



**AGENDA FOR 10TH
MEETING OF BUILDING &
WORKS COMMITTEE**

FEB.19, 2009



**NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA-136119**

AGENDA FOR 10TH MEETING OF BUILDING & WORKS COMMITTEE

**VENUE : BOARD ROOM
NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA**

DAY : THURSDAY

DATE : 19-02-2009

TIME : 11.00 AM

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

CONTENTS

ITEM NO.	DESCRIPTION	PAGES
	Constitution of Building and Works Committee	
10.1	To confirm the minutes of 9 th Meeting of Building and works committee held on 17.03.2008.	1
10.2	To report the action taken on the minutes of 9 th meeting of Building & Works Committee (B&WC) held on 17.03.2008	2-7
10.3	To consider RCE for the provision of Glazed tiles in the Hostels, Residences (Toilets & Kitchens) and Instructional Buildings.	8-9
10.4	To consider & approve revised cost estimate for the Construction of swimming pool at NIT, Kurukshetra.	10-26
10.5	To consider and approve the Revised Cost Estimate for the provision of Stores in G-type houses at NIT, Kurukshetra.	27-33
10.6	To consider and approve the Revised Cost Estimate for the construction of 12 numbers Lecturer Hall at NIT, Kurukshetra	34-53
10.7	To consider & approve the Revised cost estimate for the construction of additional Girls Hostel (300 Capacity) at NIT, Kurukshetra.	54-73
10.8	To consider & approve the Revised Cost Estimate for the construction of New PG Hostel of 350 seaters Capacity at N.I.T, Kurukshetra.	74-98
10.9	To consider and approve cost estimate for the extension of existing road between Tubewell No. 5 and Students Activity Centre upto 350 Seaters Boys Hostel at National Institute of Technology, Kurukshetra	99-102
10.10.	To consider and approve cost estimate for the special repair, renovation and miscellaneous works at National Institute of Technology, Kurukshetra	103-104
10.11	To consider & approve the Revised Cost Estimate for the construction of 350 Seaters Boys Hostel for Under-Graduate Students at NIT Kurukshetra.	105-135
10.12	To consider and approve the cost estimate for providing & fixing of Wash Basin & Looking Glass alongwith necessary accessories in G-Type Houses at NIT Kurukshetra.	136-138
10.13	To consider & approve the Revised Cost Estimate for providing & installation of 2 Nos. Tubewells in NIT, Kurukshetra.	139-145
10.14	To consider and approve the Revised Cost Estimate for the construction of 350 Seaters Boys Hostel at N.I.T, Kurukshetra	146-159
10.15	To consider and approve the Cost Estimate for the replacement of existing normal light fittings with energy efficient (T-5) type lighting fittings.	160
10.16	(i). Cost Estimate For Provision Of Approach Road & Gates in CA-3, CA-5, CA-6 & BB-5 Houses at NIT, Kurukshetra. (ii). Cost Estimate For Replacement of Garage Rolling Shutters with openable Iron Gates For BB-1 to BB-8, BC-1 to BC-4 & BC-6, BA-1 to BA-4 & BA-6 and CA-9 Houses at NIT, Kurukshetra. (iii). Cost Estimate for the provision Of Garages with openable Iron Gate and approach road for AD-5 & AD-6 Houses at NIT, Kurukshetra.	161-167
10.17	To consider and approve the Cost Estimate for the provision of stores in DA Type Houses (DA-10 to DA-15) at NIT, Kurukshetra.	168-173
10.18	To consider & Approve the Cost estimate for providing premix carpeting with 'B' Type seal Coat on various existing roads in the Institute at NIT, Kurukshetra.	174-175

CONSTITUTION OF BUILDING AND WORKS COMMITTEE

- | | | |
|----|--|------------------------|
| 1. | Dr. M.N. Bandyopadhyay,
Director,
National Institute of Technology,
Kurukshetra | Chairperson |
| 2. | Sh. Madan Mohan,
Director (NITs),
Ministry of Human Resource Development,
Deptt. of Higher Education,
Shastri Bhawan,
New Delhi-110001 | Member |
| 3. | Dr. R.P. Singh,
Council Member,
AICTE, Retd. Executive Director,
A-1, Chattarsal Nagar, Phase-I, JK Road,
BHEL, Bhopal | Member |
| 4. | Dr. Krishna Gopal
Dean (Planning & Development)
National Institute of Technology,
Kurukshetra | Member |
| 5. | Er. M.P. Gupta,
Director, Technical Education Haryana,
Sector-4 Bays No. 7-12
Panchkula | Member |
| 6. | Er. Niranjana Singh,
Superintending Engineer (Civil),
Chandigarh Central Circle, CPWD,
Chandigarh | Member |
| 7. | Er. Vimal Kumar
Superintending Engineer (Electrical),
Chandigarh Electrical Central Circle, CPWD,
Chandigarh | Member |
| 8. | Dr. S.K. Sharma,
Dean (Estate, EM & Constn.),
National Institute of Technology,
Kurukshetra | Special Invitee |

- | | | |
|------|---|-------------------------|
| 9. | Sh. Anil Kumar,
Professor, Deptt. of Architecture,
Deen Bandhu Sir Chhotu Ram Univ. of
Science & Technology,
Murthal | Special Invitee |
| 10. | Dr. V.P Singh
Prof. In-charge (Estate & Construction),
National Institute of Technology,
Kurukshetra | Special Invitee |
| 11. | Prof. C.P Bansal
Prof. I/C (EM)
National Institute of Techonology,
Kurukshetra | Special Invitee |
| 11. | Er. P.K Aggarwal
Executive Engineer,
Construction Cell,
National Institute of Technology,
Kurukshetra | Special Invitee |
| 13. | Sh. D.K. Kaushik,
Assistant Engineer (Flect.),
National Institute of Technology,
Kurukshetra | Special Invitee |
| 14 . | Sh. S.N. Kaushik,
Assistant Engineer (Civil),
National Institute of Technology,
Kurukshetra | Special Invitee |
| 15. | Sh. G.R Samantaray
Registrar-in -charge
National Institute of Technology,
Kurukshetra | Member-Secretary |

Item No.10.1 To confirm the minutes of the 9th Meeting of Building & Works Committee held on 17.03.2008

The minutes of the 9th meeting of Building & Works Committee held on 17.03.2008 were circulated amongst the members vide letter No. NIT/9th BWC/3323-32 dated 27-03-2008. No comments were received from any member.

The minutes may be confirmed.

Item No: 10.2

To report the action taken on the minutes of the 9th meeting of the Building & Works Committee held on 17.03.2008.

Item No.	Subject	Decision taken	Action taken
9.1	To consider the minutes of the 9th meeting of BWC held on 17-03-2008	Minutes confirmed	No action is required.
9.2	To report the action taken on the minutes of the 9 th meeting of BWC held on 17.03.2008.	The Committee noted the action taken on various decisions taken by BWC.	
		Item (14.3) & (15.2). The Chief Engineer, PWD (B&R) may again be requested to take up installation of Tubewell for PWD Colony on priority basis	Action is being taken by the PWD (B&R), Govt. of Haryana
		Item No. (2.41)(4.17) & (9.13) The BWC approved the RCE amounting to Rs.5.82 crore lacs for installation of HT/LT sub station.	Work allotted to CPWD
		Item (7.3) The Building & Works Committee approved the RCE amounting to Rs.281.72 lacs for the Provision of Class Rooms, Laboratories and office rooms on the Ist Floor of New Equipment Shop at Workshop as per details furnishes in agenda item	Work Completed
		Item (7.4) The Building & Works Committee approved the RCE amounting of Rs.18.63 lacs for extension of Director's Residence. The cost estimate may be reviewed.	Work Completed
		Item (19.4) BWC approved the RCE amounting to Rs. 221.80 lacs for Construction of a Gymnasium Hall in the Institute.	Funds are yet to be allocated.
		Item (19.15) BWC approved the RCE amounting to Rs.18.39 lacs. for the Construction of Training & Placement Department building in the Institute.	Funds are yet to be allocated.
		Item (17.16, 20.12 & 1.9) BWC approved the RCE amounting to Rs. 64.15 lacs for Const. of	Funds are yet to be allocated.

		Community Centre in Institute.	
		Item No. (2.40) The BWC approved the RCE amounting to Rs. 8.00 lacs for Provision of geysers and exhaust fans in hostel toilets. BWC in its 7 th meeting, however, decided that the institute may opt for Solar Heaters instead of geysers and advantage of Govt. subsidy on Solar Heaters may be taken for the purpose.	Funds are yet to be allocated.
		Item No. (2.42 & 4.17) The BWC approved the RCE amounting to Rs.154.00 lacs for installation of DG sets.	Funds are yet to be allocated.
		Item No. (4.3) The BWC approved the RCE amounting to Rs. 85.44 lacs for glazed tiles in Hostels, Guest House, Residences (Toilets and kitchens) and Instructional Buildings Toilets.	Tiling work completed in Institute & Hostels except Residencies. (A separate item no.10.3 is attached)
		Item No. (4.11) The BWC approved the RCE amounting to Rs. 27.99 lacs for reconstruction of damaged/cracked/tilted compound walls in G type Houses of the campus.	Work in progress,
		Item No. (4.12 & 6.16) The BWC approved the RRCE amounting to Rs. 240.76 lacs for Construction of Swimming Pool at NIT, KKR	Work allocated to CPWD. Tendering work is in process (A separate item no.10.4 is attached.)
		Item No. (6.5) The Building & works Committee approved the RRCE amounting to Rs. 15.62 lacs for Provision of Community Scooter Stand for E&F type houses at NIT Kurukshetra.	Funds are yet to be allocated.
		Item No. (6.6) The Building & works committee approved the RCE amounting to Rs. 28.48 lacs for Construction of Stores in G-type houses at NIT Kurukshetra	Work in progress, (A separate item no.10.5 is attached)
		Item No. (6.7) The Building & Works Committee approved the RCE of Rs. 5.00 lacs for Renovation /special repair of Old Health Centre Building.	Funds are yet to be allocated.
		Item No. (6.10) The Building & Works Committee approved the	Funds are yet to be allocated.

		RCE amounting to Rs. 26.95 lacs for provision of two nos. Institute Main Gates.	
		Item No. (6.11) The Building & Works Committee approved the RCE amounting to Rs. 40.02 lacs for provision of Badminton Hall in the Institute.	Funds are yet to be allocated.
		Item No. (6.12) The Building & Works Committee approved the RCE amounting to Rs. 46.55 lacs for Construction of 4 nos. mess staff bearers barracks.	Funds are yet to be allocated.
		Item No. (6.13) The Building & Works Committee approved the RCE amounting to Rs. 30.57 lacs for Provision of Stores in Hostels.	Funds are yet to be allocated.
		Item NO. (6.14) The Building & Works Committee approved the RCE amounting to Rs. 52.07 lacs for Renovation of offices of faculty and other officers.	Funds are yet to be allocated.
		Item No (6.15) The Building & Works Committee approved the RCE amounting to Rs. 49.29 lacs for Provision of graded seating arrangement for 2000 persons in OAT.	work allotted to CPWD
		The B&WC vide item 8.4 approved the RCE amounting to Rs.148.00 lacs for the Construction of 12 Nos. Lecture Halls at NITK.	Work in progress. (A separate item no.10.6 is attached)
		The B&WC approved the RCE amounting to Rs.32.00 Lacs vide item No.8.5 for the existing lecture theaters (3 Nos.) at NITK	Funds are awaited
		The B&WC approved the RCE amounting to Rs.2500 Lacs for the construction of Mega Boys Hostel of 1000 capacity at NIT, Kurukshetra	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.103.00 Lacs for the construction of additional office Rooms for faculty/ staff at NIT, Kurukshetra.	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.810 Lacs for the construction of additional Girls	Work is in progress (A separate item no.10.7 is attached)

		Hostel (300 capacity) at NIT, Kurukshetra	
		The B&WC approved the RCE amounting to Rs.550 Lacs for the construction of Convocation Hall of 3000 capacity at NIT, KKR	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.67.4 Lacs for the construction of Institute Faculty Guest House at NIT, Kurukshetra	Tendering work is in process
		The B&WC approved the RCE amounting to Rs.68.8 Lacs for the construction of additional block of health Centre at NIT, Kurukshetra	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.933 Lacs for the construction of new PG Hostel of 350 capacity at NIT, Kurukshetra	Work is in progress (A separate item no.10.8 is attached)
		The B&WC approved the RCE amounting to Rs.220 Lacs for the construction of 10 Nos. Professors Houses at NIT, Kurukshetra	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.167 Lacs for the construction of 10 Nos. Assistant Professors Houses at NIT, Kurukshetra	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.37.00 Lacs for the extension of existing road between Tubewell No.5 and Students Activity Centre upto 350 seaters Boys Hostel at NIT, Kurukshetra.	Work Completed. (A separate item no.10.9 is attached)
		The B&WC approved the RCE amounting to Rs.100 Lacs for the special repair, renovation and misc. works at NIT, Kurukshetra.	(A separate item no.10.10 is attached)
		The B&WC approved the RCE amounting to Rs.186.22 Lacs for the construction of 24 Nos. E-Type houses at NIT, Kurukshetra.	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.111.70 Lacs for the construction of 20 Nos. F-Type houses at NIT, KKR	Funds are awaited.
		The B&WC approved the RCE amounting to Rs.6.74 Lacs for the construction of New Boundary	Funds are awaited.

		Wall around the lawn of Director's residence at NIT, Kurukshetra.	
9.3	To consider & approve revised cost estimate for the construction of 350 Seaters Boys Hostel for U.G students at NIT, Kurukshetra	The building & Works committee approved the cost estimate amounting to Rs. 1260 Lacs for construction of 350 Seaters Boys Hostel for U.G Students at NIT, Kurukshetra.	Work is in progress (A separate item no.10.11 is attached)
9.4	To consider & approve the cost estimate for construction of MBA & MCA Block – A two story framed structure building at NIT, Kurukshetra	The building & Works committee approved the cost estimate amounting to Rs. 299.09 Lacs for construction of MBA & MCA Block – A two story framed structure building at NIT, Kurukshetra.	Tendering work is in process.
9.5	To consider & approve the cost estimate for the construction of additional Block for central workshop at NIT, Kurukshetra.	The building & Works committee approved the cost estimate for amounting to Rs. 37.50 Lacs for construction of additional Block for central workshop at NIT, Kurukshetra.	Funds are yet to be allocated.
9.6	To consider & approve the cost estimate for the construction of additional Floor on the existing Examination Hall at NIT, Kurukshetra.	The building & Works committee approved the cost estimate for amounting to Rs. 92.66 Lacs for construction of additional Floor on the existing Examination Hall at NIT, Kurukshetra.	Funds are yet to be allocated.
9.7	To consider & approve the cost estimate for providing & Fixing of wash Basin and looking glass along with necessary accessories in G-Type Houses at NIT, Kurukshetra.	The building & Works committee approved the cost estimate for amounting to Rs. 6.00 Lacs for the Provision of Wash Basin & looking glass etc. in the G-Type Houses at NIT, Kurukshetra.	Work completed. (A separate item no.10.12 is attached)
9.8	To consider & approve the cost estimate for providing & Installation of 2 Nos. Tube Wells at NIT, Kurukshetra.	The building & Works committee approved the cost estimate for amounting to Rs. 19.75 Lacs for providing & Installation of 2 Nos. Tube Wells at NIT, Kurukshetra.	Work is in progress (A separate item no.10.13 is attached)
9.9	To consider & approve the cost estimate for replacement of A.C.C. sheets with Zinalume sheets & Renovation of	The building & Works committee approved the cost estimate for amounting to Rs. 67.053 Lacs for replacement of A.C.C. sheets with Zinalume	Funds are yet to be allocated.

	water channel in central/old workshop at NIT, Kurukshetra.	sheets & Renovation of water channel in central/old workshop at NIT, Kurukshetra.	
9.10	To consider & approve the cost estimate for replacement of C.I/A.C water supply lines with Centrifugally Cast (Spun) Iron Pipes Class L.A. in the Residency, Hostels & Instructional Buildings at NIT, Kurukshetra.	The building & Works committee approved the cost estimate for amounting to Rs. 1.75 Crore for replacement of C.I/A.C water supply lines with Centrifugally Cast (Spun) Iron Pipes Class L.A. in the Residency, Hostels & Instructional Buildings at NIT, Kurukshetra.	Funds are yet to be allocated.
9.11	To consider & approve the cost estimate for Providing Distempering instead of white-washing in various Residencies at NIT, Kurukshetra.	The building & Works committee approved the cost estimate for amounting to Rs. 78.75 Lacs for Providing Distempering instead of white-washing in various Residencies at NIT, Kurukshetra.	Funds are yet to be allocated.
9.12	To consider & approve the Revised cost estimate for the construction of Administrative Block at NIT, Kurukshetra.	Item No.(2.25, 6.3 & 9.12)The building & Works committee approved the Revised cost estimate for amounting to Rs.659.06 Lacs for the construction of Administrative Block at NIT, Kurukshetra.	Work allotted to C.P.W.D & work is in progress.
9.13	To consider & approve the Revised cost estimate for the Installation of ST/LT Sub-Station at NIT, Kurukshetra.	Item No. (2.41 & 4.17) The building & Works committee approved the Revised cost estimate for amounting to Rs.582.00 Lacs for the Installation of HT/LT Sub-Station at NIT, Kurukshetra.	Work ,allotted to C.P.W.D
9.14	To consider & approve the Revised cost estimate for the construction of 350 Seaters Boys Hostels at NIT, Kurukshetra.	Item No. (1.4 & 8.3) The building & Works committee approved the Revised cost estimate for amounting to Rs.12.50 Crore for the construction of 350 Seaters Boys Hostels at NIT, Kurukshetra.	Work completed (A separate item no.10.14 is attached)

Item No: 10.3 To consider RCE for the provision of Glazed tiles in the Hostels, Residences (Toilets & Kitchens) and Instructional Buildings.

The B&WC in its 4th meeting held on 13.12.2005 vide item No.4.3 approved an estimate of Rs. 85.44 Lacs for providing & fixing glazed tiles in Hostels, Guest House, Residences (Toilets & Kitchens) & Instructional Buildings.

The work was carried out for 5 Nos. Boys Hostels and Instructional Buildings with Rs. 41.72 Lacs. The remaining work is to be carried out for fixing glazed tiles in Residences (Toilets & kitchens) which is likely to be completed with a cost of Rs. 69.19 Lacs. Hence, Revised Budget Estimate for Rs. 110.97 Lacs (Rs. 41.78 Lacs + Rs. 69.19 Lacs) is framed.

In view of above, it is therefore, requested that B&WC may consider and accord approval of Rs. 110.97 Lacs to cover the cost of above works.

**REVISED COST ESTIMATE FOR THE PROVISION OF GLAZED TILES IN HOSTELS, GUEST HOUSE,
RESIDENCES (TOILETS & KITCHENS) AND INSTRUCTIONAL BUILDINGS TOILETS AT NATIONAL
INSTITUTE OF TECHNOLOGY, KURUKSHETRA**

Sr. No.	Description	Qty.	Unit	Rate (Rs.)	Amount (Rs.)
1	Providing & Fixing 1st quality Ceramic glazed tiles conforming to IS 13753 of minimum thickness 5 mm of approved make like NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in all colours, shades except begundy, bottle green, black of any size as approved by Engineer-in-charge in skirting risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement :3 Coarse Sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.				
	FOR GUEST HOUSE	170.00	Sqm	615.00	104550.00
	For Residences (Toilets & Kitchen)	12523.00	sqm	615.00	7701645.00
2	Scraping of cement plaster	12523.00	sqm	9.31	116589.13
3	Providing and fixing 18 mm thick mirror polished, machine cut for Kitchen platforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 with joints treated with white cement mixed with matching pigment, epoxy touchups, including rubbing, curing etc. and making opening of required size and shape for wash basins/ sinks etc. complete at all levels				
	Granite stone	940.92	sqm	2800.00	2634576.00
4	Extra for providing edge moulding to granite stone counters including machine polishing to edge to give high gloss finish etc.. Complete in all respects	112	Mtr.	100.00	11200.00
	Total				10568560.13
	Add 5% contingencies charges				528428.01
	Grand Total				11096988.14
	Say Rs in Lacs				110.97

**Executive Engineer,
Construction Cell,
NIT, Kurukshetra**

Item No: 10.4 To consider & approve revised cost estimate for the construction of Swimming Pool at NIT, Kurukshetra.

The B&WC in its 4th meeting held on 13.12.05 vide item No. 4.12 approved an estimated cost of Rs. 120.10 Lacs for the provision of a Swimming Pool at NIT, Kurukshetra with a size of 25m x 15m. But as per the requirement of the Sports Deptt for Olympic size 50m x 25m Swimming Pool including seating arrangements for the spectators, the NBCC submitted a cost estimate of Rs. 240.76 Lacs.

The B & WC approved the same in its 6th meeting held on 24.04.2006 vide item No. 6.16. The work was not carried out by the NBCC. The Institute decided to disengage NBCC w.e.f 31.03.2007.

After a lot of meetings & discussions, it was decided by Institute on 18.04.2007 to re-engage C.P.W.D for this work. The CPWD submitted an estimate for this work amounting to Rs. 396.76 Lacs. Accordingly, the Administrative approval was issued to CPWD after obtaining the approval of the Chairman B&WC in anticipation to the approval of the B&WC.

In view of above, it is, therefore, requested that B&WC may consider and accord approval of Rs. 396.76 Lacs for this work.

GENERAL ABSTRACT OF COST

Name of work: C/o Swimming Pool for NIT, Kurukshetra.

Sr.No.	Sub-Head and Item of work.	Civil work	Elect. Work	Total	Remarks
1	Building portion including services	11388606.00	2609691.00	13998297.00	Annexure-A & B
2	Development Work including Tubewell plumbing work etc.	1980570.00	1500000.00	3480570.00	Annexure C & D
3	Swimming Pool	13137277.00	----	13137277.00	Annexure-E
4	Boundary wall	1269755.00	----	1269755.00	Annexure-F
5	Filtration Plant /Clorination plant	6252900.00	----	6252900.00	Annexure G
				38138799.00	
	1% labour cess			381388.00	
				38520187.00	
	Add 3% contingency			1155606.00	
				G.Total 39675793.00	
				Say Rs. 3,96,75,800/-	

Assistant Engineer(P)
CPWD, Chandigarh

Executive Engineer(P-II)
CPWD, Chandigarh

Superintending Engineer(P)
CPWD, Chandigarh

Preliminary Estimate Amounting to Rs. 3,96,75,800/- (Rs. Three Crore Ninty SixLacs Seventy Five Thousand and Eight Hundered only) submitted to client Deptt. for accord of A/A &E/S.

Chief Engineer (NZ-I)
CPWD, Chandigarh

Administrative Approval for Rs. 3,96,75,800/- (Rs. Three crore ninety six lac seventy five thousand + eight hundred) only

As submitted by CPWD
AE (E) 6/1/09
AE (C) 9/5/09
6.1.2009

Chairman (Director)
Buildings & Works Committee
NIT Kurukshetra

ANNEXURE-A

PRELIMINARY ESTIMATE

Name of work :- Construction of Swimming Pool for NIT, Kurukshetra. (SH:- Built up area, services .

Sl.N o.	Description of items	Quantity	Unit	Rate	Amount
A	CIVIL WORK				
1/1.1 .1	R.C.C. framed structure upto six storeys floor height 3.35 metre. (Office/College/Hospital).	641.00 Sqm	Square Metre	13200.00	8461200.00
2/1.2 .3	Extra for :- Every 0.30 meter additional height of floor above normal floor height of 3.35 metre/2.90 metre = 0.26 metre. (3.61-3.35) = 641x 0.26/0.30 = 555.53	555.53 Sqm	Square Metre	150.00	83330.00
3/1.2 .4	Every 0.30 metre higher plinth over normal plinth height of 0.60 metre (on ground floor area only). (Plinth height 1.20 metre 2 x 641 = 1282.00)	1282.00	Square	150.00	192300.00
4/1.2 .3	Resisting earthquake forces.	641.00 Sqm	Square Metre	630.00	403830.00
				Total:-	8736830.00
B	SERVICES				
7/3.1	Internal water supply and sanitary installations. (Office/College.)	8736830.00	Percent	4.00	349473.00
8/3.2	External service connections.	8736830.00	Percent	3.75	327631.00

Add cost Index 16%

Total:- 9817764.00
Total cost index 16% 1570842
(C.I. 116 as on 01.01.08) Total:- 11388606.00

Assistant Engineer (P)
CPWD, Chandigarh

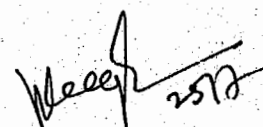
Executive Engineer (P) II
CPWD, Chandigarh

PRELIMINARY ESTIMATE

Name of work :- Construction of Swimming Pool for NIT, Kurukshetra. (SH:- Electrical works.)

Sl.N o.	Description of items	Quantity	Unit	Rate	Amount
1	Internal electrical installations.	8736830.00	Percent	12.50	1092104.00
2	Extra for power wiring and plugs.	8736830.00	Percent	4.00	349473.00
3	Extra for external service connections.	8736830.00	Percent	1.25	109210.00
4	Extra for telephone conduit.	8736830.00	Percent	0.50	43684.00
5	Extra for sealed electrical fittings due to moisture as proposed by SE (Elect.)	8736830.00	Percent	5.00	436842.00
6	Energy saving fittings.	8736830.00	Percent	2.50	218421.00
				Total	2249734.00
	Add Cost Index @ 16%				359957.00
				G.Total	2609691.00

Assistant Engineer(P)
CPWD, Chandigarh


Executive Engineer(P)II
CPWD, Chandigarh

ANNEXURE-C

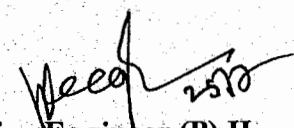
PRELIMINARY ESTIMATE

Name of work :- Construction of Swimming Pool for NIT, Kurukshetra.

