisions of Schedule-G, shall be deemed to be extended by a further period of 3 (three) years after the expiry of the Defects Liability Period specified in Clause 19.1.1	17.1(ii)			Bidder requests for deletion of this clause	Tender condition prevail
57		Price Adjustment	EPC Agreement	105 of 145	The EPC contract is of fixed price for the entire duration of contract including justified hindrances.	19.1			Bidder requests to provide suitable formula for escalation for all components of work.	No escalation shall be permitted. Refer clause 19.10 of Part IV - Financial Covenants
58		AMC	Schedule D EPC Agreement	D-194	Rate for AMC for a period of 3 years also shall be quoted as per separate schedule enclosed for the same. The monthly lump sum amount payable for Maintenance shall be 1/12 th (one- twelfth) of the annual cost of Maintenance as specified in Clause 14.1 (i).	23.13 19.6			No schedule for Maintenance found in document for quoting rates for the same. Please clarify	Refer Clause 14.(i) C of Article 14
59		Portable UG tank	Schedule C	C-128	The tank should also acts as a reservoir for storage of water to the occupants of Yangang town.	11.1			Bidder requests to provide data in definite terms regarding extent of this scope.	The tank has been already constructed by sikkim Government. However necessary connection to 10 Lakh litre sump shall be carried out by the bidder.
60		Design & Drawing Approval	EPC Agreement	65 of 145	Any cost or delay in construction arising from review/approval by the Authority's Engineer shall be borne by the Contractor.	10.2(iii)			Bidder requests to allow extension of time and cost compensation for delays arising from review/ approval by Authority's Engineer.	Tender condition prevail

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
61		Local Body Approval	Schedule F	8	(i) Agency will get the scheme approved from the local bodies wherever required before start of the work and if required after completion of the work also. However if modification is required in any of the architectural drawing by any of the local bodies, the same shall be carried out by the contractor and Sikkim University will extend all necessary support and documentation required for its approval.....				The Authority shall extend all help and assistance and for any delay in obtaining the approvals will entitle the Contractor for time extension with escalation payable.	Tender condition prevail
62		Approved Make for Civil works	Schedule D	D-182	1. Cement 6. Concrete Additive	22			Please include Dalmia as approved make of Cement and CRYSO ias approved make of admixture	As per tender
63		Milestone	Schedule J	54	2. Project Milestone-I shall occur on the date falling on the 6 (six) months from the Appointed Date (the "Project Milestone- I"). 3. Project Milestone-II shall occur on the date falling on the 12 (twelve) months from the Appointed Date (the "Project Milestone- II"). 4. Project Milestone-III shall occur on the date falling on the 620th (Six Hundred and Twenty) Days from the Appointed Date (the "Project Milestone-III").				Bidder requests to modify the Project Milestones as below: Project Milestone I - 10 months from Appointed Date Project Milestone II- 20 months from Appointed Date Project Milestone III- 28 months from Appointed Date Shedule Completion - 36 months from Appointed Date	Duration of project is revised from 30 months to 36 months. The timeline including milestones shall be proportionately adjusted.
64		Schedule-A	Annex-III	236 of 1413	The schematic plan (GAD) for each buildings given in the draingvolume .The EPC contractor shall prepare the working drwaings and submit to authority /AE for prior approval	6			The bidder request to provide Autocad format drawing for all GAD including phase 1 & 2	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
65		Schedule-B	Annex-I	249 of 1413	Seismic load are considered for zone V as per IS 1893-2002	5.3			Is it mendatory to use old version of sesmic code IS-1893-2002. Please confirm	Kindly follow latest version of seismic code 1893(part-1)-2016
66		Schedule-B	Annex-I	249 of 1413	Importance factor = 1 & 1.5	5.3			Please classify building wise importance factor to be use	Follow as per IS Standards (Latest Version)

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
67		Schedule-B	Annex-I	249 of 1413	IS : 800-1984 Code of practice for general construction of steel	5.4			Whether the bidder can use the latest version of code IS 800-2007 (Limit state method). Please confirm	Kindly follow as per latest version of IS Code
68		Change of Scope	Article 13	82 of 145	Provided that any such Change of Scope, excluding major structures may be required and agreed to be executed between the parties beyond the period of six months of the Appointed Date but before expiry of 50% of the original Scheduled Construction Period of the Project , subject to the condition that it shall not entail any claims (e.g. Extension of Time/ Prolongation related claims), against the Authority.	13.1 (ii)			Bidder requests to provide the list of major structures.	Refer Clause 4 of Schedule B
69		Change of Scope	Article 13	82 of 145subject to the condition that it shall not entail any claims (e.g. Extension of Time/ Prolongation related claims), against the Authority.	13.1 (ii)			Bidder understands that extension of time for the works related to change in scope shall be provided as per Provision of Clause 13.2.	Tender condition prevail
70		Change of Scope	Article 13	83 of 145	(a) For works where Schedule of Rates (SOR) of concerned circle of State's Public Works Department are applicable at the Base Date are available, the same shall be applicable for determination of costs. In case of non-availability of Schedule of Rates at the Base Date, the available Schedule of Rates shall be applied by updating the same based on WPI. In case the Contract Price is lower/ higher than the Estimated Project Cost as per RFP, then the SOR rates shall be reduced/	13.2 (iv)			A. Bidder requests to define: 1. Base Date 2. The commodity within the basket of WPI B. Bidder requests to confirm that along with the item of work, to evaluate the change in scope, the necessary temporary works, installation men, material, machineries, taxes etc. shall also be evaluated.	Base date is last date of submission of tender. WPI for Cement, Steel etc. Change of scope only applicable for permanent works.
71		Bid Submission Date	Section-1 Introduction	10 of 86	Last date of Request for BID Document - 07/11/2021	1.3			Bid on EPC Design & Build basis. Bidder requests for extension in submission of Bid by another two weeks to submit a competitive bid.	Last date of submission extended upto 17:00 hrs on 22/11/2021 The revised schedule for the tender has been published as a corrigendum, the bidders may refer to the same.
72	ITB				The Bidder shall furnish as part of its BID, a Bid Security referred to in Clause 1.2.4 herein above in the form of a bank guarantee issued by nationalised bank, or a Scheduled Bank in India having a net worth of at least Rs. 1,000 crore (Rs. one thousand crore), in favour of the Authority in the format at Appendix-II (the "Bank Guarantee") and having a validity period of not less than 180 (one hundred eighty) days from the BID Due Date, inclusive of a claim period of 60 (sixty) days, and may be	2.20.1, Page 31			As per recent circular from Department of Expenditure, Ministry of Finance, Govt. of India, office Memorandum F-9/14/2020-PPD dated 12/11/20, issued by the Ministry of Finance the Earnest Money for submitting any tender has been waived off till 31/12/21 and only Declaration form is to be submitted along with the tender. Many Govt Organizations are following the same. With reference to the above Bidder requests to waive off the Earnest Money and provide the Bid Security declaration form which can be submitted by the bidder.	Refer SI no.1

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
73	Notice inviting Bid				Estimated Cost: Rs. 303.25 Cr	Page 4			Bidder presumes that there are typographical error in the estimated cost as referred. Kindly confirm the value.	Estimated Cost: Rs. 303.25 Cr
74	Section 1				Estimated Cost: Rs. 302.25 Cr	Page 7				
75	Schedule - C				Order of Precedence	33.0 of C - 16			Bidder understand the Tender is in EPC mode. If not bidder requests to kindly provide the BOQ & clarify the order of precedence.	Tender is in EPC mode
76	Schedule - C				E&M Work for Phase I Package I				Bidder understands that the E&M Works for Phase I Package I is not under bidder's scope of work. Please confirm.	Included
77	Schedule - D				List of Approved Make - MEP	D 785			Exhaustive make list for MEP services, including Heat Pump Make	As the makes are region specific. It will not be practical to furnish list of makes. Only reputed makes will be accepted with prior approval of the University.
78	Tender Drawing				Admin Block:- Fourth Floor Plan @ 20900 lvi (HVAC layout) & library building:- service floor (HVAC layout)	SU-PH1-HAC-A06-LBRY-108706 & SU-PH1-HAC-A01-ADMN 100705			Bidder noticed in the tender drawing the ODU capacity are selected in the combination of 20HP. Bidder requests to confirm whether other ODU combination can be selected without changing the total Plant Capacity.	Yes it is acceptable.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
79	Tender Drawing				Admin Block: - Fourth Floor Plan @ 20900 lvi (HVAC layout)	SU-PH1-HAC-A01-ADMN-100705			Bidder requests to share the Ref Piping Layout of Terrace Floor to understand the VRF circuit for estimation purpose	VRF circuiting can be taken up during detailed engineering stage based on the brand and also based on the outdoor unit combination selected by the vendor and get approval from Authority/Authority engineer.
80	Tender Drawing				Kitchen & Dining for Hostel - First Floor Ventilation layout	SU-PH1-HAC-H25-KNDN-115702			Bidder request to share the detailed specification for Scrubber shown the Tender Layout for Kitchen Exhaust	Scrubber manufacturer catalog is attached. This is only for guidance purpose. The vendor can offer any approved brand as an alternative and get approval from University.
81	Tender Drawing				PHE System Layout Drawing				Bidder requests to share the Tender stage Internal PHE Layout for all Building	It is responsibility of bidder to prepare the internal PHE details
82	Tender Drawing				Fire Fighting System Layout Drawing				Bidder requests to share the Tender stage Internal Fire Fighting Layout for all Building for Estimation Purpose	It is responsibility of bidder to asses the Quantity asper the requirement
83	Tender Drawing				Hot Water System Layout				Bidder requests to share location of Heat Pump including its scheme for Hot Water System	Location to be decided in consultation with the Authority Engineer and approval by the University based on feasibility requirement.
84	Schedule - C				Moulded Case Circuit Breaker	3.3 of C - 22			Bidder requests to mention the short circuit rating of the breaker	EPC Vendor to submit the short circuit rating and get approval from Authority Engineer

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
85	Schedule - C				Moulded Case Circuit Breaker	3.3 of C - 22			Bidder requests to confirm whether all the breakers will have thermal magnetic release or micro processor based release is also required. If so kindly provide the rating beyond which breakers will have micro processor release.	Kindly Follow micro processor based
86	Schedule - C				Undertaking from OEM/OEA	C - 60			Bidder understands that all undertaking letter to be provided only at the time of execution. Please confirm.	Yes it is confirmed
87	Schedule - C				HVAC Room Heating and Air Ventilation System : Minimum Acceptable specifications	8.2 of C - 137			As per the clause no. 8.2, minimum working capacity of VRF/VRV system will be 780HP, whereas in the BOQ VRF plant size is mentioned as 300 HP & 200 HP for Admin Block & Library Block respectively, which is total 500HP. Also in the tender drawing it is shown as 460HP for Admin Block & 320HP for Library block. Bidder request to confirm the actual requirement of VRF plant size, whether it is 780HP or (200HP+300HP) 500HP.	The quantities given are bare minimum and GAD drawings are for better understanding of the system. As the project is on EPC Mode, the bidder should asses detailed design and drawing as per the standards and requirement for bidding purpose.
88	Schedule - C				HVAC - Schedule of Qty	8 of C - 137			Bidder notice some discrepancy between Schedule of Qty & Tender drawing of HVAC System for Indoor Units for an example in library block the indoor qty as per schedule is 90nos. whereas in the tender drawing is it 76Nos. Bidder requests to confirm the precedence of document in case of discrepancy between Schedule of Qty, Tender Drawing & Specification	The quantities given are bare minimum and GAD drawings are for better understanding of the system. As the project is on EPC Mode, the bidder should asses detailed design and drawing as per the standards and requirement for bidding purpose.
89	Schedule - C				HVAC - Schedule of Qty	8 of C - 137			Bidder understands from tender drawing that the indoor unit of 1.5TR & 1.0TR are Cassette Type Indoor only, though in the schedule of qty type of indoor unit is not mentioned. Please confirm	The quantities given are bare minimum and GAD drawings are for better understanding of the system. As the project is on EPC Mode, the bidder should asses detailed design and drawing as per the standards and requirement for bidding purpose.
90	Schedule - C				Lift well Pressurization System	8 of C - 140			Bidder noticed that in the HVAC scope of work, lift well pressurization is considered under bidder scope. But only Admin Building Lift Well Pressurization tender layout drawing received. Bidder requests to share the detail of Lift Well Pressurization for all other buildings also for estimation purpose	Kindly Follow Lift Pressurization for all academic building as per the design requirement

