

Notice Inviting Tender
for
Construction of Hostel for Netaji Subhash
Chandra Bose Military Academy Complex in
Silvassa

NIT No: VBGP/NMA-NIT/2024-25/01

Issued By

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SECTION-1**NOTICE INVITING E-TENDER**

Online E-Tenders under Single-stage two-bid system are invited from experienced and eligible Contractors for “Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa”.

Name of Work	Estimated Cost of Construction	Cost of Tender Document	Earnest Money D
“Construction of Hoste for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa”	Rs 6,22,35,157/- (Rupees Six Crores Twenty Two Lakhs Thirty five Thousand one Hundred and fifty seven Only) inclusive of all charges, costs, taxes, levies etc. including GST, EPF & ESIC.	Rs 11,800/- (Rs. Eleven Thousand Eight Hundred Only) (i.e. Rs 10,000+18% GST); Non-Refundable.	Rs. 5,00,000/- (Rupees Five Lakhs Only)

Submission of Online Bids is mandatory for this NIT. Prospective bidders need to submit their bids with the most competitive Techno-commercial offer for the aforesaid work. NIT document is available on VBGP website (<https://vbgnma.in>. and www.vidyabhartiguj.org GePNIC portal). The important dates are as given below:

1.1 NOTICE INVITING TENDER DETAILS

1.1.1	Name of the Work	:	Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa
1.1.2	Location	:	Netaji Subhash Chandra Bose Military Academy, Mota Randha, Silvassa, Union Territory of Dadra Nagar Haveli – 396230
1.1.3	Estimated cost of construction works	:	Rs 6,22,35,157/- (Rupees Six Crores Twenty Two Lakhs Thirty five Thousand one Hundred and fifty seven Only) inclusive of all charges, costs, taxes, levies etc. including GST, EPF & ESIC.
1.1.4	Cost of Tender Document	:	Rs 11,800/- (Rs. Eleven Thousand Eight Hundred Only) (i.e. Rs 10,000/- + 18% GST); Non Refundable <i>Refer clause 1.7 below</i>
1.1.5	Earnest Money Deposit (EMD)	:	Rs. 5,00,000/- (Rupees Five Lakhs Only) <i>Refer clause 1.6 below</i>
1.1.6	Stipulated period for Completion of construction works	:	12 months
1.1.7	Validity of Bid	:	120 days from the date of opening of Technical Bid of tender.
1.1.8	Start Date & Time of Publishing Tender	:	15.12.2024 at 1800 hrs

1.1.9	Start Date & Time of Procurement of Tender Document	:	15.12.2024 at 1700 hrs.
1.1.10	Last Date & Time of raising/ Seeking information in writing, if any	:	26.12.2024 up to 1800 hrs. (No query after this date & Time shall be entertained) The mail seeking information/queries can be sent in writing to the following email id's
1.1.11	Date of Pre-bid Meeting	:	27.12.2024 at 1500 hrs. at 505, 5th Floor, TCIL Bhawan, Greater Kailash-1, New Delhi-110048
1.1.12	Last Date, Time of Procurement of Tender Document	:	28.12.2024 up to 1200 hrs.
1.1.13	Last Date & Time for submission of bid	:	28.12.2024 up to 1500 hrs.
1.1.14	Online Opening of Technical bid.	:	29.12.2024 at 1500 hrs.
1.1.15	Online Opening of Financial bid.	:	To be notified later
1.1.16	Defect Liability Period	:	12 Months after successful handing over of works

Contact Information:

VBGP Contact-1 : **Rohit Mishra**
Associate Director (CSR & Construction)
Telephone: +91-8000032210
e-mail: mpvbguj@gmail.com

Tenders received without the requisite Tender Fee and EMD/ inadequate EMD shall be summarily rejected.

Bids shall be submitted on GePNIC Portal (www.vidyabhartiguji.org). Bidders are advised to visit GePNIC portal (www.vidyabhartiguji.org) and/or VBGP website regularly for updates/amendments, if any. Bidders can contact NIC for Telephonic Help Support on Toll Free Help Desk Number- 1800 3070 2232 for requisite queries regarding registration, training, demonstration, minimum system requirements etc. of Government e-Procurement System of NIC (GePNIC).

Bidders are advised to visit the VBGP website and CPP Portal regularly for updates/ amendments, if any.

1.1.17 SITE VISIT

- (i) The bidder is expected to visit and examine the site of works and its surroundings, go through the plans/ drawings/ details connected to the work, if/as available and obtain all information that may be necessary for preparing the bid and entering into a contract for execution of the works. The costs of visiting the site shall be at the bidder's own expense, risk and cost.
- (ii) It shall be deemed that the bidder has visited the site/area and got fully acquainted with the working conditions and other prevalent conditions and fluctuations thereto whether he actually visits the site/area or not and has taken all the factors into account while quoting his rates.
- (iii) It shall be deemed that the bidder has got himself acquainted with the geological details as well available for the proposed work site

1.2 ELIGIBILITY CRITERIA

NOTE:- "Since this is a WORKS Contract, benefits to MSME shall not be applicable."

- a) The bidder should be an Indian Registered Company under Companies Act 1956 or 2013/ Proprietorship / Partnership Firm / **Government Societies**. Copy of Certificate of Incorporation/ Registration/ Partnership Deed or any other relevant document, as applicable, should be submitted along with a copy of address proof.
- b) The bidder shall fulfill the following **financial criteria:-**
 - i. Average Annual Financial Turnover during the last 3 financial years, ending 31st March of the previous financial year should be at least Rs 3.45 Crores (excluding GST) i.e. FY 2020-21, 2021-22 & 2022-23.
 - ii. Net worth should be positive as on 31st March of last Financial Year i.e. 2022-23.
 - iii. The bidder should have Profit Before Tax (PBT) in two out of the last three financial years i.e. FY 2020-21, 2021-22 & 2022-23.
- c) Experience of having **successfully completed similar works during the last 7 years** from the date of bid submission should be either of the following:

Three similar works each costing not less than Rs. 4.60 crores.

Or

Two similar works each costing not less than Rs. 5.74 Crores.

Or

One similar work costing not less than Rs. 6.22 Crores.

- Similar work shall mean successfully completed **“Construction of RCC framed Residential/ Non-Residential building works of any number of storey including Electrical, Sanitary & Plumbing works”** in the last 7 years for the Government/ Semi Government / Govt. Autonomous Bodies / Private Sector.
- Bidder to submit copies of Completion certificates along with LOA/ Agreement from client clearly mentioning the nature of work, value of work, date of start, time period & actual date of completion. The certificates shall be considered only if it is issued / counter signed by an officer not below the rank of EXECUTIVE ENGINEER OR equivalent.
- In case the work experience is of Private Sector, the completion certificate shall be supported with copies of the Letter of Award/ Contract Agreement and corresponding TDS certificates. Value of work will be considered commensurate with the value of TDS Certificate. The TDS certificate to be duly certified by the Statutory Auditor. If the requisite TDS certificate is not provided by the bidder, the related work experience will not be considered for any further evaluation.
- Certificates in the name of other companies:
 - Certificates of Subsidiary/Parent/Group Company/Own works: Any company/firm while submitting tender can use the work experience of its subsidiary company to the extent of its ownership in the subsidiary company. On the other hand, the companies firms which intend to get qualified on the basis of experience of the parental company/group company/own works, shall not be considered. Further the financial parameter of the subsidiary or Parental Company cannot be used by the other one for qualification.
 - Merger/acquisition of Companies: In case of a Company/firm, formed after merger and/or acquisition of other companies/firms, past work experience and Financial parameters like turnover, profitability, net worth etc. of the merged/acquired companies/firms will be considered for qualification of such Company/firm provided such company/firm continues to own the requisite assets and resources of the merged/acquired companies/firms.
- Foreign Certificate
 - In case the work experience is for the work executed outside India, the bidders have to submit the completion/ experience certificate issued by the owner duly signed & stamped, and affidavit to the correctness of the completion/ experience certificates. The Contractor shall also get the completion/ experience certificates attested by the Indian Embassy/ Consulate/ High Commission in the respective country.
 - In the event of submission of completion /experience certificate/ other documents by the Bidder in a language other than English, the English translation of the same shall be duly authenticated by Chamber of Commerce of the respective country and attested by the Indian Embassy/ consulate/ High Commission in the respective country.
- Note:
 - Provided further that bidders from member countries to the HAGUE convention, 1961 are permitted to submit requisite documents with “Apostille stamp” affixed by Competent Authorities designated by the government of respective country which would be acceptable in lieu of attestation from the Indian Embassy/ Consulate/ High Commission in their respective countries.

- For the purpose of evaluation of Bidders, the conversion rate of such a currency into INR shall be the daily representative exchange rate published by the IMF as on 7 (Seven) days prior to the Last Date of Submission of tender including extension(s) given if any.

- d) The bidder should have a valid PAN and GST Registration. Copy of PAN card and GST Registration certificate should be submitted in the bid. In case GST registration is not available, the bidder shall give undertaking that it will get registered before start of work if work is awarded to them.

GST registration certificate of the state in which the work is to be taken up, if already obtained by the bidder.

If the bidder has not obtained GST registration in the state in which the work is to be taken up, or as required by GST authorities then in such a case the bidder shall scan and upload following undertaking along with other documents.

“If work is awarded to me, I/ We shall obtain GST registration certificate of the state in which work is to be taken up within one month from the date of receipt of award letter or before release of any payment by the Employer, whichever is earlier, failing which, I/We shall be responsible for any delay in payments which will be due towards me/ us on a/c of the work executed and/ or for any action taken by the Employer or GST Department in this regard”.

- e) Manufacturers Authorization Certificate (MAF) – **NOT APPLICABLE**

- f) The bidder should not be insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended and not be the subject of legal proceedings for any of the foregoing. An undertaking by the bidder should be submitted on the Company’s letter head.

- g) The Bidder should not be blacklisted/debarred/banned/restricted by any Union Govt./State Govt. /PSU as on date of submission of the Bid. “No-Conviction Certificate” duly signed by authorized signatory signing the bid, should be submitted in the prescribed format.

- h) The bidder shall submit an undertaking on their letterhead stating that:

“In reference to the Government of India, Ministry of Finance, Department of Expenditure, Office Memorandum No. F.No. 6/18/2019-PPD, Dated 23-07-2020. I hereby submit that:

“We have read the Clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; We certify that we are not from such a country *or their beneficial owner is not from such a country or we will not sub-contract any work to a contractor from such countries*, if from such a country, have been registered with the Competent Authority.

We hereby certify that we fulfill all requirements in this regard and are eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”.

- i) The bidder needs to submit un-priced BOQ along with their technical bid.
- j) The bidder needs to submit an Undertaking stating that: Vendors, whose Purchase Order(s) for any Project of VBGP was/were cancelled on risk & cost basis for non-performance or non-submission of performance guarantee in last 2 years, are not eligible to participate in this tender.

k) ESI, EPF & Labour License:

Bidder is required to submit the copy of applicable license/registration or proof for obtaining Labor license. Bidder is also required to submit copy of EPF, ESI registration certificate along with the bid.

The Bidder should comply with all applicable Indian Labour laws, Payment of Minimum Wages Act, Workman's Compensation Act, EPF/ESI provisions and any such statutory provisions. In case the bidder is found to be not complying to any of the relevant statutory requirement, action as deemed fit may be initiated by VBGP at its sole discretion.

It is a mandatory requirement that the bidder shall provide formally certified skilled workforce or commitment to the effect that they would ensure that all their workers would be skilled through Recognition of Prior Learning (RPL) within two months from the date of commencement of work under the project, at the cost of the bidder. This is in compliance to Ministry of Skill Development and Entrepreneurship (MSDE) D.O dated 12.09.2022.

- l) The bidder should have a local office where work is to be executed. Else, he should give an undertaking that he will open a local office after award of work.

m) LABOUR LAWS (wherever applicable):

- The Bidder should comply with all applicable Indian Labour laws, Payment of Minimum Wages Act, Workman's Compensation Act, EPF/ESI provisions and any such statutory provisions. In case the bidder is found to be not complying to any of the relevant statutory requirement, action as deemed fit may be initiated by TCIL at its sole discretion.
- It is a mandatory requirement that the bidder shall provide formally certified skilled workforce or commitment to the effect that they would ensure that all their workers would be skilled through Recognition of Prior Learning (RPL) within two months from the date of commencement of work under the project, at the cost of the bidder. This is in compliance to Ministry of Skill Development and Entrepreneurship (MSDE) D.O dated 12.09.2022.
- The contractor shall obtain a valid license under the Contract Labour (R&A) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work.
- The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.
- The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.
- The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building another Construction Workers Welfare Cess Act, 1996.
- Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

n) Bid by Consortium/JV: NOT ALLOWED

- 1.3** The bidder should give an undertaking on the company's letter head that all the documents/certificates/information submitted by them against this NIT are genuine.

In case any of the documents/certificates/information submitted by the bidder is found to be false or forged, VBGP shall immediately reject the bid of such bidder(s) or cancel/terminate the contract and forfeit bid security / Performance Security submitted by the bidder and debar them from participation in future EOIs/tenders of VBGP for a period upto 2 years.

- 1.4** A statement showing Clause-by-Clause compliance to all Terms & Conditions of all the Sections of this NIT as well as client's MoA (which forms part of this NIT), duly Signed and stamped on the Letter Head of their Organization. The bidder shall submit No-Deviation Certificate along with above.

Bidder shall submit technical data sheet by highlighting each complied specification. Wherever technical specifications and operational/functional requirements are not mentioned in the datasheet, OEM compliance shall be submitted.

1.5 DELETED

1.6 BID SECURITY (EARNEST MONEY DEPOSIT)

EMD amount shall be Rs 5,00,000/- (Rupees Five Lakhs only).

EMD amount can be submitted in the form of Demand Draft (DD) drawn in favour of "Vidya bharti Gujarat Pradesh" payable at Ahmedabad along with the bid, or in the form of a Bank Guarantee (BG)/e-BG in the prescribed format (Section-17) from a SFMS-enabled Scheduled Commercial Bank through SFMS Platform or as an Insurance Surety Bond as per format given in Section 18 or Fixed Deposit Receipt (FDR) or Bankers Cheque. **The validity period of BG (EMD) should be 120 days.**

Details of beneficiary for issue of BG under SFMS Platform is as below:

Name of Beneficiary and its Details	Name	Vidhya Bharti Gujarat Pradesh
	Address	6, Dr Hedgewar Marg, Shahalam, Pushpkunj, Maninagar, Ahmedabad, Gujarat 380008
Name of Beneficiary Bank and its Details	Name	Rajkot Nagarik Sahakari Bank Ltd.
	Account No	048003100003906
	Address	Mithakali Six Road , Navrangpura, Ahmedabad
	IFS Code	RNSB0000001

EMD can also be paid through the following prescribed electronic modes of payment (**UTR No. is to be provided by bidder in the technical online bid**):

- a. Bank details for NEFT: same as given above.

Note: Bids received without Bid Security (EMD) may be summarily rejected.

1.7 **TENDER FEES**

Tender Fees shall be *Rs 11,800/- (Rupees Eleven Thousand Eight Hundred Only)*. Tender Fee can be paid through the following prescribed electronic mode of payment (*UTR No. is to be provided by bidder in the technical online bid*):

- a. Bank details for NEFT: same as given above.

Notes for EMD and Tender Fees Exemption:

“Since this is a WORKS Contract, benefits to MSME shall not be applicable.”

- a) The bids submitted without bid security/tender fees or inadequate bid security/tender fees will be rejected. No interest shall be payable on bid security amount.
- b) If bid security/tender fees is submitted as BG/DD, it should reach o/o Tender Accepting Authority, VBGP Rohit Mishra within the last date & time stipulated for bid submission in the tender.
- c) The EMD/Bid Security of unsuccessful bidder shall be returned as promptly as possible but not later than 30 days after expiry of the bid validity period.
- d) The EMD/Bid Security may be forfeited if:
 - (i) If the Bidder withdraws his bid during the period of bid validity specified by the Bidder on the Bid form or
 - (ii) fails or refuses to execute the Contract, if required; or
 - (iii) The successful bidder fails to submit performance security within the prescribed time.
or
 - (iv) The proceeds of EMD shall be payable to VBGP in case of breach of any of the terms and conditions of the contract/PO/tender by the vendor.

1.8 **EVALUATION**

- a) VBGP shall evaluate bids in respect to substantive responsiveness of the bid or otherwise. VBGP shall carry out detailed evaluation of the substantially responsive bids only.
- b) A bid determined as substantially non-responsive technically/financially shall be rejected, even after opening the price bid.
- c) VBGP may waive any minor infirmity or non-conformity or irregularity in the bid which does not constitute a material deviation.

- d) Among all technically qualified bids, the lowest bid will be termed as L1 (excluding taxes) derived from Price Bid Schedule. The Purchase Preference needs to be given as per Purchase Preference defined in this EOI.
- e) If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.

The bidders will be evaluated in the following manner:

The initial criteria prescribed in the experience criteria mentioned above w.r.t. similar works completed, financial turnover, net worth, profitability etc. will first be scrutinized by the screening/evaluation committee and the bidder's eligibility for the work shall be determined.

The financial bid for those bidders will be opened who qualify the eligibility criteria prescribed above in respect of experience of similar works completed, financial turnover, net worth, profitability etc. Among all technically qualified bids, the lowest bid will be termed as L1 (excluding taxes) derived from Price Bid Schedule and the L1 bidder shall be awarded the work.

VBGP reserves the right to reject any or all application, split the work and cancel the process without assigning any whatsoever reason may be.

1.9 VALIDITY PERIOD OF BID

Bid shall remain valid for 120 days, after the date of bid opening. The bid valid for a shorter period shall be rejected as non-responsive.

In exceptional circumstances, VBGP may request the bidder for an extension to the period of bid validity if same is extended by end client and accordingly, the bid security shall also be suitably extended by the bidder.

1.10 IP PROGRAMME

As a part of implementation of Integrity Pact Programme (IPP) in VBGP, all tenders with the estimate value equal to or exceeding the threshold value will be covered under the Integrity Pact Programme (IPP) and the vendors are required to sign the IP document and submit the same to VBGP before or along with the bids. Latest IP document is available at VBGP website (www.tcil.net.in) Link- https://www.tcil.net.in/integrity_pact.php. Even in case of tenders with the estimated value less than the threshold value, the vendors would be required to sign the IP document if the total value of the Purchase Orders (POs) exceeds the threshold value in respect of:

- Multiple/repeat POs on the single vendors against a tender.
- POs placed on multiple vendors against a tender.

Only those vendors who have signed the IP document can send their grievances, if any, to the Independent External Monitors (IEMs) through the nodal officer, i.e., Chief Vigilance Officer (CVO). TCIL in the prescribed proforma.

1.11 INTEGRITY PACT

- a) This EOI is covered under the Integrity Pact Programme of VBGP and bidders are required to sign the Integrity Pact Document and submit same to VBGP before or along with the bids.
- b) The integrity Pact Agreement duly signed and stamped by Authorized Signatory & Witnesses has to be submitted in physical form at the time of bid submission. In case of consortium bid, the lead partner shall sign as authorized signatory and the consortium partner as witness.

- c) EOI received without a signed copy of the Integrity Pact document will be liable to be rejected.
- d) In case of Joint Venture, all partners of the joint venture should sign the Integrity Pact. In case of sub-contracting, the Principal Contractor shall take the responsibility of the adoption of IP by the sub-contractor. It is to be ensured that all sub-contractors also sign the IP.
- e) Mediation Clause

In the event of any dispute between management and the contractor relating to those contracts where integrity pact is applicable, in case, both the parties are agreeable, the dispute may be settled through mediation before the panel of IEMs in a time bound manner. If required, the organizations may adopt any mediation rules for this purpose.

In case the dispute remains unresolved even after mediation by panel of IEMs, the organization may take further action as per terms and conditions of the contract.

1.12 DELETED

1.13 AUTHORIZATION LETTER/ BOARD RESOLUTION

The bidders need to submit board resolution along with authorization Letter in Online mode authorizing the signatory to act on behalf of the bidder. The Authorized person should be either authorized by Board or a employee authorized by one of the following person who has the Board Resolution to delegate authorization to other:

1. Managing director
2. The Chief Executive Officer

3. The Manager
4. The Company Secretary
5. The Whole-time director
6. The Chief Financial Officer

The bidder should ensure that the Digital Signature used for uploading the tender document in e-tender portal should be of the authorized signatory.

1.14 MOU / AGREEMENT

The selected bidder will have to sign a MoU/Agreement with VBGP within a month of issuance of Letter of Award, as per attached format. The following documents shall form the part of the MoU/agreement:

1. This NIT document along with its corrigenda.
2. Any other correspondence w.r.t this NIT.
3. MoU with the Client regarding captioned work.
4. LoI & LoA issued to the successful bidder.

1.15 SUBMISSION OF FORGED DOCUMENTS

Bidders should note that VBGP may verify authenticity of all the documents/certificate/information submitted by them against the EOI. In case at any stage of this process, if it is established that bidder has submitted forged documents/certificates/information towards fulfillment of any of the EOI/contract conditions, VBGP shall immediately reject the bid of such bidder(s) or cancel/terminate the contract and forfeit bid security / Performance Security submitted by the bidder and debar them from participation in future tenders of VBGP for a period upto 2 years.

1.16 CLARIFICATION FROM BIDDERS

The queries may be asked from bidders for submitting shortfall to be submitted within specified date and time. Also, every document submitted against following queries should be signed by the person authorized as per Authorization letter / Board Resolution submitted by bidder against tender, without which the documents will not be accepted as valid.

1.17 REGISTRATION OF MSE VENDORS

All MSE bidders may be registered on TReDS platform (www.vidyabhartiguj.org) and MSME- SAMADHAAN portal. Participating MSE bidders shall submit an undertaking regarding the same.

- 1.18** The bidder must ensure that their bid is complete in all respects and conforms to NIT terms and conditions, NIT specifications etc. including client specifications, failing which the bids are liable to be rejected without seeking any clarifications on any exception/deviation taken by the bidder in their bid.

- 1.19** TCIL reserves the right to accept or reject any or all the NITs without assigning any reason.

1.20 DELETED

- 1.21 Escalation:** No escalation shall be applicable on this contract. No claim on account of any escalation on whatsoever ground shall be entertained at any stage of works. Price quoted by contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation shall be payable on this contract.

- 1.22** The bidder should have Local Office where work is to be executed. Else, he should give an undertaking that he will open Local office after Award of Work

1.23 CONTACT INFORMATION

Project Division:

Rohit Mishra

Associate Director (CSR &Construction)

Telephone: +91-8000032210

e-mail: mpvbguj@gmail.com

Schedule-I

S. No.	Description	Values/Description to be Applicable for Relevant Clause(s)
1.	Name of the Work	Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa
2.	Client/ Owner	Vidhya Bharti Gujarat Pradesh
3.	EMD	Rs. 5,00,000/- (Rupees Five Lakhs Only)
4.	Estimated Cost of Construction	Rs 6,22,35,157/- (Rupees Six Crores Twenty Two Lakhs Thirty five Thousand one Hundred and fifty seven Only)
5.	Time allowed for Completion of Work	12 (Twelve) months
6.	Mobilization Advance	N/A
7.	Interest Rate of Mobilization Advance	N/A
8.	Schedule of Rates applicable	For Schedule items Gujarat SoR (Valsad) & Maharashtra SOR for items not available in SoR (Valsad), Market rates for non-schedule items.
9.	Validity of Tender	120 days from the date of opening of technical bid
10.	Security Deposit /Retention Money	5% (Five Percent only) of this gross value of each running/Final bill.
11.	Compensation for delay of work (L.D)	With maximum rate @ 1% (one percent) per month of delay to be computed on per day basis based on quantum of damage suffered due to stated delay on the part of Contractor. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 12 % (twelve percent) of the accepted Tendered Value of work.
12(a).	Deviation limit beyond which Variation Clause (Clause 3.19.2) shall apply for all works except foundation.	FOR BUILDING & ASSOCIATED WORKS WITHIN THE CONTRACT 50%
12(b).	Deviation limit beyond which Variation Clause (Clause 3.19.2) shall apply for foundation work	FOR BUILDING & ASSOCIATED WORKS WITHIN THE CONTRACT 100%
12(c).	Total Deviation:	Since the financial assistance is under CSR initiative there is no scope of any kind of deviation/variation in the subject work. However, deviation/variation of items within LoA value shall be done; any deviation/variation beyond LoA value shall be subject to the approval from the Client.
13.	Escalation Rates	Rates are fixed during the contract period. No escalation in rates shall be admissible in any case during the validity of contract. No claim in this regard shall be entertained what so ever.
14.	Defect Liability Period	The Defects Liability & Maintenance Period shall be 12 (Twelve) months from the date of handing over the project to the Employer/Owner.

END OF SECTION-1

SECTION-2

TERMS & CONDITIONS OF THE CONTRACT

2.1 FINANCING OF TRADE RECEIVABLES OF MSE'S THROUGH TRADE RECEIVABLES DISCOUNTING SYSTEM (TREDS) PLATFORM

- a) Based on the initiatives of government of India to help MSME vendors get immediate access to liquid fund based on VBGP's credit rating by discounting MSE's trade receivables through an auction mechanism where multiple financiers can participate and bid, VBGP registered itself on TReDS platform with M/s RXIL.
- b) Micro and Small Enterprise (MSE) bidders / vendors can avail this benefit by registering themselves with M/s RXIL providing e-discounting/electronic factoring services on its TReDS platform and following the procedures defined therein.
- c) All costs relating to availing the facility of discounting on TReDS platform including but not limited to Registration charges, Transaction charges for financing, Discounting Charges, Interest on financing, or any other charges known by any name shall be borne by MSE Bidders / Vendor.
- d) MSE Bidders / Vendor hereby agrees to indemnify, hold harmless and keep VBGP and its affiliates, Directors, officers, representatives, agents and employees indemnified, from any and all damages, losses, claims and liabilities (including legal costs) which may arise from Sellers submission, posting or display, participation, in any manner, on the RXIL's TReDS Platform or from the use of Services or from the VBGP's breach of any of the terms and conditions of the Usage Terms or of this Agreement and any Applicable Law on a full indemnity basis.
- e) TCIL shall not be liable for any special, indirect, punitive, incidental or consequential damages or any damages whatsoever (including but not limited to damages for loss of profits or savings, business interruption, loss of information), whether in contract, tort, equity or otherwise or any other damages resulting from using facilities on RXIL's TReDS platform.

2.2 PRICE PREFERENCE TO MICRO AND SMALL ENTERPRISES

(Price Preference to MSEs shall be extended as per GOI guidelines applicable from time to time).

- a) If items mentioned in EOI are non-splittable / non-dividable and L1 is non-MSE bidder:
 - i) If a MSE vendor / bidder is within L1+15% price range, the complete purchase / work order shall be given to MSE bidder subject to their matching the L1 price.
 - ii) If MSE vendor / bidder is not within L1+15% price range then complete purchase / work order shall be given to L1 bidder.
- b) If items mentioned in EOI are splittable / dividable and MSE is neither L1 nor within L1+15%
The purchase/work order shall be given to L1 bidder.
- c) If the items mentioned in EOI are splittable / dividable and MSE is not L1 but within L1+15%
25% of total procurement shall be made from MSE, subject to their matching of L1 price. In case of more than such eligible MSEs who are within L1+15% range, procurement will be shared equally among such MSEs with a minimum 4% procurement

from SC/ST MSEs, subject to their matching of L1 price. In event of failure of SC/ST MSEs to participate in EOI process or meet EOI requirements and L1 price or none of these SC/ST MSEs are in L1+15%, then this 4% sub-target shall be met from other MSEs. Minimum 3% reservation within above mentioned 25% reservation shall be applicable for women owned MSEs.

2.3 PURCHASE PREFERENCE: MAKE IN INDIA (Purchase Preference to Make IN India shall be given as per GOI guidelines applicable from time to time.)

- a) Minimum local content: **(to be specified)**
- b) Margin of purchase preference: 20%
- c) Subject to the provisions of this order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order. Purchase preference shall be given to Class –I local supplier in procurements undertaken by procuring entities in the manner specified here under
- d) In the procurements of goods or works, which are covered by para 1.2(a)(ii) and which are **divisible in nature** ‘Class –I local supplier’ shall get purchase preference over Class –II local supplier as well as ‘Non-local supplier’ as per following procedure:
 - i. Among all qualified bids, the lowest bid will be termed as L1, if L1 is Class –I local supplier the contract for full quantity will be awarded to L1.
 - ii. If L1 bid is not a Class-I local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the Class –I local supplier will be invited to match the L1 price for the remaining 50% quantity subject to the Class –I local supplier’s quoted price falling within the margin of Purchase preference and contract for that quantity shall be awarded to such Class –I local supplier subject to matching the L1 Price. In case such lowest eligible Class –I local supplier fails to match the L1 price or accepts less than the offered quantity the next higher ‘Class –I local supplier’ within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.
- e) In the procurements of goods or works, which are covered by para 1.2(a)(ii) above and which are **not divisible in nature** and in procurement of services where the bid is evaluated on price alone, the ‘Class-I local suppliers’ shall get purchase preference over ‘Class-II local supplier’ as well as ‘Non- local supplier’ as per following procedure.
 - i) Among qualified bids, the lowest bid will be termed as L1. If L1 is Class-I local supplier, the contract will be awarded to L1.
 - ii) If L1 is not ‘Class-I local supplier’ the lowest bidder among the Class-I local supplier will be invited to match the L1 price subject to Class-I local supplier’s quoted price falling within the margin of purchase preference and the contract shall be awarded to such ‘Class-I local supplier’ subject to matching the L1 price.

- iii) In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the Class-I local supplier within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.
- f) 'Class-II local supplier' will not get purchase preference in any procurement, undertaken by procuring entities.
- g) Verification of local content:
 - i. In cases of procurement for a value less than Rs. 10 crores, the local supplier (Class-I and Class-II), at the time of bidding, shall submit a self-certification that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made.
 - ii. In cases of procurement for a value in excess of Rs. 10 crores, the local supplier (Class-I & Class-II) shall be required to provide a certificate from statutory auditor or cost auditor of company (in case of companies) or from practicing cost accountant or chartered accountant (in respect of suppliers other than companies) giving percentage of local content in addition to self-certification at point (i)

2.4 RESTRICTIONS ON PROCUREMENT FROM A BIDDER OF A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA

Bidders shall submit the certificate for sourcing products and services in tender as per clause 1.2.i.

[wherever applicable the bidder must submit evidence of valid registration by Competent Authority]

- 2.4.1 The bidder shall offer and supply only those product(s)/goods/equipment(s)/Software(s) under this contract which are in compliance with Government of India, Ministry of Finance, Department of Expenditure, Office Memorandum No. F.No. 6/18/2019-PPD dated 23-07-2020, circular attached as Section-26 of this NIT.

GUIDELINES FOR ELIGIBILITY OF A 'BIDDER FROM A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA':

As per Order dated 23.07.2020, issued by Department of Expenditure, Ministry of Finance, Govt, of India in this regard, the following guidelines have been issued by DoE for tenders:-

- 1. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

Competent Authority for the purpose of registration shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), as mentioned under Annex I of the Order (Public Procurement No.1) dated 23.07.2020.

- 2. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
- 3. "Bidder from a country which-shares a land border with India" for the purpose of this

Order means;-

- i. An entity incorporated, established or registered in such a country; or
- ii. A subsidiary of an entity incorporated, established or registered in such a country; or
- iii. An entity substantially controlled through entities incorporated, established or registered in such a country; or
- iv. An entity whose beneficial owner is situated in such a country; or
- v. An Indian (or other) agent of such an entity; or
- vi. A natural person who is a citizen of such a country; or
- vii. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

4. The beneficial owner for the purpose of (3) above will be as under:-

- i. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person (s), has a controlling ownership interest or who exercises control through other means. **Explanation-**
 - a) "**Controlling ownership interest**" means ownership of or entitlement to, more than **twenty-five per cent**, of shares or capital or profits of the company;
 - b) "**Control**" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- ii. In case of a partnership firm, the beneficial owner is the natural person who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than **fifteen percent of capital or profits of the partnership**;
- iii. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- iv. Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
- v. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- vi. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

2.4.2 PROCUREMENT OF PRODUCTS FROM TRUSTED SOURCES

If the supplied product(s) under this contract is to be connected with Telecommunication Network then such product(s)/goods/equipment(s)/Software(s) shall be only from Trusted Sources duly certified by NSCT as notified by Govt. of India, Ministry of Communication vide OM No. 20-271/2010 AS-I (Vol-III) dated 10.03.2021.

2.4.3 Bidder who is found violating these directions /guidelines of Govt. of India or any other guidelines in this regard shall be liable to face action from TCIL which may include non-

award of work, cancellation of contract, rejection of goods supplied, getting the work done at risk and cost of the bidder, forfeiting the PBG, banning for future work for period up to **two (2) years** or any other action as deemed fit.

2.5 RISK PURCHASE

- a) In case, the sub-contractor/ Supplier is not performing its obligations under the contract, the notice shall be sent as per law to the sub-contractor informing that in case of non-performance by a particular date/period, the contract shall be terminated and the work/project will be executed (through a third party) at the risk and cost of the said sub-contractor/ supplier as per the terms of the contract.
- b) On completion of the specified period/date, the notice of termination shall be issued clearly specifying that the remaining work shall be executed (through a third party) at the risk and cost of the sub-contractor/supplier. Along with this notice of termination, intimation shall be sent to the said sub-contractor/supplier for joint preparation of inventory of the works performed/ supplies already undertaken by him. If the sub-contractor/supplier fails to turn up on an appointed date for joint preparation of inventory, in that situation he shall be proceeded ex parte and the inventory shall be prepared by TCIL/Employer and the same be sent to the sub-contractor/supplier.
- c) Further at the time of award of work to another sub-contractor/ Supplier, if the work is awarded at an additional cost than the original sub-contractor/ Supplier, another notice may be issued to the original sub-contractor/ Supplier specifying that the work has been awarded to another agency at the additional cost of such and such amount, and he is liable to pay that amount to VBGP.
- d) Demand notices may be sent to the original sub-contractor/ Supplier from time to time.

2.6 GENERAL LIEN / SET-OFF

- a) Whenever under this contract, any sum of money is recoverable from and payable by the supplier, the purchaser shall be entitled to recover such sum by appropriating in part or in whole the security deposit of the supplier, if a security is taken from the supplier. In the event of the security being insufficient or if no security has been taken from the supplier, the balance or the total sum recoverable, as the case may be, shall be deducted from any sum due to the supplier or which at any time thereafter may become due to the supplier under this or any other contract with the purchaser. Should this sum not be sufficient to cover the full amount recoverable, the supplier, shall pay to the purchaser on demand the remaining balance due.
- b) Any some of money (including refundable security deposit) due and payable to the supplier, under this contract or any other contract entered between the parties herein whether continuing or completed may be appropriated by VBGP and set off against any claim of VBGP of any nature whatsoever, arising under this contract or any other contract entered into between the parties, herein whether continuing or completed.

2.7 REPEAT / ADD-ON ORDER

- a) In exceptional situation where the requirement is of an emergent nature, the purchaser reserves the right to place repeat order up to 50% of the value of goods and services contained in the running tender/contract within a period of twelve months from the date of commissioning/ commercialization of the project (date of acceptance of APO of the items procured in case where no installation, commissioning is involved) at the same rate or a rate negotiated (downwardly) with the existing venders considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.

- b) Further if required, an additional order for 50% of the value of the goods & services limited to 100% of the value of goods and services contained in the running tender/contract may be placed within a period of twelve months from the date of commissioning/ commercialization of the project (date of acceptance of APO of the items procured in case where no installation, commissioning is involved) on the existing vendors at the same rate or a rate negotiated (downwardly) considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.(with due approval of the Board).

2.8 PURCHASERS RIGHT TO VARY QUANTITIES

VBGP will have the right to increase or decrease up to 25% of the value of goods and services specified in the schedule of requirements without any change in the unit price or other terms and conditions at the time of award of contract.

2.9 FORCE MAJEURE

The supplier shall be exempted from the responsibility for any non-performance arising from a case of force majeure or act of God, hereinafter called force majeure (a) war and (b) earthquake. If such circumstances should arise, the supplier shall inform the purchaser within 72 hours in writing of the existence of the fact before suspending work without penalty on either side from the period of such suspension not exceeding 3 months. Likewise, it must proceed to inform the end of such fact. As soon as the facts constituting a force majeure cease in their effects, the supplier shall restart or continue the fulfillment of its obligations agreed upon. Should suspension of work as explained above exceed three months, the contract shall be violable at the option of either party without penalty on either side.

2.10 DISPUTE RESOLUTION

- 1) The parties to this agreement/contract agree that they shall resolve all disputes or differences whatsoever arising between them under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU through a “Conciliation and Settlement Mechanism (CSM)” and the detailed guidelines/procedure for such CSM is annexed hereto as **Annexure-A** placed at Section-25 of this NIT. That it is understood and agreed between the parties that the CSM annexed as **Annexure-A** with the present agreement forms and shall be treated as part and parcel of the present agreement.
- 2) If the parties fail to resolve such disputes through the conciliation proceedings, then and only then, a party shall refer the dispute to arbitration as mentioned in the following manner:
 - a. All disputes or differences whatsoever arising among the parties under and/or in connection with and/or in respect of this Tender/EOI/Agreement/Purchase Order/MoU shall be referred to and decided by a sole arbitrator, who shall be appointed by the CMD, VBGP only. The arbitration shall be conducted in accordance with Arbitration and Conciliation Act of 1996, as amended from time to time, and the venue of the arbitration shall be in New Delhi.
 - b. Notwithstanding the generality of the above, it is a term of this contract that no person other than a person appointed by CMD, VBGP as aforesaid, should act as arbitrator and if for any reason that is not possible or any party does not agree to such appointment of Arbitrator by CMD, TCIL for whatsoever reason, then the matter is not to be referred to arbitration at all and such disputes shall be resolved under the mechanism provided by

the state in form of Courts of Law/Ordinary Civil Courts for resolution of such disputes under applicable Laws.

- 3) The courts at New Delhi shall have exclusive jurisdiction in respect to any dispute pertaining to this agreement.
- 4) The parties shall continue to perform their respective obligations as per the Agreement during the pendency of proceedings under this clause.

For Public Sector Undertaking / Government Departments:

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Center Enterprise (CPSEs)/Port Trusts inter se and also between CPSEs and Govt. Depts/ organizations (excluding disputes relating to Railways, Income Tax, Customs & Excise Dept), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/003/2019-FTS-10937 dated 14th December 2022 and the decision of AMRCD on the said dispute will be binding on both the parties.

- 5) Notwithstanding anything contained in any other agreement, document, correspondence, arrangement between the parties in respect of subject Works/Projects, the contractor understands, agrees and undertakes that the Payment terms shall be governed by the provisions of this NIT document and the bidder has clearly understood & agreed that:
 - 5.1. The Project is being executed for the ultimate benefit of the Client/Owner, who is the Principal Employer and that the VBGP has awarded the works on back to back basis/PMC at terms and conditions as per MoU/MoA with the Client. The Contractor agrees and understands that the contractor is executing the works of the Client/Owner as per the terms, conditions and specifications of the tender floated by VBGP on behalf of the Client. The Contractor fully understands that role of VBGP is of PMC only whereas the actual execution is to be done by the contractor.
 - 5.2. That the payment terms are on back to back basis and the payment shall be released to contractor by VBGP only if and when received by VBGP from the Client and subject to submission of complete documents and invoices etc. by it. The Contractor expressly agrees that the client is ultimately liable for timely payments and it shall not make VBGP responsible or liable for any default of the Client in this regard. VBGP shall only endeavor its level best to request the Client to release the payments of the contractor or make fund available for such payments in time as per agreement.
 - 5.3. That it will not demand or make any claim under any law with respect to the pending payment till the time corresponding payment is received by VBGP from the Client. VBGP shall not be responsible in any manner whatsoever for any delay in releasing the payments or withholding of payments by the Client.
 - 5.4. The date of delivery of goods and/or rendering of services by Contractor shall be the date of realization of payment from the Client once the goods and/or services are accepted by the Client.
 - 5.5. Any delay or default on the part of the Client in making timely payments or releasing funds timely or any omission or commission of any action by the Client shall not make VBGP liable for either the payment of the principal amount, wholly or in part, as the case may be, or towards any payment of the interest or other amounts, whatsoever, which shall otherwise be payable by VBGP to the Contractor in its normal liability to pay to the contractor for the execution of the Contract.

- 5.6. In case of any dispute between the parties, the parties expressly agrees that the award passed by the Arbitral tribunal/sole arbitrator shall not carry any interest on the awarded amount from the date of cause of action till the date of the award.
- 5.7. The Contractor agrees that whole cost of arbitration would be borne by the contractor since the contractor agrees that VBGP is not responsible for the payment of the dues of the contractor, if the corresponding payment has not been made by the client or fund for payment of their dues are not received from the Client.
- 5.8. The benefit in case of Force Majeure event as stated in this NIT document shall be extended if such an event is accepted by the Client and due extension/benefit granted to VBGP.

2.11 FALL CLAUSE

- a) The prices once fixed will remain valid during the scheduled delivery period. Further, if at any time during the contract
- I. It comes to the notice of purchaser regarding reduction of price for the same or similar equipment/ service;
- And/or
- II. The prices received in a new tender for the same or similar equipment/service are less than the prices chargeable under the contract.

The purchaser, for the purpose of delivery period extension/during rate contract, if any, will determine and intimate the new price, taking into account various related aspects such as quantity, geographical location etc., and the date of its effect for the balance quantity/ service to the vendor. In case the vendor does not accept the new price to be made applicable during the extended delivery period and the date of its effect, the purchaser shall have the right to terminate the contract without accepting any further supplies. This termination of the contract shall be at the risk and responsibility of the supplier and the purchaser reserves the right to purchase the balance unsupplied quantity/ service at the risk and cost of the defaulting vendor besides considering the forfeiture of his performance security.

- b) The vendor while applying for extension of time for delivery of equipment/services, if any, shall have to provide an undertaking as “We have not reduced the sale price, and/or offered to sell the same or similar equipment/ service to any person/organization including Department of central/state Government or any central/state PSU at a price lower than the price chargeable under the contract for scheduled delivery period.”

In case undertaking as in (b) above is not applicable, the vendor will give the details of prices, the name(s) of purchaser, quantity etc. to the purchaser, while applying extension of delivery period.

2.12 OFFLINE DOCUMENTS

The Bidder should submit all the bid documents (except Bank Guarantee/DD) online as indicated in the Tender /EOI schedule. The Tender Fees / EMD if paid through online mode), UTR No. is to be provided by bidder in their online bid. Only Bank Guarantee if required in tender/EOI schedule shall be taken in offline mode. (Address to be given where it is to be submitted)

Documents submitted in online mode should be uploaded using DSC of the person authorized as per Authorization letter /Board Resolution for signing bid documents.

2.13 BANNING OF NON-PERFORMING VENDOR

In case any of the vendor's work/PO/agreement is cancelled/terminated by VBGP after award, due to non-performance, the vendor may be banned/blacklisted up to 2 years or action as deemed fit may be taken by VBGP.

2.14 AMENDMENT TO BID DOCUMENTS

- a) At any time, prior to the date of submission of bids, VBGP may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bid documents by amendments, which shall be available on VBGP Website and the e-tendering portal.
- b) In order to give the required time to the prospective bidders, in which to take the amendments into action in preparing their bid, VBGP may at its discretion extend the deadline for submission of bid suitably.

2.15 BID PRICE

- a) The prices quoted by the bidder shall remain firm during the entire period of the contract and shall not be subject to variation (unless asked by VBGP). Clauses such as "at actual", "extra", "to be given later" etc. shall also be treated as non-responsive & are liable for rejection.

2.16 MODIFICATION AND WITHDRAWAL OF BIDS

- a) Bid withdrawal/modification shall not be allowed after end date and time of bid submission.
- b) Withdrawal of a bid between the deadline for submission of bids and the expiration of the period of bid validity specified in the tender or as extended, may result in the forfeiture of the bid security. Such defaulting vendor is liable to be debarred from participating in future bids for a period of up to 2 years.

2.17 CLARIFICATION OF BIDS

During evaluation of bids, VBGP may at its discretion ask the Bidder for clarifications / confirmations / deficient documents of its bid. The request for clarification and the response shall be in writing and no change in the price of substance of the bid shall be sought or permitted.

2.18 PURCHASER'S RIGHT TO SEEK QUOTES DIRECTLY FROM OEM

During the EOI / NIT process, VBGP reserves its right to seek rates directly from OEM or its authorized representative / distributor for one or all items of BOQ under this EOI.

2.19 TERMINATION FOR DEFAULT

- a) VBGP may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the supplier, terminate this contract in whole or in part.

- if the supplier fails to deliver any or all the services/goods within the time period specified in the contract, or any extension thereof granted by VBGP.
 - if the supplier fails to perform any other obligation(s) under the contract;
 - if the supplier, in either of the above circumstances, does not remedy his failure within a period of 15 days (or such longer period as VBGP may authorize in writing) after receipt of the default notice from VBGP.
 - Failure of the successful bidder to comply with the requirement of submission of performance security shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security.
- b) In the event VBGP terminates the contract in whole or in part pursuant to above clause, VBGP may procure, upon such terms and in such manner as it deems appropriate, goods/services similar to those undelivered and the supplier shall be liable to VBGP for any excess cost for such similar goods/services. However, the supplier shall continue the performance of the contract to the extent not terminated.

2.20 TERMINATION FOR INSOLVENCY

VBGP may at any time terminate the contract by giving written notice to the supplier, without compensation to the supplier, if the supplier becomes bankrupt or otherwise insolvent as declared by the competent court; provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to VBGP.

- 2.21** At any time, in case it comes to the knowledge of VBGP any of wrong information related with eligibility of the bidder or non-compliance to any terms and conditions of tender, then VBGP reserves the right to cancel or reject the bid of such bidder, cancel the tender or take any other action as deemed fit in accordance with tender terms and conditions.

2.22 ADDITIONAL CLAUSES FOR DEBARMENT:

- A. A bidder or any of its successor, shall be debarred from participating in any procurement process undertaken by VBGP for a period not exceeding **three (3) years** if he has been convicted of an offence as under:
- a) under the Prevention of Corruption Act, 1988; or
 - b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.
- B. A bidder or any of its successor, shall be debarred from participating in any procurement process undertaken by VBGP for a period not exceeding **two (2) years** if the following code of integrity as per rule 175 of GFRs 2017, is breached:
- 1. prohibition of
 - a) making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.
 - b) any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained or an obligation avoided.

- c) any collusion, bid rigging or anticompetitive behaviour that may impair the transparency, fairness and the progress of the procurement process.
 - d) improper use of information provided by the procuring entity to the bidder with an intent to gain unfair advantage in the procurement process or for personal gain.
 - e) any financial or business transactions between the bidder and any official of the procuring entity related to tender or execution process of contract; which can affect the decision of the procuring entity directly or indirectly.
 - f) any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.
 - g) Obstruction of any investigation or auditing of a procurement process.
 - h) ***making false declaration or providing false information*** for participation in a tender process or to secure a contract;
2. disclosure of conflict of interest.
 3. Disclosure by the bidder of any previous transgressions made in respect of the provisions of sub-clause (i) with any entity in any country during the last three years or of being debarred by any other procuring entity.
- C. A bidder or any of its successor, shall be debarred from participating in any procurement process undertaken by VBGP for a period not exceeding **two (2) years** if the following is breached:
- (i) If a Bidder withdraws the proposal or increases the quoted prices after opening of the Proposal and during the period of Bid validity period or its extended period, if any.
 - (ii) In case of a successful Bidder, if the Bidder fails to sign the Agreement in accordance with the terms and conditions (including timelines for execution of the Agreement) of this tender or fails to furnish the Performance Bank Guarantee in accordance with the terms and conditions (including timelines for furnishing PBG) of this tender.
 - (iii) During the Bid process, if a Bidder indulges in any act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.
- D. The debarment in all cases shall be automatically extended to all its allied firms. In case of Joint ventures/Consortium is debarred all partners shall also stand debarred for a period specified in debarment order. The names of partners should be clearly specified in the debarment order.

2.23 BIDDER TO BEAR COST OF PURCHASE OF TENDER

The Bidder shall bear all costs associated with the preparation and submission of the bid. The Employer in any case will not be responsible or liable for these costs regardless of the conduct of the bidding process.

2.24 EXTENSION OF TIME FOR SUBMISSION OF BID

In order to give prospective bidders required time in which to take the amendments in to action in preparing their bid, the Employer may at its discretion extend the deadline (Minimum 3 days) for submission of bid or as suitably.

2.25 BIDDERS ELIGIBILITY AND QUALIFICATIONS

Bidder shall furnish as a part of bid documents, establishing the bidder's eligibility to successfully complete the required works. The bidder shall also submit documentary evidence in the form of literature, drawing, data on the services offered, wherever required.

2.26 INSTRUCTIONS REGARDING BID SUBMISSION

Participation in this tender shall be through submission only. The bidders can contact. Bidders may further note that on-line bid submission can be quite time-consuming. They are advised to start their uploading of bid sufficiently in advance to ensure complete uploading of bid within stipulated time.

Bidding Methodology:

Single-stage Two-Bid System (Technical Part and Financial Part to be submitted at the same time) shall be followed.

Digital Certificates

- For integrity of data and its authenticity/ non-repudiation of electronic records, and to become compliant with IT Act 2000, Digital Signature Certificate (Signing & Encryption Certificates) of type Class 3 issued by any Certifying Authority (CA) under Controller of Certifying Authorities (CCA) of India.

a. Submission: -

The Submission will have the following activities:

i) Submission of Technical Part as under:

Technical Part must contain the following which is required to be submitted in the Main Bid/Bid Annexure:

- a) Submission of requisite tender fee and EMD (as mentioned in Section-1)
- b) Duly filled in Formats as per NIT document.
- c) Scanned copy of Documentary Evidence of Eligibility Criteria and other documents as required in this tender
- d) A statement showing Clause-by-Clause compliance to all Terms & Conditions of all the Section of the tender on the Letter Head of their Organization.
- e) Duly filled in 'No-Conviction Certificate'.
- f) Any other supporting documents the bidder wishes to submit as a part of Technical Offer.

g) AUTHORIZATION LETTER/ BOARD RESOLUTION :

The bidders need to submit board resolution along with authorization Letter in Online mode authorizing the signatory to act on behalf of the bidder. The Authorized person should be either authorized by Board or a employee authorized by one of the following person who has the Board Resolution to delegate authorization to other :

7. Managing director
8. The Chief Executive Officer
9. The manager;
10. The Company Secretary
11. The Whole-time director
12. The Chief Financial Officer

The bidder should ensure that the Digital Signature used for uploading the tender document in e-tender portal should be of the authorized signatory.

- ii) **Submission of Financial Part:** - Financial Part must contain the Price Bid Schedule as per format provided in this tender document at Section-15.

NOTE: For more details for Online Submission of the bid, please go through Appendix (A) of Section-2 namely 'Detailed instructions for Online Bid Submission'

b. Offline Submission: -

The bidders shall note that in case the payment of Tender Fee and/or EMD is done through DD/ Banker's cheque/ FDR/ BG modes (as applicable), then the original Hard Copy of the same shall be submitted to address mentioned below before the last date andtime for submission of the bid, failing to which, the bid of such bidders shall be rejected summarily and shall not be considered for any further evaluation.

Address: Surinder Kumar, Consultant (Civil-BD)
Telecommunications Consultants India Ltd.
505, 5th Floor TCIL Bhawan, Greater Kailash-1,
New Delhi - 110048

2.27 ONE BID PER BIDDER

Each bidder shall submit only one (1) bid either as individual or as a JV, if permitted. The bidder who submits or participates in more than one bid, will cause all the proposals with the bidder's participation to be disqualified. *However, participation through JV/ Consortium is not permitted in this tender.*

2.28 LANGUAGE OF BID

All documents relating to the bid shall be in the ENGLISH language.

2.29 SIGNING OF THE BID

- 2.31.1 Each page of the bid document shall be signed by the bidder or a person duly authorized by him. The letter of authorization in the form of power of attorney shall be attached to the bid.

- 2.31.2 The bid shall not have any overwriting. In case of mistake, the matter is to be re-written afresh after cutting the earlier one and it should be signed by the bidder.

2.30 LATE BIDS

Bidders are advised in their own interest to ensure that bids may be submitted well before the closing date and time. Any bid received after deadline for bid submission, will be rejected and will not be considered.

2.31 EMPLOYER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Employer does not bind himself to accept lowest or any other tender/ bid and has the right to cancel the bidding process and reject all bids at any time prior to award of the contract without assigning any reasons whatsoever and without thereby incurring any liability to the affected bidder on the grounds for the Employer's action.

2.32 STANDARDS

The work done under the contract shall conform to the standard mentioned in the Technical Specifications of the tender document.

2.33 SUB – LETTING

The contractor cannot assign or transfer and sub-contract its interest/obligations under the contract without prior written approval of Engineer-in-charge.

If the contractor assigns (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the TCIL/Client shall have powers:

- (a) To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, Security Deposit already recovered, Security deposit payable and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government
- (b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work including any new items needed to complete the work. In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be

entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

2.34 ADVICE TO BIDDERS FOR AVOIDING REJECTION OF THEIR OFFERS

The Employer has to finalize its purchase/contract within a limited time schedule. Therefore, it may not be feasible for the bidder to seek clarifications for a long time in respect of incomplete offers. The bidders are advised to ensure that their bids are complete in all respects and conform to the terms, conditions and bid evaluation criteria of the tender. Bidders not complying with tender requirements may cause rejection of their bids.

2.35 EVALUATION OF TENDERS

The details given by the bidders in the Technical Bid documents will be evaluated and price bids of only technically qualified bidders shall be opened at a later date duly notified. Even though bidder may satisfy the requirements in technical bid, they are subject to be disqualified if they have:

- a) Made misleading or false representation in the Annexure statements and enclosures required in the 'Technical Bid.'
- b) Records of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses.

2.37.1

- a) The bidders are required to submit the documents strictly as per Format in the NIT document.
- b) The decision of VBGP in the evaluation of Technical Bids shall be final.
- c) VBGP shall evaluate bids in respect to substantive responsiveness of the bid or otherwise. VBGP shall carry out detailed evaluation of the substantially responsive bids only.
- d) A bid determined as substantially non-responsive technically/financially shall be rejected, even after opening the price bid.
- e) VBGP may waive any minor infirmity or non-conformity or irregularity in the bid which does not constitute a material deviation.
- f) Among all technically qualified bids, the lowest bid will be termed as L1 derived from Price Bid Schedule.
- g) If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.

2.37.2 Arithmetical error shall be rectified on the following basis:-

- a) If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the Employer.
- b) In case of discrepancy between words and figures, the amount in words shall prevail.

The evaluation of the ranking shall be carried out on the landed price of goods/ services offered inclusive of 1% Labour cess, GST and all taxes as applicable.

