



AGENDA FOR 2nd MEETING OF BUILDING & WORKS COMMITTEE

AUGUST 27, 2004



**NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA-136119**

**AGENDA FOR 2ND MEETING OF BUILDING & WORKS
COMMITTEE**

VENUE: INSTITUTE BOARD ROOM

DAY : FRIDAY

DATE : AUGUST 27, 2004

TIME : 11.00 AM

**NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA-136 119**

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CONSTITUTION OF BUILDING & WORKS COMMITTEE

1. Dr. S N Mahendra
Director,
National Institute of Technology,
Kurukshetra. Chairperson
2. Sh. B S Jain,
Director, Technical Education Haryana,
SCO No. 38-39, Sector 17-A
Chandigarh. Member
3. Dr. G L Jambhulkar,
Deputy Educational Advisor(NITs),
Govt. of India, Ministry of Human Resource Development,
Department of Secondary & Higher Education,
Shastri Bhawan, New Delhi. Member
4. Dr. K Subramanian
Advisor-1, AICTE (BOG nominee on BWC),
Indira Gandhi Sports Complex, I.P. Estate,
New Delhi-110002. Member
5. Er. A K Jhamb AGM,
(Civil & electrical Wing)
NBCC (Ltd.) Tower,
Plot No. 4, Sector-14,
Semant Bihar,
Kaushambi
Ghaziabad (UP) Member
6. Representative of PWD (B&R), Civil Wing,
Office of Engr-In-Chief, PWD(B&R),
Sector 19B, Chandigarh Member
7. Dr. Krishna Gopal, Dean (P&D),
NIT, Kurukshetra Member
8. Dr. R C Bhattacharjee,
Prof. I/C(Estate & Constn.)
NIT, Kurukshetra. Invitee
9. Sh. Vijay Malik
Architect, Planners Group,
SCO. 4, 1st Floor, Sector 17E,
Chandigarh Invitee
10. Sh. R P S Lohchab
Registrar,
NIT, Kurukshetra. Member-Secretary

Item No. 2.1

To confirm the minutes of the 1st meeting of the Building & Works Committee held on 8.11.2002

The minutes of 1st meeting were circulated amongst the members vide No. EO/1st BWC/7193-7203 dated 15.11.2002. No comments were received from any member. The minutes may, therefore, be confirmed.

Item No. 2.2

To report the action taken on the minutes of the 1st meeting of Building & Works Committee (BWC) held on 8.11.2002

Item No.	Subject	Decision taken	Action taken
1.1	To consider the minutes of the 21 st meeting of the BWC held on 18.9.2001.	Minutes confirmed	No action is required.
1.2	To report the action taken on the minutes of the 21 st meeting of the BWC held on 18.9.2001.	<p>The Committee noted the action taken on various decision taken by BWC.</p> <p>Item (14.3 & 15.2). The Chief Engr. PWD (B&R) was requested to expedite the installation of separate tube well for PWD Colony.</p> <p>Item (17.7) The BWC approved the constn. of New Labs for the emerging areas in different disciplines with an estimated amount of Rs. 128.38 lacs.</p> <p>Item(17.9&1.8): The BWC approved the constn. of Extn. Block of Institute Guest House Building with RRCE amounting to Rs. 34.94 lacs.</p> <p>Item(17.14): The BWC approved the proposal</p>	<p>Tube well has not been installed by the PWD as yet and the matter is to be pursued by the Department of Haryana, PWD(B&R).</p> <p>A separate Item for revision of cost is being put up vide item No. 2.4.</p> <p>The work is completed and is being taken over soon.</p> <p>Work is complete and taken over.</p>

		<p>for the constn. of Shopping Centre-cum-Bank and Post office Buildg. at an estimated cost of Rs. 41.93 lacs.</p> <p>Item(18.4) The BWC approved the RRCE amounting to Rs. 14.95 lacs for construction of OHSR and Rs. 6.41 lacs for constn. of T.W. No.7.</p> <p>Item(18.8) The BWC approved the RCE amounting to Rs. 10.05 lacs for Storm Water Drains and Garbage Bins in the Institute campus.</p> <p>Item (19.3) The BWC approved the RCE amounting to Rs. 167.62 lacs for constn. of 6 Nos. Lect. Theatres.</p> <p>Item (19.4)The BWC approved the RCE amounting to Rs. 221.80 lacs for Constn. of a Gymnasium Hall in the Institute.</p> <p>Item (19.5 & 19.6) The BWC approved the RCE amounting to Rs. 90.72 lacs & 44.73 lacs respectively for constn. of Conference Hall-cum-Retiring / Refreshment Room for Day Scholar in the Institute.</p> <p>Item (19.7) The BWC approved the RCE amounting to Rs. 135.80 lacs for constn. of 7Nos. new labs in Mech. Engg. Dept. and</p>	<p>Work is complete. A separate item is being put up vide item No.2.5.</p> <p>Work in progress.</p> <p>Constn. of 6 Nos. Lecture Theatres is complete and these are in use. Link Corridor is under construction.</p> <p>Funds awaited</p> <p>Work is in progress. A separate item for revision of cost is being put up vide item No. 2.6.</p> <p>Work is in progress. A separate item for revision of cost is being put up vide item No. 2.9.</p>
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		<p>2Nos.labs. in Computer & Ec. Engg. Dept.</p> <p>Item (19.8) The BWC approved the RCE amounting to Rs.46.24 lacs for the Provision of False Ceiling & Acoustic Treatment in Jubilee Hall.</p> <p>Item (19.9) The BWC approved the RCE of Rs. 18.31 Lacs for provision of Special Repair of Roads in REC Campus (out of College Development Fund).</p> <p>Item (19.10) The BWC Approved the RCE amounting to Rs. 30.26 lacs for Renovation of Existing Reflection Tank.</p> <p>Item(19.11)The BWC approved the RCE of Rs.125.85 lacs for the provision of Glazed Tiles in Hostels, Guest House & Residences (Toilets & Kitchens) and Instructional Buildings (Toilet).</p> <p>Item (19.12) The BWC approved the RRCE amounting to Rs. 78.56 lacs for constn. of 20Nos. F-type(600 Sft.) Residences for Class-III Employees.</p> <p>Item (19.14)The BWC approved the RCE amounting to Rs. 10.67 lacs for Renovation of Elect. installations in Hostel No. 4 & 5, Instructional Buildings & Resi. Buildgs. in the</p>	<p>Work is complete and taken over. A separate item for revision of Cost is being put up vide item No. 2.5.</p> <p>Work completed.</p> <p>Funds awaited.</p> <p>Funds awaited.</p> <p>Funds awaited.</p> <p>Work completed.</p>
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		Institute.	
		Item (19.15) The BWC approved the RCE amounting to Rs.18.39 lacs. for the constn. of Training & Placement Department in the Institute.	Funds awaited.
		Item(19.18) The BWC approved the rough Cost estimate amounting to Rs. 5.00 lacs for carrying out Renovtn/Special repairs of Lawns in the College.	Funds received. Work is under progress. A separate item is being put up vide item No. 2.31 amounting to Rs. 16.86 lacs.
		Item (19.19&1.10) The BWC approved the RRCE amounting to Rs. 30.00 lacs for carrying out Renovtn/Special repairs of Hostels and residences.	Rs. 10.00 lacs released during 2000-2001, Rs. 5.00 lacs in 2001-02, Rs. 10.00 lacs in 2002-03. & Rs. 5.00 lacs in 2004-05 and a separate item is being put up vide item No.2.32 amounting to Rs. 66.76 lacs.
		Item (20.3) The BWC approved the RCE amounting to Rs.19.28 lacs for PCC Approach Path to the residences.	Rs. 19.28 lacs released during 2001-2002 & 2003-04. Work is nearly under completion & a separate item is being put up vide item No2.10.
		Item(20.4) The BWC approved the RCE amounting to Rs.32.53 lacs for the construction of 32 No. Garages in Various Residences in the Campus.	Rs. 10.00 lacs is being released during Financial Year 2004-2005.
		Item (20.5) The BWC approved the RCE amounting to Rs.6.41 lacs for the provision of front compound wall in E & F type Residences in the Institute.	Work is complete. Liabilities amounting to Rs 0.23 lacs are pending.

1.3	To consider and approve the RRCE for Construction of	Item (16.5 & 20.7) The BWC approved the RRCE amounting to Rs107.91 lacs for the Extn. of Lib. Building.	Work is complete & taken over.
		Item (16.9 & 20.9) The BWC approved the RRCE amounting to Rs35.95 lacs for the Construction of Bearer Barracks.	-do-
		Item (17.16, 20.11 & 1.9) The BWC approved the RRCE amounting to Rs. 64.15 lacs for constn. of Community Centre in Institute.	Funds awaited.
		Item (20.13) The BWC approved for auctioning the existing Gas Plant and to convert it into Canteen/any other utility.	BOG approved this item. Process of auction is in progress.
		Item (20.14) The BWC advised the PWD(B&R) to refer the case of unauthorised Diversion of College Plan grant by PWD (B&R) for the settlement of account of Sh. S R Aggarwal. NIT, Kurukshetra. for re-examination.	No response from PWD (B&R) so far.
		Item (21.3) The BWC approved the proposal for engagement of M/s National Buldg. Corporation Ltd. for the new construction work in NIT, Kurukshetra.	Most of the works have been allotted to NBCC Ltd. And their performance is satisfactory.
		Item (21.4 & 1.3) The BWC approved the RRCE amounting to	Rs. 216.65 lacs allotted during 2002-03 & Rs. 81.18 lacs during 2003-3004. The work

	Additional (200 seater) New Girls Hostel instead of (150 Seater) Girls Hostel NIT, Kurukshetra.	Rs. 293.83 lacs for the addl. 200 seater Girls Hostel in NITK	is under Progress. A separate item is being put up vide item No.2.12.
1.4	To consider and approve REC for the Construction of (350 Seaters) Boys' Hostel in NIT, Kurukshetra	The BWC approved the RCE amounting to Rs. 593.38 lacs for the Construction of (350 Seaters) Boys' Hostel in NIT, Kurukshetra.	Funds awaited.
1.5	To consider and approve the Constn. of Front Compound Wall in G-type houses in NIT, Kurukshetra.	The BWC approved the RCE amounting to Rs. 3.95 lacs for the Construction of Front Compound Wall in G-type houses in NITk.	Work is complete and taken over. Liabilities of Rs. 0.14 lacs are pending.
1.6	To consider and approve the RCE for Construction of External Boundary Wall of the NIT, Kurukshetra.	The BWC approved the RCE amounting to Rs. 59.92 5lacs for the Construction of External Boundary Wall of the NIT, Kurukshetra.	Funds received during 2003-04. A separate item is being put up vide item No. 2.14.
1.7	To consider and approve the RCE for provision of Renovation of toilets in the Instructional Builgs i/c replacement of PH fittings in NIT, Kurukshetra.	The BWC approved the RCE amounting to Rs. 10.65 lacs for provision of Renovation of toilets in the Instructional Builgs i/c replacement of PH fittings in NIT, Kurukshetra.	Work completed and taken over soon.
1.8	To consider and approve the RRCE for extension block of Guest House Bulg. (i/c Renovation of existing Guest House Bldg), in NIT, Kurukshetra.	The BWC approved the RCE amounting to Rs. 34.95 lacs for extension block of Guest House Buildg. (i/c Renovation of existing Guest House Bldg), in NIT, Kurukshetra.	Work is complete and likely to be taken over.
1.9	To consider and approve the RRCE for Constn. of Multi Purpose Room (Community Centre) in the NITk	The BWC approved the RCE amounting to Rs. 64.15 lacs for Constn. of Multi Purpose Room (Community Centre) in the NITK	Funds awaited.

1.10	To consider and approve the RRCE for provision of Special Repair of Hostel, Instructional Buildings and Residences, NIT, Kurukshetra.	The BWC approved the RRCE amounting to Rs. 30.00 lacs for provision of Special Repair of Hostel, Instructional Bldgs. and Residences, NIT, Kurukshetra.	Work is in progress. A separate item is being put up vide item No. 2.15.
1.11	To consider and approve the Construction of Parking shed for vehicles at different places in NITK	The BWC approved the RRCE amounting to Rs. 5.00 lacs for Construction of Parking shed for vehicles at different places in NITK	Work is under progress and a separate item is being put up vide item No. 2.7
1.12	To consider and approve the RCE for Replacement of ACC sheets and provision of IRC fabrics in Workshop Block etc., NIT, Kurukshetra	The BWC approved the RCE amounting to Rs. 3.00 lacs for Replacement of ACC sheets and provision of IRC fabrics in Workshop Block etc., NIT, Kurukshetra.	Work is in progress and a separate item is being put vide item No. 2.8
1.13	To consider and approve Rough cost estimate for provision of PCC hard standing and path for parking vehicles in front of shopping centre-cum-Bank and Post office Building in NIT, Kurukshetra.	The BWC approved the RCE amounting to Rs. 9.78 lacs for provision of PCC hard standing and path for parking vehicles in front of shopping centre-cum-Bank and Post office Building.	Work is completed and taken over.

Item No. 2.3 **To consider & approve the RRCE for Re-construction of damaged/cracked/tilted Compound walls.**

Many of the compound walls of the old residences got damaged or tilted over the period of time. The Building & Works Committee approved an estimated cost of Rs. 31.822 lacs for re-construction of these damaged walls. The scope of the work in some cases had to be changed during the execution, thus increasing the estimate. The revised estimate of Rs. 53.23 lacs as received from PWD(B/R) was approved by Building & Works Committee vide item No. 19.17. The entire amount was received by 2000-2001. However, the PWD (B/R) has claimed an additional amount of Rs. 5.09 lacs to make the total estimate to Rs. 58.32 lacs which was approved provisionally by The Chairman, BWC in anticipation of approval of B&WC. The entire amount was received during 2003-2004.

It is, therefore, requested that the BWC may consider and approve the above proposal with an estimated cost of Rs. 58.32 lacs

ABSTRACT OF COST

S.No.	Qty.	Description of Item	Rate	Unit	Amount in Rs.
1.	1No.	Revised spl. repair estimate for the construction of damaged/cracked/tilted compound walls in the residential houses in the campus of NIT, Kurukshetra	-	-	56,74,100/-
		Add 1 ½ % contingencies, P.E. charges and 1% testing charges of material			1,41,852/-
		Total Rs.			58,15,952/-
		Add 14% departmental charges			8,14,233/-
		Total Rs.			66,30,185/-
		D/d credit of old material			(-) 7,98,520/-
		Balance			58,31,665/-
		Say Rs.			58.32 lacs

Sd/-
Executive Engineer
Provincial Division No. II
Ambala Cantt.

