

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
ROORKEE – 247 667



Minutes of the 31st meeting of the Building & Works Committee held on 3rd February 2014 at 12.00 Noon in the Board Room of the Institute.

The following were present:

- | | |
|--|-------------------|
| 1. Prof. Pradipta Banerji, Director | -Chairman |
| 2. Prof. S.P. Gupta, Dy. Director | - Member |
| 3. Prof. Mahendra Singh, Chairman, Estate & Works | - Member |
| 4. Er. Mohan Mittal, Executive Engineer, UPCL | - Member |
| 5. Prof. Ravi Kumar, Mechanical & Industrial Engineering Department, IIT Roorkee | - Member |
| 6. Prof. Rajendra Prasad, Electrical Engineering | -Member |
| 7. Prof. Pradeep Kumar, Civil Engineering | - Member |
| 8. Officiating Superintending Engineer | - Member |
| 9. Er. Salek Chand, Chief Engineer, UPPWD- Special Permanent Invitee | |
| 10. Lt. Col. (Retd.) A.K. Srivastava, Registrar | -Member Secretary |

Due to pre-occupation, Er. H.K.Upreti, Chief Engineer, PWD, Dehradun could not attend the meeting.


The Chairman welcomed the members of the 31st meeting of the Building & Works Committee.

Deliberations:

The items on the Agenda were discussed and the deliberations/ recommendations are summarized as under:

Item No. 31.1: To confirm the minutes of the 30th meeting held on 31.10.2013.

Having received no comments, the minutes of the 30th meeting of the Building & Works Committee, as recorded and circulated, were **confirmed**.


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Item No. 31.2 **To receive a report on the action taken to implement the decisions of the 30th meeting of the Building & Works Committee held on 31.2013.**

The Building & Works Committee **noted** the actions taken on the minutes of the 30th meeting, as reported.

Item No. 31.3: **To consider the preliminary estimate of Rs. 6417.00 lacs submitted by the NBCC for the Lecture Hall Complex-II in the I.I.T. Roorkee Campus.**

The B&WC considered the estimate submitted by the NBCC for Lecture Hall Complex-II in the I.I.T. Roorkee Campus and resolved that the work be assigned to the NBCC at an estimated cost of Rs.6417.00 lacs (**Appendix 'A'**).

The B&W further decided that fixed furniture be provided by the NBCC in the Lecture Hall Complex-II.

Item No. 31.4: **To consider the preliminary estimate of Rs. 7316.00 lacs submitted by the NBCC for the Boys' Hostel including cost of furniture in the I.I.T. Roorkee Campus.**

The B&WC considered the estimate submitted by the NBCC for Boys' Hostel including the cost of furniture in the I.I.T. Roorkee Campus and resolved that the work be assigned to the NBCC at an estimated cost of Rs.7316.00 lacs (**Appendix 'B'**).

Item No. 31.5: **To consider the preliminary estimate of Rs. 2875.00 lacs submitted by the NBCC for the Student Activity Centre in the IIT Roorkee Campus.**

The B&WC considered the estimate submitted by the NBCC for the Student Activity Centre in the I.I.T. Roorkee Campus and resolved that the work be assigned to the NBCC at an estimated cost of Rs.2875.00 lacs. (**Appendix 'C'**).


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Item No. 31.6: To consider the preliminary estimate of Rs. 6190.00 lacs submitted by the NBCC for Transit Accommodation/ Married Hostel including cost of room furniture in IIT Roorkee Campus.

The B&WC considered the estimate submitted by the NBCC for Transit Accommodation/Married Hostel including the cost of room furniture in the I.I.T. Roorkee Campus and resolved that all the three blocks of Transit Accommodation be enhanced to six floors (G+5) similar to the five blocks of the Married Hostel, instead of five floors. Accordingly, the preliminary estimate be revised by the NBCC on the basis of same plinth area rates. The revised estimate be placed before the Finance Committee/ Board of Governors for approval.

The revised estimate of Rs. 6,541.00 lacs submitted by the NBCC is given at **Appendix 'D'**.

Item No. 31.7: To consider the demolition of old residences at Niti Nagar and Vigyan Kunj.

The B&WC decided that the demolition of the under-mentioned old residences be approved:

(a) The following residences at Niti Nagar for construction of Transit cum Married Accommodation:

(i) Opposite Neelam Cinema: A Category residence Nos. 28/1, 28/2, 28/3, 28/4, 24/1, 24/2, 24/3, 24/4, 25/1, 25/2, 25/3, 25/4, 26/1, 26/2, 26/3, 26/4, 32/1, 32/2, 32/3 and 32/4 (5 Blocks)- 20 No^A. Houses.

(ii) On West of NH-58: A Category residence Nos. 23, 21, 19 and 17 (4 Nos. houses)

(b) The following residences at the Vigyan Kunj for construction of Boys Hostel:

B Category residence Nos. 97-A, 97-B, A Category Residence Nos. 98, 99 and 100


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Item No. 31.8: To consider the preliminary estimate of Rs. 7.91 crores submitted by NBCC towards site development at Greater Noida Extension Centre.

The B&WC considered the estimate submitted by the NBCC for site development at Greater Noida Extension Centre and resolved that the work be assigned to the NBCC at an estimated cost of Rs.7.91 crores **(Appendix 'E')**.

- Note:
1. All the above buildings should conform to green parameters and should have universal accessibility.
 2. The B&WC further resolved that NBCC may be requested to invite the tenders for the above five works with the condition that no financial liability be taken till the approval of the Finance Committee/ Board of Governors is obtained for the same.

UNDER ANY OTHER ITEMS:

Item No. 31.9: To consider the preliminary estimate of Rs. 616.00 lacs submitted by NBCC for construction the building of Quasi Static Laboratory in the Department of Earthquake Engineering.

The B&WC considered the preliminary estimate submitted by the NBCC for construction of the Quasi Static Laboratory building in the Department of Earthquake Engineering and approved the same in principle.

The B&WC further resolved that the estimate be re-examined by the Chairman, E&W and the Head, Department of Earthquake Engineering. The revised estimate be considered by the Internal Members of the Building & Works Committee and thereafter, the work may be approved by the Director.

The meeting ended with a vote of thanks to the Chair.


04 FEB 2014



NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A Mini Ratna Schedule 'A' PSE)

PRELIMINARY COST ESTIMATE

FOR

LECTURE HALL COMPLEX - II

(Ref Documents attached: PAR Cost Index for Roorkee as per
Latest Circular of CPWD, PAR - 2012, PAR - 2012 for
E&M - Copies of all documents attached)

ZONAL OFFICE: GM (UTTARAKHAND - I)

H. No. 1, NITI NAGAR, NH - 58, ROORKEE - 247667

Ph. No. - 01332 - 275560. Fax No. 01332 - 274246

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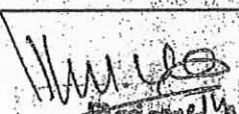
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NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A MINI RATNA SCHEDULE 'A' PSE)