2.36 EVALUATION OF TECHNICAL BID:

- 2.38.1 The details given by the bidders in the Technical Bid documents will be evaluated and price bids of only technically qualified bidders shall be opened at a later date duly notified. Even though bidder may satisfy the requirements in technical bid, they are subject to be disqualified if they have:
- a) Made misleading or false representation in the Annexure statements and enclosures required in the 'Technical Bid.'
 - b) Records of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses.
- 2.38.2 The bidders are required to submit the documents strictly as per formats provided in the NIT document.
- 2.38.3 The decision of TCIL in the evaluation of Technical Bids shall be final.

2.37 OPENING OF PRICE OFFER

Price offers of only those bidders whose Techno-Commercial offers are found to be responsive and acceptable to VBGP will qualify to be opened. The qualified parties shall be notified with the date and time of the opening of the Price Offer in advance. Representative of the qualified parties may attend the Price Bid opening.

2.38 EVALUATION OF FINANCIAL BID:

- 2.40.1 The FINANCIAL BID should be submitted in accordance of the bid document with duly filled in Schedule of Financial Quote at Financial Bid.
- 2.40.2 To be quoted in accordance to price bid format. The Construction Cost shall be inclusive of all taxes, levies, royalty, EPF, ESIC & GST, and all expenditures incurred by the contractor on all activities required for commencement/ completion/ occupation of the building/ works as per the stated scope of work as of this bid document. Nothing shall be paid extra and contractor is required to quote its rates inclusive of all taxes, levies, royalty, EPF, ESIC & GST.
- 2.40.3 Nothing extra over the construction cost / fee shall be payable.
- 2.40.4 The decision of the Committee of the VBGP in evaluating and assessing the bid shall be final.

2.39 NOTIFICATION OF SUCCESSFUL BIDDER

- 2.41.1 Prior to the expiration of the bid period, the Employer will notify the successful bidder in writing by registered letter/mail or fax, to be confirmed in writing by registered letter that its bid has been accepted.
- 2.41.2 Upon successful bidder furnishing of Performance Guarantee, the Employer will notify each unsuccessful bidder and will discharge its bid bond.

2.40 ISSUE OF LETTER OF INTENT

- 2.42.1 The issue of Letter of Intent shall constitute the intention of the Employer to place the Purchase Order with the successful bidder.
- 2.42.2 The bidder shall within 10 days of issue of Letter of Intent, give its acceptance along with Performance Guarantee in conformity with the bid documents.

2.41 CANCELLATION OF LETTER OF INTENT

Failure of the successful bidder to comply with the requirement of submission of Performance Guarantee in time shall constitute sufficient ground for the cancellation of the acceptance of bid and forfeiture of the bid bond, in which case Employer may make the offer to any other bidder at the discretion of the Employer or call for new bids.

END OF SECTION-2

APPENDIX (A) FOR SECTION-2**Detailed Instructions for Online Bid Submission**

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

More information useful for submitting online bids on the CPP Portal may be obtained at: www.vidyabhartiguj.org.

REGISTRATION:

- 1) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 2) 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 from the CPP Portal.
- 3) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 4) 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.
- 5) 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.

SEARCHING FOR TENDER DOCUMENTS:

- 1) To facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS:

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.

2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 90 dpi with black and white option which helps in reducing size of the scanned document.

4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: *My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.*

SUBMISSION OF BIDS:

1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.

4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

6) The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

9) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

9) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS:

1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

-END OF SECTION – 2-

SECTION - 3**GENERAL CONDITIONS OF THE CONTRACT****3.1 DEFINITIONS AND INTERPRETATIONS****3.1.1 Definitions**

In the Contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them except where the Contract otherwise requires:

- a) “Works” means the Permanent Works and the Temporary Works or either of them as appropriate.
The expression **works** or **work** shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional
- b) The **Site** shall mean the land, places on, into or where work is to be executed under the contract or any adjacent land, path or street or where work is to be executed under the contract or any adjacent land, path or street which may be temporally allotted or used for the purpose of carrying out the contract
- c) “Owner/ Client” shall be the Vidyabharti Gujarat Pradesh (VGP)/Netaji Subhash Chandra Bose Military Academy (NMA)/Power Finance Corporation (PFC).
- d) “Employer/ PMC/ Construction Agency (CA)/ Executing Agency (EA)” shall mean Telecommunications Consultants India Limited i.e. VBGP.
- e) “Project Director/ Engineer-in-charge/ Engineer shall mean the officer appointed by Employer (i.e. VBGP) for the purpose.
- f) “Contractor/ Agency/” shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
- g) “Contract” means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the Engineer In charge and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in- Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
- h) “Specifications” means the relevant specification of the Works included in the Contract and any modification thereof or addition thereto as approved by the Employer on behalf of owner.
- i) “Drawings” means all Drawings, calculations and technical information provided by the Employer to the Contractor under the Contract and all Drawings, calculations, samples, patterns, models, operation and maintenance manuals and other technical information of a like nature submitted by the contractor and approved by the Employer on behalf of the Owner.

- j) The term 'SOR' or price bid means the schedule of rates as mentioned in falling under detailed notice inviting tender of the main contract.

Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits. Provided that no extra overheads and profits shall be payable on the part(s) of work assigned to other agency(s) by the contractor as per terms of contract. Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender documents or the standard Schedule of Rates of the government mentioned in Schedule 'F' hereunder, with the amendments thereto issued upto the date of receipt of the tender.

- k) "Tender/Bid" means the Contractor's priced offer to the Employer for the performance and completion of the works and remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Acceptance. The word Tender is synonymous with "Bid" and the words "Tender Documents" with "Bidding Documents".
- l) "Letter of Intent" shall mean intimation by a letter/fax of intent that the tender has been accepted in accordance with the provisions contained in the said letter/fax.
- m) "Letter of Acceptance" means the formal acceptance by the Employer.
- n) "Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor for performance and completion of the Works and remedying of any defects therein in accordance with the provision of the Contract.
- o) "Cost" means all expenditure properly incurred or to be incurred, whether on or off the Site, including overhead and other charges properly allowable thereon but does not include any allowance for profit.
- p) "Day" means a day of 24 hours from midnight to midnight irrespective of the number of hours worked in that day.
- q) "Working Day" means any day, which is not declared to be holiday or rest day by the Employer.
- r) "Week" means a period of any consecutive seven days.
- s) "Writing" means any hand - written, or printed/ typed communication, including fax.
- t) "Headings" in the clauses/conditions of tender document is for the convenience only and shall not be used for interpretation of the clause/condition.
- u) "**Excepted Risk**" are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of works.

3.1.2 Language for all the Drawings, titles, notes, communications, instructions, dimensions etc. shall be English only.

3.2 Headings and Marginal Notes

The headings and marginal notes in these conditions are indicative only and shall not be deemed part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.

3.3 Interpretation

Words imparting persons or parties shall include firms and corporations and any organization having legal capacity.

3.4 Singular and Plural

Words imparting the singular only also include the plural and vice versa where the context so requires.

- i) Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- ii) Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

3.5 Notices, Consents, Approvals, Certificates and Determinations

Wherever in the Contract, provision is made for giving or issue of any notice, consent, certificate or determination by any person, unless otherwise specified such notice, consent, approval, certificate or determination shall be in writing and the words 'notify', 'certify' or 'determine' shall be construed accordingly.

3.6 Discrepancies and Adjustment of Errors-

The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions

3.7 Project Directors and Project Director's Representative

3.7.1 Project Director's Duties and Authority

Project Director appointed by VBGP reserves the right in checking/ tests checking of the operation of the contract in respect of quality, testing, and measurement of Works either directly or through a separate agency or both.

- (a) The Project Director may exercise the authority specified in _____ or necessarily to be implied from the Contract and is not required to obtain the specific approval of the Employer _____ before exercising any such authority. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Project Director.

3.7.2 Project Director's Representative

The Project Director's Representative shall be appointed by and be responsible to the Project Director and shall carry out such duties and exercise such authority as may be delegated to him by the Project Director.

3.7.3 Project Director's Authority to Delegate

The Project Director may from time to time delegate to his Representative any/all of the duties and authorities vested in the Project Director and he may at any time revoke such delegation. Any such delegation or revocation shall be in writing and shall not take effect until a copy thereof has been delivered to the Contractor.

Any communication given by Project Director's Representative to the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Project Director, provided that;

- (a) any failure of the Project Director's Representative to disapprove any work, materials or Plant shall not prejudice the authority of the Project Director to disapprove such work, materials or Plant and to give instructions for the rectification thereof; and
- (b) if the Contractor questions any communication of the Project Director's Representative he may refer the matter to the Project Director who shall confirm, reverse or vary the contents of such communication.

3.7.4 Appointment of Assistants

The Project Director or his Representative may appoint any number of persons to assist him in carrying out of his duties. He shall notify to the Contractor the names and duties of such persons. Such assistants shall have no authority to issue any instructions to the Contractor save in so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, Plant or workmanship as being in accordance with the Contract, and any instructions given by any of them for those purposes shall be deemed to have been given by the Project Director's Representative.

3.7.5 Instructions in Writing

Instructions given by the Project Director shall be in writing, provided that if for any reason the Project Director considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Project Director, whether before or after carrying out of the instruction shall be deemed to be an instruction within the meaning of this Sub-Clause. Provided further that if the Contractor, within 5 days, confirms in writing to the Project Director any oral instruction of the Project Director and such confirmation is not contradicted in writing within 7 days by the Project Director, it shall be deemed to be an instruction of the Project Director.

The provisions of this sub-clause shall equally apply to instructions given by the Project Director's Representative and any Assistant of the Project Director or the Project Director's Representative appointed pursuant to relevant clause of this NIT document.

3.7.6 Project Director to Act Impartially

Wherever, under the Contract, the Project Director is required to exercise his discretion by;

- (a) giving his decision, opinion or consent, or
- (b) expressing his satisfaction or approval, or
- (c) determining value, or

- (d) other-wise taking action, which may affect the rights and obligations of the Employer or the Contractor,

He shall exercise such discretion impartially within the terms of the Contract and having regard to all the circumstances. Any such decision, opinion, consent, expression of satisfaction, approval, determination of value or action may be opened up, reviewed or revised as provided in other relevant clause of this NIT document.

3.8 CONTRACT DOCUMENTS

3.8.1 Language and Law

- (a) The language in which the Contract documents shall be drawn up is English.
- (b) The country, the law of which shall apply to the Contract and according to which the Contract shall be construed is India. For any dispute the jurisdiction of the court shall be the High Court of Delhi

3.8.2 Priority of Contract Documents

The several documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Project Director who shall thereupon issue to the Contractor instructions thereon and in such event, unless otherwise provided in the Contract, the priority of the documents forming the Contract shall be as follows:

- (a) The Contract Agreement
- (b) The Letter of Acceptance
- (c) The Tender
- (d) Priced Bill of Quantities
- (e) General Conditions
- (f) Special Conditions
- (g) Drawings
- (h) Any other document forming part of the Contract
- (i) Specifications

3.8.3 Custody and Supply of Drawings and Documents

The Drawings shall remain in the sole custody of the Project Director, but **two copies** thereof shall be provided to the Contractor free of charge. The Contractor shall make at his own cost any further copies required by him. Unless it is strictly necessary for the purpose of the Contract, the Drawings, Specifications and other documents provided by the Employer or the Project Director shall not, without the consent of the Project Director, be used or communicated to a third party by the Contractor. Upon issue of Defects Liability Completion Certificate, the Contractor shall return to the Project Director all Drawings, Specifications, and other documents provided under the Contract.

One copy of the specifications provided to the Contractor shall be kept by the Contractor on the Site and the same shall at all reasonable times be available for inspection and use by the Project Director and any other person authorized by the Project Director in writing.

3.8.4 Disruption of Progress

The Contractor shall give notice to the Project Director, whenever works is likely to be delayed or disrupted unless any further instruction is issued by the Project Director within a reasonable time. The notice shall include details of the instruction required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

If, by reason of any failure or inability of the Project Director to issue, within a time reasonable under the circumstances, any instruction for which notice has been given by the Contractor in accordance with this Sub-Clause, the Contractor suffers delay, then the Project Director shall, determine any extension of time to which the Contractor is entitled.

If the failure or inability of the Project Director to issue instructions is caused in whole or in part by the failure of the Contractor to execute the works which he is required to execute under the Contract, the Project Director shall take such failure by the Contractor into account when making his determination for extension of time.

3.8.5 Supplementary Instructions

The Project Director shall have the authority to issue to the Contractor, from time to time, such supplementary instructions as shall be necessary for the purpose of proper and adequate performance and completion of the Works and remedying of any defects therein. The Contractor shall carry out and be bound by the same.

3.9 GENERAL OBLIGATIONS

3.9.1 Contractor's General Responsibilities

The Contractor shall, with due care and diligence (to the extent provided for by the Contract), perform and complete the Works and remedy any defects therein in accordance with the provisions of the Contract. The Contractor shall provide all superintendence, labor, materials, Equipment and all other things, whether of temporary or permanent nature, required in and for such remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract. The Contractor shall promptly notify the Project Director of any error, omission, fault or any other defect in the specifications for the Works which he discovers when reviewing the Contract documents or in the process of performance of the Works.

The Contractor shall take the full responsibility for the adequacy, stability and safety of all Site operations and methods of survey, provided that the Contractor shall not be responsible (except as stated hereunder or as may be otherwise agreed) for the design or specification of Works, not prepared by the Contractor. Where the Contract expressly provides that part of the Works shall be designed by the Contractor, he shall be fully responsible for that part of Works, notwithstanding any approval by the Owner / Project Director.

In the event the Contractor defaults in any of the obligations mentioned in the Contract, the Project Director / Employer reserves the right to fulfill the same at the risk and cost of the Contractor.

3.9.2 Contract Agreement

The Contract Agreement shall be prepared and completed in the form annexed to these

Conditions with such modifications as may be necessary.

3.9.3 Inspection of Site

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and collected information available in connection therewith and to have satisfied himself (so far as is practicable, having regard to considerations of cost and time) before submitting his Bid, as to:

- (a) the form and nature thereof, including the sub-surface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the performance and completion of the Works and remedying of any defects therein, and
- (d) the means of access to the Site and the accommodation he may require and in general, shall be deemed to have obtained all necessary information as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his Bid.

3.9.4 Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the tender and of the rates and prices stated in the Bill of Quantities, all of which shall, except in so far as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, Plant or services) and all matters and things necessary for the proper performance and completion of the Works and remedying of any defects therein.

The rate quoted against each item of work shall be for the complete finished item of work and shall be inclusive of all other taxes including, duties, levies, royalty and all costs and expenses including GST which may be required in and for performance and full protection of the work as describe together with all general risks/ liabilities and obligations set forth or implied in the documents.

The rates quoted against each item in the Schedule of Quantities shall be deemed to cater for all minor constructional details which are not specifically mentioned, but are fairly and obviously intended and are essential for the full and final completion of the Works and the Contractor is not entitled to make any extra claim on this account.

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

3.9.5 Work to be in Accordance with Contract

Unless it is legally or physically impossible, the Contractor shall perform and complete the Works and remedy any defects therein in strict accordance with the Contract to the satisfaction of the Owner/ Project Director. The Contractor shall comply with and adhere strictly to the Project Director's instructions on any matter, whether mentioned in the Contract or not, touching or concerning the Works. The Contractor shall take instructions only from the Project Director, or from the Project Director's representative.

3.9.6 Program to be submitted

A) Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works, along with monthly cash flow for e-casts for the construction of works.

B) The Contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/ equipments being placed in field laboratory and the location of field laboratory along with the Program. The Engineer shall cause these details to be verified at each appropriate stage of the program.

C) An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.

D) The Contractor shall submit to the Engineer for approval an updated Program at regular intervals. If the Contractor does not submit an updated Program within regular interval, the Engineer may withhold the amount stated in the Contract Data from the next payment. Certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.

E) The Engineers approval of the Program shall not alter the Contractors obligations. The Contractor may revise the Program and submit it to the Engineer again at any time. A revised Program shall show the effect of Variations and Compensation Events.

F) The Contractor shall submit to the Engineer Weekly / monthly progress report in prescribed format.

(In-case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum of 0.1% (zero point one percent) of accepted Tendered Value in this respect the decision of the that authority shall be final and binding on the contractor.)

3.9.7 Project Director at Liberty to Object

The Project Director shall be at liberty to object to and require the Contractor to remove forthwith from the Works any person provided by the Contractor who, in the opinion of the Employer / Project Director, misconducts or is incompetent or negligent in the proper performance of his duties, or whose presence on Site is otherwise considered by the Project Director to be undesirable, and such person shall not be again allowed upon the Works without the consent of the Project Director. Any person so removed from the Works shall be replaced as soon as possible and no claim whatsoever shall be entertained on this account.

3.9.8 Setting Out

The Contractor shall be responsible for;

- (a) the accurate setting - out of the Works in relation to original points, lines and levels of reference given by the Project Director in writing,

- (b) the correctness of the position, levels, dimensions and alignment of all parts of the Works, and
- (c) the provision of all necessary instruments, appliances and labor in connection with the foregoing responsibilities.

If, at any time during the performance of the Works, any error appears in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do so by the Project Director, shall at his own cost rectify such error to the satisfaction of Project Director, unless such error is based on incorrect data supplied in writing by the Project Director.

The checking of any setting – out or of any line or level by the Project Director shall not in any way relieve the Contractor of his responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench – marks, sight - rails, pegs and other things used in setting – out of the Works.

3.9.9 Safety, Security and Protection of the Environment

The Contractor shall, throughout the performance and completion of the Works and the remedying of any defects therein;

- (a) have full regard for the safety of all persons entitled to be upon the Site and keep the Site (so far as the same is under his control) and the Works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons, and
- (b) provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the Project Director or by any duly constituted authority, for the protection of the Works or for the safety and convenience of the public or others, and
- (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods or operation.
- (d) In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per C.P.W.D. Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty as decided by the Client/ Engineer-in- Charge for each default and in addition, the Engineer-in- Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

3.9.10 Responsibility to Rectify Loss or Damage

If any loss or damage happens to the Works, or any part thereof, or materials or Plant for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever,

other than the risks as defined, the Contractor shall at his own cost, rectify such loss or damage so that the Works conform in every respect with the provision of the Contract to the satisfaction of the Project Director. The Contractor shall also be liable for any loss or damage to the Works occurred by him in the course of any operation carried out by him for the purpose of complying with his obligations under referenced Clauses. CAR policy to be provided by the Contractor.

3.9.11 Force Majeure:

The Contractor shall not be considered in default if delay in completion of the work occurs due to cause beyond its control such as acts of God, natural calamities, civil wars, fire, strike, frost, floods, riots, pandemic and acts of unsurpassed power. The Executing Agency shall notify 'Employer' in writing within 72 hours from the date of such occurrence not exceeding 03 months. In the event of delay due to such causes, the completion schedule will be extended for a length of time equal to the period of force majeure. Any expenditure incurred by the Contractor during the period of force majeure shall be reimbursed by the Employer. In case of closure of work due to the force majeure, any liabilities towards contractor and/or expenditure of the Executing Agency shall be payable by the Employer.

Likewise, it must proceed to inform the end of such fact. As soon as the facts constituting a force majeure cease in their effects, the contractor shall restart or continue the fulfillment of its obligations agreed upon. Should suspension of work as explained above exceed three months, the contract shall be violable at the option of either party without penalty on either side.

Contractor Agency shall not be held responsible for the delay/ stoppage of work due to force majeure conditions like natural calamities, civil disturbance, war, etc. and for losses suffered if any, by the Employer on this account. The Executing Agency shall also not be able in any way to bear such losses and no compensation of any kind whatsoever will be payable by the Executing Agency to The Employer.

3.9.12 Fossils

All fossils, coins, articles of value or antiquities and structures and other remains or things of geological or archaeological interest discovered on the Site of the Works shall be deemed to be absolute property of the Employer and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing and shall, immediately upon discovery thereof and before removal, acquaint the Project Director or Project Director's representative of such discovery and carry out the Project Directors instructions for dealing with the same.

During excavation if any underground services are noticed and the same is needed to be removed/ relocated, the cost of removal/ relocation shall be determined by the Project Director and reimbursed to the Contractor after getting approval of the Employee.

3.9.13 Patent Rights

The Contractor shall indemnify the Employer from and against all claims and proceedings for or on account of infringement of any patent rights, design, trademark or name or other protected right in respect of any Contractor's

Equipment, materials or Plant used for or in connection with or for incorporation in the Works and from and against all damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, except where such infringement results from the compliance with the design or specification provided by the Project Director.

3.9.14 Contractor to Keep Site Clear

During the performance of the Works, the Contractor shall keep the Site reasonably free from all unnecessary obstructions and shall store or dispose of any Contractor's equipment and surplus materials and clear away and remove from the Site any wreckage, rubbish or temporary Works no longer required.

3.9.15 Clearance of Site on Completion

Before the issue of any Taking - Over Certificate, the Contractor shall clear away and remove from that part of the Site to which such Taking-Over Certificate relates all Contractor's equipment, surplus material, rubbish and temporary Works of every kind, and leave such part of the Site and Works clean and in a workmanlike condition to the satisfaction of the Owner/ Project Director, provided that the Contractor shall be entitled to retain on Site, until the end of the Defects Liability Period, such materials, Contractor's Equipment, and temporary Works as are required by him for the purpose of fulfilling his obligations during the Defects Liability Period.

3.9.16 Labour

The Contractor shall make his own arrangements for the engagement of all labor, local or other.

The Contractor shall, if required by the Project Director, deliver to the Project Director's representative, or at his office, a return in detail in such form and at such intervals as the Project Director may prescribe showing the supervisory staff and the number of the several classes of labour from time to time employed by the Contractor on the Site and

such information respecting constructional Plant as the Project Director's Representative may require.

The Contractor shall file all labour returns in detail to the respective authorities / statutory bodies as prescribed under law applicable at the work Site and inform the Employer/ Project Director with copies of such returns directly filed.

The Contractor shall abide by the local laws and regulations governing labour applicable from time to time. During continuance of the Contract, the Contractor shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and by-laws of State or Central Government or local authority, and any other labour law (including rules), regulations, by-laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given hereafter. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of the contravention of any of the provisions of any Act or rules made there under,

regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non observance of the provisions stipulated in the notifications in the amendments/ by- laws/ acts/ rules/ regulations/ including amendments, if any, on the part of the Contractor, the Project Director/ Employer shall have the right to deduct any amount due to the Contractor. The Employer/ Project Director shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered/likely to be suffered by the Employer.

The employees of the Contractor and the Sub - Contractors in no case shall be treated as the Employees of the Employer at any point of time.

Salient features of some of the major labour laws applicable to establishments engaged in building and other construction Works are as given below: The bidder/contractor will be required to comply with these laws as for their work force /establishments. For these acts, as mentioned below, agency will also act as employer, wherever applicable, in accordance to these laws/acts.

(a) Workmen Compensation Act, 1923

The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

(b) Payment of Gratuity Act, 1972

Gratuity is payable to the employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 9 or more employees.

(c) Employees P. F. and Miscellaneous Provision Act, 1952

The Act provides for monthly contributions by the employer plus workers @ 9% or 8.33%. The benefits payable under the Act are:

- i) Pension or family pension on retirement or death as the case may be.
- ii) Deposit linked insurance on the death in harness of the worker.
- iii) Payment of P. F. accumulation on retirement /death etc.

(d) Maternity Benefit Act, 1951

The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

(e) Contract Labour (Regulation & Abolition) Act, 1970

The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided by the Principal Employer by Law. The Principal Employer is required to take certificate of registration and the Contractor is required to take a license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if the employer employs 20 or more contract labour.

(f) Minimum Wages Act, 1948

The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provision of the Act if the employment is a scheduled employment. Construction of Buildings, Roads and Runways are scheduled employments.

(g) Payment of Wages Act, 1936

It lays down as to by what date the wages are to be paid, when it will be paid, and what deductions can be made from the wages of the workers.

(h) Equal Remuneration Act, 1979

The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.

(i) Payment of Bonus Act, 1965

The Act is applicable to all establishments employing 20 or more workmen. The Act provides for payment of annual bonus subject to a minimum of 8.33% of the wages and maximum of 20% of wages to employees as amended time to time.

The Act does not apply to certain establishments. The newly setup establishments are exempt for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 9 for the purpose of applicability of the Act.

(j) Industrial Disputes Act, 1947

The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock out becomes illegal and what are the requirements for laying off or retrenching the Employees or closing down the establishment.

(k) Industrial Employment (Standing Orders) Act, 1946

It is applicable to all establishments employing 90 or more workmen (Employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

(l) Trade Unions Act, 1926

The Act lays down the procedure for registration of trade unions of workmen and Employers. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities.

(m) Child Labour (Prohibition & Regulation) Act, 1986

The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour

is prohibited in Building and Construction Industry.

(n) Inter - State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act, 1979

The Act is applicable to an establishment which employs 5 or more inter - state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment in another state). The inter - state migrant workmen, in an establishment to which this act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.

(o) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act, 1996

All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at rate not exceeding 2% of the cost of construction as may be notified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as Canteens, First aid facilities, Ambulance, Housing accommodation for workers etc. The employer to whom the Act applies has to obtain a registration certificate from the Registering officer appointed by the Government. However the Contractor shall follow various acts with latest amendments.

(p) Recovery of Compensation paid to Workmen

In every case in which by virtue of the provisions sub-section(1) of section 12 of the Workmen's Compensation Act.1923, Government is obliged to pay compensation to a workman employed by the contractor ,in execution of the works, Government will recover from the contractor, the amount of the compensations paid and without prejudice to the right so the Government under sub-section(2) of section12, of the said Act, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise. Government shall not be bound to contest any claim made against it under sub-section(1) of section12, of the said Act, except on the written request of the contractor and upon his giving to Government full security for all costs for which Government might become liable in consequence of contesting such claim.

3.10 Details to be Confidential

The Contractor shall treat the details of the Contract as private and confidential, save insofar as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of the Employer or the Project Director. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract the same shall be referred to the decision of the Employer whose award shall be final.

3.11 Drawings and Photographs of the Works

The Contractor shall not disclose details of Drawings furnished to him and Works on which he is engaged without the prior approval of the Project Director in writing. No

photographs of the Works or any part thereof or Plant employed thereon shall be taken or permitted by the Contractor to be taken by any of his employees without the prior approval of the Project Director in writing and no such photographs shall be published or otherwise circulated without the approval of the Project Director in writing.

3.12 The Apprentices Act, 1961

The Contractor shall duly comply with the provisions of the latest Apprentices Act, the rules made there under and the orders that may be issued from time to time under the said Act and the said rules and on his failure or neglect to do so, he shall be subject to all liabilities and penalties provided by the said Act and the said rules.

3.13 Inspection of Operations

The Employer/Project Director, and any person authorized by him, shall at all reasonable times have access to the Site and to all Workshops and places where materials or Plant are being manufactured, fabricated or prepared for the Works and the Contractor shall afford every facility for and every assistance in obtaining the right to such access.

3.14 SUSPENSION OF WORK

3.14.1 Suspension of Work

The Contractor shall, on the instructions of Project Director suspend the progress of the Works or any part thereof for such time and in such manner as the Project Director may consider necessary and shall, during such suspension, properly protect and secure the Works or such part thereof so far as is necessary in the opinion of the Project Director. Unless such suspension is:

- (a) Otherwise provided for in the Contract, or
- (b) necessary by reason of some default of or breach of Contract by the Contractor for which he is responsible, or
- (c) Necessary for the proper performance of the Works or for the safety of the Works or any part thereof save to the extent that such necessity arises from any act or default by the Project Director or the Employer or from any of the risks defined in referenced clauses will apply.

3.14.2 Project Director's Determination Following Suspension

Where, pursuant to Clause 3.15.1, the Project Director shall, after due consultation with the owner and the Contractor, determine any extension of time to which the Contractor is entitled under Clause 3.16.

3.15 COMMENCEMENT AND DELAYS

3.15.1 Commencement of Works

The Contractor shall commence the Works within the period specified in the tender after the receipt by him of an order in writing to this effect from the Project Director and shall proceed with the Works with due expedition and without delay except as may be expressly sanctioned or ordered by the Project Director or be wholly beyond the Contractor's control.

3.15.2 Possession of Site

The project Director will give to the Contractor possession of so much of the Site as may be required to enable the Contractor to commence and proceed with the construction of the Works in accordance with the programme if any, and otherwise in accordance with such reasonable proposals of the Contractor as he shall by giving notice in writing to the Project Director. The Project Director will from time to time as the Works proceed, give to the Contractor possession of such further portions of the Site as may be required to enable the Contractor to proceed with the performance of the Works with due dispatch in accordance with the said programme or proposals, as the case may be.

If the Contractor suffers delay from failure on the part of the Employer to give possession in accordance with the terms of this Clause the Project Director shall on the request of the Contractor grant an extension of time for the completion of the Works after taking due approval from the Employer.

3.15.3 Time for Completion

The whole of the Works and, if applicable, any Section required to be completed within time period as stated in the Bid, shall be completed within the time stated for completion of the whole of the Works or the Section, calculated from the Commencement Date, or such extended time as may be allowed.

3.16 Time and Extension for Delay-

-The Extension of Time for delay shall be given to the contractor only after approval from the Client.

The time allowed for execution of the Works as specified in the Schedule-I or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in Schedule-I or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited by the Engineer in Charge and shall be absolutely at the disposal of the TCIL without prejudice to any other right or remedy available in law.

3.16.1 As soon as possible but within 10 (ten) days of award of work and in consideration of

- (a) Schedule of handing over of site
- (b) Schedule of issue of designs/ drawings

- (i) The Contractor shall submit a Time and Progress Chart for each mile stone. The Engineer-in-Charge may within 10 (Ten) days thereafter, if required modify, and communicate the program approved to the contractor failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The work programme shall include all details of balance drawings and decisions required to complete the contract with specific dates by which these details are required by contractor without causing any delay in execution of the work. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents

- (ii) In case of non- submission of construction programme by the contractor, the program approved by the Engineer-in-Charge shall be deemed to be final.
- (iii) The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract.
- (iv) The contractor shall submit the Time and Progress Chart and progress report using the mutually agreed software or in other format decided by Engineer-in-Charge for the work done during previous month to the Engineer-in-charge on or before 5th day of each month.

3.16.2 If the work(s) be delayed by:-

- (i) force majeure, or
- (ii) abnormally bad weather, or
- (iii) serious loss or damage by fire, or
- (iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- (v) delay on the part of other contractors or tradesmen engaged by Engineer in- Charge in executing work not forming part of the Contract, or
- (vi) any other cause like above which, in the reasoned opinion of the Engineer-in- Charge is beyond the Contractor's control.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in *sub clause 3.16.2*.

3.16.3 In case the work is hindered by VBGP/ Client or for any reason/ event, for which VBGP/ Client is irresponsible, VBGP shall, if justified, give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension of time or rescheduling of milestone(s) shall be without prejudice to any other right or remedy of the parties in contract or in law; provided further that for concurrent delays under this sub clause and sub clause 3.16.2 to the extent the delay is covered under sub clause 3.16.2, the contractor shall be entitled to only extension of time and no damages.

3.16.4 Request for rescheduling of Mile stones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed forms to Engineer-in-charge. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired. With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme which shall include all details of pending drawings and decisions required to complete the contract and also the target dates by which these details should be available without causing any delay in execution of the work.

3.16.4.1 In any such case VBGP may give a fair and reasonable extension of time for completion of work or reschedule the mile stones. Engineer -in- Charge shall finalize/ reschedule a particular mile stone before taking an action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by Engineer-in-Charge in writing. In event of non application by the contractor for extension of time, Engineer-in-Charge after affording opportunity to the contractor, may give, supported with a programme, a fair and reasonable

provisional extension within a reasonable period of occurrence of the event; with the right to levy LD.

- 3.16.5** In case the work is delayed by any reasons, in the opinion of the Engineer-in-Charge, by the contractor for reasons beyond the events mentioned in 3.16.2 or clause 3.16.3 and beyond the justified extended date; without prejudice to right to take action under relevant clause of the NIT document, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.

3.17 DEFECTS LIABILITY

3.17.1 Defects Liability Period

The Defects Liability & Maintenance Period shall be 12 (Twelve) months from the date of handing over the project to the Employer/ Owner. During the entire Defect Liability Period, the Contractor is required to maintain the minimum work force to be determined by the Engineer-in-charge. The Contractor shall be responsible for satisfactory rectification of all notified defects. If contractor fails to rectify the defects within 7 days from the date of written information to him then in that case, the defects shall be rectified at the risk and cost of contractor.

- 3.18.2** If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months after a certificate final or otherwise of its completion shall have been given by the Engineer in- Charge as aforesaid arising out of defect or improper materials or workmanship, the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of twelve months after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

3.18 CONTRACTOR TO SEARCH

If any defects, shrinkage or other fault in the Works appears at any time prior to the end of the Defects Liability Period, the Project Director may instruct the Contractor, to search under the directions of the Project Director for the cause thereof. If such defect, shrinkage or other fault is one for which the Contractor is liable, the cost of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case remedy such defect, shrinkage or other fault at his own cost in accordance with the provisions of referenced clause.

3.19 ALTERATIONS, ADDITIONS AND OMISSIONS

3.19.1 Variations

- (a) For deposit works and works on letter of authorization, revised estimate will be submitted for the works having expenditure in excess of 10% of A/A & E/S amount. No excess expenditure over the A/A & E/S amount is permissible without approval of the client and therefore incurring the excess expenditure the client will be informed and approval will be taken for the same.
- (b) Variation in individual BOQ and extra items to be dealt with as per CPWD work manual.
- (c) The Engineer-in-Charge shall have power:-
 - (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and
 - (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.
- (d) Subject to the approval from the Client, the time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:
 - (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
 - (ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.
- (e) The Employer reserves the right to place add-on/repeat order for additional quantity up to 100% of the original quantity at the same rate and terms & conditions of the purchase/work order within six months from the date of issue of purchase/works order. No revision of rates is admissible due to decrease or increase in quantities.

3.19.2 Valuation of Variations:

Deviation, Extra Items and Pricing:

In the case of extra item(s) (items which are not available in the contract), the contractor may within fifteen days of receipt of order or occurrence of the item(s) submit claim for market rates supported with proper analysis of rate and Manufacturer's specification for the work, invoices, vouchers, etc, (as applicable) failing which the rate(s) approved later by the Engineer-in-charge shall be final and binding. Where the contractor submits claim for market rates in the manner prescribed above, the Engineer-in-Charge shall within 45 days of the receipt of claims, after giving consideration to the analysis of the rates and other documents submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined. **The rates of extra items so determined by the Engineer in charge shall be final and binding on the contractor, and shall not be arbitrable.**

Deviation, deviated Quantities, Pricing:-

- (i) the case of contract items, which exceed the limit laid down in Schedule-I, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates,

supported with proper analysis of the rates and invoices, vouchers, etc, (as applicable) for the quantity in excess of the above mentioned limit. The Engineer-in-Charge shall within 45 days of receipt of the claims, after giving consideration to the analysis of the rates and other documents submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined. **The rates so determined by the Engineer in charge shall be final and binding on the contractor, and shall not be arbitrable.**

(ii) In the case of contract items, which exceed the limits laid down in Schedule-I, the Engineer-in-Charge shall after giving notice to the contractor within 30 days of submission of that bill occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the issue of such notice, reduce the rate for quantity in excess of the above mentioned limit on the basis of the market rates, within 30 days of the expiry of the said period of 15 days and the contractor shall be paid in accordance with the rates so determined. **The rates so determined by the Engineer in charge shall be final and binding on the contractor and shall not be arbitrable.**

(iii) The cost of any operation necessarily in contemplation of tenderer while quoting tender or necessary or incidental to proper execution of an item of work included in the Schedule of quantities or in the schedule of rates mentioned in Schedule-I, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

3.19.3 Since the financial assistance is under CSR initiative of PFC there is no scope of any kind of deviation/variation in the subject work. However, deviation/variation of items within LoA value shall be done; any deviation variation beyond LoA value shall be subject to the approval from the Client

3.19.4 Escalation: No claim on account of any escalation on whatsoever ground shall be entertained at any stage of works. All rates as per Bill of Quantities (BOQ) quoted by contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation shall be applicable on this contract.

3.20 MEASUREMENT:

3.20.1 Measurements of Work Done

The Project Director shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the Contract.

The measurement of all items having financial value shall be entered in Measurement Books and/or Level Field book so that a complete record is obtained of all Works performed under the Contract.

All measurements and levels shall be taken by the Project Director or his authorized representative along with Contractor from time to time during the progress of the work and such measurements shall be signed and dated by the Project Director and countersigned by the Contractor or their representatives in token of their acceptance. If the Contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason, the Contractor or his representative is not available and the work of recording measurements is suspended by the Project Director or his representative, the Project Director shall not entertain any claim from the Contractor for any loss or damages on this account. If the Contractor or his authorized representative does not remain present at the time of such measurements after the Contractor or his authorized representative has been given notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Project Director

or his representative shall be deemed to be accepted by the Contractor.

The Contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provisions in the relevant Indian Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurement shall be taken in accordance with relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The Contractor shall give not less than seven days notice to the Project Director or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond the reach of measurement any work without consent in writing of the Project Director or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Project Director's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was performed.

Project Director or his authorized representative may cause either themselves or through another officer of the TCIL to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels. In case of any dispute, decision of Engineer-in charge shall be final.

It is also a term of this Contract that recording of measurements of any items of work in the Measurement Book and / or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the Contractor from liabilities from any over measurement or defects noticed till completion of the Defects Liability Period.

3.21.2 Computerized Measurement Book

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections

and for resubmission to the Engineer-in- Charge for the dated signatures by the Engineer-in- Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in- Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/testchecks.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department.

The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the "bill.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in- Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

3.21.3 Failure to Comply with Project Director's Decision

Where neither the Employer nor the Contractor has given notice of intention to commence arbitration of a dispute within the period stated in relevant clause and the related decision has become final and binding, either party may, if the other party fails to comply with such decision, and without prejudice to any other rights it may have, refer the failure to arbitration in accordance with the referenced clause.

3.21 NOTICES

Notice to Contractor

All the certificates, notices or instructions to be given to the Contractor by the Project Director under the terms of the Contract shall be sent by post or facsimile transmission to or left at the Contractor's principal place of business or such other address as the Contractor shall nominate for that purpose.

Notice to Project Director

Any notice to be given to the Employer or to the Project Director under the terms of the Contract shall be sent by post or facsimile transmission to or left at the respective address nominated for that.

Change of Address

Both parties may change a nominated address to another address in the country where the Works are being performed by prior notice to the other party, with a copy to the Project Director, and the Project Director may do so by prior notice to both parties.

3.22 CHANGES IN COST AND LEGISLATION

3.23.1 Subsequent Legislation

If during the concurrency of the contract there occur changes to any National or State Statue, Ordinance, Decree or other Law or any regulation or bye-law of any local or other duly constituted authority, or the introduction of any such State Statue, Ordinance, Decree, Law, regulation or bye-law which causes reduced cost to the Contractor, in the performance of the Contract, such reduction in cost shall, be determined by the Project Director and shall be deducted from the Contract Price and the Project Director shall notify the Contractor accordingly, with a copy to the Employer.

3.23.2 Other Changes in Cost

To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the

contingency of such other rise or fall of costs.

3.23 HEALTH AND SANITARY ARRANGEMENT FOR WORKERS

In respect of all labour directly or indirectly employed in the Works for the performance of the Contractor's part of this Agreement, the Contractor shall comply with or cause to be complied with all the rules and regulations of the local sanitary and other authorities or as framed by the Owner from time to time for the protection of health and sanitary arrangements for all workers.

The Contractor shall provide in the labour colony all amenities such as electricity, water and other sanitary and health arrangements. The Contractor shall also provide necessary surface transportation to the place of work and back to the colony for their personnel accommodated in the labour colony.

3.24 SAFETY CODE

3.26.1 General

Contractor shall adhere to the safe construction practice and guard against hazardous and unsafe working conditions and shall comply with Employer's safety rules as set forth herein.

3.26.2 Safety Regulations

- (a) In respect of all labour, directly or indirectly employed in the work for the performance of Contractor's part of this Agreement, the Contractor shall at his own expenses arrange for all the safety provisions as per safety codes of Indian Standards Institution, the Electricity Act and such other acts as applicable.
- (b) The Contractor shall observe and abide by all fire and safety regulations.

3.26.3 First Aid

- (a) Contractor shall maintain adequate First Aid facilities for its employees and labour. Suitable medical assistance should be available throughout the tendency of the Contract.
- (b) Contractor shall make outside arrangements for Ambulance service and for the treatment of injuries. Names of those providing these services shall be furnished to Employer and their telephone numbers shall be prominently posted in Contractor's field office.
- (c) All critical industrial injuries shall be reported promptly to the Employer, and a copy of the Contractor's report covering each personal injury requiring the attention of a physician shall be furnished to the Employer.

3.26.4 General Safety

All necessary personal safety equipment as considered adequate by the Project Director should be kept available for the use of the persons employed on the Site and maintained in condition suitable for immediate use, and the Contractor shall take adequate steps to ensure proper use of equipment by those concerned.

3.26.5 Preservation of Peace

The Contractor shall take requisite precautions and use his best endeavors to prevent any riotous or unlawful behavior by or amongst his workmen and others employed on the Works and for the preservation of peace and protection of the inhabitants and security of property in the neighborhood of the Work. In the event of the Employer requiring the maintenance of a Special Police Force at or in the vicinity of the Site during the tenure of Works, the expenses thereof shall be borne by the Contractor and if paid by the Employer shall be recoverable from the Contractor.

3.25 Contractor's All Risk policy

The contractor is required to take CAR (Contractor's All Risk policy) from Government/ Govt. approved insurance agency in the joint name with first name of VBGP and bear all costs towards the same for the full period of execution of works including the defect liability period for the full amount of contract against all loss of damage from whatever cause arising for which he is responsible under the terms of the contract and in such manner that the VBGP and the contractor are covered during the period of construction of works and/or also covered during the period of defect liability for loss or damage.

The contractor is required to submit the aforesaid original CAR Policy and Workmen's Compensation Policy to VBGP in accordance with Client's requirement and prevailing statutory laws before the start of work for the full period of execution of works including the defect liability period. In case of delay in work, the contractor shall arrange to get the policies extended time to time at its own cost and submit the same to VBGP. Failing which, VBGP shall obtain these policies and recover such amount plus applicable VBGP charges as decided by VBGP, from RA bills of the contractor.

The contractor shall be solely responsible for all consequences, losses etc. due to their non-compliance in this regard

3.26 Settlement of claims for compensation on accidents of casual and contractual workers

In case of any accident occurred during the course of construction to casual and contractual employees of contractor which leads to death, permanent disability, injury to such employees, any compensation paid to these suffered workers by VBGP shall be recovered from the contractor. The compensation shall be given in accordance to the guidelines for settlement of claims for compensation on accidents applicable to the department of Telecommunications and public sector undertakings under its administrative control. In no case, a claim for appointment of any of the dependent on the compensate grounds would be entertained by VBGP.

The contractor is advised to go through the guidelines for settlement of claims for compensation on accidents applicable to the department of Telecommunications and public sector undertakings under its administrative control and a set of guidelines can also be obtained from the office of tender issuing authority of VBGP for this work.

3.27 PRICE BASIS

3.28.1 Price indicated in the schedule shall be for site of works as mentioned in the tender document.

3.28.2 Price quoted should be in Indian rupees, inclusive of all costs and charges as applicable, required for proper completion of works. The contractor shall give the total price in Indian Rupees as per

the format of price bid schedule provided in the tender document.

The offer shall be firm in Indian Rupees and detailed pricing should also be given as per the price bid schedule given in the Section- 15 , Financial Bid, Price is to be quoted for the complete works.

3.28.3 A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.

3.28.4 Price shall be inclusive of all costs, charges, taxes, duties, royalty, ESI, EPF & levies etc as applicable including GST and price shall remain firm during the currency of project.

3.28.5 Any reduction in taxes has to be passed on to the Employer.

3.28.6 The contractor shall submit its cost as per financial bid format.

3.28.7 Evaluation of bid will be made based on total price inclusive of all taxes, stated in the tender.

3.28 GENERAL LIEN

Whenever under this contract, any sum of money is recoverable from and payable by the contractor, the Employer shall be entitled to recover such sum by appropriating in part or in whole the security deposit of the contractor, if a security is taken from the contractor. In the event of the security being insufficient or if no security has been taken from the contractor, the balance or the total sum recoverable, as the case may be, shall be deducted from any sum due to the contractor or which at any time thereafter may become due to the contractor under this or any other contract with the Employer. Should this sum be not sufficient to cover the full amount recoverable, the contractor, shall pay to the Employer on demand the remaining balance due.

3.29 GST & EPF REGISTRATION

The bidder must have valid GST registration certificate of the state in which the work is to be taken up, if already obtained by the bidder.

The bidder whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident fund code No. if any engaged by the contractor for the said work within the period specified.

3.30 DISCIPLINE

The contractor shall carry out operations hereunder with due diligence and in a safe and workman like manner according to good practice. The contractor shall maintain strict discipline and good contract among its employees and its labor, and shall abide by and conform to all rules and regulations.

3.31 SAFETY AND LABOUR LAWS

The contractor shall be registered in Labour Department and other concerned department as required to carry out such works. The contractor shall comply with the provision of all laws including Labour Laws, labour cess registration (so that desired amount can be paid to the

concerned department), labour rules, regulations and notifications issued thereunder from time to time. All safety and labour laws enforced by statutory agencies shall be applicable in the performance of this contract and the contractor shall abide by these laws. Any failure to fulfil this requirement shall attract the penal provisions of the contract arising out of the resultant non-execution of work.

The contractor shall be fully responsible for observation for and compliance with all labour and laws applicable & all existing labour enactments and rules made thereunder, regulations, notifications and by-laws of State or Central Government or local authority, and any other labour law (including rules), regulations, by-laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority as per CPWD works manual and shall indemnify and keep indemnified the "OWNER"/ Employer against effect of non observance of and noncompliance with any such laws. The Contractor shall abide by the local laws and regulations governing labour applicable from time to time during continuance of the Contract.

In case of accident arising out of and in the course of this contract, the Employer/client will not be responsible for payment of any compensation or under any other law. It will be the sole responsibility of the contractor for payment towards loss or compensation whatsoever.

Safety, Security and Protection:- In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per C.P.W.D. Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty as decided by the Client/ Engineer-in- Charge for each default and in addition, the Engineer-in- Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor

3.32 APPLICABLE LAWS

This contract shall be interpreted, construed and governed by the laws of the Republic of India and the parties hereby submit to the exclusive jurisdiction of the Court at Delhi and to all Courts at Delhi having jurisdiction in appeal there from. Any dispute, in relation to the contract, shall be submitted to the appropriate court of the Republic of India for determination. The parties to the contract shall continue to fulfil their respective obligations under the contract during the currency of the contract pending the final decision of the court.

3.33 Termination of Contract on death of contractor

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, VBGP shall have the option of terminating the contract without levy of compensation to the contractor.

3.34 Water and electricity for Works

The contractor(s) shall make his/their own arrangements for water and electricity required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

- (i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.

(ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.

Alternate water Arrangements

The contractor shall be allowed to construct temporary wells in Government land for taking water for construction purposes only (if local laws allow for the same) after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

3.35 Dismantled Material Govt/ Client. Property

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as VBGP/ Client's property and such materials shall be disposed off to the best advantage of VBGP/ Client according to the instructions in writing issued by the Engineer-in-Charge.

3.36 Changes in firm's Constitution to be Intimated

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern, such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of the contract and the same action may be taken, and the same consequences shall ensue as provided in the contract in this regard.

3.37 Life Cycle Cost:-

The contractor shall be responsible for safety, quality and soundness of the buildings including structural elements beyond maintenance period. The contractor shall have obligation to rectify such defects minimum up to 5 (five) years from the date of completion of work. The defects have to be rectified within a reasonable time not exceeding forty five days after issue of notice by Engineer-in-Charge. If contractor does not take corrective action within 45 days, then action for debarment of the agency shall be taken by VBGP.

3.38 Contractor to Indemnify VBGP/ Client against Patent Rights

The contractor shall fully indemnify and keep indemnified VBGP/ Client against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against VBGP/ Client in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify VBGP/ Client if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

3.41 Additional Performance Security (APS)

In addition to Performance Security, Additional Performance Security (APS) shall also be taken from the successful bidder in case of Unbalanced Bid i.e. any bid below more than 15% of the Estimated Bid value. The APS shall be equal to 50% of the unbalanced amount.

The Unbalanced Bid amount means positive difference of 85% of the Estimated Bid Value minus Bid Amount quoted by the bidder.

Additional Performance Security shall be submitted within 30 days from the date of issuance of LoI.

The Additional Performance Security shall be refunded to the contractor after satisfactory completion of the entire work. The Additional Performance Security shall be forfeited when work is not completed within stipulated period, as per tender terms & conditions.

Appendix- 1 to General Conditions of Contract

These conditions vary and add to the Conditions of Contract set out in General and Special Conditions of contracts including appendixes:

- 1.(a) The use of privately owned or privately hired machinery on contractor work can only be permitted after approval of Engineer-in-charges PD VBGP. Only those private machineries either owned or privately hired will be used on works which have been approved by the Engineer-in – charge. For this purpose i.e. machineries will be registered and approved for particular use by the Engineer-in – charge.
- (b) The Engineer-in – charge or his representative is empowered to check all privately hired/owned machinery & report direct to this office if any under specifications machinery is being used by the contractor.
2. The contractor shall follow the contract labour (regulation) Act and rules.
3. The Government shall have right to cause an audit and the technical examination of the work and the final bills of the contractor including all supporting vouchers abstract etc. to be made available within Three Years after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been over paid in respect of any work done by the contractor under the contract any work claimed by him under the contract and found not to have been executed the contractor shall be liable to refund the amount of over payment. Besides, it shall be lawful for the department to recover the sum from him in the manner prescribed legally permissible and if it is found that the contractor, in respect of any work executed by him has not been paid the amount of such under payment shall be duly paid by the concerned department to the contractor.
4. Any material not conforming to the specification collected at site shall have to be removed by the contractor within a period of three days of the instructions issued by the Engineer -in- Charge in writing, failing which, such material shall be removed by the department at risk and cost of the contractor after expiry of three days period.
5. The material collected at site and paid provisionally shall remain under the watch and ward of the contractor till it is consumed fully on the work.
6. The contractor shall arrange his own land for the erection of plants, storage and parking of Machineries stacking of material etc.
7. It shall be responsibility of the contractor himself to procure earth required for construction of project at his cost.
9. Guidelines prescribed by Indian Standards will be applicable for Q.C. System.
 - a. Action should be taken in respect. Of every work and every item of work inspected, wherein and observation is made.

- END OF SECTION 3 -

SECTION – 4**SPECIAL CONDITIONS OF CONTRACT****4.1 SOURCE OF FUNDS**

Power Finance Corporation (PFC) has decided to provide financial assistance to the Project for “Construction of Boys Hostel Block (02 nos.) and Entrance Gate for Netaji Subhash Chandra Military Academy Complex in Silvasa” through CSR assistance. The project/ referred work will be executed by VBGP as Project management agency appointed by Power Finance Corporation (PFC).

4.2 MOBILIZATION PERIOD AND PERIOD OF COMPLETION

A mobilization period of 10 (ten) days shall be given for the mobilization of men, machinery/ equipments and materials at site .The date of start of work to be reckoned from the 10th day from the date of issue of Letter of Award (LOA) to start the work.

The time period for completion of aforesaid work shall be 12 (Twelve) months from 10th day of the date of issuance of Letter of Intent. The contractor shall ensure to complete all the works in the provided time period as time is the essence of this contract.

If at any stage, the Project has been delayed by the act of Client/authorities, nothing extra shall be payable to the Contractor. However suitable extension of time for completion of work shall be granted accordingly subject to Client’s approval.

4.3 PERFORMANCE SECURITY

- a) The successful bidder is required to submit a Performance Guarantee of 5% of the awarded value of contract in the form of Demand Draft/ Banker’s Cheque or Bank guarantee/e-PBG or Fixed Deposit Receipts (FDR) or Insurance Surety Bond or Bankers Cheque in prescribed format within 10 days from the issuance of LOI, before the signing of agreement. The Performance Guarantee shall be initially valid up to 60 days beyond the stipulated completion date which shall be further extended by the contractor from time to time up to the date of 60 days beyond the issuing of the Handing Over Certificate or Completion Certificate, whichever is later.

Further, retention equivalent to 5% of the gross amount of each running and final bill shall be deducted.

- b) PBG to be submitted in the prescribed format from a SFMS enabled Scheduled Commercial Bank through SFMS Platform as per details below:

Name of Beneficiary and its Details	Name	Vidhya Bharti Gujarat Pradesh
	Address	6, Dr Hedgewar Marg, Shahalam, Pushpkunj, Maninagar, Ahmedabad, Gujarat 380008
Name of Beneficiary Bank and its Details	Name	Rajkot Nagarik Sahakari Bank Ltd.
	Account No	048003100003906
	Address	Mithakali Six Road , Navrangpura,Ahmedabad
	IFS Code	RNSB0000001

- c) The proceeds of performance security shall be payable to VBGP in case of breach of any of the terms and conditions of the contract/PO/tender by the vendor. Recovery/adjustment due to LD or any other loss to VBGP shall be in addition to point (f).
- d) The performance security will be discharged by VBGP after completion of supplier's obligations, including any warranty obligations, under the contract.
- e) PBG should be valid till 60 days beyond the completion period. The PBG shall be refunded 60 days after successful completion and handing over of the project. The refund of retention shall be after successful completion of defect liability period.
- f) Failure of the successful bidder to submit the Performance Security or bidders' failure to complete its obligations under the contract shall constitute sufficient ground for the annulment of the award / cancellation of the award of work and forfeiture of the bid security/performance security.
- g) Additionally, VBGP reserves the right to debar such defaulting bidder from participating in future bids for a period up to 2 years.

4.4 RELEASE OF PERFORMANCE AND SECURITY DEPOSIT

The Performance Bank Guarantee shall be returned after 60 days to date of issuing of the Handing/Taking Over Certificate or Completion Certificate, whichever is later. The refund of retention shall be after successful completion of defect liability period.

Contractor shall be bound to rectify any defects in their performed Works during a defect liability period. In case the Contractor fails to remedy the defects to the full satisfaction of the Project Director/ Employer, the Employer shall be at liberty to forfeit the available Security amount and get the defects remedied at the risk and cost of the Contractor.

4.5 MOBILIZATION OF RESOURCES

The contractor shall provide all labour, machinery, equipments/ machineries, tools & plants and any other equipment to carry out the work in workman like manner and complete the same. No expenses for mobilization and de-mobilization at the completion of work in all respects shall be paid and are deemed to be included in the rates quoted.

It shall be Contractor's responsibility to get the approvals sanctioned prior to performance from VBGP/local authority for any modification/revision. Nothing extra shall be paid for getting them sanctioned and for carrying out the same.

4.6 SITE MEETING

Weekly Site meeting, to be attended by representatives of the Project Director and Contractor shall be held every week for progress monitoring and other issues.