SH:- Development work

Sl.No.	Description of items	Quantity	Unit	Rate	Amount
A	Development of site (Civil Work):-				
1	Internal roads and paths.	3262.00	Sqm	83.00	270746.00
2	Sewer.	3262.00	Sqm	63.00	205506.00
3	Storm water drains.	3262.00	Sqm	50.00	163100.00
4	Horticulture operations.	1631.00	Sqm	47.00	76657.00
				(C.)	716009.00
5	Tubewell installation		L.S.		500000.00
6	Plumbing work for civil work from tubewell to swimming pool and its around		L.S.		500000.00
7	Extra for lockers in changing room at ground floor		L.S.		150000.00
					1866009.00
	Add Cost Index @ 16% on 'C'	716009.00	%	16%	114561.00
				G.Total	1980570.00

Assistant Engineer (P)
CPWD, Chandigarh


Executive Engineer (P) II
CPWD, Chandigarh

PRELIMINARY ESTIMATE

Name of work :- Construction of Swimming Pool for NIT, Kurukshetra. (SH:- Electrical Development Works).

Sl.No.	Description of items	Quantity	Unit	Rate	Amount
a)	Compound Lighting.				
i)	Provision for poles and fittings		LS	300000	300000.00
ii)	Provision for High Mast Lighting		LS	600000	600000.00
iii)	Provision for Flood Lighting		LS	100000	100000.00
iv)	Provision for cables etc.		LS	300000	300000.00
v)	Provision for feeder Pillars/Electrical Control Panels.		LS	150000	150000.00
b)	Provision for earthing and loop earthing		LS	50000	50000.00

Total-C 1500000.00

Assistant Engineer (P)
CPWD, Chandigarh

Executive Engineer (P) II
CPWD, Chandigarh

SCHEDULE OF WORK

Name of work :- Construction of Swimming Pool for NIT at Kurukshetra.
SH: Swimming Pool Area.

S. No	Item Code	Description of Items	Unit	Rate	Qty	Amount	Remarks
1	2	EARTH WORK					
1.1	2.3	Banking excavated earth in layers not exceeding 20 cm. in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead upto 50 m and lift upto 1.5 m.					
1.1.1	2.3.1	All kinds of soil	cum	99.45	2550	253598.00	
1.2	2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sum on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.					
1.2.1	2.6.1	All kinds of soil	cum	101.85	3693	376132.00	
1.3	2.26	Extra for every additional lift of 1.5 m or part thereof in.					
1.3.1	2.26.1	All kinds of soil.	cum	18.90	1587	29994.00	
1.4	2.27	Supplying and filling in plinth with Jamuna sand under floors including, watering, ramming consolidating and dressing complete.	cum	301.50	165	49748.00	
2	4	CONCRETE WORK					
2.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level :					
2.1.1	4.1.11	1:5:10 (1 Cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	cum	2237.75	311	695940.00	

S. No	Item Code	Description of Items	Unit	Rate	Qty	Amount	Remarks
3	5	REINFORCED CEMENT CONCRETE					
3.1	5.33	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410kg. of cement per cum of concrete. All work up to floor V level.	cum	4147.40	425	1762645.00	
3.2	5.34	Add or deduct for providing richer or leaner mixes respectively at all floor levels.					
3.2.1	5.34.1	Providing M-30 grade concrete by using 420kg of cement per cum of concrete instead of M-25 grade B.M.C/ R.M.C..	cum	54.55	425	23184.00	
3.3	5.9	Centring and shuttering including strutting, propping etc. and removal of form for :					
3.3.1	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete.	sqm	119.25	30	3578.00	
3.3.2	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	sqm	180.40	1450	261580.00	
3.3.3	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	162.65	150	24398.00	
3.4	5.22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.					
3.4.1	5.22.6	Thermo-Mechanically Treated bars.	kg	42.70	75000	3202500.00	
4	6	BRICK WORK					
4.1	6.12	Half brick masonry with F.P.S. brick of class designation 75 in foundations and plinth in :					
4.1.1	6.12.2	cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	270.35	100	27035.00	
5	10	STEEL WORK					
5.1	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing and staircase railing including applying a priming coat of approved steel primer.					
5.1.1	10.26.1	M.S. tube.	kg	62.35	1914	119338.00	

S. No	Item Code	Description of Items	Unit	Rate	Qty	Amount	Remarks
6	11	FLOORING					
6.1	11.44	Providing and fixing Glass Mosaic Tiles of size 20x20x4mm in square grid pattern of approved make like ITALIA or equivalent on floors and on walls at all ht. of required standard colours and design over a base of 12mm thick cement plaster in cement mortar 1:3(1 cement : 3 coarse sand) including fixing the tiles with adhesive @ 2.25 kg per square meter and finishing the joints with ready mixed grouting compound of approved make and matching shade and finally washing and cleaning the tiles complete as per direction of Engineer-in-Charge					Market rates taken from RPE of Swimming Pool at Bhanu
			Sqm	1400.00	1813	2538200.00	
6.2	11.45	providing and laying coloured floor designer tiles of ultra, Eurocon or equivalent makes (thickness to be specified by the manufacturer) of approved shade and design(hexagonal 9 inches side)/square shape(14inches to 17inches) side) laid over 20mm thick bed of cement mortar1:4(1cement :4 coarse sand) including filling and finishing the joints with cement slurry(50% white cement , 50% ordinary cement) mixed with pigment and matching shade nd finally rubbing and cleaning the tiles etc. complete as per direction of Engineer-in-Charge.					
			Sq m	800.00	1002	801600.00	--do--
7	13	FINISHING					
7.1	13.5	15 mm cement plaster on rough side of single or half brick wall of mix :					
7.1.1	13.5.2	1:6 (1 cement : 6 coarse sand)	sqm	84.55	200	16910.00	
7.2	13.16	6 mm cement plaster of mix :					
7.2.1	13.16.1	1:3 (1 cement : 3 fine sand)	sqm	62.15	250	15538.00	

S. No	Item Code	Description of Items	Unit	Rate	Qty	Amount	Remarks
-------	-----------	----------------------	------	------	-----	--------	---------

8 22 WATER PROOFING

8.1 22.1 Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of :
i) 1st layer of 22mm to 25mm thick approved and specified rough stone slab over a 25mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the levelling course (levelling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound .
ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportions.e
iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cum/sum thoroughly embedded in the 2nd layer.

8.1.1 22.1.1 Using rough Kota stone. sqm 540.30 1404 758581.00

8.2 22.2 Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :

8.2.1 22.2.1 Using rough Kota stone sqm 647.85 563 364740.00

11325239.00

Add Cost Index @16% 1812038.00

Total 13137277.00

Assistant Engineer (P)
CPWD, Chandigarh.

Executive Engineer (P)-II
CPWD, Chandigarh.

SCHEDULE OF WORK

Name of work :- Construction of Swimming Pool for NIT at Kurukshetra.
SH: Boundary Wall

S. No	Item Code	Description of Items	Unit	Rate	Qty	Amount	Remarks
1	2	EARTH WORK					
1.1	2.8	Earth work in excavation by mechanical means (Hydraulic Excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 cum on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.					
1.1.1	2.8.1	All kinds of soil.	cum	103.40	270	27918.00	
1.2	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	45.70	90	4113.00	
2	4	CONCRETE WORK					
2.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level :					
2.1.1	4.1.8	1:5:10 (1 Cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	cum	2237.75	15	33566.00	
2.2	4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	sqm	222.65	144	32062.00	
3	5	REINFORCED CEMENT CONCRETE					
3.1	5.33	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centring, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410kg. of cement per cum of concrete. All work up to floor V level.	cum	4147.00	34	140998.00	
3.2	5.9	Centring and shuttering including strutting, propping etc. and removal of form for :					
3.2.1	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete.	sqm	119.25	49	5843.00	
3.2.2	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	162.65	40	6506.00	
3.2.3	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	sqm	238.40	102	24317.00	

S. No	Item Code	Description of Items	Unit	Rate	Qty	Amount	Remarks
3.3	5.18	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size) reinforced with 1.6 mm dia mild steel wire including centring and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits.					
3.3.1	5.18.1	50 mm thick	sqm	359.20	169	60705.00	
3.4	5.22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.					
3.4.1	5.22.6	Thermo-Mechanically Treated bars.	kg	42.70	5100	217770.00	
4	6	BRICK WORK					
4.1	6.44	Brick edging 7cm wide 11.4cm deep to plinth protection with bricks of class designation 75 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	metre	16.25	144	2340.00	
5	7	STONE WORK					
5.1	7.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20mm nominal size) at plinth level with :					
5.1.1	7.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	1838.90	275	505698.00	
6	13	FINISHING					
6.1	13.33	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) :					
6.1.1	13.33.2	Raised and cut pointing	sqm	112.00	200	22400.00	
6.2	13.44	Finishing walls with water proofing cement paint of required shade :					
6.2.1	13.44.1	New work (Two or more coats applied @ 3.84 kg/10 sum).	sqm	30.80	337	10380.00	

1094616.00

Add Cost Index @16%

175139.00

Total 1269755.00

Assistant Engineer (P)
CPWD, Chandigarh.

Executive Engineer (P)-II
CPWD, Chandigarh.

Name of work:- C/o Swimming Pool for NIT at Kurukshetra.

Calculation for Swimming Pool

Pool Size : 25mtr. X 50 mtr. x (1.35--6.00) mtr. (Avg. depth)

Details of Pool

:(1 sqm. / bather)

- 1 Capacity of Pool user 25.00 x 50.00 = 1250.00 sqm.
No. of bather can be 1250.00 per session.

- 2 Water capacity of Pool: :3444000.00 ltrs.

25 x 10 x 1.35	=	337.50 cum	=	337500.00 ltrs.
25 x 10 x (1.35+1.65)/2	=	375.00 cum	=	375000.00 ltrs.
25 x 10 x (1.65+2.25)/2	=	487.50 cum	=	487500.00 ltrs.
25 x 10 x (2.25+4.85)/2	=	888.00 cum	=	888000.00 ltrs.
25 x 10 x (4.85+6)/2	=	1356.00 cum	=	1356000.00 ltrs.

Total volume of pool:- **= 3444000.00 ltrs.**

- 3 Plumbing & Instrumentation diagram of pool:
- 4 Calculation of Filter size/capacity and selection:

Volume of pool	3444000.00
Total time of recirculation	8 hrs.
Filter capacity	3444000/8 hrs. = 430500 ltrs./hr. (app.)
Filter selected	120000x4 = 480000 ltrs/hr.

- 5 Calculation of size of pipe lines 200mm to 300mm
- 6 Type of valves materials PVC valves
- 7 Electrical circuit diagram for filter plant

- 8 Size of capacity calculation of balancing tank Filter capacity
= 480000/4 = 120000 ltrs. (app.)
= approx size = 6.25x6.50x3.00=122.00 cum.

Handwritten signature

ABSTRACT OF COST

Name of work:- C/o Swimming Pool for NIT at Kurukshetra.
SH: Filtration Plant/Chlorination Plant.

Sr. No.	Description of item	Unit	Qty	Rate	Total
Sub Head:- Filtration Plant					
19.1	Supply, assembly, erection, testing & commissioning of centrifugal pumpset of approved make (kirloskar, bescon, KSB Mather & platt), at flow rate of 120 cum/hr. at 16m head (min.) 1400 RPM made of cast iron body, bronze impeller, suction 100mm dia & delivery 100mm dia. The intallations shall be done complete as per direction of Engineer-in-Charge.	each	4.00	55000.00	220000.00
19.2	Supplying & erection of 300mm dia strainer basket of approved make of Stailnless Steel AISI-316 with maximum working pressure of 2.5kg/cm2 having cast iron flange drilled according to DIN standards complete as per directions of Engineer-in-Charge.	each	4.00	10000.00	40000.00
19.3	Supply, assembly, erection, testing & commissioning of 140mm dia PVC suction valve (butterfly) with flanges of approved make complete as per directions of Engineer-in-Charge.	each	4.00	7500.00	30000.00
19.4	Supply, assembly, erection, testing & commissioning of 140mm dia PVC delivery valve (butterfly) with flanges of approved make complete as per directions of Engineer-in-Charge.	each	4.00	7500.00	30000.00
19.5	Supply, assembly, erection, testing & commissloning of 140mm dia PVC non return valve with flanges of approved make complete as per directions of Engineer-in-Charge.	each	4.00	4500.00	18000.00
19.6	Supply, assembly, erection, testing & commissioning of necessary UPVC suction piping of 300mm dia from balancing tank to the pumps and delivery piping from pumps to the fitters of approved make complete. The individual pump discahrge piping and header upto filters shall be 250mm dia UPVC. The piping shall be done complete in all respects as per directions of Engincer-in-Charge. (The valves as requierd shall be paid seperately).	Job	3.00	170000.00	510000.00
19.7	Supply, assembly, erection, testing & commissioning of alum dosing equipment including alum solution preparation tank complete with agitator, water inlet drain and overflow piping, all necessary valves & accessories, dosing piping/tubing from tank to the dosing point with necessary valves & fittings complete as per directions of Engineer-in-Charge.	Job	2.00	22000.00	44000.00

Sr. No.	Description of item	Unit	Qty	Rate	Total
19.8	Supply, assembly, erection, testing & commissioning of totally anticorrosive vertical dual media filter unit of 2m dia capable of accommodating a flow rate of 150 cum/hr of approved make AB-78 (Abyss) or equivalent with all accessories as per manufacturer's specifications complete and as per direction of Engineer-in-Charge.	each	4.00	325000.00	1300000.00
19.9	Supplying & placing silica sand filter media of granule size between 0.4 and 0.8mm	kilogram	10000.00	5.00	50000.00
19.10	Supplying & placing underbed gravel filter media of size varying from 1-2mm.	kilogram	6000.00	5.00	30000.00
19.11	Supplying installation, testing and commissioning of set of five butterfly valves 140mm dia for each filter built entirely in PVC with flange connections of approved make which includes inlet water valve, backwash inlet valve, backwash drain valve, filtered outlet valve and rinse drain valve. The support to valves shall be made of zinc coated steel pipe with antivibration clamps and fixing plugs. The assembly shall also consist of air vent valve 25mm dia and pressure gauges for inlet & outlet of approved make for each filter. All the above fittings shall be provided to the entire satisfaction and as per directions of Engineer-in-Charge and as per the approved drawings.	each set	4.00	50000.00	200000.00
19.12	Providing and laying 250mm (outer dia) UPVC header pipe of approved make to interconnect outlet of four filters and underground piping from filtration plant to the swimming pool and from drain pool to the balancing tank complete as per directions of Engineer-in-Charge.	metre	250.00	2200.00	550000.00
19.13	Providing and laying telescopic pipe including requisite fittings etc. of required dia and approved make with necessary arrangement to receive the bottom pool inlet nozzels as specified inside the pool complete as per directions of Engineer-in-Charge. Payment shall be governed by total running metres of the arrangement made and shall be all inclusive unless otherwise specified.	metre	150.00	2500.00	375000.00
19.14	Supplying, installation, testing & commissioning of 250mm dia CI Sluice valve of approved make (KSB or equivalent) with flanges and extended spindle complete as per directions of Engineer-in-Charge.	each	3.00	20000.00	60000.00
19.15	Supplying, installation, testing & commissioning of ozone generator of approved make with ozone output @ 500gm/hr based on oxygen feeder concentrator complete as per manufacturer specifications and directions of Engineer-in-Charge.	each	1.00	1800000.00	1800000.00

Sr. No.	Description of item	Unit	Qty	Rate	Total
19.16	Supplying, installtion, testing & commissioning of soda ash dosing equipment including soda ash solution preparation tank complete with water inlet, drain and overflow piping, all necessary valves and accessories, dosing piping/ tubing from tank to the dosing point with necessary valves and fittings complete as per directions of Engineer-in-Charge.	Job	1.00	22000.00	22000.00
19.17	Supplying, installtion, testing of electrical control pannel to house all switch gears and components such as mains, isolater, motor starters, ammetres, voltmeters, switches, fuses, indicating lamps, single phasing, preventor, MCB for single phase supply if required etc. internally wired & shall be complete in all respects including all components for all drives of filtration plant complete as per directions of Engineer-in-Charge.	each	1.00	125000.00	125000.00
19.18	Supplying & laying of all power & control panel cabling witnin the filtration plant for filters, pumps, motors etc. as required complete as per direction of Engineer-in-Charge.	Job	1.00	50000.00	50000.00
19.19	Supplying of test kit for free chlorine & PH as per approved make complete as per direction of Engineer-in-Charge.	Set	1.00	1000.00	1000.00
19.20	Supplying & fixing whlte ABS plastic bottom pool inlets of approved make fitted to telescopic UPVC pipe with necessary stainless steel screws complete as per direction of Engineer-in-Charge.	each	240.00	250.00	60000.00
19.21	Supplying and fixing stainless steel drain grates of approved make of 500x500mm size with support frame & necessary stainless steel screws having maximum recommended flow of water @ 136 cum/hr complete as per directions of Engineer-in-Charge.	kilogram	20.00	650.00	13000.00
16.22	Supplying and fixing stainless steel plate type hair strainer with suitable openings and of required shape complete as per directions of Engineer-in-Charge.	kilogram	20.00	650.00	13000.00
16.23	Supplying and fixing of top mounting FIVE step stainless steel ladders having 43mm dia SS pipe with non skid type foot plates of approved make complete as per directions of Engineer-in-Charge.	each	4.00	8500.00	34000.00
16.24	Supplying and fixing of top mounting Three step stainless steel ladders having 43mm dia SS pipe with non skid type foot plates of approved make complete as per directions of Engineer-in-Charge.	each	4.00	7600.00	30400.00

18

Sr. No.	Description of item	Unit	Qty	Rate	Total
16.25	Supplying and fixing 300 mm wide grating made of ABS material strips/battens of approved make of T-sections having anti skid surface of dimensions 295 mm in lenth 24mm deep, 12mm thick at flange and 6mm thick at web. Each strip/batten shall have three equidistant holes with interlocking arrangement so as to have centre to centre distance between strips/batterns as 25mm. Two extreme holes will be provided with two number bars of 2mm dia of 301 grades of stainless steel with stainless steel nuts to be screwed at the ends after every 6 metre or less to keep the strips in position. The item shall be executed as per drawing and directions of Engineer-in-Charge.	metre	150.00	900.00	135000.00
16.26	Supplying and fixing support holder for overflow grating of ABS of approved make with inner dimensions of 24mmx37mm complete as per directions of Engineer-in-Charge.	metre	300.00	125.00	37500.00
16.27	Supplying, installtion, testing and commissionong of 100W, 12 V under water LED lights, IN white ABS of approved make along with deck box made in white ABS with flexible conduits and	each	24.00	6500.00	156000.00
16.28	Supplying, installtion, testing and commissionong of step down transformer of approved make for 100W/12V underwater lights complete as per directions of Engineer-in-Charge.	each	24.00	1500.00	36000.00
16.29	Supplying and fixing of competition starting blocks of approved make made of 43mm dia stainless steel of grade 304 with adjustable non slip polyester and glass fibre block of 500x500mm amd 700mm height complete as per directions of Engineer-in-Charge.	each	10.00	22000.00	220000.00
16.30	Supplying and fixing anchors of approved make to fix starting blocks with locking bolts complete as per direction of Enginccr-in-Charge.	each	20.00	1500.00	30000.00
16.31	Supplying and fixing level anchors for false and back stroke indicators of approved make complete as per direction of Engineer-in-Charge.	each	6.00	5500.00	33000.00

Total:- 6252900.00

Assistant Engineer(P)
CPWD, Chandigarh.


Executive Engineer (P) III
CPWD Chandigarh.

19-2

Item No: 10.5 To consider and approve the Revised Cost Estimate for the provision of Stores in G-type houses at NIT, Kurukshetra.

The B&WC in its 6th meeting held on 24-04-2006 vide item No. 6.6 approved an estimate of Rs. 28.48 Lacs for the provision of stores in G-Type houses at NIT Kurukshetra. Later on, it was decided to provide room instead of stores in G-Type houses as these houses are very congested keeping in view the requirement after obtaining the approval of the Chairman B&WC in anticipation to the approval of the B&WC. The Revised Estimate is framed for Rs 74.98 Lacs & at present, the work is in progress.

In view of above, it is, therefore, requested that B&WC may consider and accord approval of Rs. 74.98 Lacs for this work.

**REVISED COST ESTIMATE FOR CONSTRUCTION OF STORES IN G-TYPE HOUSES AT NATIONAL INSTITUTE
OF TECHNOLOGY, KURUKSHETRA**

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)								
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs.	355.31	100 Cum	1108.10	350%	4986.45	17717.36
2	8.5 (b)	Dismantling Brick Work, Tile Masonry or Tile Lining and Tile Terracing						
		In Cement	56.72	Cum	35.60	390%	174.44	9894.24
3	8.6 (b)	Dismantling Concrete						
		Cement Concrete plain 1:4:8 or 1:5:10	7.72	Cum	37.4	390%	183.26	1414.77
4	8.25 + note II (b)	Dismantling Cement conglomerate/terrazzo-floors 25mm to 50mm thick including concrete base	250.83	Sqm	5.75	390%	28.18	7067.14
5	8.32 C	Scraping Cement Plaster	838.10	Sqm	1.9	390%	9.31	7802.71
6	10.36	Cement concrete 1:4:8 with brick ballast 40mm nominal size in foundation and plinth	88.83	Sqm	382.25	370%	1796.58	159589.76
7	10.82 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.						
	10.82 + 10.95 (a)+note(v)(b)	-do- (first storey)	95.00	Cum	1084.80	370%	5098.56	484363.20
	10.82 + 10.95 (a)+note(v)(b)	-do- (second storey)	50.00	Cum	1092.10	370%	5132.87	256643.50
8	10.86+ 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders, stairs, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.						
	10.86+ 10.95 (a)	-do- (first storey)	4.00	Cum	1188.75	370%	5587.13	22348.50
	10.86+ 10.95 (a)+note(v)(b)	-do- (second storey)	4.00	Cum	1196.05	370%	5621.44	22485.74
9	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.	110.00	Qtl	917.05	325%	3897.46	428720.88
10	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	140.00	Sqm	35.05	370%	164.74	23062.90
11	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	30.00	Cum	642.40	370%	3019.28	90578.40

12	11.3	First class brickwork laid in cement sand mortar 1:5 in foundation and plinth.	170.00	Cum	407.60	350%	1834.20	311814.00
13	11.8	First class brickwork laid in cement sand mortar 1:5 in first storey upto 4 meter above plinth level.						
		-do- (first storey)	260.00	Cum	428.60	350%	1928.70	501462.00
	11.8+11.41 (i)	-do- (second storey)	140.00	Cum	436.85	350%	1965.83	275215.50
	11.8+11.41 (i)	-do- (third storey)	18.78	Cum	445.10	350%	2002.95	37615.40
14	13.50	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	90.00	Each	12.30	200%	36.90	3321.00
15	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	501.66	Sqm.	36.95	370%	173.67	87120.78
16	14.4	Screed of 50mm thick concrete 1:8:16 to be laid below the topping.						
	14.4+ note (I)	-do- (second storey)	250.83	Sqm	15.65	370%	73.56	18449.80
17	14.17	40mm thick grey polished flooring cement concrete 1:2:4 topping finished with 3mm thick neat coat of cement rubbed and polished	613.14	Sqm	53.10	370%	249.57	153021.35
	14.17+ note (I)	-do- (second storey)	250.83	Sqm	53.40	370%	250.98	62953.31
18	15.7	12mm thick cement plaster 1:6 on wall						
	15.7+note e 1	-do- (first storey)	1400.00	Sqm	10.65	325%	45.26	63367.50
	15.7+note e 1	-do- (second storey)	650.00	Sqm	10.83	325%	46.03	29917.88
	15.7+note e 1	-do- (third storey)	400.00	Sqm	11.01	325%	46.79	18717.00
19	15.12	15mm thick cement plaster 1:6 on the rough side of singe or half brick						
	15.12 +note (1)	-do- (first storey)	450.00	Sqm	13.10	325%	55.68	25053.75
	15.12 +note (1)	-do- (second storey)	620.00	Sqm	13.28	325%	56.44	34992.80
	15.12 +note (1)	-do- (third storey)	180.00	Sqm	13.46	325%	57.21	10296.90
20	15.52	10 mm thick cement plaster 1:4 on underside of ceiling						
	15.52 + Note (1)	-do- (first storey)	750.00	Sqm	14.55	325%	61.84	46378.13
	15.52 + Note (1)	-do- (second storey)	375.00	Sqm	14.73	325%	62.60	23475.94
21	15.62	Cement pointing 1:2 flush on brick and tile walls	1450	Sqm	7.45	325%	31.66	45910.63
	15.62 + Note (1)	-do- (second storey)	750.00	Sqm	7.63	325%	32.43	24320.63
	15.62 + Note (1)	-do- (third storey)	180.00	Sqm	7.81	325%	33.19	5974.65
22	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete (with first quality paint)	750.00	Sqm.	4.60	125%	10.35	7762.50
23	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc.	750.00	Sqm.	3.75	125%	8.44	6328.13
24	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	1090.00	Sqm.	9.40	125%	21.15	23053.50
25	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	340.26	Sqm.	2.95	125%	6.64	2258.48

26	16.25	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surface	3500.00	Sqm	4.15	125%	9.34	32681.25
27	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surface to the required finish complete	3500.00	Sqm.	11.15	125%	25.09	87806.25
28	16.58	Distemping with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	3500.00	Sqm.	9.10	125%	20.48	71662.50
29	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	3300.00	Sqm	7.25	125%	16.31	53831.25
30	17.90 (a)-note-1 of 17.18	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in possition						
		For Glazed windows (30mm thick)	75.00	Sqm	398.15	175%	1094.91	82118.44
31	17.92 - note-1 of 17.18	Factory manufactured wire glaze door and window shutter of Wire Gauge Commercial hard wood such as hollock, champ, chikrassy and chaplash (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & wire gauze of 140G or 120G designation i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in possition						
	(i)	30mm thick (Window shutters)	75.00	Sqm	310.40	175%	853.60	64020.00
	(ii)	35mm thick (Doors)	116.00	Sqm	335.70	175%	923.18	107088.30
32	17.93(a)-note (i) of 17.18	Factory manufactured solid flush door shutters with black board, core as per I.S .No. 1659-1969 bounded with water proof type phenol formaldehyde synthetic resin, hot pressed, conforming to I.S.2202 part I and II, fixed in position. i/c iron hinges, screws, chocks/cleats and stops, etc. excluding the cost of any fittings other than specified above, but i/c labour for fixing the same in position						
	(a)	Commercial veenering with vertical grains or cross bands and face vener on both sides commercial facing its laminated core and lipped edges.						
	(iii)	35mm thick	116.00	Sqm	436.15	150%	1090.38	126483.50