**SUMMARY OF COST OF
PROPOSED LECTURE HALL COMPLEX - II AT IIT ROORKEE**

S. NO.	DESCRIPTION	RATE	AMOUNT (Rs. In Lacs)
1	TOTAL COST OF WORKS, CIVIL, SERVICES, LIFTS, WATER TANKS, SITE DEVELOPMENT & HORTICULTURE AND E& M WORKS AS PER DETAILS ENCLOSED (BASED ON PAR - 2012)		55,85,67,031.00
2	LESS @ 7 % FOR PRICE INDEX AS 93 AT ROORKEE AGAINST BASE PRICE INDEX 100 FOR PAR - 2012	7.0%	3,90,99,692.17
3	NET COST OF PROPOSED WORKS:		51,94,67,338.83
4	COST OF NON PAR ITEMS		
4.1	BUILDING WORKS:		69,00,000.00
4.2	COST OF FURNITURE, AV SYSTEM & ACCOUSTIC WALL PANELLING IN LECTURE HALLS		4,00,00,000.00
	TOTAL OF NON PAR ITEMS		4,69,00,000.00
	TOTAL COST OF PAR & NON PAR WORKS:		56,63,67,338.83
5	ADD FOR CONTINGENCIES @ 3%	3%	1,69,91,020.16
	TOTAL:		58,33,58,358.99
6	ADD NBCC AGENCY CHARGES @ 10%	10%	5,83,35,835.90
	GRAND TOTAL:		64,16,94,194.89
	SAY (Rs. In LACS)		6,417.00


Rajesh Arora
General Manager (Engg.)
NBCC Ltd.

Uttarakhand, Roorkee


04 FEB 2014

NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A MINI RATNA SCHEDULE 'A' PSE)

PLINTH AREA ESTIMATE AS PER PAR - 2012 OF CPWD

(WITH BASE 100, AS ON 01.04.2013)

NAME OF CLIENTS: INDIAN INSTITUTE OF TECHNOLOGY ROORKEE (UK)

NAME OF WORK: CONSTRUCTION OF LECTURE HALL COMPLEX - II

TYPE OF STRUCTURE: RCC FRAMED STRUCTURE, G+3

TOTAL PLOT AREA: 4580.00 Sqm

TOTAL BUILT UP AREA: 11,464.50 Sqm.

PLINTH AREA: 3124.50 Sqm.

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
1.1	CIVIL WORKS				
1.0 (A)	R.C.C. FRAMED STRUCTURE				
1.1 (A)	R.C.C. Framed structure upto six storeys				
1.1.1 (A)	Floor Height 3.35 Mtr				
	AREA AT VARIOUS FLOORS:				
	Ground Floor (Floor height 5.50 m)	Sqm	3,124.50		
	First Floor (Floor height 5.50 m)	Sqm	2,780.00		
	Second Floor (Floor height 5.50 m)	Sqm	2,780.00		
	Third Floor (Floor height 4.50 m)	Sqm	2,780.00		
	TOTAL BUILTUP AREA & COST		11,464.50	23,500.00	26,94,15,750.00
1.2	EXTRA FOR:				
1.2.3 (a)	Every additional height of floor above normal floor height of 3.35 mtrs. / 2.90 mtrs (proposed floor height 5.50 mtrs on Ground to 2nd Floor i.e. increase of 2.15 mtrs) [(270/0.30)x2.15]	Sqm	8,684.50	1,935.00	1,68,04,507.50
1.2.3 (b)	Every additional height of floor above normal floor height of 3.35 mtrs / 2.90 mtrs (proposed floor height 4.50 mtrs on 3rd Floor i.e. increase of 1.15 mtrs) [(270/0.30)x1.15]	Sqm	2,780.00	1,035.00	28,77,300.00
1.2.8	Resisting Earthquake forces	Sqm	11,464.50	1,140.00	1,30,69,530.00
1.2.9	R.C.C Raft Foundation	Sqm	3,124.50	6,450.00	2,01,53,025.00
1.2.11	Stronger Structural members to take heavy load above 500kgs/sqm. Upto 1000kgs./Sqm)	Sqm	11,464.50	1,500.00	1,71,96,750.00
1.2.12	Larger Modules over 35 Sqm	Sqm	9,171.60	1,500.00	1,37,57,400.00
	Sub Total				8,38,58,512.50
	TOTAL OF CIVIL WORKS (A):				35,32,74,262.50

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Rajesh Arora
 Project Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand Works, Roorkee

Ref. PAR 2012	Item Description	Unit	Quantity	Rate	Amount
5.0	WATER TANK (RCC ONLY)				
5.1	Over Head tank without independent staging	Ltr.	25,000.00	15.00	3,75,000.00
5.5	Underground Sump	Ltr.	75,000.00	15.00	11,25,000.00
	TOTAL (E)				15,00,000.00
6.0	SITE DEVELOPMENT & LANDSCAPING				
	Total Plot Area	Sqm	4,580.00		
6.1	Levelling	Sqm	4,580.00	95.00	4,35,100.00
6.2	Internal Roads and paths	Sqm	4,580.00	145.00	6,64,100.00
6.3	Sewer	Sqm	4,580.00	110.00	5,03,800.00
6.4	Filter Water Supply				
6.4.1	Distribution lines 100 mm dia and below	Sqm	4,580.00	80.00	3,66,400.00
6.4.3	Unfiltered water supply distribution lines	Sqm	4,580.00	45.00	2,06,100.00
6.5	Storm Water Drains	Sqm	4,580.00	85.00	3,89,300.00
6.6	Horticulture operations	Sqm	4,580.00	80.00	3,66,400.00
6.7	Street lighting				
6.7.3	with HPSV Lamps	Sqm	4,580.00	165.00	7,55,700.00
6.7.4	Exit sign board I/c electric signange	Sqm	4,580.00	85.00	3,89,300.00
	TOTAL (F)				40,76,200.00
EXTRA FOR E & M WORKS AS PER PAR - 2012					
	SUB STATION EQUIPMENTS				
1.0	Supplying installation testing and commissioning of 11/0:433KV Sub Station equipments comprising HT panel, Transformer, HT Cable, Automatic Power Factor corrector panel, essential panel I/c Earthing, interconnecting power cables in sub station, Safety equipments.	KVA	1,000.00	7,000.00	70,00,000.00

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M. Arora
Rajesh Arora
 General Manager (Engg.)
N.B.C.C. Ltd.
 Uttarakhand Works, Roorkee

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Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
	DIESEL GENERATOR SET				
2.0	Supplying installation testing and commissioning of silent type DG Set, AMF panel, Bus Trunking/Cables from DG Set to essential panel, Control cable earthing of DG set and AMF panel, DG set exhaust piping as per CPCB norms	KVA	500.00	10,000.00	50,00,000.00
	RISING MAINS				
3.0	Supply Installation testing and commissioning of				
3.1.5	500 A	Mtrs	50.00	27,900.00	13,95,000.00
3.1.9	1250 A	Mtrs	50.00	49,200.00	24,60,000.00
	UNINTERRUPTED POWER SUPPLY				
5.0	Supplying installation testing and commissioning of online UPS system with 30 minutes back up i/c batteries	KVA	250.00	20,000.00	50,00,000.00
	VRV/VRF AC System				
7.0	Supplying installation testing and commissioning of VRV/VRF System i/c indoor, outdoor units, Piping cabling/bustrunking/risingmain(within the building), wiring Electrical panel and also treated fresh air system (1 TR@ 9.29 sqm or 100 sqft) Area Covered= 7450.00 sqm (1HP = 0.825 TR)	HP	750.00	55,000.00	4,12,50,000.00
	SOLAR PHOTO VOLATAIC POWER GENERATOR SYSTEM				
9.0	Supplying installation testing and commissioning of Grid interactive roof top solar photo voltaic power generation system	KW	40.00	1,25,000.00	50,00,000.00
	SOLAR WATER HEATING SYSTEM				
10.0	Supply, installation, testing and commissioning of solar water heating system of 5000 litre per day capacity and region i/c electrical heater back up and make up tank but without piping	LPD	10,000.00	210.00	21,00,000.00

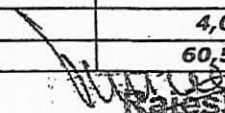
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22-01-14
Rajesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.