4.7 LIST OF DOCUMENTS TO BE MAINTAINED AT SITE BY THE CONTRACTOR

- (i) Daily Works Register
- (ii) Level Book
- (iii) Measurement Book
- (iv) Site Instruction Book

- (v) BOQ with approved drawings
- (vi) Any other documents required by Project Directors to check progress of work etc. shall be maintained by Contractor at Site.
- (vii) Hinderance Register

4.8 INTERIM PAYMENT

All interim payments shall be treated as payments by way of advances against final payments and not as payments for the work done or be considered as an admission of the due performance of the Contract.

VBGP is acting as Employer on behalf of the owner. The funds for this work be provided by owner and the payments to the contractor shall be on back to back basis i.e. payments towards the running and final bills shall be paid to the contractor by VBGP only after the receipt of the same from the owner.

4.9 RISK AND COST CLAUSE

If contractor:

- (i) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 working days in this respect from the Engineer-in-Charge; or
- (ii) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 working days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.
- (iii) The Engineer- in-Charge without invoking action under Clause 4.36 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to VBGP, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:
 - (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
 - (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by VBGP/Client because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.

The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive ~~Shall~~ against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are

less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by VBGP in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by VBGP as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to VBGP in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

4.10 CO-OPERATION WITH OTHER WORKING CONTRACTOR

- a. The Contractor shall cooperate and share the Site with other Contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the Contract Data. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.
- b. The Contractor should take up the works in convenient reaches as decided by the Engineer to ensure there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other Contractors till the completion of the Works.

4.11 SITE OFFICE

- A. The Contractor will provide to VBGP at his own cost furnished Site Office cum Transit Camp (i.e. office tables, chairs, internet facility, beds, cooler, toilets etc.) with minimum built up area of 250 Sq. Ft. and suitably equipped with electricity, water supply, security and one two wheeler with fuel and routine maintenance, till completion and handing over of the works.

In case the contractor fails to provide necessary facilities as aforesaid to VBGP, the Engineer-in-charge shall be at liberty to make arrangement of the facilities and recover the costs incurred on behalf of the contractor from his/it's running bills and/or any other dues recoverable under the contract.

- B. The Successful bidder shall its own cost, create the necessary IT Infrastructure (on site and/or off-site) for the close monitoring of the project progress.

4.12 TECHNICAL PERSON

The Contractor has to deploy the following technical staff for works:-

S. No.	Min. Requirement of Technical Staff		Minimum Experience (Years)	Designation of Technical Staff	Recover Rate in the event of not fulfilling provision
	Qualification	Strength			

I.	Engineer (Graduate/Diploma)- Civil	1 No.	3 years for Graduate Engineer/5 years for Diploma Engineer having Experience of one similar nature of work	Project Manager- Civil	Rs.75,000/- Per Month Per person
II.	Engineer (Graduate/Diploma)- Electrical	1 No.		Project Manager Electrical	Rs.75,000/- Per Month Per person

- The above staff can be increased in Nos if required. The decision of Engineer in charge of VBGP shall be final and binding.
- Graduate Engineers should be from AICTE approved colleges.
- All the technical staff may not be required at site during entire period of execution of work. The type & number of technical staff to be deployed at site, shall be mutually discussed and agreed between VBGP and Contractor and decision of Engineer-in-Charge will be final and binding on the contractor. If the contractor does not deploy the staff as per the agreed schedule, notice and communication shall be given to the contractor. Subsequently, if contractor does not comply with the agreed schedule, a sum as mentioned above shall be deducted.
- Supervisory staff as well as foreman required as per need and requirement of site shall be deployed.
- In addition to the above VBGP shall deploy 01 (one) technical staff on site/for execution of works at site at a fixed recovery rates of Rs 40,000/ (Rupees Forty thousand only) respectively with an annual increment of 5%, from the Contractor till 12 months or completion of the project, whichever is later.

4.13 INSURANCE

The Employer shall not be liable in respect of any damages or compensation payable by law in respect or in consequence of any accident or injury to any machine, workman or other person in the employment of the contractor or any third person. The contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, save and except as aforesaid. Contractor shall take Contractor's all risk policy in accordance with the requirement and shall pay all premium at its own. Agency shall take other policy required for all Plant and Equipment / Work Man compensation etc. at his cost for the following events which are due to the contractor's risk.

- a) Loss of or damage to the Works, Plant and Materials;
- b) Loss of or damage to Equipment;
- c) Loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- d) Personal injury or death.
- e) Any other risk except covered under relevant clauses of the tender document.

4.14 QUERIES ABOUT THE CONTRACT DATA

The Engineer-in-charge will clarify queries on the Contract data.

4.15 CONTRACTOR TO CONSTRUCT THE WORKS

1. The Contractor shall construct and install and maintain the Works in accordance with the Specifications and Drawings.

2. The contractor shall construct the works with intermediate technology, i.e. by manual means with medium input of machinery required to ensure the quality of works as per specifications. The contractor shall deploy the equipment and machinery as given in Contract Data.

4.16 THE WORKS TO BE COMPLETED BY THE INTENDED COMPLETION DATE

The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the program submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

4.17 APPROVAL BY THE PROJECT DIRECTOR

- 4.17.1 The Contractor shall submit Specifications and Drawings showing the proposed temporary works to the Project Director, who is to approve them.
- 4.17.2 The Contractor shall be responsible for design of Temporary Works.
- 4.17.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 4.17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
- 4.17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

4.18 SAFETY

The Contractor shall be responsible for the safety of all activities on site.

4.19 POSSESSION OF THE SITE

The Employer shall handover complete or part possession of the site to the Contractor 10 days in advance of construction program. At the start of the work, the employer shall handover the possession of at-least 50 % of the site.

4.20 ACCESS TO THE SITE

The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the engineer and any person/persons/agency authorized by:

- a. The Project Director
- b. The Employer
- c. The Owner

4.21 INSTRUCTIONS

The Contractor shall carry out all instructions of the project director, which comply with the applicable laws where the Site is located.

4.22 EXTENSION OF THE INTENDED COMPLETION DATE

- 4.22.1 The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining Works, which would cause the Contractor to incur additional cost.

- 4.22.2 The Engineer shall decide whether and by how much time to extend the intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

4.23 DELAYS ORDERED BY THE ENGINEER

The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/ delays totaling more than 30 days will require prior written approval of the Employer.

4.24 MANAGEMENT MEETING

- 4.24.1 The Engineer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the plans for the Works.
- 4.24.2 The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.

4.25 IDENTIFYING DEFECTS

- 4.25.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.
- 4.25.2 The contractor shall be solely responsible for:
- a. Carrying out the mandatory tests prescribed in the Specifications, and
 - b. For the correctness of the test results, whether performed in his laboratory or elsewhere.
- All the test charges shall be paid by the contractor.
- 4.25.3 If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples.

4.26 CORRECTION OF DEFECTS NOTICED DURING THE DEFECT LIABILITY PERIOD

- 4.26.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and handing over of the works and ends after one year. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 4.26.2 Every time notice of Defect/ Defects is given, the Contractor shall correct the notified Defect/Defects within the duration of time specified by the Engineer's notice.
- 4.26.3 The Contractor shall do the routine maintenance of works to the required standards and in the manner as defined in the document and keep the entire

structure in Defect free condition during the entire maintenance period which begins at Completion and handing over of the works and ends after one Year.

4.26.4 The routine maintenance standards shall meet the standard minimum requirements.

4.26.5 To fulfill the objectives laid down in sub clauses 4.27 & 4.28 above, the Contractor shall undertake detailed inspection of the works at least once in a month. The Engineer can reduce this frequency in case of emergency; The Contractor shall forward to the Engineer the record of inspection and rectification each month.

4.26.6 The Engineer may issue notice to the Contractor to carry out maintenance of defects, -if any noticed in his inspection, or brought to his notice. The Contractor shall remove the defects within the period specified in the notice and submit to the Engineer a compliance report.

4.27 UNCORRECTED DEFECTS

If the Contractor has not corrected a Defect pertaining to the Defect Liability Period under clause 3.17 and of these Conditions of Contract, to the satisfaction of the Engineer, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount, on correction of the Defect.

4.28 BILLS OF QUANTITIES

4.28.1 The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning and maintaining works, to be done by the Contractor.

4.28.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item for the construction of works.

4.29 CASHFLOW FORECASTS

When the program is updated, the Contractor shall provide the Engineer with an updated cash flow forecast.

4.30 PAYMENT TERMS

Payments shall be made subject to the availability of funds from the Client. VBGP shall not be responsible for delay in receipt of funds from the Client. Procedure for payment is as under:

- (i) Running Account (RA) bills shall be submitted by the contractor for the work executed on the basis of recorded measurements, provided it is not less than 10% of Contract Value or Rs 10.00 Lakhs, whichever is less. The RA bills shall be submitted by the contractor on or before the date of every month fixed for the same by the Engineer-in-Charge of VBGP.
- (ii) Payments shall be adjusted for deductions for advance payments, security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law. The Engineer will pay the Contractor (on receipt of the corresponding payments from the Client) the amounts he had certified for each bill.
- (iii) The Employer may appoint another authority, as specified in the Contract Data (or any other competent person appointed by the Employer and notified to the contractor) to make payment certified by the Engineer.
- (iv) Items of the Works for which no rate or price has been entered in the Bill of Quantities, will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

- (v) If the Routine Maintenance part of the contract is not carried out by the Contractor as per this contract, the employer will be free to carry out Routine Maintenance work and the amount required for this work will be recovered from the amount of Security available with the employer and/or from any amounts of the Contractor whatever is due.
- (vi) If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment.

(vii) Payment of Final Bill:-

The final bill shall be submitted by the Contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in- Charge whichever is earlier. No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in- Charge, will be made within six months, the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized representative; subject to availability of funds from the Client.

- (viii) No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.

Notwithstanding anything contained in any other agreement, document, correspondence, arrangement between the parties in respect of subject Works/Projects, the contractor understands, agrees and undertakes:

- (i) that the payments terms are on back to back basis and the payment shall be released to the contractor by VBGP only if and when received by VBGP from the Client and subject to submission of complete documents and invoices etc. by it.
- (ii) that it will not demand or make any claim under any law with respect to the pending payment till the time corresponding payment is received by VBGP from the Client. VBGP shall not be responsible in any manner whatsoever for any delay in releasing the payments or withholding of payments by the Client.
- (iii) the (day) date of delivery of goods and/or rendering of services by the contractor shall be the date of realization of payment from the Client once the goods and/or services are accepted by the client.
- (iv) that if in the instant contract it is acting only trader/reseller/distributor/authorized agents and/or is engaged in a WORKS contract, no benefits under MSME Act 2006 and PPP Policy 2012 as per MSE Guidelines issued by Ministry of MSME would be applicable to it on account of acceptance of back to back payment terms as above.

4.31 COST OF REPAIRS

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at his cost if the loss or damage arises from the Contractors acts or omissions.

4.32 COMPLETION OF CONSTRUCTION AND MAINTENANCE

- 4.32.1 The Contractor shall request the Engineer to issue a certificate of completion of the construction of the works in whole or in parts, and the Engineer will do so upon deciding that the works is completed.

4.32.2 The Contractor shall request the Engineer to issue the certificate of completion of the Routine Maintenance and the Engineer will do so upon deciding that the Routine Maintenance is completed, Whereas applicable.

4.32.3 In case of multiple sites with different components (Project comprises with different locations with different components of a project, completion of any individual site / component shall be acceptable after handing over to the client and submission of as build drawings & all concerned document as per contract agreement to VBGP.

In such cases VBGP is liable to issue completion certificate for individual site / component, whatever the case may be, and agency shall be allowed to start Defect Liability period for particular site/ components. In such cases VBGP shall release performance security on pro-rata basis after completion of DLP for that site/ component i.e. prior to completion of entire project.

Above rule is applicable for (n-1) nos of sites/ (n-1) nos of components, if total no of site/ components in a project are 'n' nos.

4.33 TAKING OVER

The Employer shall take over the works as a whole or in parts (in case of multiple site under one contract) within seven days of the Engineer issuing a certificate of completion of works. The Contractor shall continue to remain responsible for its routine maintenance during the defect liability period.

The employer shall take over the maintained work within 7 days of the Engineer issuing a certificate of completion of the Routine Maintenance.

4.34 FINAL ACCOUNT

The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the contract within 21 days of issue of certificate of completion of construction of works. The Engineer shall issue a defect liability certificate and certify any payment that is due to the contractor for works within 42 days of receiving the Contractors account if it is correct and complete. If the account is not correct or complete, the Engineer shall issue within 42 days a schedule that states the scope of the corrections or additions that are necessary. If the Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate within 28 days of receiving the Contractor's revised account. The payment of final bill for construction of works will be made within 14 days thereafter.

In case of account is not received within 21 days of issue of Certificate of Completion as provided in clause 4.35 above, the Engineer shall proceed to finalize the account and issue a payment certificate within 28 days. The payment of final bill for construction of works will be made within 14 days thereafter.

The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable under the contract 21 days before the end of the Routine Maintenance Period. The Engineer shall issue a Routine Maintenance Completion Certificate and certify any final payment that is due to the Contractor within 42 days of receiving the Contractors account if it is correct and complete. If it is not, the Engineer shall issue within 42 days a schedule that states the scope of the corrections or additions that

are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate within 28 days of receiving the Contractors revised account. The payment of final bills for routine maintenance will be made within 14 days thereafter.

In case the account is not received within 21 days of issue of Certificate of Completion as provided in the relevant clause of this NIT document, the Engineer shall proceed to finalize the account and issue a payment certificate within 28 days.

4.35 OPERATING AND MAINTENANCE MANUAL

If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the document.

If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor. The clause shall be applicable in contracts having O&M works.

4.36 TERMINATION/WHEN CONTRACT CAN BE DETERMINED

Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to any other rights or remedy against the contractor in respect of any delay, not following safety norms, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- (i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- (ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- (iii) If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date, on or before such date of completion; and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer-in-Charge the contractor will be unable to complete the same or does not complete the same within the period specified.
- (iv) If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- (v) If the contractor shall offer or give or agree to give to any person in VBGP service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for VBGP

- (vi) If the contractor shall enter into a contract with VBGP in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge.
- (vii) If the contractor had secured the contract with VBGP as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.
- (viii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- (ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- (x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- (xi) If the contractor assigns (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge shall have powers:
 - (a) To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, Security Deposit already recovered, Security deposit payable and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of VBGP.
 - (b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work including any new items needed to complete the work. In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

4.37 PAYMENT UPON TERMINATION

If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for value of the work done and materials ordered less liquidated damages, if any, less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered from the security deposit, and performance security. If any amount is still left un-recovered it will be a debt payable to the Employer.

If the Contract is terminated at the Employers convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractors personnel employed solely on the Works, and the Contractors costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract, and less taxes due to be deducted at source as per applicable law.

4.38 PROPERTY

All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer for use for completing balance construction work if the Contract is terminated because of the Contractor's default, till the Works is completed after which it will be transferred to the Contractor and credit, if any, given for its use.

4.39 RELEASE FROM PERFORMANCE

If the Contract Contractor is frustrated by the outbreak of war or by any other event entirely outside the control of the Employer or the Contractor, the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

4.40 LABOUR

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.CG

4.41 COMPLAINTS WITH LABOUR REGULATION

During continuance of the Contract the Contractor and his sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and by laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given in Appendix to Part I General Condition of Contract The Contractor shall keep the Employer indemnified

in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bylaws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and its Sub-Contractors/ sub agencies (if any) in no case shall be treated as the employees of the Employer at any point of time.

4.42 DRAWINGS AND PHOTOGRAPHS OF THE WORK

4.42.1 The contractor shall do photography/video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and lastly after the completion of the work. No separate payment will be made to the contractor for this.

4.42.2 The Contractor shall not disclose details of Drawings furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, except those permitted under relevant clause of this NIT document shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his sub- Contractors without the prior approval of the Engineer in writing. No photographs/ Video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

4.43 The contractor will have to deploy minimum technical personnel as mentioned in the tender document.

4.44 The key equipment/machinery for the work shall be :

S. No.	Name of Equipment/ Machinery	Qty-
1	CONCRETE MIXER	02 Nos (Minimum)
2	WATER TANKER (WITH SPRINKLER)	02 Nos.(Minimum)
3	TRUCK/ TIPPER/ TRACTOR	As required
4	Other Miscellaneous T&P etc.	As required

4.45 The standard form of Performance Security acceptable to the Employer shall be an unconditional Bank Guarantee of the type as presented in the Bidding Documents.

4.46 The date by which "as-built' drawings (in scale as directed) in 2 sets are required is within 45 days of issue of certificate of completion of whole or section of the work, as the case may be.

4.47 The period for setting up a field laboratory with the prescribed equipment is 15 days from the date of notice to start work.

4.48 The project shall be monitored as per Critical Path Method, PERT Chart which shall be submitted by contractor at the time of signing of Agreement.

4.49 Within the total period as aforesaid, the contractor shall take up the work in such a manner as to make available the accommodation or the work constructed for the use in a reasonable and phased manner.

- 4.50** The contractor shall be fully responsible for observation for and compliance with all labour and laws applicable in the matter and shall indemnify and keep indemnified the “OWNER”/ Employer against effect of non observance of and non compliance with any such laws.
- 4.51** The contractor shall send completion report with drawings and maintenance schedules to the office of the “Employer” in writing within 45 days of completion of work.
- 4.52** The contractor will submit C.A.R & workmen compensation policy papers in original to the VBGP in accordance with the NMA/PFC requirement and prevailing statutory laws before start of work. Failing which, VBGP shall obtain these policies and recovered the amount from R/A bill of contractor.
- 4.53** The Contractor shall carry out the whole work in the most systematic and workman like manner, strictly as per the architectural drawings (duly approved by NMA/PFC), specifications and instructions/ guidelines issued from time to time by the Owner. CPWD specifications 2019 - Vol. I & Vol. II & Vol. III with up to date corrections or latest CPWD specifications and latest relevant CPWD specifications for electrical works with up to date correction slips, latest editions of relevant IS Code with up to date correction slips and sound engineering practices should be followed.
- 4.54** The Contractor shall take up the work in such a manner so as to make available the accommodation or the work as per the priority to be fixed by the VBGP/owner at the time of start of the work and complete all buildings with essential services (internal and external) within the stipulated time of completion.
- 4.55** The Contractor shall arrange to carry out all mandatory tests on construction materials as prescribed in CPWD specifications and BIS Code of practice and maintain all such records of mandatory tests conducted to ensure the quality of work. The Contractor shall produce copy of test reports regularly to VBGP/NMA/PFC during inspection of works and whenever desired otherwise also.
- 4.56** The Contractor shall be fully responsible for quality, technical/ structural soundness and effective & efficient construction management of the work. It shall ensure that all drawings issued by the VBGP are thoroughly examined as per the prevailing site conditions before actual execution and any deficiency/ defect and/ or suggestions for improvement to suit the local conditions may be brought to the notice of the VBGP
- 4.57** in writing and his approval shall be obtained before execution. No deviation from approved drawings/ designs, specifications etc. shall be carried out without written approval of the VBGP/NMA/PFC. Any deviation from this shall make the Contractor fully responsible to bear the extra cost involved, if any.
- 4.58** The Contractor shall carry out the work of water proofing treatment through specialized firm, who shall submit the 10 years guarantee bond against leakages/ dampness on a Rs. 100/- stamp paper to the VBGP as per Performa specified by VBGP/ Client. The guarantee shall include rectification of works within the guarantee period of 10 years free of cost if leakage/ dampness is reported by the VBGP. Guarantee bond shall be tripartite agreement form.

The Contractor will be responsible to the VBGP for ensuring enforcements of these guarantees.

4.59 LIQUIDATED DAMAGES

Liquidated Damages, wherever referred under this Tender/Agreement, shall mean and refer to the damages, not in the nature of penalty, which the supplier agrees to pay in the event of delay in delivery of stores, installation, commissioning, breach of contract etc. as the case may be. Liquidated Damages is not a penalty but is a sum which is agreed by the parties as a reasonable and genuine pre-estimate of damages which will be suffered by the purchaser on account of delay/breach on the part of the supplier.

- 4.58.1** The date of delivery of the stores and Installation and/or Commissioning stipulated in the acceptance of the tender should be deemed to be the essence of the contract and delivery must be completed not later than the dates specified therein. Extension will not be given except in

exceptional circumstances subject to conditions as enumerated in the contract/tender including levying of Liquidated Damages in terms of Clause 4.58.2 below.

4.58.2 While granting extension of delivery period as per tender terms, the liquidated damages shall be levied as follows:-

- i. **For delivery of stores:** Should the supplier fails to deliver the store or any consignment thereof within the period prescribed and agreed for delivery, the purchaser, without prejudice to other remedies available to the purchaser shall be entitled to recover Liquidated Damages, for breach of contract, a sum equivalent to 0.5% of the value of the delayed supply and/ or undelivered material/ supply for each week of delay or part thereof for a period up to 8 (Eight) weeks, and thereafter at the rate of 1.0% of the value of the delayed supply and/ or undelivered material/ supply for each week of delay or part thereof for another Eight (8) weeks of delay.
- ii. **Installation & Commissioning:** Should the supplier fail to install and commissioning the project with the stipulated time the purchaser shall be entitled to recover Liquidated Damages, 0.5% of the value of the purchase order for each week of delay or part thereof or a period upto 8 (Eight) weeks and thereafter @ 1.0% of the value of the purchase order for each week of delay or part thereof or another 8 (Eight) weeks of delay. In cases where the delay affects installation/commissioning of only a part of the project and part of the equipment is already in commercial use, then in such cases, LD shall be levied on the affected part of the project.
- iii. **Execution of works:** Should the Contractor fail to complete the work within stipulated time TCIL shall be entitled to recover liquidated damages, 0.5% of the value of the purchase order for each week of delay or part thereof or a period upto 8 (Eight) weeks and thereafter @ 1.0% of the value of the purchase order for each week of delay or part thereof or another 8 (Eight) weeks of delay. In cases where the delay affects only a part of the project and part of the equipment is already in commercial use, then in such cases, LD shall be levied on the affected part of the project.
- iv. Provisions contained in clause 4.58.2(a) (i) shall not be applicable for durations (periods) which attract L.D. against clause 4.58.2(a) (ii) above.

4.60 DELIVERY PERIOD EXTENSION

- a) DP extension beyond 16 weeks would not be generally allowed. The extension beyond 16 weeks may be decided in most exceptional circumstances on case to case basis, by the Tender approving authority, stating reasons and justifications for grant of extension of delivery period beyond 16 weeks.
- b) In the case of package supply/ turnkey projects when the delayed portion of the supply materially hampers installation and commissioning of the systems, LD charges shall be levied as above on the total value of the concerned package of the Purchase Order.
- c) Quantum of liquidated damages assessed and levied by the purchaser and decision of the purchaser thereon shall be final and binding on the supplier, further the same shall not be challenged by the supplier either before Arbitration tribunal or before the court. The same shall stand specifically excluded from the purview of the arbitration clause, as such shall not be referable to arbitration.
- d) The total value of the liquidated damages as per above sub-clauses shall be limited to a maximum of 12% (Twelve percent) i.e. LD shall be levied up to 16 weeks only as per provision at Para (a).
- e) The Liquidated Damages shall be calculated on the all inclusive Price CIF-destination inclusive of Freight, Forwarding Packing, insurance, any other incidental charges and other non-creditable

taxes after discount, if any but excluding GST and other creditable taxes. GST on LD shall be calculated as per GST rule as applicable from time to time.

- f) If the deliveries are made after expiry of the contracted delivery period, without prior concurrence of the purchaser and accepted by the consignee, such delivery will not deprive the purchaser of its right to recover liquidated damages under clause 4.58.2 above.

4.61 In cases where the scheduled delivery period is distributed month-wise or is in installments, the liquidated damages shall be imposed for delay in each scheduled month/ installment. Liquidated damages shall be calculated separately for quantities to be supplied in every month/ installment and the corresponding delay. If the supplier supplies full quantity before the expiry of the scheduled delivery period of the last month/ installment but there is delay in month-wise/ installment-wise supply, then also liquidated damages shall be levied on the supplies against the earlier months/ installments that have been delayed. Twenty (20) weeks for the purpose of additional BG and grant of DP extension shall be counted from the last month/ installment.

4.62 Notwithstanding anything contained in this Agreement or any other agreement between the parties, the Purchaser may, without prejudice to its right to effect recovery by any other method, deduct the amount of Liquidated Damages from any money belonging to the supplier in its hand in relation to this or any other contract between the parties (which includes purchaser's right to claim such amount against invoices raised by the supplier or Bank Guarantees submitted by the supplier under this Contract or any other contract) or which may become due to the supplier. Any such recovery of Liquidated Damages shall not in any way relieve the supplier from any of its obligations to complete the Works or from any other obligation and liabilities under the Contract.

4.63 To facilitate recovery of Liquidated Damages from the invoices raised by the supplier, the Credit Note shall be issued by the supplier, failing which the purchaser shall adjust the amount to be recovered from the pending payments by issuing an invoice/debit note for the corresponding amount, at the risk and cost to the supplier including applicable GST, interest and penalty, if any.

4.64 Taxes (GST)

GST invoice / Debit Note / Credit Note:

- a. It shall be the responsibility of Bidder / Supplier / Contractor / Vendor to raise Tax Invoice (e-invoice wherever applicable) as per the provisions of GST Laws and send to VBGP promptly.
- b. The Bidder / Supplier / Contractor / Vendor shall ensure that Tax Invoice contains all the requirements as per GST Law from time to time, for eg. E-Way bill along with transportation details etc, wherever applicable. VBGP GST Number to be mentioned on the Invoices as advised by VBGP, etc.
- c. The Bidder / Supplier / Contractor / Vendor shall ensure to issue Debit / Credit Note (wherever applicable) as prescribed under GST Act and send to VBGP within the prescribed time limit. All documents should be received well in advance so as to enable VBGP to claim eligible credit.

GST Compliances:

- d. The Bidder / Supplier / Contractor / Vendor shall ensure
 - To issue Tax Invoice / Debit Notes / Credit Notes to enable VBGP to claim tax benefit on or before the stipulated time period provided by the GST law.
 - To file its GST Returns (GSTR – 1 and GSTR – 3B) within the time limits prescribed in GST Laws with all Debit and Credit Note details, so as to ensure availing ITC Credit of GST by VBGP.
 - To declare correct information on invoice and GSTN viz. the amount, the place of supply, rate of tax etc.

- To issue all Tax Invoices / Debit Notes / Credit Notes to the registered premise of VBGP for availing of credit and ensure that the place of supply as per GST law is same as registered premise of VBGP.
- e. The Bidder / Supplier / Contractor / Vendor shall ensure to keep its GST Numbers active at all times and in case the same is blacklisted, cancelled or blocked etc by GST Authorities, the same needs to be promptly intimated to VBGP.

Tax Indemnity:

- f. There should not be any loss of ITC of GST to VBGP due to default of bidder. In case of any financial loss including interest, same will be recovered from the Bidder / Supplier / Contractor / Vendor for delay / non-compliance on the part of the Bidder / Supplier / Contractor / Vendor.
- g. In case, the eligibility of ITC of GST is questioned or denied to VBGP on account of default by the Bidder, the same would be recovered by VBGP from the Bidder / Supplier / Contractor / Vendor.
- h. No payment shall be made by VBGP against Performa Invoice issued by Bidder / Supplier / Contractor / Vendor. Payment will be made only against Valid Tax Invoice as per GST Laws.
- i. In case of delay in deposit of Tax & filling GSTR-1 by the Bidder / Supplier / Contractor / Vendor, the input tax credit will not be available to VBGP and as a result VBGP to pay the total output tax without availing input tax credit and in such case the financial loss including interest shall be recovered from the Bidder / Supplier / Contractor / Vendor.

Documents:

- j. Self-declaration along with evidence that the Bidder / Supplier / Contractor / Vendor is not blacklisted.
- k. An undertaking from the Bidder / Supplier / Contractor / Vendor that information provided by him is correct and in case of any loss, the Bidder / Supplier / Contractor / Vendor is fully responsible.

4.65 Release of GST Payment along with payment of RA Bill

- a) In all projects, where running bill continue to be raised periodically, GST shall be paid along with running bill but amount equivalent to GST of previous RA bill as well as current RA shall be withheld if GST of previous bill is not paid/reflecting at time of payment of next (current) RA bill.
- b) At the time of final bill of the project, GST shall be paid only if payment of all GST dues of the project by vendor is visible in GST portal.
- c) The above shall be applicable for all projects involving payment in multiple trenches (Running bill).

Note: As payment of GST dues in statutory requirement hence no undertaking is required separately for this from vendor.

END OF SECTION-4

SECTION-5**SCOPE OF WORK & TECHNICAL SPECIFICATIONS**

Name of the Work:- Construction of Boys Hostel Block (02 nos.) and Entrance Gate for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa.

Scope of Work:- The scope of work includes all required activities for proper construction/ completion of the aforesaid work as directed by Engineer-in-charge in accordance to the BOQ, but not limited to:-

1. Construction of Boys Hostel Block – 02 nos.
2. Entrance Gate for Netaji Subhash Chandra Bose Military Academy Complex.

All works shall be carried out as per the CPWD standard technical specifications, BOQ and related details as per instructions of Engineer-in charge of VBGP. The work is to be performed as per the CPWD specifications, IS codes with latest corrections and directives from time to time by the Engineer-in-charge/Project Director.

The work under proposal is to be completed in all respects for the successful completion and handing over the completed works to owner. All safety precautions are required to be taken during the construction period. On award of work, the contractor will carry out the Totalstation survey and initial site levels, wherever necessary/ as directed by Engineer-in- Charge.

Specifications:

A. The design and specifications prescribed are those for building, of "National Building Code of India specifications and all related Indian Building Congress manuals and publications", as amended till the date of issue of the notice inviting Tender. Building Materials for use on Building shall also conform to the specifications given in Building & road Manual and the work has to be carried out as per sound engineering practices & codes of building construction engineering.

B. The GOI, IS Specifications for Urban Building shall be followed in addition to State PWD / CPWD specifications.

C. For purposes of design, specification and quality control the Building & Manual, IRC publications for Building works including particular specifications shall form part of the Agreement.

D. For items not covered in Building Manual or IS-specifications for either BIS specification, or State/ District specifications or Sound engineering practice, as determined by the Engineer, in that order should be followed.

Note: The design, drawings, standards and guidelines of the IS Codes / PWD /CPWD Circulars & Specifications(if any) are to be followed for works.

LIST & MAKE OF VARIOUS ITEMS/PRODUCTS TO BE USED:-**A. Civil Works:-**

S. No.	Material / article	Confirming IS code	Manufactures/agencies/brand/make
1.	Cement	IS 8112:1989	Ordinary Portland Cement 43grade (Conforming to IS: 8112) from reputed manufactures of cement such as A.C.C., Jaypee Cement, J. K. Cement, Ultratech, Shree Cement, Gujarat Ambuja Cement and Cement Corporation of India etc. as approved by Ministry of Industry, Government of India, and holding license to use ISI certification mark for their product whose name shall be got approved from Engineer-in-charge.
2.	Steel Reinforcement	IS 1786:2008	Steel reinforcement bars confirming to relevant BIS codes from main producers as approved by the Ministry of steel, Thermo mechanically treated bars Fe-500 Grade confirming to IS 1786:2008 from approved brands like SAIL, TISCO, RINL, Shyam Steel (Shyam Steel Industries Ltd.)
3.	Structure Steel		SAIL, TISCO, RINL
4.	Corrugated GI Sheet	IS 277:2003	TATA, ESSAR, SAIL
5.	Float Glass (transparent)	IS 14900:2000	TATA, Modiguard, Saint Gobain
6.	Aluminum extruded Sections	IS 733:1983 & IS 1285:2002	Jindal, Indal, Hindalco
7.	Aluminum plain sheets	IS 733:1983 & IS 1285:2002	Jindal, Indal, Hindalco
8.	Prelaminated Particle board	IS 12823:1990	GVK, Novopan, Eco board, Archid, Century
9.	Block Board	IS 1659:2004	Century, Greenply, Archid
10.	Commercial Ply	IS 303:1989	Century, Greenply, Archid
11.	Aluminum sliding door bolt	IS 2681:1993	Jyoti, Argent, Everest
12.	Aluminum Tower bolt	IS 204(Part-1): 1991	Jyoti, Argent, Everest
13.	Aluminum Handles	IS 208:1996	Jyoti, Argent, Everest
14.	PVC rigid foam sheet		Rajshri or eq.
15.	Hydraulic floor Spring	IS 6315:1992	Hitech, Sandhu, Hardwyn
16.	Pre-cast terrazzo tiles	IS 1237: 1980	NTC, A-1, GTC
17.	PVC pipe	IS 4985:2000	Supreme, Finolex, Prince
18.	PVC fittings	IS 14233:1999	Supreme, Finolex, Prince
19.	Ceramic glazed wall tiles	IS 13712:1993	HR Johnson, Kazaria, Orient, Somany

B. ELECTRICAL WORKS:

S. No.	Items	Conforming IS Code	Make
1	FRLS PVC insulated copper conductor	IS 694:1990/IEC 60227-1 to 5	Havells/RR Kabels/KEI/Polycab/Skytone

		(1979)	
2	PVC / Steel Conduit (duly ISI marked)	IS 9537 (Part 1): 1980/ IEC 60614-1 (1978)	Setia/ AKG/ BEC
3	Piano type switch / socket	IS 3854:1997	Havells/Kinjal/Anchor
4	Phenolic laminated sheet cover		Hylem/Formica/ Skylam
5	MCB Distribution board	IS 2675:1983	Havells/ Legrand/ C&S/ L&T/ Siemens
6	MCB / MCCB	IS 13032:1991	Havells/ Legrand/ C&S/ L&T
7	Brass compression gland/ Thimble		Dowells/ Comet/ Action
8	G.I. Wire/ G.I. strip		Hot dipped galvanized wire
9	Indoor cubical type panel board	IS 5039:1983	Tricolite / Advance Panel & Switchgear Pvt. Ltd/ Neptune/ ASPL/ Risha (All Duly CPRI approved workshop)
10	G.I. Pipe (duly ISI marked)	IS 1239 (Part1)	Jindal Hisar/ ITC/ TATA STEEL
11	Bend, elbow, socket, union, clamp		Duly ISI Marked
12	Indicating LED Lamp	IS 16102 (Part I & II)	L&T /Siemens/ ABB/ Schneider/ Rishabh/ Philips
13	Various wattages Energy efficient LED luminaries.	IS 10322 (Part 1) : 1982/ IEC 598-1 (1979)	Crompton/ Havells/ Philips
14	LT armoured power cables- Aluminium conductor	IS 694:1990/IEC 60227-1 to 5 (1979)	Finolex/ Havells/ Universal/ Polycab
15	Inverter system	IS 13314	Sukam/ Microtek/ Luminous
16	Heavy duty ceiling fan/ exhaust fan	IS 374:1979	Almonard/ Crompton/ Havells/ Usha
17	Pressure type fire extinguishers	IS 15683:2006	Lifeguard/ Omex/ Ceasefire
18	Submersible pump set	IS 8034-1989	KSB/ Kirloskar/ Grundfos
19	Copper conductor flat submersible cable	IS 694:1990/IEC 60227-1 to 5 (1979)	Finolex / Havells / Universal / Polycab / Skytone
20	DOL starter	IS 8544 (Part 1): 1977	Havells / L&T / Rishabh / KSB
21	Ammeter/ Voltmeter	IS 1248 (Part 2): 2003/ IEC 60051-2 (1984)	L&T / Rishabh / HPL / Vaishno / AE

22	Overload relay/ Power contactor		L&T/BCH/GE /Havell's / HPL
23	Single phase Preventer		Minilec /L&T/ HPL
24	Lead Acid SMF battery	IS 14257	Exide/ SF/ AMRA RAJA
25	Motor/ Pumps	IS 9542-1980	Kirloskar/ Havells/ Crompon Green/KSB
26	25 KVA DG Set (Air cooled/ water cooled)	Engine- IS 10001 Alternator- IS 13364 (part-1)	Kirloskar / Cummins/Eicher
27	Fluorescent luminaries	IS 10322 (Part 1) : 1982/ IEC 598-1 (1979)	Crompton/ Havells/ Philips

Note: The preferred makes are not restrictive in nature and can accommodate any local brand/makes as per the site or project condition. The usage of these alternative brands/makes would be subject to meeting technical parameters as per relevant IS Code/ CPWD approval and the approval of competent authority.

END OF SECTION-5

SECTION-6**BID SUBMISSION FORM**

Offer No.:

Date:

To: [Head of Department]VBGP

Dear Sir,

In response to your Tender No. _____, we hereby submit our offer herewith.

1. Bidder Name : _____
2. Website Address : _____
3. Email Address : _____
4. Address for Communication : _____

5. Telephone Number : _____
6. Fax/Telefax Number : _____
7. Authorised Person -
Name : _____
Designation : _____
Mobile No. : _____
Email ID : _____
8. Alternate Person
Name: : _____
Designation : _____
Mobile No. : _____
Email ID : _____
9. PAN Number : _____
10. GST Regn. No. with Address : _____

11. Beneficiary's complete Bank Details.
Bank Account No. : _____
IFSC / NEFT Code : _____
Name of the Bank : _____
Address of the Branch : _____
12. Particulars of EMD
Amount : Rs. _____
Mode of Payment (DD/BG) : _____
DD/BG No. : _____
Date : _____
Name of the Bank : _____
Address of the Bank : _____

Validity of BG : _____

13. Particulars of Tender Fee

Amount : Rs. _____

DD No. : _____

Date : _____

Name of the Bank : _____

Address of the Bank : _____

14. Turnover of the Bidder in last 3 years:-

Year	Year Annual Report attached at Page No.	Turnover in Rs. (Lakh)
Average Turnover		

15. Are you a MSME Unit. If yes, please furnish Registration Details, Name of the DIC/State.

16. If you are MSME, is it owned by SC/ST Entrepreneurs or Women Entrepreneurs? If Yes, please specify the Name of the Owner who is SC or ST or Women Entrepreneur (as applicable).

17. Following Documents are submitted to substantiate other eligibility criteria.

i) _____

ii) _____

iii) _____

DECLARATION

- We have read and understood the terms & conditions of the above-mentioned tender and comply to all Terms & Conditions of the Tender.
(In case of any deviation, the Bidder must attach a separate sheet clearly mentioning the Clause No. of the Tender and Deviation thereto)

- We certify that the information mentioned above are true and correct to best of our knowledge.

Place:

Date:

Signature of Authorised Signatory with Seal

Name:

Designation:

END OF SECTION-6

SECTION-7**BID SECURITY BANK GUARANTEE (EMD) FORMAT**

Whereas (hereinafter called “the Bidder”) has submitted its bid dated
 For the supply of Vide Tender No. dated KNOW ALL
 MEN by these presents that WE OF Having our registered office at
 (hereinafter called “the Bank”) are bound unto Telecommunications Consultants India
 Limited (hereinafter called “the Purchaser”) in the sum of Rs for which payment will
 and truly to be made of the said Purchaser, the Bank binds itself, its successors and assigns by these
 present.

THE CONDITIONS of the obligation are:

1. If the Bidder withdraws his bid during the period of bid validity specified by the Bidder on the Bid form or
2. If the Bidder, having been notified of the acceptance of his bid by the Purchaser during the period of bid validity
 - (i) fails or refuses to execute the Contract, if required; or
 - (ii) The successful bidder fails to submit performance security within the prescribed time. or
 - (iii) The proceed of EMD shall be payable to VBGP in case of breach of any of the terms and conditions of the contract/PO/tender by the vendor.

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

This guarantee will remain in force upto and including THIRTY (30) days after the Period of bid validity and any demand in respect thereof should reach the Bank not later than the specified date/dates.

Signature of the Bank Authority.

Name

Signed in Capacity of

Name & Signature of witness

Full address of Branch

Address of witness

Tel No. of Branch
 Fax No. of Branch

END OF SECTION-7

SECTION – 8**FORMAT FOR INSURANCE SURETY BOND FOR EMD / BID SECURITY**

(To be stamped in accordance with Stamp Act of India)

(TO BE ISSUED FROM A DELHI BRANCH)

This BOND is made as a deed AMONG the following parties

The “Bidder” as contractor..... (name and address)

The “Surety Insurer” as guarantor (name and address) and “Purchaser” as Telecommunications Consultants India Limited, (VBGP

Whereas (hereinafter called “the Bidder”) has submitted its bid dated for the vide Tender No. dated

KNOW ALL MEN by these presents that We Of Having our registered office at.....(hereinafter called “the Surety Insurer”) irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents and the RFP Document by the Bidder and are irrevocably and unconditionally bound unto Telecommunications Consultants India Limited (hereinafter called “the Purchaser”) to the sum of Rsfor which payment will and truly to be made of the said Purchaser, the Surety Insurer binds itself, its successors and assigns by these present.

THE CONDITIONS of the obligation are:

1. If the Bidder withdraws his bid during the period of bid validity specified by the Bidder on the Bid form or
2. If the Bidder, having been notified of the acceptance of his bid by the Purchaser during the period of bid validity
 - i. Fails or refuses to execute the Contract, if required; or
 - ii. The successful bidder fails to submit performance guarantee / security within the prescribed time.

or

- iii. The proceeds of Surety Bond (EMD) shall be payable to VBGP in case of breach of any of the terms and conditions of the tender by the bidder.

We, the Surety Insurer, undertake to immediately and forthwith pay to the Purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand, the purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

The Surety Bond shall not be affected by any change in the constitution or winding up of the Bidder or the Surety Insurer or any absorption, merger or amalgamation of the Bidder or the Surety Insurer with any other person.

This Surety Bond will remain in force up to and including THIRTY (30) days after the period of bid validity and any demand in respect thereof should reach the Surety Insurer not later than the specified date/dates. VBGP shall have the fullest liberty without affecting in any way the liability of the Surety Insurer under this Surety Bond from time to time to vary any of the terms and conditions in the said Bidding Documents or to extend time for submission of the Bids or the bid validity period or the period for fulfillment and compliance with all or any of the terms and conditions contained in the said Bidding

Documents by the said Bidder and the Surety Insurer shall not be released from its liability under these presents by any exercise by the VBGP of the liberty as aforesaid or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Surety Insurer from its such liability.

The parties acknowledge and agree that neither this Surety Bond nor any obligations hereunder are transferable or assignable.

The Surety Insurer declares that this Insurance Surety Bond is issued as per applicable rules and regulations of Insurance Regulatory Development Authority of India (IRDAI).

Name & Signature of witness

Address of witness

Signature of the authorized Surety Insurer

Name

Signed in Capacity of

Full address of Branch

Tel No. of Branch

Fax No. / email of Branch

Notes:

- 1) The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
- 2) The Insurance Surety Bond should be on non-judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s).
- 3) The executing officer of the Surety Bond will indicate his name, designation, and Power of Attorney No. on last page of the Surety Bond.

END OF SECTION - 8

SECTION-9**AUTHORIZATION LETTER****Format for Authorization letter to be submitted by Bidder**

Know all men by these presents that we (name of Company) _____, incorporated in India under the Companies Act, 1956 and having its Registered Office at _____. (India) ("Hereinafter called the Company") DOTH hereby nominate, constitute and appoint (Name, Designation) _____, S/o _____ to be true and lawful authorized signatory in fact and at law of the Company for and in the name and on behalf of the Company, to do, execute and perform all or any of the following acts, deeds, matters and things namely:-

1. To represent the Company to all intents and purposes in connection with the matters pertaining to signing & submission of (EOI No, EOI Date, EOI Description) _____, _____, _____ and all affairs ancillary or incidental thereto.
2. AND the Company hereby agrees that all acts, deeds and things lawfully done by the said authorized signatory shall be construed as acts, deeds and things done by the Company itself and the Company hereby undertakes to ratify and confirm all and whatever its authorized signatory shall lawfully do or cause to be done for and on behalf of the Company by virtue of the powers hereby given.

In witness whereof (Name , Designation) _____, _____ of the Company acting for and on behalf of the Company under the authority conferred by the Board of Directors of the Company in its _____ meeting held on (Date) _____ has signed this Authorization Letter at (place) _____ on this (Date) _____.

The signatures of (Name , Designation) _____ given below are hereby certified.

Signature : _____

SIGNATURES OF (Name , Designation) _____

CERTIFIED

Signature : _____

WITNESS:-

Signature:_____

(Name , Designation):_____

END OF SECTION-9

SECTION-10**Financial Information Certificate**

Financial Analysis : Details to be furnished duly supported by figures in Balance Sheet/Profit & Loss Account for the last three years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (certified copies to be attached)

	Description	2020-21	2021-22	2022-23	Average annual turnover
		A	B	C	(A+B+C)/3
(i)	Annual turnover on Construction works				
(ii)	Profit/Loss				
(iii)	Net Worth				

The certificate to be issued on letter head of CA, duly signed and by the bidder & CA. UDIN is mandatory.

Signature of CA

Signature of Bidder

UDIN:-

END OF SECTION-10

SECTION-11**Details of Similar Works Completed During Last 7 (Seven) Years**

Sr. No.	Name of work/ Project & Location	Owner of organization	Value of work in lakhs at completion	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	litigation /arbitration pending/ in progress with details	Name and address/telephone number of officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	9

Signature of bidder

END OF SECTION-11

SECTION-12**Details of similar works in progress**

Sr. No	Name of work/ Project & Location	Owner of organization	Value of work in lakhs	Date of commencement as per contract	Stipulated date of completion	Name and address/telephone number of officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8

Signature of bidder

END OF SECTION-12

SECTION-98**Affidavit**

(To be submitted on non-judicial stamp paper of Rs. 100/- duly certified by notary public)

Affidavit of Mr. _____ S/o _____ R/o _____ I,
the deponent above named do hereby solemnly affirm and declare a under:

1. That I am the Proprietor/Partner/ Director/ Authorized signatory of M/s. _____ having its Head Office / Registered. Office at _____
2. That the information/documents / Experience _____ certificates submitted by M/s. _____ along with this tender for “Construction of Boys Hostel Block (02 nos.) and Entrance Gate for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa” in VBGP are genuine and true and nothing has been concealed.
3. I shall have no objection in case VBGP verifies them from issuing authority (ies). I shall also have no objection in providing the original copy of the document(s), in case VBGP demand so for verification.
4. I hereby confirm that in case, any document, information &/or certificate submitted by me found to be incorrect/false/fabricated, VBGP at its discretion may disqualify/reject my application for this tender out rightly and also debar me/M/s. _____ from participating in any future tenders.

DEPONENT

I, _____, the proprietor/authorized signatory of M/s. _____, do hereby confirm that the contents of the above Affidavit are true to my knowledge and nothing has been concealed there from and that no part of it is false.

Verified at _____ this _____ day of _____

DEPONENT**END OF SECTION-13**

SECTION-14**DECLARATION**

(To be submitted on non-judicial stamp paper of Rs. 10/- duly certified by Notary)

I/We have read and examined the bid document, terms and Conditions of bid and other documents and Rules referred to in the bid and all other contents in the bid documents for the construction works.

I/We hereby submit bid for (Name of Work-----) within the specified time schedule.

I/We agree to keep the bid open for hundred one twenty (120) days from the date of opening of technical bid thereof not to make any modifications in its terms and conditions.

I/We hereby declare that I/We treat the bid documents, drawings and other records connected with the construction as secret / confidential documents and shall not communicate information / derived there from to any person except to whom, I/We may be authorized to communicate the same or use the information in any manner prejudicial to the interest of the company.

If I/We fail to commence the construction works specified I/We agree that the said VBGP or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money Deposit and / or Performance Guarantee absolutely otherwise the said Earnest Money Deposit and / or Performance Guarantee shall be retained by them towards Security Deposit to render all construction works referred to in the bid documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered.

Signature of the Bidder
Seal of Bidder

Place :

Date:

END OF SECTION-14

SECTION-15**PRICE BID SCHEDULE**

Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa							
NIT No.: VBGP/NMA-NIT/2024-25/01						Date:	
<u>Summary of Cost</u>							
Name of Bidder : M/s							
S. No.	Description	BOQ Cost in INR	Percentage quoted by the tenderer above/ below/ at par the total amount of BOQ			Quoted Amount (INR)	
			Above/ Below/ At par	% age in figure	% age in Words	in figure	in Words
[1]	[2]	[3]	[4]	[5]	[6]	[7]	
a)	Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa	6,22,35157	Above/ Below/ At par				
NOTE:							
1. The tenderer shall furnish their rate in terms of % above/ below/ at par against Overall Estimated Cost.							
2. If the tenderer choose to opt "At par" under column 4, then the value against 'percentage' in figures in column 5 shall be inserted as '0' (i.e. zero). In such case, if the tenderer fills any value of percentage (other than '0') under column 5, then it will not be given any cognizance and "At par" option (i.e. "Zero" percent) chosen by the tenderer shall take precedence and the amount will be taken as "At par" irrespective of the percentage mentioned under column 5.							
3. Bidder will quote its rates inclusive of all charges, costs, taxes, levies, royalty, EPF, ESI & GST.							
4. If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.							
Date:							
Place:							
Seal & Signature of Authorised signatory of Bidder							

END OF SECTION-15

SECTION-16**MANUFACTURER'S AUTHORISATION FORM**

[Head of Department]

Vidya Bharti Gujarat Pradesh .VBGP

Dear Sir,

Ref: Your [document No]_____dated _____

We, _____who are proven and reputable manufacturers of (name and description of the factories at goods offered in the bid) having, hereby authorize M/s (name and address of the agent) to submit a bid, process the same further and enter into a contract with you against your requirement as contained in the above referred documents for the above goods manufactured by us.

We also state that we are not participating directly in this bid for the following reason(s):

_____(Please provide reason here).

We also hereby extend our full warranty, CAMC as applicable as per Client's [tender No.] and [tender name], read with modification, if any, for the goods and services offered for supply by the above firm against this EOI document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorized agent and the spares for the equipment shall be available for at least 10 years from the date of supply of equipment.

We also confirm that the price quoted by our agent shall not exceed the price which we would have quoted directly"

Yours faithfully,

[Signature with date, name and designation]

for and on behalf of M/s _____

[Name & address of the manufacturers]

Note: I. This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a person competent and having the Authorization letter / Board Resolution to legally bind the manufacturer.

2. Original letter may be sent.

END OF SECTION-16

SECTION-17**PERFORMANCE BANK GUARANTEE (PBG Format)****(TO BE ISSUED BY A DELHI BRANCH)**

**M/s Telecommunications Consultants India Ltd.,
TCIL Bhawan, Greater Kailash-I
New Delhi – 110 048 (INDIA)**

(With due stamp duty if applicable)

OUR LETTER OF GUARANTEE No. : _____

In consideration of TELECOMMUNICATIONS CONSULTANTS INDIA LIMITED, having its office at VBGP Bhawan, Greater Kailash-I, New Delhi – 110 048 (INDIA) (hereinafter referred to as “VBGP” which expression shall unless repugnant to the content or meaning thereof include all its successors, administrators and executors) and having entered into an agreement dated _____/issued Purchase Order No. _____ dated _____ with/on _____ M/s _____ (hereinafter referred to as “The Supplier” which expression unless repugnant to the content or meaning thereof, shall include all the successors, administrators, and executors).

WHEREAS the Supplier having unequivocally accepted to supply the materials/Services as per terms and conditions given in the Agreement dated _____/Purchase Order No. _____ dated _____ and VBGP having agreed that the Supplier shall furnish to VBGP a Performance Guarantee for the faithful performance of the entire contract, to the extent of 10% (ten percent) of the value of the Purchase Order i.e. for _____.

We, _____ (“The Bank”) which shall include OUR successors, administrators and executors herewith establish an irrevocable Letter of Guarantee No. _____ in your favour for account of _____ (The Supplier) in cover of performance guarantee in accordance with the terms and conditions of the Agreement/Purchase Order.

Hereby, we undertake to pay upto but not exceeding _____ (say _____ only) upon receipt by us of your first written demand accompanied by your declaration stating that the amount claimed is due by reason of the Supplier having failed to perform the Agreement and despite any contestation on the part of above named supplier.

The proceed of performance security shall be payable to VBGP in case of breach of any of the terms and conditions of the contract/PO/tender by the vendor.

This Letter of Guarantee will expire on _____ including 30 days of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Letter of Guarantee will become of no effect whatsoever whether returned to us or not.

Authorized Signature
Manager
Seal of Bank
Contact details

END OF SECTION-17

SECTION – 18**FORMAT OF INSURANCE SURETY BOND FOR PERFORMANCE GUARANTEE /
PERFORMANCE SECURITY**

(To be stamped in accordance with Stamp Act of India)

(TO BE ISSUED BY A DELHI BRANCH)

M/s Vidhya Bharti Gujarat Pradesh
6, Dr Hedgewar Marg, Shahalam, Pushpkunj,
Maninagar, Ahmedabad, Gujarat 380008
Surety Bond No: _____

This BOND is made as a deed AMONG the following parties

The “Supplier” as contractor(name and address)

The “Surety Insurer” as guarantor (name and address) and “Purchaser” as Telecommunications Consultants India Limited, (VBGP).

WHEREAS TELECOMMUNICATIONS CONSULTANTS INDIA LIMITED, having its office at VBGP (hereinafter referred to as “VBGP” which expression shall unless repugnant to the content or meaning thereof include all its successors, administrators and executors) has accepted the bid of the Supplier in relation to the Tender/RFP/EOI Number dated and having entered into an agreement dated _____ / issued Purchase Order No. _____ dated _____ with/on _____ M/s _____ (hereinafter referred to as “The Supplier” which expression unless repugnant to the content or meaning thereof, shall include all the successors, administrators, and executors).

WHEREAS the Supplier having unequivocally accepted to supply the materials and/or Services as per terms and conditions given in the Agreement dated _____ / Purchase Order No. _____ dated _____ and VBGP having agreed that the Supplier shall furnish to VBGP a Surety Bond for the faithful performance of the entire contract, to the extent of xx% (xx percent) of the value of the Purchase Order / Agreement i.e. for Rs _____.

1. We, _____ (“The Surety Insurer”) which shall include OUR successors, administrators and executors irrevocably, unconditionally and without reservation guarantee the due and faithful fulfillment and compliance of the terms and conditions of the said Agreement/PO by the said Supplier and unconditionally and irrevocably undertake to pay forthwith to the VBGP an amount of Rs.*** ** (Rupees *** ** only (hereinafter referred to as the “Surety Bond”) as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Supplier, if the Supplier shall fail to fulfill or comply with all or any of the terms and conditions contained in the said Agreement/PO.
2. Hereby, we undertake to pay up to but not exceeding _____ (say _____ only) upon receipt by us of VBGP’s first written demand accompanied by VBGP’s declaration stating that the amount claimed is due by reason of the Supplier having failed to perform as per the Purchase Order / Agreement and despite any contestation on the part of above named supplier. Any such written demand made by the VBGP stating that the supplier is in default of the due and faithful fulfillment and compliance with the terms and conditions contained in the Agreement/PO shall be final, conclusive and binding on the surety Insurer, notwithstanding any differences between the VBGP and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other VBGP.
3. VBGP shall have the fullest liberty without affecting in any way the liability of the Surety Insurer under this Surety Bond from time to time to vary any of the terms and conditions in the said Agreement/PO or to extend time for fulfillment and compliance with all or any of the terms and

conditions contained in the said Agreement/PO by the said supplier or to postpone for any time and from time to time any of powers exercisable by it against the said supplier and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Agreement/PO, and the Surety Insurer shall not be released from its liability under these presents by any exercise by the VBGP of the liberty with reference to the matters aforesaid or by any change in the constitution of the VBGP or the Supplier or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect or releasing the Surety Insurer from its such liability. In the event of extension of time for performance of the contract, the Surety Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition or protest.