33	17.71	Cost of Iron fittings complete for doors and windows, such as tower bolts, handles etc., and screws for these fittings (excluding sliding bolt)						
	(a)	For single leaf shutter	380.00	Sqm	6.40	175%	17.60	6688.00
34	17.79 (b)	Providing & fixing helical door spring 150mm (superior quality), including necessary screw, complete						
		Iron	90.00	Each	23.85	175%	65.59	5902.88
35	17.83 [c]	Providing and fixing sliding bolt with nuts and screws, etc. complete						
	(C)	Iron						
	(ii)	Size 250mm x 16mm	90.00	Each	16.35	175%	44.96	4046.63
36	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position	8.00	Qtl.	1040.35	325%	4421.49	35371.90
37	18.30	S/F glass panes including special metal sash putty of approved make						
	(b)	Glass panes 4mm thick, exceeding 40 sq.dm.area	55.00	Sqm	115.40	325%	490.45	26974.75
38	18.34	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete						
	(c)	Size 127mm x 50mm x 40mm wide double rebate	1450.00	Mtr.	76.80	325%	326.40	473280.00
39	4.1 (a)	Stone (building or pitching), sand, bajri, shingle, spalls, brick-bats, brick ballast and stone metal	100.00	Cum	4.75	350%	21.38	2137.50
40	5.2 (a)	Carriage of material (metalled roads), lead more than 2.00 Km excluding loading, unloading and stacking (A) Surkhi, sand, bajri, ballast, stone boulders kankar & building rubbish	100.00	Cum	12.40	300%	49.60	4960.00
		Total:						4535523.75
		Add 38.50% on (HSR+CP)						1746176.64
		Total						6281700.40
		The rate quoted by the contractor shall be for all heights and levels as per drawings and for all scaffolding work and other connecting operations for below mentioned items.						
1	NS	Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies terraces etc. consisting of following operations:						
	a	Applying and grouting a slurry coat of neat cement using 2.75 Kg/sqm of cement admixed with proprietary water proofing compound conforming to IS : 2645 over the RCC slab including cleaning the surface before treatment						

	b	Laying cement concrete using broken bricks/ brick bats 25 m to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 to required slope and treating similarly the adjoining walls up to 300mm height including rounding of junctions of walls and slabs.						
	c	After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645						
	d	Finishing the surface with 20mm thick joint less cement mortar of mix 1:4 (1 cement:4 coarse sand) admixed with proprietary water proofing compound confirming to IS 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300mmx300mm square.						
	e	The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge.						
	f	With average thickness of 120 mm and minimum thickness at khurra as 65mm	700.00	sqm	850.00		850.00	595000.00
2	NS	Providing & fixing 3.05 mtr. (average length) rain water pipe 4kg per cm2 presure of 100mm dia of ISI make approved by Engineer-in-charge including depth socket screw and clumpes	90	Each	925.00		925.00	83250.00
		Total:						678250.00
		TOTAL (A)						6281700.40
		TOTAL (B)						678250.00
		Grand Total (A+B)						6959950.40

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
SUB PART-I: INTERNAL Electrical WORKS (SCHEDULE ITEMS)								
1	31.36	Wiring in 1.5 sq mm PVC insulated copper conductor cable in 1.6 mm thick conduit pipe						
	(I)	Fan point						
		(b) Medium Point	90	Each	524.00	-	524.00	47160.00
	(II)	Light Point						
		(b) Medium Point	180	Each	433.00	-	433.00	77940.00
	(vii)	3 pin 5 amp. Plug point including earthing the 3 rd pin etc.						
		(b) Medium Point	90	Each	466.00	-	466.00	41940.00
2	31.40	Supply and erection of PVC unsheathed copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe						
		(i) Size 1.5 sq mm (1/1.40 mm)	1800	Meter	10.20	-	10.20	18360.00
3	31.21 (xxi)	Heavy gauge welded conduit pipe 20mm dia 1.60mm thickness flushed	900	Meter	16.30	150.00%	40.75	36675.00
4	31.18 (xi)	Bakelite angle/straight button holder large size	90	Each	6.20	200.00%	18.60	1674.00
5	31.18 (xxvi)	Supply of erection of hexagonal M.S. box 1.60mm thick having each side 8cms 7.5 cms deep, top covered with M.S. lid by means of screws including 10mm dia 30cm long mild steel rod made into suitable suspension hook and erected in R.C.C. slab for erection of fan, the bottom covered with 3mm thick bakelite sheet with suitable holes, painting etc complete with all labour and material required to complete the job.	90	Each	26.30	200.00%	78.90	7101.00
		Total						230850.00
		Add 38.50% on (HSR+CP)						88877.25
		Total of Electrical Works						319727.25
		Total of Civil Works.						6959950.40
		Grand Total						7279677.65
		Add 3% Contingencies Charges						218390.33
		Total						7498067.98
		Say Rs. in Lacs						74.98

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

Item No: 10.6 To consider and approve the Revised Cost Estimate for the construction of 12 numbers Lecturer Hall at NIT, Kurukshetra

The B&WC in its 8th meeting held on 28.05.07 vide item No.8.4 approved an amount of Rs.148 Lacs for the construction of 12 Nos. Lecture Halls in the Institute.

Since there was no regular Architect with our Institute, sometime was consumed in the empanelment of Architect. M/S Benjamin Benjamin & Vats was engaged as Architect for submitting the drawings, designs & estimates for the construction of 12 Nos. Lecture Halls. They submitted an estimate of Rs.324.50 Lacs for this work. Thereafter, the tenders were invited by the Institute & the work could be allotted with an estimated cost of Rs. 417.14 Lacs to the M/S Allied Engineer & contractors Gharaunda being lowest tenderer. While allotting the above mentioned work, some items relating to the internal work remained to be included in the Estimate i.e. providing false ceiling, Lighting, Audio, Video and Furniture etc. The Revised Budget Estimate after including these items comes to Rs. 520.33 Lacs.

In view of above, it is, therefore, requested that B&WC may consider and accord approval of Rs. 520.33 Lacs for the above mentioned works.

**REVISED COST ESTIMATE FOR CONSTRUCTION OF 12 NOS. LECTURE HALLS AT NATIONAL INSTITUTE OF TECHNOLOGY,
KURUKSHETRA**

SUB PART-1: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)

S.No	Remarks	Description	Qty.	Unit	HSR Rate	C.P	Total Rate (In Rs.)	Amount (In Rs.)
1	Item 6.6 of HSR	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs.	1370	100 Cum	1108.10	350%	4986.45	68314.37
2	Item 10.39 of HSR	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth) For Foundation	120	Cum	403.10	370%	1894.57	227348.40
3	Item 10.57	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in Ist storey upto 4m above plinth level)	60	Cum	409.35	370%	1923.95	115436.70
4	13.66+note	Providing and laying cinder concrete in cement 1:15 (1 cement: 15 cinder) on terraced roofs, laid to slope, including consolidating the same second storey	52	Cum	216.65	200%	649.95	33797.40
5	14.4+note	Screed of 50mm thick concrete 1:8:16 to be laid below the topping second storey	1036	Sqm	15.53	370%	72.99	75618.68
6	10.90 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestal and approach slabs of bridges etc. excluding steel reinforcement but including centering and shuttering laid in position complete in all respects (for works upto 1.5m below grounds level)	232	Cum	774.00	370%	3637.80	843969.60
7		Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders, stairs, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.						
a)	Item 10.86 + 10.95 (a)	(first storey)	200	Cum	1188.75	370%	5587.13	1117425.00
b)	Item 10.86 + 10.95 (a) + note (v)b	(Second storey)	167	Cum	1196.05	370%	5621.44	938779.65
8		Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.						
a)	Item 10.82 + 10.95 (a)	(first storey)	300	Cum	1084.80	370%	5098.56	1529568.00
b)	Item 10.82 + 10.95 (a) + note (v) (b)	(Second storey)	300	Cum	1092.10	370%	5132.87	1539861.00

9		Cement concrete 1:1:5:3 with stone aggregate 20mm nominal size for reinforced concrete work in fascias, parapet and other thin vertical sections, not covered by items nos. 10.82, 10.86-10.88 not exceeding 10 cm excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.					
a)	Item 10.89 + 10.95 (a)	(First storey)	90	Cum	1708.95	370%	722885.85
b)	Item 10.89 + 10.95 (a)+note (v)b	(Second storey)	100	Cum	1716.25	370%	806637.50
10	Item 18.22 of HSR	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.	1900	Qtl	917.05	325%	7405178.75
11	Item 10.114 of HSR	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	130	Sqm	35.05	370%	21415.55
12	Item 11.2 of HSR	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	247	Cum	393.45	350%	437319.68
13a)	Item 11.7 of HSR	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.(First storey)	520	Cum	414.45	350%	969813.00
b)	Item 11.7 +11.41 (i)	Second Storey	520	Cum	422.70	350%	989118.00
14 a)	Item 11.48 (a)	11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure in first storey	62	Sqm	55.10	350%	15372.90
b)	Item 11.48(a) + note (iv) (a)	Second Storey	62	Sqm	56.05	350%	15637.95
15		Providing and fixing cast iron rain water non-pressure pipe, ISI mark with ears with screw & wooden plugs fixed on wall face including filling joints with spun- yarn and cement mortar 1:2 excluding head & shoe etc.					
a)	Item 13.45 (b)of HSR	150mm diameter pipe	440	Mtr	176.05	350%	348579.00
16		Providing & fixing CI plain bends in position with gutter etc.					
a)	Item 13.49 (b) of HSR	For 150mm diameter pipe	44	Each	95.60	350%	18928.80
17	Item 13.50 of HSR	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	44	Each	12.30	200%	1623.60
18	Item 13.57 of HSR	Bottom Khurra on ground 1.2m x 0.6m consisting of brick-on-edge laid in cement mortar 1:3 over 75 mm cement concrete 1:8:16 including 12mm thick cement plaster 1:3.	44	Each	64.30	200%	8487.60
19	Item 13.62 of HSR	Providing and laying four courses of water proofing treatment consisting of first and third course of blown type bitumen grade 85/25 applied hot at 1.6 kg per sqm. For each course and second course of fibre glass RP Tissue and fourth and final course of stone grit 6 mm and down size or pea-sized grit spread at 0.006 cum per sqm. Including preparation of surface.	285	Sqm	31.00	200%	26505.00
20	Item 13.64 of HSR	Cement concrete 1:2:4 gola 10cmx10cm quadrant along junction of roof with parapet wall finished smooth where specially specified.	312	Mtr.	5.35	200%	5007.60

21	14.1-10.26 Based derived rate	Sand filling under floor i/c laying consolidation, compaction & watering etc.	5780	Cum	69.30	370%	325.71	1882603.80
22	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	1814	Sqm	36.95	370%	173.67	315028.31
23		Fixing Marble stone flooring 17 mm and above thick slab including matching grains of marble laid in any pattern as specified over base of 12 mm thick cement course sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing i/c rubbing polishing i/c labour for fixing cramps, pins & dowels etc. (excluding the cost of marble)						
a)	Item 14.49 + note (i)	White marble first storey	518	Sqm	149.70	60%	239.52	124071.36
b)	Item 14.49 + note (i)	Second Storey	518	Sqm	150.00	60%	240.00	124320.00
24	Item 14.50 of HSR	Extra for nosing in marble stone for treads	60	mtr	19.00	60%	30.40	1824.00
25	Item 14.51 of HSR	Extra for marble stone flooring in treads of step not exceeding 30 cm in width.	82	Sqm	21.80	60%	34.88	2860.16
26	14.3	Floating coat of 1.5mm thick neat cement laid in one operation to the topping	1720	Sqm	3.70	370%	17.39	29910.80
27	14.10	Conglomerate floor 50mm thick cement concrete topping 1:2:4	1720	Sqm	37.60	370%	176.72	303958.40
28		Fixing Marble stone 17mm and above thick in risers of step, skirting, dado, pillars and wall lining including matching the grains of marble slab in any pattern as specified laid on 12mm thick cement coarsed sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing , including labour for fixing cramps, pins and dowels etc. (excluding the cost of marble)						
a)	Item 14.52 of HSR(as per correction slips)	White marble	25	Sqm	149.70	60%	239.52	5988.00
29		Kotah stone flooring minimum 25mm thick in any pattern as specified over 20 mm thick base of cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing and polishing						
a)	Item 14.62 of HSR	First Storey	500	Sqm	201.95	135%	474.58	237291.25
b)	Item 14.62 of HSR+note	Second Storey	500	Sqm	202.25	135%	475.29	237643.75
30	Item 14.64 of HSR	Extra for Kotah stone flooring in treads of steps not exceeding 30 cm in width	80	Sqm	1.15	135%	2.70	216.20
31		Kotah stone 20 mm thick in skirting, risers of steps, dados and wall facing (lining) and pillars laid on 12 mm thick cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing and polishing including labour for fixing clamps, dowls and pins etc.						

a)	Item 14.66 of HSR	First storey	60	Sqm	237.00	135%	556.95	33417.00
b)	Item 14.66 of HSR+note	Second Storey	60	Sqm	237.30	135%	557.66	33459.30
32		12mm thick cement plaster 1:4 on wall						
a)	Item 15.5 of HSR	First Storey	2500	Sqm	12.70	325%	53.98	134937.50
b)	Item 15.5 of HSR+note	Second Storey	2500	Sqm	12.88	325%	54.74	136850.00
33		15mm thick cement plaster 1:4 on the rough side of single or half brick wall						
a)	Item 15.10 of HSR	First Storey	2500	Sqm	15.65	325%	66.51	166281.25
b)	Item 15.10 of HSR+note	Second Storey	2500	Sqm	15.83	325%	67.28	168193.75
34		10 mm thick cement plaster 1:4 on underside of ceiling						
a)	Item 15.52 of HSR	First Storey	4043	Sqm	12.65	325%	53.76	217361.79
b)	Item 15.2 of HSR + note	Second Storey	3061	Sqm	12.83	325%	54.53	167072.26
35		Rough cast exterior cement plaster on walls with a mixture of sand and gravel or crushed stone graded from 2.36 mm to 12mm nominal size dashed over and including fresh plaster in 2 coats, first coat 10mm cement plaster 1:4 finished coat 10 mm cement plaster with cement mortar 1:3 (1 cement, 3 sand, mixed with 10% finely ground hydrated lime by volume of cement including arises, chamfers and/ or rounded angles not exceeding 80mm in girth.						
a)	15.18 of HSR	First Storey	1000	Sqm	35.40	325%	150.45	150450.00
b)	15.18 of HSR+note	Second Storey	1200	Sqm	35.58	325%	151.22	181458.00
36	Item 15.79 of HSR	20mm thick raised or sunk cement mortar band/drip course in cement mortar 1:4 (3 cm width)	2100	Per m/cm width	0.45	325%	1.91	4016.25
37		Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position (excluding the cost of any fittings other than specified above but including the labour for fixing the same in position)						
a)	17.90 (b)-17.18 note(i)	35mm thick	170	Sqm	424.15	175%	1166.41	198290.13

38		Factory manufactured wiregauge door and window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail wiregauge of 140G or 120 gauge designation i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position(excluding the cost of any fittings other than specified above but including the labour for fixing the same in possition styles & rails of window shutters shall be 75mm wide.						
(i)	Item 17.92 (ii)-17.18 note(i)	For Glazed windows (35mm thick)	344	Sqm	335.70	175%	923.18	317572.20
39		Factory manufactured solid flush door shutters with black board, core as per I.S .No. 1659-1969 bounded with water proof type phenol formaldehyde synthetic resin, hot pressed, conforming to I.S.2202 part I and II, fixed in position i/c iron hinges, screws, chocks/cleats and stops, etc. excluding the cost of any fittings other than specified above, but i/c labour for fixing the same in position						
a)	17.93 iv-17.18 note (i)	40mm thick	170	Sqm	461.15	150%	1152.88	195988.75
40		Providing and fixing sliding bolt with nuts and screws, etc complete Iron						
(i)	Item 17.83 (c)(i) of HSR	Size 300 x 16mm	66	Each	17.45	175%	47.99	3167.18
(ii)	Item 17.83 (c)(ii) of HSR	Size 250mx16mm	20	Each	16.35	175%	44.96	899.25
41		Cost of iron fittings,complete for doors & windows,such as tower bolts, hadles etc.and screws for fittings (excluding sliding bolts)						
a)	17.71(a)	For single leaf shutter	400	Sqm	6.40	175%	17.60	7040.00
b)	17.71(b)	For double leaf shutter	350	Sqm	10.15	175%	27.91	9769.38
42	Item 18.12 of HSR	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position	30	Qtl.	1040.35	325%	4421.49	132644.63
43	Item 18.30 (b) of HSR	S/F glass panes including special metal sash putty of approved make						
a)		Glass panes 4mm thick, exceeding 40 sq.dm.area	275	Sqm	115.40	325%	490.45	134873.75
44	Item 18.34 (a) of HSR	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-						
a)		Size 89mm x 50mm x 40mm wide single rebate	349	Mtr.	71.55	325%	304.09	106126.54

b)	18.34©	Door & window frame size 127mm x50mm with 40mm wide double rebate	350	Mtr	76.80	325%	326.40	114240.00
45	Item 16.2 of HSR	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc.	383	Sqm	3.75	125%	8.44	3231.56
46	Item 16.3 of HSR	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	383	Sqm	9.40	125%	21.15	8100.45
47	Item 16.9 of HSR	Applying priming coat with metal primer on new steel or iron work including preparation of surface	2400	Sqm	3.15	125%	7.09	17010.00
48	16.1	Preparation of plywood surface for painting including sand papering the surface and applying filling with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete	383	Sqm	4.60	125%	10.35	3964.05
49	16.24	Preparation of plastered or concrete surfaces for painting, including sand papering the surface, applying one coat of linseed oil and filling with approved quality filler, consisting of white lead, linseed oil, varnish and chalk mitti including finishing surface to the required finish, complete.	15812	Sqm	11.15	125%	25.09	396683.55
50	Item 16.58 of HSR	Distempering with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	15812	Sqm.	9.10	125%	20.48	323750.70
51	Item 16.61 of HSR	Finishing walls with exterior decorative cement based paints such as snowcem Robbiacem etc. on new work, two coats to give an even shade.	1928	Sqm	7.25	125%	16.31	31450.50
52		20mm thick cement plaster damp proof course 1:3 with 2 coats of bitumen at 1.65 kg per sqm laid hot and sanded:-					0.00	0.00
a)	15.77 (a)	Vertical	150	Sqm	30.70	325%	130.48	19571.25
b)	15.77 (b)	Horizontal	200	Sqm	28.95	325%	123.04	24607.50
53	17.87	Providing and fixing 0.50mm thick aluminium sheet including cost of necessary screws,etc., complete	95	Sqm	90.55	175%	249.01	23656.19
54	14.76(d)	PVC sheet flexible type conforming to I.S 3462-1966 flooring plain coloured marble or mottled finish on a smooth damp proof base laid with adhesive recommended by manufacturer including pressing the sheet with a suitable tool to get a smooth surface all complete as directed by EIC.3mm thick LG company or equivalent company	1720	Sqm	257.30	370%	1209.31	2080013.20
55	6.27	Clearing grass and removal of the rubbish upto distance of 50m outside the periphery of the area cleared.	8350	100 sqm	21.45	300%	85.80	7164.30
56	15.8	Extra for lining out in rough cast /pebble cement plaster and terrazzo finish surfaces on walls to imitate stone or concrete block lining.	8500	Sqm	3.30	325%	14.03	119212.50
		Total						27220870.23
		Add 22.50% Premium on (HSR+CP)						6124695.80
		Total HSR+CP						33345566.03
S.No	Remarks	Description	Qty.	Unit	HSR Rate	C.P	Total Rate	Amount
1	NS	Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies terraces etc. consisting of following operations:						
a		Applying and grouting a slurry coat of neat cement using 2.75 Kg/sqm of cement admixed with proprietary water proofing compound conforming to IS : 2645 over the RCC slab including cleaning the surface before treatment						

b		Laying cement concrete using broken bricks/ brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 to required slope and treating similarly the adjoining walls up to 300mm height including rounding of junctions of walls and slabs.					
c		After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645					
d		Finishing the surface with 20mm thick joint less cement mortar of mix 1:4 (1 cement:4 coarse sand) admixed with proprietary water proofing compound confirming to IS 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300mmx300mm square.					
e		The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge.					
f		With average thickness of 120 mm and minimum thickness at khurra as 65mm	2400	Sqm	475	475	1140000
2	NS	Providing and fixing first class plain coloured glazed tiles (of Orient/Somany make) of size 300x200 mm with minimum thickness 5mm in skirting and dado on 12mm thick cement plaster 1:3 (1 cement:3 coarse sand) the back of the tiles to be buttered with grey cement slurry and edges with white cement slurry and to be set in bedding mortar of 1:3 (1 cement: 3 fine sand) and jointed with white cement slurry mixed with pigment to match with the colour of the tiles.	590	Sqm	550	550	324500
3	NS	Providing and fixing in position 50mm x 50mm Hollow sq. Pipe for parapet railing or any type of railing including cost of welding rods etc. complete with one coat of primer.	2500	Kg	60	60	150000
4		Providing and fixing in position stainless steel Hand Rail system (Aravalli Craft, Cannon or equivalent) including mid rails welded built-up section using pipes and connecting plates of stainless steel grade 304 polished to satin finish, of required diameter and thickness including cutting, welding, grinding, bending to required profile and shape, hoisting, buffing, polishing, cutting chases/embedding in RCC/masonry, fixing with stainless steel (grade 304) screws, nuts, bolts, rosette covers and washers or stainless steel fasteners to make it rigidly fixed and stable against impact force with necessary bends and terminations having in fill of 12 mm thick toughened glass or 2 mm thick perforated sheet AISI202 grade etc. and making good the walls / plaster etc. all complete generally as per drawings and satisfaction of Engineer-in-Charge. (Ref.PT/KA/TSC//SC/DET-08/16)					

		The item includes epoxy grouts welding etc. which shall not be measured for purpose of payment and for weight of stainless steel pipes for blusters and mid rails , stainless steel plates rossette cover, nut and bolts etc as actually provided shall only be measured in Kg.) [The in fill panels of toughened glass or perforated steel sheet shall be measured and paid for separately in respective items].					
	NS		26 metre	4000		4000	104000
5		Providing and laying vitrified floor tiles 60cmx60cm with water absorption less than 0.08% and confirming to ISI 15622 of approved make in all colours and shades laid on 20mm thick 1:3 cement coarse sand mortar with coloured pigment complete in all respect as directed by EIC					
	NS		1100 Sqm	1000		1000	1100000
		Total NS					2818500.00
		Total HSR+CP					33345566.03
		Total of Civil					36164066.03

S.No	HSR	Description	Qty.	Unit	HSR Rate	C.P	Total Rate	Amount
1	30.40 B (ii) (i)	Providing & fixing partitions for different type of urinals. Vetreous Chinaware Partition plate. (Large size white)						
a)		Large Size 835mm x 355mm	20	Each	298.000	250%	1043.00	20860.00
2		Providing and fixing in position best Indian make lavatory suites white						
a)	30.41 (iv)	size 550mm x 400mm with one no. tap	36	Each	407.000	250%	1424.50	51282.00
3		Providing and fixing in position best Indian make chromium plated brass 2nd tap for lavatory suite.						
	30.45		36	Each	92.000	250%	322.00	11592.00
4		Providing and fixing in position 32mm diameter G.I waste pipe embedded in wall						
	30.48		36	Each	98.000	250%	343.00	12348.00
5		Providing and fixing in position best Indian make C.P brass bottle trps 32mm diameter						
	30.50		36	Each	92.000	250%	322.00	11592.00
6		Providing and fixing in position best Indian make paper holder fixed into C.P including cutting & making good the walls etc.						
	30.67 (a)							
(a)		C.P brass	36	Each	27.500	250%	96.25	3465.00
7		Providing and fixing in position best Indian make towel rails fixed including cutting and making good the wall etc.						
	30.68 (b) (i)							
(b)		20mm diameter C.P brass adjustable						
(i)		750mm long	36	Each	65.000	250%	227.50	8190.00
8		Providing and fixing in position glass shelf fixed in with rawl plugs C.P brass screws complete including cutting & making good the walls etc.						
(a)		With C.P brass bracket and guard rail						
(i)	30.69 (a) (i)	600mm x125m	16	Each	72.500	250%	253.75	4060.00
9		Providing and fixing in position best Indian make soap dish fixed into wall with C.P brass screws complete in all respects including cutting & making good the walls etc.						
(a)		C.P Brass						
(i)	30.70 (a) (i)	Soap dish large	36	Each	59.000	250%	206.50	7434.00
10		Providing and dixin in position best Indian make bevelled edge 5.5mm thick mirror fixed in position by means of 4 nos. C.P brass screws and washers complete including cutting and making good the walls etc.						
(a)		Indian make						
(ii)	30.71 (a) (i)	600mm x 450mm	16	Each	107.000	250%	374.50	5992.00
11		Providing and fixing in position super quality 65mm i/d opening CP brass dome type hinged grating weighting about 750 gms. Fixed in cement mortar 1:2 complete in all respects (as required by the Engineer-in-charge)						
	30.74		72	Each	67.500	250%	236.25	17010.00
12		Providing & fixing in position 15mm i/d C.P brass bib cocks of best quality (as required by te Engineer -in - Charge)						
a)	30.75 (a)	Bib cock long body	144	Each	116.000	250%	406.00	58464.00
13		Providing and fixing in position HCI soil, waste, vent pipes to ISI specification or any other reputed firm including cutting & wastage etc. & cutting holes in walls, roofs or floor etc. and making good the floor & wall but excluding cost of lead jointing						
(a)	30.84 (a)	100mm internal dia	304	Mtr.	97.500	300%	390.00	118560.00
(b)	30.84 (b)	75mm internal dia	608	Mtr.	83.000	300%	332.00	201856.00
14		Providing lead caulked joints to HCI pipes & specials conforming to ISI specification of ELC or any other reputed firm including cost of lead yarn, fuel & tools etc.						
a)	30.87 (a)	100mm internal dia(1.13 kg)	912	Each	53.500	250%	187.25	170772.00
(b)	30.87 (b)	75mm internal dia(0.91 kg)	1216	Each	27.500	250%	96.25	117040.00
15		Providing and fixing in position MS or Heavy flat iron clamps made out of MS flat not less than 5mm of the approved design for fixing CI soil waste vent or anti pipes to walls complete in all respects including cutting and making good the walls and floors etc. amd painting						
a)	30.88 (a)	For 100 mm intrnal dia pipes	228	Each	12.500	300%	50.00	11400.00
b)	30.88 (b)	For 75mm internal dia pipes	228	Each	11.000	300%	44.00	10032.00