Uttarakhand Works, Roorkee

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
	CCTV SYSTEM				
11.0	Supplying, Installation, testing and commissioning of IP based CCTV system for building security comprising of PTZ, fixed camera, cabling, recording, display system and hardware and software support.	Sqm	11,464.50	300.00	34,39,350.00
	ACCESS CONTROL SYSTEM				
12.0	Supplying installation testing and commissioning of Access control system for building security comprising of Controller, E&M locks, Reader, Smart cards, cabling, recording, display system and hardware and software support (GF-only).	Sqm	3,124.00	200.00	6,24,800.00
	BUILDING MANAGEMENT SYSTEM				
13.0	Supplying installation testing and commissioning of Building management system etc. cabling, recording, display system and hardware and software support.				
13.1	Built up area upto 10000 sqmt	LS	1.00	30,00,000.00	30,00,000.00
	TOTAL OF E & M WORKS (G):				7,62,69,150.00
	TOTAL COST OF PAR WORKS:				55,85,67,031.00
	MISCELLANEOUS ITEMS NOT COVERED IN PAR - 2012				
9.1	Extra for EPABX System		L.S.		15,00,000.00
9.2	Solar Power street Lighting	Nos.	15.00	60,000.00	9,00,000.00
9.4	Pump set from Underground Tank to overhead tank with water level indication, automatic pumping with solenoid operated complete.	No.	5.00	5,00,000.00	25,00,000.00
9.6	Supplying Installation Testing and commissioning of 4 pair unshielded twisted Cat 6 Cable (unarmoured) for data, telephone, CCTV & Access Control	Rmt	20,000.00	100.00	20,00,000.00
	TOTAL OF NON PAR ITEMS (H)				69,00,000.00
	FURNITURE INCL. AV SYSTEM				
	Cost of Lecture Hall Chairs with folding desklette, White Board, Podium, Accoustic Treatment, Overhead Projector and Audio System for all Lecture Halls	No. of seats	4,000.00	10,000.00	4,00,00,000.00
	TOTAL OF FURNITURE WORK (I):				4,00,00,000.00
	GRAND TOTAL (A+B+C+D+E+F+G+H+I)				60,54,67,031.00


Rakesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand Works, Roorkee


 04 FEB 2014



NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A Mini Ratna Schedule 'A' PSE)

PRELIMINARY COST ESTIMATE

FOR

BOYS HOSTEL

(Ref Documents attached: PAR Cost Index for Roorkee as per Latest Circular of CPWD, PAR – 2012, PAR – 2012 for E&M – Copies of all documents attached)

ZONAL OFFICE: GM (UTTARAKHAND - I)

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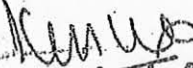
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04 FEB 2014

NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.
(A MINI RATNA SCHEDULE 'A' PSE)

**SUMMARY OF COST OF
PROPOSED BOYS HOSTEL AT IIT ROORKEE**

S. NO.	DESCRIPTION	RATE	AMOUNT (Rs. In Lacs)
1	TOTAL COST OF WORKS, CIVIL, SERVICES, LIFTS, WATER TANKS, SITE DEVELOPMENT & HORTICULTURE AND E& M WORKS AS PER DETAILS ENCLOSED (BASED ON PAR - 2012)		66,41,87,902.26
2	LESS @ 7 % FOR PRICE INDEX AS 93 AT ROORKEE AGAINST BASE PRICE INDEX 100	7.0%	4,64,93,153.16
3	NET COST OF PROPOSED PAR WORKS:		61,76,94,749.10
4	COST OF NON PAR ITEMS		
4.1	BUILDING WORKS:		56,00,000.00
4.2	COST OF FURNITURE		2,24,00,000.00
	TOTAL OF NON PAR ITEMS		2,80,00,000.00
	TOTAL COST OF PAR & NON PAR WORKS:		64,56,94,749.10
5	ADD FOR CONTINGENCIES @ 3%	3%	1,93,70,842.47
	TOTAL:		66,50,65,591.57
6	ADD NBCC AGENCY CHARGES @ 10%	10%	6,65,06,559.16
	GRAND TOTAL:		73,15,72,150.73
	SAY (Rs. In LACS)		7,316.00


Rajesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand Works, Roorkee


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NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.
(A MINI RATNA SCHEDULE 'A' PSE)

PLINTH AREA ESTIMATE AS PER PAR - 2012 OF CPWD
(WITH BASE 100, AS ON 01.04.2013)

NAME OF CLIENTS: INDIAN INSTITUTE OF TECHNOLOGY ROORKEE (UK)

NAME OF WORK: CONSTRUCTION OF BOYS HOSTEL

TYPE OF STRUCTURE: RCC FRAMED STRUCTURE, G+3

TOTAL PLOT AREA: 11,337.00 Sqm

TOTAL BUILT UP AREA: 22840.00 Sqm.

PLINH AREA: 4,000.00 Sqm.

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
1.0	CIVIL WORKS				
1.1	R.C.C.FRAMED STRUCTURE				
	R.C.C.Framed structure upto six storeys				
	HOSTEL FLOORS				
	Ground Floor (Floor Height 5.4 & 4.5 m)	Sqm	4,000.00		
	First Floor (Floor height 3.30 m)	Sqm	3,457.00		
	Second Floor (Floor height 3.30 m)	Sqm	3,457.00		
	Third Floor (Floor height 3.30 m)	Sqm	3,457.00		
	Fourth Floor. (Floor height 3.30 m)	Sqm	3,457.00		
	Fifth Floor (Floor height 3.30 m)	Sqm	3,457.00		
	TOTAL BUILTUP AREA & COST		21,285.00	16,500.00	35,12,02,500

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Rajesh Arora
General Manager (Engg.)
N.B.C.C. Ltd.
Uttarakhand Works, Roorkee