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
91	Schedule - C				ix. Approval from local fire authority/NOC from Karnataka Govt. Fire Service as may be required as per local bye-laws	11 of C - 153			Bidder understands that the Fire NOC approval to be obtained from Sikkim Fire & Emergency Services only. Kindly confirm.	It is to be obtained from the Authority of Sikkim Government as applicable.
92	Schedule - D									
93	Schedule - D				List of Approved Make - MEP	D 785			Exhaustive make list for MEP services, including Heat Pump Make	No change in clause
94	Schedule - D				List of Approved Make - VRF	D 785			Bidder requests to include Carrier make also in the Approved Make list for VRF Equipment	No change in clause
95	Schedule - D				List of Approved Make - STP	D 305			Bidder requests to include WAPP Systems / Qualicom / Sampark Water Infrastructure make also in the Approved Make list for STP	No change in clause
96	Schedule - D				List of Approved Make - Fire Fighting	D 346 & 347			Bidder requests to include Fire Shield make also in the Approved Make list for Fire Hydrant Equipment	No change in clause

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
97								CIVIL WORKS		
98							Ref-Drawings for Details of Joinery Pg-39 of 104-Drawing No-SU-PH1-ARC-A01-ADMN-100168	Admin Finishing work Part 1	The details of Joinery as mentioned in the Joinery Schedule drawings are not clear . Requested to provide the complete details indicating the sizes, type of material , Hardware details etc..	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
99							Ref- S.no-RFP-Pg314 of 1413 , Schedule of Finishes Administrative Building	Finishing schedule	As per the RFP Pg-314 of 1413 S.no 5 , ceiling finishing is mentioned as Distemping with Oil bound washable distemper of approved brand , where as in the schedule of finishes drawing it is mentioned as false ceiling .Kindly clarify the type of ceiling finish to be considered whether Oil bound Washable distemper or False Ceiling.	For False ceiling - Kindly follow the False ceiling layout and remaining ceiling portion will be painted with Oil bound Washable distemper (DSR Vol-II, 2018 item no. 26.26)
100							Ref-S.no-33 RFP Pg-369 of 1413- S.no 33, order of preference . 1. Schedule of quantities 2. Additional and commercial conditions 3. Technical specifications specified in the tender 4. Tender Drawings 5. CPWD General specifications 6. Relevant IS or any other international in case IS code is not available	Request for proposal Document	As there is mention of Schedule of Quantities in the Order of Preference which is suitable for Item rate Tender, We Request to provide the order of preference for the subject work which is of EPC mode.	Refer revised Clause-33 enclosed with the pre-bid reply
101							Provided Tender drawings in PDF format	General	Request to provide the all the Tender drawings in Autocad format.	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
102							The Site is highly terrain with a slope difference of 350-380m from ridge line to the bottom of the site.	Design Basis Report	Request you to provide the Contour level drawing in Auto cad format for the proposed construction site.	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
103								Design Basis Report	Request you to provide the Geo technical report for the proposed construction site.	Available on University website www.cus.ac.in
104							Ref- Road Layout drawings.	Request for proposal	Request to provide the Road layout Drawings indicating the Existing & finished Road levels.	1.Refer drawing no.SU-PH1-RDW-ALL-RDLP-137121 2.Refer drawing no.SU-PH1-RDW-ALL-RDLP-137122
105							Provided the scope of External Development works.	Design Basis Report	Request to provide the External development levels for Location/ Pocket wise.	it is the responsibility of the contractor to prepare the external development levels as per site condition.
106							Ref-Finishing schedule	Request for proposal	Request to provide the height of cladding for lift lobby wall for all the buildings.	Wall cladding up to ceiling height
107							Ref-Pg-271 of 1413-Note -4-All external walls shall be finished with weather proof texture paint as/ approved color and shade as shown in 3D Drawings.	Request for proposal	Request to provide the 3D drawings for all the buildings.	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
108								MEP		

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
109							Light Fixtures catalogue numbers	01 - Admin Finishing work part 2 - Drwg no.SU-PH-1-EL	15 W LED Light Fitting & 15W Linear Tube Catalogue No's not available with philips, please provide the alternate catalogue no or equivalent.	To be submit the equivalent model for approval
110							Light Fixtures catalogue numbers	01 - Admin Finishing work part 2 - Drwg no.SU-PH-1-EL	11.5W LED Downlight Catalogue No. not available with philips, please provide the alternate catalogue no or equivalent.	To be submit the equivalent model for approval
111							Light Fixtures catalogue numbers	02 - Faculty Finishing work part 2 - Drwg no.SU-PH-1-EL	7W LED Wall Light & 2x4W LED Mirror Light Catalogue No. not available with philips, please provide the alternate catalogue no or equivalent.	To be submit the equivalent model for approval
112							Crane Hoist	20-Crane Hoist : Drwg No.SU-PH1-GEN-ALL-ACZN-101817	Please Provide the Details of Crane Hoist	Refer schedule 'C'- Page no. 88
113							Crane Hoist	20- Crane Hoist : Drwg No. SU-PH1-GEN-ALL-HSZN-101818	Please Provide the Details of Crane Hoist	Refer schedule 'C'- Page no. 88
114							Basement 2 & Basement 1	Residential - Ty-II, III & IV Quaters	Please provide the Details of Services	It is scope of the contractor to prepare the details.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
115							Finishing works	Package-I : Administrative Block, Faculty Block, Library and Main Entrance & Gate	Please provide the scope of services in package-I	It is responsibility of bidder to prepare the services
116							CAD Drawings	General	please provide the all buildings services layouts along with Master Layout (External & Internal) CAD Drawings	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
117							Ref-26 (Page 26 of 86)2.11.1 Sl.No.(h)Proof of payment of tender processing fee of Rs. 3,00,000/- (Rupees three lacs only)	SECTION-2 INSTRUCTIONS TO BIDDERS	As per tendering website showing Processing Fee 8,850.00 but in the tender document mentioned in 3 lakhs. We request you to kindly confirm whether we are pay 3 LAKHS OR 8,850. Whether it is online mode payment or Demand Draft. Kindly Confirm.	Rs. 3.00 lacs is cost of tender and Rs. 8850 is tender processing fee charged by the website.
118							Ref-66-68 (Page 66 of 86 to Page 68 of 86) and 1358-1359APPENDIX - II and SCHEDULE - GAPPENDIX - II Bank Guarantee for Bid Security (Refer Clauses 2.20) and FORMAT FOR EARNEST MONEY DEPOSIT / BID BOND	SECTION-3, APPENDIX - II	Which format we have to consider. (Whether APPENDIX-II Page No.66-68 or Format for EMD/Bid Bond Format). We request you to kindly confirm.	Appendix-II page No.66 to 68 shall be considered
119							Ref-69-70 (Page 69 of 86 to Page 70 of 86)APPENDIX-IIIAPPENDIX-III Format for Power of Attorney for signing of BID (Refer Clause 2.1.5)	SECTION-3, APPENDIX-II	APPENDIX-III POA format is JV Participated bidder purpose or Single Entity Bidders also submit this format. We request you to kindly confirm.	All bidders are requested to submit
120							Ref-134 (Page 50 of 145)Clause No.7.1 (i)(A) Within 30 (thirty) days of receipt of Letter of Acceptance, the selected Bidder shall furnish to the Authority an irrevocable and unconditional guarantee from a Bank in the form set forth in Annex-I of Schedule-G (the "Performance Security") for an amount equal to 3% (five percent) of its Bid Price (if the contract is awarded prior to 31.12.2021, if the LOA is awarded post 31.12.2021, then University may increase the Performance security upto 5% or as per government regulation whichever is higher).	Article 7,Performance Security	We request you to consider 3% (five percent) of its Bid Price (if the LOA is awarded post 31.12.2021). Please kindly confirm.	Performance Security shall be 3% (three percent) of bid price irrespective of date of award of work.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
121							Ref-136 (Page 52 of 145) Clause No. 7.5 (i)(i) From every payment for Works due to the Contractor in accordance with the provisions of Clause 19.5, the Authority shall deduct 6% (six per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the "Retention Money") subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price.	Article 7, Retention Money	We request you to consider the retention money @ 2.5% of contract value as per the CPWD Clause 1A (Security Deposit). e., the same shall be released against bank guarantee.	Tender Condition prevail
122							Ref-189 (Page 105 of 145) Clause No. 19.10 The clause of Price adjustment/escalation is deleted. The EPC contract is of fixed price for the entire duration of contract including justified hindrances.	Article 7, Price adjustment for the Works	Since the project duration 30 months and the present fluctuated market conditions, We request you to consider the Price adjustment /escalation as per CPWD escalation Clause no. 10 CA & 10 CC.)	Tender Condition prevail
123							Ref-Secured Advance on Materials and Plant Machinery & Shuttering Material Advance	ET23	We request you to provide Secured Advance and Plant Machinery & Shuttering Material Advance on Materials as per CPWD Clause 10 B(i) & (iii).	Tender Condition prevail
124							Ref-Environmental permissions for infrastrure works	Environmental Approvals	We request you to please confirm whether approvals taken by the Employer scope or Bidder scope.	Approval is obtained, however extension if any in Bidder's scope
125							Ref-Funding for this contract	Fund	We request you to please confirm the details of Financial preclosures/Funds for construction.	As per Tender document.
126							Ref-RFP Pg-4 -Completion period-30 Months	Request for Proposal	Keeping in view of Hinderance to the work due to Hilly terrain, Heavy rain fall, occurance of land sliding , We request you to increase the duration of the project from 30 months to 48 Months.	Duration of project is revised from 30 months to 36 months. The timeline including milestones shall be proportionately adjusted.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
127						Financial Capacity:	Working Capital of the Company/Firm as on last day of preceding financial year ending 31/03/2021, should be positive.	pg.18 of 1413 point no. 2.2.2.3 (v)	We hereby request you to kindly modify the clause as "Working Capital of the Company/Firm as on last day of preceding financial year ending 31/03/2021, should be positive / Line of Credit from Nationalized or any Scheduled Bank amounting to at least 20% of the tendered value of the project to be provided."	Tender condition Prevail
128						Mobilisation Advance	The Advance Payment for mobilisation expenses shall be made in two instalments each equal to 5% (five percent) of the Contract Price. The second 5% (five percent) mobilization advance would be released after submission of utilization certificate by the Contractor for the first 5% (five per cent) advance already released earlier.	Clause no. 19.2 (xii) page 184 of 1413 of Pfd	We request you to provide us Mobilisation Advance in a single installment alongwith the Work Order.	Tender condition Prevail
129						Recovery of Advance Payment	Deductions shall be made at the rate of 15% (fifteen percent) of each Stage Payment Statement until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 80% (eighty percent) of the Schedule Construction Period is over	Clause no. 19.2 (xii) page 185 of 1413 of Pfd	We request you to recover the Mobilisation Advance as : Recovery of the Mob Advance to be made from RA Bills starting from 3rd RA Bill, and to be recovered within 90% of the work value is executed on prorate basis, since on recovering @ 12.5% from the basic value of Running Accounts Bills will effect the cash flow of the Project.	Tender condition Prevail
130						Variation in Taxes and Duties	The Contract Price includes all duties, taxes, royalty, cess, charges, and fees includes GST that may be levied in accordance with the laws and regulations in force as on the Base Date. The Contract Price shall not be adjusted for any change in costs	Clause no. 19.1 (ii & iii) page 184 of 1413 of Pfd	We request you to reimburse us any extra amounts due to imposition of new taxes or duties or modification of any existing taxes in future as per actuals.	Such implication shall be considered by University based on the Govt Guidelines issued on the matter
131						Payment for Sub-Activities	Authority's Engineer shall broadly determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment against the Stage Payment Statement, pending issue of the Interim Payment Certificate by the Authority's Engineer	Clause no. 19.5 (i) page 187 of 1413 of Pfd. Price Bid - Breakup Details - Summary, Page 1368 of 1413 of PDF	With respect to the payment terms, we request you to kindly provide us part payments on prorata basis on the percentage of work done for each activity building wise.	Tender condition Prevail
132						Liquidated Damages	Contractor shall pay Damages to the Authority of a sum calculated at the rate of 0.05% (zero point zero five percent) of the Contract Price for delay of each day. The Parties expressly agree that the total amount of Damages under Clause 10.3 (ii) shall not exceed 10% (ten percent) of the Contract Price. If the damages exceed 10% (ten percent) of the Contract Price,	Clause no. 10.3, (ii & iii), page 151 of 1413 of Pfd	We request you to keep the LD @ 0.25% per week of delay subject to a maximum of 5% of the Contract Value.	Tender condition Prevail