Sd/-
Sub Divisional Engineer,
Ambala Provincial Sub Divisu.No.I,
PWD (B&R),
Ambala Cantt

Item No. 2.4 **To consider & approve the RRCE for Costn. of New Laboratories for the
Emerging Areas in Different Disciplines**

The Building & Works Committee approved the construction of following laboratories as a part of expansion of academic programs:

1. **CIVIL ENGINEERING DEPTT:**
 - (a) Non-Destructive-cum-Motion Measurement Lab.
 - (b) Environmental Engg.-cum-Advanced Water Resources Engg. Lab.
2. **MECHANICAL ENGG. DEPTT:**
 - (a) Tribology Lab.
 - (b) CAD/CAM & Robotics Lab.
 - (c) Advanced Welding Lab.
 - (d) Production Engg. Lab.
3. **ELECTRICAL ENGG. DEPTT:**
 - (a) High Voltage Lab.
 - (b) Instrumentation Lab.
4. **COMPUTER ENGG. DEPTT:**
 - (a) Information Technology Lab.
 - (b) Computer Vision Lab.
 - (c) Advance Computing Lab.
5. **ELECTRONICS ENGG. DEPTT:**
 - (a) Circuit simulation Lab.
 - (b) Audio/Video Engg. Lab.

The Building & Works Committee approved a rough cost estimate of Rs. 128.38 lacs for the construction of 2932 Sqm of area for the above laboratories in the form of extension of existing departmental blocks. The work is almost complete. The whole estimated amount was received by 2000-2001. However, for the purpose of connecting these blocks with the existing ones with same architectural view, the scope of work in terms of covered area increased to 3394.95 Sqm i.e. about 15.7% more, besides addition of scope of PH work and connecting corridor etc. Hence, PWD (B/R) has submitted a revised estimate of Rs. 160.67 lacs leaving a balance of Rs. 32.29 lacs. The Chairman, BWC provisionally approved this estimate in anticipation of approval of B&WC and a sum of Rs. 32.29 lacs was released by Government of India during the Plan year 2003-2004.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 160.67 lacs.

**Revised Rough Cost Estimate for the Extension of Academic Blocks Buildings of Elect. Mech. & Civil & Applied Mech. Engg. in
NIT, Kurukshetra**

Sr. No	Description of Item	As per approved R/C Estimate			As per Revised Rough Cost Estimate		
		Qty. in sqm.	Rate Rs. per sqm.	Amount in Rs.	Qty. in sqm.	Rate Rs. per sqm.	Amount in Rs.
1	Extension of Electrical Block A) Ground Floor i) Single Height ii) Double Height B) First Floor C) Second Floor	131.25 140.55 131.25 271.81	3500/- 3550/- 3200/- 3550/-	4,20,000/- 4,98,952/- 4,20,000/- 9,64,925/-	173.28 185.64 173.78 295.95	3500/- 3750/- 3500/- 3500/-	6,08,230/- 6,96,150/- 6,08,280/- 10,35,825/-
			Total Rs.	23,03,877/-			
2.	Extension of applied Mech. & Mech. Engg.	678.35	3200/-	21,70,720/-	679.12	3500/-	33,76,920/-
3.	Extension Civil Engg. Block	431.67	3200/-	1,381,344/-	431.67	3500/-	15,10,845/-
4.	Computer Centre A) Ground Floor B) First Floor	380.05 907.17	3200/- 3200/-	12,16,160/ 29,09,244/-	433.89 1021.62	3500/- 3500/-	15,18,615/- 35,75,670/-
			Total Rs.	41,19,104/-		Total Rs	
5.	Construction of CC paved app. Road	-	-	-	175.76	500/-	87,880/-
6.	Provision for providing connectivity/ partition wall in existing block	-	-	-	Provision	L.S.	2,00,000/-
7.	Provn. for renovatn. of toilet in existing Elect. Block	-	-	-	Provision	L.S.	1,00,000/-
			Total Rs.	99,75,045/-			1,23,18,415/-
	SERVICES						
8.	Provision for providing E.I. internal Services	-	-	9,97,808/-	-	-	11,93,049/-
9.	Provin for providing PH internal & Estate Services	-	-	-	-	-	3,75,334/-
			Total Rs.	109,72,853/-		Total Rs.	138,86,798/-
				-			-
	Add 17% Departmental & Arch.Charges			18,65,385/-	Add 7% Deptt. Charges		21,80,227/-
			Total Rs.	128,38,258/-		Total Rs.	160,67,025/-
			Say Rs.	1,28,38,000/-	Say	Rs. 1,60,67,000/-	

Sd/-
Executive Engineer

Item No. 2.5 **To consider & approve the RRCE for Acoustic Treatment in Jubilee Hall**

For proper utilization of Jubilee Hall, the acoustic treatment alongwith the false ceiling was proposed to be provided in the Jubilee Hall. Further, to make the complex suitable for dramatic use, special lighting effects, side wings and front screen on the stage were to be provided, besides provision of wooden flooring on the stage. The BWC approved this work amounting to Rs. 46.24 lacs vide item No. 19.8 held on 5.10.2000. The entire amount was received from Government of India during the financial year 2000-2001. This specialised work was allotted to National Buildings Construction Corp. Ltd.(NBCC) and the work has been completed. However, to make the hall further versatile, it was fully Air-Conditioned and very high resolution (4100 ANSI LUMENS) LCD projection facility was introduced besides replacing the existing Blow-Plast chairs by Godrej Audi-2 chairs in 1st 5 rows. For the better functionality, some more changes were done during the execution, e.g. in the main electric panel the auto changeover has been replaced by manual changeover; MCCBs for lighting DBs were changed with ELCBs; rating for UHBVN incomer has been changed from 250A to 100A; stage flooring from costly synthetic laminated wood to cheaper and natural parquet flooring; foyer flooring changed from Kota stone to Nitco tiles; all the 6 Nos. toilets renovated instead of partial renovation of 4 Nos. toilets; all the existing blow plast chairs were reconditioned; and some more minor changes. Due to the additional and slight deviation of scope of work the revised final expenditure as intimated by NBCC was Rs. 57.837 lacs. The revised final estimate was provisionally approved by the Chairman, in anticipation of approval of BWC. The entire amount was released by Govt. of India by 2003-2004 and the work was completed. However, an additional sum of Rs.0.83 lacs was spent for the provision of heating elements and associated accessories in the A.C. system, which was not included in the original estimate. This additional estimate was approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. The additional requirement of Rs. 0.83 lacs has been sanctioned by Govt. of India in the Plan year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 58.66 lacs

Revised Cost estimate for Provision of Acoustic and False ceiling for Seminar Hall (Jubilee Hall)

The Approved costs of various components of the works are: --

SR. NO.	DESCRIPTION	TOTAL COST REVISED
1	CIVIL WORKS	1972393.00
2	ELECTRICAL WORKS	767239.30
3	STAGE LIGHTING & SOUND SYSTEM	738906.00
4	AIRCONDITIONING WORKS	1054975.00
5	LCD PROJECTOR, O.H.P., UPS etc.	568893.00
6	GODREJ CHAIR	85000.00
7	PODIUM	5000.00
		<hr/>
		5192406.30
	Contingency Charges 1.26%	65424.32
		<hr/>
		5257830.62
	NBCC Charges 10%	525783.06
		<hr/>
	TOTAL	5783614.68

Rate

The rate quoted by the contractor has been taken in estimate. Also the rates of substituted / additional items have been derived as per rules & got approved from our competent authority.

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

INTERIOR WORKS OF AUDITORIUM

SR. NO.	DESCRIPTION	TOTAL COST REVISED
1	CIVIL WORKS	1972393.00
2	ELECTRICAL WORKS	767239.30
3	STAGE LIGHTING & SOUND SYSTEM	738906.00
4	AIRCONDITIONING WORKS	1054975.00
5	LCD PROJECTOR, O.H.P., UPS etc.	568893.00
6	GODREJ CHAIR	85000.00
7	PODIUM	5000.00
8	HEATING SYSTEM	75000.00
		<hr/>
		5267406.30
	Contingency Charges 1.57%	65424.32
		<hr/>
		5332830.62
	NBCC Charges 10%	533283.06
	TOTAL	<hr/>
		5866113.68

Say Rs. 58.66 lacs

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

Item No. 2.6 To consider & approve the RRCE for Conference Hall-cum-Refreshment room for Day-Scholars

The Institute organizes conferences, seminars, workshops etc. very frequently covering various disciplines. At present there is no Conference Hall in the Institute, thus causing a severe hardship during such occasions. Hence, it was proposed to construct a conference hall with a capacity of 125 (447 Sqm) equipped with false ceiling, acoustic treatment and modern Audio Visual amenities; and a refreshment Hall that would cater the need of day scholars as well as delegates attending Conferences. The BWC approved this composite work with an estimated rough cost of Rs.90.72 lacs and Rs 44.73 lacs (i.e. a total of Rs. 135.45lacs) vide item No. 19.5 and 19.6 respectively. The refreshment room meant for the Conference Hall as well as day scholars covering 447 Sqm being the composite part of the building was constructed at the ground floor of the Conference Hall. An amount of Rs.90.72 lacs was released by Govt. of India during the financial year 2001-02 and the balance amount of Rs. 44.73 lacs was released during the Plan Year 2002-2003. The above estimates were framed by PWD (B/R) considering load bearing walls. However, the construction of the building was done on frame structure with raft foundation due to treacherous soil conditions prevailing at site. Besides, keeping in view the recent upgradation of this Institute by the Ministry of Human Resources Development, and possibility of future expansion, the layout has been redrawn commensurate to the University standard. Thus, the total area was worked out at 1376 Sqm instead of 894 Sqm as envisaged in the earlier estimate. Further, the Conference Hall was proposed to be equipped with Split type A.C.; False ceiling & acoustic treatment; furniture with Godrej chairs; audio visuals including LCD projector (4100 ANSI LUMENS), OHP, Audio conferencing kit for chairperson and full strength delegates, Laptop connectivity for delegates; and P.A. system for the chairperson. Thus, the cost increased by about 25%. To bring down the cost within a reasonable limit, some of the above provisions were curtailed e.g. false ceiling in canteen part, connecting passage, Laptop connectivity for delegates, LCD projector, and some ornamental provisions. However, to make the conference Hall fully operational, it is has been decided to shift two Nos. LCD projectors from the newly constructed lecture theatre complex (out of 2 Nos. provided there) to the Conference Hall for the time being. On the basis of above exercise, the revised cost for the above work was worked out at Rs. 148.80 lacs as received from NBCC. The revised estimate was provisionally approved by the Chairman, BWC, in anticipation of approval of BWC. The entire amount was received from MHRD by 2003-2004. However, on completion of the job, it was observed that the low power LCD projector (1100 ANSI lumen) is not suitable for clear projection on the screen. Hence, a high resolution LCD projector may be required to be installed in the Conference Hall.

Besides, some more works to be done before putting the building into service, e.g. E I external services, one fountain in the front, furniture for crash Hall, Office etc. beautification of canteen roof etc. etc. To make some of the above provisions, an additional sum of Rs. 10.00 lacs is required, which was approved by the Chairman, Building & Works Committee. , in anticipation of approval of BWC. The Govt. of India sanctioned Rs. 10.00 lacs for the above purpose during 2004-05 so that the work can be completed and taken over.

The BWC may consider and approve the revised estimate of Rs. 158.80 lacs as stated above.

<u>ABSTRACT OF COST</u>		RS. IN LAKHS
APPROVED COST	148.80	
REVISED COST		
<u>CIVIL WORK</u>		
SCHEDULE ITEMS		6032178.14
NONSCHEDULE ITEMS		843528.75
ADDITIONAL ITEMS		1531371.11
<u>P H E</u>		
SCHEDULE ITEMS		288837.84
NONSCHEDULE ITEMS		102320.70
ADDITIONAL ITEMS		14000.00
<u>ELECTRICAL WORK</u>		
SCHEDULE ITEMS		120348.79
NONSCHEDULE ITEMS		320791.25
PAVEMENT		445256.74
AC INSULATION		929118.00
ACOUSTIC FURNITURE		1343647.50
GODREJ CHAIR		671935.00
AUDIO VISUAL		634000.00
ADDITIONAL AUDIO		264000.00
VISUAL		
HEATING SYSTEM		45000.00
LCD PROJECTOR		543000.00
		14129333.82
CONTINGENCY		235269.84
		14364603.66
NBCC CHARGES @ 10%		1436460.37
Miscellaneous		79000.00
TOTAL		15880064.03

Gross Total 158.80 Lacs

Revised Estimate for Conference Hall cum refreshment room for day scholars

History: The approved cost is Rs. 148.80 Lakhs which are as under:-

A Civil works

a) Schedule Items	Rs 6032178.14
b) Non schedule Item	Rs. 843528.75
c) Additional/ substitute item	Rs 1531371.11

B. P.H. works

a) Schedule Items	Rs 288837.84
b) Non schedule Item	Rs. 102320.70
c) Add. / Substitute Item	Rs 14000.00

C. Electrical Work

a) Schedule Item	Rs 120348.79
b) Non Schedule Item	Rs 320791.25

D. Pavements

Rs 445256.74

E. Air conditioning Work

Rs 929118.00

F. Accoustic & Furniture

Rs 1259750.00

G. Godrej Chair

Rs. 590450.00

H. Audio Visual

Rs 673571.20

I. Link corridor upto plinth

Rs 140558.79

Total

13292081.31

Contingencies 1.77%

235269.84

Total

13527351.15

NBCC Charges 10%

1352735.11

Total

Rs. 14880086.26

Say Rs. 148.80 lacs

**Sd/-
Project Manager,
NBCC**

Item No. 2.7 To consider & approve the RRCE for Construction of Parking sheds

For the purpose of providing low cost fibre glass mounted parking sheds around the Instructional and Administrative buildings, a sum of Rs. 5.00 lacs was provided by Govt. of India for 30m Nos. parking shed during the financial year 2002-2003. The proposal was approved by the Building & Works Committee vide item No. 1.11. The revised estimates for 30 Nos. sheds, already constructed around the instructional buildings, was worked out at Rs. 6.345 lacs which was approved provisionally by the Chairman, in anticipation of approval of BWC. Keeping in view the usefulness and additional requirement of these parking sheds a further amount of Rs. 10.11 lacs was allotted by MHRD for the construction of about 40 Nos. more such parking sheds around the instructional buildings and hostels. The whole amount of Rs. 15.11 lacs was received during 2003-04.