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
1.2	EXTRA FOR:				
1.2.3 (a)	Every additional height of floor above normal floor height of 3.35 mtrs / 2.90 mtrs (proposed floor height 5.40 mtrs (Mess & Kitchen) i.e. increase of 2.5 mtrs $[(270/0.30)*2.5 = 2250]$	Sqm	1,500.00	2,250.00	33,75,000.00
1.2.3 (b)	Every additional height of floor above normal floor height of 3.35 mtrs / 2.90 mtrs (proposed floor height 4.50 mtrs (Student interaction area) i.e. increase of 1.6 mtrs $[(270/0.30)*1.60 =$	Sqm	680.00	1,440.00	9,79,200.00
1.2.3 (c)	Every additional height of floor above normal floor height of 3.35 mtrs / 2.90 mtrs (proposed floor height 3.90 mtrs (Admin Block) i.e. increase of 1.0 mtrs $[(270/0.30)*1.0 = 900]$	Sqm	1,820.00	900.00	16,38,000.00
1.2.3 (d)	Every additional height of floor above normal floor height of 3.35 mtrs / 2.90 mtrs (proposed floor height 3.30 mtrs (All Floors except GF) i.e. increase of 0.40 mtrs $[(270/0.30)*0.40 = 360]$	Sqm	17,285.00	360.00	62,22,600.00
1.2.8	Resisting Earthquake forces	Sqm	21,285.00	1140.00	2,42,64,900.00
1.2.9	R.C.C Raft Foundation	Sqm	4,000.00	6450.00	2,58,00,000.00
	Sub Total				6,22,79,700.00
A	TOTAL OF CIVIL WORKS (A):				41,34,82,200.00
1.4	FIRE FIGHTING				
1.4.2	With Wet Riser System	Sqm	21,285.00	500.00	1,06,42,500.00
1.5	FIRE ALARM SYSTEM				
1.5.1	Automatic Fire Alarm System	Sqm	21,285.00	500.00	1,06,42,500.00
B	TOTAL (B)				2,12,85,000.00
3.0	SERVICES				
	PLUMBING				
3.1	Internal Water Supply and Sanitary Installations (common toilets)		12 % of (A)	12.00%	4,96,17,864.00
3.2	External service connections		5 % of (A)	5.00%	2,06,74,110.00
	ELECTRICAL				
3.3	Internal Electrical Installation		12.5% of (A)	12.50%	5,16,85,275.00
3.6	Extra for:				
3.6.1	Power wiring & Plugs		4 % of (A)	4.00%	1,65,39,288.00
3.6.3	Lightening conductor				
3.6.3.2	5 to 8 Storeys Building		0.33 % of (A)	0.33%	13,64,491.26
3.6.4	Telephone Conduits		0.5% of (A)	0.50%	20,67,411.00
3.6.6	Computer Conduiting		0.5 % of (A)	0.50%	20,67,411.00
3.6.7	Quality Assurance		1.0% of (A)	1.00%	41,34,822.00
	TOTAL (C)				14,81,50,672.26

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14.81.50.672.26
 Prepared by
 Checked by
 N.S. Goyal
 Uttarakhand Water, Roorkee

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
4.0	LIFTS				
4.1.4	Passenger lifts 13-passengers Speed 1.5 m/sec (G+5)	Nos.	8.00	28,00,000.00	2,24,00,000.00
	TOTAL (D)				2,24,00,000.00
5.0	WATER TANK (RCC ONLY)				
5.1	Over Head tank with out independent staging	Ltr.	75,000.00	15.00	11,25,000.00
5.5	Underground Sump	Ltr.	1,25,000.00	15.00	18,75,000.00
	TOTAL (E)				30,00,000.00
6.0	SITE DEVELOPMENT & LANDSCAPING				
	Total Plot Area	Sqm	11,337.00		
6.1	Levelling	Sqm	11,337.00	95.00	10,77,015.00
6.2	Internal Roads and paths	Sqm	11,337.00	145.00	16,43,865.00
6.3	Sewer	Sqm	11,337.00	110.00	12,47,070.00
6.4	Filter Water Supply				
6.4.1	Distribution lines 100 mm dia and below	Sqm	11,337.00	80.00	9,06,960.00
6.4.3	Unfiltered water supply distribution lines	Sqm	11,337.00	45.00	5,10,165.00
6.5	Storm Water Drains	Sqm	11,337.00	85.00	9,63,645.00
6.6	Horticulture operations	Sqm	11,337.00	80.00	9,06,960.00
6.7	Street lighting				
6.7.3	with HPSV Lamps	Sqm	11,337.00	165.00	18,70,605.00
6.7.4	with sign board l/c electric signange	Sqm	11,337.00	85.00	9,63,645.00
	TOTAL (F)				1,00,89,930.00

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01 FEB 2014

(Signature)
 General Manager
 N.B.C.C. Ltd.

Uttarakhand Works, Roorkee

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
E & M WORKS AS PER PAR-2012					
	SUB STATION EQUIPMENTS				
1.0	Supplying installation testing and commissioning of 11/0.433KV Sub Station equipments comprising HT panel, Transformer, HT Cable, Automatic Power Factor corrector panel, essential panel i/c Earthing, interconnecting power cables in sub station, Safety equipments.	KVA	1,500.00	7,000.00	1,05,00,000.00
	Diesel Generator Set				
2.0	Supplying installation testing and commissioning of silent type DG Set, AMF panel, Bus Trunking/Cables from DG Set to essential panel, Control cable earthing of DG set and AMF panel, DG set exhaust piping as per CPCB norms and minor allied works	KVA	500.00	10,000.00	50,00,000.00
	RISING MAINS				
3.0	Supply Installation testing and commissioning of Sandwich bustrunking including vertical and Horizontal bends, adopter box, flange end flexible joint with suitable earthing strips having 50 KA breaking capacity and having IP 54 protection. (With Copper Bus bar)				
4.2.2.1	630A	Mtrs	24.00	30,000.00	7,20,000.00
4.2.2.2	800A	Mtrs	24.00	35,900.00	8,61,600.00
4.2.2.4	1250A	Mtrs	24.00	62,500.00	15,00,000.00
4.2.2.6	2000A	Mtrs	24.00	1,01,500.00	24,36,000.00
4.2.2.7	2500A	Mtrs	24.00	1,28,500.00	30,84,000.00
	UNINTERRUPTED POWER SUPPLY				
5.0	Supplying installation testing and commissioning of online UPS system with 30 min back up i/c batteries	KVA	150.00	20,000.00	30,00,000.00
	Solar photo voltaic power generation system				
9.0	Supplying installation testing and commissioning of Grid interactive roof top solar photo voltaic power generation system	KW	50.00	1,25,000.00	62,50,000.00

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04 FEB 2014

Rajesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand Works, Roorkee

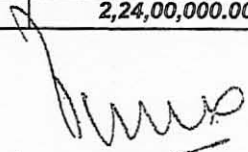
Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
	SOLAR WATER HEATING SYSTEM				
10.0	Supply installation testing and commissioning of solar water heating system of 5000 litre per day capacity and region i/c electrical heater back up and make up tank but without piping (Solar water heating system with exchanger type 1 for cold region, @1000 liter per day=210000)	LPD	30,000.00	210.00	63,00,000.00
	CCTV SYSTEM				
11.0	Supplying, Installation, testing and commissioning of IP based CCTV system for building security comprising of PTZ, fixed camera, cabling, recording, display system and hardware and software support (GF only).	Sqm	4,000.00	300.00	12,00,000.00
	ACCESS CONTROL SYSTEM				
12.0	Supplying installation testing and commissioning of Access control system for building security comprising of Controller, E&M locks, Reader, Smart cards, cabling, recording, display system and hardware and software support (GF only).	Sqm	4,000.00	200.00	8,00,000.00
	BUILDING MANAGEMENT SYSTEM				
13.0	Supplying installation testing and commissioning of Building management system etc. cabling, recording, display system and hardware and software support.				
13.1	Built up area upto 10000 sqmt	LS	1.00	30,00,000.00	30,00,000.00
13.2	Add Extra for built up area beyond 10000 sqmt	Sqm	11,285.00	100.00	11,28,500.00
	TOTAL (G)				4,57,80,100.00
	COST OF PAR WORKS				66,41,87,902.26
8.0	MISCELLANEOUS ITEMS				
8.1	Extra for EPABX System				15,00,000.00
8.2	Solar Power street Lighting	Nos.	20.00	60,000.00	12,00,000.00
8.4	Pump set from Underground Tank to overhead tank with water level indication, automatic pumping with solenoid operated complete item.	No.	5.00	5,00,000.00	25,00,000.00
8.6	Supplying Installation Testing and commissioning of 4 pair unshielded twisted Cat 6 Cable(unarmoured) cable for data,telephone,CCTV, Access Control	Rmt	4,000.00	100.00	4,00,000.00
	TOTAL OF NON PAR ITEMS (H)				56,00,000.00