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
133						Table of Milestones for Civil Works	3/4 of the whole work - 16.5 months	Schedule J, page 1395 of 1413 of Pfd	It means that 75% of the whole Civil works to be completed in 55% time. This seems to be unrealistic since the total Project completion time is 30 months. As such we request you to revise the schedule as ¾ work completion in 24 months.	Duration of project is revised from 30 months to 36 months. The timeline including milestones shall be proportionately adjusted.
134						Milestone for all MEP services	Milestone for all MEP services (FA & FF, EI, Lift, DG, HVAC, UPS, etc.); Erection time given as 16/ 17/18/19 months. However, final testing, commissioning and handing over of installation is 30 months	Schedule J, page 1395 of 1413 of Pfd	This also seems to be unrealistic as total erection has to be completed within 18 / 19 months, whereas, final testing, commissioning and handing over of installation is 30 months. Requested to revise the completion of Erection works time till 28th month and final testing, commissioning and handover in 30 months.	refere revised Schedule - J, further Duration of project is revised from 30 months to 36 months. The timeline including milestones shall be proportionately adjusted.
135						Site development and Area grading	Scope of works includes Site development and Area grading	Scope of works	Considering the huge volume of area grading to be done, we request you to kindly provide those items on Item Rate basis.	Tender condition Prevail
136						Rainfall Data & Snowfall data	Not received with the Tender	Not received with the Tender	Requested to provide us the Rainfall Data & Snowfall data for last 100 years return life	Contractor has to get the details from concern department
137							General	Legal & statutory approvals	Please confirm if any preliminary approvals are obtained for this project. If yes, we request you to provide the details of the same. We also request you to provide land particulars to enable us assess the approvals requirements.	All necessary statutory approvals have been obtained. However, any extension or new approval to be obtained by the bidder based on govt. norms.
138							Existing Structures & Tree Cutting	Scope of Work	We request you to provide the details of existing utility services at site for dismantling & also confirm the tree cutting scope & Transplantation of Saplings. We request you to consider the tree cutting scope in clients scope. Also confirm if any existing particular feature required to be relocated such as trees, HT /overhead lines, electrical poles, water pumps, telephone cables, network cables, underground piping etc. ?	Bidder is expected to Survey the area and assess the same before quoting his bid.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
139							General Space for temporary structures		We understand that Land for temporary Structures such as Labour hutment, Cement Godown, RMC Plant will be provided by the employer inside all the site premises at free of cost.	Vacant space within the campus premises can be utilized for the same upon prior approval of the University. No charges for the same shall be payable by the contractor.
140							Specifications Schedule of Finishes		The Specification intent provided in the tender document Is limited to major items only. Kindly provide the exhaustive and broad schedule of finishes. Shall we consider the Minimum technical requirements as the Schedule of finishes? Kindly confirm.	It is the responsibility of bidder to prepare all the details Such as to make the building fully functional in all respect.
141							Scope of Work Loose / Fix Furniture/Equipments		Please clarify scope of work for Loose / Fix furniture/Equipments for Kitchen	These items does not covered under bidders scope.
142							General Contour/Survey Layout		Please provide Contour/Survey layout in Autocad format	Refer attached drawing
143							General Applicable Codes		We understand that we need to consider DCR norms for overall planning. Is there any other code/ Statutory norms, which needs to be considered apart from DCR, please confirm	Refer Clause 5,6 & 7 of Schedule B.
144							General Existing Utilities		Please provide existing services layout within the plot boundaries, if any exists	Bidder is expected to Survey the area and assess the same before quoting his bid.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
145							General	Tap off Point	Is there any specific location, which needs to be considered for various services or we will proceed further as per Design, please confirm	Refer Schedule - B & D.
146							Design	Builtup Area	Kindly provide us the Break-up of Builtup Area along with considerations	Refer Master Layout SU-PH1-GEN-ALL-MALY-001010
147							Design	Builtup Area Calculation	We understand Built-up area includes lift, staircase, lobby areas. Kindly confirm	Built up covered lift, staircase, lobby areas
148							Design	Railing details	Please specify gauge of SS railing to be considered	Refer Clause 11 of Schedule B.
149							General	Drawing requirement	Note that the PDF format drawings have text content unclear clear. We request sharing CAD drawings.	The drawings are provided for bidding purpose only, CAD drawings will not be provided
150							Design	Insulation requirement	Kindly clarify insulation requirement/details for all buildings	As per schedules

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
151							Design	Administrative block - SOF	Schedule of finished for Basement, Ground, Third & Fourth floor is not provided. Kindly provide the same.	Refer Schedule - B Page no . 69
152							Design	Administrative block - door / Window details	Please provide plans/sections & blow-up details for all door / windows is available	Bidders scope
153							Design	Faculty- Block 1	Fixing of structural glazing along stircase block is not clear. Kindly provide details is available.	Bidders scope
154							Design	Lab design	Please clarify scope of work pertaining to Lab. Kindly provide technical details for the same if available.	As per Client requirement.
155							General	External development	Kindly clarify scope of work for Softscape areas	Tender condition Prevail
156							General	Green Building rating requirement	Kindly clarify whether Any particular Green building rating system to be considered.	As per tender document.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
157							General	Statutory approvals	Kindly clarify whether Statutory approvals/ clearances is in contractors scope	Yes, Statutory approvals/ clearances is bidders scope
158							General	Soil report	Kindly provide latest Soil report	Bidders scope
159							Design	Girls hostel/ Boys hostel and Dinning area	We assume Handicapped lift provision or ramp provision is required. Please clarify.	These provisions have been already considered.
160							Design	Girls hostel/ Boys hostel	We assume requirement of Canopy for the building. Please provide details. Also, Kindly provide details for external ramps and staircase.	These provisions have been already considered.
161							Design	Expansion joint	Kindly provide Expansion joint detail, if any	As per design Requirement.
162						BOQ_Civil Works			Please provide or share the Package I BOQ template for preparing BOQ line items for Package II.	Not applicable

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
163						BOQ_Civil Works			Please provide the list of makes for Civil & architectural items	Refer Schedule - D
164						BOQ_Civil Works			Please provide Approved model and brand name for furniture & fixtures items	Refer Schedule - D
165						BOQ_Civil Works			Please provide mark up BOQ's and drawings for Package I balance works to be considered in scope	Refer Schedule - B & Tender Drawings
166						BOQ_Civil Works			Refer ET23 RFP document, page no. 858; where mentioned schedule of exclusion items. Please confirm those items should exclude as per ET23 document.	All the items are in bidders scope only
167						BOQ_Civil Works			Please provide all drawings editable Cad format	The drawings submitted for bidding purpose and it is scope of the contractor to prepare original Auto CAD drawing.
168						BOQ_Civil Works	1.1.1 & 1.1.2	ET23 RFP- page no.7	Please confirm the numbers and details of structures for finishing from Phase-1	Refer Schedule A & B

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
169						BOQ_Civil Works			Please provide soil investigation report	Soil report attached, but bidder has to assess the latest soil report.
170						Architecture			Statutory approvals are in our scope or not?	Bidders Scope
171						Architecture			Soft landscaping is in our scope or not?	Bidders Scope
172						Architecture			Any particular GREEN Building rating system is not specified	No requirement of Griha Certification, however the building is to be designed and built as per details in tender document
173						Architecture			Please provide soil investigation report	Soil report provided in University website, but bidder has to assess the latest soil report.
174						Design Base Report			As per DBR for Seismic load code is IS1893-2002 but as per latest code it is IS1893-2016 please confirm which code to be used	Kindly follow latest version of seismic code 1893-2016

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
175						Design Base Report			As per IS1893 (Part-1)-2016 Gangtok is in seismic zone 4 but as per DBR it is in Zone 5, please confirm can we use zone-4	Please follow the zone as per latest Govt. notification
176						Design Base Report			Importance factor as per design base report is 1.5 but can we use as per code and intend to type of building which allows use of 1.0, 1.2, 1.5	follow as per latest code
177						Design Base Report			Wind Load code as per design report is IS875 (Part-3)-1987 but as per latest code it is IS875 part-3-2015, please confirm which code to be used	follow as per latest code
178						Design Base Report			Please confirm Fire rating Hours to be considered for structure design	Follow as per NBC
179						Design Base Report			No provision will be consider for extra floors in design of any building other than floors shown in sectional drawings.	Follow as per architectural drawing
180						Design Base Report			AS per design base report The Building is analyzed as 3-D space structure, using finite element method in STAAD.Pro V8i (SELECT series 5) but we recommend to allow use of ETABS, SAFE and updated version of Staad Pro. which are widely used in industry for building.	Follow any approved software for design

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
181						Design Base Report			For Steel Design as per design base report it is IS800-1984 but as per latest it is IS800-2005 please confirm which code to be used.	Follow latest version of code
182						Design Base Report			For ductile detailing code as per design report is IS-13920-1993 but as per latest code it is IS1893-2016, please confirm which code to be used	Follow latest version of code
183						Design Base Report			The design life of important building is consider as 100 year please clarify which unit to be consider as important structure. We recommend all residential units to be designed for 50 years life.	follow all Important buildings - 100 Years All Residential Buildings- 50 Years
184						Design Base Report			Temperature load is not consider because expansion joint consider in building as per tender document. We recommend to allow eliminating expansion joint and considering temperature stresses in design which will help to avoid leakages / dampness issue and reduce maintenance cost due to special expansion joint filler material.	Can adopt any of these methods with or without expansion joint & temperature analysis.
185						Design Base Report			There is no mention of snow load in tender document, please confirm snow load need not to be consider in design.	Snow load to be consider based on latest climate report
186						Design Base Report			Can we consider design of structure for moderate environment condition as per IS456-2000.	follow as per IS - 456-clause-8