It is, therefore, requested that the BWC may consider and approve the RRCE above of Rs. 15.11 lacs for the construction of 40 Nos. parking sheds.

ESTIMATE FOR PARKING SHED AT NIT, KURUKSHETRA

SR. NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Providing and fixing parking shed 3.20M x 4.85 M dimension on plan as per sketch attached made out of 100 mm dia vertical pipe and 50x20mm M.S. Rectangular Tube (16 SWG) including side cover or back cover whenever required including painting all steel portion by one coat of steel primer and two coats of synthetic enamel paint 1 st Quality, Top cover with Fibre glass sheet any colour of 400 gms/SFT of make "Gold water" or equivalent, including breaking of existing P.C.C. excavation and 1:2:4 concrete size 0.45 m x 0.45 m x 0.60 m deep and disposal of surplus earth, debris etc Including all nut and bolt etc all complete. Shed		40	34753.00	1390120.00
					1390120.00
				NBCC CHARGE @ 8%	111209.60
				TOTAL	1511329.60
					Say 15.11 Lacs

Item No. 2.8

To consider & approve the RRCE for Replacement of ACC sheets and provision of IRC fabrics in Workshop Block

The age-old ACC sheets provided in the Workshop block have outlived their lives, thus needing replacement. Similarly, some IRC fabrics are to be provided in the glazing portion preventing possible theft and intrusion of birds. It was, therefore, proposed to replace some of the ACC sheets as well as provide IRC fabrics in the Workshop Block at an estimated cost of Rs. 3.00 lacs. The proposal was approved by the Building & Works Committee vide item No. 1.12. The estimated amount of Rs. 3.00 lacs was release by Govt. of India during the financial year 2002-2003. The work is in progress. However, due to increase in scope of work, the revised estimate as received from NBCC amounting Rs.5.732 lacs was approved provisionally by the Chairman, BWC in anticipation of approval of BWC. The balance amount of Rs.2.732 lacs was released by MHRD during the financial year 2003-2004. However, some more portions of the Workshop needs replacement of old ACC sheets as well as provision of false ceiling in some labs. housed in the workshop block. For this purpose, an additional sum of Rs. 10.00 lacs is requircd. This estimate was approved by the Chairman, BWC in anticipation of the approval of BWC. The above estimate has been accepted by Govt. of India and a sum of Rs. 5.00 lacs is being released during 2004-2005.

It is therefore, requested that the BWC may consider and approve the RRCE of Rs. 15.73 lacs for the above purpose.

Replacement of ACC Sheet in workshop

Total No. of Damaged A.C.C. Sheet → 190 Nos

(3Mx1M)

Item : 13.20 HSR

→ 570sqm @ (73.50 + 100% CP)

Rs. 147/-sqm = 83790.00

Add escalation due to increase in cost

of material & labour during last 1 year 5% = 4189.50

= 87979.50

Add NBCC Charges 8% = 7038.36

= 95017.86

Say 0.95 Lakhs

Provision of IRC Fabric (Welded Mesh) in Workshop

Estimated Cost Analysis For 3.00x1.75M = 5.25sqm

M.S. Angle 50x50x6 → 9.5M @ 4.50kg/m → 42.75

40x40x4 → 10.0M @ 2.40 kg/m → 24.00

66.75 kg

Wastage 5% 3.34

70.05 kg @ 28.00 1961.40

IRC fabric 1.75x3.00 = 5.25 sqm

(75x25x3.25 dia wire) 0.2625 sqm

5.5125 sqm @ 160.00/sqm 882.00

Synthetic Enamel Paint L.S. 300.00

Erection/□caffolding L.S. 275.00

Welding to existing Truss & nut & bolt system L.S. 350.00

3768.40

CP & OH 15% 565.26

4333.66

∴ Cost per sqm = $\frac{4333.66}{5.25}$

= Rs. 825.46/sqm

Total Cost → 1655.00Sqm @ 825.46 = Rs. 1366136.30

Add NBCC Charges 8% 109290.90

Rs. 1475427.00

Miscellaneous Rs. 98000.00

Rs 1573427.00

Say Rs. 15.73 lacs

Item No. 2.9 **To consider & approve the RRCE for Construction of 7 Nos. New labs. in Mechanical Engineering Department and 2 Nos. labs. in Computer & Electronics Engineering Department**

National Institute of Technology, Kurukshetra has been growing fast keeping in pace with the Global developments in Science and Technology. As a follow up, the Institute has identified the emerging areas in various disciplines where further development is necessary. To fulfil these requirements, various teaching departments viz. Civil Engg., Mechanical Engg., Electrical Engg., Computer Engg. and Electronics & Comm. Engg. have planned to expand/upgrade some of the laboratories in emerging areas. A total of 22 such laboratories were envisaged to be constructed in the Institute. The matter was placed before Building & Works Committee in its 17th meeting vide item No. 17.7. The Building & Works Committee approved the construction of the above 22 Nos. labs. However, in the first phase, funds for the construction of 13 Nos. labs. was sanctioned by the Government of India during the plan year 1999-2000. Thereafter, it was proposed to construct the remaining 9 Nos. laboratories as shown below:

1. **Mechanical Engg. Department**

(i)	Machine Vision Lab	150 sqm
(ii)	Computer Assisted Machine Drawing Hall	200 sqm.
(iii)	Industrial Engg. Lab.	200 sqm.
(iv)	Cryogenic Engg. Lab.	150 sqm
(v)	Combustion Engg. Lab.	150 sqm
(vi)	Adv. Heat & Mass Transfer Lab	200 sqm.
(vii)	Non-conventional Energy Lab.	200 sqm.

2. **Computer Engg. Department**

(i)	Software Engg. Lab.	300 sqm
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3. **Electronics Engg. Department**

(i)	Product Design Lab.	200 sqm.
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The estimated cost for the construction of the above 9 Nos. Labs was worked out to be Rs.135.80 lacs and the Building & Works Committee approved the same in its 19th meeting held on October 5, 2000 vide item No.19.7. These labs have been clubbed together to construct a new block to be occupied by Computer Engg. Deptt. for which no separate block is available at present. The entire amount of Rs.135.80 lacs has been received by 2002-03. However, to make the building functional, it is necessary to provide A.C.s and associated fittings in three of the labs. for which an additional amount of Rs. 12.00 lacs is required. This provision has been approved by the Chairman, Building & Works Committee in anticipation of approval of BWC.

The MHRD, Government of India has sanctioned an additional sum of Rs. 12.00 lacs in the current financial year for the above work..

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 147.80 lacs

**ABSTRANCT OF REVISED COST ESTIMATE FOR COMPUTER LAB
BUILDING AT NIT KKR**

RS. IN LAKHS

APPROVED COST	135.80
REVISED COST	
CIVIL WORK I/C WATER PROOFING WORK/ FRP DOME	121.66
AIRCONDITIONING WORK	7.50
AC PANEL	2.70
ALUMINIUM WORK	0.50
MISC. WORK SUCH AS SEWER LINE STROM WATER LINE	2.00
	<hr/> 134.36
NBCC CHARGE @ 10%	13.44
TOTAL	<hr/> 147.80 <hr/>

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

**To consider and Approve the RRCE for Provision of PCC
Approach Path to the residences**

In National Institute of Technology, Kurukshetra there are about 400 residences for Teaching & Non-Teaching staff. Most of these residences constructed decades back were not provided with approach path. These residences were connected to the metal road with temporary brick paths, which are subjected to settlement and frequent damages besides having growth of grass. It was, therefore, proposed that these residences may be provided with concrete approach path as have been provided in newly constructed houses. Accordingly, the BWC approved the rough cost estimate amounting to Rs.19.28 laes vide item No. 20.3 held on 31.5.2001. The entire amount was released by Govt. of India by 2003-2004 and the work is under completion. However, an additional amount of Rs. 5.00 lacs is required to wind up the work, which has been approved by the Chairman, Building & Works Committee in anticipation of approval of BWC. The balance amount of Rs. 5.00 lacs is being released by MHRD during the financial year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 24.28 lac for the above work.

**REVISED ESTIMATE SUBMITTED BY NBCC LTD. FOR PAVEMENT IN
TOWNSHIP**

Province	-----	Haryana
Distt.	-----	Kurukshetra
Division	-----	NIT Works, Kurukshetra
Name of Work	-----	Pavement in Township
Approved Cost	-----	Rs. 12.28 Lakhs
Revised Cost	-----	Rs. 24.28 Lakhs

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

REVISED ESTIMATE FOR PAVEMENT WORK IN RESIDENCES

1	8.5	Dismantling Brick work, Tile Masonry or Tile Lining & Tile Terracing.				
	(d)	In Mud	Cum	374.33	55.00	20588.15
	(b)	In Cement	Cum	163.29	150.00	24493.50
		(Including sorting & stacking dismantled, material & removing the same within a distance of 100 M)				
2	6.6	Earthwork in excavation in foundations, trenches, etc. in all kinds of soils, not exceeding 2 meters depth including dressing of bottom and side of trenches, stacking the excavated soil, clear from the edge of excavation & subsequent filling around masonry, in 15 cm layers with compaction, including disposal of all surplus soil, as directed within a lead of 30 meters.	Cum	1084.24	45.00	48790.80
3	10.132	Cement Concrete 1:2:4 with stone aggregate 20 mm nominal size in pavements, roads, taxi-tracks & runways, laid to required slope & camber, including consolidation, finishing & tamping complete.	Cum	884.00	1975.00	1745900.00
4	NS	Supplying & filling fine sand under floor including, watering & ramming consolidation complete.	Cum	950.00	200.00	190000.00
5	NS	Labour charges for laying brick soiling to an approved bond, with brick on end edging, on approved sub grade, filling joints with sand. (Brick will be issued by the department, only labour to be quoted)	Cum	445.76	60.00	26745.60
6	NS	Providing & Laying brick soiling to an approved bond, with brick on end edging, on approved sub grade, filling joints with sand. (This item includes cost of bricks)	Cum	125.51	950.00	119234.50
7	NS	Disposal of excavation earth lead more than 0.48 KM upto 1 Km		1084.78	62.00	67256.36

	2243008.91
NBCC CHARGES @ 8%	179440.71
Misc. Ch.	5500.00
TOTAL	2427949.62
Say Rs. 24.28 lacs	

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

Item No. 2.11

To consider & Approve the RRCE for Provision of front compound wall in E & F type residences in the Institute.

The E & F type residences in the Institute, meant for the Non-Teaching Staff, were not provided with front boundary walls, thus exposing the residences to trespassers and cattle heads. There had been a consistent demand from the Non-Teaching Union for the provision of front boundary walls in 102 Nos. of the residences of the above categories. The Building and Works Committee approved the rough cost estimate amounting to Rs.6.41 lacs in its 20th meeting vide item No. 20.5 held on 31.5.2001 out of which Rs. 3.00 lacs was released during 2001-02 and the remaining amount of Rs. 3.41 lacs was released during the financial year 2002-2003. The work has been completed and taken over. To wind up the account, a sum of Rs. 0.23 lacs is to be paid to PWD(B/R), which has been approved by the Chairman, Building & Works Committee in anticipation of approval of BWC. So, a sum of Rs. 0.23 lacs was sanctioned by Govt. of India during 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 6.64 lacs to clear the liabilities to PWD (B&R).

Item No. 2.12

To consider and Approve the RRCE of Construction of additional 200 seater Girls' Hostel

The present Girls Hotel having a capacity of 91 seats was constructed in two phases. Earlier, the number of girl students taking admission in Engineering disciplines was negligible, which increased manifold since last decade. Consequently, there is increasing demand of seats accommodation the girls' hostel. At present the girl students residing in girls hostel are 135 comprising B.Tech., M.Tech. and Ph.D. students. Due to the shortage of accommodation in the Girls Hostel, some girl students used to decline admission in Regional Engineering College(presently National Institute of Technology), Kurukshetra. Despite that the girl students taking admission in the College is about 10% of the total strength of 1600 i.e. a strength of 160. Since more and more number of girl students are interested to come in the engineering stream and intake of the students is expected to be augmented in near future, it was anticipated that the strength of girl students would cross more than 300 Nos. in the immediate future. Thus, there is a need to augment the capacity of the Girls Hostel by atleast 200 seats.

The matter was placed before the 21st meeting of Building & Works Committee vide Item No. 21.4 for construction of a 120 seater Girls' Hostel with an estimated cost of Rs. 204.54 lacs. The Building & Works Committee approved the estimate as submitted by State PWD(B&R). Later, it was decided to construct a 200 seater Hostel in place of 120 seats,

keeping in view the expected increase in intake capacity. The NBCC submitted an estimate of Rs. 297.83 lacs, which was approved by the BWC vide item No.1.3.

The Govt. of India released Rs.216.65 lacs against this work during the financial year 2002-2003 and Rs.81.18 lacs during 2003-2004 respectively. The work is in progress and the final cost was anticipated to increase due to the fact that the building is being constructed on partial frame structure with rich specifications (due to bad soil conditions) including provision of raft foundation. Further, additional stair cases have been provided for the convenience of the girl students. In this estimate, the cost of the boundary wall (7ft high with Y-shaped barbed wire fencing), approach path, furniture etc were not included. The cost of these additional items including 10% departmental charges for NBCC comes to Rs. 77.43 lacs, which has been approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. Hence, which is being released by Govt. of India during the financial year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 375.26 lacs

ABSTRACT OF COST

History: The approved cost is Rs. 297.83, which are as under: -

Sr. No.	Description	Area	Unit	Cost	Amount
A	<u>BUILDING PORTION</u>				
1	Ground Floor Only	868	Sqm	3450/-	2994600.00
2	Ground Floor	1367	Sqm	4050/-	
3	First Floor	1367	Sqm		
4	Second Floor	1357	Sqm		
5	Mumty	40	Sqm		16730550.00
6	Balcony	614	Sqm	2250/-	1381500.00
				(A)	21106650.00
B	<u>ADDITIONAL WORK</u>				
1	Constn. of Boundary Wall	350	RM	3000/-	105000.00
2	Check Post & gate			L.S	100000.00
3	Provision of Concrete Road	56	Sqm	400/-	22400.00
4	Provision of Curb & channel	112	RM	225/-	25200.00
				(B)	1197600.00
C	<u>SERVICES</u>				
1	P.H. Internal Service @ 7% of building cost i.e. 21106650.00				1477465.00
2	Internal electrical work @ 10% of 21106650.00				2110665.00
3	Provision of Land scaping L S				50000.00
4	Ext. water supply & sewerage L.S.				500000.00
5	Furniture Room				633200.00
				(C)	4771330.00
D	Provision of Furniture as per list attached			2419000.00	
	Provision of fire fighting /fire alarm system			500000.00	
	Provision of computer & allied wares			1000000.00	
	Provision of Ext. elect. Work HT/LT Supply			500000.00	
	Total			4419000.00	
		Total A+ B+ C			27075580.00
		NBCC Charges 10%			2707558.00
		Total			29783138.00

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

The Cost of this building has been increased; accordingly the revised cost estimate for Rs 375.25 Lakhs has been framed by Annexure I attached.