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04 FEB 2014

Rajesh Aggar
General Manager (Engg)
N.B.C. Ltd.
Uttarakhand Water Resources

Ref. PAR- 2012	Item Description	Unit	Quantity	Rate	Amount
9	MOVABLE FURNITURE				
	HOSTEL ROOMS & MESS ONLY				
9.1	1 Bed each room	No.	800.00	8,000.00	64,00,000.00
9.2	1 Side Table each room	No.	800.00	2,500.00	20,00,000.00
9.3	1 Study Table each room	No.	800.00	7,500.00	60,00,000.00
9.4	1 Study Chair each room	No.	800.00	5,000.00	40,00,000.00
9.5	Dining Mess Furniture	No. of Seats	400.00	10,000.00	40,00,000.00
	TOTAL OF FURNITURE WORK (I)				2,24,00,000.00


Rajesh Arora
General Manager (Engg.)
N.S.C. Ltd.
Uttarakhand Works, Roostan



NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A Mini Ratna Schedule 'A' PSE)

PRELIMINARY COST ESTIMATE

FOR

STUDENT ACTIVITY CENTRE

(Ref Documents attached: PAR Cost Index for Roorkee as per Latest Circular of CPWD, PAR – 2012, PAR – 2012 for E&M – Copies of all documents attached)

ZONAL OFFICE: GM (UTTARAKHAND - I)

H. No. 1, NITI NAGAR, NH – 58, ROORKEE - 247667

Ph. No. – 01332 – 275560¹⁹ Ex No. 01332 – 274246

E-mail ID: nbcc_iitr@yahoo.in , nbcc.roorkee@gmail.com


04 FEB 2014

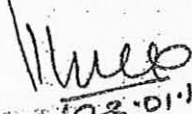
NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A MINI RATNA SCHEDULE 'A' PSE)

SUMMARY OF COST OF

PROPOSED STUDENT ACTIVITY CENTRE AT IIT ROORKEE

S. NO.	DESCRIPTION	RATE	AMOUNT (Rs. In Lacs)
1	TOTAL COST OF WORKS, CIVIL, SERVICES, LIFTS, WATER TANKS, SITE DEVELOPMENT & HORTICULTURE AND E& M WORKS AS PER DETAILS ENCLOSED (BASED ON PAR - 2012)		26,77,89,632.00
2	LESS @ 7 % FOR PRICE INDEX AS 93 AT ROORKEE AGAINST BASE PRICE INDEX 100 FOR PAR - 2012	7.0%	1,87,45,274.24
3	NET COST OF PROPOSED WORKS:		24,90,44,357.76
4	COST OF NON PAR ITEMS		47,00,000.00
	TOTAL COST OF PAR & NON PAR WORKS:		25,37,44,357.76
5	ADD FOR CONTINGENCIES @ 3%	3%	76,12,330.73
	TOTAL:		26,13,56,688.49
6	ADD NBCC AGENCY CHARGES @ 10%	10%	2,61,35,668.85
	GRAND TOTAL:		28,74,92,357.34
	SAY (Rs. In LACS)		2,875.00


22.01.14
Rajesh Arora
General Manager (Engg.)
N.B.C.C. Ltd.
Uttarakhand Works, Roorkee


04 FEB 2014

NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A MINI RATNA SCHEDULE 'A' PSE)

PLINTH AREA ESTIMATE AS PER PAR - 2012 OF CPWD

(WITH BASE 100, AS ON 01.04.2013)

NAME OF CLIENTS: INDIAN INSTITUTE OF TECHNOLOGY ROORKEE (UK)**NAME OF WORK: CONSTRUCTION OF STUDENT ACTIVITY CENTRE**

TYPE OF STRUCTURE: RCC FRAMED STRUCTURE, G+3

TOTAL PLOT AREA: 4,096.00 Sqm

TOTAL BUILT UP AREA: 4936.00 Sqm.

PLINTH AREA: 1386.00 Sqm.

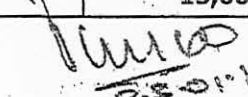
Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
1.0	CIVIL WORKS				
1.1	R.C.C. FRAMED STRUCTURE				
	R.C.C. Framed structure upto six storeys				
	COLLEGE FLOORS				
	Ground Floor (Floor height 4.5 m)	Sqm	1386.00	23,500	3,25,71,000
	First Floor (Floor height 4.5 m)	Sqm	1230.00	23,500	2,89,05,000
	Second Floor (Floor height 4.5 m)	Sqm	1230.00	23,500	2,89,05,000
	Third Floor (Floor height 4.5 m)	Sqm	1090.00	23,500	2,56,15,000
	TOTAL BUILTUP AREA & COST		4,936.00	94,000.00	11,59,96,000
1.2	EXTRA FOR:				
1.2.3	Every additional height of floor above normal floor height of 3.35 mtrs / 2.90 mtrs [(270/0.30)X1.15] mtrs)	Sqm	4936.00	1035	5108760
1.2.6	Making Stronger Foundation to take load of one additional floor at a later date (on addition of additional floor only)	Sqm	1090.00	2270	2474300
1.2.8	Resisting Earthquake forces	Sqm	4,936.00	1,140.00	56,27,040.00
1.2.9	R.C.C Raft Foundation	Sqm	1,386.00	6,450.00	89,39,700.00
1.2.11	Stronger Structural members to take heavy load above 500kgs/sqm. Upto 1000kgs./Sqm)	Sqm	3,455.20	1,500.00	51,82,800.00
1.2.12	Larger Modules over 35 Sqm	Sqm	3,455.20	1,500.00	51,82,800.00
	SUB TOTAL				3,25,15,400.00
	TOTAL OF CIVIL WORKS (A):				14,85,11,400.00

04 FEB 2014

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Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
1.4	FIRE FIGHTING				
1.4.1	With Sprinkler System	Sqm	4,936.00	750.00	37,02,000.00
1.5	FIRE ALARM SYSTEM				
1.5.2	Automatic Fire Alarm System	Sqm	4,936.00	500.00	24,68,000.00
	TOTAL (B)				61,70,000.00
3.0	SERVICES				
	PLUMBING				
3.1	Internal Water Supply and Sanitary Installations		4 % of (A)	4.00%	59,40,456.00
3.2	External service connections		5 % of (A)	5.00%	74,25,570.00
	ELECTRICAL				
3.3	Internal Electrical Installation		12.5% of (A)	12.50%	1,85,63,925.00
3.6	Extra for:				
3.6.1	Power wiring & Plugs		4% of (A)	4.0%	59,40,456.00
3.6.3	Lightening conductor				
3.6.3.1	Upto 4 storeyed Building		0.5 % of (A)	0.50%	7,42,557.00
3.6.4	Telephone Conduiting		0.5% of (A)	0.50%	7,42,557.00
3.6.6	Computer Conduiting		0.5 % of (A)	0.50%	7,42,557.00
3.6.7	Quality Assurance		1.0% of (A)	1.00%	14,85,114.00
	TOTAL (C)				4,15,83,192.00
4.0	LIFTS				
4.1.4	Passenger lifts 13 passengers Speed 1.5 m/sec(G+3)	Nos.	2.00	25,50,000.00	51,00,000.00
D	TOTAL (D)				51,00,000.00
5.0	WATER TANK (RCC ONLY)				
5.1	Over Head tank with out independent staging	Ltr.	25,000.00	15.00	3,75,000.00
5.5	Underground Sump	Ltr.	75,000.00	15.00	11,25,000.00
E	TOTAL (E)				15,00,000.00