16		Providing and fixing HCI floor trap ISI marked of the self cleaning design with C.P brass hinged grating with or without vent arm & including cement concrete 1:2:4 complete in all respects						
(b)	30.89 (b)	With 75mm internal dia outlet	36	Each	105.000	300%	420.00	15120.00
17		Providing and fixing in position HCI 50mm internal diameter outlet plain nahani trap ISI marked of the self cleaning design with CP brass hinged grating with frame weighing 6.80 kg each fixed complete as fully described in item no. 30.89 above						
b)	30.90 (b)	75mm i/d outlet plain Nahani Trap	36	Each	100.000	300%	400.00	14400.00
18		Providing and fixing in position HCI specials for soil waste vent pipes to ISI specification including cutting holes in walls & making good but excluding cost of lead joints						
30.91								
(a)		For 100mm internal dia pipes						
(i)	(i)	heal rest bend	36	Each	58.000	300%	232.00	8352.00
(iv)	(iv)	Single junction with door 100mm x 100mm x 100mm	72	Each	86.500	300%	346.00	24912.00
vi)	vi)	Single junction plain 100mm x 100mm x 100mm	72	Each	76.500	300%	306.00	22032.00
xiii)	xiii)	Bend with door	36	Each	60.000	300%	240.00	8640.00
(xiv)	(xiv)	Bend plain	36	Each	53.000	300%	212.00	7632.00
xvi)	xvi)	Cowls	36	Each	36.500	300%	146.00	5256.00
xxii)	xxii)	Collars	36	Each	27.500	300%	110.00	3960.00
b)	b)	For 75mm internal dia pipes					0.00	0.00
i)	i)	Heal rest bend	36	Each	39.500	300%	158.00	5688.00
(iv)	(iv)	Single junction with door 75mm x 75mm x 75mm	72	Each	59.000	300%	236.00	16992.00
xiii)	xiii)	Bend with door	36	Each	42.000	300%	168.00	6048.00
(xiv)	(xiv)	Bend plain	36	Each	39.500	300%	158.00	5688.00
xvii)	xvii)	Cowls	36	Each	28.000	300%	112.00	4032.00
xviii)	xviii)	Collars	36	Each	22.500	300%	90.00	3240.00
19		Cutting chase in brick wall in cement for embedding G.I or HCI pipe lines & making good the same						
a)	30.95 (a)	Size 75x75mm	300	Mtr.	6.000	250%	21.00	6300.00
20		Painting HCI soil waste and vent pipes and fittings with black bitumastic ordinary paint of approved manufacture two coats on new work.						
30.101								
a)	30.101 (a)	100mm internal dia	200	Mtr.	1.850	250%	6.48	1295.00
b)	30.101 (b)	75mm internal dia	200	Mtr.	1.350	250%	4.73	945.00
21		Providing and fixing in position automatic brass ball valves in tanks						
30.110								
b)		With plastic ball						
(iii)	30.110 (b)(iii)	25mm diameter	16	Each	65.500	250%	229.25	3668.00
22		Providing and fixing in position Gully traps fixed in cement concrete 1:4:8 with HCI grating 150x150mm CI cover weighing approximately 7.26 kg & frame clear opening 300 x 300mm and chamber including cost of brick work 1:5 cement concrete 1:8:16 and CC 1:2:4 in coping						
b)	30.114 (b)	100mm internal dia HCI gully traps.	18	Each	208.000	300%	832.00	14976.00
23		Providing and fixing in position best Indian make vitreous china ware channel of size 600mm x 150 including laying and fixing in cement concrete 1:2:4 complete as required by the Engineer-in-charge.						
30.115								
(i)		White	36	Each	92.000	250%	322.00	11592.00
24		Cutting holes upto 23cm through brick work in cement wall for pipes and making good						
28.24								
a)	(a)	11.43cm thickness of walls	150	Each	14.000	215%	44.10	6615.00
b)	(b)	22.86 cm thickness of walls	200	Each	20.350	215%	64.10	12820.50
25		Constructing brick masonry inspection chamber upto 60 mtr. Depth in cement mortar 1:5 cement concrete 1:2:4 benching, 12mm thick cement plaster, RCC 1:2:4 slab 100mm thick with 455 x 455mm x 455x610mm inside light duty GI inspection chamber cover & frame with 3 coats of black bitumastic paint						
29.84								
c)	©	Size 600x900mm inside	36	Each	690.000	330%	2967.00	106812.00

26	29.85	Extra for every 0.30mts. Depths fo inspection chamber						
c)		600mm x 900mm		Per 0.30 mtr depth				
	29.85 @		60		139.000	330%	597.70	35862.00
27		Excavation for pipelines running under pressure in trenches and pits in open areas where disposal of surplus earth is done alongwith the alignment and restoration of unmetalled surface to the original condition						
a)	6.8 (a)	Without timbering and shoring upto 1.5 meters depth	400	100 Cum	1030.000	300%	4120.00	16480.00
28	10.39	Cement concrete 1:4:8 with stoen aggregate 40mm nominal size in foundation and plinth	50	Cum	403.100	370%	1894.57	94728.50
29	10.41	Cement concrete 1:2:4 with stone aggreagte 20mm nominal size in doudnation and plinth	30	Cum	615.600	370%	2893.32	86799.60
30	10.59	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in first storey upto 4 metres above plinth level						
		- do- (first storey)	5	Cum	621.850	370%	2922.70	14613.48
		- do -(second storey)	5	Cum	624.400	370%	2934.68	14673.40
	10.59+note							
31		Providing & fixing in position best Indian make a range of 3 urinal flat back or angular lipped in veterous china ware with one no.10 letres capacity best indian make C.I. automatic flushing cistern with fittings and flush pipe etc.complete as fully discribed Item no.30.29. 1150mm high white						
	30.31 (i)		10	Each	4592.000	250%	16072.00	160720.00
		Total						1582841.48
		Add 22.50% Premium on (HSR+CP)						356139.33
		Total HSR+CP						1,938,980.81
S.No	Remarks	Description	Qty.	Unit	Rate	C.P	Rate	Amount
1	NS	Providing and fixing in position best Indian make (to the approval of Engineer -in- chare) 580mm white Indian make Orissa type water closet suit for sinking into floor with raised foot best treads with 100mm H.C.I trap along with:-	14	Each	2700		2700	37800.00
		White PVC 10 ltrds. Capacity low level flushing cistern (as approved by Engineer-in-charge) complete with iternal PVC fitting like suption, 15mm i/d ball cock along with R.S of CI painted bracket and 32mm dia CP/GI outlet pipes. Mosquito proof over flor pipw etc. complete in all respect including cutting and making good the wall and floor and apinting fitting. Note : PVC cistern of make Titanic OASIS, Jindal, Parryware, Front Line to be used						
2	N.S.	Providing and fixing in position best Indian make (to the approval of Engineer-in-charge) Single trap symphonic European type white water closet suit consiting of :-	28	Each	3000		3000	84000.00
(i)		White PVC 10 ltr. Capacity low level flushing like syption, 15mm i/d ball cock along with R.S or CI bracket and 32mm dia CP brass bend for out let, Mosquito proof over flow pipe etc.						
(ii)		Best laid in make white plastic seat (solid) and i/d fitting with set & C.P chromium plated hingesand rubber buffers (to the approved of Engineer-in-charge). Complete in all respect including cutting and making good the wall and floor.						
3		Providing and laying cement concrete 1:2:4 75mm in bed and around C.I Soil waste pipe 100mm and 75mm i/d under floor including centering and shuttering where required.						
a)	N.S	100mm dia	100	Mtr	300		300	30000.00
b)	N.S	75mm dia	100	Mtr	200		200	20000.00
4	N.S	Providing and fixing in position C.P jet connection of EWC complete including C.P plate for jet & PVC connection for jet point complete in all respects.	27	Each	200		200	5400.00

5		Providing, laying, jointing glazed stoneware pipes grade A with stiff mixture of cement mortar in the proportion of 1:1 (1 cement, 1 fine sand) including testing of joints etc. complete.					
a)	N.S	150mm i/d	400	Mtr	250	250	100000.00
b)	N.S	200mm i/d	200	Mtr	300	300	60000.00
6		Providing and fixing of G.M peat valves heavy patterns with hand wheels ISI marked to GI pipe lines.					
a)	N.S	25mm i/d	30	Each	350	350	10500.00
b)	N.S	40mm i/d	20	Each	900	900	18000.00
7		Providing, testing and fixing G.I pipe 'B' class medium duty including cost of specials such as Tee, elbo, bends etc. and threading inside the building & Ground					
	N.S	15mm i/d	500	Mtr	140	140	70000.00
	N.S	20mm i/d	200	Mtr	170	170	34000.00
	N.S	25mm i/d	600	Mtr	240	240	144000.00
	N.S	40mm i/d	500	Mtr	320	320	160000.00
	N.S	50mm i/d	400	Mtr	410	410	164000.00
8		Extra for providing and fixing union coupling to G.I pipe lines including cost of union complete					
	N.S	15mm i/d	10	Each	100	100	1000.00
	N.S	20mm i/d	10	Each	150	150	1500.00
	N.S	25mm i/d	10	Each	200	200	2000.00
	N.S	40mm i/d	10	Each	225	225	2250.00
9		Supplying and fixing ISI marked sluice valve double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge.					
	N.S	80mm	4	Each	3500	3500	14000.00
10		Const. of sluice valve haudi 1m x 1m x 1m with brick work 1:5 cement sand mortar finished with 12.5 mm cement plaster 1:4 including RCC 1:2:4 slab with reinforcement, surface box complete in all respect to the approval of Engineer-in-charge.					
	N.S		4	Each	6500	6500	26000.00
11		Providing and fixing in position H.D P.E water tanks complete with Inlet, outlet, scour and overflow flanges including masonry based underneath as approved by the Engineer-in-charge of different capacity tanks complete in all respect.					
	N.S						
		Capacity upto 2000 litres	20000	Ltrs.	6.5	6.5	130000.00
12		Construction brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C top slab with 1:2:4 mix (1 cement:2 coarse sand : 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat pf neat cement and making chhannels in cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design:					
	N.S						
	N.S	Inside size 120 x 90cm and 90cm deep including SFRC cover with frame (Heavy duty) 580mm internal diameter	15	Each	7500	7500	112500.00
13		Extra for depth for manholes					
		Size 120x90cm					
	N.S	With Sewer bricks	9	Mtr	1500	1500	13500.00
14		Making Sewer connection with the existing sewer line					
	N.S		2	Each	5000	5000	10000.00
		Total					1250450.00
		Total HSR+CP					1938980.81
		Total of PH					3189430.81

S.No	HSR	Description	Qty.	Unit	Rate	C.P	Total Rate	Amount
INTERNAL ELECTRICAL SERVICES (SCHEDULE ITEMS)								
1	31.36	Wiring in 1.5 sq mm PVC insulated Copper conductor cable in 1.6 mm thick conduit pipe						
	(I)	Fan point						
	(a)	Short Point	4	Each	343.000		343.00	1372.00
	(b)	Medium Point	42	Each	524.000		524.00	22008.00
	(c)	Long Point	92	Each	733.000		733.00	67436.00
	(II)	Light Point						
	(a)	Short Point	86	Each	251.000		251.00	21586.00
	(b)	Medium Point	66	Each	433.000		433.00	28578.00
	(c)	Long Point	220	Each	639.000		639.00	140580.00
	(III)	Twin Control light point with 2 way 5 amp. Single pole switch						
	(c)	Long Point	4	Each	726.000		726.00	2904.00
	(VII)	3 pin 5 amp. Plug point including earthing the 3 rd pin etc.						
	(a)	Short Point	39	Each	283.000		283.00	11037.00
	(c)	Long Point	12	Each	672.000		672.00	8064.00
	(VIII)	3 pin 15 amp. Plug point including earthing the 3 rd pin etc. with 4 sq mm size						
	(a)	Short Point	4	Each	403.000		403.00	1612.00
	(b)	Medium Point	4	Each	667.000		667.00	2668.00
	(c)	Long point	35	Each	970.000		970.00	33950.00
2	31.40	Supply and erection of PVC unsheathed Copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe						
	(i)	Cable Size 1.5 sq mm (3/0.81 mm)	2100	Meter	10.200		10.20	21420.00
	(iii)	Cable Size 4.0 Sq mm (7/0.85 mm)	1040	Meter	24.500		24.50	25480.00
	(iv)	Size 6.0 Sq mm (7/1.05 mm)	465	Meter	35.600		35.60	16554.00
	(v)	Size 10.0 Sq mm (7/1.35 mm)	500	Meter	50.000		50.00	25000.00
	(vi)	Size 16.0 Sq mm (7/1.70 mm)	250	Meter	83.700		83.70	20925.00
3	31.41	Supply & erection of double door sheet steel enclosure distribution board suitable for MCBs and ELCBs etc. recessed in wall including bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						
	(v)	4-way, TP&N (Horizontal) (8+12)	4	Each	1670.000		1670.00	6680.00
	(vi)	8-way, TP&N (Horizontal) (8+24)	4	Each	2100.000		2100.00	8400.00
4	31.16	Supply and erection of blanking sheet in existing distribution board	36	Each	2.250	50%	3.38	121.50
5	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-						
	(a)	Miniature Circuit Breakers of 9 K.A. breaking capacity						
	(ii)	6 amp to 32 amp (SP) Havell's/ Standard	108	Each	95.000	30%	123.50	13338.00
	(iii)	40 amp to 63 amp. (TPN) Havell's/ Standard	12	Each	499.000	30%	648.70	7784.40
6	31.42	Supply & erection of double pole/ four pole Residual current circuit breaker (RCCB/ELCB) suitable for operation on 240/415V, 5Hz AC supply installed in existing sheet steel enclosure including making necessary connections and bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						
	(xiv)	40 A /415V FP ELCB with 100 mA sensitivity	4	Each	1600.000		1600.00	6400.00
	(xvi)	63 A /415V FP ELCB with 100 mA sensitivity	24	Each	1900.000		1900.00	45600.00
7	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-						
	(xxi)	Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	3045	Meter	16.300	150%	40.75	124083.75
	(xxii)	Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness flushed	1314	Meter	19.600	150%	49.00	64386.00
	(xxiii)	Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness flushed	125	Meter	24.200	150%	60.50	7562.50

	(xxiv)	Heavy gauge welded conduit pipe 40 mm dia 2.00 mm thickness flushed	10	Meter	34.100	150%	85.25	852.50
8	31.22	Earthing						
	(iii)	Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) complete as required	2	Each	453.000	150%	1132.50	2265.00
	(v)	Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	2	Each	186.000	150%	465.00	930.00
	(xi)	Pdg. and fixing 25 mm x 5 mm G.I. Strip in 40 mm dia G.I. pipe from earth electrode as required	15	Meter	65.100	150%	162.75	2441.25
	(xv)	Pdg. and fixing 25 mm x 5 mm GI strip on surface or in recess for connections etc. as required with all labour and material	15	Meter	20.300	150%	50.75	761.25
	(xvi)	Pdg. and fixing 4.00 mm dia G.I. wire on surface or in recess for loop earthing as required	1050	Meter	3.400	150%	8.50	8925.00
9	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-						
		(ii) 10 Sq mm to 16 Sq mm Cable 2 to 4 Core	18	Each	9.200	130%	21.16	380.88
10	31.18 (xxvi)	Erection of hexagonal M.S. box 1.60 mm thick having each side 8 cms, 7.5 cms deep, top covered with M.S. lid by means of screws including 10 mm dia 30 cm long mild steel rod made into suitable suspension hook and erected in R.C.C. slab of erection of fan, the bottom covered with 3 mm thick bakelite sheet with suitable holes, painting etc. complete with all labour and material required to complete the job.	126	Each	26.300	200%	78.90	9941.40
	31.35 (vii)	Supply and erection of 75 mm x 75 mm x 60 mm deep M.S. box for telephone and Sound & Projection System including 2 pin 5 amp. socket including cost of bakelite sheet	98	Each	18.000	130%	41.40	4057.20
		TOTAL						766084.63
		Add 22.50% Premium on (HSR+CP)						172369.04
		Total HSR+CP						938453.67
Sr. No.	HSR	Description	Qty.	Unit	HSR Rate	C.P	Rate	Amount
1		Supplying, installation, Testing & Commissioning of Cubical type Branch Distribution Boards (BDB) of the following types made out of 14 gauge (2 mm thick) CRCA sheet complete with the accessories i/e. interconnections with suitable copper solid strip connections 100 A & above and with copper wires below, painting etc. and complete with supplying & fixing the following accessories in each type of following boards etc. as required.						
1.1		MDB (LIGHT) Gorund Floor (Minimum Depth of Panel shall be 500 mm deep)						
(A)		Incoming						
i)		1 No. 630 Amp rating FP Moulded Case Circuit Breakers with neutral link, Front operated handle & Thermal magnetic release (50 kA) (L+P)						
ii)		1 Set 800 Amp 4 Bars Cu. Bus Bar						
iii)		1 Set LED type Indication lights						
iv)		1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						
v)		1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)		1 Set CTs for Ammeter 630/5 A ratio						
vii)		2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)		3 Nos. 2 A SPMCB						
		Outgoing						
i)		1 No. 100 A TP MCCB, 25 KA						
ii)		18 Nos. 63 A TP MCCB, 25 KA (12 Nos. for AC in Future + 3 Nos. for Power + 3 Spare)						

(B)		Incoming						
i)		1 No. 100 Amp rating FP Moulded Case Circuit Breakers with neutral link, Front operated handle & Thermal magnetic release (36 kA) (DG SUPPLY FOR LIGHT)						
ii)		1 Set 150 Amp 4 Bars Cu. Bus Bar						
iii)		1 Set LED type Indication lights						
iv)		1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						
v)		1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)		1 Set CTs for Ammeter 100/5 A ratio						
vii)		2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)		3 Nos. 2 A SPMCB						
(C)		100 A Off Load Change Over Switch between Light & Power Busbar 4 Pole						
		Outgoing						
i)		3 Nos. 63 A TP MCCB, 25 KA (1 No. for 1st Floor Light + 1 No. Security Light & 1 No. spare)						
ii)		3 Nos. 40 A TP MCCB, 16 KA (For Ground Floor Light)	1	Sets	250000		250000	250000.00
2		BDB (LIGHT first floor) (Minimum Depth of Panel shall be 300 mm deep)						
		Incoming						
i)		1 No. 63 Amp rating TP MCCB, 25 KA						
ii)		1 Set 100 Amp 4 Bars Cu. Bus Bar						
iii)		1 Set LED type Indication lights						
iv)		1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						
v)		1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)		1 Set CTs for Ammeter 100/5 A ratio						
vii)		2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)		3 Nos. 2 A SPMCB						
		Outgoing						
i)		3 Nos. 40 A TP MCCB, 16 KA (2 + 1 Spare)	1	Sets	65000		65000	65000.00
3		BDB (POWER first floor) (Minimum Depth of Panel shall be 300 mm deep)						
		Incoming						
i)		1 No. 100 Amp rating TP MCCB, 25 KA						
ii)		1 Set 150 Amp 4 Bars Cu. Bus Bar						
iii)		1 Set LED type Indication lights						
iv)		1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						
v)		1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)		1 Set CTs for Ammeter 100/5 A ratio						
vii)		2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)		3 Nos. 2 A SPMCB						
		Outgoing						
i)		3 Nos. 63 A TP MCCB, 25 KA (2 + 1 Spare)	1	Sets	65000		65000	65000.00
4		Providing & fixing thermoplastic polycarbonate boxes of size 200 x 160 x 98 mm conforming to IP-65 degree of protection along with 6A MCB and 3 way connector complete etc as required. (FOR SECURITY LIGHTING)	15	NOS.	700		700	10500.00
(vi)		Moulded Case Circuit Breakers						
		Crompton, English Electric Company, Larsen & Toubro, Legrand						
		SUBHEAD - III LIGHTING FIXTURES & FANS						
1		Supply & erection of following type surface/ ceiling mounted, Energy efficient, following T-5 fluorescent tube light fitting, housing made out of CRCA sheet 0.5 mm thick (min.) powder coated with electronic ballast and lamp holder duly wired up ready for 230 volt ,single phase,50Hz AC supply, with lamp complete with all accessories etc as required.						

a)	1x28 W T-5 Fixture (PHILIPS CAT NO. TMS-122/128 HF)	92	Nos.	700		700	64400.00
b)	1 x 14 W T-5 Fixture (PHILIPS CAT NO. TCH 204 1 X TL5-14 W/ 830 & 865)	28	Nos.	700		700	19600.00
2	Supply & erection of 2 x 28 W Decorative mirror optics ceiling/ surface mounted fluorescent tube light fixture, housing made out of CRCA sheet powder coated with pre anodised aluminium bright reflector, electronic ballast and lamp holder duly wired up ready for 230 volt, single phase, 50Hz AC Supply with lamp complete with all accessories as required. (TCS 398/2/28 MDGN HF xtend aqua)	252	Nos.	2500		2500	630000.00
3	Supply & erection of 250 W HPSV flood lighting luminaire made of single piece die cast aluminium housing, Polycarbonate cover pre-anodised aluminium reflector suitable for 250 W HPSV Lamp with integral control gear comprising of copper ballast, Ignitor, Capacitor of same make as luminaire with lamp complete with all accessories etc as required. (PHILIPS SRP 202/250)	15	Nos.	7000		7000	105000.00
4	Supply & Erection of 1200 mm size ceiling fan complete with double ball bearing, motor, blades, downrod, canopy, capacitor, etc. suitable for operation on 230 V 50 Hz A.C. including Supplying & fixing stepped type electronic fan regulator on the existing switch box including connections etc. as required.	126	Nos.	1450		1450	182700.00
5	Supply & erection of 305 mm dia., 900 RPM Exhaust fan heavy duty suitable for single phase 230 V 50 Hz A.C. supply complete with motor, capacitor, louvers/shutters etc. complete as required.	12	Nos.	2500		2500	30000.00
	Total						1422200.00
	Total HSR+CP						938453.67
	Total of Electrical						2360653.67
	Total EI						2360653.67
	Total Civil						36164066.03
	Total PH						3189430.81
	Grand Total						41714150.51
	3% Contigencies charges						1251424.52
	2% Land Development charges						834283.01
	Total						43799858.03
	Say Rs. in Lacs.						438.00

Executive Engineer,
Construction Cell,
NIT, Kurukshetra

PRELIMINARY ESTIMATE

Name of work :- C/o of National Institute of Technology, Kurukshetra.

Sub Head :- LECTURE THEATRE BLOCK (12 NOS)

P. E. Cost :- 5,20,33,000.00 (l/c., 3% contingencies + 2.25% consultancy fees + 12.36% Service tax)
(Rupees Five Crores Twenty Lacs Thirty Three Thousand Only)

BENJAMIN BENJAMIN & VATS
Architects Engineer & Urban Planners
E - 332, 2nd Floor, Delhi - 110092.
Tel :- 011-42445354, 22425884 E-mail: bbvats@gmail.com

**NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA - 136119.**

State: Haryana Civil Engineering Branch of NIT Kurukshetra

Name of Work:- C/o of National Institute of Technology, Kurukshetra
S.H:- LECTURE THEATRE BLOCK (12 NOS).

Major Head

Minor Head

Detailed Head

Estimate framed by M/s. Benjamin Benjamin & Vats and processed in the office of Civil Engineering Branch of NIT Kurukshetra, for a probable cost of Rs.5,20,33,000.00 (i/c., 3% contingencies + 2.25% consultancy fees + 12.36% Service tax).

1.0 HISTORY:-

The Preliminary Estimate amounting to Rs.5,20,33,000.00 (i/c., 3% contingencies + 2.25% consultancy fees + 12.36% Service tax) has been framed to cover the probable cost of LECTURE THEATRE BLOCK (12 NOS) for accord of Administrative Approval of the Competent Authority.

National Institute of Technology, Kurukshetra vide letter no. D/8379 dated 14/18-8-200 has desired for submission of estimate with drawings for approval.

2.0 DESIGN & SCOPE:-

The Preliminary Estimate is based on the following Architectural Drawings No:-

- | | |
|-----------------|-------------------|
| 1) NITK/LT/01- | GROUND FLOOR PLAN |
| 2) NITK/LT/02 - | FIRST FLOOR PLAN |
| 3) NITK/LT/03 - | SECTION |
| 4) NITK/LT/04 - | ELEVATION |

3.0 RATES:-

The estimate is based on PAR 1.10.2007

4.0 COST:-

	WORKS LAYOUT	49,307,166.00
Add :- 3% contingencies	=	1,479,214.98
Add :- 2.25% Consultancy Charges.	=	1,109,411.24
Add :- 12.36% Service Tax on Consultancy Charges.	=	137,123.23
		52,032,915.44
SAY	=	5,20,33,000.00


5.0 METHOD:-

By Contract after call of tender

4.0 W.C ESTABLISHMENT:-

Shall be met out of 3% contingencies.

7.0 Time :-months


BENJAMIN BENJAMIN & VATS.
E-332, 2ND FLOOR, NIRMAN VIHAR, DELHI - 110 092.
TEL :- 011-22425884, E-MAIL:- bbvats@gmail.com

NAME OF WORK :- LECTURE THEATRE BLOCK (12 NOS) N. I. T KURUKSHETRA.