REVISED ROUGH COST ESTIMATE FOR GIRLS HOSTEL (200 ROOMS)				
<u>CIVIL WORKS</u>	<u>Up to Plinth</u>	<u>Package - A</u>	<u>Package - B</u>	Total
SCHEDULE ITEMS	5042966.95	11409909.42	7587137.85	
NONSCHEDULE ITEMS	40654.00	2450050.00	1656080.00	
	5083620.95	13859959.42	9243217.85	28186798.22
<u>P. H WORKS</u>				
SCHEDULE ITEMS	0.00	282902.02	189046.26	
NONSCHEDULE ITEMS	0.00	380508.00	248210.00	
	0.00	663410.02	437256.26	1100666.28
<u>ELECTRICAL WORKS</u>				
SCHEDULE ITEMS	0.00	386771.57	258128.11	
NONSCHEDULE ITEMS	0.00	935005.00	471850.00	
	0.00	1321776.57	729978.11	2051754.68
TOTAL	5083620.95	15845146.01	10410452.22	31339219.18
<u>ADDITIONAL ITEMS</u>				
(RCC JALI/ P H / Electrical)				400000.00
BOUNDARY WALL OF GIRLS HOSTEL				800000.00
CHECK POST & GATE			L.S	100000.00
PROVISION OF CONCRETE PAVEMENT				400000.00
PROVISION OF CURB & CHANNELS				25200.00
FURNITURE (ROOMS)				1000000.00
PROVISION OF LANDSCAPING			L.S	50000.00
				34114419.18
		NBCC CHARGES @ 10%		3411441.92
			TOTAL	37525861.10

Sat. Rs. 375.26 lacs

**Sd/-
Project Manager,
NBCC at NIT, Kurukshetra**

Item No. 2.13 To consider and Approve the RRCE for Construction of Front Compound Wall in G-type houses

G-type residences meant for class-IV employees, there was no front boundary wall, thus exposing the houses to cattle and trespassers. Hence, it was proposed to construct front boundary walls in these residences with an estimated cost of Rs.3.95 lacs. The Building approved the proposal & Works Committee vide item No. 1.5 and the entire amount of Rs.3.95 lacs was released by Govt. of India during the financial year 2002-2003. The work has been taken over, and to clear the pending liabilities of PWD (B&R) Haryana. Rs. 0.14 lacs is being released by the MHRD during the financial year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 4.09 lacs

Item No. 2.14 To consider and approve the RRCE for Construction of External Boundary Wall round the Institute

The National Institute of Technology, Kurukshetra is situated in a remote location over an area of about 300 acres. At present, the entire area is exposed from all sides causing potential threat from miscreants/trespassers and cattle heads etc. Due to security hazard, it has become imperative to construct boundary wall around the Institute over a length of about 3500 m. The proposal was approved by the Building & Works Committee vide item No. 1.6. and the estimated amount Rs. 59.92 lacs (5ft-11½ inches height, 9 inches thick brick wall) was released by MHRD during the financial year 2003-2004. Before taking up the construction, the matter was referred by the Director to a high power committee to suggest suitable design for the boundary wall. The Committee, after considering all aspects including strength, effectiveness and life of the structure, recommended the construction of 7ft high RCC wall with broken glass pieces on the top. Thus, the estimated cost of the structure increased to Rs. 111.24 lacs. The revised estimate of Rs. 111.24 lacs has been approved by the Chairman, BWC in anticipation of the approval of BWC. An additional sum of Rs. 51.32 lacs is being released by Govt. of India during the financial year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 111.24 lacs for the construction of external boundary wall around the Institute.

**REVISED ESTIMATE SUBMITTED BY NBCC LTD. KURUKSHETRA FOR
BOUNDARY WALL AROUND AT NIT CAMPUS**

Province	-----	Haryana
Distt.	-----	Kurukshetra
Division	-----	NIT Works, Kurukshetra
Name of Work	-----	Boundary Wall around NIT Campus
Approved Cost	-----	Rs. 103.00 Lakhs
Revised Cost	-----	Rs. 111.24 Lakhs

REVISED ESTIMATE SUBMITTED BY NBCC LTD., KURUKSHETRA FOR
BOUNDARY WALL AROUND NIT CAMPUS AT KURUKSHETRA

History: -

The approved cost is Rs. 103.00 Lakhs. The cost of this work has been increased. Accordingly the revised cost estimate for Rs. 111.22 Lakhs has been framed by Annexure attached.

Rate: -

The rate quoted by the contractor has been taken in estimate. Also rate of substituted/Additional items have been derived as per set procedure & got approved from Competent authority.

Specification: -

The work shall be carried out in accordance with PWD specification 1990 edition for Schedule Items and manufacturer's specification/CPWD specification for Non- Schedule items.

(Dy. Project Manager)

REVISED ESTIMATE FOR BOUNDARY WALL AROUND THE CAMPUS OF NIT KKR.

SR. NO.	HSR ITEM NO.	DESCRIPTION	UNIT	QTY	HSR 1988 RATE	CP ON JULY'0 3	AS	RATE	AMOUNT
1	6.6	Earth work in excavation in foundationss, trenches, etc. in all kinds of soils, not exceeding 2 meters depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry, in 15 cm layers with compaction, including disposal of all surplus soil, as directed within a lead of 30 meters.	Cum	5390.00	11.08	250%	38.78	209024.20	
2	10.39	Cement Concrete 1:4:8 with stone aggregate 40mm nominal size in foundation & plinth.	Cum	399.00	403.10	170%	1088.37	434259.63	
3	10.90	Cement Concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestals and approach slabs of bridges etc., excluding steel reinforcement but including centering and shuttering, laid in position, complete in all respects, (For work upto 1.5 meters below ground level)	Cum	719.25	687.10	170%	1855.17	1334331.02	
4	10.87	Cement concrete 1:2:4 stone aggregate 20mm nominal size for reinforced concrete work for walls (10 cm to 20 cm thickness) straight and curved excluding steel reinforcement but including centering and shuttering, laid in position, complete in all respects	Cum	1331.92	1400.00	170%	3780.00	5034657.60	
5	10.95 (a)	Extra over item nos. 10.79 to 10.94, if 1:1.5:3 mix is used, instead of 1:2:4	Cum	2051.17	86.90	170%	234.63	481266.02	

6	18.22	Cold twisted deformed (ribbed/tor steel) bars for R C C works where not included in the complete rate of R C C including bending, binding and placing in position complete.	Qtl	1050.47	917.05	130%	2109.22	2215667.08
7	6.13 (a)	Earth filling under floors with surplus excavated from foundation and taken only from outside the building plinth, in 15cm layers including ramming watering and consolidating lead upto 30 Meters	Cum	3871.70	3.43	220%	10.98	42495.78
8	18.12	Wrought iron & mild steel (using angles, flats square bars, tes & channels) ladders, grills, grating frames, window gaurds, iron doors openable or fixed stair case or parapet or any other type of railing, gates and tree gaurds etc, including cost of screws and welding rods of bolts and nuts complete fixed in position	Qtl	18.00	1040.35	120%	2288.77	41197.86
9	N S	Extra for exposed concrete finish <u>(Derive from HSR 9.5)</u> (Where smooth exposed concrete finish is desired, additional rate of 33-1/3 percentage shall be payable on item of labour rates where such finish is desired)	Sqm	20230.00	6.55	225%	21.29	430646.13
10	N S	Providing & fixing Glass Pieces on top of Boundary Wall	Rmt	3500.00			21.42	74970.00
								10298515.31
								NBCC CHARGES 8% 823881.23
								TOTAL 11122396.54

Say Rs. 111.24 Lacs

(Dy. Project Manager)

Item No. 2.15 **To consider and approve the RRCE for Special repairs/renovation of Plastering, Flooring & PH fittings in Messes & Toilets in Hostel Nos. 1 to 5.**

In National Institute of Technology, Kurukshetra there are 5 Nos. UG boys Hostels, which were constructed more than 35 years back. The Messes in these Hostels have become extremely shabby due to swelling of plaster in the kitchen, service counter, pantry, dining hall, recreation room etc. These rooms need complete renovation by way of re-plastering and distempering etc. Similarly, the public health fittings, floorings and plastering in toilets have also outlived their lives needing complete renovation. It was, therefore, proposed to carry out special repair/renovation in the above 5 Nos. boys Hostels of the College at an estimate cost of Rs. 69.48 lacs.

The Building & Works Committee approved the above proposal vide item No. 21.9. and a sum of Rs. 69.48 lacs was released by MHRD during the financial year 2003-2004. While taking up the job, it was found that the joineries in the dinning halls and recreation rooms including the door and window shutters also need replacement. Thus, the scope of work was slightly modified. The NBCC has already tendered the entire work with revised scope and specifications for Rs. 96.97 lacs, which has been approved by the Chairman, BWC in anticipation of the approval of BWC. An additional amount of Rs. 51.32 lacs is being released by Govt. of India during the financial year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 96.97 lacs.

ROUGH COST ESTIMATE FOR SPECIAL REPAIRS IN TOILETS & MESSSES OF HOSTEL NO. 1 TO 5

DISMANTILLING ITEM

H S R ITEMS	Rs	259990.00
NON SCHEDULE	Rs	33290.70
Sub Total	Rs	<u>293280.70</u>

CIVIL WORK

H S R ITEMS	Rs	5106072.23
NON SCHEDULE	Rs	846820.70
Sub Total	Rs	<u>5952892.93</u>

SANITARY WORK

H S R ITEMS	Rs	934927.98
NON SCHEDULE	Rs	692220.95
Sub Total	Rs	<u>1627148.93</u>

ELECTRICAL

NON SCHEDULE	Rs	74600.00
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	Rs	<u>7947922.56</u>
N B C C CHARGES 8%		635833.80
TOTAL	Rs	<u>8583756.36</u>

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

**REVISED ESTIMATE FOR SPECIAL REPAIRS IN TOILETS & MESSSES OF
HOSTEL NO. 1 TO 5**

DISMANTILLING ITEM

SCHEDULE ITEMS	Rs	272990.48
NON SCHEDULE	Rs	10580.00
Sub Total	Rs	<u>283570.48</u>

CIVIL WORK

SCHEDULE ITEMS	Rs	6306000.17
NON SCHEDULE	Rs	634456.00
Sub Total	Rs	<u>6940456.17</u>

SANITORY WORK

SCHEDULE ITEMS	Rs	944276.28
NON SCHEDULE	Rs	692910.00
Sub Total	Rs	<u>1637186.28</u>

ELECTRICAL

NON SCHEDULE	Rs	118000.00
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N B C C CHARGES 8%
TOTAL

Rs	8979212.93
	718337.03
Rs	<u>9697549.96</u>
	Say Rs. 96.97 lacs

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

Item No. 2.16 Revised Rough Cost Estimate for New Additional Block & Seminar Hall Building

The new additional Block (AB Block & the seminar hall) Jubilee Hall were constructed by PWD (B &R) about 15 year back. The entire amount as per the estimated cost was received from Govt. of India and paid to PWD B&R). However, the PWD(B&R) intimated that a sum of Rs. 1.72 lacs was over spent due to slight change in scope of work. The Govt. of India has already released the above amount during the plan year 2004-2005.

The Building & Works Committee may consider and approve the above expenditure so that the pending liabilities of Rs. 1.72 lacs can be cleared.

Item No. 2.17 To consider & approve the RRCE for the construction of Computer & Electronics Engg. Lab.

The Computer & Electronics Engg. Lab. were constructed by PWD (B&R) about 16 years back. The entire amount as per the estimated cost was received from Govt. of India and paid to PWD B&R). However, the PWD (B&R) intimated that a sum of Rs. 0.45 lacs was over spent due to slight change in scope of work. The Govt. of India has already released the above amount during the plan year 2004-2005.

The Building & Works Committee may consider and approve the above item to clear the pending liabilities of Rs. 0.45 lacs as stated above.

Item No. 2.18 Revised Rough Cost Estimate for Spl. Repairs to Bldgs i.e. Civil Engg. Deptt., Hostels & Residences

Special repairs to Bldgs i.e. Civil Engg. Deptt, Hostel & Residences etc. was carried out by PWD (B&R) about 22 years back. The entire amount as per the estimated cost was received from Govt. of India and paid to PWD B&R). However, the PWD(B&R) intimated that a sum of Rs. 0.10 lacs was over spent due to slight change in scope of work. The Govt. of India has already released the above amount during the plan year 2004-2005.

The Building & Works Committee may consider and approve the additional expenditure of Rs 0.10 lacs as stated above.

Item No. 2.19 **To consider and approve the RCE for Construction of New Equipment shop in Workshop.**

The Workshop section of the Institute has received funds to the tune of 10 million from TEQIP Scheme of Govt. of India for the purpose of purchase of modern equipments for the Workshop. The purchase process is in advance stage. The following equipments/machinery are proposed to be purchased under the TEQIP Scheme:

Phase-I					(Area in Sq. Ft)
Name of Machine	No. of M/c	Area required for M/c (Approximate)			Total Area
		Floor Area	Operational Area	Area /M/c	
CNC Lathe	3 Nos.	400	200	600	1800
Vertical Machining Centre	1 No.	800	400	1200	1200
Computers etc.	-	100	100	100	100
Spot welding M/c	1 No.	100	50	150	150
Scam Welding M/c	1 No.	100	100	100	100
Instructional Area	Common for all the machines				650
Total:					4000
Phase-II					(Area in Sq. Ft)
CNC Lathe	3 Nos.	400	200	600	1800
Horizontal Machining Centre	1 No.	1000	500	1500	1500
Coordinator Measuring M/c	1 No.	800	200	1000	1000
Wirecut EDM	1No.	800	200	1000	1000
Plastic Injection Molding Machine	1 No.,	800	400	1200	1200
Total					6500
Class room + Tut. Room + Office of W/S					1500
Add 30% circulation area					3,600
Grand Total of space requirement					15,600 Say 1560 Sq.m

The existing space in Workshop is insufficient for the proposed machinery & equipments. These machineries being very sophisticated need dust free environment, which is not available in the existing Workshop (industrial shed). Keeping this in view, it is proposed that a new block with RCC roof be constructed to house these modern machineries. Besides, some class rooms & staff rooms are also proposed to be constructed contiguous to the equipment hall.