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
187	Schedule - C				E&M Work for Phase I Package I				Bidder understands that the E&M Works for Phase I Package I is not under bidder's scope of work. Please confirm. If included bidder requests to share the scope of work & relevant details for E&M work of each Building.	Scope of works includes E&M Work for Phase I Package I & The bidder shall assess the E&M Works required as per site condition.
188	Design Basis Report				Source of Information : Following Codes has been used for arriving firefighting net work	Page No. 43,59 & 74 of 88			Bidder requests to confirm the order of precedence for considering the codes for designing the firefighting system, Electrical & Plumbing Works.	Please refer Clause 5,6 & 7 of Schedule 'B'
189	Design Basis Report				Source of Information : Following Codes has been used for arriving firefighting net work	Page No. 43 of 88			Bidder requests to confirm whether NBC 2005 Part 4 life & safety to be followed or bidder can consider the latest version of NBC i.e. NBC 2016 for the same.	Latest version of NBC 2016.
190	Design Basis Report				Codes & Standards for Electrical Works	Clause no 5 Page No. 59 of 88			Bidder requests to confirm whether ECBC 2017 with latest amendment to be considered or not for selecting the Electrical Equipment.	Latest version of ECBC
191	Part-II ENGINEERING PROCUREMENT AND CONSTRUCTION AGREEMENT				The Contractor shall appoint a proof check consultant (the "Proof Consultant") after proposing to the Authority a panel of three (3) names of qualified and experienced firms from whom the Authority may choose one (1) to be the Proof Consultant.	10.2 (ii)			Bidder understands that the actual appointment of "Proof Consultant" including payment towards the "Proof Consultant" shall be done by the Authority. Bidder shall have no financial implications whatsoever in this regard. Please confirm.	Appointment of Proof Consultant including payment is Bidder scope.
192	Part-II ENGINEERING PROCUREMENT AND CONSTRUCTION AGREEMENT				the periods for reviews under Clause 10.2	10.1 (iii) (b) ii.			Since the Proof Consultant shall be employed by Authority, this period needs to be defined by Authority in the relevant ToR for Proof Consultant & the same may please be intimated to Bidder/Contractor.	Proof consultant will be finalized after award of work.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
193	Part-II ENGINEERING PROCUREMENT AND CONSTRUCTION AGREEMENT				Any cost or delay in construction arising from review/approval by the Authority's Engineer shall be borne by the Contractor.	10.2 (iii)			Any delay in construction caused by delay in review/approval by Authority's Engineer beyond the time stipulated in cl. 10.2 (ii) (c) should be compensated by time extension of equivalent amount.	To be considered as per practical condition during execution of the work.
194	Schedule D				CPWP manual of Standards and Specifications 2019 shall be referred to herein as the Manual.	2. Design Standards			Please provide the "CPWP manual of Standard & Specifications 2019" as it is not commonly available.	Shall be read as CPWD Manuals & specifications
195	Schedule D				The contractor shall procure TMT bars of Fe 500D grade	Part A, Cl. 4.1			Bidder understands that this is the minimum grade acceptable. Higher grades as available in market conforming to relevant IS Standard shall be acceptable in Design & Construction. Please confirm.	Tender condition prevail
196	Schedule D				Note : The Cement content means ordinary Portland Cement of 43 grade	Part A, Cl. 5.11			As per Note 1 under table 5 of IS:456-2000, the minimum cement content in design mix should be used for Cement and all additives (Fly Ash, GGBS, Silica Fume, etc.) together. Moreover, slag cement/cement with fly ash provides better durability characteristics. In reference to the same, we request you to kindly accept: i) PPC/Slag Cement in addition of OPC ii) Minimum cement content may please be read as recommended in IS:456	As per tender document.
197	Annex-I, Schedule B				The Contractor is required to connect all the external services like Water Supply, Sewerage, Drainage, Electric Supply, Telephone Lines etc. to the main lines of the local municipal body /authorities and service providers or any other Contractor and this shall be considered as integral part of Scope of work and deemed to be included in the quoted price of the Contractor.	Pg B-12			Please mention the points of supply for external services (viz. water, electricity, telephone/data, sewerage etc.) within the campus or just outside of the boundary. If the points of supply of the external services are not known at this point and to be determined from the service provider by the contractor, any such work to be done to bring the services till the campus boundary may please be paid as actuals additional to the bid value.	Condition is accepted for Electricity & Telephone/data only. Other services like water & sewerage etc. is originated and terminated within the boundary of site.
198	Annex-I, Schedule B				"...completion certificate from local body, fire NOC & other statutory approval..."	Pg B-12			Request to provide the approved/sanctioned plans from local building authority along with Provisional Fire NOC issued by local Fire Authority on the Conceptual Design. From our past experiences, we see a lot of additional requirements mentioned by Fire Department, apart from following relevant standards, to be followed to complete the work to obtain final NOC.	The scope of work includes obtaining approval from approval departments.

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
199	DBR				The Building is analyzed as 3-D space structure, using finite element method in STAAD. Pro V8i (SELECT series 5)	18			Please clarify if the bidder's designer is free to use other softwares (e.g. ETABS & SAFE) using 3D finite element analysis & design.	Yes
200									As the said package includes the balance work, including finishing works, is required to be executed, in this regard during the Defect Liability Period of 2 Years, whether the contractor is liable for maintenance of only finishing works and other works, which are executed by the contractor, or the work done by previous agency is also needed to be maintained during DLP	It is inclusive of both works
201									2. As per Article 14.1 (c), "for building and services 3 years' maintenance period including structures and services: 1.0% of the contract price each for the first, second year, 1.25% of the Contract Price each for the third year". In this regard we would like to know that either there is additional provision of this 3.25%, beyond total project cost, for this 3 year maintenance period or it is included in total project cost.	It is included in the total project cost
202									3. As per article 17.1 (ii), "Without prejudice to the provision of clause 17.1.1, the Defect Liability Period for and in respect of any structure having a construction cost exceeding Rs. 50 Crores each as estimated in accordance with the provision of Schedule - G, shall be deemed to be extended by a further period of 3 years after the expiry of the Defect Liability period specified in clause 19.1.1". This led to confusion with the article 14.1. (C), which requires clarification	Annual Maintenance for 3 years from date of successful handing over of the project. This includes DLP of 24 months.
203									4. Whether the annual cost of maintenance as specified in Clause 14.1 (i), which will be paid to the contractor subsequently upon submission of monthly maintenance statement, is also included in the total project cost or is there separate provision for the same?	It is included in the total project cost
204									5. DPR along with the detailed cost estimate of Rs. 303.25 Crores for the entire project, may please be provided	Rs.303.25 Crores is indicative project cost. However the bidder should assess the cost estimate as per the requirements mentioned in the tender documents

Sl. No.	Volume No. (Name)	Head	Section	Page	BID / Tender Condition	Clause	Clause Details	Reference / Clause no.	Queries	Pre-bid query replies
205									Tentative length of road network is not mentioned in Cl. 17 of Schedule - C. Kindly specify the same	Refer Tender drawing Sheet No – SU-PH1-RDW-ALL-RDLP-137121, 137122 – Road Layout Plan
206									The intending firm should have successfully executed at least one building project of minimum G+4 Storied, in the last 5(five) years ending 31st March in any part of India	Tender condition prevail
207									Bidder should have completed at least one Non-Industrial Multistoried Building work including architectural finishing work, water supply, drainage and satinary installation work on Design & Construction basis/Item rate contract having atleast 15Mtr high during last five years ending 31st March 2021	Condition Accepted

The material brought at site shall be approved by the Authority Engineer before use in the work. In case during execution any material being used in the work is found not as per agreement specifications, Engineer-in-Charge may issue instruction to the contractor to remove the materials from site and the contractor will be bound to do so.

33.0 ORDER OF PREFERENCE

Should there be any difference or discrepancy between the descriptions of items as given in the schedule of quantities, technical specifications for individual items of work(including additional and commercial conditions) and IS Codes etc. The following order of preference shall be followed:

1. **Schedule - A, B, C & D**
2. Additional and commercial conditions
3. Technical specifications specified in the tender
4. Tender Drawings
5. CPWD General specifications
6. Relevant IS or any other international in case IS code is not available

TECHNICAL SPECIFICATIONS FOR SUB STATION WORK

1. GENERAL SCOPE OF WORK

- 1.1. The specifications given below pertain to the entire electrical sub-station installation work to be carried out in thereon. The sub-station proposed is indoor substation.
- 1.2. It is proposed to install 11 KV / 433 volts electrical substation.
- 1.3. The work shall be carried out as per CPWD General Specifications for Electrical works Part IV Sub-station- 2013 as amended upto date and CPWD General Specifications for Electrical works Part-I (Internal 2013) & II (external 1995), as amended up to date, relevant IE rules and as per the directions of the Authority Engineer.
- 1.4. For the following items, factory inspection by representative of Engineer-in- Charge will be necessary before their dispatch to site. Contractor will make necessary coordination with Authority Engineer for their factory inspection: H.T Panel, Transformer, LT Panels

16 INTERPRETING SPECIFICATIONS

In interpreting the specifications, the following order of decreasing importance shall be followed in case of contradictions:

- (i) Schedule of quantities
- (ii) Technical Specifications
- (iii) Drawing (if any)
- (iv) General Specifications of CPWD for Electrical works (Part III – Lifts & Escalators-2003)
- (v) Relevant IS or other international code in case IS code is not available

LIST OF ACCEPTABLE MAKES FOR LIFT (PART-3)

Sl. No.	Make
1.	OTIS
2.	KONE
3.	Mitsubishi
4.	Johnson

8. HVAC ROOM HEATING AND AIR VENTILATION SYSTEM

8.1 Capacity of HVAC Plant

The HVAC system shall be designed using VRF system of 780HP capacity for Admin and Library buildings as given in the list.

8.2 Minimum Acceptable specifications

Minimum working capacity shall be 780HP in configuration of HVAC plant consisting of VRV system with dual ratio compressor generator complete with condenser, chilled (primary & secondary), electrical panels, control panels and pipe line, cabling work. The low and high side of the plant shall be controlled by BMS System. ventilation and smoke extraction system as per NBC guidelines, CPWD Specifications and relevant IS Codes. The scope also includes all

works necessary for providing centralised HVAC services to the designated rooms / locations given in the list from the HVAC plan (as shown in the Layout Plan), piping / ducting / cabling from HVAC to University Buildings. The scope includes planning, designing, providing, fixing, testing and commissioning of pipelines required for running HVAC Plant using VRF system.

Room Heating and Air Ventilation system shall be provided for the following buildings

ROOM HEATING	CAPACITY	POWER
	HP	KW
LIBRARY	320.00	240.00
ADMIN BUILDING FACILITIES	460.00	345.00
AIR VENTILATION	CAPACITY	POWER
	HP	KW
KITCHEN AND DINING - EXHAUST AIR VENTILATION	14.00	2.20
KITCHEN AND DINING - FRESH AIR VENTILATION	14.00	2.20

8.3 The scope includes designing and construction of single storied well ventilated non residential building as per enclosed drawing (Plinth Area = 374 sqm) and having floor height of 4.5 metres. The building shall have following provisions:

- a) Necessary ramp as per approved drawing.
- b) Proper drainage around buildings.
- c) 52 mm thick hardcrete flooring.
- d) All the specification such as external finishing as per adjacent buildings.
- e) All exposed plumbing lines exposed on outer face of wall covered with GRC Jali of approved design & make.
- f) Adequate structural support system and provision for maintenance of services.
- g) All external doors shall be MS rolling shutters with grill opening.
- h) The terrace shall be provided with integral water proofing treatment.
- i) Internal layout of plants including partition walls shall be prepared and got approved as per design requirement.

The scope includes not limited to the following works.