S.No.	Items	Qty		Rate	Unit	Amount	Remarks
1.1	R.C.C framed structure upto 6 floor(floor height 3.35 mt)	2940	Sqm.	13200.00	Sqm.	38,808,000.00	item 1.1.1
1.2	Extra Height of Floor 3.35 mtr 3.60-3.35 beyond = 125/0.30*150	2940	Sqm.	124.50	Sqm.	366,030.00	item 1.2.3
	30					39,174,030.00	(A)
3.2	Extra for						
(i)	Larger Modules	1728	Sqm.	990	Sqm.	1,710,720.00	
2	Services (Civil)						
a)	Internal water supply & sanitary installations on "A"	39174030.00	Sqm	4.00	%	1,566,961.20	item 3.1
b)	Services(Electrical) Connection internal electrical installation on "A"	39174030.00	Sqm	12.50	%	4,896,753.75	item 3.3
	Extra for						
3	Power wiring & plugs on "A"	39174030.00	Sqm	4.00	%	1,566,961.00	item 3.6.1
4	Telephone Conduits on "A"	39174030.00	Sqm	0.50	%	195,870.15	
5	Computer Lan on "A"	39174030.00	Sqm	0.50	%	195,870.15	

49,307,166.00

Add :- 3% contingencies = 1,479,214.98

Add :- 2.25% Consultancy Charges. = 1,109,411.24

Add :- 12.36% Service Tax on Consultancy Charges. = 137,123.23

52,032,915.44

SAY = 5,20,33,000.00

(Rupees Five Crores Twenty Lacs Thirty Three Thousand Only)

FOR BENJAMIN BENJAMIN & VATS.

Item No: 10.7 To consider & approve the Revised cost estimate for the construction of additional Girls Hostel (300 Capacity) at NIT, Kurukshetra.

The B&WC in its 8th meeting held on 28-05-07 vide item No. 8.8, approved an estimated cost of Rs.810.00 Lacs for the construction of Additional Girls Hostel (300 Capacity). The tenders were invited after obtaining the approval of the Chairman, B&WC in anticipation to the approval of the Building & Works Committee. After scrutinizing & making comparative statement, the work was allotted to M/S A.K Construction Co. Ltd. Chandigarh with an estimated cost of Rs. 948.35 Lacs being lowest tenderer.

It is therefore, requested that B&WC may consider & approve the construction of Additional Girls Hostel (300 Capacity) with an estimated cost of Rs. 948.35 Lacs.

REVISED COST ESTIMATE FOR CONSTRUCTION OF ADDITIONAL GIRLS HOSTEL (300 CAPACITY) AT NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

S.No	HSR	Description	Qty.	Unit	HSR	C.P	Total Rate	Amount
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around mason	2000	100 Cum	1108.10	350%	4986.45	99729.00
2	6.27	Clearing grass and removal of the rubbish upto distance of 50m outside the periphery of the area cleared.	8350	100 sqm	21.45	300%	85.80	7164.30
3	10.39	Cement concrete 1:4:8 with stone aggregate 40 mm nominal size in foundation and plinth	100	Cum	403.10	370%	1894.57	189457.00
4	10.56	Cement concrete 1:4:8 with stone aggregate 20 mm nominal size in first storey upto 4 metres above plinth level.	220	Cum	426.25	370%	2003.38	440742.50
5	10.90 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestal and approach slabs of bridges etc. excluding steel reinforcement but including centering and shuttering la	350	Cum	774.00	370%	3637.80	1273230.00
6		Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders, stairs, columns (square or rectangular) battens and lintels etc. excluding steel reinforce						
6.1	10.86+ 10.95 (a)	-do- (first storey)	325	Cum	1188.75	370%	5587.13	1815815.63
6.2	10.86+ 10.95 (a)+ note(v) (b)	-do- (second storey)	325	Cum	1196.05	370%	5621.44	1826966.38
6.3	10.86+ 10.95 (a)+ note(v) (b)	-do- (third storey)	325	Cum	1203.35	370%	5655.75	1838117.13
6.4		fourth storey	325	Cum	1210.65	370%	5690.06	1849267.88
6.5		fifth storey	6	Cum	1217.95	370%	5724.37	34346.19
7	10.82 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respect.						
7.1	10.82 + 10.95 (a)	-do- (first storey)	382	Cum	1084.80	370%	5098.56	1947649.92
7.2	10.82 + 10.95 (a)+note(v)(b)	-do- (second storey)	382	Cum	1092.10	370%	5132.87	1960756.34

7.3	10.82 + 10.95 (a)+note(v)(b)	-do- (third storey)	382	Cum	1099.40	370%	5167.18	1973862.76
7.4		fourth storey	300	Cum	1106.70	370%	5201.49	1560447.00
7.5		fifth storey	3	Cum	1114.00	370%	5235.80	15707.40
8	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.	4650	Qtl	917.05	325%	3897.46	18123200.63
9	10.36	Cement concrete 1:4:8 with brick ballast 40mm nominal size in foundation and plinth	70	Cum	385.25	370%	1810.68	126747.25
10	10.132 + 10.95 (a)	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavements, roads, taxi tracks and runways, laid to required slope and camber, including consolidation, finishing, and tamping complete.	270	Cum	729.30	370%	3427.71	925481.70
11	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	250	Sqm	35.05	370%	164.74	41183.75
12	11.2	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	715	Cum	393.45	350%	1770.53	1265925.38
13	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.						0.00
13.1	11.7	-do- (first storey)	277	Cum	414.45	350%	1865.03	516611.93
13.2	11.7+1 1.41 (i)	-do- (second storey)	269	Cum	422.70	350%	1902.15	511678.35
13.3	11.7+1 1.41 (i)	-do- (third storey)	216	Cum	430.95	350%	1939.28	418884.48
13.4		fourth storey	315	Cum	439.20	350%	1976.40	622566.00
13.5		fifth storey	44	Cum	447.45	350%	2013.53	88595.32
14	11.48 (a)	11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure in first storey						0.00
14.1		do (first storey)	2390	Sqm	55.10	350%	247.95	592600.50
14.2	11.48 (a) + note (iv)(a)	-do- (second storey)	2160	Sqm	56.05	350%	252.23	544806.00
14.3		third storey	2030	Sqm	57.00	350%	256.50	520695.00
14.4		fourth storey	2030	Sqm	57.95	350%	260.78	529373.25
15	13.50	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	45	Each	12.30	200%	36.90	1660.50
16	14.1-10.26 Based derived rate	Sand filling under floor i/c laying consolidation, compaction & watering etc.	5400	Cum	69.30	370%	160.00	864000.00
17		Providing and lying cinder concrete in cement 1:15, 1 cement and 15 cinder, on terraced roofs and 1st storey, laid to slope, including consolidating the same.						
19	13.66+ note iii	-do- (second storey)	80	Cum	216.65	200%	649.95	51996.00
	13.66+ note iii	-do- (third storey)	80	Cum	219.65	200%	658.95	52716.00
	13.66+ note iii	fourth storey	80	Cum	222.65	200%	667.95	53436.00
20	14.1	Base course of floors consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling.	2340	Sqm	36.95	370%	173.67	406376.10

21		screed of 50mm of thick cement concrete 1:8:16 to be laid below the topping.						
	14.4+n ote(i)	-do- (second storey)	2340	Sqm	15.65	370%	73.56	172118.70
		-do- (third storey)	1340	Sqm	15.95	370%	74.97	100453.10
		forth storey	1350	Sqm	16.25	370%	76.38	103106.25
22		conglomerate floor 25mm thick cement concrete topping 1:2:4.						
	14.8	-do- (first storey)	47	Sqm	22.40	370%	105.28	4948.16
	14.8	-do- (second storey)	47	Sqm	22.70	370%	106.69	5014.43
		-do- (third storey)	47	Sqm	23.00	370%	108.10	5080.70
		forth storey	47	Sqm	23.30	370%	109.51	5146.97
23	14.3	Floating coat of 1.50mm thick neat cement laid in one operation to the topping.	200	Sqm	3.70	370%	17.39	3478.00
24		Kotah stone flooring minimum 25mm thick in any pattern as specified over 20 mm thick base of cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing and polishing						
	14.62	-do- (first storey)	1716	Sqm	201.95	135%	474.58	814383.57
	14.62+ note (i)	-do- (second storey)	1391	Sqm	202.25	135%	475.29	661124.91
	14.62+ note (i)	-do- (third storey)	1280	Sqm	202.55	135%	475.99	609270.40
		forth storey	1290	Sqm	202.85	135%	476.69	614930.10
25	14.64	Extra for Kotah stone flooring in treads of steps not exceeding 30 cm in width	152	sqm	1.15	135%	2.70	410.78
26	14.65	Extra for nosing in treads of steps of Kotah stone slab	350	mtr	6.10	135%	14.34	5017.25
27		Kota stone 20 mm thick in skirting, risers of steps, dados and wall facing (lining) and pillars laid on 12 mm thick cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing						
28.1	14.66	-do- (first storey)	200	Sqm	237.00	135%	556.95	111390.00
28.2	14.66 +note (i)	-do- (second storey)	180	Sqm	237.30	135%	557.66	100377.90
28.3	14.66 +note (i)	-do- (third storey)	172	Sqm	237.60	135%	558.36	96037.92
28.4		fourth storey	173	Sqm	237.90	135%	559.06	96717.38
29		12mm thick cement plaster 1:4 on wall						0.00
29.1	15.5	-do- (first storey)	1835	Sqm	12.70	325%	53.98	99044.13
29.2	15.5+n ote 1	-do- (second storey)	1835	Sqm	12.88	325%	54.74	100447.90
29.3	15.5+n ote 1	-do- (third storey)	1750	Sqm	13.06	325%	55.51	97133.75
29.4		fourth storey	2310	Sqm	13.24	325%	47.55	109840.50
29.5		fifth storey	250	Sqm	13.42	325%	48.31	12077.50
30		15mm thick cement plaster 1:4 on the rough side of singe or half brick						
30.1	15.10	-do- (first storey)	4030	Sqm	15.65	325%	66.51	268045.38
30.2	15.10 +note (1)	-do- (second storey)	3540	Sqm	15.83	325%	67.28	238162.35
30.3	15.10 +note (1)	-do- (third storey)	3060	Sqm	16.01	325%	68.04	208210.05
30.4		fourth storey	3370	Sqm	16.19	325%	57.98	195392.60
30.5		fifth storey	195	Sqm	16.37	325%	58.75	11456.25
31		rough cast exterior cement plaster on walls with mixture of sand and gravel or crushed stone graded from 2.36mm to 12mm nominal size dashed over and i/c fresh plaster in 2coats 10mm cement plaster 1:4 and finished coat 10mm cement plaster with cement morte						
	15.18							

31.1	15.18	-do- (first storey)	3200	Sqm	35.40	325%	150.45	481440.00
31.2	15.18 +note (1)	-do- (second storey)	1705	Sqm	35.58	325%	151.22	257821.58
31.3	15.18 +note (1)	-do- (third storey)	1300	Sqm	35.76	325%	151.98	197574.00
31.4		fourth storey	1300	Sqm	35.94	325%	57.98	75374.00
31.5		fifth storey	250	Sqm	36.12	325%	58.75	14687.50
32	15.52	10 mm thick cement plaster 1:4 under side & ceiling						
32.1	15.52	-do- (first storey)	2180	Sqm	12.65	325%	53.76	117202.25
32.2	15.52 + Note (1)	-do- (second storey)	1880	Sqm	12.83	325%	54.53	102511.70
32.3	15.52 + Note (1)	-do- (third storey)	1340	Sqm	13.01	325%	55.29	74091.95
32.4		fourth storey	1340	Sqm	13.19	325%	45.64	61157.60
32.5		fifth storey	60	Sqm	13.37	325%	46.40	2784.00
33		20mm thick cement plaster damp proof course 1:3 with 2 coats of bitumen at 1.65 Kg. per laid hot and sanded:-						
(a)	15.77 (a)+note (i)	Vertical						
		- do - (second storey)	225	Sqm	30.88	325%	131.24	29529.00
		- do - (third storey)	180	Sqm	31.06	325%	132.01	23760.90
		- do - (forth storey)	180	Sqm	31.24	325%	132.77	23898.60
b)	15.77 (b)+note (i)	Horizontal						
		- do - (second storey)	130	Sqm	29.13	325%	123.80	16094.33
		- do - (third storey)	130	Sqm	29.31	325%	124.57	16193.78
		- do - (forth storey)	130	Sqm	29.49	325%	125.33	16293.23
34	17.58 (d)	Providing and fixing 12 mm thick and 100 mm wide pelmet with 25 mm diameter wooden curtain rod and brackets, including fixing with 25 mm x 3 mm M.S.flat 10 cm long and plugs (Teak)etc. complete.						
	(d)	teak wood	1183	Metre	84.20	175%	147.35	174315.05
35	17.73	Providing and fixing six-levers brass 10cm mortice latch and lock, and a pair of lever handles with necessary screws, etc. complete (Indian make of reputed firm, such as Godrej or equivalent)	20	each	134.45	175%	235.29	4705.75
36	17.78 (c)	Providing and fixing 150mm hasps and staples with necessary screws, etc complete	300	each	4.30	175%	7.53	2257.50
37	17.82	Supplying and fixing hydraulic door closer I.S.I. mark, with necessary screws, etc. Complete -						
	(c)	I.S.I. designation No.III(size of door 851 mm to 1000 mm	12	Each	216.50	175%	378.88	4546.50
38	17.93 (a)- note (i) of 17.18	Factory manufactured solid flush door shutters with black board, core as per I.S .No. 1659-1969 bounded with water proof type phenol formaldehyde synthetic resin, hot pressed, conforming to I.S.2202 part I and II, fixed in position i/c iron hinges, screws						
	(a)	Commercial veenering with vertical grains or cross bands and face verner on both sides commercial facing its laminated core and lipped edges.						
38.1	(iii)	35mm thick	1436	Sqm	436.15	150%	1090.38	1565778.50
38.2	a (i)	25mm thick	615	Sqm	387.15	150%	967.88	595243.13
39	17.87	Providing and fixing .50mm thick aluminium sheet i/c cost of necessary srews, etc. complete.	130	Sqm	90.55	175%	249.01	32371.63

40	17.83 [c] (C)	Providing and fixing sliding bolt with nuts and screws, etc. complete Iron							
40.1	(i)	Size 300 x 16mm	662	Each	17.45	175%	47.99	31767.73	
40.2	(ii)	size 250x16mm	180	Each	16.35	175%	44.96	8093.25	
41		Cost of iron fittings complete for doors and windows, such as tower bolts, handles etc., and screws for these fittings (excluding sliding bolt)							
41.1	17.71 (a)	For single leaf shutter	1436	Sqm	6.40	175%	17.60	25273.60	
41.2	17.71 (b)	For double leaf shutter	600	Sqm	10.15	175%	27.91	16747.50	
42		Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of scr	280	Qtl.	1040.35	325%	4421.49	1238016.50	
43		Providing and fixing G.I. sheet 0.80 mm thick garage doors, with 40mmx 40mm x 6mm angle iron frame with diagonal braces, 3mm thick gusset plates at the junctions, hooks at the top and 25 mm dia, pulleys, & T-iron 50 mm x 50mm x 6mm guides at bottom includ	9.5	Sqm	424.00	325%	1378.00	13091.00	
44		Providing and fixing in position collapsible steel shutters, with vertical channels 20 mm x 10 mm x 2mm and braced with flat iron diagonal 20 mm x 5 mm size, with top and bottom rails of T-iron 40 mm x 40 mm x 6 mm with 38 mm dia steel pulleys, complete w	9.5	Sqm	305.45	325%	992.71	9430.77	
45	17.90 (b)- note I of 17.18	Factory manufactred panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc (non confireous timber other than teak conforming to I.S specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position.35 mm thick	600	Sqm	424.15	175%	1166.41	699847.50	
46	18.30	S/F glass panes including special metal sash putty of approved make						0.00	
	(b)	Glass panes 4mm thick, exceeding 40 sq.dm.area	600	Sqm	115.40	325%	490.45	294270.00	
47		Pressed steel sheet frames, chowkats consisting of 2mm thick steel sheet of specied section, including iron lugs (hold fasts) iron hinges, conforming to PWD specifications, including bolts for fixing stops, locknotch, provision for receiving tower bolts, and finished with one coat of ready mixed paint red lead non- setting primer, of approved quality, fixed in position including the cost of cement concrete 1:3:6 for filling in the frame, and cement concrete 1:3:6 for lugs complete:-							
a)	18.34a	Door and window frame size 89mmx50mm with 40mmwide single rebate.	2620	Mtr	71.55	325%	301.09	796709.25	
b)	18.34b	Door and window frame size 76mmx38mm with 35mmwide single rebate.	1950	Mtr	58.60	325%	249.05	185647.50	
c)	18.34c	Door and window frame size 127mmx50mm with 40mmwide single rebate.	5100	Mtr	76.80	325%	326.40	1664640.00	

48		Factory manufactured wire guaze door and windows shutters of Wire Gauge commercial hard wood such as hollock, champ, chikrassy and chaplash (non - confireous timber other than teak conforming to I.S specification no. 1003 kiln seasoned) with 100mm wide vertical styles, 150mm wide lock rail, 200mm wide bottom rail & wire gauze of 140G or 120G designation i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position.						0.00
a)	17.92.i- note I 17.18	30mm thick	430	Sqm	310.40	175%	853.60	367048.00
b)	17.92.ii note I 17.18	35mm thick	510	Sqm	335.70	175%	923.18	470819.25
49	18.35	Providing and fixing M.S.angle and T-iron frames for door, window and ventilator including iron hold fast, butt hinges of I.S.I. mark fixed in position with machine screws and duly welded including all other suitable locking arrangements provided and weld	1	Quintal	1069.70	325%	4546.23	4546.23
50	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk milli including finishing the surface to required finish complete (with first	7180	Sqm.	4.60	125%	10.35	74313.00
51	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc.	7180	Sqm.	3.75	125%	8.44	60581.25
52	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	7180	Sqm.	9.40	125%	21.15	151857.00
53	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	1310	Sqm.	3.15	125%	7.09	9284.63
54	16.17	painting two coats e/c priming coat with ready mixed paint for metallic surfaces in all shades on new steel or iron work.to give an even shade (with first quality paint)	1310	Sqm.	7.00	125%	15.75	20632.50
55	16.52	preparation of plaster surface for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surfa	29250	Sqm	11.15	125%	25.09	733809.38
56	16.58	Distemping with washable oil bound distemper (of approved manufature) two coats over one priming coat on new work.	29250	Sqm	9.10	125%	20.48	598893.75
57	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	19050	Sqm	7.25	125%	16.31	310753.13
58		Providing and fixing premoulded bituminous joint filler, for expansion joints, including the cost of sealing compound and primer coat.						0.00
	24.35	(ii) 25mm wide	38000	Per mtr. per cm depth	3.75	325%	15.94	605625.00

59		Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls (10cm to 20cm thickness) (straight and curved) excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.						
a)	10.87+ 10.95 (a)	First storey	15	cum	1486.90	370%	6988.43	104826.45
b)	10.87+ 10.95+ note (v) (b)	Second Storey	15	cum	1494.20	370%	7022.74	105341.10
c)	10.87+ 10.95+ note (v) (b)	Third storey	15	cum	1501.50	370%	7057.05	105855.75
d)	10.87+ 10.95+ note (v) (b)	Fourth storey	20	cum	1508.80	370%	7091.36	141827.20
60		Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in facia, parapet and other thin vertical sections not covered by item no.10.82, 10.86 to 10.88 not exceeding (10cm) excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.						
a)	10.89+ 10.95 (a)	First storey	15	cum	1708.95	370%	8032.07	120180.98
b)	10.89+ 10.95 (a)+no te (v) (b)	Second Storey	15	cum	1716.25	370%	8066.38	120995.63
c)	10.89+ 10.95(a)+not e (v) (b)	Third storey	15	cum	1723.55	370%	8100.69	121510.28
d)	10.89+ 10.95(a)+not e (v) (b)	Fourth storey	20	cum	1730.85	370%	8135.00	162699.90
61		Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in shelves excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.						
a)	10.81	First storey	5	cum	947.70	370%	4454.19	22270.95
b)	10.81+ note (v) (b)	Second Storey	5	cum	955.00	370%	4488.50	22442.50
c)	10.81+ note (v) (b)	Third storey	5	cum	962.30	370%	4522.81	22614.05

d)	10.81+ note (v) (b)	Fourth storey	5	cum	969.60	370%	4557.12	22785.60
62	14.49	Fixing Marble stone flooring 17 mm and above thick slab including matching grains of marble laid in any pattern as specified over base of 12 mm thick cement course sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing i/c rubbing polishing i/c labour for fixing cramps, pins & dowels etc. (excluding the cost of marble)	500	Sqm	149.70	60%	239.52	119760.00
63	13.55 (e)	Supplying and fixing in position G.I Pipe class B spouts in chajjas and cantilevers	50	Mtr	75.50	200%	226.50	11325.00
64	15.80	Extra for lining out in rough cast /pebble cement plaster and terrazzo finish surfaces on walls to imitate stone or concrete block lining.	8500	Sqm	3.30	325%	14.03	119212.50
65	17.79 (b)	Providing & fixing helical doors spring 150mm (superior quality) including necessary screws complete Iron.	320	each	23.85	175%	65.59	20988.00
66	17.81 (b)	Providing & fixing MS double acting spring hinges including necessary screws complete.	6	each	37.65	175%	103.54	621.23
67	Item 13.62 of HSR.	Providing and laying four courses of water proofing treatment consisting of first and third course of blown type bitumen grade 85/25 applied hot at 1.6 kg per sqm. For each course and second course of fibre glass RP Tissue and fourth and final course	864	Sqm	31.00	200%	93.00	80352.00
68	Item 13.64 of HSR.	Cement concrete 1:2:4 gola 10cmx10cm quadrant along junction of roof with parapet wall finished smooth where specially specified.	312	Mtr.	5.35	200%	16.05	5007.60
		Total						61952857.30
		Add Premium 17.15% on (HSR+CP)						10476739.03
		Total of Civil Works						72429596.33
S.No	HSR	Description	Qty.	Unit	HSR Rate	CP	Total Rate	Amount
1		Providing and fixing PVC rain water pipe, I.S.I. mark supreme make single socketed pipes including solvent solution 160mm diameter complete in all respect pressure 6kgm per cm2						
	N.S	160mm diameter pipe	576	Mtr.	300.00		300.00	172800.00
2		Providing & fixing PVC door bend including solvent solution complete in all respect.						
	N.S	160 mm diameter pipe	320	Each	200.00		200.00	64000.00
3		Providing & fixing PVC plain bends in position with solvent solution complete in all respect.						
	N.S	For 150mm diameter pipe	45	Each	200.00		200.00	9000.00
		The rate quoted by the contractor shall be for all heights and levels as per drawings and for all scaffolding work and other connecting operations for below mentioned items.						
4		Providing and fixing 18 mm thick mirror polished, machine cut for Kitchen plateforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20 mm thick base cement mortar 1:3 with joints treated with (granite stone)						
a)	NS	Granite stone (Z-Black)	88	sqm	2600.00		2600.00	228800.00
b)	NS	Cheema Pink Colour (1st quality)	800	sqm	1500.00		1500.00	1200000.00

5	NS	Extra for providing edge moulding to granite stone counters including machine polishing to edge to give high gloss finish etc.. Complete in all respects	150	Mtr.	100.00	100.00	15000.00
6	NS	Providing and fixing first class plain coloured glazed tiles (of Orient/Somany make) of size 200x300 mm with minimum thickness 5mm in skirting and dado on 12mm thick cement plaster 1:3 (1 cement:3 coarse sand) the back of the tiles to be buttered with grey cement slurry.	2695	Sqm.	500.00	500.00	1347500.00
7	NS	Providing and fixing 150mm wide sheet covering over expansion joints with rawl plugs and aluminium screws as per design to match the colour/shade of wall treatment with 3.15mm thick aluminium fluted strips.	200	Mtr.	250.00	250.00	50000.00
8	NS	Providing, laying & fixing including necessary screws 350mm wide 3.15 thick aluminium sheet bend to shape as per drawing/ instructions to act as metal cradle on expansion joint including embedding in concrete complete in all respects upto the entire satisfaction of the EIC	415	Mtr.	100.00	100.00	41500.00
9	NS	Providing Dr. Fixit pidiseal PS 41G (Gun grade), 42P (Pouring grade) or equivalent for horizontal and vertical expansion joint complete in all respects as per manufacturer detail to the satisfaction of EIC on all the floors.50mm wide & 20mm deep	200	Mtr.	800.00	800.00	160000.00
10	NS	Providing expansion joints in roof slab, terrace joints filled with bitumen filler or impregnated fiber board etc. all complete as per building specifications and directions of the Engineer-in-charge.	1450	Mtr.	25.00	25.00	36250.00
		50mm wide & 20mm deep					
11	NS	Providing precast CC jall 1:2:4 reinforced with 1:6 mm dia mild steel wire including centering & shuttering, roughening, cleaning, fixing and finishing in CM 1:3 etc. complete excluding plastering of the joints stills and soffits, 100 mm thick	260	Sqm.	500.00	500.00	130000.00
12	NS	Providing and fixing 25mm CP fencing rod in Cupboard complete with all necessary fittings.	270	Mtr.	50.00	50.00	13500.00
13	NS	Providing and laying 300mm dia NP -2 pipe complete with sockets as per satisfaction of the Engineer-in-charge	200	Mtr.	450.00	450.00	90000.00
14	NS	Providing and fixing in position 50mm x50mm hollow sq. pipe for parapet railing or any type of railing including cost of welding rods etc. complete with one coat of primer.	2500	kg	65.00	65.00	162500.00
15	NS	Providing and laying in floor plain coloured matt finish ceramic tiles of Orient/Kajaria make, size 300mm x 300mm (thickness as per manufacture) without warpage, laid on 20mm thick cement mortar 1:3 (1 cement: 3 coarse sand) including grouting the join & pigment(first quality anti skid tiles to be used)	260	Sqm	600.00	600.00	156000.00
16		Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and (2mm thick)					
16.1		For fixed portion.					
16.1.1	NS	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	303	kg	350.00	350.00	106050.00

16.2		For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required						
16.2.1	NS	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	540	kg	350.00		350.00	189000.00
17		Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap heading shall be n						
17.1	NS	With float glass panes of 5.50 mm thickness	146	sqm	550.00		550.00	80300.00
18		Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked, for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S. sheet outer b						
18.1	NS	With stainless steel cover plate	17	each	1750.00		1750.00	29750.00
19		Providing and laying polished vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:3 including colour pigment complete as per EIC satisfaction						
19.1	NS	Size of Tile 60x60 cm	873	sqm	900.00		900.00	785700.00
20		Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies terraces etc. consisting of following operations:						
a		Applying and grouting a slurry coat of neat cement using 2.75 Kg/sqm of cement admixed with proprietary water proofing compound conforming to IS : 2645 over the RCC slab including cleaning the surface before treatment						
b		Laying cement concrete using broken bricks/ brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 over 20 mm thick layer of cement mortar of mix 1:5						
c		After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645						
d		Finishing the surface with 20mm thick joint less cement mortar of mix 1:4 (1 cement:4 coarse sand) admixed with proprietary water proofing compound confirming to IS 2645 and finally finishing the surface with trowel with neat cement slurry and making of 3						
e		The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge.						
f	NS	With average thickness of 120 mm and minimum thickness at khurra as 65mm	1525	Sqm	325.00		325.00	495625.00
		Total						5563275.00
		HSR+CP						72429596.33
		Total of Civil Works						77992871.33