04 FEB 2014


 25-01-14
Rajesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand Works, Roorkee

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
6.0	SITE DEVELOPMENT & LANDSCAPING				
	Total Plot Area	Sqm	4,096.00		
6.1	Levelling	Sqm	4,096.00	95.00	3,89,120.00
6.2	Internal Roads and paths	Sqm	4,096.00	145.00	5,93,920.00
6.3	Sewer	Sqm	4,096.00	110.00	4,50,560.00
6.4	Filter Water Supply				
6.4.1	Distribution lines 100 mm dia and below	Sqm	4,096.00	80.00	3,27,680.00
6.4.3	Unfiltered water supply distribution lines	Sqm	4,096.00	45.00	1,84,320.00
6.5	Storm Water Drains	Sqm	4,096.00	85.00	3,48,160.00
6.6	Horticulture operations	Sqm	4,096.00	80.00	3,27,680.00
6.7	Street lighting				
6.7.3	with HPSV Lamps	Sqm	4,096.00	165.00	6,75,840.00
6.7.4	with sign board I/c electric signange	Sqm	4,096.00	85.00	3,48,160.00
F	TOTAL (F)				36,45,440.00
	SPECIALISED E & M SERVICES				
	SUB STATION EQUIPMENTS				
1.0	Supplying installation testing and commissioning of 11/0.433KV Sub Station equipments comprising HT panel, Transformer, HT Cable, Automatic Power Factor corrector panel, essential panel i/c Earthing, interconnecting power cables in sub station, Safety equipments.	KVA	500.00	7,000.00	35,00,000.00
	Diesel Generator Set				
2.0	Supplying installation testing and commissioning of silent type DG Set, AMF panel, Bus Trunking/Cables from DG Set to essential panel, Control cable earthing of DG set and AMF panel, DG set exhaust piping as per CPCB norms and minor allied works	KVA	250.00	10,000.00	25,00,000.00

04 FEB 2014

23.01.14
Rajesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
	RISING MAINS				
3.0	Supply Installation testing and commissioning of compact air insulated Rising mains comprising of end-feed units and tap off box with suitable capacity 4Pole MCCB, Separators, Flexible Joints i/c bends, elbow and earthing having 35KA breaking capacity and IP 54 Protection (With Aluminium Bus bar)				
3.1.2	200A	Mtrs	16.00	22,200.00	3,55,200.00
3.1.3	315A	Mtrs	16.00	23,700.00	3,79,200.00
3.1.6	630A	Mtrs	24.00	30,300.00	7,27,200.00
	UNINTERRUPTED POWER SUPPLY				
5.0	Supplying installation testing and commissioning of online UPS system with 30 min back up i/c batteries	KVA	125.00	20,000.00	25,00,000.00
	Solar photo voltaic power generation system				
9.0	Supplying installation testing and commissioning of Grid interactive roof top solar photo voltaic power generation system	KW	20.00	1,25,000.00	25,00,000.00
	Solar water heating system				
10.0	Supply installation testing and commissioning of solar water heating system of 5000 litre per day capacity and region i/c electrical heater back up and make up tank but without piping (Solar water heating system with exchanger type 1 for cold region, @1000 liter per day=210000)	LPD	10,000.00	210.00	21,00,000.00
	CCTV SYSTEM				
11.0	Supplying, Installation, testing and commissioning of IP based CCTV system for building security comprising of PTZ, fixed camera, cabling, recording, display system and hardware and software support All Floors).	Sqm	4,936.00	300.00	14,80,800.00

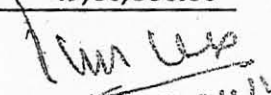
04 FEB 2014

22.01.14
Rajesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand Works Roorkee

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
	ACCESS CONTROL SYSTEM				
12.0	Supplying installation testing and commissioning of Access control system for building security comprising of Controller, E&M locks, Reader, Smart cards, cabling, recording, display system and hardware and software support (GF only).		4,936.00	200.00	9,87,200.00
	BUILDING MANAGEMENT SYSTEM				
13.0	Supplying installation testing and commissioning of Building management system etc. cabling, recording, display system and hardware and software support.				
13.1	Built up area upto 10000 sqmt	LS	1.00	30,00,000.00	30,00,000.00
8.0	VRV/VRF AC System				
7.0	Supplying installation testing and commissioning of VRV/VRF System i/c indoor, outdoor units, Piping cabling/bustrunking/risermain(within the building), wiring Electrical panel and also treated fresh air system	HP	750.00	55,000.00	4,12,50,000.00
	TOTAL OF E & M WORKS (H):				6,12,79,600.00
	COST OF PAR WORKS:				26,77,89,632.00
9.0	MISCELLANEOUS ITEMS				
9.1	Extra for EPABX System	LS	1.00	10,00,000.00	10,00,000.00
9.2	Solar Power street Lighting	Nos.	20.00	60,000.00	12,00,000.00
9.4	Pump set from Underground Tank to overhead tank with water level indication, automatic pumping with solenoid operated complete item.	No.	3.00	5,00,000.00	15,00,000.00
9.6	Supplying Installation Testing and commissioning of 4 pair unshielded twisted Cat 6 Cable(unarmoured) cable for data, telephone, CCTV, Access Control	Rmt	10,000.00	100.00	10,00,000.00
	TOTAL OF NON PAR ITEMS (H)				47,00,000.00

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04 FEB 2014


 23-01-14
Rajesh Arora
 General Manager (Engg.)
 N.B.C.C. Ltd.
 Uttarakhand Works, Roorkee

NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.
(A MINI RATNA SCHEDULE 'A' PSE)

SUMMARY OF COST OF
PROPOSED TRANSIT ACCOMMODATION AT IIT ROORKEE

S. NO.	DESCRIPTION	RATE	AMOUNT (Rs. In Lacs)
1	TOTAL COST OF WORKS, CIVIL, SERVICES, LIFTS, WATER TANKS, SITE DEVELOPMENT & HORTICULTURE AND E& M WORKS AS PER DETAILS ENCLOSED (BASED ON PAR - 2012)		595,223,607.04
2	LESS @ 7% FOR PRICE INDEX AS 93 AT ROORKEE AGAINST BASE PRICE INDEX 100	7.0%	41,665,652.49
3	NET COST OF PROPOSED PAR WORKS:		553,557,954.55
4	COST OF NON PAR ITEMS		
4.1	BUILDING WORKS:		6,300,000.00
4.2	COST OF ROOM FURNITURE		17,500,000.00
	TOTAL OF NON PAR ITEMS		23,800,000.00
	TOTAL COST OF PAR & NON PAR WORKS:		577,357,954.55
5	ADD FOR CONTINGENCIES @ 3%	3%	17,320,738.64
	TOTAL:		594,678,693.18
6	ADD NBCC AGENCY CHARGES @ 10%	10%	59,467,869.32
	GRAND TOTAL:		654,146,562.50
	SAY (Rs. In LACS)		6,541.00

[Signature]
Rajendra Anand
C.M. (Capt.)
NBCC, Roorkee

[Signature]
04 FEB 2014

NATIONAL BUILDINGS CONSTRUCTION CORPORATION LTD.