- 4. WE hereby acknowledge and understand that it shall not be necessary for VBGP to proceed against the said supplier before proceeding against the Surety Insurer and the Surety Bond herein contained shall be enforceable against the Surety Insurer, notwithstanding any other security which the VBGP may have obtained from the said supplier or any other person and which shall, at the time when proceedings are taken against the Surety Insurer hereunder, be outstanding or unrealized.
- 5. We, the Surety Insurer, further undertake not to revoke this Surety Bond during its currency except with the previous express consent of VBGP in writing.
- 6. The Surety Insurer declares that it has power to issue this Surety Bond and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Surety Bond for and on behalf of the Surety Insurer.
- 7. The Surety Bond shall not be affected by any change in the constitution or winding up of the Bidder or the Surety Insurer or any absorption, merger or amalgamation of the Bidder or the Surety Insurer with any other person.
- 8. This Surety Bond will expire on_____including 30 days of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Surety Bond will become of no effect whatsoever whether returned to us or not.
- 9. The parties acknowledge and agree that neither this Surety Bond nor any obligations hereunder are transferable or assignable.
- 10. The Surety Insurer declares that this Insurance Surety Bond is issued as per applicable rules and regulations of Insurance Regulatory Development Authority of India (IRDAI).

Authorized Signature
Manager
Seal of Insurer Surety
Contact details

Name & Signature of witness
Address of witness

Signature of the authorized Surety Insurer
Name
Signed in Capacity of
Full address of Branch
Tel No. of Branch
Fax No. / Email of Branch

Notes:

- 1) The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
- 2) The Insurance Surety Bond should be on non-judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s).
- 3) The executing officer of Surety Bond will indicate his name, designation, and Power of Attorney No. on last page of the Surety Bond

END OF SECTION – 18

SECTION-19**NO-CONVICTION CERTIFICATE****[To be submitted on the Letterhead of the Bidder]**

Offer No.: _____

Date: _____

To

Consultant (Civil-BD)

Vidhya Bharti Gujarat Pradesh

6, Dr Hedgewar Marg, Shahalam, Pushpkunj,

Maninagar, Ahmedabad, Gujarat 380008

Sub: Self Declaration of not been blacklisted for [EOI No.] dated [EOI date]

Dear Sir,

This is to notify you that our Firm /Company/ Organization <**provide Name of the Firm/ Company/ Organization**> intends to submit a proposal in response to [EOI No.] dated [EOI date] for [EOI Name].

In accordance with the above, we declare that:

- a. We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of goods / services as required under this [EOI No] dated [EOI date].
- b. We are neither banned/ debarred/ blacklisted/ put on holiday list nor action for banning / debarment / blacklisting / holiday listing has been initiated by any Central/ State Government/ agency of Central/ State Government of India or any other country in the world/ Public Sector Undertaking/ any Regulatory Authorities in India or any other country in the world for any kind of fraudulent activities on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as on date of submission of the Bid.

Yours sincerely,

(Signature of the Authorized signatory of the Bidding Organisation)

Name:

Designation:

Contact details (including E-mail):

Business Address:

Date:

Seal:

END OF SECTION – 19

SECTION-20**Undertaking for Genuineness of Documents***(on Letter Head)*

We, M/s _____ (*name of the bidder*) hereby undertake that all the documents/ certificates/ information submitted by us against this tender are genuine. In case any of the documents/ certificates/ information submitted by us, is found to be false or forged, VBGP shall be at liberty to immediately reject our bid or cancel/ terminate the contract and forfeit bid security/ performance security submitted by us and debar us from participation in future EOIs/tenders of VBGP for a period upto 2 years.

Signature & Stamp:-**Name:****END OF SECTION – 20**

SECTION-21**Undertaking**
(on Letter Head)

We, M/s_____ (name of the bidder) undertake that 'Vendors, whose Purchase Order(s) for any project of TCIL, was/ were cancelled on risk & cost basis for non-performance or non-submission of performance guarantee in last 2 years, are not eligible to participate in this tender'.

Signature & Stamp:-
Name:

END OF SECTION – 21

SECTION-22**Undertaking**
(on Letter Head)

We, M/s _____ (name of the bidder) undertake that we have read and understood the entire tender document and we comply with all the Terms & Conditions of all the Sections of NIT No. VBGP/Consultant(C-BD)/NMA-NIT/2024-25/01 along with its corrigenda and there is no deviation from all the Terms & Conditions of all the Sections of NIT No. VBGP/Consultant(C-BD)/NMA-NIT/2024-25/01.

Signature & Stamp:-**Name:****END OF SECTION – 22**

SECTION-23

INTEGRITY PACT

[As per format given in VBGP Website – Link <https://vbgnma.in>

END OF SECTION – 23

SECTION-24**Undertaking**
(on Letter Head)

We, M/s _____ (name of the bidder) undertake that we are not insolvent, in receivership, bankrupt or being wound up, not have had our business activity suspended and not be the subject of legal proceedings for any of the foregoing.

Signature & Stamp:-
Name:

END OF SECTION – 24

SECTION-25**Undertaking**
(on Letter Head)

We, M/s _____ (name of the bidder) undertake that If work is awarded to me, I/ We shall obtain GST registration certificate of the state in which work is to be taken up within one month from the date of receipt of award letter or before release of any payment by the Employer, whichever is earlier, failing which, I/We shall be responsible for any delay in payments which will be due towards me/ us on a/c of the work executed and/ or for any action taken by the Employer or GST Department in this regard”.

Signature & Stamp:-
Name:

END OF SECTION – 25

SECTION-26**Undertaking**
(on Letter Head)

“In reference to the Government of India, Ministry of Finance, Department of Expenditure, Office Memorandum No. F.No. 6/18/2019-PPD, Dated 23-07-2020. I hereby submit that:

“We have read the Clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; We certify that we are not from such a country *or their beneficial owner is not from such a country or we will not sub-contract any work to a contractor from such countries*, if from such a country, have been registered with the Competent Authority.

We hereby certify that we fulfill all requirements in this regard and are eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”.

Signature & Stamp:-
Name:

END OF SECTION – 26

SECTION-27**NIT CHECKLIST**

S.No	Document	Submitted (Yes or No) & Page No.
1	NIT Checklist	
2	Tender Fee	
3	EMD (BG/DD/NEFT etc.)	
4	Authorization Letter/Board Resolution	
5	Certificate of Incorporation/ Registration/ Partnership Deed or any other	
6	PAN & GST (Undertaking for GST in case GST registration of same state is not available as per clause 1.2 (d) format at Section-25)	
7	Land Border Undertaking as per clause 1.2 (h) (Section-26)	
8	Financial Information Certificate	
9	Copy of audited balance sheet for FY 2020-21, 2021-22 & 2022-23	
10	Similar Experience Criteria (Copy of work order)	
11	Similar Experience Criteria (Copy of completion certificate)	
12	Insolvent Undertaking (Section-24)	
13	No-Conviction Certificate (Section-19)	
14	Affidavit (Section-13)	
15	Declaration (Section-14)	
16	Details of similar works completed (Section-11)	
17	Details of similar works in progress (Section-12)	
18	Un-priced BOQ (Signed copy of un-priced BOQ to be submitted)	
17	Undertaking from Vendors for non-cancellation of Purchase Order(s) on risk and cost on risk & cost basis or non-performance. (Section-21)	
18	PF & ESI Registration	
19	Local Office Undertaking	
20	Labor Laws Compliance Undertaking	
21	Genuine Documents Undertaking (Section-20)	
22	No-Deviation Certificate/ Clause-by Clause Compliance (Section-22)	
23	Integrity Pact document as applicable	
24	Bid Submission Form	
25	Signed copy of the NIT document	
26	Any Other Undertaking/ document as per EOI.	

END OF SECTION – 27

SECTION-28**Annexure-A to Dispute Resolution Clause****Establishment of a Conciliation & Settlement Mechanism (CSM) for Contractual Disputes under the contract agreements with the Contractors / Concessionaires / Consultants in VBGP.****1. Objective:**

The VBGP has been entering into various contract agreements with the Contractors/ Concessionaires/ Consultants for implementing projects and obtaining services in various modes. Several disputes have been arising under these contract agreements. The associated legal costs and diversion of manpower of both parties are enormous. The early resolution/ settlement of claim, preferably through an out-of-court settlement process, is in the interest of all the stakeholders.

2. The Standing Operating Procedure (SoP)

The procedure given hereunder will be implemented for resolving disputes through conciliation mechanism:

- 1) If any commercial/contractual dispute arises between VBGP and Bidder/MoU partner/Vendor/Contractor, then any of the party shall send a reference about the dispute containing a written brief identifying the subject of the dispute to the CMD, VBGP along with a copy of such reference to other party for resolution of dispute through conciliation.
- 2) CMD, VBGP or his authorized representative shall, within seven days of receipt of such a reference, nominate an officer of VBGP to act as the conciliator and shall arrange to issue necessary intimation to both the parties.
- 3) Within three days of appointment of conciliator by CMD, VBGP both the parties shall intimate to the conciliator, the name of their respective officer(s) who shall be representing such a party in the conciliation proceedings. The maximum number of such officer(s) shall not be more than three and no legal practitioner/advocate shall be part of such a team.
- 4) Thereafter, both the teams of the parties shall meet on the dates as fixed by the conciliator, discuss the agenda and explore the possibilities of conciliation/settlement. First such meeting shall be held within Seven (7) days of the nomination of the conciliation team by both the parties. The venue for conducting conciliation proceedings will be VBGP Rohit Mishra

- 5) The conciliator shall assist the parties in an independent and impartial manner in their attempt to reach an amicable settlement of their dispute.
- 6) The conciliator shall be guided by principles of objectivity, fairness and justice, giving consideration to, among other things, the rights and obligations of the parties, the usages of the trade concerned and the circumstances surrounding the dispute, including any previous business practices between the parties.
- 7) The conciliator may conduct the conciliation proceedings in such a manner as he considers appropriate, taking into account the circumstances of the case, the wishes the parties may express, including any request by a party that the conciliator hear oral statements, and the need for a speedy settlement of the dispute.
- 8) The conciliator may, at any stage of the conciliation proceedings, make proposals for a settlement of the dispute. Such proposals need not be in writing and need not be accompanied by a statement of the reasons therefor.
- 9) The teams thereafter can meet any number of times under the guidance and supervision of Conciliator and will try to find a solution that is acceptable to both the parties. The conciliation may be successful or partially successful. On the points of dispute or part of a dispute wherein parties have agreed for a common ground, the officers representing each party shall seek approval of their respective company/entity. After that a settlement deed shall be drafted and signed by the authorized representatives of the parties. When the parties sign the settlement agreement, it shall be final and binding on the parties and persons claiming under them respectively and this shall not be challenged by any of the party in any court or under any law. The parties shall unequivocally affirm, declare and confirm in the settlement agreement that they have signed the agreement without any coercion, duress, inducement and were fully competent to sign the said agreement.
- 10) The conciliator shall endorse and authenticate the settlement agreement and furnish a copy thereof to each of the parties.
- 11) The conciliation process shall be concluded within 60 days of nomination of its representatives by the second party. However, the parties, with mutual consent can extend this period and then the conciliation proceedings shall be concluded in this extended period.
- 12) If no settlement is arrived between the parties in the time mentioned in clause 5) above, then the conciliation proceedings shall be deemed to have been failed.
- 13) The conciliator shall intimate the appointing authority the final outcome of the conciliation proceedings.

3. Resort to arbitral or judicial proceedings:

The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject-matter of the conciliation proceedings except that a party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights.

4. Admissibility of evidence in other proceedings.

- 1) The parties shall not rely on or introduce as evidence in arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the conciliation proceedings,—
 - (a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute;
 - (b) admissions made by the other party in the course of the conciliation proceedings;
 - (c) Proposals made by the parties or conciliator;
 - (d) The fact that the other party had indicated his willingness to accept a proposal for settlement made by the other party.

5. Confidentiality.

Notwithstanding anything contained in any other law for the time being in force, the parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement.

6. Termination of conciliation proceedings.

The conciliation proceedings shall be terminated on happening of any of the conditions below:-

- 1) by the signing of the settlement agreement by the parties, on the date of the agreement; or
- 2) by a written declaration of the conciliator, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or
- 3) by a written declaration of the parties addressed to the conciliator to the effect that the conciliation proceedings are terminated, on the date of the declaration; or
- 4) by a written declaration of a party to the other party and the conciliator, if appointed, to the effect that the conciliation proceedings are terminated, on the date of the declaration; or
- 5) by the lapse of time or extended time as provided in clause 2(12) above

END OF SECTION – 28

SECTION – 29

F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division


161, North Block,
New Delhi
23rd July, 2020

Office Memorandum

Subject: Insertion of Rule 144 (xi) in the General Financial Rules (GFRs), 2017

Rule 144 of the General Financial Rules 2017 entitled 'Fundamental principles of public buying', has been amended by inserting sub-rule (xi) as under:

Notwithstanding anything contained in these Rules, Department of Expenditure may, by order in writing, impose restrictions, including prior registration and/or screening, on procurement from bidders from a country or countries, or a class of countries, on grounds of defence of India, or matters directly or indirectly related thereto including national security; no procurement shall be made in violation of such restrictions.


(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To,
(1) Secretaries of All Ministries/ Departments of Government of India
(2) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

161, North Block,
New Delhi
23rd July, 2020

Order (Public Procurement No. 1)

Subject: Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

Attention is invited to this office OM no. 6/18/2019-PPD dated 23rd July 2020 inserting Rule 144 (xi) in GFRs 2017. In this regard, the following is hereby ordered under Rule 144 (xi) on the grounds stated therein:

Requirement of registration

1. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annex I**.
2. This Order shall not apply to (i) cases where orders have been placed or contract has been concluded or letter/notice of award/ acceptance (LoA) has been issued on or before the date of this order; and (ii) cases falling under **Annex II**.

Transitional cases

3. Tenders where no contract has been concluded or no LoA has been issued so far shall be handled in the following manner: -
 - a) *In tenders which are yet to be opened, or where evaluation of technical bid or the first exclusionary qualificatory stage (i.e. the first stage at which the qualifications of tenderers are evaluated and unqualified bidders are excluded) has not been completed:* No contracts shall be placed on bidders from such countries. Tenders received from bidders from such countries shall be dealt with as if they are non-compliant with the tender conditions and the tender shall be processed accordingly.
 - b) *If the tendering process has crossed the first exclusionary qualificatory stage:* If the qualified bidders include bidders from such countries, the

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entire process shall be scrapped and initiated *de novo*. The *de novo* process shall adhere to the conditions prescribed in this Order.

- c) As far as practicable, and in cases of doubt about whether a bidder falls under paragraph 1, a certificate shall be obtained from the bidder whose bid is proposed to be considered or accepted, in terms of paras 8, 9 and 10 read with para 1 of this Order.

Incorporation in tender conditions

- 4. In tenders to be issued after the date of this order, the provisions of paragraph 1 and of other relevant provisions of this Order shall be incorporated in the tender conditions.

Applicability

- 5. Apart from Ministries / Departments, attached and subordinate bodies, notwithstanding anything contained in Rule 1 of the GFRs 2017, this Order shall also be applicable
 - a. to all Autonomous Bodies;
 - b. to public sector banks and public sector financial institutions; and
 - c. subject to any orders of the Department of Public Enterprises, to all Central Public Sector Enterprises; and
 - d. to procurement in Public Private Partnership projects receiving financial support from the Government or public sector enterprises/ undertakings.
 - e. Union Territories, National Capital Territory of Delhi and all agencies/ undertakings thereof

Definitions

- 6. "Bidder" for the purpose of this Order (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
- 7. "Tender" for the purpose of this Order will include other forms of procurement, except where the context requires otherwise.
- 8. "Bidder from a country which shares a land border with India" for the purpose of this Order means

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- a) An entity incorporated, established or registered in such a country; or
- b) A subsidiary of an entity incorporated, established or registered in such a country; or
- c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d) An entity whose *beneficial owner* is situated in such a country; or
- e) An Indian (or other) agent of such an entity; or
- f) A natural person who is a citizen of such a country; or
- g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

9. "Beneficial owner" for the purpose of paragraph 8 above will be as under:

- (i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation—

- a. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
- b. "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

- (ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

- (iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

- (iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

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(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

10. "Agent" for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons.

Sub-contracting in works contracts

11. In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 8 above. This shall not apply to sub-contracts already awarded on or before the date of this Order.

Certificate regarding compliance

12. A certificate shall be taken from bidders in the tender documents regarding their compliance with this Order. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.

Validity of registration

13. In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

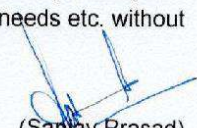
Government E-Marketplace

14. The Government E-Marketplace shall, as soon as possible, require all vendors/ bidders registered with GeM to give a certificate regarding compliance with this Order, and after the date fixed by it, shall remove non-compliant entities from GeM unless/ until they are registered in accordance with this Order.

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Model Clauses/ Certificates

15. Model Clauses and Model Certificates which may be inserted in tenders / obtained from Bidders are enclosed as **Annex III**. While adhering to the substance of the Order, procuring entities are free to appropriately modify the wording of these clauses based on their past experience, local needs etc. without making any reference to this Department.


(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To

- (1) Secretaries of All Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.
- (2) Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect of Public Enterprises.
- (3) Secretary DPIIT with a request to initiate action as provided under Annex I
- (4) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

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Annex I: Competent Authority and Procedure for Registration

- A. The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)*.
- B. The Registration Committee shall have the following members*:
- An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;
 - Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;
 - Any other officer whose presence is deemed necessary by the Chairman of the Committee.
- C. DPIIT shall lay down the method of application, format etc. for such bidders as stated in para 1 of this Order.
- D. On receipt of an application seeking registration from a bidder from a country covered by para 1 of this Order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.
- E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.
- F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.
- G. Registration shall not be granted unless the representatives of the Ministries of Home Affairs and External Affairs on the Committee concur*.
- H. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by Central Government and its agencies/ public enterprises etc. but **also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required.**

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- I. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.
- J. For national security reasons, the Competent Authority shall not be required to give reasons for rejection / cancellation of registration of a bidder.
- K. In transitional cases falling under para 3 of this Order, where it is felt that it will not be practicable to exclude bidders from a country which shares a land border with India, a reference seeking permission to consider such bidders shall be made by the procuring entity to the Competent Authority, giving full information and detailed reasons. The Competent Authority shall decide whether such bidders may be considered, and if so shall follow the procedure laid down in the above paras.
- L. Periodic reports on the acceptance/ refusal of registration during the preceding period may be required to be sent to the Cabinet Secretariat. Details will be issued separately in due course by DPIIT.

[*Note:

- i. In respect of application of this Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government and paragraph G above shall not apply. However, the requirement of **political and security clearance as per para D shall remain and no registration shall be granted without such clearance.**
- ii. Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

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Annex II: Special Cases

- A. Till 31st December 2020, procurement of medical supplies directly related to containment of the Covid-19 pandemic shall be exempt from the provisions of this Order.
- B. *Bona fide* procurements made through GeM without knowing the country of the bidder till the date fixed by GeM for this purpose, shall not be invalidated by this Order.
- C. *Bona fide* small procurements, made without knowing the country of the bidder, shall not be invalidated by this Order.
- D. In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this Order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.
- E. This Order shall not apply to procurement by Indian missions and by offices of government agencies/ undertakings located outside India.

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Annex III**Model Clause /Certificate to be inserted in tenders etc.**

(While adhering to the substance of the Order, procuring entities and GeM are free to appropriately modify the wording of the clause/ certificate based on their past experience, local needs etc.)

Model Clauses for Tenders

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The *beneficial owner* for the purpose of (iii) above will be as under:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

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- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. *[To be inserted in tenders for Works contracts, including Turnkey contracts]* The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Model Certificate for Tenders (for transitional cases as stated in para 3 of this Order)

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered."

Model Certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the

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Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model Certificate for Tenders for Works involving possibility of sub-contracting

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model Certificate for GeM:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this vendor/ bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this vendor/ bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

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END OF SECTION – 29

SECTION – 30**AGREEMENT**

This Agreement is made on this _____ day of _____ 2024

Between

Telecommunication Consultants India Ltd., a Government of India Enterprise and a company registered under the Indian Companies act 1956 and having its Registered & Corporate Office at TCIL Bhawan, Greater Kailash-1, New Delhi-110048 (hereinafter called "TCIL") which expression unless repugnant to the context or subject shall include its successors and its permitted assigns, of one part

And

_____ having its office at _____
represented by _____ **(hereinafter called the “Agency”)**
(which expression unless repugnant to the context or subject shall include its successors & its permitted assigns) of the other part.

VBGP & Agency collectively referred as “Parties” & individually as “Party”.

Whereas VBGP has been awarded the work of PMA for execution of “Construction of Boys Hostel Block (02 nos.) and Entrance Gate for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa” (hereinafter referred as “Work”) by Power Finance Corporation (PFC), (hereinafter referred to as “Client”), whereas VBGP has accepted PFC’s terms and entered into an agreement with PFC to execute Construction of Boys Hostel Block (02 nos.) and Entrance Gate for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa as Project Management Agency (hereinafter referred to as “Main Contract”).

Whereas VBGP had floated a tender vide NIT No. _____ dated _____ for “Construction of Boys Hostel Block (02 nos.) and Entrance Gate for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa”, inviting bids for execution of the said work and whereas _____ (Name of Agency) submitted its quote dated _____, wherein the Agency has agreed to carry out the said work at Rs _____, inclusive of all charges, taxes, levies as applicable including GST, EPF & ESI.

Whereas VBGP is desirous that Contractor shall execute the work as per NIT documents No. _____ dated _____ including Corrigendums for “Construction of Boys Hostel Block (02 nos.) and Entrance Gate for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa”

NOW THIS AGREEMENT WITNESSETH as follow:

1. In the Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the conditions of contract/ documents thereafter referred to.
2. The following standard documents in addition to the documents attached with NIT, shall be deemed to form and be read and construed as part of Agreement viz.
 - a) Tender Documents of NIT No. _____ dated _____ & Corrigendum(s)

- b) The conditions and specifications of the Client as contained in the agreement for Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa works and other related relevant documents.
- c) Bid dated _____ submitted by _____ against NIT No. _____ dated _____.
- d) The Letter of Award vide letter no. _____ dated _____ issued by VBGP.
- e) The Agency's unconditional acceptance of the LOA vide letter no. _____ dated _____.
3. In consideration of the payments to be made by VBGP to the Agency, the Agency hereby covenants with VBGP to execute, complete and maintain the work in conformity in all respects with the provisions of the contract.
4. VBGP hereby covenants to pay the Agency in consideration of execution, completion and maintenance of the works at the contract price at the times and in the manner prescribed by the contract.
5. Payment terms shall be governed by the provisions of NIT No. _____ dated _____ including corrigendum(s).
6. Notwithstanding anything contained in any other agreement, document, correspondence, arrangement between the parties in respect of subject Works/Projects, the contractor understands, agrees and undertakes that the Payment terms shall be governed by the provisions of NIT No. _____ dated _____. However, Contractor has clearly understood & agreed that:
- The date of delivery of goods and/or rendering of services by Contractor shall be the date of realization of payment from the Client once the goods and/or services are accepted by the Client.
 - The benefit in case of Force Majeure event as stated at Clause no. _____ of _____ of NIT No. _____ dated _____ shall be extended if such an event is accepted by the Client and due extension/benefit granted to VBGP.
 - This Contract shall be interpreted, construed and governed by the laws of the Republic of India and the parties hereby submit to the exclusive jurisdiction of the Court at Delhi only and to all Courts at Delhi having jurisdiction in appeal there from as stated in Clause no. _____ of NIT No. _____ dated _____.
 - The Project is being executed for the ultimate benefit of the Client/Beneficiary/Owner, and that the VBGP has awarded the works on back to back basis/PMC at terms and conditions as per MoU/MoA with the Client. The Contractor agrees and understands that the contractor is executing the works of the Client/Owner as per the terms, conditions and specifications of the tender floated by VBGP on behalf of the Client. The Contractor fully understands that role of VBGP is of PMC only whereas the actual execution is to be done by the contractor.
 - That the payment terms are on back to back basis and the payment shall be released to contractor by VBGP only if and when received by VBGP from the Client and subject to

agrees that the client is ultimately liable for timely payments and it shall not make VBGP responsible or liable for any default of the Client in this regard. VBGP shall only endeavor its level best to request the Client to release the payments of the contractor or make fund available for such payments in time as per agreement.

- f. That it will not demand or make any claim under any law with respect to the pending payment till the time corresponding payment is received by VBGP from the Client. VBGP shall not be responsible in any manner whatsoever for any delay in releasing the payments or withholding of payments by the Client.
- g. Any delay or default on the part of the Client in making timely payments or releasing funds timely or any omission or commission of any action by the Client shall not make TCIL liable for either the payment of the principal amount, wholly or in part, as the case may be, or towards any payment of the interest or other amounts, whatsoever, which shall otherwise be payable by VBGP to the Contractor in its normal liability to pay to the contractor for the execution of the Contract.
- h. In case of any dispute between the parties, the parties expressly agrees that the award passed by the Arbitral tribunal/sole arbitrator shall not carry any interest on the awarded amount from the date of cause of action till the date of the award.
- i. The Contractor agrees that whole cost of arbitration would be borne by the contractor since the contractor agrees that VBGP is not responsible for the payment of the dues of the contractor, if the corresponding payment has not been made by the client or fund for payment of their dues are not received from the Client.
- j. That in the instant contract it is engaged in a works contract, no benefits under MSME Act 2006 and PPP Policy 2012 as per MSE guidelines issued by Ministry of MSME would be applicable to it on account of acceptance of back to back payment terms.

This agreement shall be deemed to have come into force with effect from the issuing date of LOA issued by VBGP to the Contractor vide letter no. _____ dated _____ and shall remain into effect till the successful completion of the defect liability period by the Agency. All obligations hereunder shall only apply during the Terms of this Agreement and to such obligations and commitments in the relation of the projects, as may have undertaken by the parties during the term with validity exceeding the term.

IN WITNESS whereof parties have hereunto set their respective hands and seal the day and year first above written.

For and on behalf of
Telecommunications Consultants India Ltd

For and on behalf of

Witness

1.

2.

Witness

1.

2.

END OF SECTION – 30

END OF NIT DOCUMENT



TO,

DATE: 28/10/2021.

NMA School Member

Randha, Silvassa.

Subject:- SBC Report Submission.

Name of Work:- Netaji Subhashchandra Bose Military Academy, Mota Randha, Dadra & Nagar Haveli.

Respected Sir,

With Refrence to above cited work submit the geotechnical investigation report for bore hole no. 1 to 6 which include location of **BH-01** classroom and principal office building, **BH-02** judo karate, martial art and sports building, **BH-03** running track and outdoor stadium, **BH-04** residential quarters, **BH-05** admin office and canteen area, **BH-06** staff family resident quarters for the work of Netaji Subhashchandra Bose Military Academy.

Your Sincerely,

For, Shanti-Infraspac LLP.

Authorised Signatory

Enclosure :- S.B.C Report



Bhumi Research Center
Civil Engineering Testing & Consultancy Service

Ph.: 0261-2363600
0261-2363700



'Bhumi House', 2/1362, Sagrampura, Opp. Sub-Jail, Ring Road, Surat-395 002.

Ref. No.

Date

BRC/REP/211009/2021

25/10/2021

To,
M/S. Shanti Infraspaces LLP,
Sr No: 208/3/1/1,
Mota Randha,
Dadra & Nagar Haveli.

Subject: Sub-soil investigation Report.

Reference: Proposed Site for Netaji Subhash Chandra Bose Training
School at Sr No: 208/3/1/1, Mota Randha, Dadra & Nagar
Haveli.

Dear Sirs,

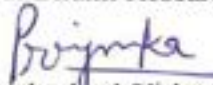
With reference to the above referred site investigation, herewith, we are submitting detailed Sub Soil Investigation Report based on Sub soil exploration, physical and engineering testing of soil characteristics .

This report is based on six exploratory drilling data up to **maximum 10.50m** depth from existing ground level. Locations were selected with engineer in-charge. If any change in strata other than the location of the borehole mentioned in this report is observed at the time of excavation, it is advisable to contact us immediately for further investigation.

Thanking you.

Sincerely Yours,

For Bhumi Research Center


Authorized Signatory



REPORT ON SUB-SOIL INVESTIGATION

Name of Work: Proposed Site for Netaji Subhash Chandra Bose
Training School at Sr No: 208/3/1/1, Mota
Randha, Dadra & Nagar Haveli.

Name of Client: M/S. Shanti Infraspac LLP.

Project No.: 211009.

Month: October' 2021

Tested & Reported By
Bhumi Research Center
(Government Approved Laboratory)
2/1362, "Bhumi House",
Sagrampura, Opp: Sub Jail,
Ring Road, Surat-395002
Phone: 2363600, 2363700.



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DISCLAIMER

We have accepted and use the current scenario of geotechnical engineering procedures and our opinions, recommendations and conclusions are made in accordance with generally accepted principles and practices of these professions.

The extent of investigation as well as specific exploration locations were decided by the clients / consultants. The findings and recommendations are further based on the assumption that the subsurface conditions do not deviate appreciably from those reported and those assumed.

The contents of this report are using the current accepted principles and practices of geotechnical engineering and it is valid as of the date of preparation. However, changes in the condition of the site, properties of subsoil, can occur over time as a result of either natural processes or human activity. In addition, advancements in the practice of geotechnical engineering, engineering and changes in applicable practice codes may affect the validity of this report.

This report has been prepared solely for use by, and is confidential to, the clients and as per the scope and specification instructed by them verbally or in writing and No other use is anticipated or authorized by clients. The report shall be used only by the client for the project and purposes described herein at the locations shown by him and explored by us. We accept no responsibility for its use by other persons. The finding and recommendations are valid when the onsite and offsite conditions affecting the structures in project are not changed due to the actions of man or nature.

Our investigation Report does not include the evaluation or assessment of any potential environmental hazards or groundwater contamination that may be present. Soil being natural heterogeneous material, any deviation observed during execution shall be reported to us for further investigation.



Report on Exploratory Drilling for Sub Soil Stratification

Name of Work: Proposed Site for Netaji Subhash Chandra Bose Training School at Sr No:
208/3/1/1, Mota Randha, Dadra & Nagar Haveli.

1.0 INTRODUCTION:

The investigation of the site is an essential prerequisite to the construction of all civil engineering works with a view to assess the general suitability of the site for the proposed new works and to enable in preparing an adequate and economic design.

In particular, it is necessary to assess the changes that may occur during or after the construction of structure due to the choice of materials or methods of construction, which may adversely affect safety of structure or after its performance or utility.

It is usually judicious to collect information relating to the site prior to commencing its exploration. The exploration of the site for an important structure requires the exploration and sampling of all strata likely to be significantly affected by the structural load. The extent of this exploration will depend on the site and structure.

All structures rest on the foundation soil and their performance depends on soil behavior. Soil forms the most widely used material of construction of earth dams, roads and canals. To study the behavior of soil in foundation or earthwork engineering, properties of soil under the actual field conditions have to be obtained.

Soil mechanics is the application of the laws of mechanics and hydraulics to engineering problems dealing with sediments and other unconsolidated accumulation of solid particles produced by the mechanical and chemical disintegration of rocks, regardless of whether or not they contain an admixture of organic constituent.

Soil exploration provides the detailed sub soil conditions such as Stratification, Hardness & Denseness of the strata, Position of Ground Water table level, Compressibility, Soil stability, Stress analysis, Shearing resistance & Failure analysis.

This complete report is very much useful for ...

- Calculation of Safe Bearing Capacity (SBC) of the soil,
- The Estimation & provision of the ground water table level in design of foundation and if needed to decide upon the method to solve the ground water problem,
- To select an Economical yet safe Design of foundation,

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- The Foundation settlement analysis & to provide provision for the same in design,
- To check the probability of Liquefaction of the soil,
- To forecast the difficulties which are likely to be encountered due to the nature of subsoil during construction and to take advance action in that regard.

The exploratory drilling carried out for sub soil stratification, to assess rock quality, strength & rock fissures. The site was explored with six boreholes at locations as directed by engineer in-charge.

2.0 FIELD WORK:

Six boreholes of 150 mm dia. were drilled up to maximum 10.50m depth from GL by Calyx drilling machine on started on 03/10/2021 & completed on 14/10/2021. Summary of Field Work is given under Table 9.1.

Summary of field work data is given below table:

BH No:	Depth of BH	Location	Field Work Date		Water Table
			Starting Date	Completion Date	
01	10.50m	Classroom and Principal office Building	03/10/2021	05/10/2021	5.30m
02	10.00m	Judo, Karate, Martial Art and Sports building	06/10/2021	08/10/2021	6.50m
03	10.00m	Running track and outdoor stadium	08/10/2021	10/10/2021	4.50m
04	10.00m	Residential Quarters	11/10/2021	14/10/2021	6.10m
05	10.00m	Admin office and Canteen Area	05/10/2021	07/10/2021	4.50m
06	10.00m	Staff Family Resident Quarters	08/10/2021	11/10/2021	4.60m

The disturbed soil samples have been collected by Split Spoon Sampler at every meter or as per strata change and recording of the soil strata change.

The Undisturbed samples have been collected in 70 mm ϕ x 600 mm long thin walled sampler as per IS 2132:1986 (RA.2002) at every 1.50 m depth interval or as per requirement of foundation depth investigation or change in strata whichever met earlier. The sampler has smooth surface and appropriate area ratio and cutting edge angle as required by IS 1892:1979 (RA.2002) to ensure minimum disturbance of soil during sampling.

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The Standard Penetration Test (SPT) has been conducted as per IS 2131:1986(RA,2002) at every 1.50 m depth interval or as per requirement of foundation depth investigation or change in strata whichever met earlier, using Split Spoon Sampler confirming IS 9640:1980 (RA.2007). The SPT Spoon having 50.2mm O.D.*35.0mm I.D. was lowered inside the borehole on a string of drill rods and number of blows for 300 mm penetration of SPT spoon after 150mm as testing drive were recorded under the free fall of 63.5 kg hammer from 750mm height. A true vertical free fall of hammer was observed. SPT 'N' values are given under Table 9.1.

- **Laboratory works:**

Following laboratory tests were carried out to determine the physical and engineering properties of disturbed and undisturbed soil samples. All samples were tested for classification and specific gravity. The test results are incorporated along with bore log exploration datasheet.

The tests were conducted as per relevant Indian Standards as mentioned below.

Name of Test	Confirming to IS No.
1) Sieve Analysis	IS 2720 Part-4-1985 (RA. 2015)
2) Atterberg Limit	IS 2720 Part 5-1985 (RA. 2015)
3) FDD – FMC	IS 2720 Part 9
4) Specific Gravity	IS 2720 (Part-3/Sec-I)-1980 (RA. 2011)
5) Direct Shear Parameters	IS 2720 Part 13-1986 (RA. 2015)
6) Triaxial Shear Parameters	IS 2720 Part-11-1993 (RA. 2011)
7) Consolidation	IS 2720 Part 15- 1965 (RA. 2011)
8) Swell Pressure	IS 2720 Part 41-1977 (RA. 2011)
9) Swelling Index	IS 2720 Part 40-1977 (RA. 2011)
10) Shrinkage Limit	IS 2720 Part 6-1972 (RA. 2015)

The tests were conducted as per relevant Indian Standards as mentioned above.

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3.0 STRATA OF BOREHOLES:

Borehole -01

Sub soil consists of filled up soil (brownish silty clay) up to 1.50m depth followed by brownish high plastic silty clay with sand upto 4.50m depth followed by dull grayish colored, fine grained, melanocratic volcanic igneous, anygdoles of calcite & moderately weathered, amygdoloidal basalt up to 7.50m depth followed by Grayish black coloured, fine grained aphanitic texture melanocratic volcanic igneous, compact basal up to termination depth of 10.50m.

Borehole -02

Sub soil consists of brownish high plastic silty clay with sand up to 2.50m depth followed by dull grayish, fine grained melanocratic volcanic igneous boulders of basalt rock into the murrum matrix up to 4.50m depth followed by grayish black, Fine grained, melanocratic volcanic igneous, perphyritic texture, basalt up to 6.00m depth followed by black fine grained, aphanitic texture, melanocratic volcanic igneous, compact basalt to termination depth of 10.00m.

Borehole -03

Sub soil consists of brownish high plastic silty clay with sand up to 3.50m depth followed by dull whitish fine grained, highly weathered, leucocratic volcanic igneous rock up to 4.50m depth followed by dull grayish fine grained, moderately weathered, aphanitic texture, volcanic igneous, weathered basalt up to 6.00m depth followed by grayish black, fine grained, aphanitic texture, melanocratic volcanic igneous rock with calcite veins, compact basalt up to termination depth of 10.00m.

Borehole -04

Sub soil consists of brownish medium to high plastic silty clay with sand up to 2.50m depth followed by dull grayish fine grained, aphanitic texture, moderately weathered, melanocratic volcanic igneous, basalt up to 6.00m depth followed by dull blackish fine grained, aphanitic & perphyritic texture, melanocratic volcanic igneous, compact basalt up to termination depth of 10.00m.

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Borehole -05

Sub soil consists of filled up soil up to 1.50m depth followed by brownish high to medium plastic silty clay with sand & gravels up to 4.50m depth followed by dull grayish, fine grained, aphanitic texture, melanocratic volcanic igneous, moderately weathered, basalt up to 6.00m depth followed by blackish fine grained, aphanitic texture, melanocratic volcanic igneous, compact basalt up to termination depth of 10.00m.

Borehole -06

Sub soil consists of brownish high to medium plastic silty clay with sand & gravels up to 2.00m depth followed by brownish soft murrum up to 2.50m depth followed by dull blackish fine grained, moderately weathered, aphanitic texture, melanocratic volcanic igneous, basalt up to 4.50m depth followed by blackish fine grained, aphanitic texture, melanocratic volcanic igneous rock with calcite veins, compact basalt up to termination depth of 10.00m.

Sieve analysis was performed by using IS sieves of size 4.75mm, 2.00mm, 0.425mm & 0.075mm & 0.002mm for obtaining particle size distribution i.e., Gravel, Sand & Silt + Clay of Disturbed, Undisturbed & SPT samples. The grain size distributions are tabulated under Table 9.2 indicating coarse, medium & fine grain & shown graphically in Fig 10.3.

4.0 PHYSICAL AND ENGINEERING PROPERTIES OF SOIL & ROCK:

The disturbed samples including SPT samples and undisturbed soil samples were tested as per IS 2720 (relevant part of IS code) & rock cores are tested for density, water absorption, compressive strength & point load test for physical and engineering properties. The results of various tests are tabulated in bore log chart.

For Soil/Murrum:

4.1 Standard Penetration Resistance:

A comparative study of the SPT 'N' Values (No of blows per 300mm penetration) has been done. The SPT 'N' Values range from 05 to >52 for 300mm penetration for all six boreholes which indicate medium / stiff to very stiff consistency silty clay strata followed by very dense soft murrum strata followed by weathered rock up to investigation depth. The average corrected SPT N value at foundation depth is worked out as 20 for BH-01, 26 for BH-02, 27 for BH-03, 32 for BH-04 & 28 for BH-05. These are corrected for OBP & Dilatancy correction. The values of 'N' are reported and shown graphically in Fig. 10.2. The relationship between N value & consistency, N value & denseness are as under...

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'N' Value	0-2	2-4	4-8	8-15	15-30	>30
Consistency	Very Soft	Soft	Medium	Stiff	Very Stiff	Hard

'N' Value	0-4	4-10	10-30	30-50	>50
Denseness	Very Loose	Loose	Medium	Dense	Very Dense

4.2 Dry Density and Moisture Content:

The insitu dry unit weight of soil is needed for stability analysis, for the determination of the degree of compaction, for evaluation of void ratio and thereby to find out degree of saturation etc.

4.3 Atterberg Limits:

The liquid and plastic limits of soils are both dependent on the amount and type of clay in a soil and from the basis for the soil classification system for cohesive soils based on the plasticity tests. Besides their use for identification, the plasticity tests give information concerning the cohesion properties of soil and the amount of capillary properties of soil and the amount of capillary water, which it can hold.

4.4 Specific Gravity:

It has application in finding out the degree of saturation and unit weight of moist soil. The Specific Gravity is important parameter for finding out various engineering parameters like void ratio, degree of saturation, shears failure, etc. and is also needed in pressure, settlement and stability problems in soil engineering. In order to determine Specific gravity of soil, undisturbed samples were selected for all the Boreholes. The Sp. Gr. ranges from 2.60 to 2.68 for BH- 01 to 05.

4.5 Shear parameters:

The controlled strain method was used in case of shear test. These parameters are used in evaluation of stability analysis and in evaluation of ultimate bearing capacity. The cylindrical specimen for triaxial compression (without the measurement of pore water pressure) was prepared from undisturbed sample. Shear as well as Triaxial Compression Test (Unconsolidated Undrained) was conducted.

Direct Shear Test was conducted on specimen remoulded at FDD and submerged for 24 hrs saturation.

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These results for individual samples are summarized under Table No. 9.3 & shown graphically in Fig. 10.4.

4.6 Swelling Characteristics:

Soil sample at and below the foundation depth from EGL was tested for swelling characteristics.

The Shrinkage Limit range varies from 15 to 18% for BH-01 to 05.

The Swelling index range varies from N.O. to 50% for BH-01 to 05.

These characteristics show low expansive nature of stratum at foundation depth from GL.

4.7 Consolidation Characteristics:

The main purpose of consolidation tests is to obtain soil data, which are used in predicting the rate and the amount of settlement of the structure. Compression index C_c indicates the magnitude of compression and the over consolidation pressure P_c indicates the compaction of strata at natural condition. This test gives the values of various parameters as under @ the foundation depth. This test is not performed up to investigation depth from EGL.

5.0 ROCK CLASSIFICATION: (IS: 13365-Part-I, 1998)

The rock mechanics is the science which deals with the properties of rocks & the special methods related with the design & construction of engineering works on rock, through the rock & below the rock. The rock is the consolidated, coherent & relatively hard portion of the earth's crust. It is a naturally formed solidly bounded mass of mineral matter which cannot be readily broken by hand & which does not disintegrate on its first wetting & drying cycle. The actual behavior of the rock mass subjected to a change in stress is governed by the mechanical properties of the rock materials & the geological discontinuation such as faults, joints, fissures, etc.

5.1 Classification Based on RQD

The rock quality designation (RQD) is primary rock classification criteria. This is defined as percentage ratio of total length of cores in pieces of 10cm & more length to the length of core drilling cutter run. The classification based on RQD is as under....

<i>Sr. No.</i>	<i>RQD</i>	<i>Classification</i>
1	100 to 90	Excellent Rock
2	90 to 75	Good Rocks
3	75 to 50	Fair Rocks
4	50 to 25	Poor Rocks
5	<25	Very Poor Rock

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5.2 Rock Classification Based on Joint & Beddings

Due to the presence of discontinuities, the strength of a rock mass is considerably reduced. Moreover, the degree of such reduction depends upon the spacing, orientation and size of the discontinuities.

By the *Deer, 1968 & Singh 1990*, following rock classification has described based on discontinuities & beddings

<i>Average spacing of discontinuities</i>	<i>Joint Descriptions</i>	<i>Bedding Descriptions</i>	<i>Rock Quality</i>
Grater than 3.00m	Very wide	Very Thick	Solid rock
1.00 to 3.00m	Wide	Thick	Massive Rock
0.30 to 1.00m	Moderately close	Medium	Blocky Rock
0.05 to 0.30m	Close	Thin	Fractured Rock
Less than 0.05m	Very close	Very thin	Crushed Rock

5.3 Classifications of Rock for Engineering Purpose:

Bieniawski gave the geomechanical classification system, which is commonly used for engineering purposes. It provides rock mass rating (RMR) values for different rocks. The RMR value depends upon the rock quality and it may vary from 0 to 100. The RMR is depends on Five universal parameters as follows...

1. Strength of rock
2. Drill core quality
3. Joint spacing
4. Joint characteristics
5. Ground water conditions.

The sum of all increment of rock mass rating corresponding to each parameter is determined as RMR. The classification base on RMR as under...

<i>Class</i>	<i>Description of Rock mass</i>	<i>RMR</i>
I	Very good rock	81-100
II	Good rock	61-80
III	Fair rock	41-60
IV	Poor rock	21-40
V	Very poor rock	0-20

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5.4 Strength Classification of Intact Rocks:

Intact rocks can be classified accordingly to the unconfined compressive strength. *Deere and Miller* suggested the classification as follows.

<i>Unconfined Uniaxial compressive strength (MPa)</i>	<i>Class</i>
Exceptionally strong (>250)	A
Very Strong (100-250)	B
Strong (50-100)	C
Average (25-50)	D
Weak (10-25)	E
Very Weak (2-10)	F
Extremely Weak (<2)	G

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6.0 Safe Bearing Capacity (SBC)

Safe Bearing Capacity (SBC) based on Shear failure criterion and Safe Bearing Pressure (SBP) based on 50mm settlement (IS 1904: 1986, RA-2006) criterion is worked out.

The allowable bearing capacity shall be taken from the following values whichever is less.

- a) SBC based on Shear parameters: The Net Safe bearing capacity (SBC) based on shear failure criterion. The Safe Bearing Capacity has been computed based on shear strength characteristics. The evaluation of SBC is as per Indian Standard IS 6403:1981(RA-2002).
- b) SBP based on Consolidation parameters: The net safe bearing pressure that can be impressed on maximum settlement of 50mm (permissible value for isolated foundations on sand & hard clay strata as given in IS 1904: 1986, RA-2006). The Total settlement has considered as per IS 8009 (Part: I) 1976 (RA-2003).
- c) SBC & SBP based on SPT 'N' Value: Based on foundation depth recommended @ minimum 2.50m depth from EGL. These are corrected for OBP & Dilatancy correction.

Corrections are applied As per IS 2131 [Clause- 3.6, Page No. 07]

Due to Overburden-The N value for cohesion less soil shall be corrected for overburden as N' .

Due to Dilatancy - The value obtained in overburden shall be corrected for dilatancy if the stratum consists of fine sand and silt below water table for values of N' greater than 15 as N'' ,
 $N'' = 15 + 1/2 (N' - 15)$

The safe settlement pressure is calculated by the empirical method based on N-value as per IS 6403:1981(RA-2002). & IS 8009 (Part: I) 1976 (RA-2003) for usual size footings.

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7.1 Bearing Capacity Based on Shearing Characteristics (Isolated foundation):-

(As per IS 6403:1981)

BH-01 Classroom and Principal office Building

For Intermediate of General & Local Shear Failure

The Net Ultimate Bearing Capacity of Soil $q_{su} = c N_c + q (N_q - 1) \tan \phi + 0.5 B \gamma N_\gamma$ sy dy iy W"

Sr. No.	Foundation Details				Laboratory Data							NET SBC		S (total) (mm)	Settlement of 50mm	ended SBP	
	Type (Strip/Square/ Rectangular/ Circular)	Depth (m)	Width (m)	Length (m)	W / T (m)	C (t/m ³)	φ (deg)	γ (gm/cc)	G	Sub. FDD	e	W'	FOS				Net SBC (t/m ²)
1	Rect	2.50	2.00	2.25	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	22.90	32.83	34.88	22.90
2	Rect	2.50	2.25	2.50	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	22.39	34.09	32.85	22.39
3	Rect	2.50	2.50	2.75	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	22.01	35.12	31.33	22.01
4	Rect	2.50	2.75	3.00	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	21.69	35.86	30.24	21.69
5	Rect	2.75	2.00	2.25	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	23.61	32.97	35.80	23.61
6	Rect	2.75	2.25	2.50	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	23.05	34.19	33.72	23.05
7	Rect	2.75	2.50	2.75	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	22.62	35.29	32.05	22.62
8	Rect	2.75	2.75	3.00	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	22.25	36.17	30.75	22.25
9	Rect	3.00	2.00	2.25	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	24.33	33.30	36.53	24.33
10	Rect	3.00	2.25	2.50	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	23.71	34.31	34.55	23.71
11	Rect	3.00	2.50	2.75	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	23.22	35.39	32.80	23.22
12	Rect	3.00	2.75	3.00	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	22.81	36.32	31.40	22.81
13	Rect	3.25	2.00	2.25	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	25.05	33.74	37.13	25.05
14	Rect	3.25	2.25	2.50	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	24.36	34.57	35.23	24.36
15	Rect	3.25	2.50	2.75	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	23.84	35.52	33.56	23.84
16	Rect	3.25	2.75	3.00	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	23.39	36.48	32.06	23.39
17	Rect	3.50	2.00	2.25	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	25.78	34.24	37.65	25.78
18	Rect	3.50	2.25	2.50	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	25.04	34.97	35.79	25.04
19	Rect	3.50	2.50	2.75	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	24.46	35.76	34.20	24.46
20	Rect	3.50	2.75	3.00	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	23.96	36.58	32.75	23.96
21	Rect	3.75	2.00	2.25	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	26.50	34.76	38.12	26.50
22	Rect	3.75	2.25	2.50	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	25.70	35.42	36.28	25.70
23	Rect	3.75	2.50	2.75	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	25.07	36.09	34.73	25.07
24	Rect	3.75	2.75	3.00	0.00	4.05	12	1.57	2.60	0.97	0.66	0.5	2.50	24.55	36.81	33.35	24.55

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7.2 Bearing Capacity Based on Shearing Characteristics (Isolated foundation):-

(As per IS 6403:1981)

For Intermediate of General & Local Shear Failure

BH-02 Judo, Karate, Martial Art and Sports building

The Net Ultimate Bearing Capacity of Soil $q_{net} = c N_c + q (N_q - 1) \tan \phi + 0.5 B \gamma N_\gamma$ sy dy iy W'

Sr. No.	Foundation Details				Laboratory Data						NET SBC			S(total) (mm)	SBP for total Settlement of 50mm	
	Type (Strip/Square/Rectangular/Circular)	Depth (m)	Width (m)	Length (m)	W/T (m)	C (t/m^2)	ϕ (deg)	γ (gm/cc)	G	Sub. FDD	e	W'	FOS	Net SBC (t/m^2)	SBP for total Settlement of 50mm	Recomm ended SBP
1	Rect	2.50	2.00	2.25	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	25.92	27.47	25.92
2	Rect	2.50	2.25	2.50	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	25.35	28.52	25.35
3	Rect	2.50	2.50	2.75	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	24.92	29.40	24.92
4	Rect	2.50	2.75	3.00	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	24.56	30.02	24.56
5	Rect	2.75	2.00	2.25	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	26.98	27.85	26.98
6	Rect	2.75	2.25	2.50	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	26.34	28.87	26.34
7	Rect	2.75	2.50	2.75	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	25.84	29.80	25.84
8	Rect	2.75	2.75	3.00	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	25.44	30.56	25.44
9	Rect	3.00	2.00	2.25	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	28.04	28.37	28.04
10	Rect	3.00	2.25	2.50	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	27.33	29.23	27.33
11	Rect	3.00	2.50	2.75	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	26.78	30.17	26.78
12	Rect	3.00	2.75	3.00	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	26.32	30.98	26.32
13	Rect	3.25	2.00	2.25	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	29.12	28.98	29.12
14	Rect	3.25	2.25	2.50	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	28.34	29.73	28.34
15	Rect	3.25	2.50	2.75	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	27.72	30.53	27.72
16	Rect	3.25	2.75	3.00	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	27.21	31.36	27.21
17	Rect	3.50	2.00	2.25	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	30.22	29.67	30.22
18	Rect	3.50	2.25	2.50	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	29.35	30.30	29.35
19	Rect	3.50	2.50	2.75	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	28.67	30.98	28.67
20	Rect	3.50	2.75	3.00	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	28.11	31.72	28.11
21	Rect	3.75	2.00	2.25	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	31.33	30.37	31.33
22	Rect	3.75	2.25	2.50	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	30.37	30.94	30.37
23	Rect	3.75	2.50	2.75	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	29.63	31.53	29.63
24	Rect	3.75	2.75	3.00	0.00	2.91	19	1.56	2.63	0.97	0.69	0.5	2.50	29.02	32.16	29.02



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Project No.	Sheet No.
211009	013

7.3 Bearing Capacity Based on Shearing Characteristics (Isolated foundation):-

(As per IS 6403:1981)

BH-03 Running track and outdoor stadium

For Intermediate of General & Local Shear Failure

The Net Ultimate Bearing Capacity of Soil $q_{um} = c N_q + q (N_q - 1) \tan \phi + 0.5 B \gamma N_\gamma$ sy dy iy W"

Sr. No.	Foundation Details				Laboratory Data						NET SBC		S(total) (mm)	SBP for total Settlement of 50mm		Recomm ended SBP
	Type (Strip/Square/Rectangular/Circular)	Depth (m)	Width (m)	Length (m)	W/T (m)	C (t/m ²)	ϕ (deg)	γ (gm/cc)	G	Sub. FDD	e	W"	FOS	Net SBC (t/m ²)	t/m ²	(t/m ²)
1	Rect	2.50	2.00	2.25	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	23.25	49.24	23.25
2	Rect	2.50	2.25	2.50	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	22.75	46.38	22.75
3	Rect	2.50	2.50	2.75	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	22.36	44.23	22.36
4	Rect	2.50	2.75	3.00	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	22.03	42.69	22.03
5	Rect	2.75	2.00	2.25	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	24.07	50.54	24.07
6	Rect	2.75	2.25	2.50	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	23.52	47.60	23.52
7	Rect	2.75	2.50	2.75	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	23.07	45.24	23.07
8	Rect	2.75	2.75	3.00	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	22.71	43.42	22.71
9	Rect	3.00	2.00	2.25	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	24.92	51.57	24.92
10	Rect	3.00	2.25	2.50	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	24.28	48.77	24.28
11	Rect	3.00	2.50	2.75	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	23.80	46.31	23.80
12	Rect	3.00	2.75	3.00	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	23.39	44.32	23.39
13	Rect	3.25	2.00	2.25	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	25.75	52.42	25.75
14	Rect	3.25	2.25	2.50	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	25.06	49.74	25.06
15	Rect	3.25	2.50	2.75	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	24.52	47.37	24.52
16	Rect	3.25	2.75	3.00	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	24.07	45.26	24.07
17	Rect	3.50	2.00	2.25	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	26.60	53.15	26.60
18	Rect	3.50	2.25	2.50	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	25.84	50.53	25.84
19	Rect	3.50	2.50	2.75	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	25.26	48.28	25.26
20	Rect	3.50	2.75	3.00	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	24.77	46.24	24.77
21	Rect	3.75	2.00	2.25	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	27.47	53.81	27.47
22	Rect	3.75	2.25	2.50	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	26.64	51.21	26.64
23	Rect	3.75	2.50	2.75	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	26.00	49.03	26.00
24	Rect	3.75	2.75	3.00	0.00	3.33	15	1.58	2.60	0.97	0.65	0.5	2.50	25.46	47.09	25.46



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211009	014

7.4 Bearing Capacity Based on Shearing Characteristics (Isolated foundation):-

(As per IS 6403:1981)

BH-04 Residential Quarters

For Intermediate of General & Local Shear Failure

The Net Ultimate Bearing Capacity of Soil $q_{um} = c Nc + q (Nq - 1) \tan \phi + 0.5 B \gamma Nq \tan^2 \phi$

For Intermediate of General & Local Shear Failure

The Net Ultimate Bearing Capacity of Soil $q_{un} = c N_c + q (N_q - 1) \tan \phi + 0.5 B \gamma N_{\gamma}$ sy dy W'

Sr. No.	Foundation Details				Laboratory Data							NET SBC		S'(total) (mm)	SBP for total Settlement of 50mm	Recomm ended SBP	
	Type (Strip/Square /Rectangular/ r/Circular)	Depth (m)	Width (m)	Length (m)	W / T (m)	C (t/m^2)	ϕ (deg)	γ (gm/cc)	G	Sub. FDD	e	W'	FOS				Net SBC (t/m^2)
1	Rect	2.50	2.00	2.25	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	28.23	23.72	59.50	28.23
2	Rect	2.50	2.25	2.50	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	27.56	24.59	56.04	27.56
3	Rect	2.50	2.50	2.75	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	27.04	25.30	53.44	27.04
4	Rect	2.50	2.75	3.00	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	26.61	25.80	51.58	26.61
5	Rect	2.75	2.00	2.25	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	29.27	23.97	61.07	29.27
6	Rect	2.75	2.25	2.50	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	28.51	24.79	57.52	28.51
7	Rect	2.75	2.50	2.75	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	27.93	25.54	54.67	27.93
8	Rect	2.75	2.75	3.00	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	27.46	26.17	52.46	27.46
9	Rect	3.00	2.00	2.25	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	30.33	24.33	62.31	30.33
10	Rect	3.00	2.25	2.50	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	29.49	25.02	58.93	29.49
11	Rect	3.00	2.50	2.75	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	28.84	25.78	55.95	28.84
12	Rect	3.00	2.75	3.00	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	28.31	26.43	53.56	28.31
13	Rect	3.25	2.00	2.25	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	31.40	24.79	63.34	31.40
14	Rect	3.25	2.25	2.50	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	30.47	25.35	60.10	30.47
15	Rect	3.25	2.50	2.75	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	29.77	26.00	57.24	29.77
16	Rect	3.25	2.75	3.00	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	29.17	26.67	54.69	29.17
17	Rect	3.50	2.00	2.25	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	32.46	25.27	64.22	32.46
18	Rect	3.50	2.25	2.50	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	31.47	25.77	61.06	31.47
19	Rect	3.50	2.50	2.75	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	30.68	26.29	58.34	30.68
20	Rect	3.50	2.75	3.00	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	30.03	26.88	55.87	30.03
21	Rect	3.75	2.00	2.25	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	33.55	25.80	65.02	33.55
22	Rect	3.75	2.25	2.50	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	32.46	26.22	61.88	32.46
23	Rect	3.75	2.50	2.75	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	31.61	26.68	59.25	31.61
24	Rect	3.75	2.75	3.00	0.00	3.65	20	1.51	2.63	0.94	0.74	0.5	2.50	30.91	27.16	56.90	30.91



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7.5 Bearing Capacity Based on Shearing Characteristics (Isolated foundation):-

(As per IS 6403:1981)

BH-05 Admin office and Canteen Area

For Intermediate of General & Local Shear Failure

The Net Ultimate Bearing Capacity of Soil $q_{nu} = c N_c + q (N_q - 1) \tan \phi + 0.5 B \gamma N_{\gamma}$ sy dy iy W"

Sr. No.	Foundation Details				Laboratory Data						NET SBC			S(total) (mm)	SBP for total Settlement of 50mm	
	Type (Strip/Square/Rectangular/Circular)	Depth (m)	Width (m)	Length (m)	W / T (m)	C (t/m^2)	ϕ (deg)	γ (gm/cc)	G	Sub. FDD	e	W'	FOS	Net SBC (t/m^2)	t/m2	Recomm ended SBP
1	Rect	2.50	2.00	2.25	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	24.84	51.29	24.84
2	Rect	2.50	2.25	2.50	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	24.31	48.31	24.31
3	Rect	2.50	2.50	2.75	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	23.89	46.07	23.89
4	Rect	2.50	2.75	3.00	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	23.55	44.46	23.55
5	Rect	2.75	2.00	2.25	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	25.77	52.64	25.77
6	Rect	2.75	2.25	2.50	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	25.16	49.58	25.16
7	Rect	2.75	2.50	2.75	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	24.70	47.13	24.70
8	Rect	2.75	2.75	3.00	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	24.31	45.23	24.31
9	Rect	3.00	2.00	2.25	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	26.71	53.72	26.71
10	Rect	3.00	2.25	2.50	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	26.04	50.81	26.04
11	Rect	3.00	2.50	2.75	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	25.51	48.24	25.51
12	Rect	3.00	2.75	3.00	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	25.08	46.17	25.08
13	Rect	3.25	2.00	2.25	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	27.67	54.60	27.67
14	Rect	3.25	2.25	2.50	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	26.92	51.81	26.92
15	Rect	3.25	2.50	2.75	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	26.34	49.35	26.34
16	Rect	3.25	2.75	3.00	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	25.85	47.15	25.85
17	Rect	3.50	2.00	2.25	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	28.62	55.36	28.62
18	Rect	3.50	2.25	2.50	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	27.80	52.64	27.80
19	Rect	3.50	2.50	2.75	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	27.17	50.29	27.17
20	Rect	3.50	2.75	3.00	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	26.65	48.16	26.65
21	Rect	3.75	2.00	2.25	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	29.60	56.05	29.60
22	Rect	3.75	2.25	2.50	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	28.70	53.35	28.70
23	Rect	3.75	2.50	2.75	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	28.00	51.08	28.00
24	Rect	3.75	2.75	3.00	0.00	3.21	16	1.58	2.61	0.97	0.65	0.5	2.50	27.43	49.05	27.43



- Foundation depth for isolated foundation is recommended @ minimum 2.50m depth from Existing Ground Level.
- For the Structures near BH-02, BH-04 and BH-06 has been considered as, the foundation is to be rested on firm had murrum or rock surface after confirmation by engineer in-charge.
- Whole site having various contours and having firm rock surface at various depth varying from 2.50m to 4.50m depth from EGL.
- The evaluation of SBC is as per IS 6403-1981(RA-2002) & SBP is as per IS 8009-(part-1) 1976 (RA 2003). As per IS 1904: 1986, the max settlement for R.C.C. isolated foundation is recommended as 50mm.
- These values indicate that Shear criterion governs the loading capacity. So, design has to be governed by Shear parameters & Shear criterion is considered intermediate of general and local shear failure by interpolation, based on void ratio.
- These values of SBC/ SBP are only for symmetric static loading conditions. The inclined & dynamic loading condition has not considered while computing the Safe Bearing Capacity (SBC) & Safe Bearing Pressure (SBP).
- The ground water table was observed between 4.50m to 6.50m depth from EGL during sub soil exploration carried out in October'2021. But, the effect of water table is considered at ground surface level in evaluation of SBC & settlement values.
- The Factor of Safety has considered as 2.50 for the Net Safe Bearing Capacity.