Description	Admin Building	Library Building
EQUIPMENT-VRF (HEATING AND COOLING)		
Supply of Modular type All Inverter Variable Refrigerant Flow Outdoor units comprising of Hermetically sealed Variable Speed Scroll compressors. The unit shall comprise of high efficiency, low noise condenser fan with guard and IP 55 motor, heat exchanger and coated fins for increased durability. The casing shall be powder coated and the unit shall be provided with liquid line strainer, catch all drier, thermostats etc. suitable for interconnecting with any type of indoor units with cordless remote controller. The ODU & IDU shall be integrated with special super wiring system with the central monitoring control. The unit should be BMS compatible with open protocol. The unit shall be factory wired and tested before despatch. The operating refrigerant shall be R-410A only. 20 HP Module for admin 23 nos and library 16 nos.	460 HP	320 HP
Supply of Indoor units Cassette Type Unit specified. The Indoor unit shall have independent electronic control valve to control the refrigerant flow rate. The unit shall be operable with cordless remote controller and should have auxiliary contact for remote On/Off. The Noise level for the rooms indoor unit shall be not exceeding 38DB. The indoor unit capacity shall be rated at 27°C DB and 18°C WB		
4.0 TR Cassette Type Unit		20
3.0 TR Cassette Type Unit	28	3
2.5 TR Cassette Type Unit	13	
2.0 TR Cassette Type Unit	24	40
1.5 TR Indoor Type Unit	60	14

Description	Admin Building	Library Building
1.0 TR Indoor Type Unit	18	13
Supply of cordless remote control - Cassette IDU (Min. Nos)	143	90
REFRIGERANT PIPING: Supply, Installation and Testing of Refrigerant piping, fittings and Y Branch with suitable thick tubular nitrile rubber insulation and finished with poly shield coating . Complete piping workmanship to be carried out as per recommended practice. The piping to be vacuum tested and leak tested. Scope includes all refrigerant pipes shall be properly supported and anchored to the building structure using steel hangers, anchors, brackets and supports etc which shall be fixed to the building structure by means of inserts or expansion shields of adequate size and number including Hi Tech Supports for Refrigerant pipes (Like, rods, Anchor bolts, Threaded rods, etc.,) including suitable cables, GI tray & Drain piping etc.		
FRESH AIR CPVC PIPING : Supplying, fixing and testing of CHLORINATED POLYVINYL CHORIDE - CPVC Schedule 40 Pipe As per ASTM F 441 with solvent cement joints as per manufacturers recommendation, together with CPVC pipe fittings, tee, bend, elbow specials etc Schedule 40 fittings as per ASTM F-438 . Scope also includes cutting and jointing using CPVC solvent cement and fixing the pipe with proper pipe and clamp supports. Include bird screens as and when required. Measurement will be taken only for straight lengths of pipes. The entire work should be carried out as per GMP including necessary power cabling fabricated steel work etc.		

Lift well Pressurisation System

Cabinet Type Pressurisation Unit:

Supply, Installation, testing and commissioning of Factory assembled Ceiling Suspended / Floor mounted Double Skin Fresh Air Unit with 25 mm thick - 45 kg/cum PUF Insulated detachable

panels, 2 mm thick PUF filled extruded aluminium profile, panel external skin with 0.6 mm pre-plasticised sheet, panel internal skin with 0.6 mm galvanised sheet, Base frame made of galvanised steel with die cast aluminium joints having lifting holes, DIDW backward curved centrifugal fan with EFF1 rating motor, drive arrangement with taper lock pulleys for fan and motor, vibration isolators out of heavy duty rubberised mounts, prefilters package - EU3 filters, accessories include access doors with hinges, handles and door knobs, Pressure Ports, DOP Ports, Limit Switch, Guard for Inspection Door, dampers of aerofoil blades & PVC gears and flexible fire retardant canvass complete with galvanised hardware. Include fresh air entry box (Operating Parameters: 4600 CFM @ 35 mm st.pr., - 7Nos.) with necessary flexible duct connector (Operating Parameters : 4600 CFM @ 35 mm st.pr. – 14 Nos.) GSS Rectangular Ducting as required, Fire and Smoke Dampers, Air Louvers, Wall mounted Electrical Starter Panel, Power Cabling and Fabricated steel work etc complete.

Toilet Ventilation

Toilet Ventilation for Library, Admin, Laboratory, Faculty, 50 seater classroom, 25 seater classroom, Central stores, Guest house, Dining and School facilities supply, installation, testing and commissioning of Inline circular / cabinet fans with GSS cabinet complete with inlet and outlet spigots. The fan should be direct drive, high efficiency forward curved DIDW impeller with galvanised steel scroll. The motor should be single phase-squirrel cage induction type with sealed for life bearing. and complete with GI gravity louvers and bird screen.

DINNING AND KITCHEN

Cabinet type exhaust air unit with necessary flexible duct connector, GSS Rectangular Ducting, Linear Fixed Bar Grille, Low leakage volume control / Duct Dampers, Collar Damper, Air louvers, Wall Mounted Electrical Starter Panel, Fabricated Steel Work etc as per drawing.

CABINET TYPE EXHAUST AIR UNIT

Supply, Installation, testing and commissioning of Factory assembled Ceiling Suspended / Floor mounted Double Skin Exhaust Air Unit with 25 mm thick - 45 kg/cum PUF Insulated detachable panels, 2 mm thick PUF filled extruded aluminium profile, panel external skin with 0.6 mm pre-plasticised sheet, panel internal skin with 0.6 mm galvanised sheet, Base frame made of galvanised steel with die cast aluminium joints having lifting holes, SISW backward curved smoke spill centrifugal fan with epoxy coated housing with EFF1 rating motor, fan shaft, bearings, motor installed away from air path, drive arrangement with taper lock pulleys for fan

and motor, vibration isolators out of heavy duty rubberised mounts, accessories include access doors with hinges, handles and door knobs, Pressure Ports, DOP Ports , Limit Switch, Guard for Inspection Door, dampers of aerofoil blades & PVC gears and flexible fire retardant canvass complete with galvanised hardware

CABINET TYPE FRESH AIR UNIT:

Supply, Installation, testing and commissioning of Factory assembled Ceiling Suspended / Floor mounted Double Skin Fresh Air Unit with 25 mm thick - 45 kg/cum PUF Insulated detachable panels, 2 mm thick PUF filled extruded aluminium profile, panel external skin with 0.6 mm pre-plasticised sheet, panel internal skin with 0.6 mm galvanised sheet, Base frame made of galvanised steel with die cast aluminium joints having lifting holes , DIDW backward curved centrifugal fan with EFF1 rating motor , drive arrangement with taper lock pulleys for fan and motor, vibration isolators out of heavy duty rubberised mounts, prefilters package - EU3 filters, accessories include access doors with hinges, handles and door knobs, Pressure Ports, DOP Ports , Limit Switch, Guard for Inspection Door, dampers of aerofoil blades & PVC gears and flexible fire retardant canvass complete with galvanised hardware. Include fresh air entry box.

S.No.	Description	Unit	Qty
1.0	CABINET TYPE EXHAUST AIR UNIT : Supply, Installation, testing and commissioning of Factory assembled Ceiling Suspended / Floor mounted Double Skin Exhaust Air Unit with 25 mm thick - 45 kg/cum PUF Insulated detachable panels, 2 mm thick PUF filled extruded aluminium profile, panel external skin with 0.6 mm pre-plasticised sheet, panel internal skin with 0.6 mm galvanised sheet, Base frame made of galvanised steel with die cast aluminium joints having lifting holes , SISW backward curved smoke spill centrifugal fan with epoxy coated housing with EFF1 rating motor , fan shaft, bearings, motor installed away from air path, drive arrangement with taper lock pulleys for fan and motor, vibration isolators out of heavy duty rubberised mounts, accessories include access doors with hinges, handles and door knobs, Pressure Ports, DOP Ports , Limit Switch, Guard for Inspection Door, dampers of aerofoil blades & PVC gears and flexible fire retardant canvass complete with galvanised		

	hardware.		
1.1	Kitchen Exhaust Fan : Operating Parameters : 12000 CFM @ 40 mm st.pr.	Nos	3
1.2	Dinning Exhaust Fan : Operating Parameters : 5600 CFM @ 30 mm st.pr.	Nos	10
2.0	CABINET TYPE FRESH AIR UNIT : Supply, Installation, testing and commissioning of Factory assembled Ceiling Suspended / Floor mounted Double Skin Fresh Air Unit with 25 mm thick - 45 kg/cum PUF Insulated detachable panels, 2 mm thick PUF filled extruded aluminium profile, panel external skin with 0.6 mm pre-plasticised sheet, panel internal skin with 0.6 mm galvanised sheet, Base frame made of galvanised steel with die cast aluminium joints having lifting holes , DIDW backward curved centrifugal fan with EFF1 rating motor , drive arrangement with taper lock pulleys for fan and motor, vibration isolators out of heavy duty rubberised mounts, prefilters package - EU3 filters, accessories include access doors with hinges, handles and door knobs, Pressure Ports, DOP Ports , Limit Switch, Guard for Inspection Door, dampers of aerofoil blades & PVC gears and flexible fire retardant canvass complete with galvanised hardware. Include fresh air entry box.		
2.1	Kitchen Fresh Air Unit : Operating Parameters : 9600 CFM @ 30 mm st.pr.	Nos	3
2.2	Dinning Hall Fresh Air Unit : Operating Parameters : 5600 CFM @ 30 mm st.pr.	Nos	10
3.0	FLEXIBLE DUCT CONNECTOR: Supply and installation of Flexible Duct Connection factory made with Fire Retardant both sides PVC coated Double Polyester Fabric having density of 680 gms per M2 with both sides reinforced with GI strips roll formed special type locking arrangements with Polyester Fabric without puncturing the Fabric and subsequently TDF formed, ready to fit Flexible Duct Connectors.		
3.1	Kitchen Exhaust Fan : Operating Parameters : 12000 CFM @ 40 mm st.pr.	Nos	6
3.2	Dinning Exhaust Fan : Operating Parameters : 5600 CFM @ 30 mm st.pr.	Nos	20

3.3	Kitchen Fresh Air Unit : Operating Parameters : 9600 CFM @ 30 mm st.pr.	Nos	6
3.4	Dinning Hall Fresh Air Unit : Operating Parameters : 5600 CFM @ 30 mm st.pr.	Nos	20
4.0	GSS RECTANGULAR DUCTING : Supply, Installation, Testing & Commissioning of Factory Fabricated Rectangular Galvanised Steel Sheet Ducting made of Lock-forming quality GSS Class VIII ; complying with IS: 277 and having 120 GSM coating classification with 4-bolt TDC joint, GI full threaded rods and GI slotted channel support /hangers with bolts, nuts neoprene fire retardant gaskets and sealed with RTV / silicon sealant, elbows, turning vanes, slip on flanges, in accordance with the approved shop drawings and specifications , sizes and quantities as below :		
4.1	24 G - 0.63 mm	Sqm	575
4.2	22 G - 0.80 mm	Sqm	750
4.3	20 G - 1.00 mm	Sqm	685
4.4	18 G - 1.25 mm	Sqm	500
5.0	LINEAR FIXED BAR GRILLE : Supply, Installation, Testing and Balancing of Linear fixed Bar Grille of Powder coated Extruded aluminium construction, frame with frontal face flange of 16 mm and inner blades of 0,15,30,45 deg deflections 5 mm nominal thickness, blade pitch 12.5 mm.	Sqm	40
6.0	LOW LEAKAGE VOLUME CONTROL / DUCT DAMPERS: Supply, installation, testing and commissioning of Factory fabricated Aerofoil-blade Aluminium dampers with compressible jamb seals and extruded-vinyl blade edge seals, in opposed-blade arrangement with steel operating rods rotating in nylon bearings mounted in a single extruded aluminium frame, and with hard PVC/Nylon gear arrangement for common linkage between blades. Frames and blades to be constructed from high quality extruded aluminium sections. Frame with flat frontal face to suit flanged connections with the ducts. Frames to be screw fixed and sealed to eliminate casing leaks. Blades to be pivoted on PVC bushes and operated through PVC gear system to be fully enclosed within the damper frame.	Sqm	12