(A MINI RATNA SCHEDULE 'A' PSE)

PLINTH AREA ESTIMATE AS PER PAR - 2012 OF CPWD

(WITH BASE 100, AS ON 01.04.2013)

NAME OF CLIENTS: INDIAN INSTITUTE OF TECHNOLOGY ROORKEE (UK)

NAME OF WORK: CONSTRUCTION OF MARRIED CUM TRANSIT ACCOMMODATION

TYPE OF STRUCTURE: RCC FRAMED STRUCTURE: G+5

TOTAL PLOT AREA: 15000.00 Sqm

TOTAL BUILT UP AREA: 16900.00 Sqm.

PLINH AREA: 3040.00 Sqm.

Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
1.0	CIVIL WORKS				
1.1	R.C.C.FRAMED STRUCTURE				
	R.C.C.Framed structure upto six storeys				
	RESIDENTIAL FLOORS				
	Ground Floor (Floor height 3.30 m)	Sqm	3040.00	16,000	48,640,000
	First Floor (Floor height 3.30 m)	Sqm	3040.00	16,000	48,640,000
	Second Floor (Floor height 3.30 m)	Sqm	3040.00	16,000	48,640,000
	Third Floor (Floor height 3.30 m)	Sqm	3040.00	16,000	48,640,000
	Fourth Floor (Floor height 3.30 m)	Sqm	3040.00	16,000	48,640,000
	Fifth Floor (Floor height 3.30 m)	Sqm	3040.00	16,000	48,640,000
	TOTAL BUILTUP AREA & COST		18,240.00	96,000.00	291,840,000
1.2	EXTRA FOR:				
1.2.3	Every additional height of floor above normal floor height of 3.35 mtrs / 2.90 mtrs (proposed floor height 3.30 mtrs i.e. increase of 0.40 mtrs) [(270/0.30)*0.40]	Sqm	18240.00	360	6566400
1.2.6	Making Stronger Foundation to take load of one additional floor at a later date	Sqm	3040.00	2270	6900800
1.2.8	Resisting Earthquake forces	Sqm	18,240.00	1,140.00	20,793,600.00
1.2.9	R.C.C Raft Foundation	Sqm	3,040.00	6,450.00	19,608,000.00
	Sub Total				53,868,800.00
A	TOTAL OF CIVIL WORKS (A):				345,708,800.00

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04 FEB 2014

Ref. PAR- 2012	Item Description	Unit	Quantity	Rate	Amount
1.4	FIRE FIGHTING				
1.4.2	With Wet Riser System	Sqm	18,240.00	500.00	9,120,000.00
1.5	FIRE ALARM SYSTEM				
1.5.1	Automatic Fire Alarm System	Sqm	18,240.00	500.00	9,120,000.00
B	TOTAL (B)				18,240,000.00
3.0	SERVICES				
	PLUMBING				
3.1	Internal Water Supply and Sanitary Installations		12 % of (A)	12.00%	41,485,056.00
3.2	External service connections		5 % of (A)	5.00%	17,285,440.00
	ELECTRICAL				
3.3	Internal Electrical Installation		12.5% of (A)	12.50%	43,213,600.00
3.6	Extra for:				
3.6.1	Power wiring & Plugs		4% of (A)	4.0%	13,828,352.00
3.6.3	Lightening conductor				
3.6.3.2	5 to 8 Storeys Building		0.33 % of (A)	0.33%	1,140,839.04
3.6.4	Telephone Conduits		0.5% of (A)	0.50%	1,728,544.00
3.6.5	Centralized Intercom System		1.0% of (A)	1.00%	3,457,088.00
3.6.7	Quality Assurance		1.0% of (A)	1.00%	3,457,088.00
	TOTAL (C)				125,596,007.04
4.0	LIFTS				
4.1.4 (a)	Passenger lifts 13 passengers Speed 1.5 m/sec (G+5)	Nos.	10.00	2,800,000.00	28,000,000.00
4.1.4 (b)	Passenger lifts 13 passengers Speed 1.5 m/sec (G+4)	Nos.	6.00	2,675,000.00	16,050,000.00
	TOTAL (D)				44,050,000.00
5.0	WATER TANK (RCC ONLY)				
5.1	Over Head tank with out independent staging	Ltr.	75,000.00	15.00	1,125,000.00
5.5	Underground Sump	Ltr.	150,000.00	15.00	2,250,000.00
	TOTAL (E)				3,375,000.00

Ref. PAR- 2012	Item Description	Unit	Quantity	Rate	Amount
6.0	SITE DEVELOPMENT & LANDSCAPING				
	Total Plot Area	Sqm	15,000.00		
6.1	Levelling	Sqm	15,000.00	95.00	1,425,000.00
6.2	Internal Roads and paths	Sqm	15,000.00	145.00	2,175,000.00
6.3	Sewer	Sqm	15,000.00	110.00	1,650,000.00
6.4	Filter Water Supply				
6.4.1	Distribution lines 100 mm dia and below	Sqm	15,000.00	80.00	1,200,000.00
6.4.3	Unfiltered water supply distribution lines	Sqm	15,000.00	45.00	675,000.00
6.5	Storm Water Drains	Sqm	15,000.00	85.00	1,275,000.00
6.6	Horticulture operations	Sqm	15,000.00	80.00	1,200,000.00
6.7	Street lighting				
6.7.3	with HPSV Lamps	Sqm	15,000.00	165.00	2,475,000.00
6.7.4	Exit sign board I/c electric signange	Sqm	15,000.00	85.00	1,275,000.00
	TOTAL (F)				13,350,000.00
EXTRA E & M WORKS INCLUDED IN PAR					
	SUB STATION EQUIPMENTS				
1.0	Supplying installation testing and commissioning of 11/0.433KV Sub Station equipments Comprising HT panel, Transformer, HT Cable. Automatic Power Factor corrector panel, essential panel i/c Earthing, interconnecting power cables in sub station, Safety equipments.	KVA	1,500.00	7,000.00	10,500,000.00
	Diesel Generator Set				
2.0	Supplying installation testing and commissioning of silent type DG Set, AMF panel, Bus Trunking/Cables from DG Set to essential panel, Controll cable earthing of DG set and AMF panel, DG set exhaust piping as per CPCB norms and minor allied works	KVA	750.00	10,000.00	7,500,000.00