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7.6 SBC CALCULATION:

Bearing Capacity Based on Shearing Characteristics:- (As per IS 6403: 1981)

Shape of Foundation **Rect** (Strip/Square/Rect/Circular)

Depth of foundation (D_f) m **2.50**

Length of foundation (L) m **3.00**

Width of foundation (B) m **2.75**

G.W.T. (m) **0.00** *water table effect is considered

Laboratory Data

Case	C (t/m^2)	ϕ (degree)	ϕ' (degree)	FDD (γ) (g/cc)	Sp.Gr. (G)	e	γ' (gm/cc)
I	4.05	12	8	1.57	2.60	0.66	0.97

From
IS 6403:1981

						Interpolation Values		
Nc	Nq	Ny	Nc'	Nq'	Ny'	Nc''	Nq''	Ny''
9.18	2.92	1.64	7.51	2.05	0.85	8.30	2.46	1.22
sc	sq	sy	dc	dq=dy ($\phi>10$)	W'	FOS		
1.18	1.18	0.63	1.22	1.11	0.50	2.50		

The Ultimate Bearing capacity $q_{nu} = c N_c'' s_c d_c i_c + q (N_q'' - 1) s_q d_q i_q + 0.5 B \gamma' N_{y''} s_y d_y i_y W'$

The Ultimate net bearing capacity $q_{nu} =$ **54.21** (t/m^2)

With FOS, The net SBC $q_{nu(n)} =$ **21.68** (t/m^2)

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211009	018

2.2 Bearing Capacity Based on Rock Characteristics:- (Isolated Foundation)

(As per IS 12070)

$$Q_s = N_f \cdot Q_c$$

BH-06 Staff Family Resident Quarters

Sr. No.	Foundation Details					Field/Laboratory Test Data						Soil Bearing Capacity/Pressure				Net SBC/SBP based on RMR		Recommended Net SBP **	
	Type (Strip/Square/ Rectangular / Circular)	Depth (m)	Width (m)	Length (m)	Area (m ²)	W / T (m)	Qc (UCS) (MPa)	Average Rock Density	Spacing width δ cm	Spacing Distance 5 cm	Factor N _f	Gross Qs (t/m ²)	Other Correc tion Factors *	Safe Bearing Pressure (Gross) (t/m ²)	Safe Bearing Pressure (Net) (t/m ²)	on RMR		Net SBP **	
																RMR	Net SBC/SBP (t/m ²)		Net SBC/SBP (t/m ²)
1	Rect	2.50	3.00	3.25	9.75	4.60	27.29	2.75	0.35	15	0.108	299.98	0.125	37.497	30.63	17	42.38	30.63	309.46
2	Rect	2.50	2.75	3.00	8.25	4.60	27.29	2.75	0.35	15	0.108	300.42	0.125	37.553	30.68	17	42.38	30.68	301.00
3	Rect	2.50	2.50	2.25	5.63	4.60	27.29	2.75	0.35	15	0.108	300.96	0.125	37.620	30.75	17	42.38	30.75	301.66
4	Rect	2.50	2.25	2.50	5.63	4.60	27.29	2.75	0.35	15	0.108	301.62	0.125	37.702	30.83	17	42.38	30.83	302.47
5	Rect	2.75	3.00	3.25	9.75	4.60	27.29	2.75	0.32	15	0.112	311.901	0.125	38.988	31.43	17	42.38	31.43	308.34
6	Rect	2.75	2.75	3.00	8.25	4.60	27.29	2.75	0.32	15	0.112	312.366	0.125	39.046	31.49	17	42.38	31.49	308.91
7	Rect	2.75	2.50	2.25	5.63	4.60	27.29	2.75	0.32	15	0.112	312.923	0.125	39.115	31.56	17	42.38	31.56	309.59
8	Rect	2.75	2.25	2.50	5.63	4.60	27.29	2.75	0.32	15	0.113	313.605	0.125	39.201	31.64	17	42.38	31.64	310.43
9	Rect	3.00	3.00	3.25	9.75	4.60	27.29	2.75	0.30	15	0.115	320.689	0.125	40.086	31.84	17	42.38	31.84	312.38
10	Rect	3.00	2.75	3.00	8.25	4.60	27.29	2.75	0.30	15	0.115	321.166	0.125	40.146	31.90	17	42.38	31.90	312.96
11	Rect	3.00	2.50	2.25	5.63	4.60	27.29	2.75	0.30	15	0.116	321.740	0.125	40.217	31.97	17	42.38	31.97	313.67
12	Rect	3.00	2.25	2.50	5.63	4.60	27.29	2.75	0.30	15	0.116	322.441	0.125	40.305	32.06	17	42.38	32.06	314.53
13	Rect	3.25	3.00	3.25	9.75	4.60	27.29	2.75	0.28	15	0.119	330.263	0.125	41.283	32.35	17	42.38	32.35	317.38
14	Rect	3.25	2.75	3.00	8.25	4.60	27.29	2.75	0.28	15	0.119	330.756	0.125	41.344	32.41	17	42.38	32.41	317.98
15	Rect	3.25	2.50	2.25	5.63	4.60	27.29	2.75	0.28	15	0.119	331.346	0.125	41.418	32.49	17	42.38	32.49	318.71
16	Rect	3.25	2.25	2.50	5.63	4.60	27.29	2.75	0.28	15	0.119	332.068	0.125	41.509	32.58	17	42.38	32.58	319.59
17	Rect	3.50	3.00	3.25	9.75	4.60	27.29	2.75	0.25	15	0.125	346.383	0.125	43.298	33.68	17	42.38	33.68	330.41
18	Rect	3.50	2.75	3.00	8.25	4.60	27.29	2.75	0.25	15	0.125	346.899	0.125	43.362	33.75	17	42.38	33.75	331.04
19	Rect	3.50	2.50	2.25	5.63	4.60	27.29	2.75	0.25	15	0.125	347.519	0.125	43.440	33.82	17	42.38	33.82	331.80
20	Rect	3.50	2.25	2.50	5.63	4.60	27.29	2.75	0.25	15	0.125	348.276	0.125	43.534	33.92	17	42.38	33.92	332.73

* For Net SBP, the soil strata up to 2.00m depth with 20kN/m² unit weight and after that, rock strata has considered.

** : The recommended values are minimum of values obtained from UCS & RMR.

* As per IS 12070 for Rock, the factor of safety is considered as per clause No. 9, Section 9.2 as below

Condition	i)	ii)	iii)	Aggregate Factor	Factor
Factor	0.5	0.50	0.50	0.125	8

Safe Bearing Pressure calculated based on Rock core uniaxial strength & RMR as per IS 12070

The site having various contours & almost have basaltic rock at 2.00 to 2.50m depth from OGL.

SBC reported is by considering that the joints observed to be grouted properly, major veins of joints shall be dowelled, usual FCC at foundation level.

If require, provide proper anchor & anchor ring with base rock below the foundation for counter the uplift pressure

By considering various conditions & factors described in IS 12070, The factor of Safety is considered as 8.

The Minimum socket of the foundation in to firm rock should be 0.50m

The SBP recommended is minimum of two values of SBP based on UCS & RMR.

The foundation is rested on firm rock/hard strata, So, settlement values might be negligible and so, settlement criteria is not considered.



8.0 CONCLUSION AND DISCUSSION:

Proposed Site for Netaji Subhash Chandra Bose Training School at Sr No: 208/3/1/1, Mota Randha, Dadra & Nagar Haveli, was explored by six exploratory drilling data up to maximum 10.50m depth from Ground Level by rotary drilling using Calyx machine as per direction of engineer in – charge. The subsequent field and laboratory test results show that...

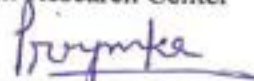
1. The site is unleveled and cleaned & all levels mentioned in this report are w.r.t. this existing ground level.
2. The layer wise stratification for Borehole is shown in individual bore logs and discussed above in Section 3.0.
3. The ground water table was observed between 4.50m to 6.50m depth from EGL during sub soil exploration carried out in October'2021. But, the effect of water table is considered at ground surface level in evaluation of SBC & settlement values.
No long term monitoring of Ground Water was specified. Thus, the ground water conditions established is applicable for the time of investigation only. The ground water condition may vary with rainfall patterns, long term climatic changes and any changes in the surrounding area. Reconfirmation of ground water level is recommended prior to any work relating to the ground water regime.
4. Depending on the soil strata, SPT-N values, other test results of the borehole, the isolated foundation is recommended @ **minimum 2.50m depth from EGL.**
5. SBC for all boreholes is mentioned in section 7.0.
6. For the Structures near BH-02, BH-04 and BH-06 has been considered as the foundation is to be rested on firm had murrum or rock surface after confirmation by engineer in-charge.
7. Whole site having various contours and having firm rock surface at various depth varying from 2.50m to 4.50m depth from EGL.
8. These values of SBC/ SBP are only for symmetric static loading conditions. The inclined & dynamic loading condition has not considered while computing the Safe Bearing Capacity (SBC).
9. The strata at foundation depth from Ground Level show low swelling characteristics.
10. The density & compressive strength of the selected rock samples has been tested in laboratory for engineering properties.

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11. The average, strong, very strong, D, C, B, very poor, poor, fair, good rock based on RQD is observed in case of all six boreholes.
12. The value of SBC evaluated in this report depends on technical details of foundation i.e. depth, type and width. The change of any of this design parameter of foundation will change the value of SBC. These may be kept in view in final design. The SBC values other than the footing sizes mentioned under topic 7.0 shall be supplied on demand.
13. Engineering properties of strata below foundation level, i.e. void ratio (e), Coefficient of uniformity (Cu), Plasticity index (Ip), D_{60} , & Soil Classification and SPT-N value indicate the strata up to investigation depth is having lower possibility of liquefaction occurrence.
14. The value of SBC is based on fieldwork carried out from 06 No boreholes data up to **maximum 10.50m** depth from GL and laboratory test results of the samples collected from them. During excavation of trenches, if any change in strata is found, it is advisable to report immediately for further investigation.

For Bhumi Research Center


Authorized Signatory

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TABLE 9.1.1
SUMMARY OF FIELD PROGRAMME

Reference Level :- GL

Bore No. :- 01

Type of Boring :- Rotary Drilling using calyx machine Soil sampler used :- Shelby + SPT

Dia. of Boring :- 150mm

Date of start :- 03/10/2021

W. T. from GL :- 5.30m

Completion Date :- 05/10/2021

Sr. No.	Depth from GL (m)	Type of Test	Type of Sample	Bulk Density (kN/m ³)	No. of blows					
					150 mm	150 mm	150 mm	'N' per 300mm	Cor'ted 'N' #	Penetration in cm
1	0.00 to -0.50	D/S	D/S							
2	-1.00 to -1.45	D/S	D/S							
3	-2.00 to -2.45	FDD/FMC	UDS	18.54						
4	-3.00 to -3.45	SPT	D/S		6	8	12	20	20	-
5	-4.00 to -4.45	FDD/FMC	UDS	18.64						
6	-4.50 to -6.00	Core	Core	CR=67% & RQD=67%						
7	-6.00 to -7.50	Core	Core	CR=74% & RQD=54%						
8	-7.50 to -9.00	Core	Core	CR=83% & RQD=83%						
9	-9.00 to -10.50	Core	Core	CR=80% & RQD=80%						

Abbreviations: -

FDD/FMC : Field Dry Density/ Field Moisture Content

UDS : Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

: SPT-N values are not corrected due to clayey strata.

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TABLE 9.1.2
SUMMARY OF FIELD PROGRAMME

Reference Level :- GL

Bore No. :- 02

Type of Boring :- Rotary Drilling using calyx machine Soil sampler used :- Shelby + SPT

Dia. of Boring :- 150mm

Date of start :- 06/10/2021

W. T. from GL :- 6.50m

Completion Date:- 08/10/2021

Sr. No.	Depth from GL (m)	Type of Test	Type of Sample	Bulk Density (kN/m ³)	No. of blows					
					150 mm	150 mm	150 mm	'N' per 300mm	Cor ^r ted 'N' #	Penetration in cm
1	0.00 to -0.50	D/S	D/S							
2	-1.00 to -1.45	SPT	D/S		8	10	16	26	26	-
3	-2.00 to -2.45	FDD/FMC	UDS	18.64						
4	-2.50 to -3.00	Core	Core	CR=48% & RQD=48%						
5	-3.00 to -4.50	Core	Core	CR=22% & RQD=Nil						
6	-4.50 to -6.00	Core	Core	CR=79% & RQD=75%						
7	-6.00 to -7.50	Core	Core	CR=83% & RQD=79%						
8	-7.50 to -9.00	Core	Core	CR=68% & RQD=56%						
9	-9.00 to -10.00	Core	Core	CR=72% & RQD=42%						

Abbreviations: -

FDD/FMC : Field Dry Density/ Field Moisture Content

UDS : Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

: SPT-N values are not corrected due to clayey strata.

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TABLE 9.1.3
SUMMARY OF FIELD PROGRAMME

Reference Level :- GL

Bore No. :- 03

Type of Boring :- Rotary Drilling using calyx machine Soil sampler used :- Shelby + SPT

Dia. of Boring :- 150mm

Date of start :- 08/10/2021

W. T. from GL :- 4.50m

Completion Date:- 10/10/2021

Sr. No.	Depth from GL (m)	Type of Test	Type of Sample	Bulk Density (kN/m ³)	No. of blows					
					150 mm	150 mm	150 mm	'N' per 300mm	Cor'ted 'N' #	Penetration in cm
1	0.00 to -0.50	D/S	D/S							
2	-1.00 to -1.45	FDD/FMC	UDS	17.95						
3	-2.00 to -2.45	SPT	D/S		8	10	17	27	27	-
4	-3.00 to -3.45	FDD/FMC	UDS	18.64						
5	-3.50 to -4.50	Core	Core	CR=Nil & RQD=Nil						
6	-4.50 to -6.00	Core	Core	CR=23% & RQD=Nil						
7	-6.00 to -7.50	Core	Core	CR=25% & RQD=15%						
8	-7.50 to -9.00	Core	Core	CR=75% & RQD=69%						
9	-9.00 to -10.00	Core	Core	CR=91% & RQD=91%						

Abbreviations: -

FDD/FMC : Field Dry Density/ Field Moisture Content

UDS : Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

: SPT-N values are not corrected due to clayey strata.

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TABLE 9.1.4
SUMMARY OF FIELD PROGRAMME

Reference Level :- GL

Bore No. :- 04

Type of Boring :- Rotary Drilling using calyx machine Soil sampler used :- Shelby + SPT

Dia. of Boring :- 150mm

Date of start :- 11/10/2021

W. T. from GL :- 6.10m

Completion Date:- 14/10/2021

Sr. No.	Depth from GL (m)	Type of Test	Type of Sample	Bulk Density (kN/m ³)	No. of blows					
					150 mm	150 mm	150 mm	'N' per 300mm	Cor'ted 'N' #	Penetration in cm
1	0.00 to -0.50	D/S	D/S							
2	-1.00 to -1.45	FDD/FMC	UDS	18.25						
3	-2.00 to -2.45	SPT	D/S		4	6	8	14	14	-
4	-2.50 to -3.00	Core	Core	CR=Nil & RQD=Nil						
5	-3.00 to -4.50	Core	Core	CR=16% & RQD=Nil						
6	-4.50 to -6.00	Core	Core	CR=22% & RQD=7%						
7	-6.00 to -7.50	Core	Core	CR=71% & RQD=65%						
8	-7.50 to -9.00	Core	Core	CR=69% & RQD=57%						
9	-9.00 to -10.00	Core	Core	CR=74% & RQD=65%						

Abbreviations: -

FDD/FMC : Field Dry Density/ Field Moisture Content

UDS : Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

: SPT-N values are not corrected due to clayey strata.

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TABLE 9.1.5
SUMMARY OF FIELD PROGRAMME

Reference Level :- GL

Bore No. :- 05

Type of Boring :- Rotary Drilling using calyx machine Soil sampler used :- Shelby + SPT

Dia. of Boring :- 150mm

Date of start :- 05/10/2021

W. T. from GL :- 4.50m

Completion Date:- 07/10/2021

Sr. No.	Depth from GL (m)	Type of Test	Type of Sample	Bulk Density (kN/m ³)	No. of blows					
					150 mm	150 mm	150 mm	'N' per 300mm	Cor'ted 'N' #	Penetration in cm
1	0.00 to -0.50	D/S	D/S							
2	-1.00 to -1.45	FDD/FMC	UDS	18.25						
3	-2.00 to -2.45	SPT	D/S		4	7	11	18	18	-
4	-3.00 to -3.45	FDD/FMC	UDS	18.74						
5	-4.00 to -4.45	SPT	D/S		6	10	18	28	28	-
6	-4.50 to -6.00	Core	Core	CR=28% & RQD=15%						
7	-6.00 to -7.50	Core	Core	CR=64% & RQD=43%						
8	-7.50 to -9.00	Core	Core	CR=59% & RQD=36%						
9	-9.00 to -10.00	Core	Core	CR=84% & RQD=78%						

Abbreviations: -

FDD/FMC : Field Dry Density/ Field Moisture Content

UDS : Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

: SPT-N values are not corrected due to clayey strata.

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TABLE 9.1.6
SUMMARY OF FIELD PROGRAMME

Reference Level :- GL

Bore No. :- 06

Type of Boring :- Rotary Drilling using calyx machine Soil sampler used :- Shelby + SPT

Dia. of Boring :- 150mm

Date of start :- 08/10/2021

W. T. from GL :- 4.60m

Completion Date:- 11/10/2021

Sr. No.	Depth from GL (m)	Type of Test	Type of Sample	Bulk Density (kN/m ³)	No. of blows					
					150 mm	150 mm	150 mm	'N' per 300mm	Cor'cted 'N' #	Penetration in cm
1	0.00 to -0.50	D/S	D/S							
2	-1.00 to -1.45	SPT	D/S		2	2	3	5	5	-
3	-2.00 to -2.45	SPT	D/S		52	-	-	>52	215	05cm
4	-2.50 to -3.00	Core	Core	CR=Nil & RQD=Nil						
5	-3.00 to -4.50	Core	Core	CR=33% & RQD=15%						
6	-4.50 to -6.00	Core	Core	CR=34% & RQD=13%						
7	-6.00 to -7.50	Core	Core	CR=75% & RQD=70%						
8	-7.50 to -9.00	Core	Core	CR=76% & RQD=76%						
9	-9.00 to -10.00	Core	Core	CR=95% & RQD=95%						

Abbreviations: -

FDD/FMC : Field Dry Density/ Field Moisture Content

UDS : Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

: SPT-N values are corrected for OBP & Dilatancy correction.

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TABLE 9.2.1

SUMMARY OF GRAIN SIZE ANALYSIS

BORE HOLE NO: 01

Depth from GL (m)	Sample	Gravel >4.75 mm (%)	Sand 4.75 mm-0.075mm			Silt+ Clay <0.075 mm (%)	Liquid limit (%)	Plastic Limit (%)	Plastic Index (%)	Classifi- cation of Soil	NMC (%)
			C	M	F						
0.00 to -0.50	D/S	26	7	7	4	56	45	21	25	CI	
-1.00 to -1.45	D/S	27	6	9	4	54	48	22	26	CI	
-2.00 to -2.45	UDS	5	3	3	3	86	61	21	40	CH	20
-3.00 to -3.45	S	0	3	3	3	91	71	19	52	CH	
-4.00 to -4.45	UDS	1	3	4	4	88	60	21	39	CH	19
-4.50 to -6.00	Core	CR=67% & RQD=67%									
-6.00 to -7.50	Core	CR=74% & RQD=54%									
-7.50 to -9.00	Core	CR=83% & RQD=83%									
-9.00 to -10.50	Core	CR=80% & RQD=80%									

F : Fine Grain

M : Medium Grain

C : Coarse Grain

NP : Non Plastic nature

UDS : Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

NMC : Natural Moisture content

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TABLE 9.2.2
SUMMARY OF GRAIN SIZE ANALYSIS

BORE HOLE NO: 02

Depth from GL (m)	Sample	Gravel >4.75 mm (%)	Sand 4.75 mm-0.075mm			Silt+ Clay <0.075 mm (%)	Liquid limit (%)	Plastic Limit (%)	Plastic Index (%)	Classifi cation of Soil	NMC (%)
			C	M	F						
0.00 to -0.50	D/S	3	4	7	7	79	51	18	33	CH	
-1.00 to -1.45	S	5	3	4	5	83	60	19	41	CH	
-2.00 to -2.45	UDS	2	3	5	5	85	53	18	34	CH	22
-2.50 to -3.00	Core	CR=48% & RQD=48%									
-3.00 to -4.50	Core	CR=22% & RQD=Nil									
-4.50 to -6.00	Core	CR=79% & RQD=75%									
-6.00 to -7.50	Core	CR=83% & RQD=79%									
-7.50 to -9.00	Core	CR=68% & RQD=56%									
-9.00 to -10.00	Core	CR=72% & RQD=42%									

F : Fine Grain

M : Medium Grain

C : Coarse Grain

NP : Non Plastic nature

UDS :Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

NMC : Natural Moisture content

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TABLE 9.2.3
SUMMARY OF GRAIN SIZE ANALYSIS

BORE HOLE NO: 03

Depth from GL (m)	Sample	Gravel >4.75 mm (%)	Sand 4.75 mm-0.075mm			Silt+ Clay <0.075 mm (%)	Liquid limit (%)	Plastic Limit (%)	Plastic Index (%)	Classifi cation of Soil	NMC (%)
			C	M	F						
0.00 to -0.50	D/S	1	8	12	8	71	51	19	33	CH	
-1.00 to -1.45	UDS	8	5	6	6	75	52	19	33	CH	20
-2.00 to -2.45	S	0	2	2	9	87	54	19	35	CH	
-3.00 to -3.45	UDS	1	2	4	9	84	52	18	34	CH	20
-3.50 to -4.50	Core	CR=Nil & RQD=Nil									
-4.50 to -6.00	Core	CR=23% & RQD=Nil									
-6.00 to -7.50	Core	CR=25% & RQD=15%									
-7.50 to -9.00	Core	CR=75% & RQD=69%									
-9.00 to -10.00	Core	CR=91% & RQD=91%									

F : Fine Grain

M : Medium Grain

C : Coarse Grain

NP : Non Plastic nature

UDS :Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

NMC : Natural Moisture content

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TABLE 9.2.4

SUMMARY OF GRAIN SIZE ANALYSIS

BORE HOLE NO: 04

Depth from GL (m)	Sample	Gravel >4.75 mm (%)	Sand 4.75 mm-0.075mm			Silt+ Clay <0.075 mm (%)	Liquid limit (%)	Plastic Limit (%)	Plastic Index (%)	Classifi cation of Soil	NMC (%)
			C	M	F						
0.00 to -0.50	D/S	0	6	11	12	71	45	18	28	CI	
-1.00 to -1.45	UDS	1	3	4	7	85	58	20	38	CH	23
-2.00 to -2.45	S	3	3	5	7	82	57	19	38	CH	
-2.50 to -3.00	Core	CR=Nil & RQD=Nil									
-3.00 to -4.50	Core	CR=16% & RQD=Nil									
-4.50 to -6.00	Core	CR=22% & RQD=7%									
-6.00 to -7.50	Core	CR=71% & RQD=65%									
-7.50 to -9.00	Core	CR=69% & RQD=57%									
-9.00 to -10.00	Core	CR=74% & RQD=65%									

F : Fine Grain

M : Medium Grain

C : Coarse Grain

NP : Non Plastic nature

UDS :Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

NMC : Natural Moisture content

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TABLE 9.2.5

SUMMARY OF GRAIN SIZE ANALYSIS

BORE HOLE NO: 05

Depth from GL (m)	Sample	Gravel >4.75 mm (%)	Sand 4.75 mm-0.075mm			Silt+ Clay <0.075 mm (%)	Liquid limit (%)	Plastic Limit (%)	Plastic Index (%)	Classifi- cation of Soil	NMC (%)
			C	M	F						
0.00 to -0.50	D/S	11	13	12	1	63	46	19	27	CI	
-1.00 to -1.45	UDS	24	24	32	7	13	38	NP	NP	SM	18
-2.00 to -2.45	S	0	3	2	3	92	58	18	40	CH	
-3.00 to -3.45	UDS	8	6	7	4	75	49	20	29	CI	20
-4.00 to -4.45	S	16	18	12	3	51	45	20	25	CI	
-4.50 to -6.00	Core	CR=28% & RQD=15%									
-6.00 to -7.50	Core	CR=64% & RQD=43%									
-7.50 to -9.00	Core	CR=59% & RQD=36%									
-9.00 to -10.00	Core	CR=84% & RQD=78%									

F : Fine Grain

M : Medium Grain

C : Coarse Grain

NP : Non Plastic nature

UDS :Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

NMC : Natural Moisture content

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TABLE 9.2.6

SUMMARY OF GRAIN SIZE ANALYSIS

BORE HOLE NO: 06

Depth from GL (m)	Sample	Gravel >4.75 mm (%)	Sand 4.75 mm-0.075mm			Silt+ Clay <0.075 mm (%)	Liquid limit (%)	Plastic Limit (%)	Plastic Index (%)	Classifi- cation of Soil	NMC (%)
			C	M	F						
0.00 to -0.50	D/S	7	3	4	6	80	57	24	33	CH	
-1.00 to -1.45	S	21	2	4	9	64	47	23	24	CI	
-2.00 to -2.45	S	13	37	31	5	14	39	NP	NP	SM	
-2.50 to -3.00	Core	CR=Nil & RQD=Nil									
-3.00 to -4.50	Core	CR=33% & RQD=15%									
-4.50 to -6.00	Core	CR=34% & RQD=13%									
-6.00 to -7.50	Core	CR=75% & RQD=70%									
-7.50 to -9.00	Core	CR=76% & RQD=76%									
-9.00 to -10.00	Core	CR=95% & RQD=95%									

F : Fine Grain

M : Medium Grain

C : Coarse Grain

NP : Non Plastic nature

UDS :Undisturbed Sample

SPT : Standard Penetration Test

D/S : Disturbed Sample

NMC : Natural Moisture content

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TABLE - 9.3

STATEMENT SHOWING SHEAR & SWELLING PARAMETER

Bore hole No.	Depth from GL (m)	Classification	Shear parameters			Swelling Characteristics	
			Type	'c' kN/m ²	Angle ' ϕ ' Deg.	Swelling Index (%)	Shrinkage Limit (%)
01	2.00	CH	DS	39.24	12	35	15
	4.00	CH	Tuu DS	50.03 40.22	19 19	40	17
02	2.00	CH	DS	28.45	19	35	16
03	1.00	CH	DS	32.37	16	35	18
	3.00	CH	DS	32.37	15	45	15
04	1.00	CH	DS	35.32	20	50	16
05	1.00	SM	DS	0.00	32	N.O.	-
	3.00	CI	DS	31.39	16	15	17

DS : Direct Shear on specimen remoulded on FDD and submerged for 24 hrs saturation

Tuu : Triaxial Compression (Unconsolidated Undrained Condition)

N.O.: Not Observed

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Table-9.4
SUMMARY OF COMP. STRENGTH & DRY DENSITY OF CORES

BH No.	Depth From Ground Level.	Rock Density	Water Absorption	Specific Gravity of Rock	Porosity of Rock	Unconfined comp. strength			Point Load Index	Joint Observations		Rock Mass Rating RMR	Rock Classification RMR
						Test Condition	Qua	Rock Classification		Joint spacing	Joint Characteristics description		
	m	g/cc	%	%			Mpa	Class	Mpa	m	#		
01	4.50 to 6.00	2.69	1.59	2.70	4.29	Wet	58.14	C	3.73	0.35	3	50	III
	6.00 to 7.50	2.69	1.38	2.71	3.72	Wet	45.38	D	3.03	0.35	3	47	III
	7.50 to 9.00	2.83	0.77	2.85	2.20	Wet	48.58	D	3.29	0.38	2	56	III
	9.00 to 10.50	2.82	0.72	2.84	2.03	Wet	40.54	D	2.87	0.38	2	56	III
02	2.50 to 3.00	2.66	2.30	2.67	6.16	-	-	-	-	0.20	4	26	IV
	3.00 to 4.50	2.78	0.49	2.79	1.36	-	-	-	-	0.08	5	11	V
	4.50 to 6.00	2.79	0.35	2.81	0.98	Wet	38.51	D	2.62	0.35	3	51	III
	6.00 to 7.50	2.78	0.41	2.79	1.14	Wet	58.32	C	3.98	0.38	2	59	III
	7.50 to 9.00	2.75	0.49	2.76	1.34	Wet	51.79	C	3.52	0.35	3	50	III
	9.00 to 10.00	2.82	0.43	2.84	1.23	Wet	56.45	C	3.81	0.20	4	33	IV
03	6.00 to 7.50	2.60	3.69	2.61	9.63	Wet	54.27	C	3.12	0.15	5	18	V
	7.50 to 9.00	2.85	1.38	2.86	3.95	Wet	34.51	D	1.71	0.35	3	47	III
	9.00 to 10.00	2.82	1.33	2.83	3.75	Wet	50.01	C	2.18	0.40	1	68	II
04	4.50 to 6.00	2.80	0.66	2.81	1.87	Wet	27.42	D	2.32	0.15	5	15	V
	6.00 to 7.50	2.82	0.62	2.83	1.77	Wet	149.5	B	10.31	0.35	3	55	III
	7.50 to 9.00	2.89	0.23	2.90	0.67	Wet	134.7	B	8.84	0.35	3	55	III
	9.00 to 10.00	2.90	0.25	2.91	0.73	Wet	143.5	B	9.58	0.35	3	55	III

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BH No.	Depth From Ground Level.	Rock Density	Water Absorption	Specific Gravity of Rock	Porosity of Rock	Unconfined comp. strength			Point Load Index	Joint Observations		Rock Mass Rating RMR	Rock Classification RMR
						Test Condition	Qua	Rock Classification		Joint spacing	Joint Characteristics description		
	m	g/cc	%	%			Mpa	Class	Mpa	m	#		
05	4.50 to 6.00	2.65	1.56	2.67	4.16	-	-	-	1.43	0.15	5	15	V
	6.00 to 7.50	2.76	1.11	2.78	3.09	Wet	38.96	D	2.71	0.20	4	30	IV
	7.50 to 9.00	2.75	0.88	2.77	2.44	Wet	28.99	D	2.58	0.20	4	30	IV
	9.00 to 10.00	2.79	0.77	2.80	2.17	Wet	55.29	C	3.81	0.38	2	59	III
06	3.00 to 4.50	2.71	1.40	2.72	3.80	Wet	27.29	D	1.96	0.15	5	15	V
	4.50 to 6.00	2.77	0.81	2.79	2.26	Wet	78.4	C	5.20	0.15	5	18	V
	6.00 to 7.50	2.79	0.86	2.80	2.42	Wet	50.81	C	3.38	0.35	3	50	III
	7.50 to 9.00	2.75	0.81	2.76	2.22	Wet	54.71	C	3.77	0.38	2	59	III
	9.00 to 10.00	2.85	0.66	2.86	1.89	Wet	38.87	D	2.51	0.40	1	64	II

Abbreviations:

Class based on compressive strength

- A Very high strength
- B High strength
- C Medium strength
- D Low strength
- E Very low strength
- G Extremely Weak (<2)

Class based on RQD & RMR

RQD	RMR	
ER	I	Very good rock
GR	II	Good rock
FR	III	Fair Rock
PR	IV	Poor Rock

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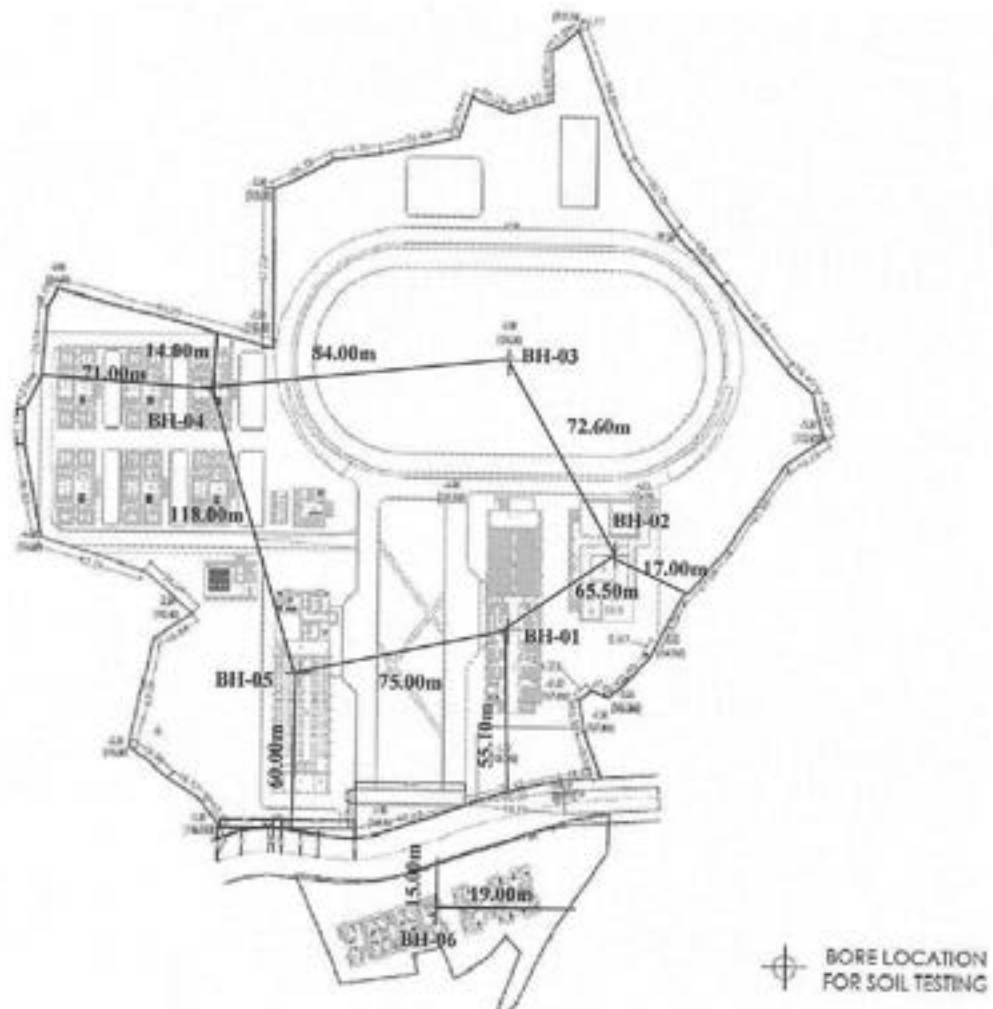


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Fig. – 10.1 Location Map

▪ Location Map not as per the scale



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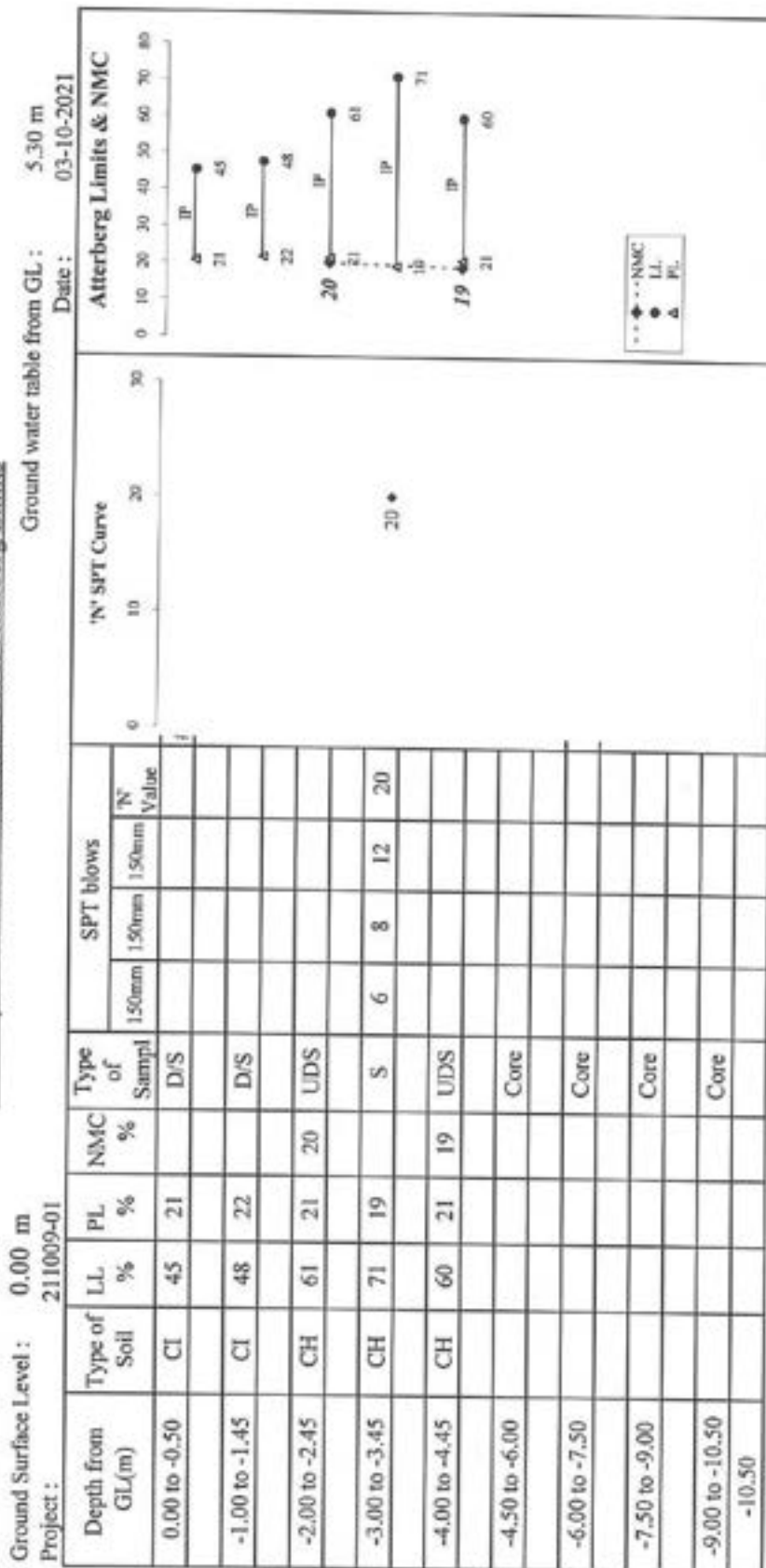


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Project No.	Sheet No.
211009	037

Figure No : 10.2.1 - BH No - 1
Summary of Standard Penetration Test & Atterberg Limits



D/s : Disturbed Sample
S : Standard Penetration Test
UDS : Undisturbed Sample

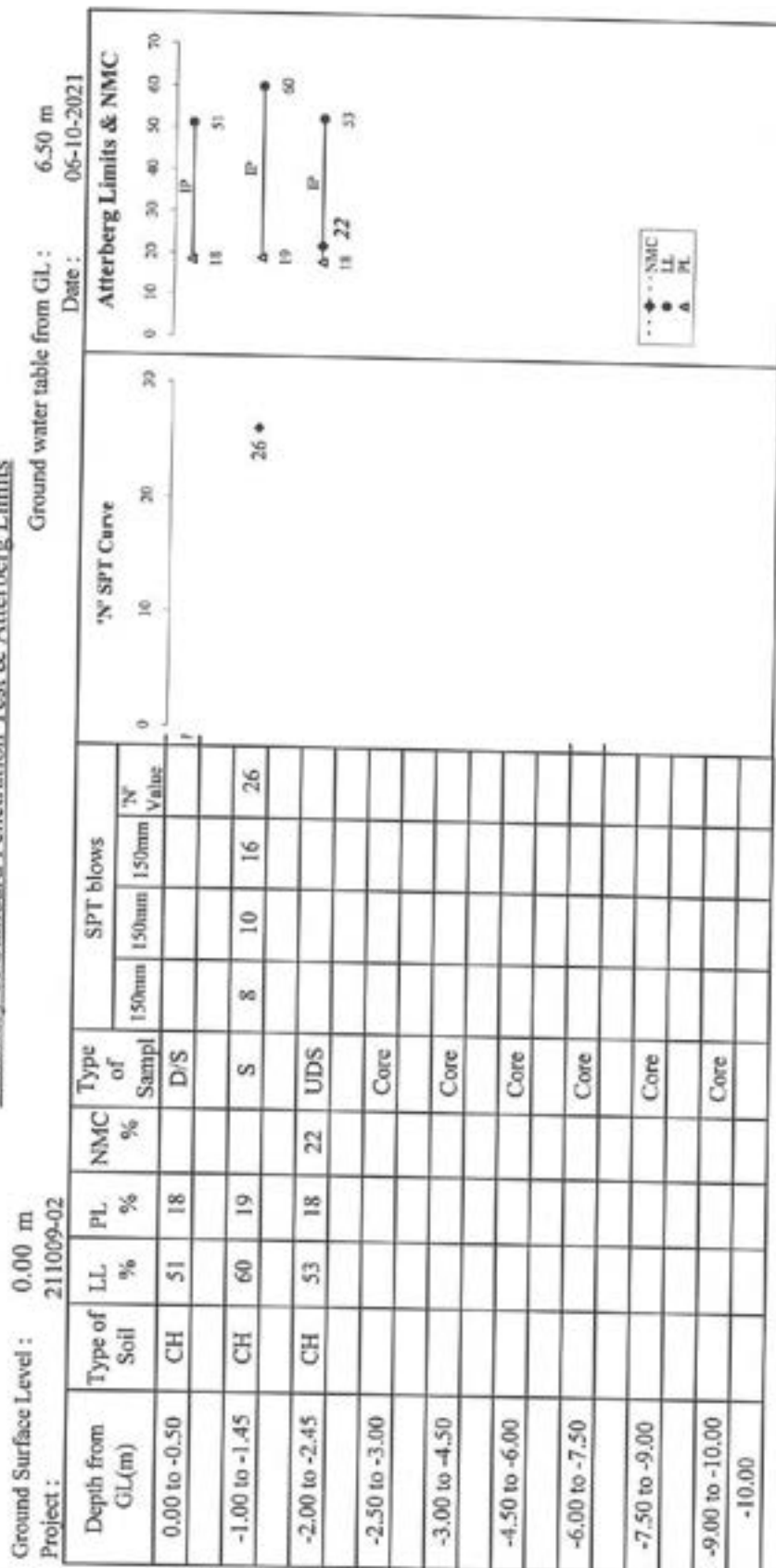
NMC : Natural Moisture Content
LL : Liquid Limit

PL : Plastic Limit
IP : Plasticity Index



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211009	038

Figure No : 10.2.2 - BH No - 2
Summary of Standard Penetration Test & Atterberg Limits



D/S : Disturbed Sample
S : Standard Penetration Test
UDS : Undisturbed Sample

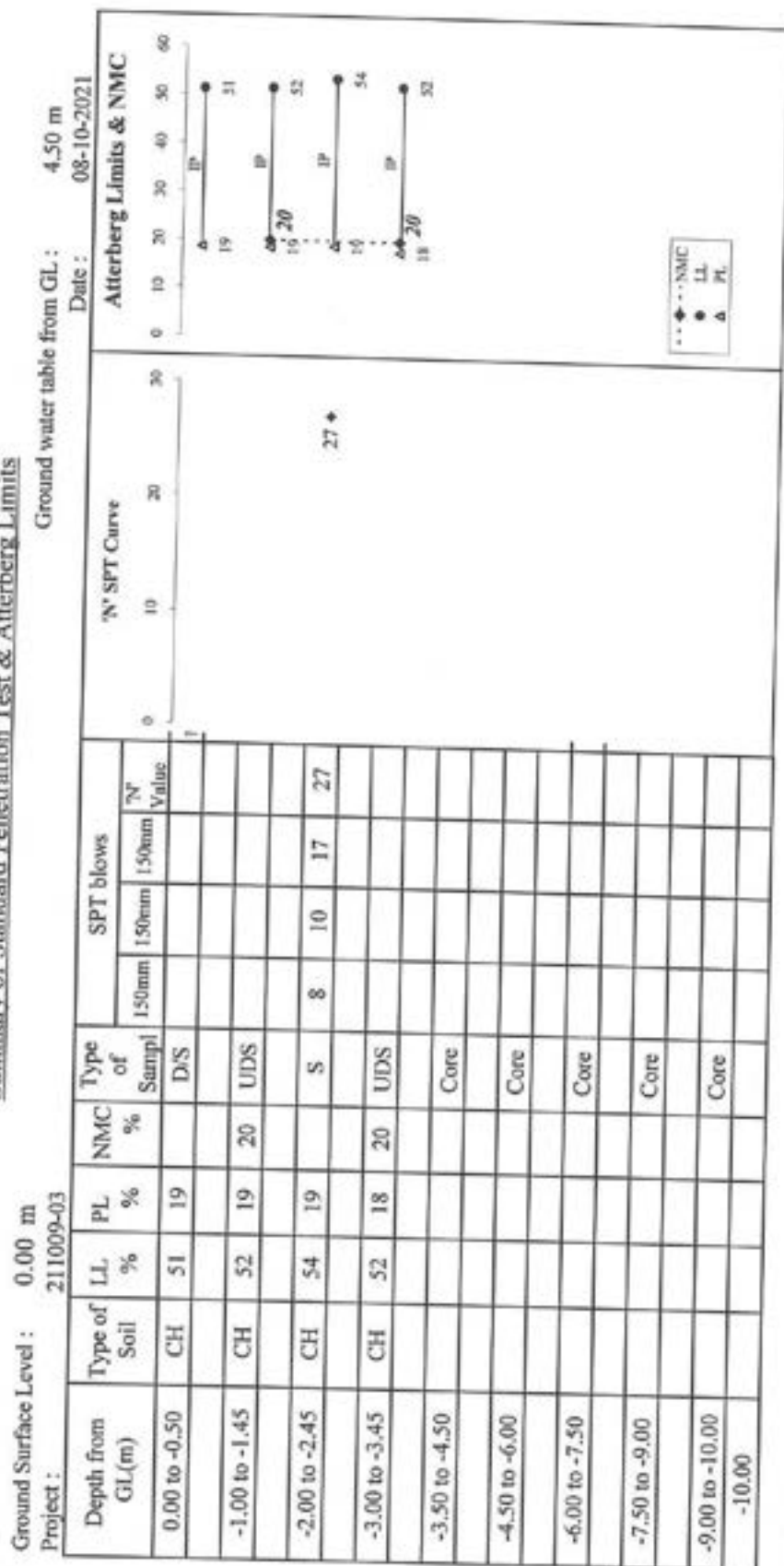
NMC : Natural Moisture Content
LL : Liquid Limit

PL : Plastic Limit
IP : Plasticity Index



Project No.	Sheet No.
211009	039

Figure No : 10.2.3 - BH No - 3
Summary of Standard Penetration Test & Atterberg Limits



D/S : Disturbed Sample
S : Standard Penetration Test
UDS : Undisturbed Sample

NMC : Natural Moisture Content
LL : Liquid Limit

PL : Plastic Limit
IP : Plasticity Index



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Project No.	Sheet No.
211009	040

Figure No : 10.2.4 - BH No - 4
Summary of Standard Penetration Test & Atterberg Limits