S.No	HSR	Description	Qty.	Unit	HSR Rate	C.P	Total Rate	Amount
1		Providing and fixing in position best Indian make lavatory suites white						
a)	30.41(v)	size 550mm x 400mm with one no. tap	67	Each	407.000	250%	1424.50	95442.00
2	30.45	Providing and fixing in position best Indian make chromium plated brass 2nd tap for lavatory suite.	67	Each	92.000	250%	322.00	21574.00
3	30.48	Providing and fixing in position 32mm diameter G.I waste pipe embedded in wall	67	Each	98.000	250%	343.00	22981.00
4	30.50	Providing and fixing in position best Indian make C.P brass bottle trps 32mm diameter	67	Each	92.000	250%	322.00	21574.00
5	30.58	Providing and fixing in position best quality stainless steel draining board with iron brackets for building into wall including painting, cutting and making good the wall etc.						
		Size 600 mm x 450mm	1	Each	1774.000	250%	6209.00	6209.00
6	30.62	Providing and fixing 40mm diameter G.I waste pipe embedded in wall or upto floor level including cost of union and plumbing joints	26	Each	118.000	250%	413.00	10738.00
7	30.66(c)	Providing and fixing in position best Indian make showeres with 15mm diamter inlet.						
(c)	30.66(c)	C.P brass with revolving shower	61	Each	122.000	250%	427.00	26047.00
8	30.67(a)	Providing and fixing in position best Indian make paper holder fixed Into C.P Including cutting & making good the walls etc.						
(a)		C.P brass	46	Each	27.500	250%	96.25	4428.00
9	30.68(b)	Providing and fixing in position best Indian make towel rails fixed including cutting and making good the wall etc.						
(b)		20mm diameter C.P brass adjustable						
(i)	b(i)	750mm long	77	Each	65.000	250%	227.50	17518.00
(ii)	b(ii)	600mm long	77	Each	57.000	250%	199.50	15362.00
10		Providing and fixing in position glass shelf fixed in with rawl plugs C.P brass screws complete including cutting & making good the walls etc.						
(a)		With C.P brass bracket and guard rail						
(i)	30.69	600mm x125m	70	Each	72.500	250%	253.75	17763.00
11	a(i)	Providing and fixing in position best Indian make soap dish fixed into wall with C.P brass screws complete in all respects including cutting & making good the walls etc						
(a)		C.P Brass						
(i)	30.70 a(i)	Soap dish large	132	Each	59.000	250%	206.50	27258.00
12		Providing and dinging in position best Indian make bevelled edge 5.5mm thick mirror fixed in position by means of 4 nos. C.P brass screws and washers complete including cutting and making good the walls etc.						
(a)		Indian make						
(i)	30.71	600mm x 450mm	68	Each	107.000	250%	374.50	25466.00
13		Providing and fixing in position best Indian make coat & hat hooks fixed with C.Pbrass screws complete including cutting and making good the walls etc.						
(a)		C.P Brass						
(ii)	30.73	Two way	624	Each	43.000	250%	150.50	93912.00
14	30.74	Providing and fixing in position super quality 65mm i/d opening CP brass dome type hinged grating weighting about 750 gms. Fixed in cement mortar 1:2 complete in all respects (as required by the Engineer-in-charge)	60	Each	67.500	250%	236.25	14175.00

15		Providing & fixing in position 15mm i/d C.P brass bib cocks of best quality (as required by te Engineer -in - Charge)						
a)	30.75(a)	Bib cock long body	180	Each	116.000	250%	406.00	73080.00
c)	30.75(c)	Bib Cocks	82	Each	100.000	250%	350.00	28700.00
16		Providing and fixing in position C.P brass stop cocks (as approved by Enigneer-in-charge)						
a)		15mm stop cocks						
ii)	30.76	Concealed stop cocks with flange	195	Each	130.000	250%	455.00	88725.00
17		Providing and fixing in position best Indian make C.P brass inlet connection 15mm with 375mm pipe & CP brass nuts.	468	Each	115.000	250%	402.50	188370.00
18		Providing and fixing in position HCI soil, waste, vent pipes to ISI specification or any other reputed firm including cutting & wastage etc. & cutting holes in walls, roofs or floor etc. and making good the floor & wall but excluding cost of lead jointing						
(a)	30.84(a)	100mm internal dia	828	Mtr.	97.500	300%	390.00	322920.00
(b)	30.84(b)	75mm internal dia	965	Mtr.	83.000	300%	332.00	320380.00
19		Providing lead caulked joints to HCI pipes & specials conforming to ISI specification of ELC or any other reputed firm including cost of lead varn, fuel & tools etc.						
a)	30.87	100mm internal dia(1.13 kg)	960	Each	33.500	250%	117.25	112560.00
(b)	30.87	75mm internal dia(0.91 kg)	1080	Each	27.500	250%	96.25	103950.00
20		Providing and fixing in position MS or Heavy flat iron clamps made out of MS flat not less than 5mm of the approved design for fixing CI soil waste vent or anti pipes to walls complete in all respects including cutting and making good the walls and floor						
a)	30.88	For 100 mm Intrnal dia pipes	192	Each	12.500	300%	50.00	9600.00
b)	30.88	For 75mm internal dia pipes	192	Each	11.000	300%	44.00	8448.00
21		Providing and fixning HCI floor trap ISI marked of the self cleaning design with C.P brass hinged grating with or without vent arm & including cement concrete 1:2:4 complete in all respects						
(b)	30.89	With 75mm internal dia outlet	56	Each	105.000	300%	420.00	23520.00
22		Providing and fixing in position HCI 50mm internal diameter outlet plain nahan trap ISI marked of the self cleaning design with CP brass hinged grating with frame weighing 6.80 kg each fixed complete as fully described in item no. 30.89 above						
b)	30.90	75mm i/d outlet plain Nahani Trap	168	Each	100.000	300%	400.00	67200.00
23		Providing and fixing in position HCI specials for soll waste vent pipes to ISI specification including cutting holes in walls & making good but excluding cost of lead joints						
(a)	30.91	For 100mm internal dia pipes						
(i)		heal rest bend	27	Each	58.000	300%	232.00	6264.00
(iv)		Single junction with door 100mm x 100mm x 100mm	80	Each	86.500	300%	346.00	27680.00
vi)		Single junction plain 100mm x 100mm x 100mm	60	Each	76.500	300%	306.00	18360.00
xiii)		Bend with door	30	Each	60.000	300%	240.00	7200.00
(xiv)		Bend plain	30	Each	53.000	300%	212.00	6360.00
xvii)		door piece	30	Each	53.000	300%	212.00	6360.00
xvi)		Cowls	27	Each	36.500	300%	146.00	3942.00
xxii)		Collars	108	Each	27.500	300%	110.00	11880.00
b)		For 75mm iternal dia pipes						
i)		Heal rest bend	27	Each	39.500	300%	158.00	4266.00
(iv)		Single junction with door 75mm x 75mm x 75mm	80	Each	59.000	300%	236.00	18880.00

xiii)		Bend with door	30	Each	42.000	300%	168.00	5040.00
(xiv)		Bend plain	30	Each	39.500	300%	158.00	4740.00
(xvi)		door piece	30	Each	40.500	300%	162.00	4860.00
xvii)		Cowls	27	Each	28.000	300%	112.00	3024.00
xviii)		Collars	190	Each	22.500	300%	90.00	17100.00
24		Cutting chase in brick wall in cement for embedding G.I or HCI pipe lines & making good the same						
a)	30.95	Size 75x75mm	288	Mtr.	6.000	250%	21.00	6048.00
25		Painting HCI soil waste and vent pipes and fittings with black bitumastic ordinary paint of approved manufacture two coats on new work.						
	30.101							
a)		100mm internal dia	346	Mtr.	1.850	250%	6.48	2240.35
b)		75mm internal dia	346	Mtr.	1.350	250%	4.73	1634.85
26		Providing and fixing in position automatic brass ball valves in tanks						
	30.110							
b)		With plastic ball						
(iii)		25mm diameter	29	Each	65.500	250%	229.25	6648.25
27		Providing and fixing in position Gully traps fixed in cement concrete 1:4:8 with HCI grating 150x150mm CI cover weighing approximately 7.26 kg & frame clear opening 300 x 300mm and chamber including cost of brick work 1:5 cement concrete 1:8:16 and CC 1:2						
b)	30.114 (b)	100mm internal dia HCI gully traps.	36	Each	208.000	300%	832.00	29952.00
28		Providing and fixing in position best Indian make vitreous china ware channel of size 600mm x 150 including laying and fixing in cement concrete 1:2:4 complete as required by the Engineer-In-charge.						
	30.115							
(i)		White	68	Each	92.000	250%	322.00	21896.00
29		Cutting holes upto 23cm through brick work in cement wall for pipes and making good						
	28.24							
a)		11.43cm thickness of walls	300	Each	14.000	215%	44.10	13230.00
b)		22.86 cm thickness of walls	420	Each	20.350	215%	64.10	26923.05
30		Bailing out water from the trenches for making new connections in fully charged pipelines						
	28.47							
a)		Upto 200mm internal dia	5	Each	67.500	215%	212.63	1063.13
31		Constructing brick masonry inspection chamber upto 60 mtr. Depth in cement mortar 1:5 cement concrete 1:2:4 benching, 12mm thick cement plaster, RCC 1:2:4 slab 100mm thick with 455 x 455mm x 455x610mm inside light duty GI inspection chamber cover & frame						
	29.84(c)							
c)		Size 600x900mm inside	60	Each	690.000	330%	2967.00	178020.00
32		Extra for every 0.30mts. Depths fo inspection chamber						
	29.85							
c)		600mm x 900mm	60	Each	139.000	330%	597.70	35862.00
33		Excavation for pipelines running under pressure in trenches and pits in open areas where disposal of surplus earth is done alongwith the alignment and restoration of unmetalled surface to the original condition						
a)	6.8	Without timbering and shoring upto 1.5 meters depth	328	100 Cum	1030.000	300%	4120.00	13513.60
34		Excavation of trenches in street lanes of in open area for storm sewer, sewers running by gravity & man holes to full depth and removal of surplus soil upto to a lead of 1 km in ordinary soil						
a)	6.10	For depth of excavation not exceeding 3 mts below ground level	954	100 Cum	1919.000	300%	7676.00	73229.04
35		Cement concrete 1:4:8 with stoen aggregate 40mm nominal size in foundation and plinth	84	Cum	403.100	370%	1894.57	159143.88
	10.39							

36	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth	30	Cum	615.600	370%	2893.32	86799.6
37	10.59	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in first storey upto 4 metres above plinth level						
	10.59+ note	- do- (first storey)	12	Cum	621.850	370%	2922.70	35072.3
		- do -(second storey)	12	Cum	624.400	370%	2934.68	35216.1
		- do - (third storey)	12	Cum	626.950	370%	2946.67	35360.0
		- do - (forth storey)	12	Cum	629.500	370%	2958.65	35503.8
38	30.53(a)	Providing and fixing in position best quality stainless steel sinks with complete fittings as fully described in item no. 30.51						
a)		600mm x 450mm x 200mm	2	Each	5386.000	250%	18851.00	37702.00
39	30.59(a)	Providing and fixing in position best quality stainless steel sink built in draining board of size 600mm x 450mm complete as described in item no. 30.53 and 30.58 above						
a)	30.59(a)	Sink size 600 x 450 x 200mm	5	Each	7630.000	250%	26705.00	133525.00
		Total						2882439.05
		Add 17.15% Premium on (HSR+CP)						494338.30
		Total of PH of (HSR+CP)						3376777.34
S.No	HSR No.	Description	Qty.	Unit	Total Rate	Estimate	Total Rate	Amount
1	NS	Providing and fixing in position best Indian make (to the approval of Engineer -in- charge) 580mm white Indian make Orissa type water closet suit for sinking into floor with raised foot best treads with 100mm H.C.I trap along with:-	56	Each	3200.00		3200	179200.00
		White PVC 10 ltrs. Capacity low level flushing cistern (as approved by Engineer-in-charge) complete with internal PVC fitting like suction, 15mm i/d ball cock along with R.S of CI painted bracket and 32mm dia CP/GI outlet pipes. Mosquito proof over floor pi						
2		Providing and fixing in position best Indian make (to the approval of Engineer-in-charge) Single trap symphonic European type white water closet suit consisting of :-	33	Each	3300.00		3300	108900.00
(i)		White PVC 10 ltr. Capacity low level flushing like syption, 15mm i/d ball cock along with R.S or CI bracket and 32mm dia CP brass bend for out let, Mosquito proof over flow pipe etc.						
(ii)		Best laid in make white plastic seat (solid) and i/d fitting with set & C.P chromium plated hinges and rubber buffers (to the approved of Engineer-in-charge). Complete in all respect including cutting and making good the wall and floor.						
3	NS	Providing and fixing in position C.P jet connection of EWC complete including C.P plate for jet & PVC connection for jet point complete in all respects.	33	Each	350.00		350	11550.00
4	NS	Providing, laying, jointing glazed stoneware pipes grade A with stiff mixture of cement mortar in the proportion of 1:1 (1 cement, 1 fine sand) including testing of joints etc. complete.						
a)		150mm i/d	960	Mtr	175.00		175	168000.00
b)		200mm i/d	360	Mtr	260.00		260	93600.00
5	NS	Providing and fixing of G.M peat valves heavy patterns with hand wheels ISI marked to GI pipe lines.						
a)		25mm i/d	72	Each	450.00		450	32400.00
b)		40mm i/d	39	Each	625.00		625	24375.00
c)		80mm i/d	8	Each	2100.00		2100	16800.00

6	NS	Providing, testing and fixing G.I pipe 'B' class medium duty including cost of specials such as Tee, elbo, bends etc. and threading inside the building & Ground						
		15mm i/d	2400	Mtr	135.00		135	324000.0
		20mm i/d	360	Mtr	150.00		150	54000.0
		25mm i/d	1440	Mtr	195.00		195	280800.0
		40mm i/d	960	Mtr	270.00		270	259200.0
		50mm i/d	420	Mtr	350.00		350	147000.0
		80mm i/d	600	Mtr	550.00		550	330000.0
7	NS	Extra for providing and fixing union coupling to G.I pipe lines including cost of union complete						
		15mm i/d	24	Each	90.00		90	2160.00
		20mm i/d	12	Each	120.00		120	1440.00
		25mm i/d	30	Each	170.00		170	5100.00
		40mm i/d	12	Each	320.00		320	3840.00
		80mm i/d	24	Each	750.00		750	18000.00
8		Providing and stringing S & S centrifugally cst (spun) iron pipes (Class LA) complete in trenches to the approval of Engineer-in-charge.						
	NS	80mm i/d	224	Mtr	1250.00		1250	280000.00
9	NS	Supplying and fixing ISI marked sluice valve double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 80mm	6	Each	2000.00		2000	12000.00
10	NS	Const. of sluice valve haudi 1m x 1m x 1m with brick work 1:5 cement sand mortar finished with 12.5 mm cement plaster 1:4 including RCC 1:2:4 slab with reinforcement, surface box complete in all respect to the approval of Engineer-in-charge.	6	Each	3500.00		3500	21000.00
11		Providing and fixing in position H.D P.E water tanks complete with Inlet, outlet, scour and overflow flanges including masonry based underneath as approved by the Engineer-in-charge of different capacity tanks complete in all respect.						
	NS	Capacity upto 2000 litres	52000	Ltrs.	6.50		6.5	338000.00
12		Construction brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C top slab with 1:2:4 mix (1 cement:2 coarse sand : 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded st						
		Inside size 120 x 90cm and 90cm deep including SFRC cover with frame (Heavy duty) 580mm internal diameter						
		With Sewer bricks	18	Each	5000.00		5000	90000.00
13		Extra for depth for manholes						
		Size 120x90cm						
			11	Mtr	1000.00		1000	11000.00
14		Making Sewer connection with the existing sewer line	3	Each	1500.00		1500	4500.00
15		Providing M.S door rests including fixing in manholes with 20x20x10cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) as per standard design:						
		With 20 x20mm square bar	84	Each	220.00		220	18480.00
		Total						2835345.00
		HSR+CP						3376777.34
		Total of PH Works						6212122.34

S.No	HSR	Description	Qty.	Unit	HSR Rate	C.P	Total Rate	Amount
1	31.36	Wiring in 1.5 sq mm PVC insulated Copper conductor cable in 1.6 mm thick conduit pipe						
	(I)	Fan point						
	(b)	Medium Point	310	Each	524.000		524.00	162440.00
	(c)	Long Point	84	Each	733.000		733.00	61572.00
	(II)	Light Point						0.00
	(a)	Short Point	175	Each	251.000		251.00	43925.00
	(b)	Medium Point	773	Each	433.000		433.00	334709.00
	(c)	Long Point	459	Each	639.000		639.00	293301.00
	(III)	Twin Control light point with 2 way 5 amp. Single pole switch						0.00
	(c)	Long Point	12	Each	726.000		726.00	8712.00
	(VII)	3 pin 5 amp. Plug point including earthing the 3 rd pin etc.						0.00
	(a)	Short Point	21	Each	283.000		283.00	5943.00
	(VIII)	3 pin 15 amp. Plug point including earthing the 3 rd pin etc. with 4 sq mm size						0.00
	(c)	Long point	323	Each	970.000		970.00	313310.00
2	31.40	Supply and erection of PVC unsheathed Copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe						0.00
	(i)	Cable Size 1.5 sq mm (3/0.81 mm)	5550	Meter	10.200		10.20	56610.00
	(iii)	Cable Size 4.0 Sq mm (7/0.85 mm)	1740	Meter	24.500		24.50	42630.00
	(iv)	Size 6.0 Sq mm (7/1.05 mm)	3800	Meter	35.600		35.60	135280.00
	(v)	Size 10.0 Sq mm (7/1.35 mm)	3308	Meter	50.000		50.00	165400.00
	(vi)	Size 16.0 Sq mm (7/1.70 mm)	144	Meter	83.700		83.70	12052.80
3	31.41	Supply & erection of double door sheet steel enclosure distribution board suitable for MCBs and ELCBs etc. recessed in wall including bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						0.00
	(v)	4-way, TP&N (Horizontal) (8+12)	27	Each	1670.000		1670.00	45090.00
	(vi)	8-way, TP&N (Horizontal) (8+24)	26	Each	2100.000		2100.00	54600.00
4	31.16	Supply and erection of blanking sheet in existing distribution board	175	Each	2.250	50%	3.38	590.63
5	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-						0.00
	(a)	Miniature Circuit Breakers of 9 K.A. breaking capacity						0.00
	(ii)	6 amp to 32 amp (SP) Havell's/ Standard	599	Each	95.000	30%	123.50	73976.50
	(iii)	40 amp to 63 amp. (TPN) Havell's/ Standard	53	Each	499.000	30%	648.70	34381.10
6	31.42	Supply & erection of double pole/ four pole Residual current circuit breaker (RCCB/ELCB) suitable for operation on 240/415V, 5Hz AC supply installed in existing sheet steel enclosure including making necessary connections and bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						0.00
	(xiv)	40 A /415V FP ELCB with 100 mA sensitivity	81	Each	1600.000		1600.00	129600.00
	(xvi)	63 A /415V FP ELCB with 100 mA sensitivity	78	Each	1900.000		1900.00	148200.00
7	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-						0.00
	(xxi)	Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	1968	Meter	16.300	150%	40.75	80196.00
	(xxii)	Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness flushed	5245	Meter	19.600	150%	49.00	257005.00
	(xxiii)	Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness flushed	812	Meter	24.200	150%	60.50	49126.00
	(xxiv)	Heavy gauge welded conduit pipe 40 mm dia 2.00 mm thickness flushed	36	Meter	34.100	150%	85.25	3069.00
8	31.22	Earthing						0.00

	(i)	Earthing with G.I. earth pipe 4.5 m long and 40 mm dia with masonry enclosures on the top, etc. as required	2	Each	378.000	150%	945.00	1890.00
	(ii)	Extra for using salt & charcoal/coke for pipe earth electrode as required.	2	Each	125.000	150%	312.50	625.00
	(iii)	Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) complete as required	2	Each	453.000	150%	1132.50	2265.00
	(v)	Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	2	Each	186.000	150%	465.00	930.00
	(xi)	Pdg. and fixing 25 mm x 5 mm G.I. Strip in 40 mm dia G.I. pipe from earth electrode as required	30	Meter	65.100	150%	162.75	4882.50
	(xv)	Pdg. and fixing 25 mm x 5 mm GI strip on surface or in recess for connections etc. as required with all labour and material	10	Meter	20.300	150%	50.75	507.50
	(xvi)	Pdg. and fixing 4.00 mm dia G.I. wire on surface or in recess for loop earthing as required	3820	Meter	3.400	150%	8.50	32470.00
	(vii)	Supplying & Laying 6 SWG G.I Wire 0.5 metre below ground level as conductor earth electrode including thimbles, soldering, etc as required.	10	Meter	3.500	150%	8.75	87.50
9	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-						0.00
		(ii) 10 Sq mm to 16 Sq mm Cable 2 to 4 Core	32	Each	9.200	130%	21.16	677.12
10	31.18 (xxvi)	Supply and Erection of hexagonal M.S. box 1.60 mm thick having each side 8 cms, 7.5 cms deep, top covered with M.S. lid by means of screws including 10 mm dia 30 cm long mild steel rod made into suitable suspension hook and erected in R.C.C. slab of erection of fan, the bottom covered with 3 mm thick bakelite sheet with suitable holes, painting etc. complete with all labour and material required to complete the job.	340	Each	26.300	200%	78.90	26826.00
11	31.35	Miscellaneous						0.00
	(i)	Supply of M.S. pipe (B- Class) for suspension rod of ceiling fan including threading if required.						0.00
	(a)	15 mm dia	70	Meter	24.900	130%	57.27	4008.90
		TOTAL						258688.55
		Add 17.15% on (HSR+CP)						443651.39
		Total of Electrical						3030539.93
S.No	HSR	Description	Qty.	Unit	Rate	CP	Total Rate	Amount
1		Supplying, installation, Testing & Commissioning of Cubical type Branch Distribution Boards (BDB) of the following types made out of 14 gauge (2 mm thick) CRCA sheet complete with the accessories i/e. interconnections with suitable copper solid strip connections 100 A & above and with copper wires below, painting etc. and complete with supplying & fixing the following accessories in each type of following boards etc. as required.						
(A)		MDB (LIGHT) (PANEL ROOM-1) Ground Floor (Minimum Depth of Panel shall be 300 mm deep)						
		Incoming						
i)		1 No. 100 Amp rating FP Moulded Case Circuit Breakers with neutral link, Front operated handle & Thermal magnetic release (25 kA)						
ii)		1 Set 150 Amp 4 Bars Cu. Bus Bar						
iii)		1 Set LED type Indication lights						
iv)		1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						

v)	1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)	1 Set CTs for Ammeter 160/5 A ratio						
vii)	2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)	3 Nos. 2 A SPMCB						
	Outgoing						
i)	4 Nos. 63 A TP MCCB, 25 KA (3+1 Spare)						
ii)	5 Nos. 40 A TP MCCB, 16 KA (4+1 Spare)	2	Sets	80000.00	80000.00	160000.00	
(B)	MDB (POWER) (PANEL ROOM-1) Ground Floor (Minimum Depth of Panel shall be 300 mm deep)						
	Incoming						
i)	1 No. 200 Amp rating TP Moulded Case Circuit Breakers with neutral link, Front operated handle & Thermal magnetic release (25 kA)						
ii)	1 Set 200 Amp 4 Bars Cu. Bus Bar						
iii)	1 Set LED type Indication lights						
iv)	1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						
v)	1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)	1 Set CTs for Ammeter 200/5 A ratio						
vii)	2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)	3 Nos. 2 A SPMCB						
	Outgoing						
i)	4 Nos. 100 A TP MCCB, 25 KA (3+1 Spare)						
ii)	5 Nos. 63 A TP MCCB, 25 KA (4+1 Spare)	2	Sets	85000.00	85000.00	170000.00	
(C)	BDB (LIGHT) (Minimum Depth of Panel shall be 300 mm deep)						
	Incoming						
i)	1 No. 63 Amp rating TP MCCB (25 kA)						
ii)	1 Set 100 Amp 4 Bars Cu. Bus Bar						
iii)	1 Set LED type Indication lights						
iv)	1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						
v)	1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)	1 Set CTs for Ammeter 150/5 A ratio						
vii)	2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)	3 Nos. 2 A SPMCB						
	Outgoing						
i)	5 Nos. 40 A TP MCCB, 16 KA (4 + 1 Spare)	6	Sets	50000.00	50000.00	300000.00	
(D)	BDB (POWER)(Minimum Depth of Panel shall be 300 mm deep)						
	Incoming						
i)	1 No 100 Amp rating TP MCCB, 25 KA						
ii)	1 Set 100 Amp 4 Bars Cu. Bus Bar						
iii)	1 Set LED type Indication lights						
iv)	1 No. Analogue Voltmeter (0-500 V) 96 mm. sq						
v)	1 No. Analogue Ammeter (0-100 A) 96 mm. sq						
vi)	1 Set CTs for Ammeter 100/5 A ratio						
vii)	2 Nos. Selector Switches for Voltmeter & Ammeter						
viii)	3 Nos. 2 A SPMCB						
	Outgoing						
i)	5 Nos. 63 A TP MCCB, 16 KA (4 + 1 Spare)	6	Sets	50000.00	50000.00	300000.00	
2	Providing & fixing thermoplastic polycarbonate boxes of size 200 x 160 x 98 mm conforming to IP-65 degree of protection along with 6A MCB and 3 way connector complete etc as required. (FOR SECURITY LIGHTING)	16	NOS.	1000.00	1000.00	16000.00	
	SUBHEAD - III LIGHTING FIXTURES & FANS						

3		Supply & erection of following type surface/ ceiling mounted, Energy efficient, following T-5 fluorescent tube light fitting, housing made out of CRCA sheet 0.5 mm thick (min.) powder coated with electronic ballast and lamp holder duly wired up ready for 230 volt, single phase, 50Hz AC supply, with lamp complete with all accessories etc as required.					
a)		1x28 W T-5 Fixture (PHILIPS CAT NO. TMS-122/128 HF)	689	Nos.	1200.00	1200.00	826800.00
b)		1 x 14 W T-5 Fixture (PHILIPS CAT NO. TCH 204 1 X TL5-14 W/ 830 & 865)	96	Nos.	600.00	600.00	57600.00
4		Supply & erection of 2 x 28 W Decorative mirror optics ceiling/ surface mounted fluorescent tube light fixture, housing made out of CRCA sheet powder coated with pre anodised aluminium bright reflector, electronic ballast and lamp holder duly wired up ready for 230 volt, single phase, 50Hz AC Supply with lamp complete with all accessories as required. (TCS 398/2/28 MDGN HF xtend aqua)	41	Nos.	4000.00	4000.00	164000.00
5		Supply & erection of 250 W HPSV integral flood lighting luminaire made of single piece die cast aluminium housing, Polycarbonate cover pre-anodised aluminium reflector suitable for 250 W HPSV Lamp with integral control gear comprising of copper ballast, Ignitor, Capacitor of same make as luminaire with lamp complete with all accessories etc as required. (PHILIPS SRP 202/250)	16	Nos.	6800.00	6800.00	108800.00
6		Supply & erection of 1 X 25 W decorative Ceiling Light suitable for 25W Energy Saving Lamp, with built in ballast & lamp complete etc as required. (DECO TWIST LUX WWW BCS 1902 25W Circular Decotwist)	311	Nos.	800.00	800.00	248800.00
7		Supply & Erection of 1200 mm size ceiling fan complete with double ball bearing, motor, blades, downrod, canopy, capacitor, etc. suitable for operation on 230 V 50 Hz A.C. including supply & fixing stepped type fan regulator complete as required.	340	Nos.	1600.00	1600.00	544000.00
8		Supply & erection of 305 mm dia., 900 RPM Exhaust fan heavy duty suitable for single phase 230 V 50 Hz A.C. supply complete with motor, capacitor, louvers/shutters etc. complete as required.	48	Nos.	3400.00	3400.00	163200.00
9		Supply & erection of 450 mm dia., 900 RPM Exhaust fan heavy duty suitable for single phase 230 V 50 Hz A.C. supply complete with motor, capacitor, louvers/shutters etc. complete as required.	6	Nos.	4000.00	4000.00	24000.00
		TOTAL					3083200.00
		HSR+CP					3030539.93
		Total of EI Works					6113739.93
		Total EI					6113739.93
		Total Civil					77992871.33
		Total PH					6212122.34
		Grand Total					90318733.60
		3% Contingencies charges					2709562.01
		2% Land Development charges					1806374.67
		Total					94834670.28
		Say Rs. in Lacs					948.35


 Executive Engineer,
 Construction Cell,
 NIT, Kurukshetra

Item No: 10.8 To consider & approve the Revised Cost Estimate for the construction of New PG Hostel of 350 seaters Capacity at N.I.T, Kurukshetra.