The estimated cost for the above block (1560 Sqm.) has been worked out be to Rs. 78.00 lacs which has been approved by the Chairman, B&WC of the Institute in anticipation of the approval of the B&WC. To initiate the construction, a sum of Rs. 50.00 lacs is being released by Govt. of India during the Plan Year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 18.67 lacs for each park.

ROUGH COST ESTIMATE FOR SECURITY LIGHTS & BOUNDARY AROUND COMMUNITY PARK AT NIT, KURUKSHETRA

Length - 800 M

Total Cost 800x1400 Rs. 1120000.00

Gate 2 Nos. LS Rs. 22000.00

Electrical Work (Hi Mass flood Light) Rs. 540000.00

Rs. 1682000.00

NBCC Charges 8% Rs. 134560.00

Contingency 3% Rs. 50460.00

Total Rs. 1867020.00

Say Rs. 18.67 Lacs

**Sd/-
Project Manager,
NBCC at NIT, Kurukshetra**

**ROUGH COST ESTIMATE FOR CIVIL WORK OF BOUNDARY WALL
AROUND COMMUNITY PARK AT NIT, KURUKSHETRA**

Sr. No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Earth work in excavation in foundation trenches etc. in all kind of soil not exceeding 2.0 meters depth i/c dressing of bottom and sides of trenches stacking the excavated soil clear from the edge and subsequent filling around masnary in 15cm layer with compaction i/c disposal of all surplus soil directed within a lead of 30 Mtr.	Cum	300.00	40.00	12000.00
2	Cement concrete 1:5:10 with stone aggregate 40mm nominal size	Cum	75.00	1400.00	105000.00
3	1st class brick work laid in cement mortar 1:6 in foundation & plinth	Cum	150.00	1700.00	255000.00
4	First class brick work laid in cement sand mortar 1:4 in first storey upto 4 meters above plinth level	Cum	100.00	1750.00	175000.00
5	12mm thick cement plaster 1:6	Sqm	1000.00	40.00	40000.00
6	Wrought iron & mild steel (using angles, flats, square bars, bars, tees & channels) ladders , grills, grateing frames, window guards, iron doors openable or fixed staire case or parapet or any other type of railing, gates & tree guards etc, including cost of screws & welding rods or bolts & nuts complete fixed in position.	Kg	9050.00	35.00	316750.00
7	Applying Priming coats on steel work consisting of genuine red lead mixed with linseed oil and turpentine oil in equal proportions.	Sqm	550.00	9.00	4950.00

8	Painting two coats excluding priming coats with ready mixed paint for mettalic surfaces in all shades on new steel or iron work.	Sqm	550.00	15.00	8250.00
9	Finishing walls with exterior decorative cement based paints such as snowcem, etc.two coats to give an even shade.	Sqm	552.00	22.00	12144.00
10	Gate	Nos	2.00	L S	40000.00
					969094.00
NBCC CHARGES @ 8%					77527.00
TOTAL					<u>1046621.00</u>

Say 10.47 Lacs

Item No. 2.22 **To consider and approve the RCE for Provision of Chain link fencing etc. around tennis court in Sports ground**

The sports ground of the Institute is extensively used by the students beyond teaching hours and during holidays. The following small facilities at an estimated cost of Rs. 7.23 lacs need to be provided to the sports ground at the earliest:

- | | |
|---|---------------|
| 1. Chain link fencing around tennis court | Rs. 4.50 lacs |
| 2. C.C. coat in lawn tennis practice area | Rs. 1.44 lacs |
| 3. Barbed wire fencing | Rs. 0.68 lacs |

The above estimate has been approved by the Chairman, B&WC of the Institute in anticipation of the approval of the B&WC. For this purpose, a sum of Rs. 7.00 lacs is being released by Govt. of India during the Plan Year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 7.23 lacs

ROUGH COST ESTIMATE FOR LAWN TENNIS HALF WALL COURT
AT NIT KKR

- | | |
|---|--|
| 1. Earth work in excavation in foundations, trenches, etc. in all kinds of soils, not exceeding 2 meters depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry, in 15 cm layers with compaction, including disposal of all surplus soil, as directed within a lead of 30 meters. | $16.35 \times 18.35 \times 0.50 = 150 \text{ Cum} @ 33.24 = 4986.00$ |
| 2. Providing & Filling Fine Sand under floor including ramming & watering etc | $16.35 \times 18.35 \times 0.10 = 30 \text{ Cum} @ 200 = 6000.00$ |
| 3. Cement Concrete 1:4:8 with stone aggregate 20 mm nominal size in foundation & plinth | $16.35 \times 18.35 \times 0.10 = 30 \text{ cum} @ 1040.18 = 31205.40$ |

4. Cement Concrete 1:2:4 with stone aggregate 20 mm nominal size in pavements, roads, taxi-tracks & runways, laid to required slope & camber, including consolidation, finishing & tamping complete.

$16.35 \times 18.35 \times 0.15 = 45.37$ @ 2000 = 90740.00

132931.40

NBCC CHARGES @8% 310631.51

TOTAL 143565.91

Say Rs. 1.44 Lacs

Sd/-

**Project Manager,
NBCC at NIT, Kurukshetra**

DETAIL ESTIMATE FOR BARBED WIRE PARALLEL WITH HOCKEY & FOOTBALL GROUND

ESTIMATE FOR ONE SPAN (2.5 M)

1.	Angle 50 x 50 x 5			
	1.90 Rmt @ 3.75 Kg/Rmt = 7.12Kg /Rmt @ 35/-			
	(I/c Wastage)	=	249.20	
	(all this member required drilling of holes & Cuts)			
2.	Carriage of above material	L.S.	=	3.00
3.	Excavation for one nos. holes		=	20.00
4.	C. Concrete (1:2:4) 0.30 x 0.30 0.60 = 0.054 @ 2000/-		=	108.00
5.	Barbed wire (6 Nos.)16.00 Rmt = 1.50 Kg @ 42/-		=	63.00
6.	Priming & painting (Steel work)		=	7.00
7.	Labour for erection & Fixing			
	Fitter /Mason 1 Nos @ 120/- 1/6	20.00		
	2 Beldar 1 Nos @ 80/- 1/6	<u>27.00</u>		
		47.00	=	<u>47.00</u>
				497.20
	Cost Per Rmt $\frac{497.20}{2.5}$	-		198.88
	Sale Tax @ 4%		=	<u>7.96</u>
	Total		=	206.84/Span of 2.5 m
	Cost for 302 Rmt @ 206.84		=	62465.68
	Add for Item no.4,6,7		=	<u>380.00</u>
			=	62845.68
	NBCC Charges @ 8%		=	<u>Rs. 5027.65</u>
	TOTAL			Rs. 67873.33
				Say 68000/-

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

DETAIL ESTIMATE FOR CHAIN LINK FENCING

ESTIMATE FOR ONE SPAN (2.4 m)

S No.	Description		
1.	ISMC 100 x 50	→ 4.65 Rmt @ 9.20 Kg/Rmt =	42.78 Kg
2.	MS Angle (40x 40x6)	→ 7.20 Rmt @ 3.50Kg/Rmt =	25.20 Kg
3.	M S Flat 20mm x 4mm	→ 7.20 Rmt @ 0.65 Kg/Rmt =	4.68 Kg
			72.66 Kg
		72.66 @ 35/Kg	=
		(I/c Wastage)	2543.10
	(All this members required drilling of holes)		
4.	8mm dia 50mm long nut bolt	→ 18 Nos. @ 1.50/each	= 27.00
5.	Clamp (G.I) with nut & 20 x 4 mm flat 100 mm X 75mm	→ 12 Nos. @ 9/each	= 108.00
5 a	Carriage of above material	→ L.S.	= 10.00
5 b	Excavation for one Nos. Holes	→	= 20.00
6.	C.Concrete (1:2:4) 0.30 x 0.30 x 0.90 = 0.081 cum @ 2000/Cum		= 162.00
7.	60 x 60mm x 10-gauge chain link (G I)	→ 9.12 Sqm @ 130/-	= 1185.60
	(Width of chain link 1.90m so two nos with overlap 50mm)		
8.	Priming painting (Steel work)		= 105.00
8 a	Labour for erection & Fixing 2 Fitter /Mason @ 120/day 4 Beldar @ 80/-	<div style="display: inline-block; vertical-align: middle;"> <div style="text-align: right;">240.00</div> <div style="text-align: right;">320.00</div> <div style="text-align: right;">560.00</div> </div> <div style="display: inline-block; vertical-align: middle; font-size: 3em; margin: 0 10px;">}</div> <div style="display: inline-block; vertical-align: middle;"> <div>1/5</div> </div>	= 112.00
9.	Ballies for support 4 Nos. @ 2/- (Rent for two days)		= 8.00
10.	Scaffolding of Bamboos (rented)	L.S.	= 20.00
			4300.10
	Cost of per Rmt	4300.10	=
		2.40	
	Cost per Sqm	1791.71	=
		3.75	
	Add Tax 4%		=
			19.11
			496.22

Rough Cost Estimate Chain Link Fencing in Lawn Tennis Ground at NIT, KKR

S. No.	Description of Item	Unit	Qty	Rate	Amount
1	Providing and fixing Chain link Fencing made out of M.S. channel & M.S. Angle Iron and M.S. Flat Frame and 60 mm x 60 mm x 10 gauge galvanized. Iron Chain link including Two coats of synthetic enamel paint 1 st Quality over a coat of steel Primer on all mild steel items including cost of excavation, cement concrete 1:2:4, disposal of surplus earth etc including cost of all welding, drilling, nuts and bolts 'U' clamps, etc including scaffolding, supports and all labour etc complete as per sketch attached (Cost include overlapping of Chain link wherever required. The measurement shall be in SQM from Bottom to Top and one End to Another.	Sqm	715	506.00	361790.00
2	Providing and fixing Entry Door Double leaf made out of M.S. Angle Iron and M.S. Flat frame and chain link and other same item as above complete as per sketch attached	Nos	1	7000.00	7000.00
					368790.00
	Add for Extra ISMC & CC				5000.00
	Add for dismantling of Existing pipe & cc in Chain link fencing Ground & Tree Cutting				10000.00
	Add for extra length of chain link fencing				25000.00
					408790.00
	Add NBCC Charges 8%				32703.20
					441493.20
				Say Rs.	4.42 lacs

ROUGH COST ESTIMATE BASED ON MARKET RATE FOR LAWN TENNIS HALF WALL COURT AT NIT KKR

Sr. No.	Description	Unit	Qty	Rate	Amount
1	Earth work in excavation in foundations, trenches, etc. in all kinds of soils, not exceeding 2 meters depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry, in 15 cm layers with compaction, including disposal of all surplus soil, as directed within a lead of 30 meters.	Cum	150.00	45.00	6750.00
2	Providing & Filling Fine Sand under floor including ramming & watering etc.	Cum	30.00	200.00	6000.00
3	Cement Concrete 1:4:8 with stone aggregate 20 mm nominal size in foundation & plinth	Cum	30.00	1400.00	42000.00
4	Cement Concrete 1:2:4 with stone aggregate 20 mm nominal size in pavements, roads, taxi-tracks & runways, laid to required slope & camber, including consolidation, finishing & tamping complete.	Cum	45.37	2000.00	90740.00
					145490.00
NBCC CHARGES @ 8%					11639.20
TOTAL					157129.20

ROUGH COST ESTIMATE BARBED WIRE PARALLEL WITH HOCKEY & FOOTBALL GROUND

Sr. Description No.	Unit	Qty	Rate	Amount
1 1.2 m high fencing with 1.8 m angle of size 50 x 50 x 5 mm thick placed e very 2.5 m apart embedded in cement concrete 1:2:4 Concrete blocks, provided with 4 nos. horizontal lines & 2 nos diagonals of barbed wire 9.38 Kg per 100 meter (Min) between the two angle post fitted & fixed with G I staples, turn buckles etc. including one coat of primer & two coat of paint on steel work & included the earth work & cement concrete complete & all Labour Charges	Meter	302.00	207.00	62514.00
				<hr/> 62514.00
			NBCC CHARGE S @ 8%	5001.12
			TOTAL	<u>67515.12</u>

Summary:

1. Chain link fencing around tennis court	Rs. 4.42 lacs
2. C.C. coat in lawn tennis practice area	Rs. 1.57 lacs
3. Barbed wire fencing	<u>Rs. 0.68 lacs</u>
	Rs. 6.67 lacs
Misc.	<u>Rs. 0.56 lacs</u>
Total	Rs. 7.23 lacs

Item No. 2.23

To consider and Approve the RCE for the Provision of Green Rooms etc. in the Open Air Theatre

The Open Air Theatre (OAT) in the Institute is extensively used by the students for holding big functions e.g. cultural festivals, music & dramatic events etc. At present, this OAT does not have any basic amenities like green rooms, toilets etc. for girls and boys, thus creating great inconvenience to the students during such activities. It has been a long standing request from the students, especially the girl students to provide green room and toilets to the OAT. It is, therefore, proposed that the above basic amenities be provided to the OAT at an estimated cost of Rs. 5.00 lacs.

The above estimate has been approved by the Chairman, B&WC of the Institute in anticipation of the approval of the B&WC. For this purpose, a sum of Rs. 5.00 lacs is being released by Govt. of India during the Plan Year 2004-2005.

It is, therefore, requested that the BWC may consider and approve the RCE amounting to Rs. 5.00 lacs.

ROUGH COST ESTIMATE OF PROVISION FOR GREEN ROOM IN OPEN AIR

THEATRE AT NIT, KURUKSHETRA

AREA - 100 Sqm

Scope : Construction of Green Room

Building Works (RCC framed structure construction)

(Soil Bearing Capacity – 8MT/Sqm)

Sr. No.	Description	Area	unit	Rate	Amount
1.	Room	100	Sqm	4200	420000.00
Services					
1.	Public Health Works			L.S	10000.00
2.	Internal Elect. & Ext. Electrical			L.S.	15000.00
3.	Provision for external sewerage			L.S.	<u>10000.00</u>
					455000.00
	NBCC Charges 10%				<u>45500.00</u>
					500500.00
					<u>Say Rs. 500000.00</u>

Sd/-
Project Manager, NBCC

List of requirements

(Amount Rs. In lacs)

50

	integrated on board video memory, 4bays, 2 USB port, 10/100/1000 Gb network card with teaming automatic fail cover, remote system installation, asset tracking and security management, remote shutdown and wake-up Preloaded with windows 2000 Server with recovery CD anti-virus software.			
4.	UPS 20 KVA, online Input 160-260V, 50HZ \pm 3% AC, Single-phase input, Single-phase output. Output 230V \pm 1%, minimum 1 hour back-up.	4.50	3	13.50
5.	UPS 750 VA Off-line, Minimum 20 Minutes back-up.	0.04	5	0.20
6.	Air-conditioners 2.0 Ton with CVT.	0.35	10	3.50
7.	Networking Equipments and other computer peripherals like two scanners, two CD-combo, two A0 Plotter, two heavy duty laser, two color desk jet, one A4 size heavy duty color laser (Duplex) and two 24 pin DMP.	-	-	10.00
		Total		299.20

To house the above equipments 2 Nos. CAD Labs. are required to be constructed at an estimated cost of Rs. 11.00 lacs. The Chairman, BWC has approved the above estimate in anticipation of approval of BWC, and Govt. of India has sanctioned the above estimated amount during 2004-05.