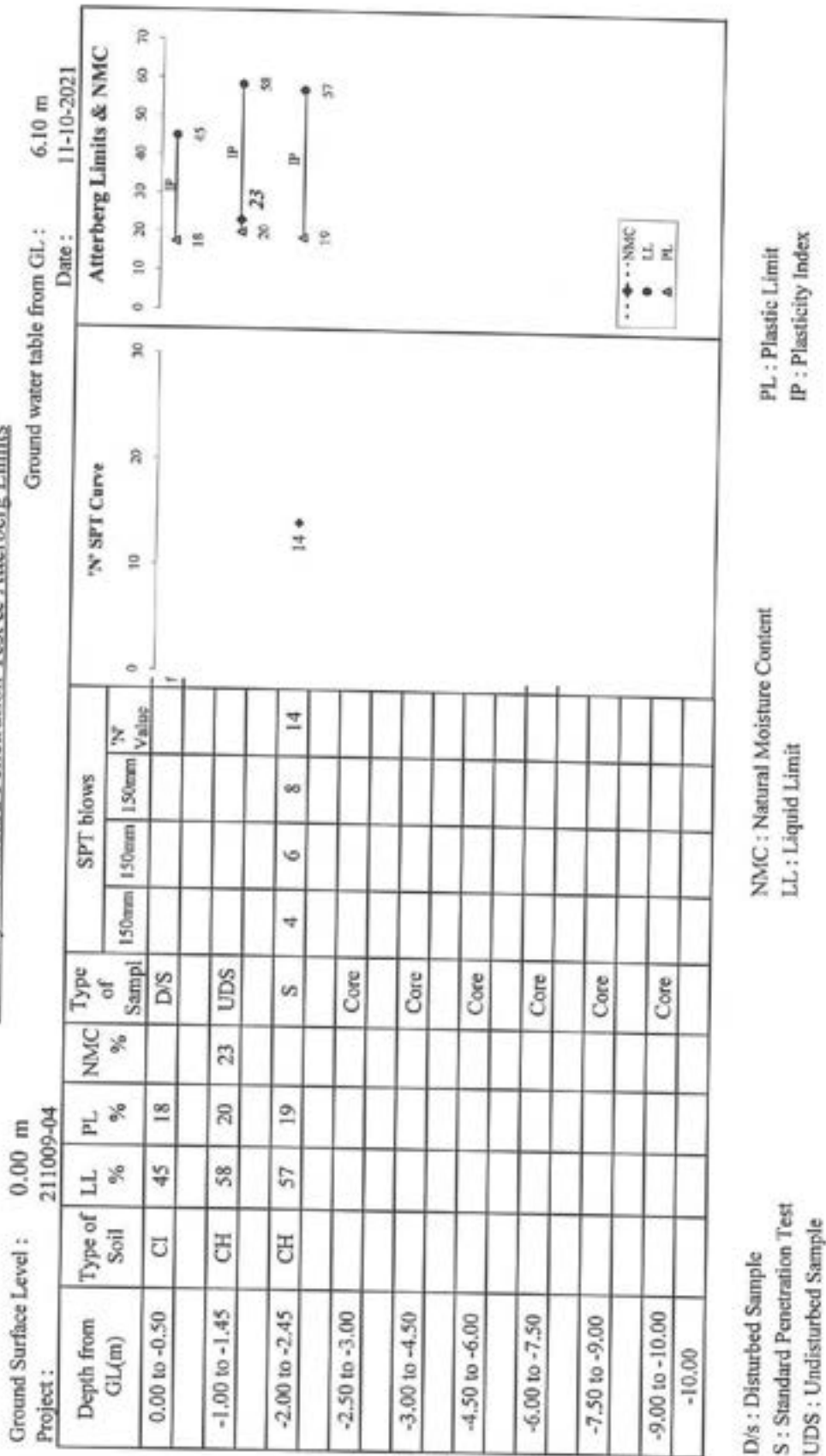
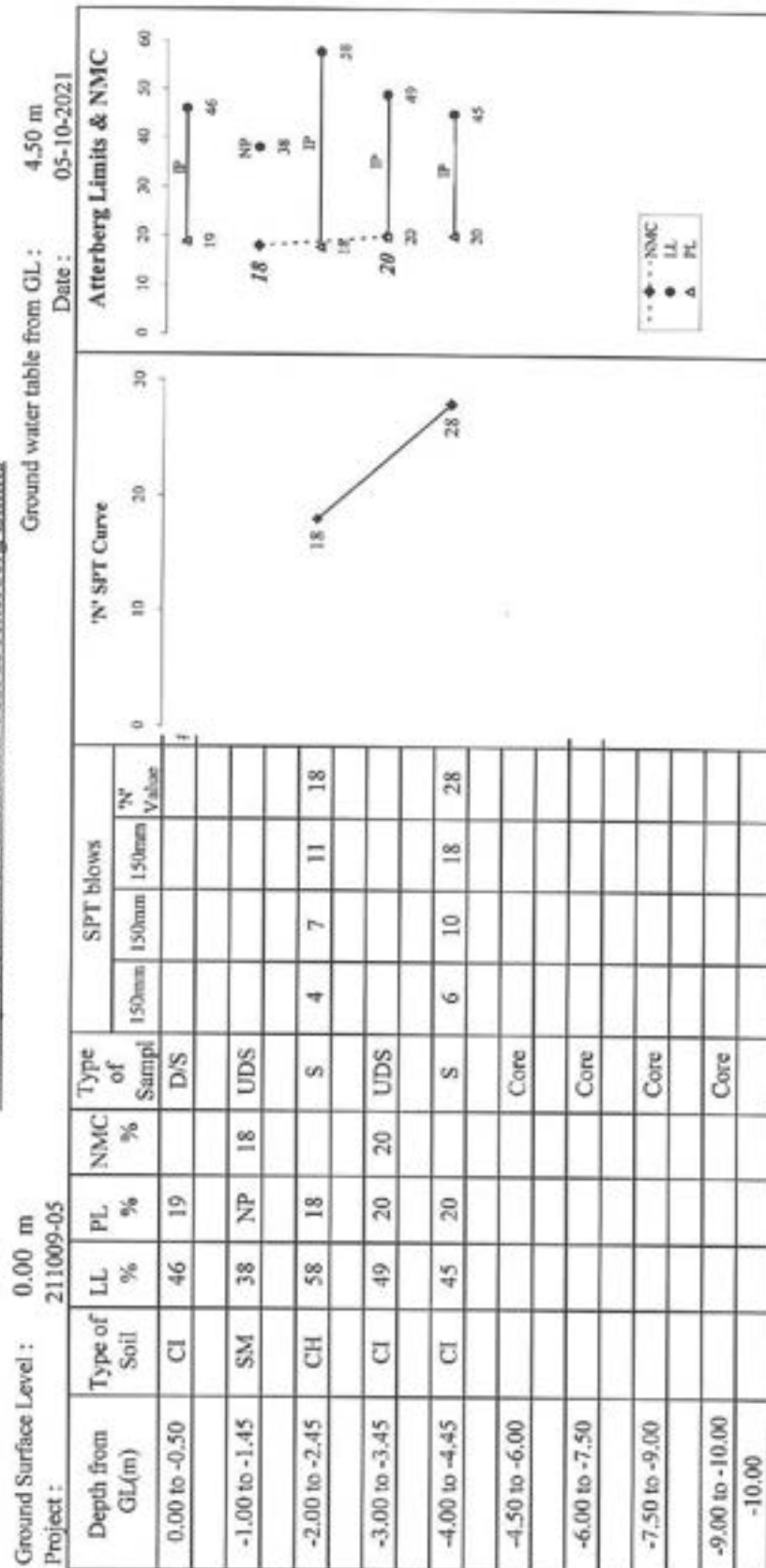


Figure No : 10.2.5 - BH No - 5
Summary of Standard Penetration Test & Atterberg Limits



D/s : Disturbed Sample
S : Standard Penetration Test
UDS : Undisturbed Sample

NMC : Natural Moisture Content
LL : Liquid Limit

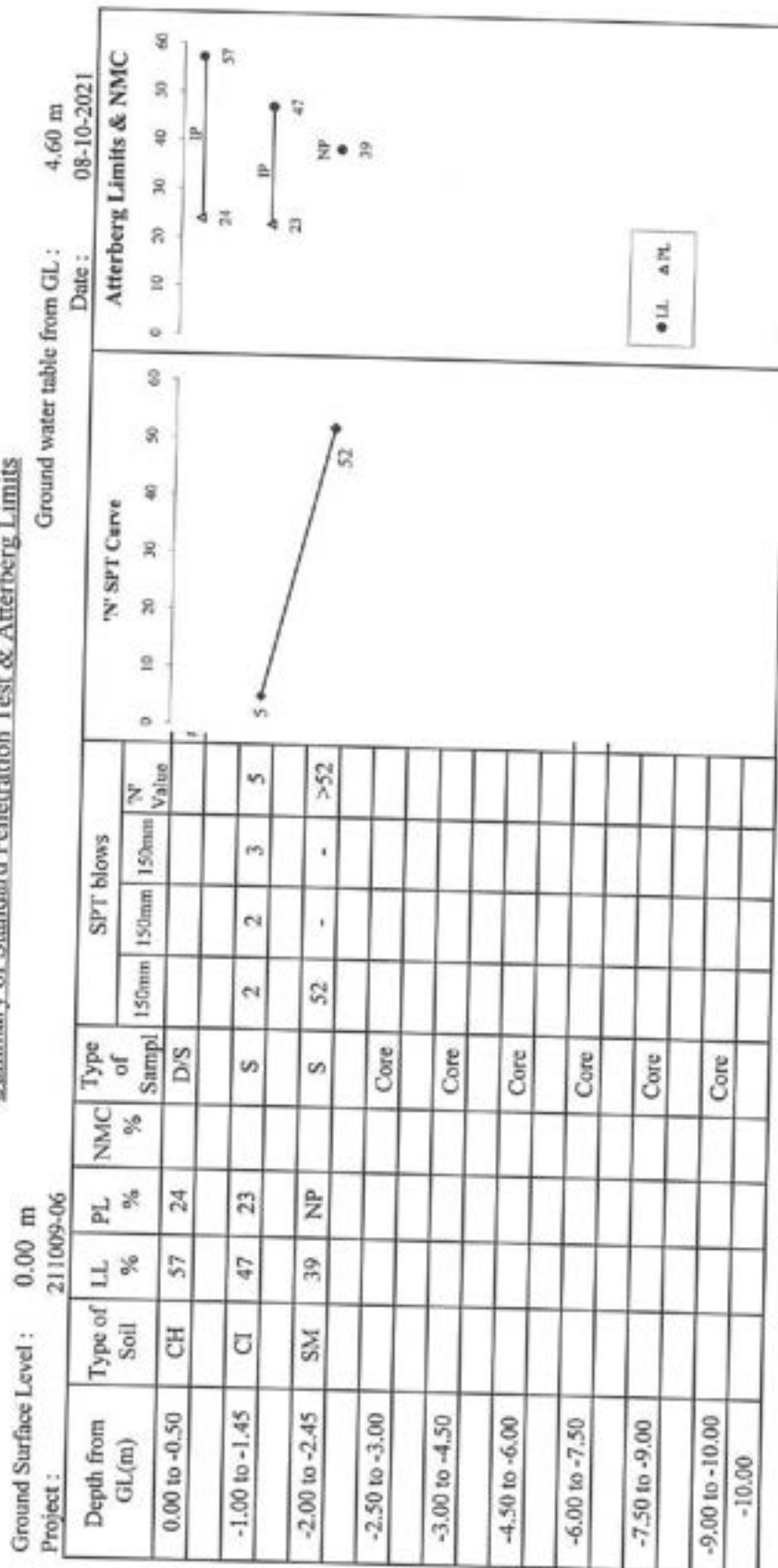
PL : Plastic Limit
IP : Plasticity Index

Project No.	Sheet No.
211009	041



Project No.	Sheet No.
211009	042

Figure No : 10.2.6 - BH No - 6
Summary of Standard Penetration Test & Atterberg Limits



D/s : Disturbed Sample
S : Standard Penetration Test
UDS : Undisturbed Sample

NMC : Natural Moisture Content
LL : Liquid Limit

PL : Plastic Limit
IP : Plasticity Index



Figure No: 10.3.1 - Particle Size Distribution Curve - BH No - 1

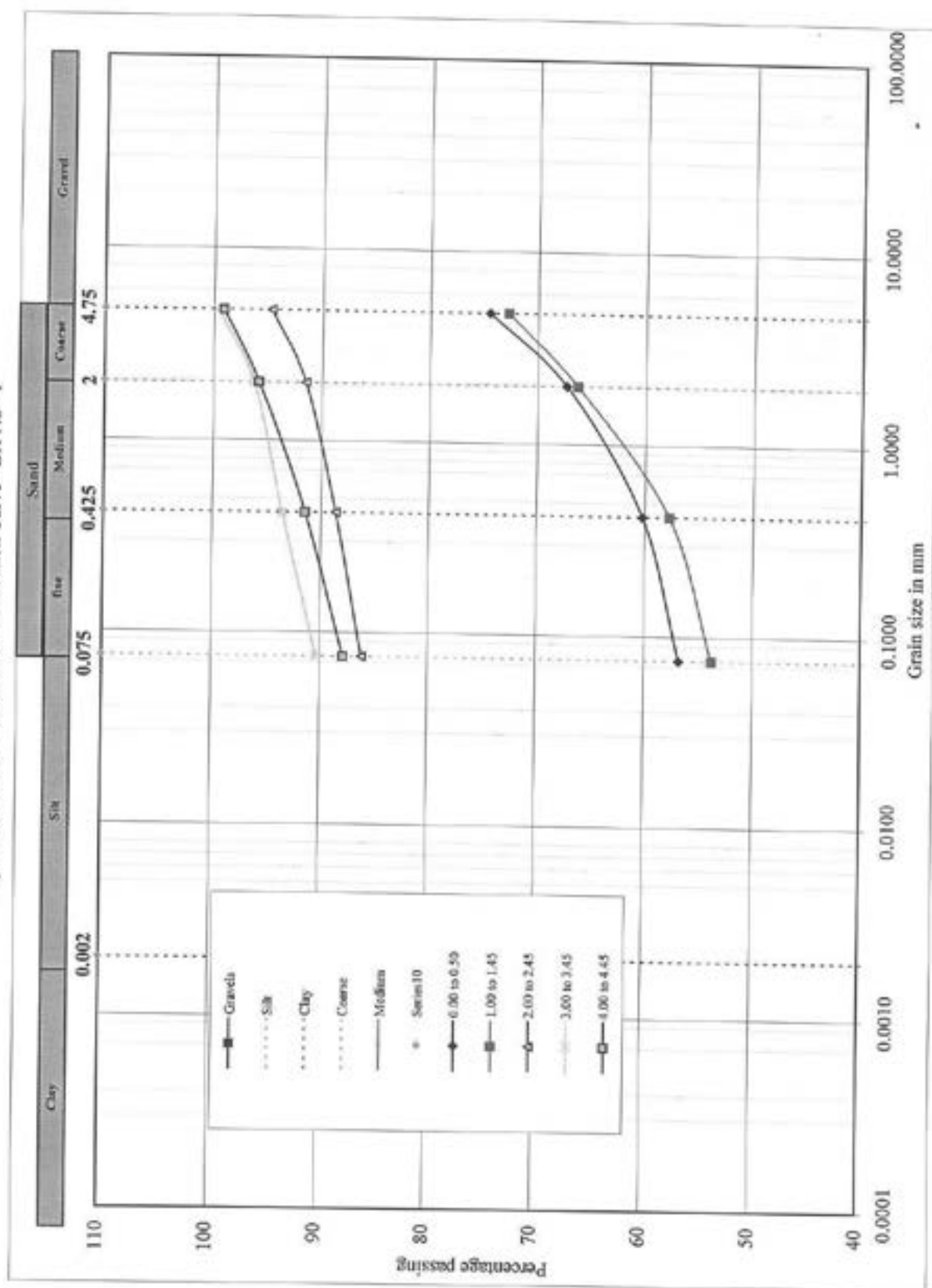
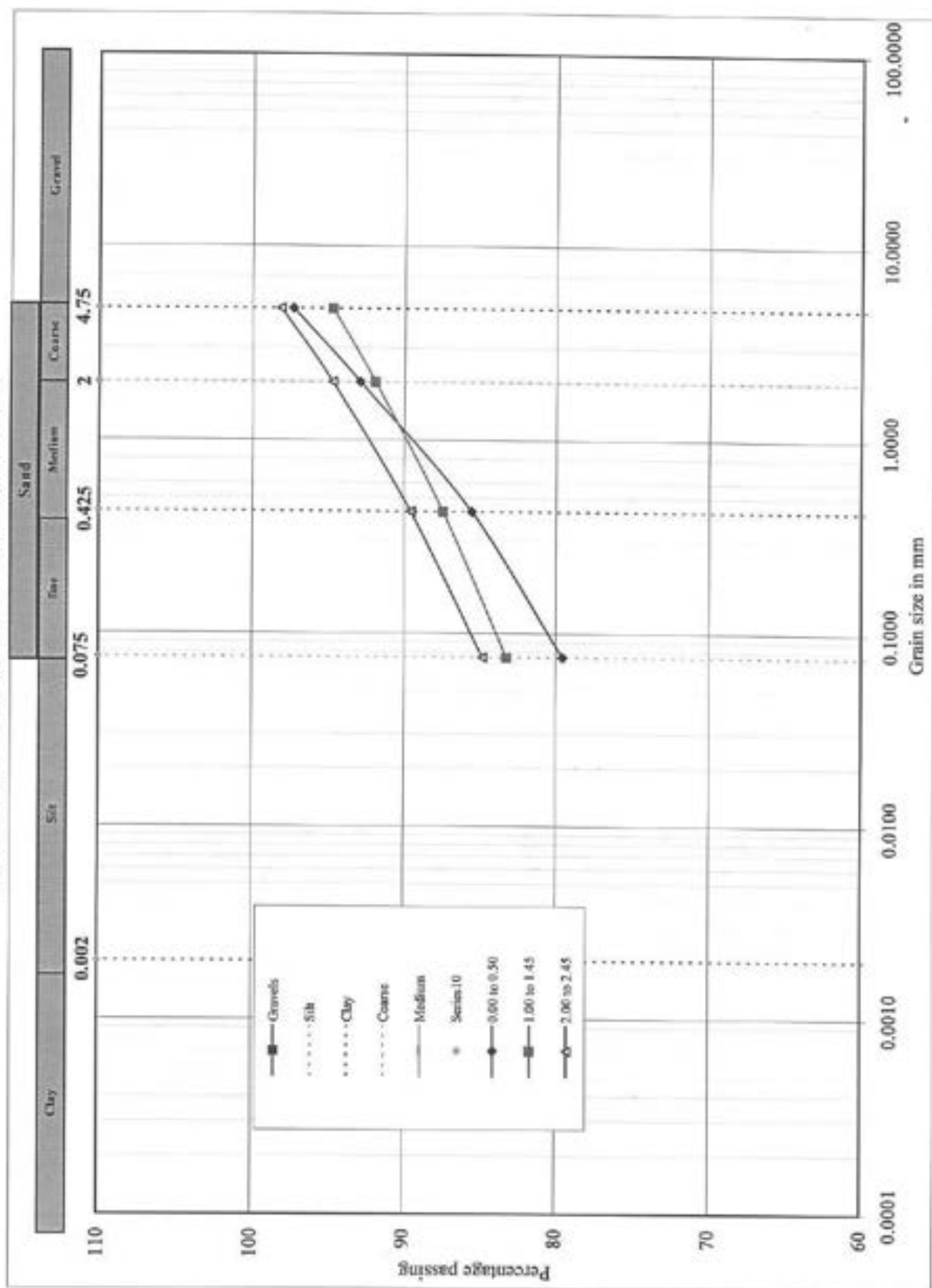


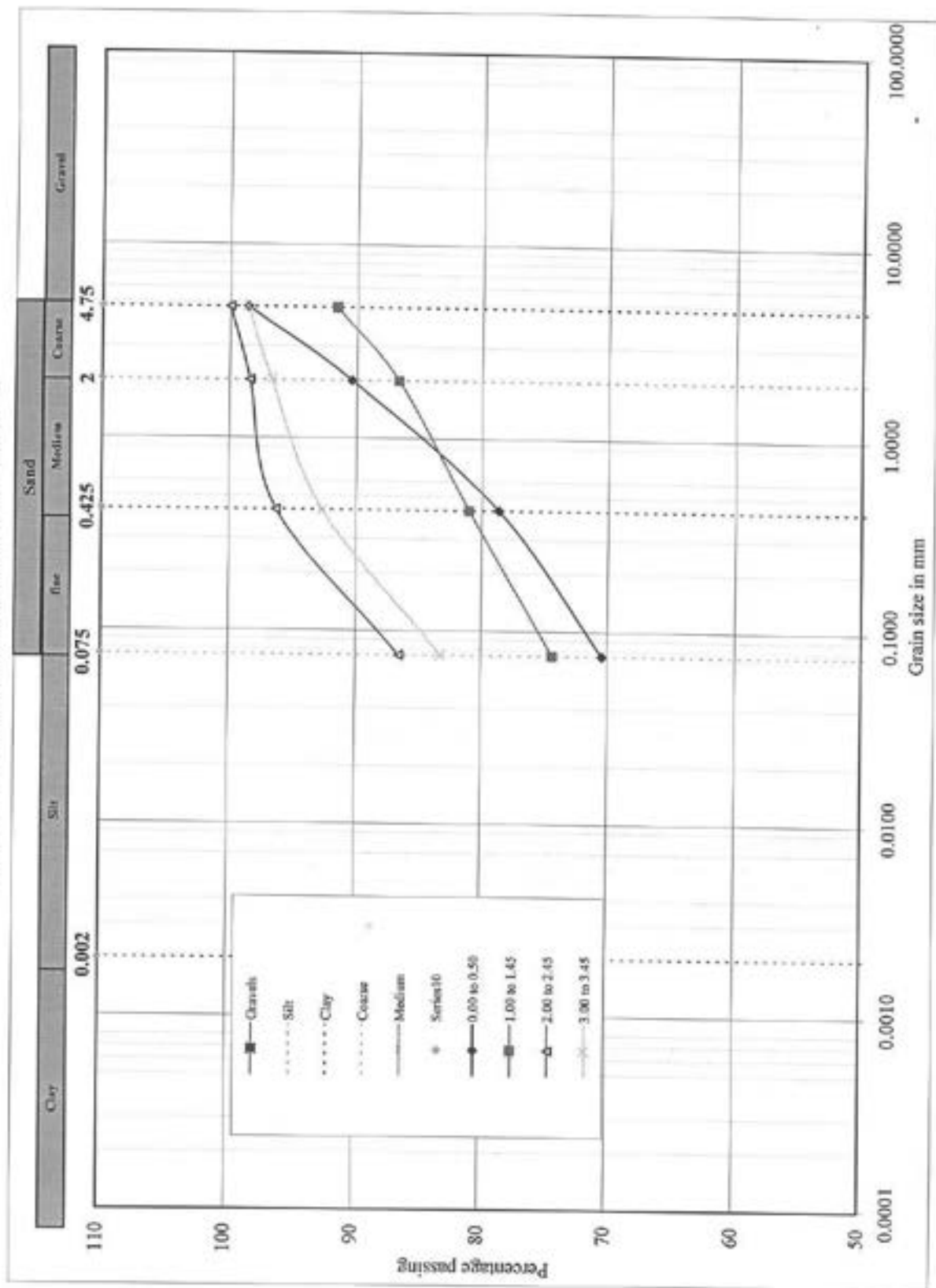
Figure No: 10.3.2 - Particle Size Distribution Curve - BH No - 2



Project No.	Sheet No.
211009	044



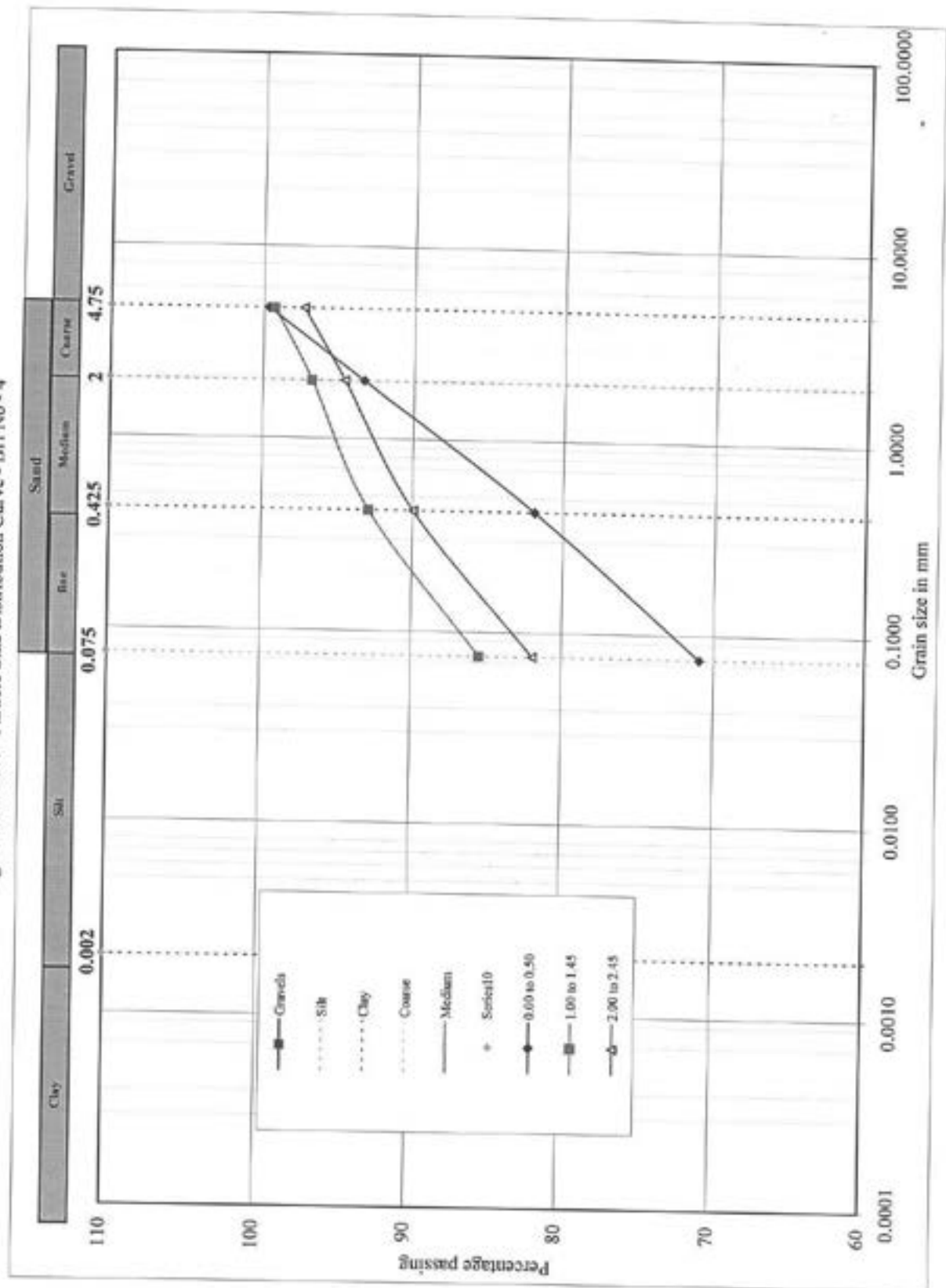
Figure No: 10.3.3 - Particle Size Distribution Curve - BH No - 3



Project No.	Sheet No.
211009	045



Figure No: 10.3.4 - Particle Size Distribution Curve - BH No - 4



Project No.	Sheet No.
211009	046



Figure No: 10.3.5 - Particle Size Distribution Curve - BH No - 5

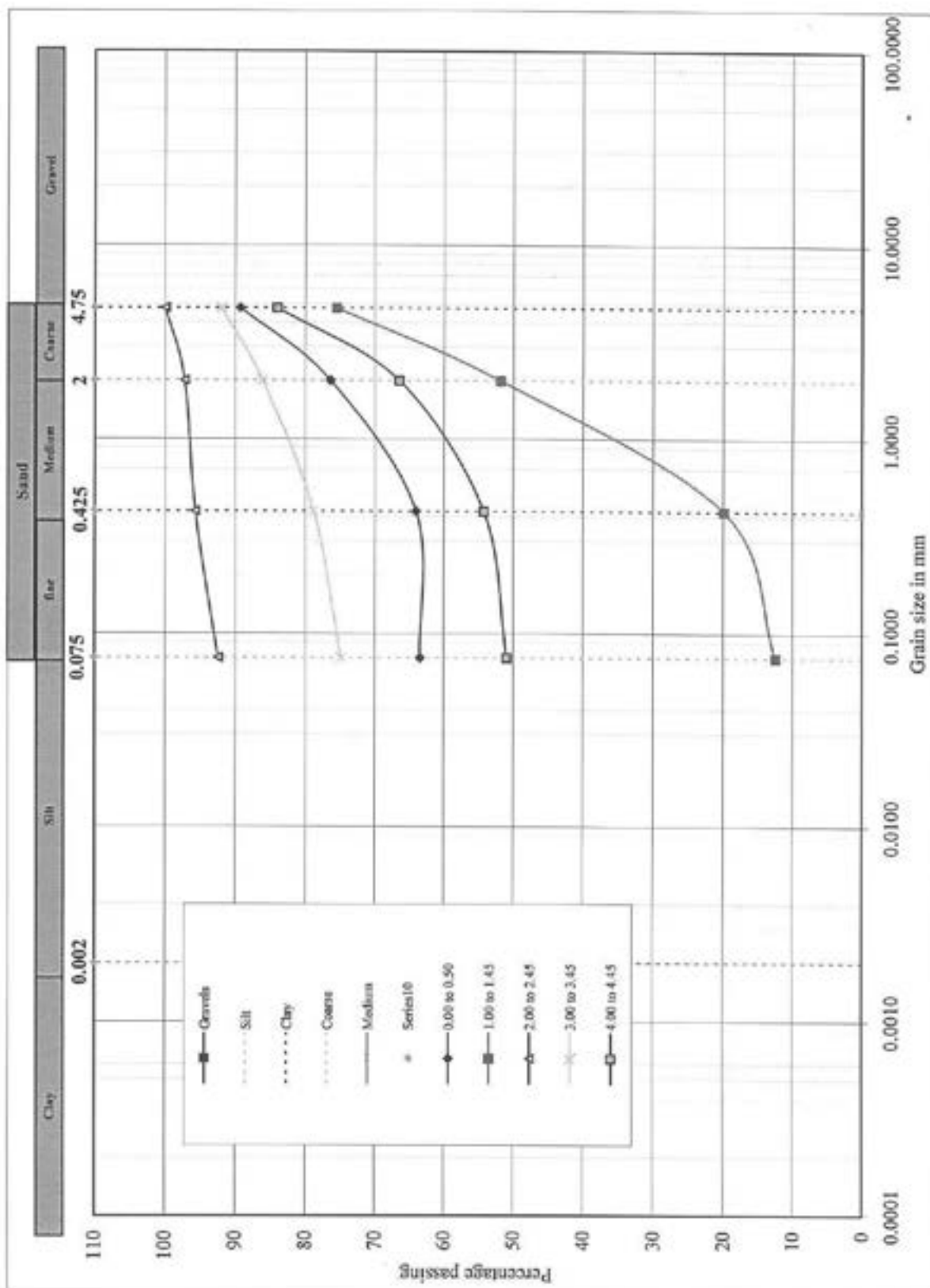
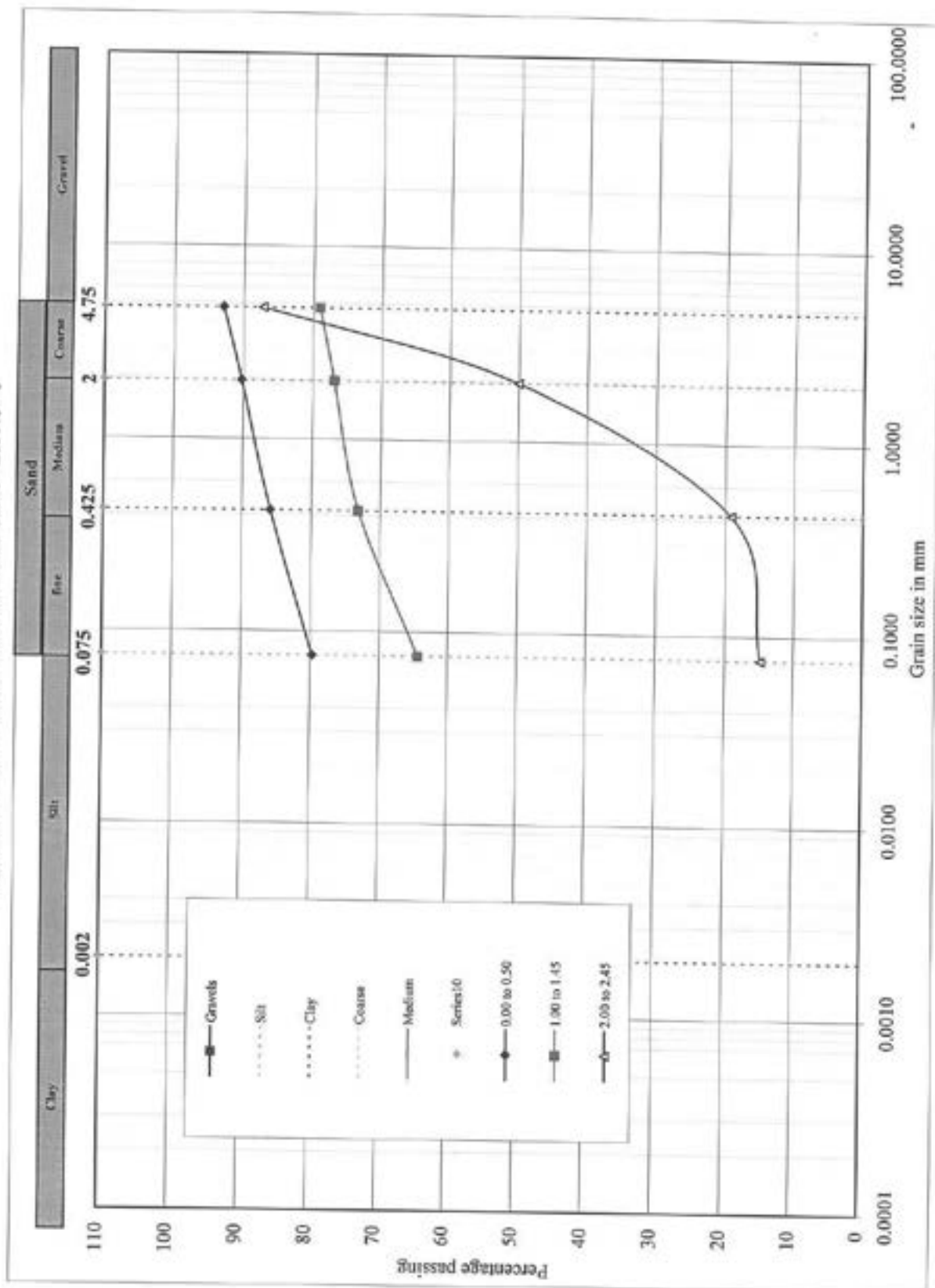


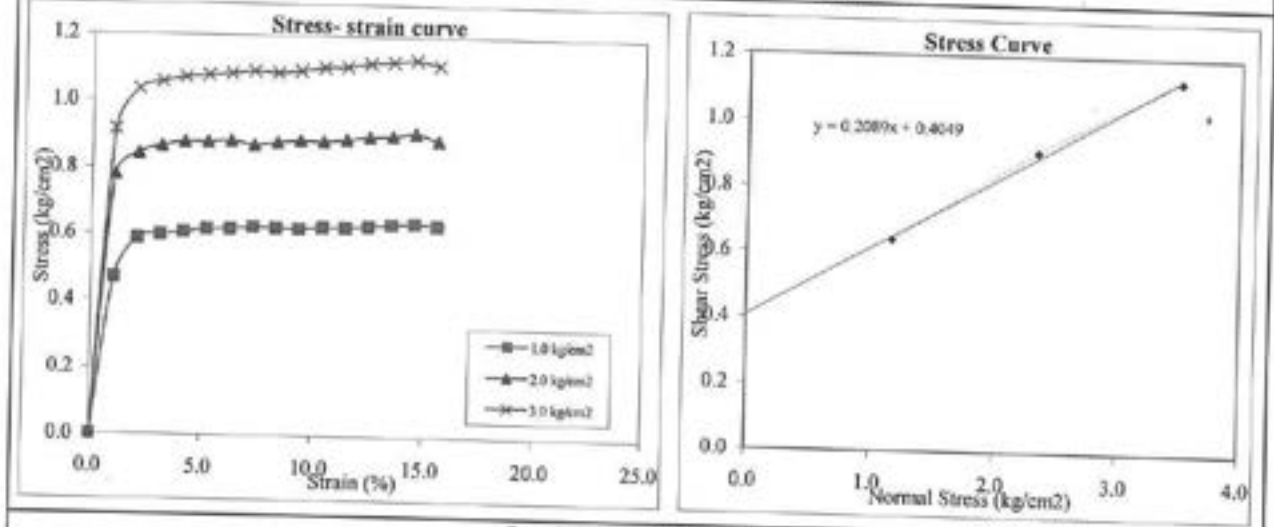
Figure No: 10.3.6 - Particle Size Distribution Curve - BH No - 6



Project No.	Sheet No.
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Fig. - 10.4.1 (A) - Direct Shear Curve - BH No - 1



Depth (m) : -2.00 to -2.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

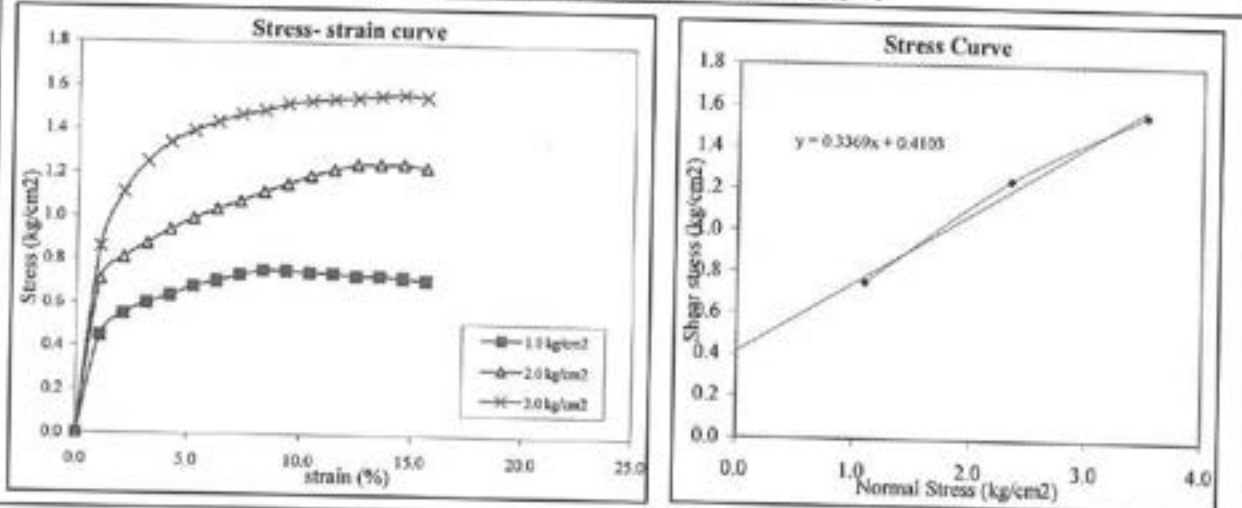
Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.640	0.912	1.129

0.40
12

Fig. - 10.4.1 (B) - Direct Shear Curve - BH No - 1



Depth (m) : 4.00 to 4.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.754	1.249	1.568

0.41
19

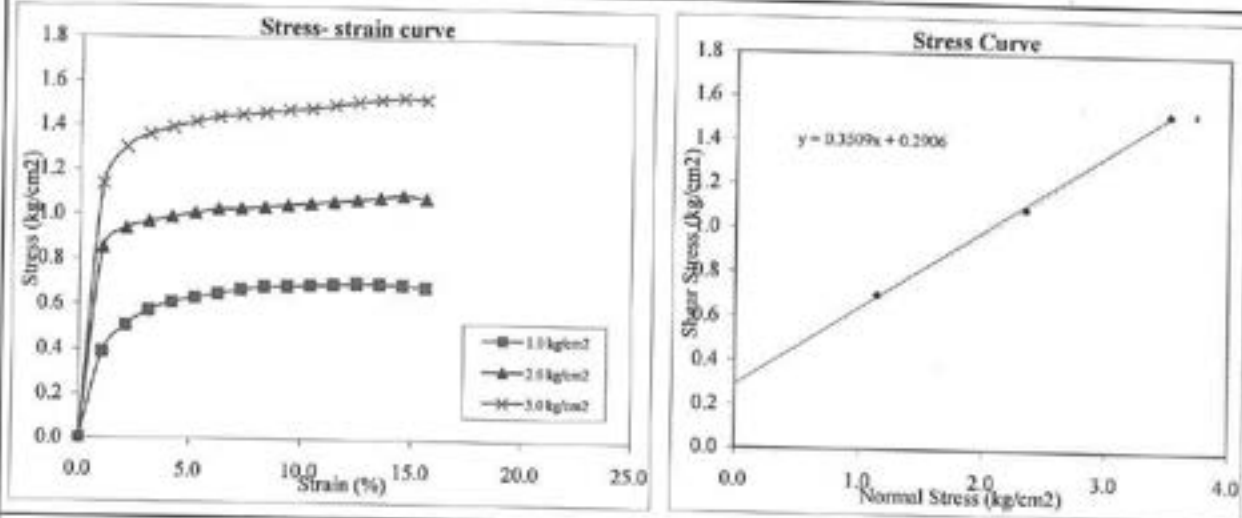
Project No.	Sheet No.
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Fig. - 10.4.2 - Direct Shear Curve - BH No - 2



Depth (m) : -2.00 to -2.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

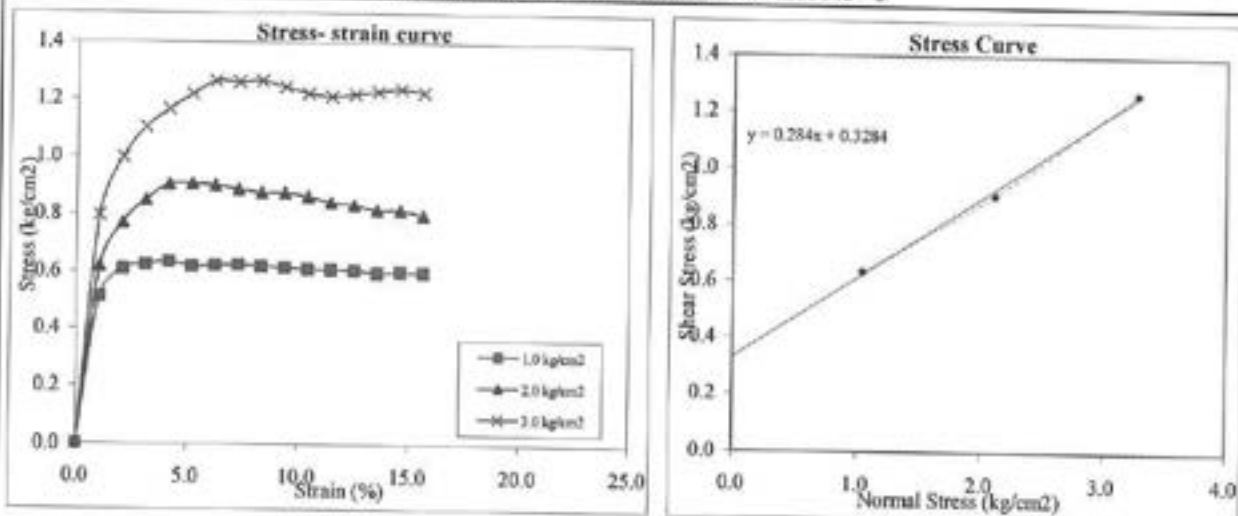
Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.701	1.094	1.532

0.29
19

Fig. - 10.4.3 (A) - Direct Shear Curve - BH No - 3



Depth (m) : -1.00 to -1.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.635	0.908	1.267

0.33
16

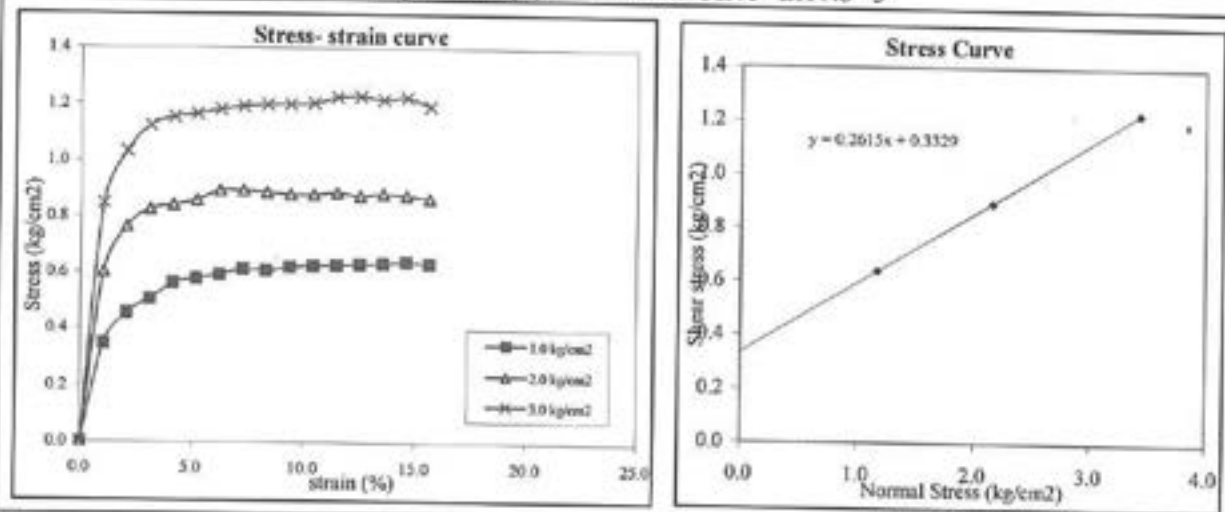
Project No.	Sheet No.
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Fig. - 10.4.3 (B) - Direct Shear Curve - BH No - 3



Depth (m) : 3.00 to 3.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

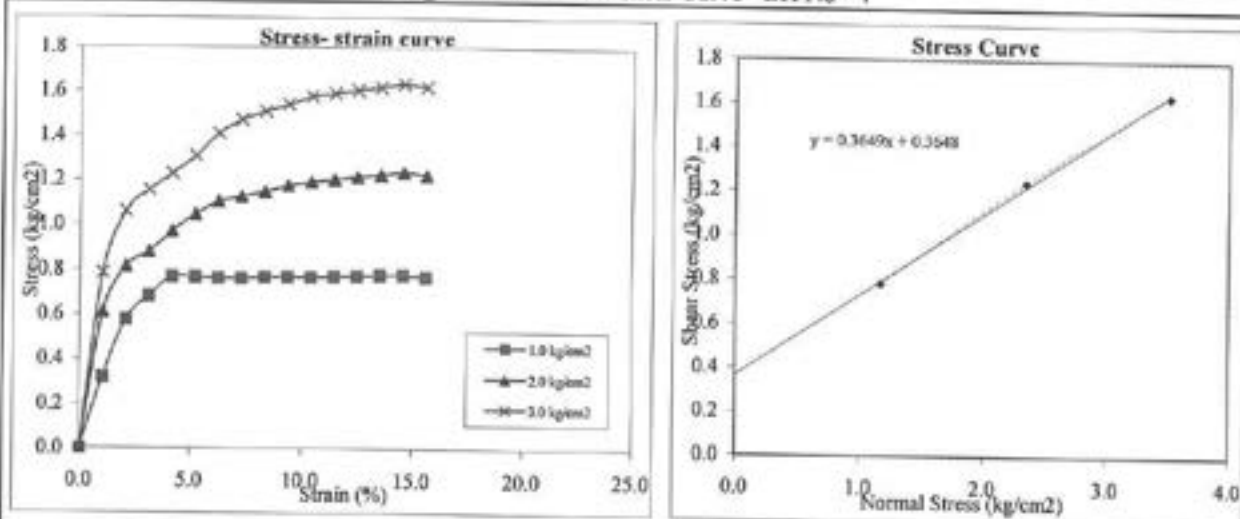
Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.640	0.895	1.230

0.33
15

Fig. - 10.4.4 - Direct Shear Curve - BH No - 4



Depth (m) : -1.00 to -1.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.782	1.239	1.636

0.36
20

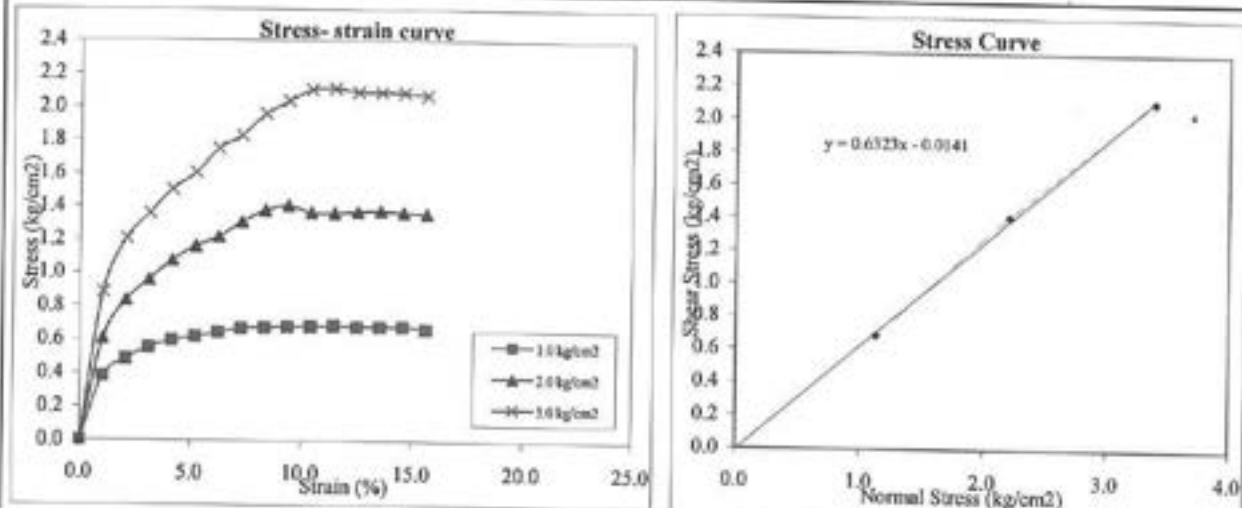
Project No.	Sheet No.
211009	051



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Fig. - 10.4.5 (A) - Direct Shear Curve - BH No - 5



Depth (m) : -1.00 to -1.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

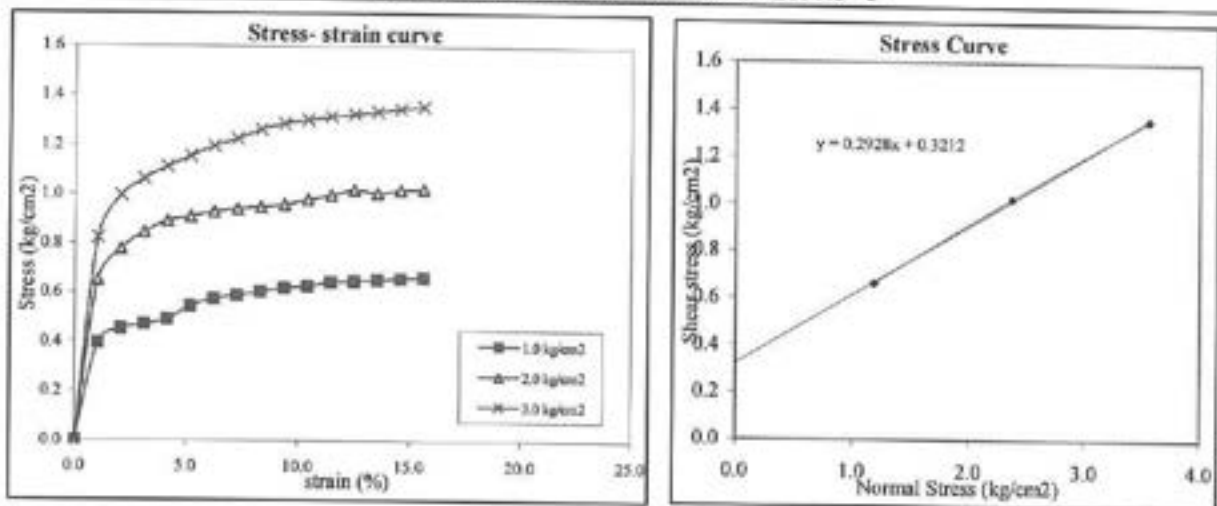
Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.685	1.409	2.115

0.00
32

Fig. - 10.4.5 (B) - Direct Shear Curve - BH No - 5



Depth (m) : 3.00 to 3.45

Failure Stress

Normal Stress- σ_3 (kg/cm²)

Shear Stress (σ_1) kg/cm²

From Graph of Failure Envelope

Cohesion (c) kg/cm²

Angle of Shearing Resistance (ϕ) Deg. =

1.0	2.0	3.0
0.664	1.024	1.358

0.32
16

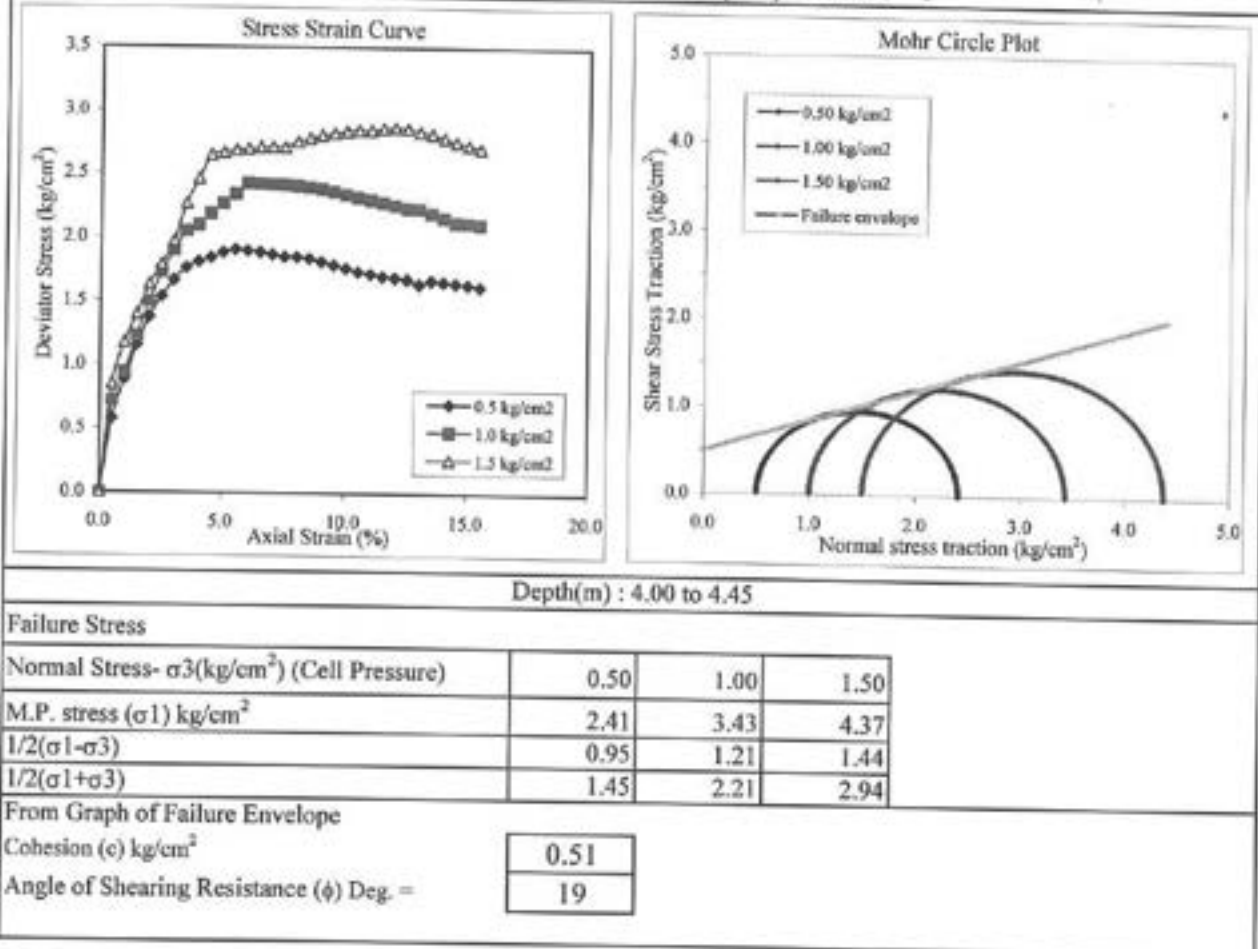
Project No.	Sheet No.
211009	052



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Fig. - 10.5.1 - Tri Axial Curve (UU) - BH No - 1



Project No.	Sheet No.
211009	053



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11.1 (A) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Bore Hole No.	1	Dia. of Bore : 150 mm	Termination Depth	Termination Depth (m)	Visual Identification of Soil	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth (m)	Termination Depth 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11.1 (B) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Name of Work :- Proposed Site for Netaji Subhash Chandra Bose Training School at Sr No. 208/3/1/1, Mata Basdea, Tardiga & Nagar Haveli.
 Here Hole No. :-

Bore Hole No.	Depth from G.L.	SPT Blow/30 cm	Corrected SPT Blow/30 cm	Diameter/Corrosion of Bore	Water Table	Depth from G.L.	Visual observations	Sampling	Particle Size Analysis					Atterberg Limits				IS Classification	Core length of the sample recovered	Core Recovery Ratio	Core Position of the sample recovered	Rock Quality Designation - RQD	Rock Density	Water Absorption	Spindle Count	Porosity of Rock	Unclassified comp. strength			Joint Observations	Rock Mass Rating RMR	Rock Classification Code			
									Gravel	Sand	Fine (0.075mm)	Coarse (0.075mm)	Wp	LL	PI	Wp	LL										PI	Test Condition	Qu				Com	MPa	
	m	No.	No.	No.		m	General		D ₇₅	26	18	56	43	21	25	CI																			
	0.00 to 0.50						Filled up soil (brownish silty clay) up to 1.50m		D ₇₅	27	19	54	48	22	26	CI																			
	1.00 to 1.45						Brownish high plastic silty clay with sand upto 4.50m		UD ₅	5	6	86	61	21	49	CH																			
	2.00 to 2.45									UD ₅	5	0	91	71	18	52	CH																		
	3.00 to 3.45	20	20	V ₅						UD ₅	1	11	88	60	21	39	CH																		
	4.00 to 4.45						Dull grayish colored, fine grained, micaceous volcanic igneous, amygdaloid of calcite & moderately weathered amygdaloidal basalt up to 7.50m		Core								1.50	1.00	67	1.00	67	2.60	1.39	2.90	4.20	Wet	58.14	C	3.75	6.35	3	50	III		
	4.50 to 6.00									Core								1.50	1.11	74	0.81	54	2.60	1.38	2.71	3.72	Wet	45.35	D	3.60	0.25	3	47	III	
	6.00 to 7.50									Core								1.50	1.25	83	1.25	83	2.83	0.77	2.85	2.20	Wet	68.58	D	3.20	0.18	2	56	III	
	7.50 to 9.00						Grayish black coloured, fine grained aphanitic texture micaceous volcanic igneous, compact basalt up to termination depth.		Core								1.50	1.20	80	1.20	80	2.82	0.72	2.84	2.03	Wet	40.54	D	2.87	0.08	2	56	III		
	9.00 to 10.50									Core																									
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Note: 1.0) Class of Joint characteristics:

- A Very Rough surface of limited extent; hard wall rock
- B Slightly rough surface; aperture less than 1.0mm; hard wall rock
- C Slightly rough surface; aperture less than 1.0mm; soft wall rock
- D Smooth surface, or grout filling 1-5mm thick or aperture of 1-5mm; joints extending more than several meters
- E Open joint filled with more than 2mm of grout, or open more than 2mm; joint extending more than several meters

4.6) Classification of Soil as per IS 1498 : 1970 (Reaffirmed 1997)

5.6) Liquid Limit by Cone Penetrometer

2.0) Class based on compressive strength

- A Exceptionally strong (>250)
- B Very Strong (100-250)
- C Strong (50-100)
- D Average (25-50)
- E Weak (10-25)
- F Very Weak (2-10)
- G Extremely Weak (<2)

Class based on RQD & RMR

- RQD RMR
- EX I Very good rock
- GR II Good rock
- FR III Fair rock
- PR IV Poor rock
- VR V Very Poor Rock



Project No.	Sheet No.
211009-01	55

11.2 (A) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Bore Hole No.	Depth from D.L. m	SPT-N Values	Consolidated SPT-N ₆₀	Diameter of Sample	Water Table	Depth from RL	Visual Identification of Soil	Sampling Description	Particle Size Analysis				Atterberg Limits				Field Density		Termination Depth (m)				Field Work Spanned				Field Work Completed																																																																																																																																																																																																																																																																																																																																																																																																																																																													
									Gravel (%)	Sand (%)	Fines (0.075mm to 0.075mm)	Silt-Clay (%)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit 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Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit 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Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)	Plastic Limit (PL)	Shrinkage Limit (SL)	Liquid Limit (WL)

1 Classification of Soil is as per IS 1498 : 1970 (Reaffirmed 1997)

2 Abbreviation Used: (1) DS : Consolidated Uniaxial Direct Shear test on specimen remoulded @ 100% FLD and submerged for 24 hrs saturation.