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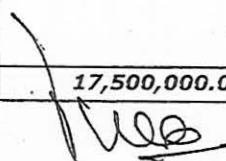
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Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
	RISING MAINS				
3.0	Supply Installation testing and commissioning of Sandwich bustrunking including vertical and Horizontal bends, adopter box, flange end flexible joint with suitable earthing strips having 50 KA breaking capacity and having IP 54 protection. (With Copper Bus bar)				
4.2.2.1	630A	Mtrs	24.00	30,000.00	720,000.00
4.2.2.2	800A	Mtrs	12.00	35,900.00	430,800.00
4.2.2.4	1250A	Mtrs	12.00	62,500.00	750,000.00
4.2.2.6	2000A	Mtrs	12.00	101,500.00	1,218,000.00
	UNINTERRUPTED POWER SUPPLY				
5.0	Supplying installation testing and commissioning of online UPS system with 30 min back up i/c batteries	KVA	250.00	20,000.00	5,000,000.00
	Solar photo voltaic power generation system				
9.0	Supplying installation testing and commissioning of Grid interactive roof top solar photo voltaic power generation system	KW	75.00	125,000.00	9,375,000.00
	Solar water heating system				
10.0	Supply installation testing and commissioning of solar water heating system of 5000 litre per day capacity and region i/c electrical heater back up and make up tank but without piping	LPD	20,000.00	210.00	4,200,000.00
	CCTV SYSTEM				
11.0	Supplying, Installation, testing and commissioning of IP based CCTV system for building security comprising of PTZ, fixed camera, cabling, recording, display system and hardware and software support (GF only).	Sqm	3,040.00	300.00	912,000.00

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Ref. PAR-2012	Item Description	Unit	Quantity	Rate	Amount
	ACCESS CONTROL SYSTEM				
12	Supplying installation testing and commissioning of Access control system for building security comprising of Controller, E&M locks, Reader, Smart cards, cabling, recording, display system and hardware and software support (GF only).		3,040.00	200.00	608,000.00
	BUILDING MANAGEMENT SYSTEM				
	Supplying installation testing and commissioning of Building management system etc. cabling, recording, display system and hardware and software support.				
13.1	Built up area upto 10000 sqmt	LS	1.00	3,000,000.00	3,000,000.00
13.2	Add Extra for built up area beyond 10000 sqmt	Sqm	6,900.00	100.00	690,000.00
	TOTAL OF E & M WORKS (G):				44,903,800.00
	TOTAL COST OF PAR WORKS:				595,223,607.04
8.0	MISCELLANEOUSnon par ITEMS				
8.1	Extra for EPABX System				1,500,000.00
8.2	Solar Power street Lighting	Nos.	30.00	60,000.00	1,800,000.00
8.4	Pump set from Underground Tank to overhead tank with water level indication, automatic pumping with solenoid operated complete item	No.	5.00	500,000.00	2,500,000.00
8.6	Supplying Installation Testing and commissioning of 4 pair unshielded twisted Cat 6 Cable (unarmoured) cable for data, telephone, CCTV, Access Control	Rmt	5,000.00	100.00	500,000.00
	TOTAL (H)				6,300,000.00
9	MOVABLE FURNITURE				
9.1	Married Students & Faculty:	No.	250.00	70,000.00	17,500,000.00
	2 Beds @ 7,500/- Each				
	2 Side tables 2,500/- Each				
	Sofa @ 15,000/- Each				
	1 Centre Table @ 5,000/- Each				
	2 Chairs @ 5,000/- Each				
	Study Table @ 5,000/- Each				
	Dining Table @ 15,000/-				
	Total @ 70,000/- Each Accommodation				
	TOTAL OF FURNITURE (I)				17,500,000.00

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Site Development & Other Work:

- 1 Levelling
- 2 Earth Filling as required
- 3 Internal Roads and paths
- 4 Sewer
- 5 Filter Water Supply
- 6 Distribution lines 100 mm dia and below
- 7 Unfiltered water supply distribution lines
- 8 Storm Water Drains
- 9 Horticulture operations
- 10 Street lighting: with HPSV Lamps
- 11 with sign board I/c electric signange
- 12 Existing Building Work
- 13 Boundary Wall
- 14 Campus Security & Campus Wi - Fi System


30.01.14

Rajesh Arora
General Manager (Engg.)
H.B.C.C. Ltd.
Uttarakhand Works, Roorkee

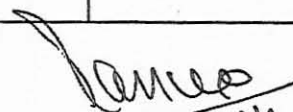

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SUMMARY OF COST OF
PROPOSED SITE DEVELOPMENT WORK AT IIT ROORKEE, GREATER NOIDA

S. NO.	DESCRIPTION	Annexure	RATE	AMOUNT (Rs. In Lacs)
1	SITE DEVELOPMENT	Annexure - A		36,926,411.50
		Sub Total		36,926,411.50
2	Add Cost Index @ 8%		8.0%	2,954,112.92
3	NET COST OF PROPOSED PAR WORKS:			39,880,524.42
4	OTHER WORK	Annexure - C		19,201,155.99
5	Existing Building Works	Annexure - D		10,700,000.00
	TOTAL COST OF PAR & NON PAR WORKS:			69,781,680.41
6	ADD FOR CONTINGENCIES @ 3%		3%	2,093,450.41
	TOTAL:			71,875,130.82
7	ADD NBCC AGENCY CHARGES @ 10%		10%	7,187,513.08
	GRAND TOTAL:			79,062,643.90
	SAY (Rs. In LACS)			791.00

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 30.01.14
 Rajesh Arora
 General Manager (estd)
 N.B.C.C. Ltd.
 Member of Works, Roorkee

Annexure - A

6.0	SITE DEVELOPMENT & LANDSCAPING				
	Total Plot Area	Sqm	41,490.35		
6.1	Levelling	Sqm	41,490.35	95.00	3,941,583.25
6.2	Internal Roads and paths	Sqm	41,490.35	145.00	6,016,100.75
6.3	Sewer	Sqm	41,490.35	110.00	4,563,938.50
6.4	Filter Water Supply				
6.4.1	Distribution lines 100 mm dia and below	Sqm	41,490.35	80.00	3,319,228.00
6.4.3	Unfiltered water supply distribution lines	Sqm	41,490.35	45.00	1,867,065.75
6.5	Storm Water Drains	Sqm	41,490.35	85.00	3,526,679.75
6.6	Horticulture operations	Sqm	41,490.35	80.00	3,319,228.00
6.7	Street lighting				
6.7.3	with HPSV Lamps	Sqm	41,490.35	165.00	6,845,907.75
6.7.4	with sign board I/c electric signange	Sqm	41,490.35	85.00	3,526,679.75
F	TOTAL (F)				36,926,411.50

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30.01.14
Rajesh
General Manager
N.E. Division
Uttarakhand Works, Rohtak

Annexure "C"

Other Works

S.No.	Description	Unit	QTY	Rate	Cost in Rs
1	Earth Filling	Cum			10000000.00
2	Rain Water Harvesting	Nos	2	400000.00	800000.00
3	Boundary Wall (Annexure "E")				8001155.99
4	Tubewell	LS			400000.00
					19201155.99

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30.01.14

Rajesh Arora
General Manager (Plant)
M.B.C. Ltd.
Uttarakhand Traders, Rohtak

Annexure "D"

Additional Facility for Existing Academic Building & Faculty Hostel

S.No.	Description		Cost in Rs Phase-II
1	Civil, Electrical & Plumbing Work	L.S.	2500000.00
2	Laundry Equipment	L.S.	1250000.00
3	Ventilation System for Faculty Hostel (Toilet & Kitchen)	L.S.	2500000.00
5	Development & Horticulture Work on the Outside Road & Parking (Bus & Car)	L.S.	1250000.00
6	Campus Security System (2-cctv , 50 Camera)	L.S.	1200000.00
7	Wi-Fi System	L.S.	2000000.00
	Total Cost		10700000.00

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30-01-14
 Rajesh Arora
 General Manager (Ops)
 N.E.C.C. Ltd.
 Uttarakhand Works, Rohtak