It is, therefore, requested that the BWC may consider and approve the RCE amounting to Rs. 11.00 lacs

ROUGH COST ESTIMATE FOR PROVISION FOR CAD CAM LAB (Mechanical LAB)

AREA - 220 Sqm
Scope: Construction of CAD CAM Lab

Building Works (RCC framed structure construction)
(Soil Bearing Capacity – 8MT/Sqm)

Sr. No.	Description	Area	Unit	Rate	Amount
1.	Lab	100	Sqm	4200	924000.00
	Services				
1.	Public Health Works			L.S.	26000.00
2.	Internal Elect. & Ext. Electrical			L.S.	35000.00
3.	Provision for external sewerage			L.S.	<u>20000.00</u>
					1005000.00
	NBCC Charges 10%				<u>100500.00</u>
					1105500.00
					Say Rs. 1100000.00

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

Item No. 2.25 **To consider and approve the RCE for the construction of
Administrative Block in lieu of Class rooms.**

The National Institute of Technology (formerly known as Regional Engineering College, Kurukshetra) was established around 40 years back. Since the inception, no space was provided for the Administrative Offices. The Academic area earmarked for various departments were temporarily occupied by the administrative sections, thus limiting the academic activities and their growth. Now, with the aging of the Institute, the departments need to grow further and expand their working areas. Thus, it has become imperative to create more class rooms, laboratories etc. within the instructional area of the Institute. It is, therefore, proposed that the instructional area (2500 sqm) occupied by the administration be vacated and a separate administrative block be constructed over a plinth area of 2032 Sqm. at an estimated cost of Rs. 121.80 lacs. In this process, an additional area of 2500 Sqm. (approx) will be available to the teaching departments for setting up laboratories, class rooms etc. The above estimate has been approved by the Chairman, B&WC of the Institute in anticipation of the approval of the B&WC.

It is, therefore, requested that the BWC may consider and approve the RCE amounting to Rs. 121.80 lacs

Rough Cost Estimate for Admn. Block in NIT, Kurukshetra

S. N o	Description	Area	Cost/Sqm.	Amount in Rs.
A	Building Portion(RCC framed structure construction) Soil Bearing capacity 8 MT/sqm.			
	1. Ground Floor	1000		
	2. First Floor	1000		
	3. Mumty	30		
		2030 Sqm	Rs.3900/ Sqm vide item5(a)	
	Add for low bearing Capacity 8 MT/sqm instead of 11 MT/sqm. @ 15% vide condition (vii)		<u>Rs. 585/sqm.</u> <u>Rs. 4485/sqm</u>	91,04,550/-
B	<u>SERVICES</u>			
	PH Internal services @ 4% of building cost vide item 5(a)		91,04,550.00	3,64,182.00
	Internal Electrical Works @ 8% of Building vide Item 5(a)		91,04,550.00	7,28,264.00
	Provision of Landscaping		L.S.	50,000.00
	External water supply and sewerage (L.S.) & external Electrical vide condition (viii)		L.S.	4,75,000.00
	Road Kerb, Channels vide condition (viii)		L.S.	<u>3,50,000.00</u>
			Total:	110,72,906.00
			NBCC Charges 10%	11,07,209.00
				<u>121,79,305.00</u>
			Say Rs.	121.80 Lacs

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

Item No. 2.26

To consider & approve the RRCE for Constn. of 1 No. Over Head Service Reservoir (OHSR) & a tube well

The Building & Works Committee approved the construction of 1 No. Over Head Service Reservoir (OHSR) along with a tube well in the campus, keeping in view the scarcity of drinking water for the residents. The initial estimated cost was Rs.10.00 lacs for both the works. However, the Government of India released only Rs.5.00 lacs for this purpose at that time. So, the construction could not be taken up. The PWD(PH) was requested to submit a revised Rough cost Estimate for a 130 KLtr capacity OHSR and a tube well of 1 cfs capacity (approx.). The revised estimate as received from PWD(PH) for the construction of 1 No. OHSR and 1 No. tube well were Rs.14.95 lacs and Rs.6.41 lacs respectively. The entire sum of Rs. 21.36 lacs was received by 2000-2001. The work has been completed and it will be taken over soon. The PWD(PH) department has spent an additional amount of Rs. 1.35 lacs for the construction of the tube well, which has been approved by Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. A sum of Rs. 1.35 lacs is being released by Govt. of India during the Plan year 2004-2005 to clear the liabilities of PWD (PH).

The Building & Works committee may approve the above estimate of Rs. 1.35 lacs for the above work.

Item No. 2.27 **To consider & approve Rough Cost Estimate for Provision of Snowcem in Institution Buildings**

The Instructional Building etc. were constructed around about 40 years back and no surface treatment including snowcem was provided since then. The external surfaces of these buildings have been getting worn out due to absence any such treatment and they became very shabby. In the meantime, the NBA (National Accreditation Bureau) team paid visit to the Institute in the 4th week of February, 2004. It was than felt that the external surfaces of the Instructional Buildings should be treated with snowcem so that the structures get strengthened with added asthetics. The work was got done by NBCC against an estimated cost of Rs. 4.432 lacs out of the *College Development Funds*, which was approved by the Chairman BWC in anticipation of the approval of the B&WC. However, during the course of work the scope was extended for Jubilee Hall , Sports Complex & Reflection Tanks. Hence, the cost increased to Rs. 5,73,620/-.

The Building & Works committee may consider & approve the final estimated cost of Rs. 5,73,620/- out of *College Development Funds*.

**NATIONAL BUILDING CONSTRUCTION CORPORATION LTD.
(A GOVT. OF INDIA ENTERPRISES)**

REVISED ESTIMATE

SR. NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1/8.32 a)	Scraping of Colour Wash & White Wash	Sqm	24961.12	1.50	37441.68
2/ 16.61	Finishing walls with exterior decorative cement based paints such as snowcem, etc.two coats to give an even shade.	Sqm	24961.12	19.00	474261.28
3/15.61	Repair in RCC chajja / Cement pointing 1:3 deep variety on brick and tile work.	Sqm	750.00	25.90	19425.00
					531127.96
				NBCC CHARGES 8%	42490.24
				TOTAL	573618.20

Say Rs. 5,73,620/-

Sd/-
Project Manager,
NBCC at NIT, Kurukshetra

Item No. 2.28

To approve Rough Cost Estimate for Provision of False Ceiling & Carpeting in Library-cum-Conference Hall of Civil Engg. Deptt.

In Civil Engg. Deptt., False Ceiling & carpeting were proposed to be provided in the Library-cum-Conference Hall at an estimated cost of Rs 0.54 lacs. The estimate was approved by Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee and the work was proposed to be got done by NBCC out of *College Development Funds*.

The Building & Works Committee may consider & approve the above estimate.

Item No. 2.29

To consider & approve the RCE for Provision of False Ceiling Carpeting & Aluminium Glazing in Computer Lab. of Civil Engg. Deptt.

In Civil Engg. Deptt., False Ceiling, carpeting & Aluminium Glazing was proposed to be provided in Computer Lab of the Deptt. at an estimated cost of Rs 1.16 lacs. The estimate was approved by Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee and the work was proposed to be got done by NBCC out of *College Development Funds*.

The Building & Works Committee may consider & approve the above estimate.

Item No. 2.30

To consider & approve the RCE for Construction of two Nos. Security Posts & 6 Nos. Moveable Speed Breaking System

In the Institute, there had been no security post and Traffic Control System at the entrance. Consequently, the outsiders had free entry to the Institute risking the security of the residents. Hence, it was decided to construct 2 Nos. security posts at the entrances of the Institute and to provide 6 Nos. moveable speed breaking systems made of steel at an estimated cost of Rs. 2.34 lacs. The work was proposed to be executed by NBCC out of *College Development Funds*, which was approved by Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. However, the cost of construction increased to 2.66 lacs due to slight change in scope of work.

The Building & Works Committee may consider & approve the above estimate of Rs. 2.66 lacs as stated above.

Item No. 2.31

To consider & Approve the RCE for Aluminium Doors, Glazing in cup-boards & Blinds etc. in VISI Lab. In EC & CE Deptt.

In Electronics & Communication Engg. Deptt some spl. work pertaining to removal of old PVC tiles and fixation of new Glaze tiles was done at an estimated cost of Rs. 1,24,562/- by NBCC, which was approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. The expenditure was incurred out of Equipments grants (replacement/removal of obsolete equipments in Workshop/EC & CE Deptt.)

The Building & Works Committee may consider & approve the above estimate.

Item No. 2.32

To consider & approve the RCE for Provision of False Ceiling & Carpeting in Conference Hall of Mech. Engg. Deptt.

In Mech. Engg. Deptt., False Ceiling, & carpeting were proposed to be provided in Conference Hall of the Deptt. at an estimated cost of Rs. 93,150/-. The estimate was approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee and the work was proposed to be executed by NBCC out of *College Development Funds*.

The Building & Works Committee may consider & approve the above estimate.

Item No. 2.33 **To consider and approve the RRCE of Renovation /Special repairs of lawns**

The lawns around the Instructional Building and the Colony ground need complete renovation by way of digging, turfing, providing MS grills, benches etc. For this purpose a sum of Rs.5.00 lacs was approved by Building & Works Committee vide item No.19.18, and the entire amount was released by 2003-2004 by Government of India. However, for the maintenance of greenery in the vast open area an additional sum of Rs. 11.86 is required. This provision has been approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 16.86 lacs.

Item No. 2.34

**To consider and approve the RRCE for Special Repair of Hostels
Instructional Buildings & Residences**

The age-old 5 Nos boys hostels in the Institute require special repair in terms of replacement of doors, windows, wire gauge shutters, wooden chhowkats, shelves, plastering on the walls etc. Similarly, some of the residences in the campus are more than 35 years old requiring urgent attention in terms of replacement of wooden fixtures (i.e. doors, windows, Chhowkats etc.), plastering of walls etc. To initiate this urgent task, a sum of Rs. 15.00 lacs (Rs.10.00 lacs for hostels and Rs.5.00 lacs for residences) was approved by the Building & Works Committee vide item No.19.19. An amount of Rs. 10.00 lacs was released by the Government of India, MHRD during the financial year 2000-2001 and Rs.5.00 lacs during 2002-03. Keeping in view the volume and extent of work, the estimate was further revised to Rs. 30.00 lacs by BWC vide item No. 1.10. The entire amount was released by 2003-2004. However, the deteriorating condition of these age old structures require constant attention, thus requiring an additional sum of Rs. 36.76 lacs which was approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee.

It is, therefore, requested that the BWC may consider and approve the RRCE amounting to Rs. 66.76 lacs for the above work.

Item No. 2.35

**To consider & approve the Rough Cost Estimate for renovation of
Lecture Theatre, Laboratories etc.**

The Instructional Buildings consisting of Lecture Theatres, Tutorial Rooms, Laboratories etc. was constructed about 40 years back. The condition of Lecture Theatres, Conference Halls, Laboratories are in very bad shape due to wear & tear. It is, therefore, proposed that some of the old Lecture theatres, conference Halls, Laboratories be renovated to make them functional. The estimated cost for this work as submitted by NBCC Ltd. is Rs. 40.15 lacs. The Govt. of India has sanctioned a sum of Rs. 40.00 lacs under TEQIP scheme for the above purpose.

The Building & Works Committee may consider and approve the above estimate for Rs. 40.15 lacs.

**ROUGH COST ESTIMATE FRAMED BY DY. PROJECT MANAGER NBCC LTD,
NIT WORKS KURUKSHETRA FOR RENOVATION OF 10 NOS. LECTURE
THEATRE HALL.**

1. One Lecture Hall

Civil Work	Rs.	2.65 Lakhs
Electrical Work	<u>Rs.</u>	<u>1.00 Lakhs</u>
	Rs.	3.65 Lakhs

For 10 Nos. Lecture Hall	=	10 x 3.65 Lakhs
	=	Rs. 36.50 Lakhs
NBCC Charges 10%	=	Rs. <u>3.65 Lakhs</u>
	Rs.	40.15 Lakhs

To consider & Approve the Rough Cost Estimate for the replacement of Water Supply & Public Disposal Pumps Distribution Network.

The Water Supply/Disposal Pumps and distribution network of National Institute of Technology, Kurukshetra was installed about 40 years back. Over the years, the entire system has outlived its life resulting into frequent break downs. It is, therefore, proposed that most of the old pumps & distribution network be replaced with new ones. The estimated cost for this work as submitted by NBCC Ltd. is Rs. 30.25 lacs. The Govt. of India has sanctioned a sum of Rs. 30.00 lacs under TEQIP scheme for the above purpose.

The Building & Works Committee Consider and approve the above estimate for Rs. 30.25 lacs.

**ROUGH COST ESTIMATE FRAMED BY DY. PROJECT MANAGER NBCC LTD,
NIT WORKS KURUKSHETRA FOR WATER SUPPLY & DISPOSAL PUMP &
DISTRIBUTION NETWORK**

Sr. No.	Description	Cost
1.	Pump 25 HP - 1 NO	Rs. 00.80 Lakhs
	20 HP - 1 NO	Rs. 00.80 Lakhs
	15 HP - 1 NO	Rs. 00.50 Lakhs
2.	Auto Control System	Rs. 04.60 Lakhs
3.	New Bore Well	Rs. 04.00 Lakhs
4.	Generator 63 KVA	Rs. 03.50 Lakhs
5.	P & L L A Pipe	Rs. 08.30 Lakhs
6.	P & L GI Pipe	<u>Rs. 05.00 Lakhs</u>
		Rs. 27.50 Lakhs
	NBCC Charges @ 10%	<u>Rs. 2.75 Lakhs</u>
		Rs. 30.25 Lakhs

To consider & Approve the Rough Cost Estimate Renovation of Electrical Fittings in W/Shop etc.