(2) T : Triaxial compression (Unconsolidated Undrained condition)

(3) S : SPT Sample

(4) SMC : Standard Moisture Content

(5) DS : Disturbed Sample

(6) UDS : Undisturbed Sample

3 Liquid Limit by Cone Penetrometer

: SPT N Values are not corrected due to clayey areas.

Name of Work :- Proposed Site for Netaji Subhash Chandra Bose Training School at Sr. No. 208/2/L1, Mota Rancha, Dadra & Nagar Haveli.

Bhumi Research Center, Surat.
Ph: (0261) 2363800, 2363700
Project No: 211009-02
Sheet No: 56

11.2 (B) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Name of Work :- Proposed Site for Netaji Subhash Chandra Bose Training School at Sr No: 206/3/1/1, Meta Road, Dadra & Nagar Haveli,
 Bore Hole No :- 3
 Dia. of Bore :- 150 mm

Depth from CL m	SPT Blows/30 cm No.	Termination Depth m	Visual observations	Sampling	Sample Description	Particle Size Analysis				Atterberg Limits			IS Classification	Core drilling Data	Final length of the sample recovered	Core Recovery Ratio	Core recovered of size > 3mm	Rock Quality Designation RQD	Rock Density g/cc	Water Absorption	Spindle Density	Porosity of Rock %	Unconfined comp. strength			Joint Observations	Rock Mass Rating RMR
						Overall	Pass	Fail	Fail-Chip	Shrinkage Limit (%)	Plasticity Index (%)	Liquid Limit (%)															
0.00 to 0.50					UDS	5	3	18	79	51	15	33	CH	0.50	0.24	48	0.24	48	2.66	2.30	2.67	0.16					
0.50 to 1.45	26	26	Brownish high plastic silty clay with sand up to 2.5mm		Core	5	5	12	83	60	10	41	CH	1.50	0.33	22	80	N/A	2.70	0.49	2.79	1.36					
1.45 to 2.45					Core	UDS	2	13	85	53	18	34	CH	1.50	1.19	79	1.12	75	2.79	0.33	2.81	0.08					
2.45 to 3.00			Dull grayish, fine grained malacconic volcanic igneous boulders of basalt rock into the matrix matrix up to 4.5mm		Core									1.50	1.24	83	1.19	79	2.78	0.41	2.79	1.14					
3.00 to 4.35			Grayish black, fine grained, malacconic volcanic igneous, porphyritic texture, basaltic up to 5.00mm		Core									1.50	1.02	68	0.84	56	2.75	0.49	2.76	1.34					
4.35 to 6.00			Black fine grained, aphatic texture, malacconic volcanic igneous, compact bould up to termination depth		Core									1.00	0.72	72	0.42	42	2.82	0.43	2.84	1.23					
6.00 to 7.30																											
7.30 to 9.00																											
9.00 to 10.00																											

Note: 1.0) Class of joint characteristics:
 A Very Rough surface of limited extent, hard well rock
 B Slightly rough surface, aperture less than 1.00mm; hard well rock
 C Slightly rough surface, aperture less than 1.00mm; soft well rock
 D Smooth surface, or gaps filling 1-5mm thick or aperture of 1-5mm; joints extending more than several meters
 E Open joints filled with more than 5mm of grout, or open more than 5mm; joint extending more than several meters
 4.0) Classification of Soil is as per IS 1498: 1970 (Reaffirmed 1997)
 5.0) Liquid Limit by Cone Penetration

2.0) Class based on compressive strength
 A Exceptionally strong (>250)
 B Very Strong (100-250)
 C Strong (50-100)
 D Average (25-50)
 E Weak (10-25)
 F Very Weak (2-10)
 G Extremely Weak (<2)

Class based on RQD & RMR
 RQD RMR
 EX I Very good rock
 GR II Good rock
 FR III Fair rock
 VPR IV Poor rock
 VPR V Very Poor Rock

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211009-02	57

11.3 (A) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Bore Hole No.	3	Dia. of Bore - 150 mm	Termination Depth (m) - 10.00										Field Work Started - 08-10-2021										Field Work Completed - 10-10-2021											
			Depth from G.L.	SPT-N Value	Corrected SPT-N ₆₀	Termination Depth	Visual Description of Soil	Sampling	Sample Designation	Particle Size Analysis				Atterberg Limits				Field Density		Field Moisture Content (w%)	Specific Gravity (G _s)	Void Ratio (e)	Porosity (n)	S _u (kN/m ²)	Degree of Saturation	Slur Parameters			Consolidation Characteristics		Swelling Characteristics			
										Gravel (No. > 4.75 mm)	Sand (No. 4.75 to 0.075 mm)	Fine (No. < 0.075 mm)	LL (%)	PL (%)	Shrinkage (%)	Field Density (kg/m ³)	Dry Density (kg/m ³)	Type	Cohesion (c)							Angle of Shearing Resistance (φ)	Compression Index C _c	Pre-Consolidation Pressure (P ₀)	Shrinkage Limit	D ₅₀ Fine	5-sd Pressure			
			0.00 to 0.50	No	No			UD5	1	28	71	51	19	33	CH																			
			1.00 to 1.45					UD5	8	17	75	52	19	33	CH	1.83	1.52	20	2.65	0.74	42.53	27.92	71.63	DS	0.33	16						18	35	
			2.00 to 2.45	27	27	Vs		S	0	13	87	54	19	35	CH																			
			3.00 to 3.45					UD5	1	15	84	52	18	34	CH	1.90	1.58	20	2.60	0.65	39.39	25.00	80.00	DS	0.33	15						15	45	
			3.50 to 4.50					Core	CR=50% & RQD=50%																									
			4.50 to 6.00					Core	CR=31% & RQD=31%																									
			6.00 to 7.50					Core	CR=25% & RQD=15%																									
			7.50 to 9.00					Core	CR=75% & RQD=69%																									
			9.00 to 10.00					Core	CR=91% & RQD=91%																									
			10.00	Termination Depth																														
			Classification of Soil is as per IS 8049 - 1975 (Revised 1983) as follows -																															

1 Classification of Soil is as per IS 1498 : 1970 (Reaffirmed 1997)

2 Abbreviation Used: (1) DS - Consolidation Undrain Direct Shear test on specimen remoulded @ 100 % FCU and submerged for 24 hrs saturation, (2) TS - Triaxial compression (Unconsolidated Undrained condition)

(3) S - SPT Sample, (4) SMC - Standard Moisture Content

(5) DS - Disturbed Sample, (6) UD5 - Undisturbed Sample

3 Liquid Limit by Cone Penetration

* SPT N Values are not corrected due to clayey strata.

Name of Work :- Proposed Site for Netaji Subhash Chandra Bose Training School at Sr. No. 208/2/1, Main Road, Dada & Nagar Hazari.

Bhumi Research Center, Surat.
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Project No. Sheet No.
211009-03 58

Bhumi Research Center

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1.1.3 (B) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Name of Work :- Proposed Site for Netaji Subhash Chandra Bose Training School at Sr No: 206/3/1/1, Moti Razdha, Dabra & Nagar Harid.
 Bore Hole No :- 3 Dia. of Bore :- 150 mm

Drill Hole No.		Termination Depth		Water Table		Depth from CL		Visual observations		Sampling Description		Periodic Soil Analysis				Atterberg Limits				IS Classification		Core drilling Data		True length of the sample measured		Core Recovery Ratio		Core Retained or lost		Rock Quality Index		Rock Density		Water Absorption		Specific Gravity		Porosity of Rock		Unconfined comp. strength				Point Load Index		Joint Observations		Rock Mass Rating RMR		Rock Classification RMR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Note: 1.0) Class of Soil characteristics:

- A Very Rough surface of limited extent, hard wall rock
- B Slightly rough surface, aperture less than 1.00mm; hard wall rock
- C Slightly rough surface, aperture less than 1.00mm; soft wall rock
- D Smooth surface, or grout filling 1-5mm; joint aperture of 1-5mm; joint extending more than several meters
- E Open joints filled with more than 5mm of grout, or open more than 5mm; joint extending more than several meters
- 4.0) Classification of Soil is as per IS 1498: 1970 (Reaffirmed 1997)
- 5.0) Liquid Limit by Cone Penetrometer

2.0) Class based on compressive strength

- A Exceptionally strong (>250)
- B Very Strong (100-250)
- C Strong (50-100)
- D Average (25-50)
- E Weak (10-25)
- F Very Weak (2-10)
- G Extremely Weak (<2)

Class based on RQD & RMR

- RQD RMR
- ER I Very good rock
- CR II Good rock
- FR III Fair rock
- PR IV Poor rock
- VR V Very Poor Rock

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11.4 (A) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Bore Hole No.	4	Dia. of Bore ~ 150 mm	Visual Identification of Soil	Depth from RL	Water Table	Diameter of Sample	SPT-N Value	Corrected SPT-Nc	Termination Depth	Termination Depth (m)	Particle Size Analysis				Atterberg Limits				Field Density		Void Ratio (e)	Porosity (%)	SMC	Degree of Saturation	Shear Parameters		Consolidation Characteristics	Swelling Characteristics						
											Gravel (No. 4.75mm to 4.75mm)	Sand (No. 75 to 4.75mm)	Fine (No. 75 to 0.075mm)	Clay (No. 0.075mm)	Liquid Limit (%)	Plastic Limit (%)	Shrinkage Limit (%)	Dry	Bulk	Type					Angle of Shearing Resistance (φ)	cohesion (c)		Compression Index (Cc)	Pre Compression Index (Pe)	Swelling Index (Is)	Swelling Pressure (kPa)			
		0.00 to 0.50																																
		1.00 to 1.45																																
		2.00 to 2.45					14	14	51																									
		2.50 to 3.00																																
		3.00 to 4.50																																
		4.50 to 6.00																																
		6.00 to 7.50																																
		7.50 to 9.00																																
		9.00 to 10.00																																
		10.00																																

1 Classification of Soil is as per IS 1498 : 1970 (Reaffirmed 1997)

Field Work Started : 31/05/2021

Field Work Completed : 14-10-2021

Name of Work :- Proposed Site for Nijali Suburban Chamber Bore
 Training School at Sr. No. 200/3/1/1, Moss Road,
 Dabra & Nagar Haveli.

Bhumi Research Center, Surat.
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: SPT N Values are not corrected due to clayey strata.

1 Classification of Soil is as per IS 1498 : 1970 (Reaffirmed 1997)
 2 Abbreviation Used : (1) DS : Consolidated Undrain Direct Shear test on specimen remoulded @ 100 % FDS and submerged for 24 hrs saturation.
 (2) TS : Triaxial compression (Unconsolidated Undrain remoulded)
 (3) S : SPT Sample,
 (4) SMC : Saturated Moisture Content
 (5) DS : Disturbed Sample,
 (6) LDS : Undisturbed Sample
 3 Liquid Limit by Cone Penetrometer

1.1.4 (H) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Name of Work :- Proposed Site for Netaji Subhash Chandra Bose Training School at Sr No: 206/3/1/1, Meta Road, Duder & Nagar, Howrah.

Bore Hole No. 4

Top of Hole is 150 mm

Depth from CL	SPT blow/30 cm	Termination Depth	Visual Observations	Sampling	Particle Size Analysis				Atterberg Limits			IS Classification	Core Drilling Data	Total length of the sample recovered	Core Recovery Rate	Core Removal of size > 60mm	Rock Quality - RQD	Rock Density	Water Absorption	Specific Gravity	Porosity of Rock	Unconfined comp strength			Joint spacing	Joint Orientation	Rock Mass Rating RMR
					Gravel (%)	Sand (%)	Fine Sand (%)	Silt (%)	Clay (%)	Liquid Limit (WL) (%)	Plastic Limit (PL) (%)	Shrinkage Limit (SL) (%)															
0.00 to 0.50	N/A				5	0	20	71	45	18	28	CI															
1.00 to 1.45					1	14	85	58	20	38	CI																
2.00 to 2.45	14	14	50																								
2.50 to 3.00																											
3.00 to 4.50																											
4.50 to 6.00																											
6.00 to 7.50																											
7.50 to 9.00																											
9.00 to 10.00																											
10.00 to 11.00																											

Note: 1. (i) Class of soil characteristics:

- A Very Rough surface of limited extent, hard wall rock
- B Slightly rough surface, aperture less than 1.00mm, hard wall rock
- C Slightly rough surface, aperture less than 1.00mm, soft wall rock
- D Smooth surface, or grout filling 1.00mm thick or aperture of 1.00mm, joint extending more than several meters
- E Open joints filled with more than 5mm of grout, or open more than 5mm, joint extending more than several meters
- 4.09 Classification of Soil is as per IS 1408 : 1979 (Reaffirmed 1997)
- 5.09 Liquid Limit by Cone Penetrometer

2. (i) Class based on compressive strength

- A Exceptionally strong (>250)
- B Very Strong (100-250)
- C Strong (50-100)
- D Average (25-50)
- E Weak (10-25)
- F Very Weak (2-10)
- G Extremely Weak (<2)









Class based on RQD & RMR

- RQD RMR
- III I Very good rock
- III II Good rock
- III III Fair rock
- III IV Poor rock
- III V Very Poor Rock

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11.5 (B) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Name of Work :- Proposed Site for Netaji Subhash Chandra Bose Training School at Se No. 208/3/1/1, Mada Rancha, Dadrha & Nagar Haveli.
 Item No. :- 5
 Date of Issue :- 10.05.2021

Depth from G.L.		Visual Observations	Sampling	Particle Size Analysis				Atterberg Limits				IS Classification	Core length of the sample recovered	Core Recovery Ratio	Core Restored of test	Rock Quality Designation - RQD	Rock Density	Water Absorption	Spindle Corrosy	Porosity of Rock	Unconfined comp strength			Point Load Index	Joint Observations	Rock Mass Rating RMR	Rock Classification RMR					
Depth from G.L.	5PT Blow/30 cm			Coarse (4.75mm to 0.075mm)	Fine (0.075mm to 0.0075mm)	Silt (%)	Clay (%)	Liquid Limit (WL)	Plastic Limit (PL)	Plasticity Index (PI)	Test Condition										MPa	Rock Classification	MPa									
0.00 to 0.50	No	Filled up well up to 1.50m		11	26	63	46	19	27	CI																						
0.50 to 1.45																																
1.45 to 2.45	18					24	63	13	38	57	NP	SM																				
2.00 to 2.45	18					0	8	92	58	18	40	CH																				
3.00 to 3.45		Brownish high to medium plastic silty clay with sand & gravel up to 4.50m		8	17	75	49	20	29	CI																						
4.00 to 4.45	28				16	33	51	43	20	25	CI			1.50	0.42	28	0.22	15	2.65	1.56	2.67	4.16			1.43	0.15	5	15	V			
4.50 to 6.00															1.50	0.56	64	0.65	43	2.76	1.11	2.78	3.09	10m		38.96	D	2.71	0.26	4	30	IV
6.00 to 7.50				Blackish fine grained, aphanitic texture, micaceous volcanic igneous, moderately weathered, hard up to 6.00m											1.50	0.89	59	0.54	16	2.75	0.88	2.77	2.44	10m		28.99	D	2.58	0.26	4	30	IV
7.50 to 9.00															1.00	0.84	34	0.78	78	2.79	0.77	2.80	2.17	10m		15.29	C	3.81	0.38	2	59	III
9.00 to 10.00																																
10.00																																

Completed: 07/10/2021

Field Work Started: 05-10-2021

Transmission Depth: 10.00 m

Time of Day: 15:00 m

Note: 1.0) Class of Joint characteristics

- A Very rough surface of limited extent, hard wall rock
- B Slightly rough surface, aperture less than 1.00mm, hard wall rock
- C Slightly rough surface, aperture less than 1.00mm, soft wall rock
- D Smooth surface, or gaps filling 1-3mm thick or aperture of 1-3mm, joints extending more than several meters
- E Open joints filled with more than 5mm of grout, or open more than 5mm, joint extending more than several meters
- 4.0) Classification of Soil is as per IS 1498 : 1970 (Reaffirmed 1997)
- 5.0) Liquid Limit by Cone Penetration

2.0) Class based on compressive strength

- A Exceptionally strong (>250)
- B Very Strong (100-250)
- C Strong (50-100)
- D Average (25-50)
- E Weak (10-25)
- F Very Weak (2-10)
- G Extremely Weak (<2)

Class based on RQD & RMR

- RQD RMR
- ER I Very good rock
- GR II Good rock
- FR III Fair Rock
- PR IV Poor Rock
- VPR V Very Poor Rock

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CSS
 0210
 0252
 0305

1.1.6(A) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Bore Hole No.	6	Termination Depth (m)	10.00	Field Work Started : 08-10-2021	Field Work Completed : 11-10-2021	Soil Profile Data										Soil Parameters				Swelling Characteristics																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
						Depth from GL	Visual Identification of Soil	Sample Description	Particle Size Analysis	Atterberg Limits	IS Classification	Field Density	Field Moisture Content	Void Ratio (e)	Specific Gravity (G _s)	Penetration (np)	ISAC	Report of Swelling	Type	Volume (%)	Angle of Shearing Resistance (φ)	Compression Index (C _c)	Pre-Consolidation Pressure (P _{vc})	Shrinkage Limit	DLR, Free Swelling Index	Swelling Potential																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

Name of Work :- Proposed Site for Nirmal Subhash Chandra Bose Training School at Sr No. 2002/11, Moha Rastha, Dibrui & Nager Harali.

Bhumi Research Center, Sonit
Ph: 0261 2363600, 0261 60940

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: SPT N Values are corrected for CBR & Dilatancy correction.



11.6 (B) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

Name of Work :-
Bore Hole No. :-

Proposed Site for Netaji Subhash Chandra Bose Training School at Sr. No. 208(X)/1/1, Main Road, Dendra & Nagar Haveli.

Date of Bore :- 19/09/2021

Termination Depth :- 10.00 m

Completed :- 11-10-2021

Field Work Started :- 08-10-2021

Depth from G.L.	Depth from G.L.	Termination Depth	Visual observation	Sample Description	Particle Size Analysis	Atterberg Limits	IS Classification	Core Recovery Rate	Core Recovery Rate	Core Recovery Rate	Rock Quality Designation (RQD)	Rock Density	Water Absorption	Specific Gravity	Porosity of Rock	Unconfined comp. strength	Acid Characteristics	Back Values Rating Scale
m	m	m			General	Field	Lab	Lab	Lab	Lab	Lab	Lab	Lab	Lab	Lab	Lab	Lab	Lab
0.00 to 0.50	0.00 to 0.50	0.50	Dark brown to black, silty clay with sand & gravel up to 2.00m	D-S	7	13	40	37	24	33	CH							
0.50 to 1.45	0.50 to 1.45	1.45	Brownish soft medium up to 2.50m	S	21	15	64	47	33	34	CI							
1.45 to 2.45	1.45 to 2.45	2.45	Dull blackish fine grained, moderately weathered, aphanitic texture, and associated volcanic igneous, basalt up to 4.50m	S	13	71	14	29	20	20	SM							
2.45 to 3.00	2.45 to 3.00	3.00	Blackish fine grained, aphanitic texture, and associated volcanic igneous rock with calcareous veins, compact basalt up to termination depth	C														
3.00 to 4.50	3.00 to 4.50	4.50																
4.50 to 6.00	4.50 to 6.00	6.00																
6.00 to 7.50	6.00 to 7.50	7.50																
7.50 to 9.00	7.50 to 9.00	9.00																
9.00 to 10.00	9.00 to 10.00	10.00																

Note: 1 (i) Class of Acid characteristics:

- A Very Rough surface of fractured extent, hard wall rock
- B Slightly rough surface, aperture less than 1.00mm, hard wall rock
- C Smooth surface, aperture less than 0.50mm, soft wall rock
- D Smooth surface, or grout filling 1.5mm thick or aperture of 1.5mm, joint extending more than several meters
- E Open joints filled with more than 5mm of grout, or open more than 5mm, joint extending more than several meters

4 (ii) Classification of Soil is as per IS 1498 : 1970 (Reaffirmed 1997)

5 (i) Liquid Limit by Cone Penetration

2 (i) Class based on compressive strength

- A Exceptionally strong (>250)
- B Very Strong (100-250)
- C Strong (50-100)
- D Average (25-50)
- E Weak (10-25)
- F Very Weak (<10)
- G Extremely Weak (<2)

Class based on RQD & RMR

- RQD RMR
- ER I Very good rock
- GR II Good rock
- FR III Fair Rock
- PR IV Poor Rock
- VPR V Very Poor Rock

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11.6 (B) SUMMARY OF GEOTECHNICAL EXPLORATION DATA

12.0 IS CLASSIFICATION OF SOIL

- GW: Well graded gravels, gravel – sand mixtures; little or no fines
- GP: Poorly graded gravels or gravel-sand mixtures; little or no fines
- SW: Well graded sands, gravelly sands; little or no fines
- SP: Poorly graded sands or gravelly sands; little or no fines
- GM: Silty gravels, poorly graded gravel-sand-silt mixtures
- SM: Silty sands, poorly graded sand-silt mixtures
- GC: Clayey gravels, poorly graded gravel-sand-clay mixtures
- SC: Clayey sands, poorly graded sand-clay mixtures
- ML: Inorganic silts and very fine sands rock flour, silty or clayey fine sands or clayey silts with none to low plasticity
- MI: Inorganic silts, silty or clayey fine sands or clayey silts of medium plasticity
- MH: Inorganic silts of high compressibility, micaceous or diatomaceous fine sandy or silty soils, elastic silts
- CL: Inorganic clays, gravelly clays, sandy clays, silty clays, lean clays of low plasticity
- CI: Inorganic clays, gravelly clays, sandy clays, silty clays, lean clays of medium plasticity
- CH: Inorganic clays of high plasticity, fat clays
- Pt: Peat & other highly organic soils with very high compressibility
- OL, OI, OH: Organic soil

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211009	066



13.0 REFERENCES AND BIBLIOGRAPHY

INDIAN STANDARDS

DESCRIPTION

IS 1498 - 1970	Classification and Identification of Soils for General Engineering Purposes
IS 1892-1979	Code of Practice for Subsurface Investigation for Foundation.
IS 1904 - 1986	Code for Practice for Design and Construction of Foundation in Soils: General Requirements.
IS 2131 - 1981	Method for Standard Penetration Test (SPT) for soils.
IS 2132 - 1986	Code of practice for Thin Walled Tube Sampling of soils (UDS).
IS 2720 - Relevant Parts	Various Method of Test for Soils.
IS 2809-1972	Glossary of Terms and Symbols relating to Soil Engineering.
IS 4968 (Part-1) -1976	Method for Subsurface Sounding for Soils. Dynamic method using 50mm Cone without Bentonite Slurry.
IS 6403-1981	Code of Practice for Determination of Bearing Capacity of Shallow Foundation.
IS 7422-1974 Part 01 to 05	Symbols & Abbreviations for use in Geological Map, Section & Sub Surface Exploration.
IS 8009 Part 1 -1976	Code of practice for Calculation of Settlements of Foundations (Shallow foundations subjected to symmetrical static vertical loads).
IS 8763 - 1978	Guide for Undisturbed Sampling of Sand.
IS 8764-1978	Method of determination of Point Load Strength Index of Rock
IS 9143-1979	Method of determination of Unconfined Compressive strength of Rock materials.
IS 9179-1979	Method for the preparation of Rock Sample for Laboratory Test
IS 9221-1979	Method of determination of Modules of Elasticity & Poisson Ratio of Rock Material.
IS 10042 - 1981	Code of Practice for Site Investigation for Foundation in Gravel-Boulder Deposit.
IS 10785-1983	Method of determination of Compressive & Tensile strength for Point Load Test on Rock Lumps
IS 11315-1987 Part 01 to 12	Method for the Constitutive description of discontinuities in Rock Mass.
IS 11358-1987	Glossary of Terms & Symbols applicable to Rock Mechanics.
IS 12070-1987	Code of Practice for Design & Construction of Shallow Foundation on Rocks.
Dr. N. V. Nayak	Foundation Design Manual.
Dr. B.C. Punamia	Soil Mechanics & Foundations.
Terzaghi & Pack	Soil Mechanics in Engineering Practice.
Dr. K. R. Arora	Soil Mechanics & Foundations Engineering
Dr. Shenbaga R Kaniraj	Design Aids in Soil Mechanics & Foundation Engineering.

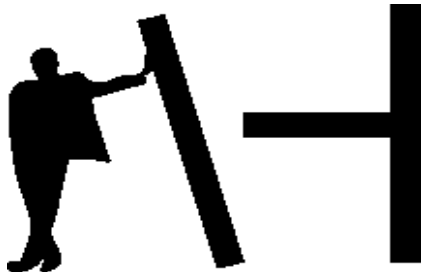
Project No.	Sheet No.
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ESTIMATE FOR CONSTRUCTION OF PROPOSED HOSTEL BUILDING (G+3) IN THE PREMISES OF NMA SILVASSA		
HOSTEL BUILDING BLOCK 1 (G+3)		
SUMMARY OF COST (CIVIL,SANITARY, ELECTRICAL WORK)		
S. No.	Description	SOR (2023) Amount (Rs.)
1	CIVIL & SANITARY WORK	61036206
2	ELECTRICAL WORK	1198950
	Grand Total	62235157

<div><div>AR. HARDIK PANCHAL & B. Arch, SPA - New Delhi ASSOCIATES 126, Panchal Fabricators, 66 k.v.a road, besides jan sansar, amli-silvassa, D&NH contact : +91 97374 27779; (0260) 2642779 email : info@theahparchitects.com</div><div><p>INTERIORS- STRUCTURE</p></div></div>						
ABSTRACT SHEET FOR THE PROPOSED HOSTEL BUILDING FOR NMA SCHOOL PROJECT.						
APPENDIX-A						
ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
A	SITE CLEANING & DISMANTLING					

1	Site Clening and grubbing the land including uprooting rank vagetaion, grass, bushes, shrubs, saplings and trees girth up to 300 mm, remove of stumps of trees cut earlier and disposal of unserviceable materials upto all lift & lead. complete.	826.72	Sqm.	28.15	23272.22	ARCHITECTS	DSOR 2021 VOL (1) P.NO 96- CODE NO.2.28
B	EARTH WORK						

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
2	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto all lift & lead. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete.	391.06	Cum.	205.45	80343.97327	DSOR 2021 VOL (1) P.NO 92- CODE NO.2.6
3	Excavation for foundation in hard murum including removing the excavated material upto all lift & lead. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. during time of excavation existing structure to be supported with requeried scafoling.etc.complete.	357.94	Cum.	205.45	73539.1839	DSOR 2021 VOL (1) P.NO 92- CODE NO.2.6

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
4	Excavation for foundation in Soft rock not required blasting including removing the excavated material upto all lift & lead. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. during time of excavation existing structure to be supported with requeried scafoling.etc.complete.	178.97	Cum.	412.95	73906.07445	DSOR 2021 VOL (1) P.NO 92- CODE NO.2.7.1
5	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering.	599.89	Cum.	253.95	152341.0538	DSOR 2021 VOL (1) P.NO 95- CODE NO.2.25
6	Filling in foundation and plinth with murrum or selected soil brought from outside in layers of 20cm. thickness including watering, ramming and consolidating etc. complete.	132.44	Cum.	368.65	48824.15	DSOR 2021 VOL (1) P.NO 95- CODE NO.2.25(a)
7	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm to 20 cm thick including hand packing and compacting etc. complete.	114.16	Cum.	3653.11	417043.3016	DSOR 2021 VOL (2) P.NO 326- CODE 16.11
8	Providing preconstructional antitermite treatment as per I.S. 6313 (Part-II) by treating the top surface of plinth filling at the rate of 5 litres of emulsion concentrate at 1.0 percent of clorophyrifos or equivalent per square metre of surface area covering ten years guarantee complete.	551.84	Sqm.	256.15	141353.82	DSOR 2021 VOL (1) P.NO 97- CODE NO.2.35.3.1

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
9	Providing material and labour for laying PLINTH PROTECTION including excavation of 30 cm depth and Filling with dry bricks bats of 20 cm thick and top layers C.C. 1:2:4 (1 cement 2 coarse sand: 4 graded stone aggregate 20m nominal size) finished in proper grade and slop etc. complete.	88.96	Sqm.	681.65	60640.95	DSOR 2021 VOL (1) P.NO 112- CODE NO.4.17
C	REINFORCED CEMENT CONCRETE WORK					
10	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 (1:3:6) of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete.	135.87	Cum.	8033.2	1091496.671	DSOR 2021 VOL (1) P.NO 113- CODE NO.4.20.1.1
11	Providing and laying Cast in situ/Ready Mix cement concrete M-25 (1:1:2) of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete.	149.75	Cum.	11554.1	1730270.892	RA AS PER DSOR

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
12	Providing and laying Cast in situ/Ready Mix cement concrete M-25 (1:1:2) of trap / granite/quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks compacting and roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).	147.87	Cum.	20640	3051982.967	RA AS PER DSOR
13	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 (1:1:2) of trap/ granite/ quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).	206.54	Cum.	16722.2	3453734.912	RA AS PER DSOR

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
14	Providing and laying Cast in situ/Ready Mix cement concrete M-25 (1:1:2) of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, compaction, finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete.(Excluding reinforcement and structural steel).	301.73	Cum.	18174.9	5483848.544	RA AS PER DSOR
15	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 (1:1:2) of trap/ granite/ quartzite/ gneiss metal for R.C.C. pardi of required thickness including steel centering, formwork, cover blocks, laying/pumping, compacting and roughening them if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).	22.66	Cum.	19353.4	438517.5317	RA AS PER DSOR

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
16	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 (1:1:2) of trap / quartzite /granite /gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, plywood/ steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block).	61.91	Cum.	17026	1054096.067	RA AS PER DSOR
17	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap/ granite/ quartzite/ gneiss metal for R.C.C.coping to plinth or parapet and sill of doors and windows moulded as per detailed drawings or chamfered as approved by the Engineer including steel centering, formwork, cover blocks, laying/pumping, compacting , curing , finishing and roughening them if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).	73.68	Cum.	15295.2	1127006.497	RA AS PER DSOR
D	REINFORCEMENT STEEL WORK					

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
18	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	128.88	MT.	89650	11553937.9	DSOR 2021 VOL (1) P.NO 127- CODE NO.5.22A.6
F	BRICK WORK					
19	Providing Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in foundation and plinth of inner walls / in plinth of external walls including bailing out water manually ,and watering etc. complete.	22.91	Cum.	5549.95	127155.1042	DSOR 2021 VOL (1) P.NO 139- CODE NO.6.2.2
20	Providing Burnt Brick masonry with conventional 230mm thk. Wall in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete.	512.87	Cum.	8288.35	4250820.57	DSOR 2021 VOL (1) P.NO 139- CODE NO.6.4.2
21	Providing Burnt Brick masonry with conventional 150mm thk. Wall in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete.	783.82	Sqm.	1018.05	797967.951	DSOR 2021 VOL (1) P.NO 140- CODE NO.6.13.2

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
22	Providing Burnt Brick masonry with conventional 115 mm thk. and 150mm thk. wall in cement mortar 1:4 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete.	420.99	Sqm.	1018.05	428588.8695	DSOR 2021 VOL (1) P.NO 140- CODE NO.6.13.2
G	FINISHING WORK					
23	Providing internal cement plaster 15mm thick in Single coats with smooth finish in cement mortar 1:4 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc.complete.	3787.28	Sqm.	339.7	1286537.929	DSOR 2021 VOL (2) P.NO 278- CODE NO.13.2.1
24	Providing internal cement plaster 6mm thick in Single coats with smooth finish for Ceiling in cement mortar 1:4 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc.complete.	1846.45	Sqm.	253.05	467244.17	DSOR 2021 VOL (2) P.NO 279- CODE NO.13.16.1
25	Providing rough cast cement plaster externally in two coats to concrete, brick or stone masonry surfaces in all positions with base coat of 12 to 15 mm thick in C.M. 1:4 and rough cast treatment 12mm thick in proportion 1:1 1/2:3 including scaffolding and fourteen days curing complete.	8295.65	Sqm.	752.4	6241648.753	DSOR 2021 VOL (2) P.NO 279- CODE NO.13.19

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
26	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, including scaffolding, preparing the surface etc. complete.	5633.73	Sqm.	123.85	697737.0642	DSOR 2021 VOL (2) P.NO 286- CODE NO.13.80
27	Providing and applying primer coat for internal wall surface and ceiling including scaffoldin to receive oil bound distemper treatment etc. complete.	5633.73	Sqm.	64.45	363093.6923	DSOR 2021 VOL (2) P.NO 286- CODE NO.13.85.3
28	Providing and applying plastic emulsion paint of approved quality , colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete.	4743.73	Sqm.	116.05	550509.4951	DSOR 2021 VOL (2) P.NO 286- CODE NO.13.82.2
29	Providing and applying two coats of exterior weather shield paint of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface ,applying primer coat ,scaffolding if necessary, and watering the surface for two days etc complete.	8295.65	Sqm.	94.15	781035.6593	DSOR 2021 VOL (2) P.NO 289- CODE NO.13.109
30	Providing and applying two coats of oil paint of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface ,applying primer coat ,scaffolding if necessary, and watering the surface for two days etc complete.	890.00	Sqm.	86.55	77029.5	DSOR 2021 VOL (2) P.NO 288- CODE NO.13.99
H	TILES, KOTS STONE AND GRANITE WORK					

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
31	Providing material & labour for fixing 18mm thick Granite (18mm thick)1 side mirror polished premoulded and prepolished) machine cut for, door, window, sills, jambs, soffits, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) joints treated with white cement mixed with matching pigment, epoxy touch ups, including rubbing , curing , moulding on all exposed edges and polishing to edge to give high gloss finish etc. complete at all levels.	80.00	Sqm.	4679.35	374348	DSOR 2021 VOL (1) P.NO 157- CODE NO.8.2.2.1
32	Providing and laying Single Polished Kota stone with ghadai for flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. a) Flooring	1125.00	Sqm.	1706.6	1919925	DSOR 2021 VOL (1) P.NO 239- CODE NO.11.26.1

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
33	Providing and laying machine cut machine Single Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. b) Skirting	80.00	Sqm.	2038.55	163084	DSOR 2021 VOL (1) P.NO 239- CODE NO.11.27
34	Providing and laying Double Polished Kota stone with ghadai flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. a) Flooring	530.00	Sqm.	1706.6	904498	DSOR 2021 VOL (1) P.NO 239- CODE NO.11.26.1
35	Providing and laying machine cut machine Double Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. b) Skirting	40.00	Sqm.	2038.55	81542	DSOR 2021 VOL (1) P.NO 239- CODE NO.11.27
36	Providing and laying machine cut machine polished machine cut Kota stone slabs 20 to 25 mm thick for treads and risers of steps and staircases , with rounded nosing for the treads on a bed of 1:4 cement mortar including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	801.71	Sqm.	2038.55	1634334.401	DSOR 2021 VOL (1) P.NO 239- CODE NO.11.27

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
37	Providing and laying ceramic tiles of having size 30 cm. x 45 cm. and confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	452.61	Sqm.	938.5	424774.485	DSOR 2021 VOL (1) P.NO 241- CODE NO.11.37A
38	Providing and laying Anti-skid ceramic tiles of having size 30 cm. x 45 cm. and confirming to corresponding I.S. for Flooring in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	293.57	Sqm.	1311.05	384884.9485	DSOR 2021 VOL (1) P.NO 242- CODE NO.11.41A.3.1
I	DOOR, WINDOW & VENTILATION WORK					
39	Providing and fixing solid core flush door shutter commercial in single leaf 32 mm thick without ventilator commercial type of exterior grade as per detailed drawings with wrought iron hold fast, stainless steel fixtures and fastenings and handles on both sides and finishing with approved 1mm laminate on top complete.	46.08	Sqm.	3086.1	142207.488	DSOR 2021 VOL (1) P.NO 186- CODE NO.9.20.1

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
40	Providing and fixing 30mm thick Glass fibre reinforced Plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made with polyester grade unsaturated polyester resin, moulded to 3mm thick FRP laminate for forming hollow rails and styles, cast monolithically with 5mm thick FRP laminate for panels conforming to IS : 14856 including fixing to frames	135.00	Sqm.	3496.75	472061.25	DSOR 2021 VOL (1) P.NO 201- CODE NO.9.122.1
41	Providing material & labour for fixing 35 mm thick shutters for Doors, windows and clerestory windows including Indian teak wood frames 10 cm x 7 cm. size including black enamelled iron oxidixed fixtures and fastenings including primer coat of approved quality and two coats of oil painting etc, complete. (ii) Fully Panelled.	103.68	Sqm.	10500	1088640	RA AS PER DSOR

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
42	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with mosquito mesh with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 kg/Rmt. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 kg/Rmt. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. And handle section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. and top section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. As per detailed drawings and as directed by Engineer in charge with all necessary Powder coated Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 6 mm thick plain glass with all required screws and nuts etc, complete.	323.00	Sqm.	7821.15	2526231.45	DSOR 2021 VOL (1) P.NO 211- CODE NO.9.147D.3
43	Providing and fixing in position anodised (as per IS 1868/1982) Aluminium fixed staggered (Z Type)Ventilator with aluminium rectangular pipe 63 mm x 38.10 mm x 1.22 mm at weight 0.650 Kg/Rmt, Aluminium angle of size 15 mm x 15 mm x 1 mm,aluminium channel of 9 mm sizes, S.S.mosquito net of 304 rade,4 mm thick float glass per detailed drawing and as directed by Engineer in charge etc.complete.	38.79	Sqm.	4013.35	155677.8465	DSOR 2021 VOL (2) P.NO 462- CODE NO.21.10
J	RAILING WORK					

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
44	Providing and fixing 40mm diameter and 1.5mm thick Stainless steel hand railing in S.S.304 Grade including fabricating ,fixtures, erecting, necessary welding, grinding, finishing, buffing to stainless steel pipe etc. complete for Staircase.	108.94	Rmt.	4959.23	540258.52	RA AS PER DSOR
45	Providing and fixing mild steel grill gate as per the detailed drawing including hinges, locking arrangements and painting in Powder coated of approved colour and shade etc. complete.(weight 18 kg. to 20 kg. Per Sq.m.)	366.95	Sqm.	2846	1044339.70	RA AS PER DSOR
K	PLUMBING WORK					
46	Providing material & labour for fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [E] 50mm dia meter.	288.00	Rmt.	927	266976	DSOR 2021 VOL (2) P.NO 400- CODE NO.18.7.6
47	Providing material & labour for fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [E] 25mm.	240.00	Rmt.	408.55	98052	DSOR 2021 VOL (2) P.NO 400- CODE NO.18.7.3

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
48	Providing material & labour for fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [E] 15mm diameter .	220.00	Rmt.	255.9	56298	DSOR 2021 VOL (2) P.NO 400- CODE NO.18.7.3
49	Providing and fixing screw down bib taps of following size.(C) Gun metal screw down bib tap. (ii) 20mm dia. of branded quality.	32.00	No	327.95	10494.4	DSOR 2021 VOL (2) P.NO 402- CODE NO.18.15.2
50	Providing & fixing pillar tap (15mm dia) (long nose cock) & approved quality (with material & labour). of branded & approved quality.	48.00	No	194.15	9319.2	DSOR 2021 VOL (2) P.NO 410- CODE NO.18.56.2
51	Providing and fixing European type white glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall 10 litre enameled low level flushing cistern with fittings pipe stop tap brackets for fixing cistern 32 mm dia. UPVC flush pipe with fittings and clamps ,20 mm dia.UPVC overflow pipe ,mosquito proof couplings G.I. chain and pulley,with water Jet and fitting including cutting and making good to the walls and floors testing etc. complete.(prior approval of sample and brand by Ex. Engineer is necessary before use)	31.00	No	6941.3	215180.3	DSOR 2021 VOL (2) P.NO 356- CODE NO.17.3.1

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
52	Providing and fixing white glazed earthenware Wash Hand Basin of 55cm. x 40 cm. size including cold water pillar tap/cold and hot water pillar tap brackets, rubber plugs and brass chain, stop tap and necessary pipe connections including P.V.C. waste pipe and trap up to the outside face of the wall. Making good the damaged surface, testing etc. complete.	48.00	No	3158.7	151617.6	DSOR 2021 VOL (2) P.NO 357- CODE NO.17.3.3
53	Providing and fixing toilet paper holder.(A) C.P. Brass.	32.00	Nos.	680.8	21785.60	DSOR 2021 VOL (2) P.NO 361- CODE NO.17.34.1
54	Providing material and labour for fixing Soil, WASTE AND VENT PIPES sand with material & labour).	520.00	Rmt.	1077.4	560248.00	DSOR 2021 VOL (2) P.NO 361- CODE NO.17.35.1.2
55	Providing material and labour for fixing PTMT WASTE COUPLING for wash basin of approved quality and colour.waste coupling 28mm dia 83mm length and 77 mm breath, weighing not less than 60 gms.	48.00	Nos.	103	4944.00	DSOR 2021 VOL (2) P.NO 369- CODE NO.17.69.1
56	Providing material and labour for fixing PTMT bottle trap for WASH BASIN. Bottle trap 38mm single piece moulded with height of 270mm, effective length of tail pipe 260mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms.	48.00	Nos.	325.1	15604.80	DSOR 2021 VOL (2) P.NO 369- CODE NO.17.70.2
57	Providing and fixing screw down bib taps of following size.(A) Brass screw down bib tap polished bright. (i) 15mm dia.	32.00	Nos.	303.85	9723.20	DSOR 2021 VOL (2) P.NO 402- CODE NO.18.15.1

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
58	Providing and fixing brass screw down stop tap. (A) 15mm dia.	48.00	Nos.	303.85	14584.80	DSOR 2021 VOL (2) P.NO 402- CODE NO.18.16.1
59	Providing material and labour for fixing ball valve (brass) of approved quality, High or low pressure ,with plastic floats complete 25 mm nominal bore.	8.00	Nos.	399.15	3193.20	DSOR 2021 VOL (2) P.NO 402- CODE NO.18.18.3
L	WATERPROOFING WORK					
60	Providing and applying Chemical base waterproofing as per manufacturer recommendation for drain area, Dr fixit Waterproofing or equivalent make as approved by the engineer-incharge with a guarantee of 15 years.	293.57	Sqm.	774.25	227296.5725	DSOR 2021 VOL (2) P.NO 469- CODE NO.22.3

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
61	<p>Providing cement based water proofing treatment to terraces (Indian water proofing or alike) with brick bats laid in required slope to drain the water for any span after cleaning the base surface.</p> <p>Applying a coat of cement slurry admixed with approved water proofing compound and laying the brick bats on bottom layer in C.M.1:5 admixed with approved water proofing compound filling up to half depth of brick bats, curing this layer for 3 days, applying cement slurry over this layer joints of brick bats with C.M.1:3 admixed with approved water proofing compound and finally top finishing with average 20 mm. thick layers of same mortar added with jute fiber at 1 Kg per bag including finishing the surface smooth with cement slurry admixed with approved water proofing compound. Marking finished surface with false squares of 300mm x 300 mm. making the junctions at the parapet rounded and tapered top for required height, with drip mould at the junction of plaster and parapet and curing and covering 10 years Guarantee against leakproofness on Court fee stamp paper of Rs. 500/- including ponding test etc. complete.</p>					
	Same as above but with China mosaic topping	471.36	Sqm.	1522.95	717857.712	DSOR 2021 VOL (2) P.NO 470- CODE NO.22.7
EX	EXTRA ITEMS					

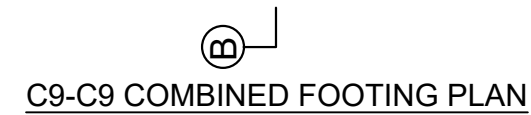
ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
EXTRA ITEM - 3	Providing and laying Autoclaved Aerated Cement Blocks masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for seperately).	10	CUM	6994.15	69941.5	DSOR 2021 VOL (1) P.NO 143- CODE NO.6.47
EXTRA ITEM - 4	PROVIDING MATERIAL AND LABOUR FOR DRILLING/CLEANING HOLE AND INJECTING GROUTING CHEMICAL WITH WITH HELP OF DISPENSER, INTO A HOLE OF 12MM DIA. AND DEPTH OF 12xD AS PER MANUFACTURE SPECIFICATION AND FIXING REBAR OF THE REQUIRED DIAMETER SUBSEQUENTLY.	10	NOS.	225	2250	RA
EXTRA ITEM - 4	PROVIDING MATERIAL AND LABOUR FOR DRILLING/CLEANING HOLE AND INJECTING GROUTING CHEMICAL WITH WITH HELP OF DISPENSER, INTO A HOLE OF 16MM DIA. AND DEPTH OF 12xD AS PER MANUFACTURE SPECIFICATION AND FIXING REBAR OF THE REQUIRED DIAMETER SUBSEQUENTLY.	10	NOS.	240	2400	RA
EXTRA ITEM - 4	PROVIDING MATERIAL AND LABOUR FOR DRILLING/CLEANING HOLE AND INJECTING GROUTING CHEMICAL WITH WITH HELP OF DISPENSER, INTO A HOLE OF 8MM DIA. AND DEPTH OF 12xD AS PER MANUFACTURE SPECIFICATION AND FIXING REBAR OF THE REQUIRED DIAMETER SUBSEQUENTLY.	10	NOS.	195	1950	RA

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
EXTRA ITEM - 4	PROVIDING MATERIAL AND LABOUR FOR DRILLING/CLEANING HOLE AND INJECTING GROUTING CHEMICAL WITH WITH HELP OF DISPENSER, INTO A HOLE OF 10MM DIA. AND DEPTH OF 12xD AS PER MANUFACTURE SPECIFICATION AND FIXING REBAR OF THE REQUIRED DIAMETER SUBSEQUENTLY.	10	NOS.	205	2050	RA
EXTRA ITEM- 5	Providing material and labour for fixing G.I Hexagonal chicken mesh at junction of concrete and brick work or jari work of electrical and plumbing wiring with necessary nails for fixing.	10	SQ.MT.	330	3300	RA
EXTRA ITEM-6	Providing Labour For Hacking work of RCC surface before platering work including cleaning surface etc. complete as per direction of Engineer-in-charge.	10	SQ.MT.	2.85	28.5	DSOR 2021 VOL (2) P.NO 304- CODE NO.14.83
EXTRA ITEM - 7.1	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 meter lead as per direction of Engineer - in-charge.	10	CUM	2928.1	29281	DSOR 2021 VOL (2) P.NO 310- CODE NO.15.3
EXTRA ITEM - 7.2	Demolishing brick work in cement mortar manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	10	CUM	1698.45	16984.5	DSOR 2021 VOL (2) P.NO 310- CODE NO.15.7.4
EXTRA ITEM - 7.3	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured) - From brick work in cement mortar.	10	NOS.	5.52	55.2	DSOR 2021 VOL (2) P.NO 310- CODE NO.15.8.3

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
EXTRA ITEM - 7.4	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.	10	SQ.MT.	947.1	9471	DSOR 2021 VOL (2) P.NO 310- CODE NO.15.5
EXTRA ITEM - 7.5	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	10	SQ.MT.	45.05	450.5	DSOR 2021 VOL (2) P.NO 315- CODE NO.15.56
EXTRA ITEM - 7.6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading,transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	10	CUM	219.35	2193.5	DSOR 2021 VOL (2) P.NO 315- CODE NO.15.60
EXTRA ITEM 1	Extra for additional height in centering,shuttering where ever required with adequate bracing, propping etc.,including cost of deshuttering and decentering at all levels, over 3.5m, for every additional height of 1 meter or part thereof (plan area to be measured). suspended floors,roofs,landing,beams and balconies (plan area to be measured)	10	SQ.MT.	322.44	3224.4	RA
EXTRA ITEM - 02	Providing and laying in position ready mixed or site batched design mix cement concrete for plain cement concrete work; using coarse aggregate	1	CUM	37118	37118	RA
M	ELECTRICAL WORK					

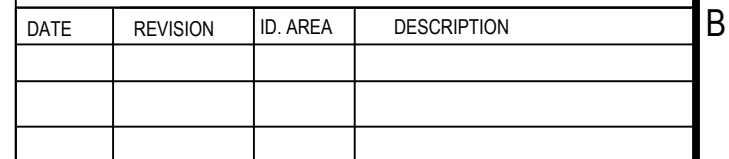
ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
	All the rates quoted by the Contractor shall be for complete finished work including cost of all labour, scaffolding, finishing as required with tools, plants, lead lift, taxes, tollage, octroi, royalties, etc. except those specifically excluded in the description of the individual items. All works shall be executed as per the drawing, specification and instruction of Engineer-in-charge and shall include the supply and installation at site of all the equipments, ancillary materials as					
62	Electrical Point	611.00	No	900.00	549900.00	RA
63	Tube Light	192.00	No	800.00	153600.00	RA
64	Wall Light	146.00	No	3000.00	438000.00	RA
65	Ceiling Fan	101.00	No	1650.00	166650.00	RA
66	Exhaust Fan	33.00	No	2000.00	66000.00	RA
67	Switch Bord	113.00	No	1000.00	113000.00	RA
78	Air conditioner	1.00	No	50000.00	50000.00	RA
79	Ceiling Light Point	138.00	No	1100.00	151800.00	RA
	(Total of A to M)			Total	62235156	
	SAY AMOUNT					
	In Word :-				62235157	
Notes :						
	Test Required for Contractor :-					
K	Concrete- compressive strenght of C.C. cube (3 set of cubes) Test		No			
L	Concrete- compressive strenght of C.C. cube (3 set of cubes) Test		No			
M	Concrete mix design for M25 Grade		No			

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE	AMOUNT	REF DSOR 21-2022
N	Steel bar testing - upto 16 mm (set of 3 bars), Above 16 mm (set of 3 bars) (Tensile Strength, Elongation, yield stress, weight per meter, bend/ rebend test, proof test)		No			
Note: All rates are applicable for all story						
Borewell, Water Pump and Motor, site Develoment etc. is not included in the estimate.						