The B&WC in its 8th meeting held on 28.05.07 vide item No.8.12 approved an estimated cost of Rs.933 Lacs for the construction of New P.G hostel with a capacity of 350 seats.

The Institute invited Tenders & the work was allotted to M/S Allied Engineer, Gharaunda with an estimated cost of Rs.11.54 Crores. After inviting the tenders, some items substituted such as providing Granite flooring in Dinning Hall, Tiles flooring in T.V room & common room, wall tile in corridors and some additional items like Boundary Wall & Cycle Stand. After including these items as per the requirement at site during execution of this work, the Revised Cost Estimate was framed to Rs.1204.73 Lacs. The work was carried out at site after obtaining the approval of the Chairman B&WC in anticipation to the approval of the B&WC.

It is therefore, requested that B&WC may consider & accord approval amounting to Rs.1204.73 Lac for the construction of New P.G. hostel at NIT Kurukshetra.

REVISED COST ESTIMATE FOR CONSTRUCTION OF 350 SEATERS NEW P.G. BOYS HOSTEL AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA

Sr. No.	HSR	Description	Qty.	Unit	Rate (Rs.)	Amount (Rs.)
1	6.27	Clearing grass and removal of the rubbish upto distance of 50m outside the periphery of the area cleared	120	100 Sqm	75.08	9009.60
2	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs	70	100 Cum	3230.50	226135.00
3	6.2 c (ii)	Earth work in excavation in ordinary soil exclusive of compensation of earth				
		Overall Lead 120 mtrs	36	100 Cum	664.00	23904.00
4	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth)				
		For Foundation	880	Cum	1330.23	1170602.40
5	10.39+ Note (v) 2	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 2m depth)	66	Cum	1338.65	88350.90
6	10.56 + note (v) (b)	Cement concrete 1:4:8 with stone aggregate 20mm nominal size in first storey upto 4 metres above plinth level				
		Third Storey	6	Cum	1423.46	8540.76
		Fifth storey	42	Cum	1440.29	60492.18
7	9.9 + note II (a)	Centring & shuttering for columns (square or rectangular or polygonal in plan)				
		Third Storey	45	Sqm	139.29	6268.05
		Fifth storey	445	Sqm	142.59	63452.55
8	10.90 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestal and approach slabs of bridges etc. excluding steel reinforcement but including centering and shuttering laid in position complete in all respects (for works upto 1.5m below grounds level)	1900	Cum	2554.20	4852980.00
9	10.86+ 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders, stairs, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects				
	10.86+ 10.95 (a)	-do- (first storey)	845	Cum	3922.88	3314833.60
	10.86+ 10.95 (a)+ note(v)(b)	-do- (second storey)	600	Cum	3946.97	2368182.00
	10.86+ 10.95 (a)+ note(v)(b)	-do- (third storey)	360	Cum	3971.06	1429581.60
	10.86+ 10.95 (a)+ note(v)(b)	-do- (forth storey)	318	Cum	3995.15	1270457.70
	10.86+ 10.95 (a)+ note(v)(b)	-do- (fifth storey)	7	Cum	4019.24	28134.68

10	10.87+ 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls (10cm to 20 cm thickness) straight and curved excluding steel reinforcement but including centring and shuttering, laid in position, complete in all respects.				
	10.87+ 10.95 (a)	-do- (first storey)	13	Cum	4906.77	63788.01
	10.87+ 10.95 (a)	-do- (second storey)	9	Cum	4930.86	44377.74
	10.87+ 10.95 (a)	-do- (third storey)	9	Cum	4954.95	44594.55
	10.87+ 10.95 (a)	-do- (forth storey)	9	Cum	4979.04	44811.36
	10.87+ 10.95 (a)	-do- (fifth storey)	2	Cum	5003.13	10006.26
11	10.88 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work circular or curved columns excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.				0.00
		-do- (first storey)	4	Cum	4464.74	17858.96
	10.88 + 10.95 (a)+ note(v)(b)	-do- (second storey)	3	Cum	4488.83	13466.49
12	10.81	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in shelves excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.				
	10.81 + note (v)(b)	-do- (first storey)	19	Cum	3127.41	59420.79
	10.81 + note (v)(b)	-do- (second storey)	14	Cum	3151.50	44121.00
	10.81 + note (v)(b)	-do- (third storey)	10	Cum	3175.59	31755.90
	10.81 + note (v)(b)	-do- (forth storey)	10	Cum	3199.68	31996.80
13	10.82 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.				
	10.82 + 10.95 (a)+note(v) (b)	-do- (first storey)	405	Cum	3579.84	1449835.20
	10.82 + 10.95 (a)+note(v) (b)	-do- (second storey)	382	Cum	3603.93	1376701.26
	10.82 + 10.95 (a)+note(v) (b)	-do- (third storey)	340	Cum	3628.02	1233526.80
	10.82 + 10.95 (a)+note(v) (b)	-do- (forth storey)	313	Cum	3652.11	1143110.43
	10.82 + 10.95 (a)+note(v) (b)	-do- (fifth storey)	10	Cum	3676.20	36762.00

14	10.89 + 10.95 (a)	Cement concrete 1:1:5:3 with stone aggregate 20mm nominal size for reinforced concrete work in fascias, parapet and other thin vertical sections, not covered by items nos. 10.82, 10.86-10.88 not exceeding 10 cm excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.				
	10.89 + 10.95 (a)	-do- (first storey)	9	Cum	5639.54	50755.86
	10.89 + 10.95 (a)+note(v) (b)	-do- (second storey)	9	Cum	5663.63	50972.67
	10.89 + 10.95 (a)+note(v) (b)	-do- (third storey)	9	Cum	5687.72	51189.48
	10.89 + 10.95 (a)+note(v) (b)	-do- (forth storey)	9	Cum	5711.81	51406.29
15	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.	7050	Qtl	2980.41	21011890.50
16	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	250	Sqm	115.67	28917.50
17	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, l/c consolidation, finishing and tamping complete.	610	Cum	2119.92	1293151.20
18	11.2	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	700	Cum	1377.08	963956.00
19	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.				
		-do- (first storey)	630	Cum	1450.58	913865.40
	11.7+11.41 (i)	-do- (second storey)	620	Cum	1479.45	917259.00
	11.7+11.41 (i)	-do- (third storey)	535	Cum	1508.33	806956.55
	11.7+11.41 (i)	-do- (forth storey)	485	Cum	1537.20	745542.00
	11.7+11.41 (i)	-do- (fifth storey)	254	Cum	1566.08	397784.32
	11.7+11.41 (i)	-do- (Sixth storey)	5	Cum	1594.95	7974.75
20	11.42	Extra for brick work in Square or rectangular pillars in buildings	90	Cum	43.40	3906.00
21	11.45 c	Extra for brick work curved on plan up to a mean radius not exceeding 6 metres	210	Cum	167.30	35133.00
22	11.47	11.43 cm thick brick wall laid in cement sand mortar 1:4 without reinforcement in foundation & plinth	50	Sqm	184.45	9222.50
23	11.48 (a)	11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure in first storey				
		-do- (first storey)	1480	Sqm	192.85	285418.00
	11.48 (a) + note (iv)(a)	-do- (second storey)	1540	Sqm	196.18	302117.20
	11.48 (a) + note (iv)(a)	-do- (third storey)	1290	Sqm	199.50	257355.00
	11.48 (a) + note (iv)(a)	-do- (forth storey)	1228	Sqm	202.83	249075.24

	11.48 (a) + note (iv)(a)	-do- (fifth storey)	110	Sqm	206.15	22676.50
24	11.81	Dressing, chamfering of bricks to require shape in masonry work	85	100 Each	258.13	21941.05
25	13.50	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	45	Each	30.75	1383.75
26	13.55	Supplying & fixing in position GI pipe class 'B' Spouts in chajjas and cantilevers.				
	(c)	25 mm internal dia. G.I. pipe	50	Mtr.	101.13	5056.50
	(d)	40 mm internal dia. G.I. pipe	32	Mtr.	147.50	4720.00
27	13.57	Bottom Khurra on ground 1.2m x 0.6m consisting of brick-on edge laid in cement mortar 1:3 over 75 mm cement concrete 1:8:16 including 12mm thick cement plaster 1:3.	10	each	160.75	1607.50
28	13.62	Providing & laying of four course of water proofing treatment as per HSR	10	Sqm	77.50	775.00
29	13.64	Cement concrete 1:2:4 gola 10cmx10cm quadrant along junction of roof with parapet wall finished smooth where specially specified.	1600	Mtr.	13.38	21408.00
30	13.66	Providing and laying cinder concrete in cement 1:15 (1 cement: 15 cinder) on terraced roofs, laid to slope, including consolidating the same.				
	13.66+ note (III)	-do- (second storey)	40	Cum	541.63	21665.20
	13.66+ note (III)	-do- (third storey)	35	Cum	549.13	19219.55
	13.66+ note (III)	-do- (forth storey)	35	Cum	556.63	19482.05
31	14.1-10.26 Based derived rate	Sand filling under floor i/c laying consolidation, compaction & watering etc.	7200	Cum	228.69	1646568.00
32	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	3110	Sqm.	121.94	379233.40
33	14.4	Screed of 50mm thick concrete 1:8:16 to be laid below the topping.				
	14.4+ note (I)	-do- (second storey)	2380	Sqm	51.65	122927.00
	14.4+ note (I)	-do- (third storey)	2060	Sqm	52.64	108438.40
	14.4+ note (I)	-do- (forth storey)	1972	Sqm	53.63	105758.36
	14.4+ note (I)	-do- (fifth storey)	25	Sqm	54.62	1365.50
	14.4+ note (I)	-do- (sixth storey)	0	Sqm	55.61	0.00
34	14.3	Floating coat of 1.50mm thick neat cement laid in one operation to the topping.	290	Sqm	12.21	3540.90
35	14.8	Conglomerate floor 25mm thick cement concrete topping 1:2:4				
	14.8 + note	-do- (first storey)	100	Sqm	73.92	7392.00
	14.8 + note	-do- (second storey)	60	Sqm	74.91	4494.60
	14.8 + note	-do- (third storey)	60	Sqm	75.90	4554.00
	14.8 + note	-do- (fourth storey)	60	Sqm	253.74	15224.40
36	14.25 (a) II	Terrozo, topping rubbed & polished to a granolithic finish as per HSR				
	14.25 (a) II +Note I	-do- (first storey)	1200	Sqm	265.15	318180.00
	14.25 (a) II +Note I	-do- (second storey)	1200	Sqm	266.14	319368.00

	14.25 (a) II +Note I	-do- (third storey)	1200	Sqm	267.13	320556.00
	14.25 (a) II +Note I	-do- (fourth storey)	1200	Sqm	268.12	321744.00
	14.25 (a) II +Note I	-do- (fifth storey)	10	Sqm	269.11	2691.10
37	14.26(a) I	Terrozo, topping rubbed & polished to a granolithic finish as per HSR				
	14.26 (a) I+Note I	-do- (first storey)	250	Sqm	234.30	58575.00
	14.26 (a) I+Note I	-do- (second storey)	250	Sqm	235.29	58822.50
	14.26 (a) I+Note I	-do- (third storey)	250	Sqm	236.28	59070.00
	14.26 (a) I+Note I	-do- (fourth storey)	250	Sqm	237.27	59317.50
	14.26 (a) I+Note I	-do- (fifth storey)	20	Sqm	238.26	4765.20
38	14.45	Precast colour chequered tiles of 20 mm thickness in ordinary grey cement without chips laid on 20 mm thick bed of cement coarse sand mortar 1:3 with neat cement slurry between joints and over the base in floors, treads of steps and landings				
		First story	104	Sqm	367.92	38263.68
	14.45 + note I	-do- (second storey)	68	Sqm	368.91	25085.88
	14.45 + note I	-do- (third storey)	70	Sqm	369.90	25893.00
39	14.49	Marble stone flooring 20 mm to 25 mm hick slab including matching grains of marble laid in any pattern as specified over base of 12 mm thick cement coarse sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing (using the marble stone slab of size more than 0.38 sqm each)				
	a	White marble				
		(i) White makrana marbl (1 st Quality)				
		-do- (first storey)	1050	Sqm	782.20	821310.00
	14.49 + note (i)	-do- (second storey)	560	Sqm	782.50	438200.00
	14.49 + note (i)	-do- (third storey)	120	Sqm	782.80	93936.00
	14.49 + note (i)	-do- (fourth storey)	120	Sqm	783.10	93972.00
	14.49 + note (i)	-do- (fifth storey)	25	Sqm	783.40	19585.00
40	14.50	Extra for nosing in marble stone for treads	1200	mtr	28.50	34200.00
41	14.51	Extra for marble stone flooring in treads of step not exceeding 30 cm in width.	180	Sqm	32.70	5886.00
42	14.52 (a)	Marble stone 20mm to 25 mm thick in risers of step, skirting, dado, pillars and wall lining including matching the grains of marble slab in any pattern as specified laid on 12mm thick cement coarse sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing, including labour for fixing cramps, pins and dowels etc. (using size of marble slab above 0.38 sqm. each)				
	a	White marble				
		(i) White makrana marbl (1 st Quality)				
		-do- (first storey)	140	Sqm	830.00	116200.00
	14.52 (a) + note I	-do- (second storey)	140	Sqm	830.30	116242.00
	14.52 (a) + note (i)	-do- (third storey)	100	Sqm	830.60	83060.00

	14.52 (a) + note (i)	-do- (forth storey)	100	Sqm	830.90	83090.00
	14.52 (a) + note (i)	-do- (fifth storey)	25	Sqm	830.90	20772.50
43	14.62	Kotah stone flooring 34 mm to 40 mm thick in any pattern as specified over 12 mm thick base of cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing and polishing				
		-do- (first storey)	660	Sqm	403.90	266574.00
	14.62+note (i)	-do- (second storey)	350	Sqm	404.50	141575.00
	14.62+note (i)	-do- (third storey)	350	Sqm	405.10	141785.00
	14.62+note (i)	-do- (fourth storey)	350	Sqm	405.70	141995.00
	14.62+note (i)	-do- (fifth storey)	10	Sqm	406.30	4063.00
44	14.64	Extra for Kotah stone flooring in treads of steps not exceeding 30 cm in width	10	sqm	2.30	23.00
45	14.65	Extra for nosing in treads of steps of Kotah stone slab	10	mtr	12.20	122.00
46	14.66	Kotah stone 20 mm thick in skirting, risers of steps, dados and wall facing (lining) and pillars laid on 12 mm thick cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing and polishing including labour for fixing clamps, dowls and pins etc.				
		-do- (first storey)	50	Sqm	474.00	23700.00
	14.66 +note (i)	-do- (second storey)	40	Sqm	474.60	18984.00
	14.66 +note (i)	-do- (thlrd storey)	40	Sqm	475.20	19008.00
	14.66 +note (i)	-do- (fourth storey)	40	Sqm	475.80	19032.00
	14.66 +note (i)	-do- (fifth storey)	2	Sqm	476.40	952.80
47	14.81 (b)	Providing and fixing PVC strips, 40mm wide in floors				
		5.5mm thick	11000	mtr	24.75	272250.00
48	15.7	12mm thick cement plaster 1:6 on wall				
		-do- (first storey)	4800	Sqm	37.28	178944.00
	15.7+note 1	-do- (second storey)	4400	Sqm	37.91	166804.00
	15.7+note 1	-do- (third storey)	3700	Sqm	38.54	142598.00
	15.7+note 1	-do- (forth storey)	3700	Sqm	39.17	144929.00
	15.7+note 1	-do- (fifth storey)	45	Sqm	39.80	1791.00
	15.7+note 1	-do- (Sixth storey)	33	Sqm	40.43	1334.19
49	15.10	15mm thick cement plaster 1:4 on the rough side of singe or half brick				
	15.10+note (1)	-do- (first storey)	2010	Sqm	54.78	110107.80
	15.10+note (1)	-do- (second storey)	1380	Sqm	55.41	76465.80
	15.10+note (1)	-do- (third storey)	1235	Sqm	56.04	69209.40
	15.10+note (1)	-do- (forth storey)	1080	Sqm	56.66	61192.80
	15.10+note (1)	-do- (fifth storey)	2100	Sqm	57.30	120330.00
50	15.12	15mm thick cement plaster 1:6 on the rough side of singe or half brick				
		-do- (first storey)	2300	Sqm	45.85	105455.00

	15.12 +note (1)	-do- (second storey)	2080	Sqm	46.48	96678.40
	15.12 +note (1)	-do- (third storey)	1850	Sqm	47.11	87153.50
	15.12 +note (1)	-do- (forth storey)	1850	Sqm	47.74	88319.00
	15.12 +note (1)	-do- (fifth storey)	10	Sqm	48.37	483.70
	15.12 +note (1)	-do- (Sixth storey)	10	Sqm	49.00	490.00
51	15.19	Pebble dash exterior plaster on walls with a mixture of washed peddle or crushed stone graded from 6mm to 12mm nominal size dashed over and including fresh cement plaster in 2 coats first coat 10mm thick cement plaster 1:4 (1 cement: 4 sand) and finishing coat 10mm cement plaster 1:e mixed with 10% finely ground hydrated lime by volume of cement including arises, chamfers and/or rounded angles not exceeding 80mm in girth.				
		-do- (first storey)	1980	Sqm	122.85	243243.00
	15.19 + note (I)	-do- (second storey)	1835	Sqm	123.48	226585.80
	15.19 + note (I)	-do- (third storey)	1635	Sqm	124.11	202919.85
	15.19 + note (I)	-do- (forth storey)	1435	Sqm	124.74	179001.90
	15.19 + note (I)	-do- (fifth storey)	700	Sqm	125.37	87759.00
52	15.51	10 mm thick cement plaster 1:3 on underside of ceiling				
		-do- (first storey)	3824	Sqm	50.93	194756.32
	15.51 + Note (1)	-do- (second storey)	3950	Sqm	51.56	203662.00
	15.51 + Note (1)	-do- (third storey)	3480	Sqm	52.19	181621.20
	15.51 + Note (1)	-do- (fourth storey)	2992	Sqm	52.82	158037.44
	15.51 + Note (1)	-do- (fifth storey)	40	Sqm	53.45	2138.00
53	15.77 (a)	20mm thick cement plaster damp proof course 1:3 with 2 coats of bitumen at 1.65 Kg. per sqm laid hot and sanded:-				
	15.77 + Note (1)	-do- (second storey)	110	Sqm	108.08	11888.80
	15.77 + Note (1)	-do- (third storey)	95	Sqm	108.71	10327.45
	15.77 + Note (1)	-do- (forth storey)	95	Sqm	109.34	10387.30
	(b)	horizontal				
	15.77 + Note (1)	-do- (second storey)	125	Sqm	101.96	12745.00
	15.77 + Note (1)	-do- (third storey)	125	Sqm	102.59	12823.75
	15.77 + Note (1)	-do- (forth storey)	125	Sqm	103.22	12902.50
54	15.79	20mm thick raised or sunk cement mortar band/drip course in cement mortar 1:4 (3 cm width)	26000	m/cm width	1.58	41080.00
55	15.80	Extra for lining out rough cast/pebble/cement plaster and terrazzo finished surfaces on walls to imitate stone or concrete block lining	7510	Sqm	11.55	86740.50
56	15.81	Extra for plastering on circular work not exacting 6 metres in radius:-in two coats	1100	Sqm	7.70	8470.00

57	17.69 (b)	P/F wooden hardrail of required shape and design with necessary screws, including labour, for rounding, vertical and horizontal bends and curves complete fixed in position: Commercial hard wood, such as hollock, champ, chikrassy etc. (Non-ciniferous timber other than teak conforming to I.S. specification No. 1003 klin seasoned)	1	Cum	25595.00	25595.00
58	17.90 (a)- note-1 of 17.18	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm wide vertical styles, 150mm wide lock rail, 200mm wide bottom rail & 100mm wide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position				
		For Glazed windows (30mm thick)	479	Sqm	995.38	476787.02
59	17.92 -note- 1 of 17.18	Factory manufactured wire glaze door and window shutter of Wire Gauge Commercial hard wood such as hollock, champ, chikrassy and chaplash (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm wide vertical styles, 150mm wide lock rail, 200mm wide bottom rail & wire gauze of 140G or 120G designation i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position				
	(i)	30mm thick (Window shutters)	490	Sqm	776.00	380240.00
	(ii)	35mm thick (Doors)	760	Sqm	839.25	637830.00
60	17.93(a)- note (i) of 17.18	Factory manufactured solid flush door shutters with black board, core as per I.S .No. 1659-1969 bounded with water proof type phenol formaldehyde synthetic resin, hot pressed, conforming to I.S.2202 part I and II, fixed in position i/c iron hinges, screws, chocks/cleats and stops, etc. excluding the cost of any fittings other than specified above, but i/c labour for fixing the same in position				
	(a)	Commercial veenering with vertical grains or cross bands and face verner on both sides commercial facing its laminated core and lipped edges.				
	(iii)	35mm thick	1605	Sqm	1090.38	1750059.90
	(i)	25mm thick	760	Sqm	967.88	735588.80
61	17.71	Cost of Iron fittings complete for doors and windows, such as tower bolts, handles etc., and screws for these fittings (excluding sliding bolt)				
	(a)	For single leaf shutter	2980	Sqm	16.00	47680.00
	(b)	For double leaf shutter	1090	Sqm	25.38	27664.20
62	17.78 [c]	Providing & fixing 150mm hasps and staples with necessary screws, etc., complete				
		Iron	705	Each	10.75	7578.75
63	17.81(b)	Providing & fixing M.S. double acting spring hinges with necessary screws, etc. complete-125mm	2	Each	79.00	158.00
64	17.79 (b)	Providing & fixing helical door spring 150mm (superior quality), including necessary screw, complete				
		Iron	480	Each	59.68	28646.40
65	17.83 [c]	Providing and fixing sliding bolt with nuts and screws, etc. complete				
	(C)	Iron				
	(i)	Size 300 x 16mm	115	Each	43.63	5017.45
	(ii)	Size 250mm x 16mm	470	Each	40.88	19213.60
66	17.87	Providing and fixing 0.50 mm thick aluminium sheet, including cost of necessary screws etc., complete	35	Sqm	226.38	7923.30

67	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	324	Qtl.	3641.23	1179758.52
68	18.30	S/F glass panes including special metal sash putty of approved make				
	(a)	Glass panes 3mm thick upto 40 sq.dm.area	590	Sqm	341.25	201337.50
	(b)	Glass panes 4mm thick, exceeding 40 sq.dm.area	530	Sqm	403.90	214067.00
69	Top note (v) of chapter 17	Extra for providing and fixing frosted glass instead of ordinary glass	90	Sqm	28.75	2587.50
70	18.34	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-				
	(a)	Size 89mm x 50mm x 40mm wide single rebate	4550	Mtr.	250.43	1139456.50
	(b)	Size 76mm x 38mm x 35mm wide single rebate	3265	Mtr.	205.10	669651.50
	(c)	Size 127mm x 50mm x 40mm wide double rebate	9210	Mtr.	268.80	2475648.00
71	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete (with first quality paint)	8290	Sqm.	9.66	80081.40
72	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc.	8290	Sqm.	7.88	65325.20
73	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	13420	Sqm.	19.74	264910.80
74	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	1760	Sqm.	6.20	10912.00
75	16.25	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surface	40410	Sqm	8.72	352375.20
76	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to the required finish complete.	40410	Sqm.	23.42	946402.20
77	16.58	Distemping with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	40410	Sqm.	19.11	772235.10
78	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	37623	Sqm	15.23	572998.29
79	24.35	Providing and fixing premoulded bituminous joint filler, for expansion joints, including the cost of sealing compound and primer coat.				
		(ii) 25mm wide	26120	Per mtr. per cm depth	12.19	318402.80
80	11.77	Dressed or moulded two brick cornice laid in cement sand mortar	1200	Mtr.	30.80	36960.00