7.0	COLLAR DAMPER : Supply, Installation, Testing and Balancing of Opposed Blade GI Black painted Collar Dampers, with pressed form blades & frames, 22G frame & 26G blade (double skin)	Sqm	30
8.0	FIRE AND SMOKE DAMPERS : Supply, Installation, Testing and Commissioning of fire and smoke damper tested and approved for 120 minutes rated as per UL-555 S- 1995 and CBRI. Construction out of factory - made, 1.6 mm thick 800 mm long, 150 mm wide GSS sleeves and inner V grooved flat type multi blade assembly. Frames to be welded and inner blades to be connected to the frame by means of chrome plated spindle rods and bronze self lubricated bushes. All blades to be connected by a suitable flat link arrangement. The dampers are also to be provided with SS concealed jam seal (compression type) on the sides. The damper operation is by spring mechanism with UL 555 fusible link. Fusible link shall close the fire damper at maximum 72 deg C.	Sqm	12
9.0	AIR LOUVERS: Supply, Installation, Testing and Balancing of Air Louvers manufactured out of frame and horizontal blade assembly with high quality powder coated extruded aluminium profiles with 30 mm flange width. The blade pitch to be 40 mm set at an angle of 45 deg. Blades to be fixed rigidly to the main frame by rivets and the structure to provide 45 % effective pressure area, including chicken wire bird mesh.	SQM	10
10.0	WALL MOUNTED ELECTRICAL STARTER PANEL : Supply, Installation, Testing & Commissioning of Electrical panel (wall mounted) with metering device, digital volt meter, digital ammeter with incomer of MCCB and outgoing feeder for Blower motor with DOL starter.	NOS	26
11.0	POWER CABLING : Supply, Installation, Testing & Commissioning of Power Cabling between the starter panel and blower motor with Copper conductor PVC armoured FRLS including lugs, crimping and terminations identifying labels duly clamped. Ratings as below :		
11.1	4 Core x 4 Sq.MM	Rmt	250

11.2	4 Core x 2.5 Sq.MM	Rmt	100
12.0	Supply, Installation and Testing of earthing out of :		
12.1	25 MM X 3 MM GI Flat	Rmt	50
12.2	8 SWG GI wire	Rmt	500
13.0	Supply and laying of 24 G GI tray covered with GI sheet wherever exposed for running cables.		
13.1	100mm wide x 50 mm height	Rmt	250
14.0	FABRICATED STEEL WORK: Supply, Fabrication, Cutting, Welding , Erection at site and painting of M. S. Angle structural steel work for outdoor unit location etc based on the approved drawings. The work should be carried out as per good manufacturing and installation practices in concurrence with approved drawing. The structural steel materials should confirm to IS: 2062 (latest version) as per drawings. All welding electrodes to confirm to relevant IS codes. Fabrication and erection of the structural steel works shall be as per IS : 800 and welding work as per IS:816 and IS : 822. Finally all steel work to be painted with one coat of zinc chromate primer and two coats of synthetic enamel paint.	Kg	1500

9. FIRE FIGHTING

9.1 Fire Fighting Requirements - Fire fighting system with internal, External, Hydrant System, wet riser & sprinklers butter fly valve for the building as per the requirement of NBC 2016 with amendments, updated BIS codes, Fire bye-laws of Govt. of Sikkim and CPWD Specifications shall be provided. This will include complete wet riser system including diesel engine, electrical fire pumps, control panels, fire hydrants including all accessories around the building, C Class Pipes, Gun metal Valves with bronze or SS Disc, Strainers Orifice Plates, etc. Supports for Sprinklers shall be as per General Specifications for Electrical Works (Wet Riser and Sprinkler System) 2006. This will also include fire fighting accessories such as landing valves, hose reel, fire hose bronze delivery coupling, branch pipes, nozzles, power cabling, wiring with armoured cables for main electrical supply and control wiring, earthing, painting, portable fire extinguishers, etc.

SCHEDULE - J

(See Clause 10.3 (ii))

PROJECT COMPLETION SCHEDULE

1. Project Completion Schedule

During Construction period, the Contractor shall comply with the requirements set forth in this Schedule-J for each of the Project Milestones and the **Scheduled Completion Date**. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Authority of such compliance along with necessary particulars thereof.

2. Project Milestone-I

Project Milestone-I shall occur on the date falling on the 6 (six) months from the Appointed Date (the “**Project Milestone- I**”).

Prior to the occurrence of Project Milestone-I, the Contractor shall have commenced construction of the Building works and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 20% (twenty percent) of the Contract Price.

3. Project Milestone-II

Project Milestone-II shall occur on the date falling on the 12 (twelve) months from the Appointed Date (the “**Project Milestone- II**”).

Prior to the occurrence of Project Milestone-II, the Contractor shall have continued with construction of the Building works and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 55% (fifty five percent) of the Contract Price.

4. Project Milestone-III

Project Milestone-III shall occur on the date falling on the 620th (Six Hundred and Twenty) Days from the Appointed Date (the “**Project Milestone-III**”).

Prior to the occurrence of Project Milestone-III, the Contractor shall have continued with construction of the Building works and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 70% (Seventy five percent) of the Contract Price.

- | | | |
|----|---|--|
| a) | Number of days from the date of issue of letter of acceptance for reckoning the date of start | 10 (ten) days or date of handing over of site whichever is later |
|----|---|--|

Table of Milestones for Civil Works:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld in case of Non-achievement of mile stone
1	Submission and approval of all drawings like structural, services including water supply, drainage, waste water, electrical, STP, WTP, etc. including proof checking from reputed agencies and Local body approval and supply of samples of all materials, testing and final approval, finalization of Specialized Agencies, and collection of centering and shuttering materials of minimum 5000 sqm	3 Months	In the event of not achieving the necessary progress as assessed from the running payment, 1% of the component of tendered value of civil work will be withheld for failure of each milestone
2	1/8 of the whole work	7.5 Months	
3	3/8 of the whole work	12 Months	
4	3/4 of the whole work	16.5Months	
5	Full scope of work	30Months	

Table of Mile stones for Internal EI works for Package - II:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld in case of Non-achievement of mile stone
1	Supply of Electrical conduits, switch boxes, MCBDBs, etc.	6 Months	In the event of not achieving the necessary progress as assessed from the running payment, 0.2% of the tendered value of Electrical component in the work will be withheld for failure of each milestone
2	Supply and drawing of PVC insulated wires	14 Months	
3	Supply and fixing of all switches, sockets, MCBs, Panel board, all type of florescent fittings, fans, exhaust fans, Terrace light poles, Terrace light fittings, cables and earthling, etc.	18 Months	
4	Testing, commissioning and handing over of installations	30Months	

Table of Mile stones for Addressable fire alarm system:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld incase of Non-achievement of milestone
1	Supply of detectors, panel board, hooter, amplifier, speakers, wires, etc.	14 Months	In the event of not achieving the necessary progress as assessed from the running payment, 0.2% of the tendered value of Electrical component in the work will be withheld for failure of each milestone.
2	Erection of all materials	18 Months	
3	Testing, commissioning and handing over of installations	28 Months	

Table of Mile stones for Fire fighting wet riser:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld incase of Non-achievement of milestone
1	Supply of MS pipes, pumps, hose reel, valves, etc.	10 Months	In the event of not achieving the necessary progress as assessed from the running payment, 0.2% of the tendered value of Electrical component in the work will be withheld for failure of each milestone.
2	Erection of all equipment	16 Months	
3	Testing, commissioning and handing over of installations	28 Months	

Table of Mile stones for lifts:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld incase of Non-achievement of milestone
1	Supply of complete lift equipment	14 Months	In the event of not achieving the necessary progress as assessed from the running payment, 0.2% of the tendered value of Electrical component in the work will be withheld for failure of each milestone
2	Erection of all equipment and materials	19 Months	
3	Testing commissioning of the system and clearance from CEA / local inspector, etc.,	28 Months	

Table of Mile stones for HVAC and UPS:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld in case of Non-achievement of mile stone
1	Supply of complete HVAC and UPS equipments	15 Months	In the event of not achieving the necessary progress as assessed from the running payment, 0.2% of the tendered value of Electrical component in the work will be withheld for failure of each milestone.
2	Installation of all equipment	19 Months	
3	Testing, commissioning and handing over of installations	28 Months	

Table of Mile stones for DG set:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld in case of Non-achievement of mile stone
1	Supply of DG set with AMF panel	16 Months	In the event of not achieving the necessary progress as assessed from the running payment, 0.2% of the tendered value of Electrical component in the work will be withheld for failure of each milestone
2	Installation of all equipment	20 Months	
3	Testing, commissioning and handing over of installations	28 Months	

Table of Mile stones for Substation equipments:

Sl. No.	Description of Mile stone	Time allowed (From date of start)	Amount to be withheld in case of Non-achievement of mile stone
1	Supply of transformer and allied equipment	16 Months	In the event of not achieving the necessary progress as assessed from the running payment, 0.2% of the tendered value of Electrical component in the work will be withheld for failure of each milestone
2	Installation of all equipment	20 Months	
3	Testing, commissioning and handing over of installations	28 Months	

Withheld amount shall be released if and when subsequent milestone is achieved within respective time specified. The main contractor will ensure that electrical components of the work are executed in time without giving any chance for slippage of milestone on account of delay in execution of associated electrical works by him. However, in case milestones are not achieved by the contractor for the work, the amount shown against milestone shall be withheld by the Authority Engineer of the respective components.

Note: Intending bidder may submit phasing of activities / milestones on the basis of their resources and methodology at the time of tendering corresponding to physical milestones / stages indicated in the above table. These shall be formed part of the agreement after approval of the accepting authority

Time allowed for execution of work	30 Months for total project including approval from Statutory Authority. But with separate time schedules for different buildings as given above and milestones for Electrical
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5. Scheduled Completion Date

The Scheduled Completion Date shall occur on the 913th(Nine Hundred and Thirteenth)days from the Appointed Date.

On or before the Scheduled Completion Date, the Contractor shall have completed construction in accordance with this Agreement.

6. Extension of time

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

REPORT ON GEO-TECHNICAL INVESTIGATION OF SIKKIM UNIVERSITY LAND AT YANGANG, SOUTH SIKKIM

Introduction

Sikkim University, presently, located at 6th mile Tadong, Gangtok, Sikkim, vide requisition letter no. SU/2007/REG-03/YLM&ORM/653/6217 dated 02/02/2015 requested the Department of Mines, Minerals & Geology, Government of Sikkim to carry out geo-technical investigation of its land located at Yangang, South Sikkim. Sikkim University envisages the establishment of its campus at Yangang and the geo-technical investigation (geological mapping/survey, rock /soil test etc.) is a pre-requisite tool for the Architect/Engineers to start the construction of any such structures. Accordingly, Mines, Minerals & Geology Department carried out detail geo-technical investigation of the specified plots within Sikkim University land as earmarked by consultants engaged by Sikkim University authority, for the purpose.

Yangang, located in the lap of mighty Bhaley Dhunga Hill, one of the highest hills in Sikkim (3180 meters amsl.) is 60 kms from the state capital of Gangtok. It is accessible via Singtam-Pabong-Mangley section by all weather metalled road and presently, double laning of Yangang-Pabong road is under progress and once completed, the travel time may be reduced drastically.

Geographically, Yangang is located at N 27° 17.896' latitude E 88° 24.476' longitude and at an elevation of 1594m above mean sea level. The lowest elevation of Sikkim University land is 1547m amsl(approximately) and highest elevation is 1800 meters amsl(approx.), over moderate to gentle easterly facing slope.

Regional Geology & Geo-tectonic set up and Seismicity.

Sikkim–Darjeeling forms a part of tectonic mountain belt characterised by reversed stratigraphic sequence. Older rocks are exposed at higher elevation where as younger rocks are at lower elevation. The Techno-stratigraphical sequence of Sikkim-Darjeeling Himalayas from South to North are:-

- i. Foot hill belt
- ii. Inner Belt
- iii. Axial Belt and
- iv. Trans-Axial Belt.