- MATERIAL GRADE:**
- of Architect/ Structural consultant before the work commences.
1. GRADE OF CONCRETE - M25.
2. GRADE OF STEEL - Fe 500.

ARCHITECT :



Client : _____

Proj.	: NETAJI SUBHASH CHANDRA BOSE TRAINNING SCHOOL
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Title : COMBINED FOOTING LAYOUT PLAN

PROJ. NO : 2021/024	DESIGN BY: CHS	DWG. NO : STR/01A
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DRAWN BY : NIKUNJ	CHECKED BY: CHS	DATE : 10-04-2023 SCALE : N.T.S
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Chetan H. Sapariya (M.TECH Str.)
Darshit B. Voiani

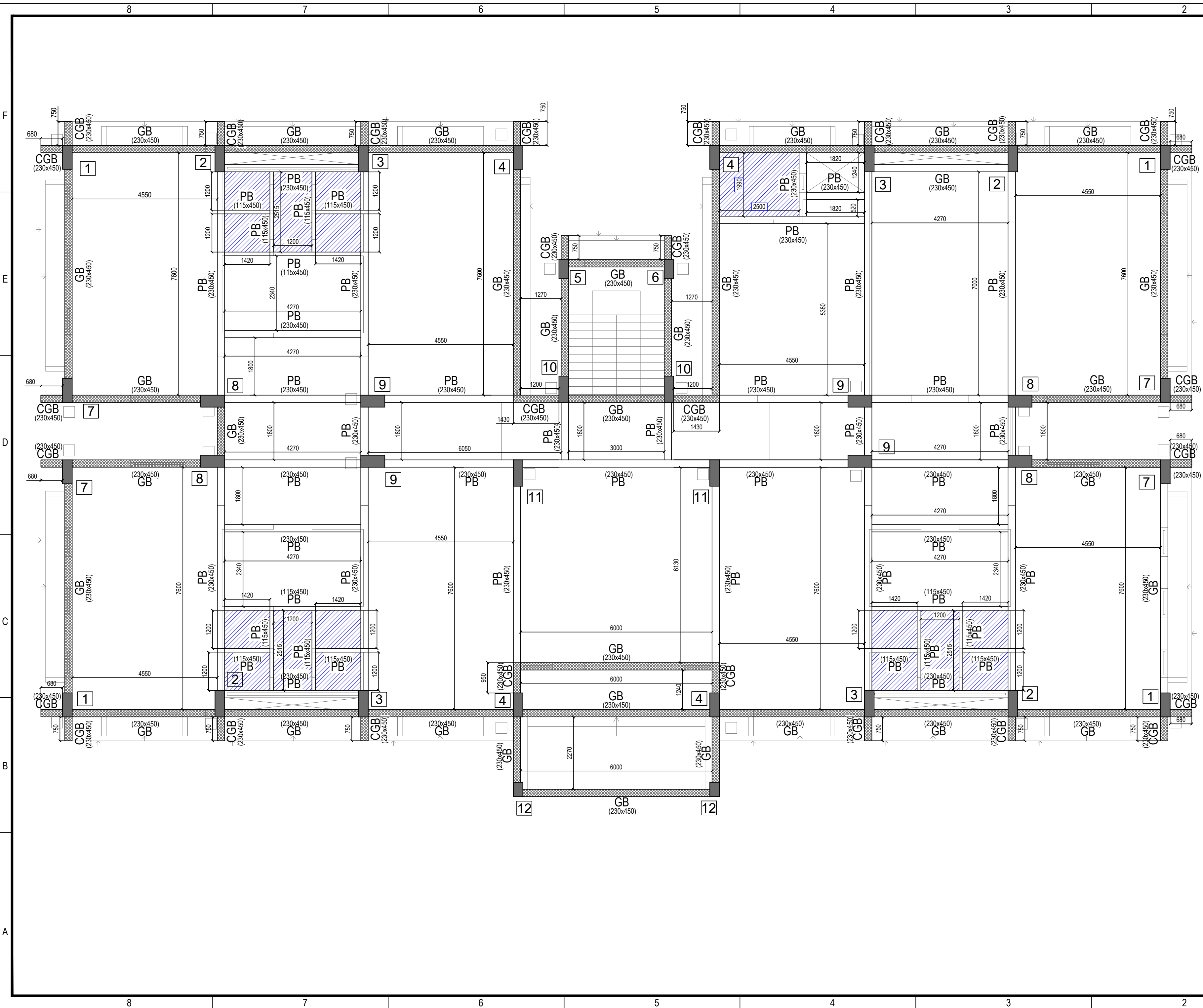
S&V Darshit B. Vejani (M.Tech Str.)
email:vejni.darshit@gmail.com

ENGINEERS

F-41, Shreeji Arcade, Wing 'B',
Behind Bhulkabhavan School.

Anand Mahal Raod, Surat-09

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- NOTES:**
- (1) CONCRETE MIX SHALL BE NOMINAL MIX OF PROPORTION OF 25(MPa) AT 28 DAYS.
 - REINFORCEMENT SHALL BE OF QUALITY HIGH STRENGTH DEFORMED BARS OF GRADE Fe:500 CONFORMING TO IS:1786-1985.
 - CLEAR COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-
COLUMN :- COVER = 40 mm
BEAM :- COVER = 25 mm
SLAB :- COVER = 15 mm
 - (4) NOT MORE THAN HALF OF THE COLUMN BARS SHALL BE LAPPED AT ANY SECTION.
 - (5) CONFINING STIRRUPS IN BEAM-COLUMN JUNCTION SHALL BE PROVIDED IN 'z' PORTION AT THE SPACING INDICATED IN SCHEDULE. HOWEVER IF BEAMS ARE CONNECTED ON ALL FOUR DIRECTIONS OF COLUMNS, THE SPACING SHOULD BE DOUBLED. IN CASE DIFFCULTY IN PROVIDING CLOSE STIRRUPS, U-TYPE STIRRUPS MAY BE PROVIDED WITH A SINGLE CROSSTIE.
 - (6) LAP LENGTH SHALL BE 47 TIMES DIAMETER OF BARS. OR OTHERWISE AS SPECIFIED.
 - (7) BEARING CAPACITY OF SOIL IS CONSIDERED AS 25 T/Sq.mt.
 - (8) THE DESIGN IS VALID FOR :-GROUND+3 STOREY INSTITUTE BUILDING.
 - (9) COPYRIGHT OF THE DRAWING BELONGS TO THE STRUCTURAL CONSULTANTS. THEY SHALL BE NOT DUPLICATED IN ANY FORM WITHOUT PRIOR APPROVAL OF THE STRUCTURAL CONSULTANTS FOR THE SAME IN WRITING.
 - (10) COPYRIGHT OF THE DRAWING IS THE PROPERTY OF THE STRUCTURAL CONSULTANTS. THIS DRAWING SHALL BE RETURNED TO THE RCC CONSULTANTS ON COMPLETION OF THIS WORK.
 - (11) ANY AMBIGUITY BETWEEN THE ARCHITECTURAL DRAWINGS AND STRUCTURAL DRAWINGS MUST BE BROUGHT TO THE NOTICE OF THE ARCHITECT / STRUCTURAL CONSULTANTS BEFORE THE WORK COMMENCES.
 - (12) STARATA AT FOUNDATION LEVEL SHALL BE VARIFIED WITH GEOTECHNICAL CONSULTANT & STRUCTURAL CONSULTANT BEFORE EXECUTION OF FOUNDATION.
 - (13) REFER GENERAL DRAWING NO.00 SHALL BE FOLLOWED THROUGHOUT THE PROJECT FOR GENERAL DETAIL.
 - (14) This drawing is the property of S & V ENGINEERS. Copyright is reserved by them and the drawings is issued on the condition that it is not copied.
 - (15) Any ambiguity between the architectural and structural drawings must be brought to the notice of Architect/ Structural consultant before the work commences.

MATERIAL GRADE :

1. GRADE OF CONCRETE - M25.
2. GRADE OF STEEL - Fe 500.

ARCHITECT :

AR. HARDIK PANCHAL
ASSOCIATES
136, Panchal Industries, 4th floor, 1st stage,
Indira Nagar, New Delhi-110028, India
contact : 9926717762
email : hardik.panchal@gmail.com

DATE	REVISION	ID. AREA	DESCRIPTION

Client : _____

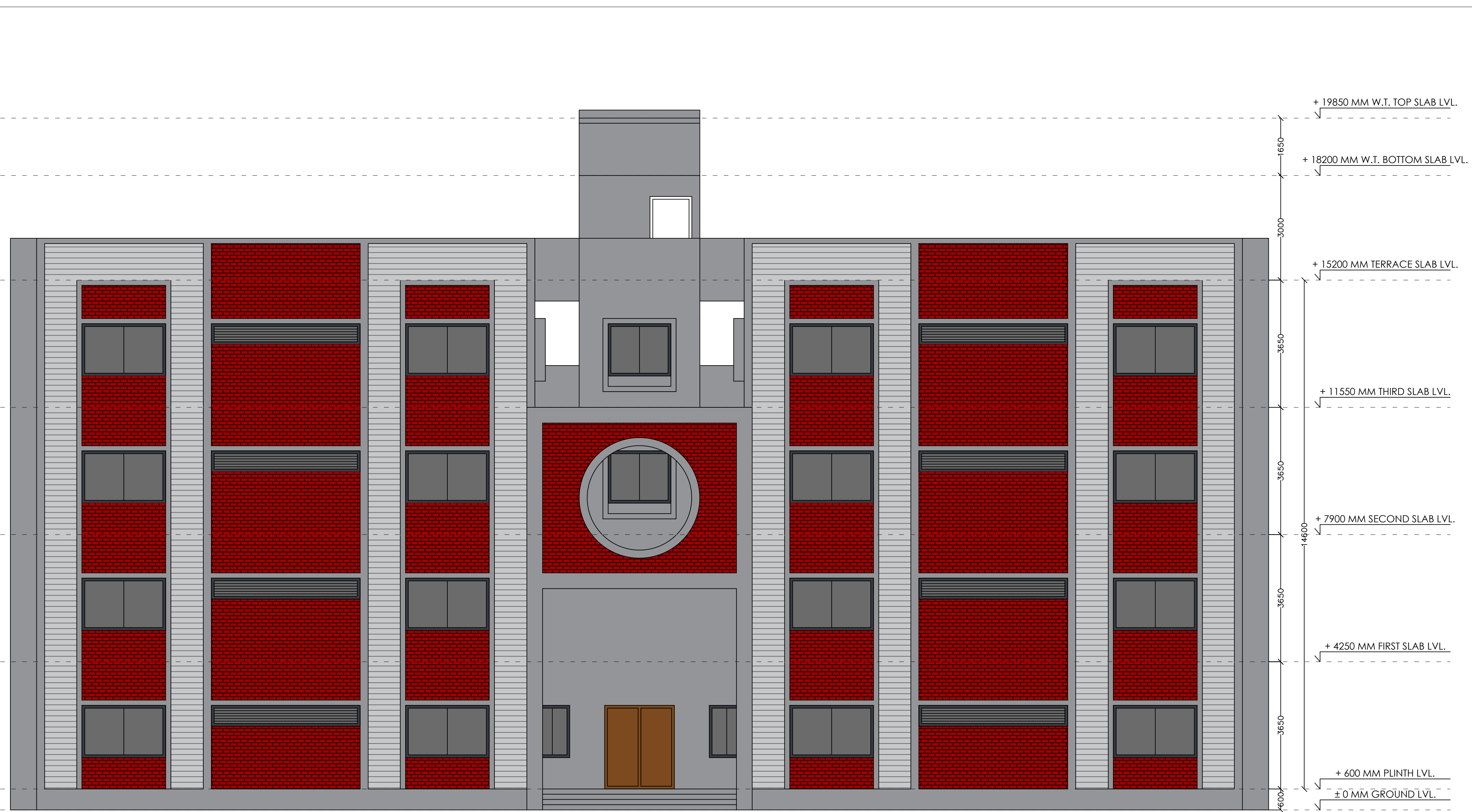
Proj. : NETAJI SUBHASH CHANDRA BOSE TRAINING SCHOOL

Title : HOSTEL BUILDING GBPB LAYOUT PLAN

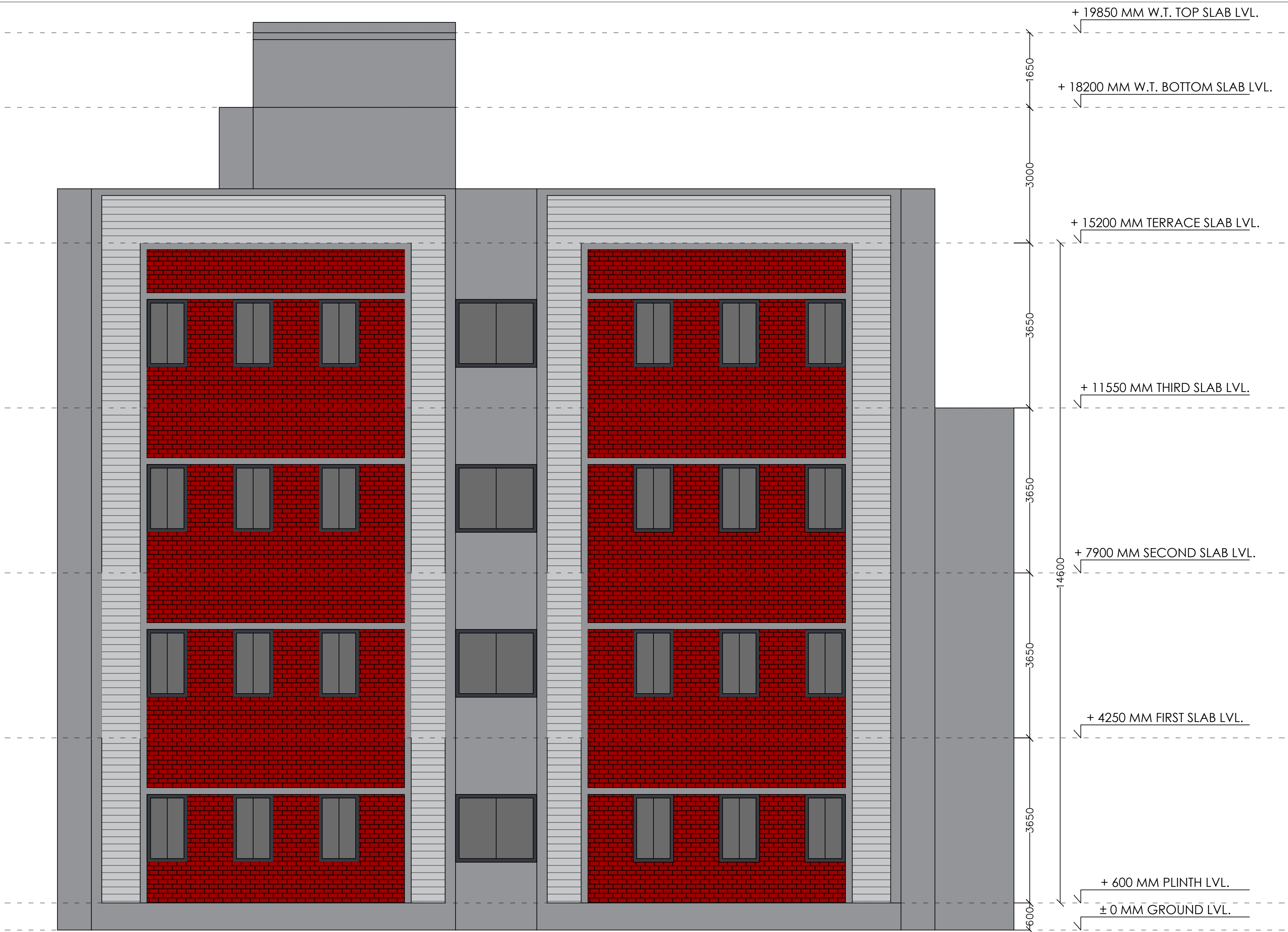
PROJ. NO : 2021/024	DESIGN BY: CHS	DWG. NO : STR/02
DRAWN BY : MAYUR	CHECKED BY: CHS	DATE : 23-12-2022
		SCALE : N.T.S

Chetan H. Sapariya (M.TECH SR.)
Darshit B. Vejani (M.TECH SR.)
email sapariya.vejani@gmail.com

F-41, Shreeji Arcade, Wing 'B',
Behind Bhulabhavan School,
Anand Mahal Raod, Surat-09



PROJECT CODE – 74/2019	DRAWING TITLE		DATE	19/12/2022	AR. HARDIK PANCHAL & ASSOCIATES PUNE D&NH <small>E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune</small> <small>126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Amli-Silvassa, D&NH</small> <small>contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com</small>	
	ELEVATION - A		DEALT BY	NAYAN TANK		
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING			CHECK BY	AR. HARDIK PANCHAL		
			APPROVED BY	AR. HARDIK PANCHAL		
			D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		



PROJECT CODE – 74/2019

PROPOSAL OF NMA SCHOOL -
HOSTEL BUILDING

DRAWING TITLE

ELEVATION - B

DATE	19/12/2022
DEALT BY	NAYAN TANK
CHECK BY	AR. HARDIK PANCHAL
APPROVED BY	AR. HARDIK PANCHAL
D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg

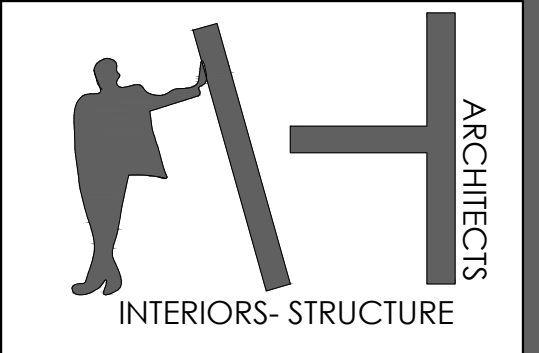
AR. HARDIK PANCHAL
&
B. Arch , SPA - New Delhi
ASSOCIATES

PUNE | D&NH

E-102, Sai Marigold,
Kokane Chowk,
Pimple Gurav,
PCMC, Pune

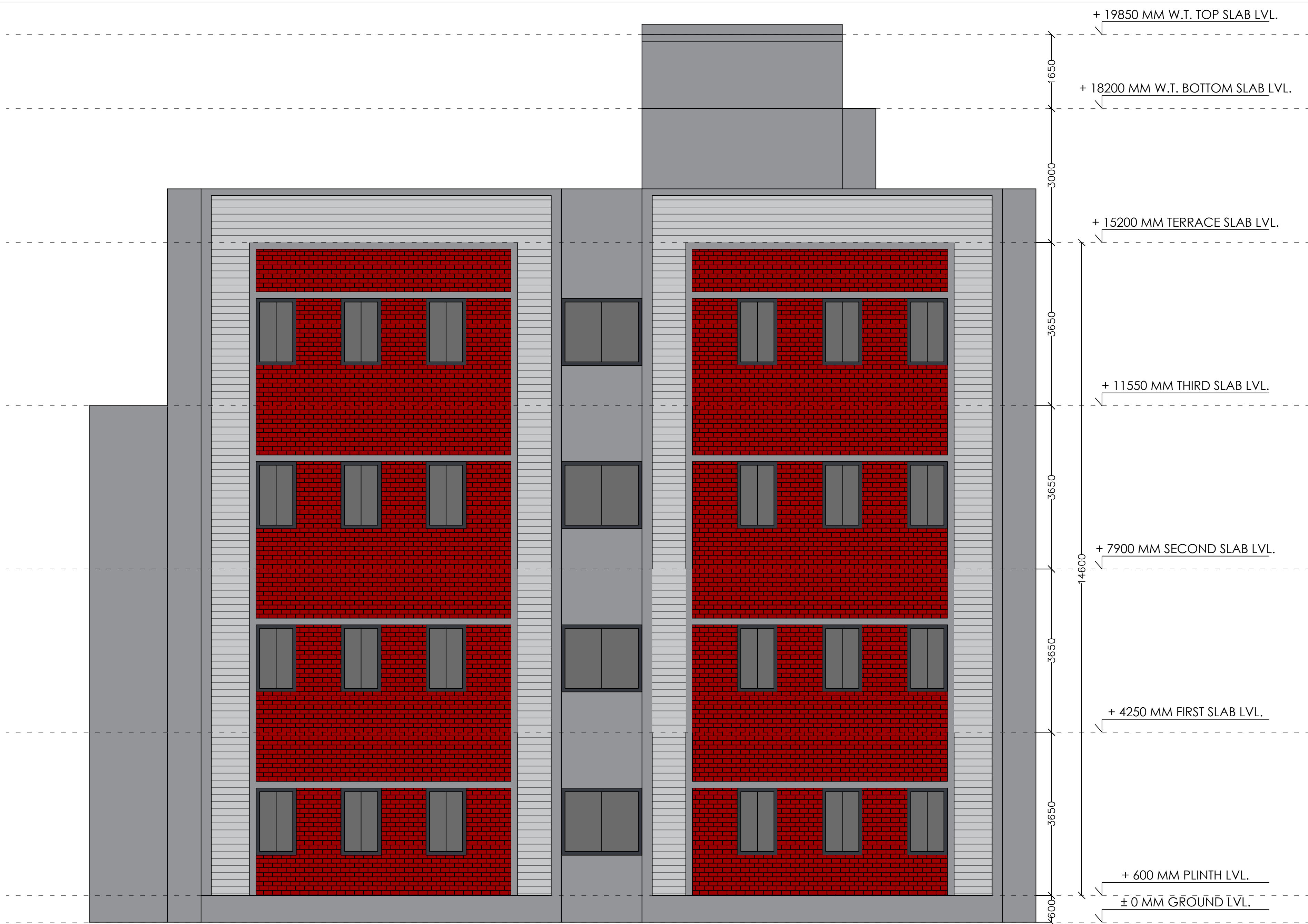
126, Panchal Fabricators,
66 k.v.a road,
besides precision wire industry,
Amlil-Silvassa , D&NH

contact : 0260 2642779; +91 97374 27779
email : info@theahparchitects.com





PROJECT CODE – 74/2019	DRAWING TITLE		DATE	19/12/2022	<div>AR. HARDIK PANCHAL & ASSOCIATES</div> <div>PUNE D&NH</div> <div>E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune 126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Arnli-Silvassa, D&NH</div> <div>contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com</div>	<div></div>
	ELEVATION - C		DEALT BY	NAYAN TANK		
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING			CHECK BY	AR. HARDIK PANCHAL		
			APPROVED BY	AR. HARDIK PANCHAL		
			D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		



PROJECT CODE – 74/2019

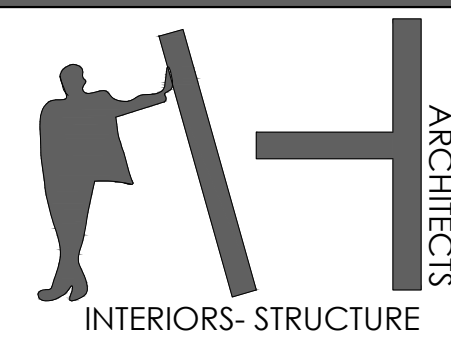
PROPOSAL OF NMA SCHOOL -
HOSTEL BUILDING

DRAWING TITLE

ELEVATION - D

DATE	19/12/2022
DEALT BY	NAYAN TANK
CHECK BY	AR. HARDIK PANCHAL
APPROVED BY	AR. HARDIK PANCHAL
D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg

AR. HARDIK PANCHAL
&
B. Arch , SPA - New Delhi
ASSOCIATES
PUNE | D&NH
E-102, Sai Marigold,
Kokane Chowk,
Pimple Gurav,
PCMC, Pune
126, Panchal Fabricators,
66 k.v.a road,
besides precision wire industry,
Amli-Silvassa , D&NH
contact : 0260 2642779; +91 97374 27779
email : info@theahparchitects.com





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PROPOSAL OF NMA SCHOOL -
HOSTEL BUILDING

DRAWING TITLE

GROUND FLOOR

DATE

19/12/2022

DEALT BY

NAYAN TANK

CHECK BY

AR. HARDIK PANCHAL

APPROVED BY

AR. HARDIK PANCHAL

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2019-74-nma school
-proposal-07-site plan-14-03-as
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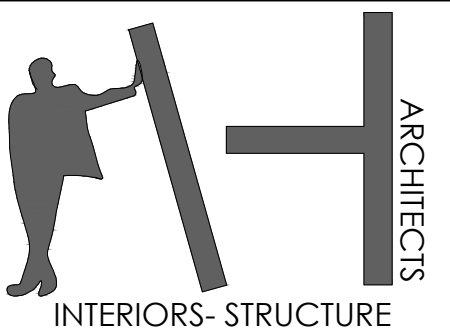
AR. HARDIK PANCHAL
&
B. Arch , SPA - New Delhi
ASSOCIATES

PUNE | D&NH

E-102, Sai Marigold,
Kokane Chowk,
Pimple Gurav,
PCMC, Pune

126, Panchal Fabricators,
66 k.v.a road,
besides precision wire industry,
Amli-Silvassa , D&NH

contact : 0260 2642779; +91 97374 27779
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PROJECT CODE – 74/2019

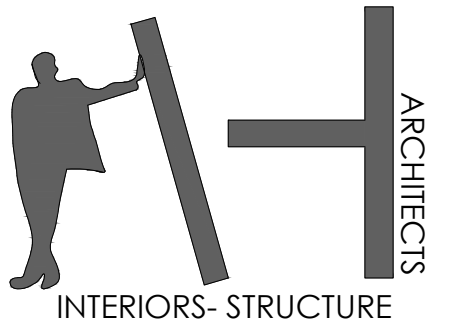
PROPOSAL OF NMA SCHOOL -
HOSTEL BUILDING

DRAWING TITLE

FIRST FLOOR

DATE	19/12/2022
DEALT BY	NAYAN TANK
CHECK BY	AR. HARDIK PANCHAL
APPROVED BY	AR. HARDIK PANCHAL
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Kokane Chowk,
Pimple Gurav,
PCMC, Pune
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66 k.v.a road,
besides precision wire industry,
Amli-Silvassa , D&NH
contact : 0260 2642779; +91 97374 27779
email : info@theahparchitects.com

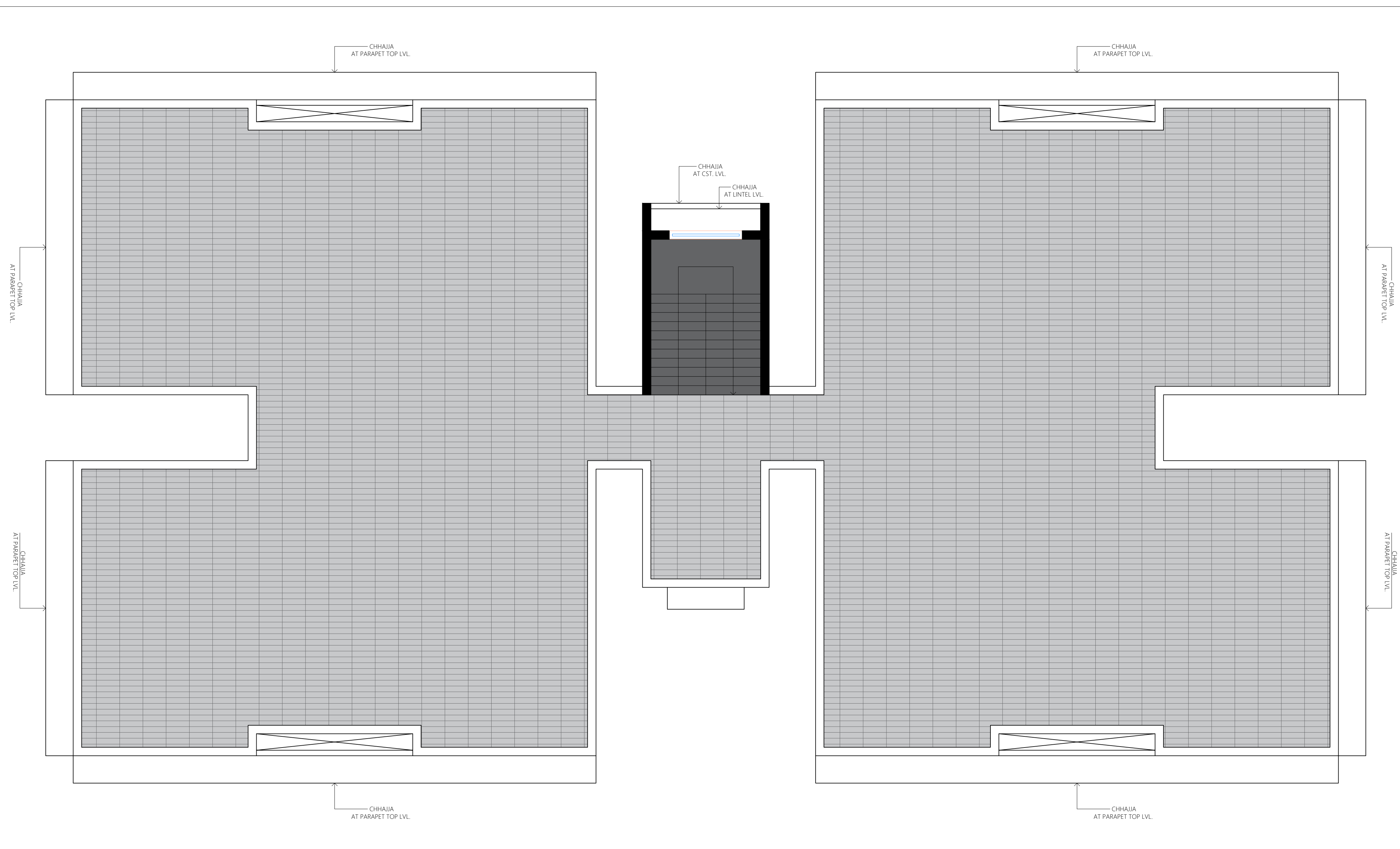


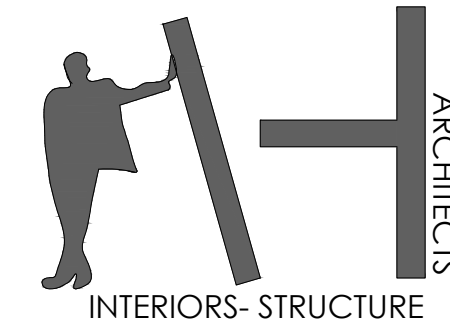


PROJECT CODE – 74/2019	DRAWING TITLE		DATE	19/12/2022	AR. HARDIK PANCHAL & ASSOCIATES B. Arch , SPA - New Delhi PUNE D&NH E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune 126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Arml-Silvassa , D&NH contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com	
	SECOND FLOOR		DEALT BY	NAYAN TANK		
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING			CHECK BY	AR. HARDIK PANCHAL		
			APPROVED BY	AR. HARDIK PANCHAL		
			D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		



PROJECT CODE – 74/2019	DRAWING TITLE		DATE	19/12/2022	AR. HARDIK PANCHAL & ASSOCIATES B. Arch , SPA - New Delhi PUNE D&NH E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune 126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Amli-Silvassa , D&NH contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com	
	THIRD FLOOR		DEALT BY	NAYAN TANK		
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING			CHECK BY	AR. HARDIK PANCHAL		
			APPROVED BY	AR. HARDIK PANCHAL		
			D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		




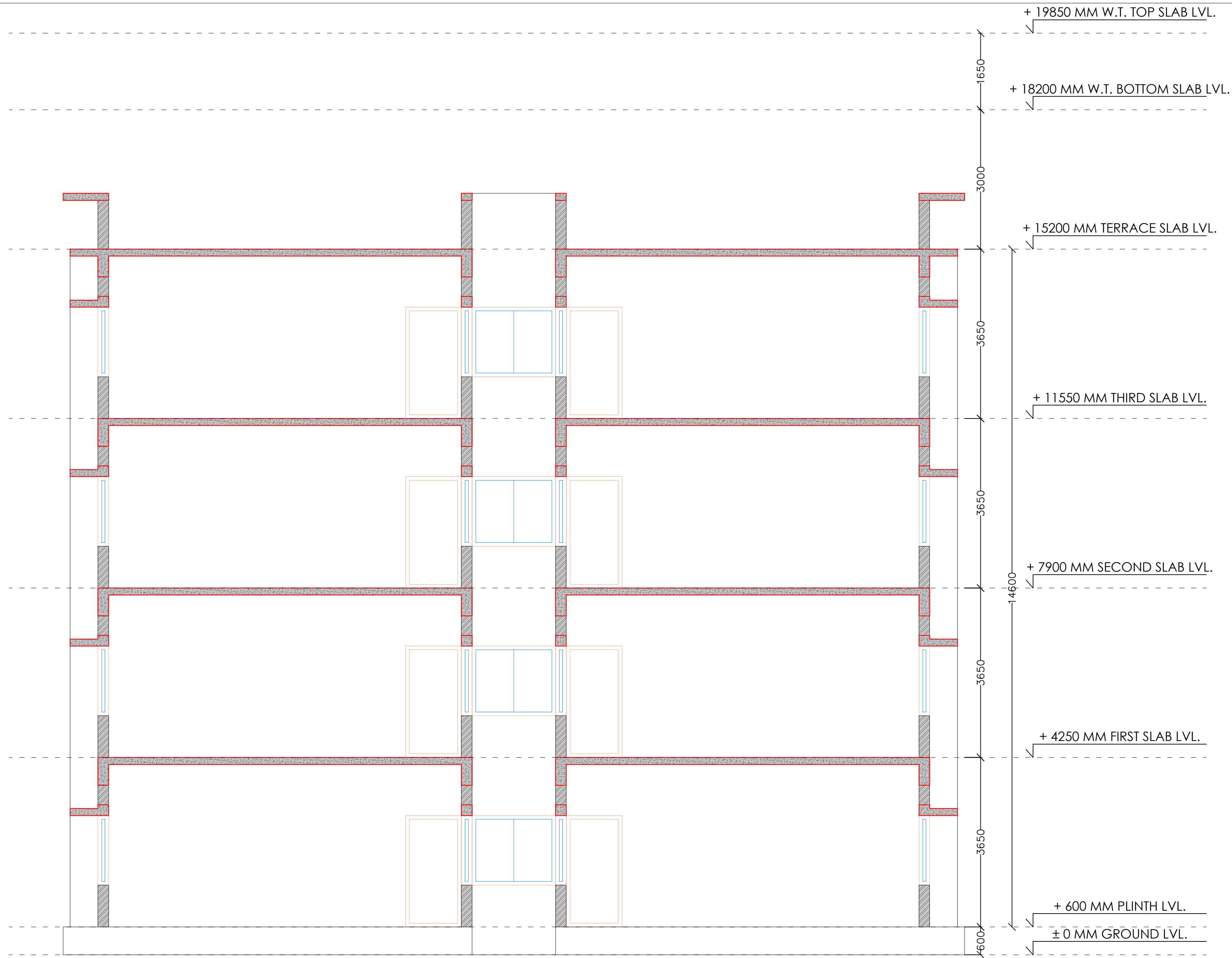
PROJECT CODE – 74/2019	DRAWING TITLE	DATE	19/12/2022	<div>AR. HARDIK PANCHAL & B. Arch , SPA - New Delhi ASSOCIATES</div> <div>PUNE D&NH</div> <div>E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune</div> <div>126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Amli-Silvassa , D&NH</div> <div>contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com</div>	<div></div> <div>ARCHITECTS</div> <div>INTERIORS- STRUCTURE</div>
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING	TERRACE FLOOR	DEALT BY	NAYAN TANK		
		CHECK BY	AR. HARDIK PANCHAL		
		APPROVED BY	AR. HARDIK PANCHAL		
		D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		



PROJECT CODE – 74/2019	DRAWING TITLE	DATE	19/12/2022	<div>AR. HARDIK PANCHAL & ASSOCIATES</div> <div>B. Arch , SPA - New Delhi</div> <div>PUNE D&NH</div> <div>E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune</div> <div>126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Amli-Silvassa , D&NH</div> <div>contact : 0260 2642779; +91 97374 27779</div> <div>email : info@theahparchitects.com</div>	<div>ARCHITECTS</div> <div>INTERIORS- STRUCTURE</div>
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING		DEALT BY	NAYAN TANK		
	ELEVATION	CHECK BY	AR. HARDIK PANCHAL		
		APPROVED BY	AR. HARDIK PANCHAL		
		D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		



PROJECT CODE – 74/2019	DRAWING TITLE		DATE 19/12/2022	AR. HARDIK PANCHAL & ASSOCIATES B. Arch , SPA - New Delhi PUNE D&NH E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune 126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Amli-Silvassa , D&NH contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com	 ARCHITECTS INTERIORS- STRUCTURE
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING	SECTION	DEALT BY NAYAN TANK			
		CHECK BY AR. HARDIK PANCHAL			
		APPROVED BY AR. HARDIK PANCHAL			
		D.W.G. NO 2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg			



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PROPOSAL OF NMA SCHOOL -
HOSTEL BUILDING

DRAWING TITLE

SECTION A-A

DATE

19/12/2022

DEALT BY

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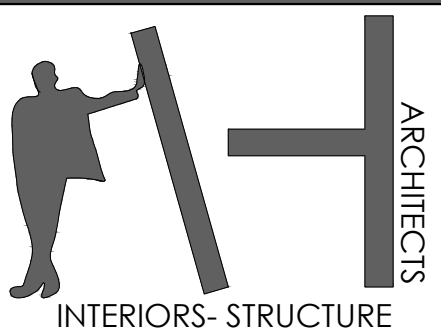
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ASSOCIATES

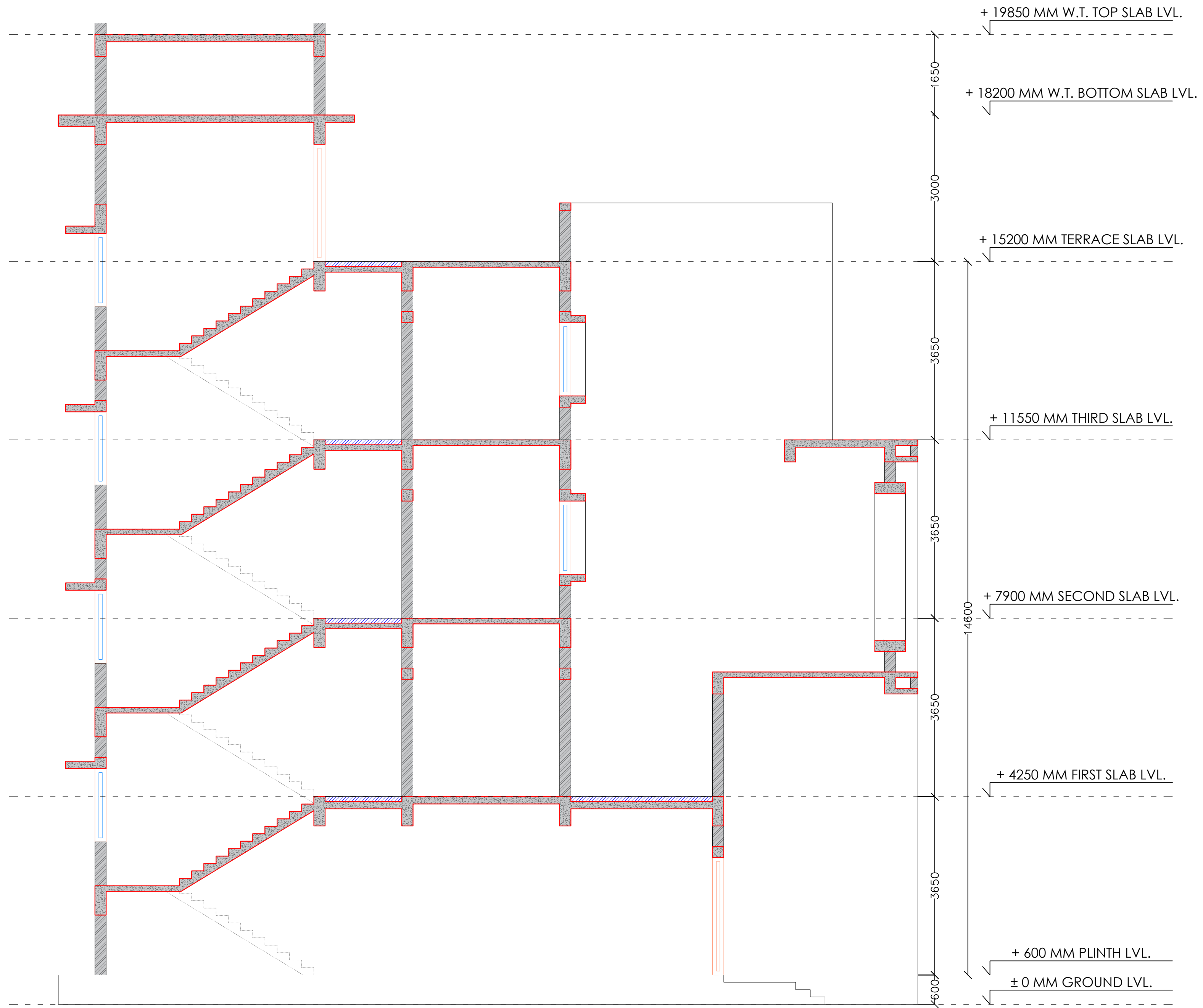
PUNE | D&NH

E-102, Sai Marigold,
Kokane Chowk,
Pimple Gurav,
PCMC, Pune

126, Panchal Fabricators,
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PROPOSAL OF NMA SCHOOL -
HOSTEL BUILDING

DRAWING TITLE

SECTION B-B

DATE	19/12/2022
DEALT BY	NAYAN TANK
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APPROVED BY	AR. HARDIK PANCHAL
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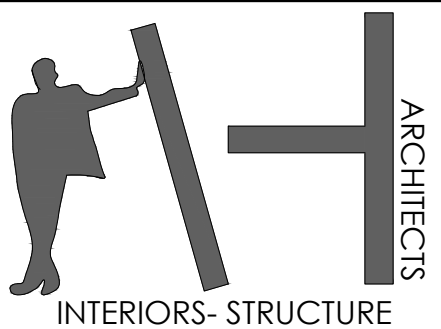
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&
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A S S O C I A T E S

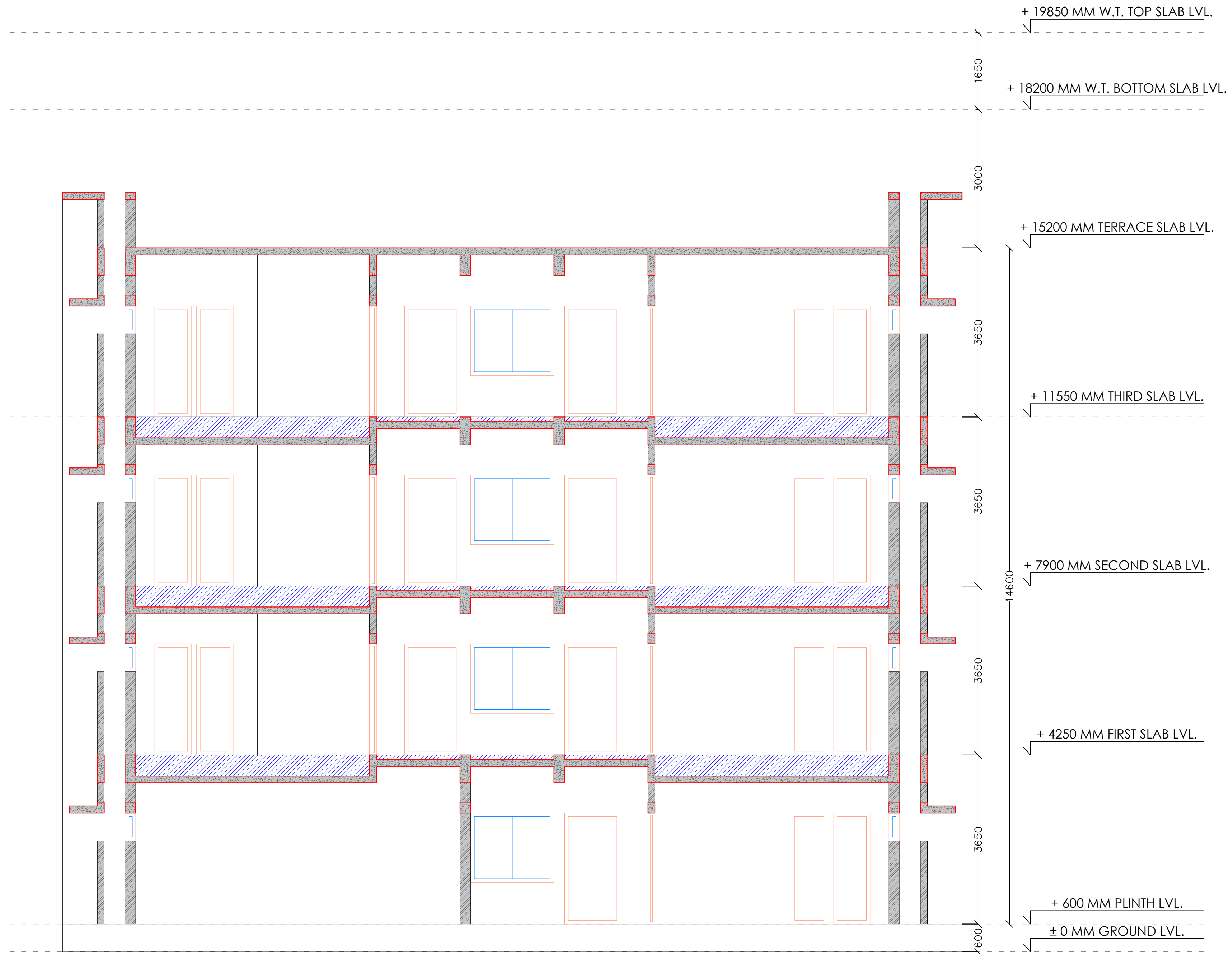
PUNE | D&NH

E-102, Sai Marigold,
Kokane Chowk,
Pimple Gurav,
PCMC, Pune

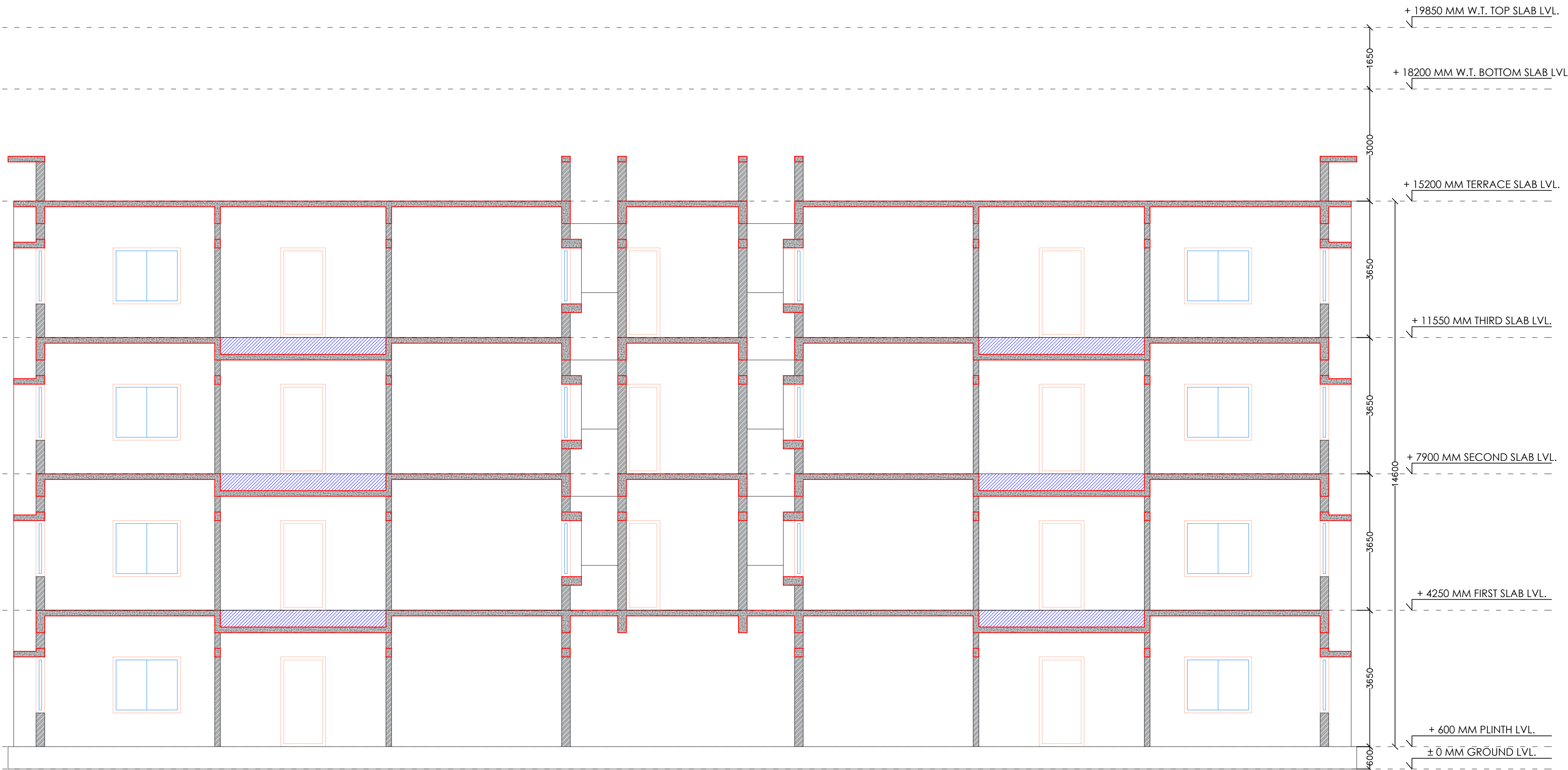
126, Panchal Fabricators,
66 k.v.a road,
besides precision wire industry,
Amli-Silvassa , D&NH

contact : 0260 2642779; +91 97374 27779
email : info@theahparchitects.com

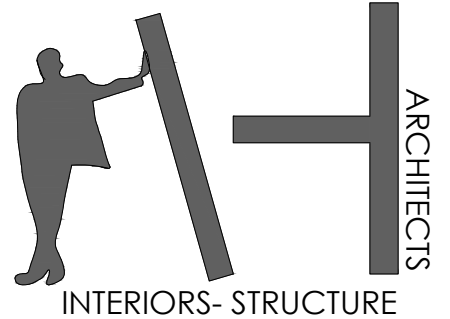




PROJECT CODE – 74/2019	DRAWING TITLE	DATE	19/12/2022	<div>AR. HARDIK PANCHAL & B. Arch , SPA - New Delhi ASSOCIATES</div> <div>PUNE D&NH</div> <div>E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune 126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Amli-Silvassa , D&NH</div> <div>contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com</div>	<div></div>
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING	SECTION C-C	DEALT BY	NAYAN TANK		
		CHECK BY	AR. HARDIK PANCHAL		
		APPROVED BY	AR. HARDIK PANCHAL		
		D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		



SECTION - D-D

PROJECT CODE – 74/2019	DRAWING TITLE		DATE	19/12/2022	AR. HARDIK PANCHAL & B. Arch , SPA - New Delhi ASSOCIATES PUNE D&NH <small>E-102, Sai Marigold, Kokane Chowk, Pimple Gurav, PCMC, Pune</small> <small>126, Panchal Fabricators, 66 k.v.a road, besides precision wire industry, Amli-Silvassa , D&NH</small> <small>contact : 0260 2642779; +91 97374 27779 email : info@theahparchitects.com</small>	 ARCHITECTS INTERIORS- STRUCTURE
	SECTION D-D		DEALT BY	NAYAN TANK		
PROPOSAL OF NMA SCHOOL - HOSTEL BUILDING			CHECK BY	AR. HARDIK PANCHAL		
			APPROVED BY	AR. HARDIK PANCHAL		
			D.W.G. NO	2019-74-nma school -proposal-07-site plan-14-03-as per 3d.dwg		

Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa							
NIT No.: VBGP/NMA-NIT/2024-25/01						Date:	
Summary of Cost							
Name of Bidder : M/s							
S. No.	Description	BOQ Cost in INR	Percentage quoted by the tenderer above/ below/ at par the total amount of BOQ			Quoted Amount (INR)	
			Above/ Below/ At par	% age in figure	% age in Words	in figure	in Words
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
a)	Construction of Hostel for Netaji Subhash Chandra Bose Military Academy Complex in Silvassa	6,22,35175	Above/ Below/ At par				
NOTE:							
1. The tenderer shall furnish their rate in terms of % above/ below/ at par against Overall Estimated Cost.							
2. If the tenderer choose to opt "At par" under column 4, then the value against 'percentage' in figures in column 5 shall be inserted as '0' (i.e. zero). In such case, if the tenderer fills any value of percentage (other than '0') under column 5, then it will not be given any cognizance and "At par" option (i.e. "Zero"percent) chosen by the tenderer shall take precedence and the amount will be taken as "At par" irrespective of the percentage mentioned under column 5.							
3.Bidder will quote its rates inclusive of all charges, costs, taxes, levies, royalty, EPF, ESI & GST.							
4. If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.							
Date:							
Place:							

Seal & Signature of Authorised signatory of Bidder