The Building & Works Committee Consider and approve the above estimate for Rs. 20.03 lacs.

S. NO.	ITEM DESCRIPTION	UNIT	QTY	HSR 1988 RATE JULY'03	CP ON	AS	Rate	Amount
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62

2 (D) Sheet Steel enclosure

HSR Supply & erection of sheet
31.12 steel enclosures distribution
boards suitable for MCBs
etc. on wall/existing board/
pedestal with rag bolts
including bonding to earth:

8 way SPN	Nos	40.00	293.00	80%	527.40	21096.00
8 way TPN	Nos	25.00	924.00	80%	1663.20	41580.00

**3 (K) Distribution board with
plug & socket**

HSR Supply & erection of sheet
31.15 steel enclosures 2
pole/3pole with earth plug &
socket suitable for
incorporating single pole/
trippole MCB on wall/on
existing pedestal complete
with necessary connection
etc.

(ii) SPN enclosure for Single pole MCB 20 Amp	each	50.00	293.00	50%	439.50	21975.00
(iv) TPN enclosure for Trippole Pole MCB 30 Amp	each	25.00	737.00	50%	1105.50	27637.50

**4 (L) Miniature Circuit Breaker &
Isolator**

HSR Supply & erection of
31.17 miniature circuit
breaker/isolator 240/415 V in
the existing distribution
board including making
necessary connection:-

**(a) Miniature Circuit Breaker
of 9 K A breaking capacity**

(ii) 6 amp to 32 amp (Both)	Nos	620.00	197.00	30%	256.10	158782.00
(ii) 63 amp single pole with neutral	Nos	40.00	240.00	30%	312.00	12480.00
(iii) 40 amp to 60 amp TPN	Nos	25.00	499.00	30%	648.70	16217.50

**5 31.21 Supply & erection of pipe
for wiring purpose
including bends
inspection boxes etc
where necessary and
painting as required:-**

xv Heavy gauge welded conduit pipe 20mm dia 1.60 mm thickness on surfaces.	Rmt	50.00	14.90	80%	26.82	1341.00
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xvi	Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness on surfaces.	Rmt	100.00	18.40	80%	33.12	3312.00
xvii	Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness on surfaces.	Rmt	25.00	23.20	80%	41.76	1044.00
xviii	Heavy gauge welded conduit pipe 40 mm dia 1.60 mm thickness on surfaces.	Rmt	10.00	33.10	80%	59.58	595.80
xxx	Supply & erection of PVC pipe of 6 kg pressure, laid 1 meter below ground level complete, including digging refilling of the trench with jointing etc.						
(b)	PVC pipe 80 mm dia	Rmt	15.00	42.00	80%	75.60	1134.00
(c)	PVC pipe 65 mm dia	Rmt	25.00	31.00	80%	55.80	1395.00
6	31.35 Dismantling old wiring points xii (not recessed) including necessary repairs to wall etc.						
a	Light, fan or call bell point	No	350.00	2.80	80%	5.04	1764.00
b	Wall socket point	No	100.00	1.60	80%	2.88	288.00
7	31.12 Main Switch						
a	Supply & erection of metal clad switches/B.D.B.S with rag bolts on wall or on existing angle iron board/pedestal including bonding to earth and necessary connections:-						
xv	63 Amp TPN (Cropton, GEC, Standard)	Nos	6.00	521.00	80%	937.80	5626.80
xvi	100 Amp TPN (-do-)	Nos	2.00	858.00	80%	1544.40	3088.80
8	31.22 Earthing with G I earth pipe (i) 4.5 m long & 40 mm dia with masonry enclosures on the top etc. as required	Each	6.00	378.00	80%	680.40	4082.40
(ii)	Extra for using salt and charcoal/ coke for pipe earth electrode as required	Each	6.00	125.00	80%	225.00	1350.00

xii	Pdg. And laying earth connections from earth electrode with 4.00 mm dia G I wire in 15 mm dia G I pipe from earth electrode as required	Rmt	25.00	24.50	80%	44.10	1102.50
9	NS Supply & erection of PVC unsheathed multishaded copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost & erection of pipe:-						
	(I) Size 1.50Sqmm (1/1.40mm) Meter	1000.00				8.00	8000.00
	(II) Size 2.50Sqmm (1/1.80 mm) Meter	800.00				15.00	12000.00
	(III) Size 4 Sqmm (1/2.24mm) Meter	6000.00				25.00	150000.00
	(IV) Size 6 sqmm (1/2.80mm) Meter	2500.00				30.00	75000.00
	(V) Size 10 Sqmm(1/3.50mm) Meter	1500.00				51.00	76500.00
10	NS Supply & erection of Steel Shuttered 1.6 mm (16 gauge sheet) in the existing wall shutter make out 1.6 Sqmm thick with openable & lockable arrangement.	Sqmt	25.00			1500.00	37500.00
11	NS S/E Adoter box made out of 1.6mm (16 gauge M S Sheet for loose wire box of suitable size as site request	Nos	60.00			500.00	30000.00
12	NS Providing & fixing Angle Iron frame of suitable size of installation of main switch and MCB DB as required	Kg	100.00			35.00	3500.00
13	NS S/E fitting Box type Tube fitting Philips make						
	(I) TMC 55/136 Nos	50.00				720.00	36000.00
	(II) TMC 55/236 Nos	100.00				1200.00	120000.00
	(III) KKV 22/236 Nos	50.00				1550.00	77500.00
14	NS Providing & fixing of 32 Amp SPN metal clad socket outlet in sheet steel enclosure having with 1 no. 32 Amp SPN MCB and 1 no. 32 Amp metal clad socket complete with connection etc.	Nos	40.00			1100.00	44000.00

- 15 NS Supply & fixing of Bajaj
make (Comfort model)
ceiling fan with suitable size
G / I down rod complete

(I)	1400 mm	Nos	200.00	1400.00	280000.00
16	NS	Civil Work (Flooring etc.)		L S	<u>380000.00</u>
					1821321.30
				NBCC CHARGES @ 10%	<u>182132.13</u>
				TOTAL	<u>2003453.43</u>
				Say Rs.	20.03 Lacs

**To consider & Approve the Rough Cost Estimate for
Repair/modification of Instructional Building.**

The Instructional Building of National Institute of Technology, Kurukshetra was constructed about 40 years back. The condition of Electrical Wiring & appliances in the Class rooms, Laboratories, Offices etc. have become very old leading to frequent electrical break downs. Consequently, the teaching work has been suffering badly. It is, therefore, proposed that all the old wiring, appliance etc. be replaced with new ones. The estimated cost for this work as submitted by NBCC Ltd. is Rs. 15.38 lacs. The Govt. of India has sanctioned a sum of Rs. 15.00 lacs under TEQIP scheme for the above purpose.

The Building & Works Committee Consider and approve the above estimate for Rs. 15.38 lacs.

**ROUGH COST ESTIMATE FOR INSTRUCTIONAL BUILDING REPAIR &
MODIFICATION AT NIT KKR**

Sr. No.	HSR Description Item No.	Unit	Qty	HSR 1988 CP RATE	AS ON JULY'03	Rate	Amount
1	31.4 Wiring in 1.5 Sqmm PVC insulated FRLS copper conductor cable with 1 no. 1.0 sqmm copper insulated earth wire in 1.6mm thick ms conduit pipe including switch, wall socket, hylamp sheet, junction box, MS box etc & other consumable material as required complete.						
	(I) Fan Point						
	(a) Short Point	Point	25.00	99.00	120%	217.80	5445.00
	(b) Medium Point	Point	78.00	136.00	120%	299.20	23337.60
	(c) Long Point	Point	78.00	179.00	120%	393.80	30716.40
	(ii) Light Point						
	(a) Short Point	Point	25.00	69.00	120%	151.80	3795.00
	(b) Medium Point	Point	260.00	106.00	120%	233.20	60632.00
	(c) Long Point	Point	218.00	147.00	120%	323.40	70501.20
	(iii) Twin Control Light Point						
	(a) Short Point	Point	4.00	71.00	120%	156.20	624.80
	(b) Medium Point	Point	10.00	110.00	120%	242.00	2420.00
	(c) Long Point	Point	10.00	153.00	120%	336.60	3366.00
	(iv) Light Point without Control						

(a)	Short Point	Point	5.00	38.00	120%	83.60	418.00
(b)	Medium Point	Point	45.00	69.00	120%	151.80	6831.00
(c)	Long Point	Point	15.00	108.00	120%	237.60	3564.00
(vi)	Call bell Point including cost of M.S. Box 180 mm x 100 mm x 60mm deep for call bell.						
(a)	Short Point	Point	2.00	87.00	120%	191.40	382.80
(b)	Medium Point	Point	5.00	124.00	120%	272.80	1364.00
(c)	Long Point	Point	60.00	166.00	120%	365.20	21912.00
(vii)	3 pin 5 Amp. Plug Point						
(a)	Short Point	Point	10.00	80.00	120%	176.00	1760.00
(b)	Medium Point	Point	150.00	120.00	120%	264.00	39600.00
(c)	Long Point	Point	70.00	162.00	120%	356.40	24948.00
(viii)	3 pin 15 Amp. Plug Point including wiring with 2 No 2.5 Sqmm Copper and 1.5 Sqmm earth wire and 15 Amp switch & socket outlet etc. complete.						
(a)	Short Point	Point	5.00	93.00	120%	204.60	1023.00
(b)	Medium Point	Point	55.00	135.00	120%	297.00	16335.00
(c)	Long Point	Point	250.00	180.00	120%	396.00	99000.00
2	31.2 Supply & erection of pipe for wiring purpose including bends inspection boxes etc where necessary and painting as required:-						
1							
xv	Heavy gauge welded conduit pipe 20mm dia 1.60 mm thickness on surfaces.	Rmt	350.00	14.90	80%	26.82	9387.00
xvi	Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness on surfaces.	Rmt	150.00	18.40	80%	33.12	4968.00
xvii	Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness on surfaces.	Rmt	50.00	23.20	80%	41.76	2088.00
xviii	Heavy gauge welded conduit pipe 40 mm dia 1.60 mm thickness on surfaces.	Rmt	25.00	33.10	80%	59.58	1489.50
xxx	Supply & erection of PVC pipe of 6 kg presure, laid 1 meter below groubd level complete, including digging refilling of the trench with jointing etc.						

	(a)	PVC pipe 120mm dia	Rmt	25.00	59.00	80%	106.20	2655.00
	(b)	PVC pipe 80 mm dia	Rmt	25.00	42.00	80%	75.60	1890.00
	(c)	PVC pipe 65 mm dia	Rmt	25.00	31.00	80%	55.80	1395.00
3	31.2	Earthing with G I earth pipe						
	2 (i)	4.5 m long & 40 mm dia with masonry enclosures on the top etc. as required	Each	12.00	378.00	80%	680.40	8164.80
	(ii)	Extra for using salt and charcoal/ coke for pipe earth electrode as required	Each	12.00	125.00	80%	225.00	2700.00
	xii	Pdg. And laying earth connections from earth electrode with 4.00 mm dia G I wire in 15 mm dia G I pipe from earth electrode as required	Rmt	150.00	24.50	80%	44.10	6615.00
4	31.2	Erection of ceiling fan						
	0 (i)	complete with necessary earthing of fan & regulator including carriage from local railway station/Goods transport / PWD store to the site of work.	Nos	200.00	13.00	80%	23.40	4680.00
	(iii)	Erection of exhaust fan complete with necessary earthing of fan & regulator including carriage from local railway station/Goods transport / PWD store to the site of work.	Nos	10.00	25.00	80%	45.00	450.00
	(v)	Making suitable hole in the wall upto 450mm sweep exhaust fan including finishing the same & fixing of wire mesh duly fixed with Deoder wood frame of section 40 mm x 25 mm thick	Nos	10.00	53.00	80%	95.40	954.00
5	31.1	Erection only of 1 x 40						
	8	watts or 2 x 40 watts 1220						
	xxii	mm long/ 1 x 20 watts or 2 x 20 watts 610 mm long flourecent tube with fittings by means of 2 Nos. 20 mm dia meter 1.60 mm thickness conduit pipe with spring loaded brass flanges at both ends including 0.75 sqmm (24/0.20 mm) PVC copper flexible cable for connecting the tube to the adjacent light point	Each	208.00	28.50	80%	51.30	10670.40

adjacent light point
including cost of conduit
pipe flanges. PVC flexible
cable & petty material
required for the same (Upto
1/2 metr length of pipe)

xiii		Extra for additional length of 20 mm dia conduit pipe for hanging of fitting (for item no. xxi, xxii)	Rmt	110.00	11.30	80%	20.34	2237.40
6	31.1	Sheet Steel Enclosure						
	2 D	Supply & erection of sheet steel enclosure distribution boards suitable for MCBs etc on wall/ existing board/pedstal with rag bolts including bonding to earth:-						
iv	a	4 Way SPN	Nos	14.00	263.00	80%	473.40	6627.60
	b	4 Way TPN	Nos	6.00	692.00	80%	1245.60	7473.60
v	a	6 Way SPN	Nos	20.00	279.00	80%	502.20	10044.00
	b	6 Way TPN	Nos	3.00	831.00	80%	1495.80	4487.40
vi	a	8 Way SPN	Nos	20.00	293.00	80%	527.40	10548.00
	b	8 Way TPN	Nos	6.00	924.00	80%	1663.20	9979.20
7	31.1	Supply & erection of miniature circuit breaker/Isolator 240/415 V in the existing distribution board including making necessary connections:-						
	(a)	Miniature Circuit Breakers of 9 K.A. breaking capacity						
	(ii)	6 to 32 Amp SP MCB	Nos	600.00	197.00	30%	256.10	153660.00
	(iii)	40 to 63 Amp SPN MCB	Nos	35.00	240.00	30%	312.00	10920.00
	(b)	M C B (FOR INCOMER)						
	(ii)	63 Amp SPN MCB	Nos	4.00	240.00	30%	312.00	1248.00
	(iii)	63 Amp TPN MCB	Nos	2.00	499.00	30%	648.70	1297.40
8	31.12	Main Switch						
	a							