Foot-Hill belt falls within Darjeeling district of West Bengal represented by sandstones and conglomerates equivalent to Siwalik group of rocks of the Tertiary age.

Inner belt comprises of the low grade metamorphic rocks belonging to Daling formation and Buxa series of rocks with the rock types such as phyllite, schists and quartzites, limestones, dolomites and calcareous phyllitic rocks. Gondwana group of rocks are exposed at tectonic window in Rangit valley known as Rangit-window. The exposure of Gondwana sequence of rocks is due to tectonic activity and deep erosion of overlying Buxa series and Daling group of rocks.

Axial belt can be defined by high grade metamorphic sequence with high grade gneisses, schists, calc-silicate rocks with marble bands and veins of Pegmatite. In between low grade metamorphic and high grade metamorphic rocks, lingtse granitic gneiss are exposed.

Trans-Axial Belt comprises of the rock of Tethyan sequence, has rock types of Mt. Everest pelites and limestones.

The Himalayan belt is represented by three prominent E-W trending thrusts which separates the different tectonic unit. A number of faults exist in the region. (Geological map of Sikkim published by Geological Survey of India is annexed).

Geology of the studied area:

The majority of the rocks in Sikkim University land at Yangang comprises of medium grade metamorphic rocks consisting of Quartzite Phyllite and its variants overlain by a thick blanket of slope wash materials, mainly the product of orogeny of quaternary deposits. The bed rocks are expected much below the achievable foundation level. No adverse geological features of recent origin is encountered in the proposed area. Further, the area is free from surface/sub surface water activity which poses threat to the stability condition of the area in future.

The dip of foliation of the rocks exposed above the proposed area shows N 30° E to N 40° E with dip amount varying from 20° to 35°. The rock have three sets of joints/fractures (i) N 40° E – S 40° W, 90° SE (ii) E –W, 90° due South (Strike) and (iii) along foliation plane as stated already above with no joint/fracture spacing. The weathering pattern of the rock is surfacial only. Towards northern flank approx 1km north of University Campus boundary, rocks are exposed. They show surfacial weathering and attitude of foliation plane and joint plane are similar to that of Western flank and Survey conducted at three locations (section enclosed) shows that the organic soil covering >1mts thickness followed by assemblage of rocks of variable dimension in the sandy soil matrix. The rock assemblage consists of big boulders to small rock fragments. Further, below rock assemblage with lesser percentage of sand (sand size and smaller sizes are less than 20%) Detailed classification is provided in the annexure. During extraction of soil sample by Standard Penetration Test (SPT) insitu rock exposures was encountered at variable depths in the area. The entire Sikkim University land is located over thick/thin layers of soil/debris cover including big /small boulders (transported) which is a product of quaternary deposits (during mountain building process) which is described area wise in the report.

Soil Thickness & other information

From the studied various parameters of geotechnical investigation over proposed construction sites at Sikkim University land at Yangang, it was established beyond any doubt that the entire land is free from any sub-surface water circulation/activities and it is also free from any adverse geological features of recent origin. Geo-physical investigation, Standard Penetration Test and physical digging of pits over the proposed construction sites reveals that the bed rock is beyond the depth of 3 metres.

1. Hostel complex

In the area, organic soil deposits with moisture is upto one meter depth, between one meter to three meters depth, mature soil with moisture content and rock fragments exist. Thereafter, boulder zone begins with intact boulders of variable dimension filled with filler material (sand) with water both from direct shear test SPT. The safe bearing capacity of individual boreholes shows almost same value, which covers upto six meters and after six meters, the fresh insitu rock (quartzite phyllite) dominates the area.

2. Residential Complex

Organic soil deposit is upto 1.5 meters depth (average) followed by mature soil deposit upto 3.5 meters followed by weathered rock zones with variable percentage of sandy matrix with moisture upto 5 meters. Beyond 5 meters unweathered massive quartzite phyllite boulders and its variants underlies the entire region.

However, the area earmarked for construction of Vice Chancellor Quarter has thin soil cover, i.e. less than one meter underlain by thick blankets of variable dimension boulders. However SBC based on SPT & direct shear tests are similar.

3. Administrative Complex/Main Complex

Over the area, organic soil is upto 1 meter depth (average), followed by mature soil (admixed with rock fragments) upto 5 meters(average) underlain by boulders of variable dimension in sandy matrix and shows moderate to high moisture content. In almost all areas the value of SPT & direct shear test gives similar safe bearing capacity of strata.

Overall, water circulation/saturation during wet season is restricted within/over weathered rock zone only.

Geomorphology of the area.

The studied area (Sikkim University Campus area) is characterized by gentle slope, facing towards east. There is no major drainage system in the area and forms a part of a uniform slope. Western flank (i.e above proposed quarter), the area is characterized by steep rocky slope. The area above residential quarter area is also gentle slope followed by moderate down slope covered with thick vegetation cover. Northern flank is characterized by uniform moderate slope followed by steep dissected slope. Eastern flank is characterized by uniform, moderate slope.

Seismicity:

The state of Sikkim comes under seismic zone IV and V i.e a zone of considerable vulnerability and susceptible to earthquakes from the past record. Earthquakes of shallow focus (<40kms) ranging between 3 to 5.5 magnitude occur frequently. These earthquakes could be the result of small structural adjustment at shallow depth. Sikkim is also rocked by three major earthquakes viz:-

1. Sikkim – Nepal earthquake of 1934(8.4 magnitude).
2. 19th November 1980 earthquake with focal depth 47km magnitude 6(USGS).
3. 18th September 2011 earthquake with focal depth 19.7km and magnitude 6.8(IMD & USGS).

5. SAMPLING

The undisturbed soil samples were collected by pushing thin walled tubes. Immediately after taking the samples, they were marked and sealed in a manner as described in the Indian standard.

In addition, disturbed samples were also taken at suitable intervals of depths and at all levels of changes of strata in order to examine physically the nature of all the representative strata. They were sealed in polythene bags and logged depth wise. All the disturbed and undisturbed samples were dispatched to laboratory for subsequent laboratory testing.

6. WATER CONTENT

The water content of samples has been evaluated after drying each samples in an oven at 100°C – 110°C for 24 hours as per procedure laid down in the Indian Standard 2720 (Part II). Permeability test both in-situ and on departmental laboratory is conducted and provided in relevant.

7. GRAIN SIZE DISTRIBUTION/I.S CLASSIFICATION OF SOIL

To obtain the information concerning the soil found at various depths and to classify each strata of soil, it was necessary to conduct grain size distribution analysis. This has been done by passing dried samples over a different sieves size as per Indian Standard IS 2720-1 (1983). The grain size distribution was evaluated and the percentage of gravels, coarse sand, medium sand, fine sand, silt and clay, fractions represented in graph at Annexure -B. The overall grain size distribution in the soil gave highest percentage of Gravels followed by sands, silt and lest percentage of clay. Bore hole log prepared and provided in respective Section/Annexure-B.

8. BULK DENSITY

Bulk density was determined by measuring the weight and dimension of the undisturbed/ disturbed samples.

9. DIRECT SHEAR TEST

A **direct shear test** is a laboratory or field test used by geotechnical engineers to measure the shear strength properties of soil. Direct shear test of soil samples were conducted in laboratory as per IS 2720 and soil parameters were obtained and placed in Annexure-D

10. STANDARD PENETRATION TEST (SPT)

The standard penetration test (SPT) is an in-situ dynamic penetration test designed to provide information on the geo-technical engineering properties of soil. The Standard Penetration test was conducted at various depths in the bore holes. These tests were conducted by driving into the soil a standard split Spoon Sampler. This Sampler was driven with the help of hammer of weight 65 kg., which was vertically guided to fall through a free height of 75 cm: on the driving head. This driving head was attached to “A” drill rods to the other end of which the sampler was fitted. The number of blows required to penetrating the first, second and third 15 cm lengths of the sampler were recorded. The SPT value (i.e. ‘N’ value) is the numerical value of the number of blows required for the second and third stages of penetration of sampler i.e. for a depth of 30 cm. the procedure followed for conducting this test has been as per Indian Standard **IS 2132**.

ESTIMATION OF SAFE BEARING CAPACITY:

Bearing capacity of the soil shall be calculated from the SPT – N value observed from field, according to Indian Standard **IS 6403 (1981)**.

I. Calculation of surcharge (overburden pressure)

Calculate effective surcharge at the base level of foundation by multiplying the effective unit weight of soil with the depth of the foundation i.e.

$$q = \gamma \cdot D_f$$

Where,

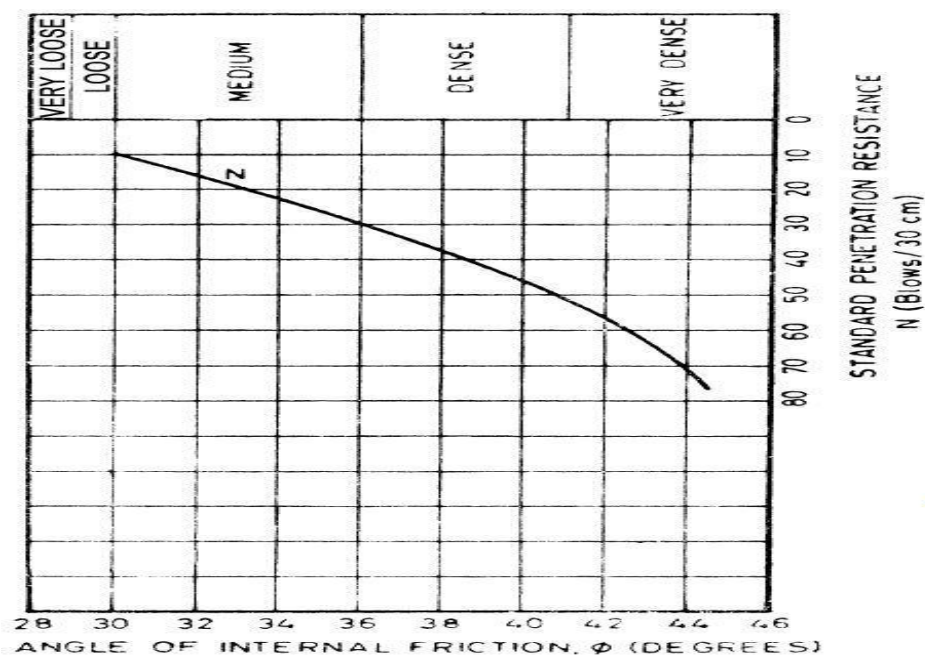
q = Effective surcharge at the base level of foundation, in kgf/cm^2

γ = Unit weight of soil, in kgf/cm^3

D_f = Depth of foundation, in cm.

II. Angle of Internal friction (ϕ)

From the given graph N value, ϕ can be calculated/ obtain from the following graph between ϕ and SPT N-value.



III. Bearing capacity factor shall be obtained from given data corresponding with ϕ degree.

BEARING CAPACITY FACTORS			
ϕ (Degrees)	N_c	N_q	N_γ
0	5.14	1.00	0.00
5	6.49	1.57	0.45
10	8.35	2.47	1.22
15	10.98	3.94	2.65
20	14.83	6.40	5.39
25	20.72	10.66	10.88
30	30.14	18.40	22.40
35	46.12	33.30	48.03
40	75.31	64.20	109.41
45	138.88	134.88	271.76
50	266.89	319.07	762.89

IV. Shape factors (i.e. s_c & s_r) using formula given below.

SHAPE FACTORS				
SL No.	SHAPE OF BASE	SHAPE FACTOR		
		s_c	s_q	s_γ
i)	Continuous strip	1.00	1.00	1.00
ii)	Rectangle	$1 + 0.2 B/L$	$1 + 0.2 B/L$	$1 - 0.4 B/L$
iii)	Square	1.3	1.2	0.8
iv)	Circle	1.3	1.2	0.6

Consider has square footing.