Supply & erection of metal clad switches/B.D.B.S with rag bolts on wall or on existing angle iron board/pedstal including bonding to earth and necessary connections:-

xv	63 Amp TPN (Cropton, GEC, Standard)	Nos	9.00	521.00	80%	937.80	8440.20
xvi	100 Amp TPN (-do-)	Nos	11.00	858.00	80%	1544.40	16988.40
xvii	200 Amp TPN (Catagary - A)	Nos	3.00	2646.00	80%	4762.80	14288.40
9	31.3 Dismantilling old wiring						
5 xii	points (not recessed) including necessary repaire to wall etc.						
a	Light, fan or call bell point	No	300.00	2.80	80%	5.04	1512.00
b	Wall socket point	No	150.00	1.60	80%	2.88	432.00

NON-SCHEDULE

1	Supply of following types flourcent tube light fixture complete with tube rod, chocks, condensor etc. Complete of (Phillips make)						
I	TMC - 55/136 HPF	Nos	150.00			550.00	82500.00
ii	TMC - 55/236 HPF	Nos	1.00			850.00	850.00
iii	TBS 50/236 HPF	Nos	1.00			2300.00	2300.00
iv	SRP 202/250 with 250 W HPSV lamp	Nos	10.00			4500.00	45000.00
2	Supply of following size ceiling fan of Bajaj make (Comfort Model)						
I	1200 mm sweep	Nos	1.00			900.00	900.00
ii	1400 mm sweep	Nos	100.00			1200.00	120000.00
3	Supply & erection of PVC unsheathed FRLS copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost & erection of pipe;						
I	1.00 Sqmm	Rmt	250.00			6.00	1500.00
ii	1.50 Sqmm	Rmt	550.00			8.00	4400.00
iii	2.50 Sqmm	Rmt	125.00			11.00	1375.00
iv	4.00 Sqmm	Rmt	240.00			16.00	3840.00
v	6.00 Sqmm	Rmt	1000.00			25.00	25000.00
vi	10 Sqmm	Rmt	50.00			44.70	2235.00

4	Providing & fixing computer point with 2 No. 2.5 Sqmm copper FRLS wire with 1.5 Sqmm copper earth wire including providing & fixing of 1No, 5 Amp switch with 3 Nos 5 Amp socket outlet in suitable size M S box hylamp sheet etc complete with all respect	Nos	155.00	950.00	147250.00
5	Providing & laying of telephone wiring with 2 pair telephone wire from telephone box to telephone point complete with telephone socket outlet, M S Box, hylamp sheet etc.	Nos	150.00	800.00	120000.00
6	Providing & fixing of following size exhaust fan of Crompton greaues make of 2880 rpm heavy duty complete with all accessories.				
i	380 mm sweep	Nos	5.00	3000.00	15000.00
ii	450 mm sweep	Nos	5.00	4000.00	20000.00
7	Providing & fixing Angle Iron frame of suitable size of installation of main switch and MCB DB as required	Kg	150.00	25.00	3750.00
8	Dismantilling of DB & Main DB	Nos	15.00	15.00	225.00
9 a	Providing & fixing of 20 pair tag block in sheet steel encloser including mending good the damages No.		10.00	600.00	6000.00
b	Providing & fixing of 50 pair tag block in sheet steel encloser including mending good the damages No.		5.00	1500.00	7500.00
c	Providing & fixing of 100 pair tag block in sheet steel encloser including mending good the damages No.		2.00	2000.00	4000.00
10	Providing & fixing of 32 Amp SPN metal clad socket outlet in sheet steel encloser having with 1 no. 32 Amp SPN MCB and 1 no. 32 Amp metal clad socket complete with Set		40.00	1100.00	44000.00

connection etc.

11	providing & fixing with MS clamp on parapet of 1.5 meter long 40 mm dia GI pipe security light bracket having suitable bend & fixed in inside suitable GI pipe upto 40 cm from bottom having with manual locking arrangement and moving arrangement at any angle as approved by E I C. Set	12.00	350.00	4200.00
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	1398091.10
NBCC CHARGES @ 10%	139809.11
TOTAL	1537900.21
Say Rs. 15.38 Lacs	

Item no. 2.39 **To consider and approve the RCE for providing wiring for Acs & Computers etc. in Computer Lab. of CE Deptt.**

In Civil Engg. Deptt., wiring for ACs & Computer were proposed to be provided in Computer Lab of the Deptt. at an estimated cost of Rs 1.23 lacs. The expenditure is proposed to be incurred out of *Equipment grant of Civil Engg. Deptt.* and the work would be executed by NBCC.

The Building & Works Committee may consider & approve the above estimate.

Item No. 2.40 **To consider and approve the RCE for the provision of Geysers and Exhaust Fans in Hostel Toilets**

All the washrooms (Bathrooms, toilets etc.) of the Boys Hostels are being renovated with glazed tiles & modern fittings (Item No. 2.15). However, the provision of Exhaust Fans & Geysers were not made in the original estimate. It is now proposed that the above amenities be provided in the Hostels at an estimated cost of Rs. 8.00 lacs. The work is being carried out by NBCC.

The Building & Works Committee may consider & approve the above estimate.

ROUGH COST ESTIMATE FOR RENOVATION OF HOSTEL TOILET 1
TO 5.

Sr. No.	Description	Unit	Qty	Rate	Amount
1	Providing & fixing in position Usha, Bajaj, Recold make (To the approval of the Engineer in Charge) 50 ltrs. capacity storage type automatic electric water heater, pressure/Non-Pressure type the rmostatically controlled, suitable for operation on 230 Volts, 50 cycles single phase vertical wall mounting fitted with withdrawable and adjustable type AC thermostat, thermostat knob to be readily. Accessable through the opening of suitable cover for adjustment of temprature in the installed postion of heater and the thermostat should be withdrawn without having to drain thewater, electric heating element made out of copper tube (Heating element should be easily removed and replaced in the installed position of heater) A neon indicator 1 Amp. Inne container made out of coppertined both from inside and outside outer container made out of mild steel sheet finished in gleaming white stove enamel paint insulated between the inner and outer with fibre glass wool with 1 meter length of suitable capacity 3 core flexible cord with plug and non return valve plastic/lead connections or pressure release valve (Where required) Complete including fixing & testing for a week(as required by the Engineer - in-charge)	Nos	54	8650.00	467100.00
2	Providing & fixing of 380mm sweep 950 RPM heavy duty crompton greaves make exhaust fan on suitable size wooden from including connection etc. complete as required and fixing of louver Shutter on wall, mending good the damages including providing of small material required to complete the work.	Nos	54	4800.00	259200.00
					726300.00
				NBCC Charges 10%	72630.00
				TOTAL	798930.00
				Say Rs. 8.00 lacs	

**To consider and approve the Rough Cost Estimate for the
Installation of HT/LT Sub-Station**

In the Institute the electricity supply is made directly by the State Electricity Board (UHBVN) through LT connections. The system worked satisfactorily when the Institute did not grow fully it had low electricity demand. With the increase in laboratories & buildings, the electric load of the Institute has increased manifold, thus requiring augmentation of load for the installed energy meters. With the present rules of UHBVN, any connection with more than 70 KW load requires HT connection resulting into installation of new transformer for the connection, the cost for which is to be borne by the Institute. Thus, the individual HT connections, several in numbers will require huge investment by the Institute. To get rid of this problem, it is proposed that bulk electricity supply be taken from UHBVN & distribution be made at Institution level. This will save paying rent for the individual energy meters and augmenting the load of the energy meters installed at various meters at the Institute level. Further, the present overhead distribution system will be changed by underground distribution system, thus adding aesthetics to the campus. The estimated cost for the entire work as detailed in the enclosed estimate is Rs. 302.00 lacs.

The Building & Works Committee may consider & approve the above estimate.

ROUGH COST ESTIMATE FOR THE INSTALLTION OF HT/LT SUB STATION

Sr. No.	Description	Unit	Qty	Rate	Amount
1	GO Switch complete with all accessories and 2 Nos RCC Poles	Set	1.00	45000.00	45000.00
2 a	SITC of HT cable size 3 core 240 Sqmm XLPE from GO switch to CT/PT Unit	Rm	200.00	1450.00	290000.00
2 b	SITC of HT cable size 3 core 240 Sqmm XLPE from service station to GO Switch	Rm	1500.00	1450.00	2175000.00
3	SITC of jointing kits for 3 core 240 sqmm XLPE HT cable				
a	Outdoor Type	Nos	1.00	11000.00	11000.00
b	Indoor Type	Nos	3.00	10000.00	30000.00
4	SITC of CT/PT Unit with 1 No. Trivector Meter	Set	1.00	150000.00	150000.00
5	SITC of 5 panel board HT VCCB	Set	1.00	2500000.00	2500000.00
6	SITC of 1000 KVA outdoor type copper wound transformers	Nos	4.00	650000.00	2600000.00
7	SITC of HT cable size 3 core 120 Sqmm XLPE from VCCBs to transformers	Rm	1500.00	980.00	1470000.00
8	SITC of jointing kits for 3 core 120 Sqmm XLPE HT cable	Nos	8.00	9500.00	76000.00
9	SITC of 150 AH, 24 volts Battery Station	Set	1.00	75000.00	75000.00
10	SITC of 2.5 Sqmm Copper Arm Control cables				
a	10 Core 2.5 Sqmm	Rm	150.00	190.00	28500.00
b	3 Core 2.5 Sqmm	Rm	250.00	105.00	26250.00
11	Cable & tarminations for control cables				
a	10 Core 2.5 Sqmm	Nos	8.00	150.00	1200.00
b	3 Core 2.5 Sqmm	Nos	32.00	90.00	2880.00
12	SITC of 600 x 600 x 3.15 mm copper earth plate complete with as per specifications	Nos	8.00	6500.00	52000.00
13	SITC of Danger plates 415 Volts	Nos	14.00	4000.00	56000.00
14	SITC of earthing strips as per specifications.				
a	40 x 5 mm Copper earth Strip	Rm	200.00	450.00	90000.00
b	40 x 5 mm GI earth strip	Rm	500.00	90.00	45000.00
c	25 x 4 mm GI earth strip	Rm	100.00	60.00	6000.00
15					

a	CO-2 type fire extinguishers	Nos	10.00	4500.00	45000.00
b	Dry powder type fire extinguishers	Nos	10.00	3500.00	35000.00
16	SITC of Fire Buckets with stands	Nos	6.00	2500.00	15000.00
17	SITC of Dander plates 11 KV	Nos	20.00	250.00	5000.00
18	SITC of fencing wok with grevals etc.	Job	1.00	125000.00	125000.00
19	SITC of 300 mm dia RCC Hume pipe with mainholes etc. as per specifications.	Rm	200.00	350.00	70000.00
TOTAL - A					10024830.00

Sr. No.	Description	Unit	Qty	Rate	Amount
1	SITC of main panel boards	Nos	3.00	1000000.00	3000000.00
2	SITC of LT Cables in under ground trenches				
a	3.5 x 630 sqmm AL Cond Arm Cable	Rm	600.00	1850.00	1110000.00
b	3.5 x 240 sqmm AL Cond Arm Cable	Rm	1000.00	775.00	775000.00
c	3.5 x 185 sqmm AL Cond Arm Cable	Rm	1000.00	675.00	675000.00
d	3.5 x 150 sqmm AL Cond Arm Cable	Rm	800.00	525.00	420000.00
e	3.5 x 95 sqmm AL Cond Arm Cable	Rm	1200.00	375.00	450000.00
3	SITC of cable end terminations				
a	3.5 x 630 sqmm AL Cond Arm Cable	Nos	24.00	1000.00	24000.00
b	3.5 x 240 sqmm AL Cond Arm Cable	Nos	12.00	800.00	9600.00
c	3.5 x 185 sqmm AL Cond Arm Cable	Nos	12.00	500.00	6000.00
d	3.5 x 150 sqmm AL Cond Arm Cable	Nos	8.00	300.00	2400.00
e	3.5 x 95 sqmm AL Cond Arm Cable	Nos	8.00	250.00	2000.00
4	SITC of 600 x 600 x 6 mm GI earth plate complete with as per specifications	Nos	16.00	4000.00	64000.00
5	SITC of earthing strip as per specifications				
a	40 x 5 mm GI earth strip	Rm	500.00	90.00	45000.00
b	25 x 4 mm GI earth strip	Rm	300.00	60.00	18000.00
6	SITC of fire extinguishers				

a	CO-2 type fire estingushers	Nos	10.00	4500.00	45000.00
b	Dry powder type fire extingushers	Nos	10.00	3500.00	35000.00
7	SITC of fire buckets with stands	Nos	6.00	2500.00	15000.00
8	SITC of Danger plates 415 Volts	Nos	20.00	250.00	5000.00
9	SITC of 300 mm dia RCC Hume pipe with mainholes etc. as per specifications	Rm	200.00	350.00	70000.00
10	Construction of service station Building	Job	1.00	2000000.00	2000000.00
11	SITC of Tubular poles including cabling & electrical fixtures	Nos. 300		10000.00	3000000.00
				TOTAL - B	11771000.00
				TOTAL A + B	21795830.00

ADD FOR UNVBN CHARGES @
26 % **5666915.80**
27462745.80

ADD NBCC CHARGES @ 10% **2746274.50**
TOTAL **30209020.30**

Say Rs. 302.00 Lacs

To consider & approve the RCE for the installation of DG Sets

At present the Institute is dependent on UHBVN supply. Earlier the state Government used to provide uninterrupted electric supply to the Institute for 24 Hrs. However, in recent years, there is a shortage of electricity in the State and there are frequent load shedding in the campus. This has been severely hampering the Instructional & research work in the Institute. With the present scenario no improvement is in foresight. It is, therefore, proposed that two Nos. DG sets 1250 KVA capacity each be provided so that the normal functioning in respect of Instructional & Research work be restored in the Institute. The estimated cost for the DG sets including accessories & housing was worked out at Rs. 154.00 lacs.

The Building & Works Committee may consider & approve the above estimate.

SITC of 1250 KVA DG set including automatic panel accessories & other related items	2 Nos.	Rs. 6500000.00	Rs. 13000000.00
Housing etc.	1 No.	Rs. 10,00,000.00	Rs. 10,00,000.00
	NBCC Charges 10%		Rs. 1400000.00
	Total		Rs. 15400000.00
			Rs. 154.00 Lacs

To Adopt Delhi Schedule of Rates for framing estimates

The Institute has been using Haryana Schedule of Rates (HSR) for framing estimates for various construction works. However, the Delhi Schedule of Rates (DSR) as used by CPWD is more elaborate and up-to-date. The officials of MHRD, Govt. of India during the discussion for plan proposal 2004-2005 pointed out that NIT, Kurukshetra should adopt DSR instead of HSR for framing estimates in future.

The Building & Works Committee may consider & approve the above proposal i.e. using DSR instead of HSR for framing estimates.