V. Calculate depth factors (i.e. d_q & d_r) using following formula.

$$d_q = d_r = 1 \text{ (for } \phi < 10^\circ)$$

$$d_q = d_r = 1 + 0.1(D_f/B)(N_\phi)^{1/2} \text{ (for } \phi > 10^\circ)$$

N_ϕ is calculated using following formula

$$N_\phi = \tan^2[(\pi/4) + (\phi/2)]$$

Where,

B = Width of foundation, in cm

L = Length of foundation, in cm

VI. Inclination factors (i.e. i_q & i_r) using the formula given below

$$i_q = \left(1 - \frac{\alpha}{90}\right)^2$$

$$i_r = \left(1 - \frac{\alpha}{\phi}\right)^2$$

Where,

α = Inclination of the load to the vertical in degrees

ϕ = Angles of shearing resistance in degrees.

Consider as 1 for all the calculation.

VII. Correction factor for location of water table using the following formula

$$W' = 0.5 + 0.5[D_w / (D_f + B)]$$

Where,

W' = Correction factor for location of water table

D_w = Depth of water table, in cm

D_f = Depth of foundation, in cm

Consider as 0.5 for all calculation to unknown water table.

VIII. Considering the above data and formula shall be calculated ultimate bearing capacity using given formula.

$$q_d = q(N_q - 1)s_q d_q i_q + \frac{1}{2} B \gamma N_\gamma s_\gamma d_\gamma i_\gamma W'$$

Where,

q_d = Net ultimate bearing capacity of foundation, kgf/cm²

q = Effective surcharge at base level of foundation, in kgf/cm²

N_q & N_γ = Bearing capacity factors

d_q & d_γ = Depth factors

i_q & i_γ = Inclination factors

W' = Correction factor for location of water table

B = Width of foundation, in cm

γ = Bulk unit weight of foundation soil, in kgf/cm³.

IX. Following above calculations shall be calculated Net ultimate Bearing Capacity (q_n)

It is the maximum extra pressure (in addition to initial overburden pressure) that a foundation soil can withstand without undergoing shear failure.

$$q_n = q_f - q_o$$

Here, q_o represents the overburden pressure at foundation level and is equal to γD for level ground without surcharge where γ is the unit weight of soil and D is the depth to foundation bottom from Ground Level.

X. Safe Bearing Capacity (q_s)

It is the safe extra load the foundation soil is subjected to in addition to initial overburden pressure.

$$q_s = q_n / F + q_o$$

Here, F represents the factor of safety.

Safe Bearing Capacity (q_s) are prepared and are placed in Annexure-C

Objective and scope of work and methodology adopted

1. Geological investigation of the area for identification of sub-surface constituent material (types of material present, thickness of overburden material occurrence of the rock, weathering pattern, porosity & permeability etc) by i).Pitting and trenching ii).Electrical resistivity survey and iii).Preparation of section based on field data and laboratory tests (Detail provided in different section).
2. Geo-technical investigation for determination of SBC at location provided by university authority both SPT values and Direct Shear test. (details provided in respective section).
3. Determination of permeability of soil. Insitu permeability test were carried out in the field.
4. Determination of water table and other sub surface water activities. No ground water is encountered in three sections where resistivity survey was carried out. Also no water table was encountered in SPT holes and pits in the area.

Conclusion and Recommendation

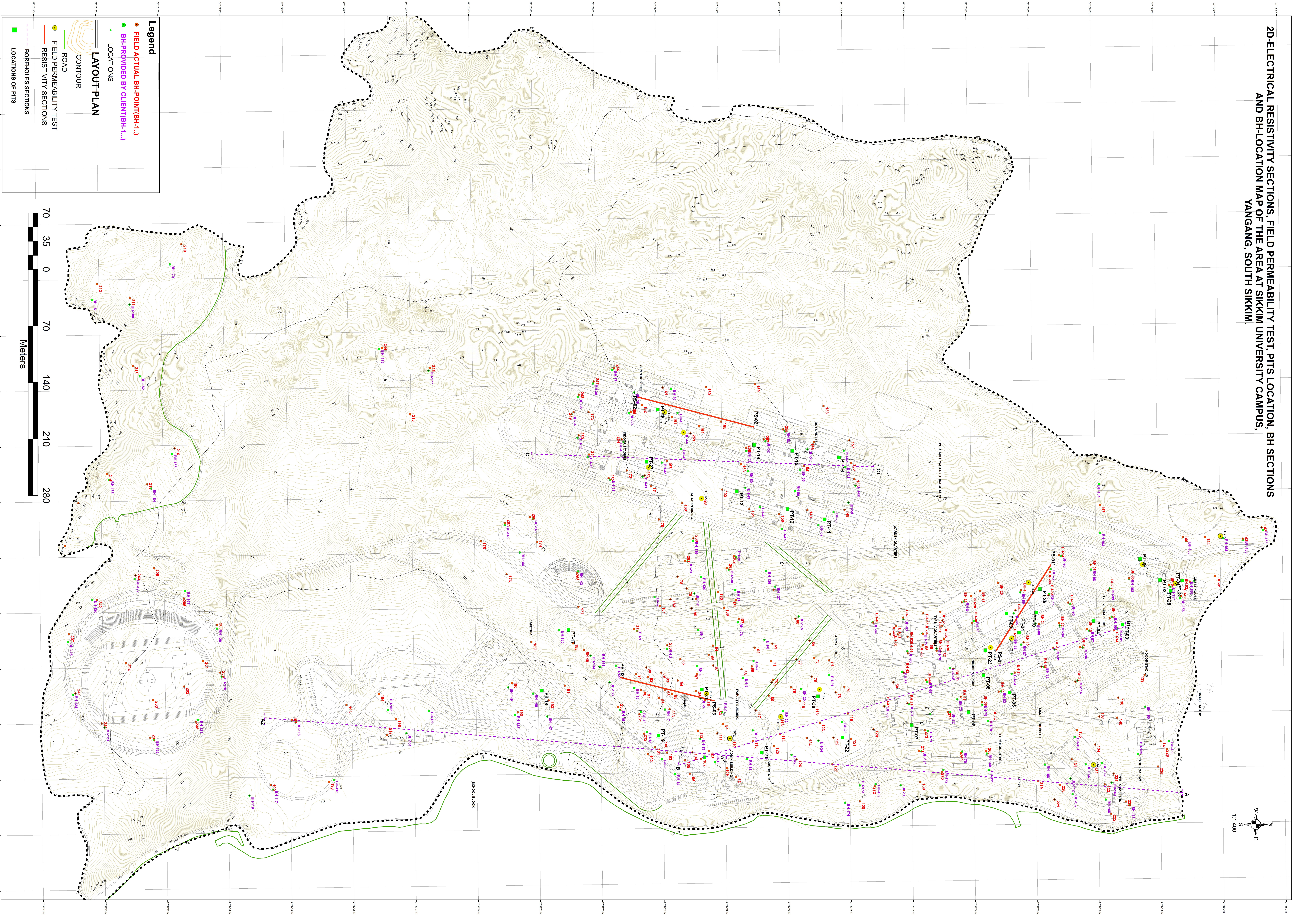
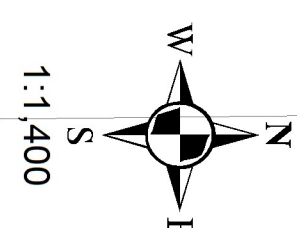
1. The area under consideration is covered with thick blanket of slope forming materials. In all locations, the top soil consists of organic soil (ranging from 1m to 1-5m) followed by matured soil with rock fragments /boulders(upto 3m to 4-5mts) underlain by boulder bed with filling materials.
2. On the basis of field testing and laboratory tests, maximum moisture content upto 32% were encountered. However, resistivity survey at three locations indicates higher resistivity indicating less moisture content. Also, SPT test shows that lower horizon are well compacted having SBC ranging between 20t/m² to 100 t/m².
3. The variation of moisture content by resistivity test and moisture content of soil extracted during SPT test varied as resistivity test were carried out after the monsoon was over whereas SPT was conducted during rainy seasons.
4. Except top horizon, the slope forming materials have low compressibility. Almost all locations show similar results and uniform settlement within permissible limit is expected in the foundation resting on overburden in the area.
5. The safe bearing capacity on the basis of SPT and Direct Shear test are almost same and hence the SBC value are reliable. Though water table correction are made in all SBC calculation for which designer can have some room if total load exceeds SBC calculated. The bed rock are expected beyond 30m depth (beyond water percolation zone).
6. Regarding chemical properties of slope forming materials, no tests were conducted as it was not included in the investigation at the time of issuing of work order. However, the geological information of rocks in the vicinity, which are the parent material of slope forming material, shows that mineralized zone does not exist. This indicates that no harmful element/compound exists in the slope forming material. It is also inferred from the fact that rocks/boulders within water percolation zone are fresh and free from weathering. It indicates that no harmful

element/compound is present which may have effect on concrete, steel and other substructures.

7. Regarding stability of sub-surface material for use in construction activities: the detached boulders exposed on the surface shows that they are mainly, 1 phyllites 2 quartzite phyllites 3 phyllitic quartzite and quartzite. The percentage on visual estimate shows that 30% of boulders are quartzite and phyllite quartzite and 70% of boulders are phyllite, quartzite, phyllite and filling material (sand soil). Similar percentages of boulders are expected in the sub surface. Quartzites are good construction materials which are suitable for all kinds of construction activity. Phyllite quartzite are suitable for construction of retaining walls etc, whereas, phyllite and quartzite phyllite are not advisable to be used.
8. Safe side slope cutting and embankment, except top organic soil horizon, the slope forming material have high frictional resistance. Depending upon the percentage of rock aggregates, sand, finer material and moisture content, the new exposed surface behaves. For practical purpose, the cut slope will remain undisturbed for longer period of time in dry season whereas during rainy season, the cut slope needs immediate protection retaining walls. However, the disturbance to upslope will be limited 45° slope from the base of the exposed area i.e if height is 10ft, the chances of damage will be 10ft in the upslope.

[illegible]

2D-ELECTRICAL RESISTIVITY SECTIONS, FIELD PERMEABILITY TEST, PITS LOCATION, BH SECTIONS
AND BH-LOCATION MAP OF THE AREA AT SIKKIM UNIVERSITY CAMPUS,
YANGANG, SOUTH SIKKIM.



Bid Security Declaration Form

Date: _____

Tender No. _____

To
The Registrar
Sikkim University

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

- a. have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- b. having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or(ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing he Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Seal (where appropriate)

Instructions for Online Bid Submission:

The bidders are required to submit soft copies of their bids electronically on the e-tender Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the e-tender Portal, prepare their bids in accordance with the requirements and submitting their bids online on the e-tender Portal.

More information useful for submitting online bids on the e-tender Portal may be obtained at <https://mhrd.euniwizarde.com/>

REGISTRATION

1. Bidders are required to enroll on the e-Procurement Portal (URL: <https://mhrd.euniwizarde.com/>) with clicking on the link “Online bidder Registration” on the e-tender Portal by paying the Registration fee as applicable.
2. As part of the enrolment process, the bidders will be required to choose a unique user name and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidder.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
6. Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC / e-Token.
7. The scanned copies of all original documents should be uploaded on portal.

SEARCHING FOR TENDER DOCUMENTS

There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Item/work id, Title, Date, etc.

Once the bidders had selected the tenders in which they are interested, bidder can pay the website processing fee (not refundable) as applicable by net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fees, tenders will be moved to the respective “Register” Tab. This would enable the e-tender Portal to intimate the bidders through e-mail in case there is any corrigendum issued to the tender document.

Please feel free to contact ITI Helpdesk (as given below) for any query related to e-tendering.

1. Helpdesk landline No: 011-49606060
 2. Mr. Amrendra Kumar (8448288980)
- Sikkim University e-tendering cell:
1. Mr. Nishad Subba (9474835928)