81	11.78	Dressed or moulded one brick cornice laid in cement sand mortar	800	Mtr.	14.87	11896.00
		Total:				72,933,551.18
		Add (HSR+CP)+41.50% above				30,267,423.74
		Grand Total				103,200,974.92
		The rate quoted by the contractor shall be for all heights and levels as per drawings and for all scaffolding work and other connecting operations for below mentioned items.				
1	NS	Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies terraces etc. consisting of following operations:				
	a	Applying and grouting a slurry coat of neat cement using 2.75 Kg/sqm of cement admixed with proprietary water proofing compound conforming to IS : 2645 over the RCC slab including cleaning the surface before treatment				
	b	Laying cement concrete using broken bricks/ brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 to required slope and treating similarly the adjoining walls up to 300mm height including rounding of junctions of walls and slabs.				
	c	After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645				
	d	Finishing the surface with 20mm thick joint less cement mortar of mix 1:4 (1 cement:4 coarse sand) admixed with proprietary water proofing compound confirming to IS 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300mmx300mm square.				
	e	The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge.				
	f	With average thickness of 120 mm and minimum thickness at khurra as 65mm	3350	sqm	450.00	1507500.00
2	NS	Supplying chemical emulsion, Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL ANTI-termite treatment and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surroundings of pipes and conduits etc. complete as per following specifications (Plinth area of the building at ground floor only shall be measured for payment) Chlorpyrphos emulsifiable concentrate 20% with 1% concentration.	4300	Sqm	425.00	1827500.00
	a	Treating the bottom and sides of excavation at the rate of 5 litres of emulsion per square metre of surface area.				
	b	Treating the backfill in contact with foundation at the rate of 7.5 litres of emulsion per square metre of vertical surface				
	c	Treating the top surface of filled earth at the rate of 5 litres of emulsion per square metre of surface.				

	d	Treating the soil under plinth protection at the rate of 5 litres of emulsion per square metre of surface area.				
	e	Treating the soil along with external perimeter of building at the rate of 2.25 litre of emulsion per metre of the perimeter wall				
3	NS	Providing and fixing 18 mm thick mirror polished, machine cut for Kitchen plateforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 with joints treated with white cement mixed with matching pigment, epoxy touchups, including rubbing, curing etc. and making opening of required size and shape for wash basins/sinks etc. complete at all levels				
		Granite stone	70	sqm	2800.00	196000.00
4	NS	Extra for providing edge moulding to granite stone counters including machine polishing to edge to give high gloss finish etc.. Complete in all respects	112	Mtr.	100.00	11200.00
5	NS	Providing and fixing first class plain coloured glazed tiles (of Orient/Somany make) of size 300x200 mm with minimum thickness 5mm in skirting and dado on 12mm thick cement plaster 1:3 (1 cement:3 coarse sand) the back of the tiles to be buttered with grey cement slurry and edges with white cement slurry and to be set in bedding mortar of 1:3 (1 cement: 3 find sand) and jointed with white cement slurry mixed with pigment to match with the colour of the tiles.	1850	Sqm.	625.00	1156250.00
6	N S	Providing and Fixing 150 mm wide sheet covering over expansion joints with rawl plugs and iron screws as per design to match the colour/shade of wall treatment with 3.15mm thick aluminium fluted strips.	463	Meter	350.00	162050.00
7	NS	Providing Dr. Fixit pidiseal PS 41G (Gun grade), 42P (Pouring grade) or equivalent for horizontal and vertical expansion joint complete in all respects as per manufacturer detail to the satisfaction of EIC on all the floors.				
		40mm wide and 20mm deep	110	Mtr.	200.00	22000.00
8	NS	350mm wide 3.15mm thick Alm. Sheet	150	Mtr.	600.00	90000.00
9	N.S.	Providing expansion joints in roof slab, terrace joints filled with bitumen filler or impregnated fiber board etc. all complete as per building specifications and directions of the Engineer-in-charge.				
		40mm wide and 20mm deep	980	Mtr.	200.00	196000.00
11	N.S.	Making plinth protection 50 mm thick of cement concrete 1:3:6 over 75 mm bed of drey brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	570	Sqm.	150.00	85500.00
12	N.S.	Providing precast CC jali 1:2:4 reinforced with 1:6 mm dia mild steel wire including centering & shuttering, roughening, cleaning, fixing and finishing in CM 1:3 etc. complete excluding plastering of the joints stills and soffits, 50 mm thick	110	Sqm.	1000.00	110000.00
13	NS	Providing and fixing partly paneled and partly glazed aluminium doors/windows made of aluminium natural anodized extruded sections of various sizes as given below. Both sides prelaminated board 12mm thick shall be fixed in doors and 5mm thick clear plain	210.6	Sqm.	3000.00	631745.00
		114 x 44 x 2mm : All bottom horizontal members of partitions / doors				
		101 x 44 x 2mm : All other horizontal and vertical members of partitions except those for single window operator's cabins.				
		83 x 44 x 2mm : Door members				

14	NS	Providing and fixing in position 50mm x 50mm Hollow sq. Pipe for parapet railing or any type of railing including cost of welding roads etc. complete with one coat of primer.	3900	kg	62.00	241800.00
15	NS	Providing and laying in floor plain coloured matt finish ceramic tiles of Orient/Kajaria make, size 300mm x 300mm (thickness as per manufacture) without warpage, laid on 20mm thick cement mortar 1:3 (1 cement: 3 coarse sand) including grouting the joints with tile grouts with matching pigment etc. complete in all respects at all heights and levels to the entire satisfaction of the Engineer-in-charge. 25mm thick CC 1:2:4 will be laid before laying the mortar. (First quality anti-skid tiles to be used)	540	Sqm	710.00	383400.00
16	NS	Providing & Fixing 25mm CP fencing rod in Cupboard complete with all necessary fittings	360	mtr.	114.00	41040.00
17	NS	Providing and laying 300mm dia NP-2 pipe complete with sockets as per satisfaction of the Engineer-in-charge	98	mtr.	1120.00	109760.00
18	NS	Providing and fixing chicken wiremesh complete with screws and labours as per satisfaction of the Engineer-in-charge	110	Sqm	79.00	8690.00
19	NS	Providing and fixing on wall face unplasticised -Rigid PVC rain water pipes conforming to IS:4985 Make Supreme Single Socketed pipes 110mm diameter	900	Mtr.	249.32	224388.00
20	NS	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised - Rigid PVC rain water pipes conforming to IS:4985 Make Supreme				
		a Coupler 110mm	60	Each	136.24	8174.40
		b Plain Band 87.5°	60	Each	193.73	11623.80
		c Door Band 87.5°	60	Each	238.59	14315.40
		d Solvent Solution per Joint	160	Each	7.73	1236.80
21	NS	Providing and fixing unplasticised - PVC pipe clips of approved design to unplasticised -PVC rain water pipes 110mm	375	Each	33.06	12397.50
		Total:				7,052,570.90
		Total Civil Works				110,253,546.00

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (Rs.)	Amount (Rs.)
		SUB PART-II PUBLIC HEALTH SCHEDULE ITEMS				
1	30.40	Providing & fixing 25mm thick, marble partitions for different type of urinals.				
	(a)	Size 375mmx750mm	26	Each	245.00	6370.00
2	30.41	P/F in position best Indian make lavatory Suites				
		White				
	(iv)	Size 550mmx400mm with one no. tap	53	Each	1017.50	53927.50
3	30.45	Providing and fixing in position best Indian make chromium plated brass 2nd tap for lavatory suite.	53	Each	230.00	12190.00
4	30.48	P/F in position 32mm diameter G.I.waste pipe embedded in wall	44	Each	245.00	10780.00
5	30.50	P/F in position best Indian make C.P. brass bottle traps 32mm diameter	44	Each	230.00	10120.00
6	30.58	Providing and fixing in position best quality stainless steel draining board with iron brackets for building into wall including painting, cutting and making good the walls etc.				
		Size 600 mm x 450 mm	0	Each	4435.00	0.00
7	30.62	P/F 40mm diameter G.I.waste pipe embedded in wall or upto floor level including cost of union and plumbing joints	0	Each	295.00	0.00
8	30.66	P/F in position best Indian make showers with 15mm diameter inlet.				
	(c)	C.P. brass with revolving shower	49	Each	305.00	14945.00
9	30.67	P/F in position best Indian make paper holder fixed into C.P. including cutting & making good the walls etc.				
	(a)	C.P. brass	0	Each	68.75	0.00
10	30.68	Providing and fixing in position best Indian make towel rails fixed including cutting and making good the wall etc.				
	(b)	20 mm diameter C.P. brass adjustable				
		(i) 750 mm long	0	Each	162.50	0.00
		(ii) 600 mm long	49	Each	142.50	6982.50
11	30.69	P/F in position glass shelf fixed in with rawl plugs with C.P. brass screws complete including cutting & making good the walls etc.				
	(a)	With C.P. brass bracket and guard rail				
		(i) 600mm x 125m	53	Each	181.25	9606.25
12	30.70	P/F in position best Indian make soap dish fixed into wall with C.P. brass screws complete in all respects including cutting & making good the walls etc.				
	(a)	C.P. brass				
	(i)	Soap dish large	102	Each	147.50	15045.00
13	30.71	P/F in position best Indian make bevelled edge 5.5mm thick mirror fixed in position by means of 4 nos. C.P. brass screws and washers complete including cutting and making good the walls etc.				
	(a)	Indian make				
		(ii) 600 mm x 450mm	53	Each	267.50	14177.50
14	30.73	P/F in position best Indian make coat & hat hooks fixed with C.P. brass screws complete including cutting and making good the walls etc.				
	(a)	C.P. brass				
		(ii) Two way	950	Each	107.50	102125.00
15	30.74	Providing and fixing in position super quality 65 mm i/d opening CP brass dome type hinged grating weighting about 750 gms. Fixed in cement mortar 1:2 complete in all respects (as required by the Engineer-in-charge).	0	Each	168.75	0.00
16	30.75	Providing & fixing in position 15mm i/d C.P. brass bib cocks of best quality (as required by the Engineer-in-charge)				
	(a)	Bib cock long body	150	Each	290.00	43500.00
	(c)	Bib cocks	62	Each	250.00	15500.00

17	30.76	P/F in position C.P. brass stop cocks (as approved by Engineer-in-charge)				
	(a)	15mm stop cocks				
		(ii) Concealed stop cocks with flange	78	Each	325.00	25350.00
18	30.83	P/F in position best Indian make C.P. brass inlet connection 15mm with 375mm pipe & CP brass nuts.	290	Each	287.50	83375.00
19	30.84	P/F in position HCI soil, waste, vent pipes to ISI specification or any other reputed firm including cutting & wastage etc. & cutting holes in walls, roofs or floor etc. and making good the floor & wall but excluding cost of lead jointing.				
	(a)	100mm internal diameter	690	Mtr.	316.88	218643.75
	(b)	75mm internal diameter	511	Mtr.	269.75	137842.25
20	30.87	Providing lead caulked joints to HCI pipes & specials conforming to ISI specification of ELC or any other reputed firm including cost of lead yarn, fuel & tools etc.				
	(a)	100mm internal diameter (1.13 kg)	650	Each	93.80	60970.00
	(b)	75 mm internal diameter (0.91 kg)	540	Each	77.00	41580.00
21	30.88	Providing and fixing in position MS or Heavy flat iron clamps made out of MS flat not less than 5 mm of the approved design for fixing CI Soil waste vent or anti pipes to walls complete in all respects including cutting and making good the walls and floors etc. and painting				
	(a)	For 100 mm internal diameter pipes	88	Each	40.63	3575.00
	(b)	For 75 mm internal diameter pipes	88	Each	35.75	3146.00
22	30.89	P/F HCI floor trap ISI marked of the self-cleaning design with C.P. brass hinged grating with or without vent arm & including cement concrete 1:2:4 complete in all respects				
	(b)	With 75mm internal diameter outlet	0	Each	341.25	0.00
23	30.90	PROVIDING AND FIXING IN POSITION HCI 50mm INTERNAL DIAMETER OUTLET PLAIN NAHAN TRAP ISI Marked of the self cleaning design with CP BRASS HINGED GRATING WITH FRAME WEIGHING 6.80 KG EACH FIXED complete as fully described in item no. 30.89 above.				
	(a)	50 mm i/d outlet plain Nahani Trap.	0	Each	294.13	0.00
	(b)	75 mm i/d outlet plain Nahani Trap.	120	Each	325.00	39000.00
24	30.91	P/F in position HCI specials for soil waste vent pipes to ISI specification including cutting holes in walls & making good but excluding cost of lead joints				0.00
	(a)	For 100mm internal diameter pipes				0.00
		(i) heal rest bend	20	Each	188.50	3770.00
		(iv) single junction with door 100mm x100mm x100mm	0	Each	281.13	0.00
		(vi) Single junction plain 100mmx100mmx100mm	55	Each	248.63	13674.38
		(xiii) Bend with door	0	Each	195.00	0.00
		(xiv) Bend plain	0	Each	172.25	0.00
		(xvii) door piece	0	Each	172.25	0.00
		(xvi) Cows	20	Each	118.63	2372.50
		(xxii) Collars	80	Each	89.38	7150.00
	(b)	For 75mm internal diameter pipes				0.00
		(i) Heal rest bend	19	Each	128.38	2439.13
		(iv) Single junction with door 75mmx75mmx75mm	53	Each	191.75	10162.75
		(xiii) Bend with door	0	Each	136.50	0.00
		(xiv) Bend plain	0	Each	128.38	0.00
		(xvi) door piece	0	Each	131.63	0.00
		(xvii) Cows	18	Each	91.00	1638.00
		(xviii) Collars	40	Each	73.13	2925.00
25	30.95	Cutting chase in brick wall in cement for embedding G.I. or HCI pipe lines & making good the same				0.00
	(a)	Size 75x75mm	100	Mtr.	15.00	1500.00
26	30.101	Painting HCI soil waste and vent pipes and fittings with black bitumastic ordinary paint of approved manufacture two coats on new work.				0.00
	(a)	100 mm internal diameter	288	MTR	4.63	1332.00

		(b) 75 mm internal diameter	288	MTR	3.38	972.00
27	30.110	P/F in position automatic brass ball valves in tanks				
	(b)	With plastic ball				
		(iii) 25mm diameter	22	Each	163.75	3602.50
28	30.114	P/F in position Gully traps fixed in cement concrete 1:4:8 with HCI grating 150x150mm CI cover weighing approximately 7.26 kg & frame clear opening 300 x 300mm and chamber including cost of brick work 1:5 cement concrete 1:8:16 and C.C. 1:2:4 in coping				0.00
	(b)	100mm internal diameter HCI gully traps	24	Each	676.00	16224.00
29	30.115	Providing and fixing in position best Indian make vitreous china ware channel of size 600 mm x 150 including laying and fixing in cement concrete 1:2:4 complete as required by the Engineer-in-charge.				
	(i)	White	45	Each	230.00	10350.00
30	28.24	Cutting holes upto 23cm through brick work in cement wall for pipes and making good				
	(a)	11.43cm thickness of walls	100	Each	35.00	3500.00
	(b)	22.86 cm. thickness of walls	100	Each	50.88	5087.50
31	28.47	Bailing out water from the trenches for making new connections in fully charged pipelines				
	(a)	Upto 200mm internal diameter	2	Each	168.75	337.50
32	29.84	Constructing brick masonry inspection chamber upto 60 mtr.depth in cement mortar 1:5 cement concrete 1:2:4 benching, 12mm thick cement plaster, RCC 1:2:4 slab 100mm thick with with 455x455 mmx455x610mm inside light duty GI inspection chamber cover & frame with 3 coats of black bitumastic paint.				
	(b)	Size 450x600mm inside	10	Each	2037.00	20370.00
	(c)	Size 600x900mm inside	40	Each	2415.00	96600.00
33	29.85	Extra for every 0.30 mts. depths of Inspection chamber				
	(b)	Size 450x600mm inside	10	Per .3 mtr. depth	360.50	3605.00
	(c)	600mmx900mm	20	Per .3 mtr. depth	486.50	9730.00
34	6.8	Excavation for pipelines running under pressure in trenches and pits in open areas where disposal of surplus earth is done alongwith the alignment and restoration of unmetalled surface to the original condition				
	(a)	Without timbering and shoring upto 1.5 meters depth	273	100 Cum	36.05	9841.65
35	6.10	Excavation of trenches in street lanes or in open area for storm sewer, sewers running by gravity & man holes to full depth and removal of surplus soil upto to a lead of 1Km in ordinary soil				
	(a)	For depth of excavation not exceeding 3 mts. below ground level	400	100 Cum	41.62	16646.00
36	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth	50	Cum	1330.23	66511.50
37	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth	10	Cum	2031.48	20314.80
38	10.59	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in in first storey upto 4 metres above plinth level				
	10.50+ note (v)(b)	-do- (first storey)	10	Cum	2052.10	20521.00
	10.50+ note (v)(b)	-do- (second storey)	10	Cum	2060.52	20605.20

	10.50+ note (v)(b)	-do- (third storey)	10	Cum	2068.94	20689.35
	10.50+ note (v)(b)	-do- (forth storey)	10	Cum	2077.35	20773.50
		TOTAL (B) (PH Works)				1341996.00
		Add 41.5%				556928.34
		Grand Total Scheduled Item				1898924.34
Sr. No.	HSR No.	Description	Qty.	Unit	Rate (Rs.)	Amount (Rs.)
		PUBLIC HEALTH NON SCHEDULE ITEMS				
1	NS	Providing & fixing in position best Indian make (to the approval of Engineer-in-charge) 580mm white Indian make Orissa type water closet suit for sinking into floor with raised foot best treads with 100mm H.C.I.P trap along with:-	35	Each	3500	122500.00
		1. White PVC 10 ltrs. Capacity low level flushing cistern (as approved by Engineer-in-charge) complete with Internal PVC fitting like syption, 15mm i/d ball cock along with R.S. or CI painted bracket and 32mm dia CP/GI outlet pipes. Mosquito proof over flow pipe etc. complete in all respect including cutting and making good the wall and floor and painting fitting. Note: PVC cistern of make Titanic OASIS, Front Line to be used				
2	NS	Providing & fixing in position best Indian make (to the approval of Engineer-in-charge) Single trap symphonic European type white water closet suit consisting of:-	27	Each	4000	108000.00
		(i) White PVC 10 Ltr. Capacity low level flushing like syption, 15mm i/d ball cock along with R.S. or CI bracket and 32mm dia CP brass bend for out let, Mosquito proof over flow pipe etc.				
		(ii) Best laid in make white plastic seat (Solid) and i/d fitting with set & C.P. chromium plated hinges and rubber buffers (to the approval of Engineer-in-charge). Complete in all respect including cutting and making good the wall and floor.				
3	N.S	Providing & fixing in position best Indian make flat back single front Urinals 610mm high consisting of:-	42	Each	2500	105000.00
		1. Flat back lipped urinal basin of vitreous china ware (to the approval of Engineer-in-charge)				
		2. Pair of C.I. or M.S. special type bracket for urinal.				
		3. 32 mm dia waste coupling (Prayag make) with standard size G.I. flush pipe.				
		4. 15mm dia Urinal cock and spreader (Prayag Make connected 10 Lt. C.P. brass copper pipe and C.P. brass nuts.				
		Complete including cutting and making good the wall and floor (as approved by Engineer-in-charge)				
4	N.S	Providing & laying Cement Concrete 1:2:4 75mm in bed and around C.I. Soil waste pipe 100mm and 75mm i/d under floor including centering and shuttering where required.				
	(a)	100mm dia	100	Mtr.	165	16500.00
	(b)	75 mm dia	100	Mtr.	160	16000.00
5	NS	P/F in positlon C.P. jet connection of EWC complete including C.P. plate for jet & PVC connection for jet point complete in all respects.	26	Each	300	7800.00
6	NS (based on 30.53)	Providing and fixing in position best quality stainless steel sinks with complete fittings as fully described in item No.30.51 above.				
		(a) 600 mm x 450 mm x 200 mm	1	Each	7000	7000.00
7	NS (based on 30.59)	Providing and fixing in position best quality stainless steel sink built in draining board of size 600 mm x 450 mm complete as described in item no. 30.53 and 30.58 above				

		(a) Sink size 600 x 450 x 200 mm	4	Each	7200	28800.00
8	NSR	Providing, laying, jointing glazed stoneware pipes grade A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement, 1 fine sand) including testing of joints etc. complete.				
		150mm i/d	320	Mtr.	200	64000.00
	(b)	200mm i/d	250	Mtr.	255	63750.00
9	NS	Providing and fixing of G.M. Peat valves heavy patterns with hand wheels ISI marked to GI pipe lines.				
	(a)	25mm i/d	60	Each	350	21000.00
	(b)	40mm i/d	20	Each	450	9000.00
	(c)	80mm i/d	5	Each	1600	8000.00
10	NS	Providing, testing and fixing G.I. pipe 'B' class medium duty including cost of specials such as Tee, elbow, bends etc. and threading inside the building				
		15mm i/d	1400	Mtr.	125	175000.00
		20mm i/d	300	Mtr.	190	57000.00
		25mm i/d	700	Mtr.	210	147000.00
		40mm i/d	300	Mtr.	325	97500.00
11	NS	Providing, testing and fixing in position G.I. pipe 'B' class medium duty in ground including cost of specials such as elbow, bend, tees etc. cutting, threading complete in all respect to the satisfaction of Engineer-in-charge.				
		25 mm i/d	23	Mtr.	160	3680.00
		40 mm i/d	12	Mtr.	210	2520.00
		80 mm i/d	200	Mtr.	600	120000.00
12	NS	Extra for providing and fixing union coupling to G.I. pipe lines including cost of union complete				0.00
		15mm i/d	40	each	100	4000.00
		20mm i/d	40	each	120	4800.00
		25mm i/d	60	each	150	9000.00
		40mm i/d	20	each	200	4000.00
		80mm i/d	5	each	500	2500.00
13	NS	Providing and stringing S & S centrifugally cast (spun) iron pipes (Class LA) complete in trenches to the approval of Engineer-in-charge.				
		80mm i/d	20	Mtr.	700	14000.00
14	NS	Supplying and fixing ISI marked sluice valve double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 80 mm	1	Each	3500	3500.00
15	NS	Const. of sluice valve haudi 1m x 1m x 1m with brick work 1:5 cement sand mortar finished with 12.5mm cement plaster 1:4 including RCC 1:2:4 slab with reinforcement, surface box complete in all respect to the approval of Engineer-in-charge.	1	Each	8000	8000.00
16	NS	Providing and fixing in position H.D.P.E. water tanks complete with inlet, outlet, scour and overflow flanges including masonry based underneath as approved by the Engineer-in-charge of different capacity tanks complete in all respect.				
		Capacity upto 2000 litres	48000	Ltrs.	7.50	360000.00
17	NS	Construction brick masonry manhole in cement mortar 1:4 (1cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1cement:2coarse sand: 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8mix (1cement:4coarse sand :8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1cement :3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1cement : 2coarse sand :4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design ;				
		Inside Size 120x90cm and 90 cm deep including SFRC Cover with frame (Heavy duty) 580mm internal diameter				

		With Sewer bricks	10	Each	7500	75000.00
18	NS	Extra for depth for manholes				
		Size 120x90cm				
		With Sewer bricks	7	Mtr.	1500	10500.00
19	NS	Making sewer connection with the existing sewer line	1	Each	5000	5000.00
20	NS	Providing M.S. foot rests including fixing in manholes with 20x20x10cm cement concrete blocks 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size) as per standard design :				
		With 20x20mm square bar	70	Each	200	14000.00
		Total N.S				1694350.00
		Total HSR+CP				1898924.34
		Total of PH				3593274.00

Sr. No.	HSR	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	31.1	Wiring in 1.5 sq mm PVC insulated aluminum conductor cable in 1.6 mm thick conduit pipe				
		(i) Fan point				
		(b) Medium Point	434	Each	258.40	112145.60
		(c) Long Point	126	Each	340.10	42852.60
		(ii) Light Point				
		(a) Short Point	101	Each	131.10	13241.10
		(b) Medium Point	886	Each	201.40	178440.40
		(c) Long Point	779	Each	279.30	217574.70
		(iii)Twin Control light point with 2 way 5 amp. Single pole switch				
		(c) Long Point	30	Each	290.70	8721.00
		(vi) Call bell point including M.S. box of size 180 mm x 100 mm x 60 mm deep for call bell				
		(c) Long Point	3	Each	315.40	946.20
		(vii) 3 pin 5 amp. Plug point including earthing the 3 rd pin etc.				
		(a) Short Point	43	Each	152.00	6536.00
		(b) Medium Point	2	Each	228.00	456.00
		(c) Long Point	20	Each	307.80	6156.00
		(viii) 3 pin 15 amp. Plug point including earthing the 3 rd pin etc. with 4 sq mm size				
		(a) Short Point	4	Each	176.70	706.80
		(b) Medium Point	8	Each	256.50	2052.00
		(c) Long point	389	Each	342.00	133038.00
2	31.1	Supply and erection of PVC unsheathed aluminum conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe				
		(i) Size 1.5 sq mm (1/1.40 mm)	16500	Meter	1.40	23100.00
		(ii) Size 2.5 sq mm (1/1.80 mm)	450	Meter	1.80	810.00
		(iii) Size 4.0 Sq mm (1/2.24 mm)	15000	Meter	2.40	36000.00
		(iv) Size 6.0 Sq mm (1/2.80 mm)	2800	Meter	4.00	11200.00
		(v) Size 10.0 Sq mm (1/3.50 mm)	2800	Meter	3.20	8960.00
3	31.12 (D)	Supply and erection of sheet steel enclosures distribution boards suitable for MCBs etc. on wall/existing board pedestal with rag bolts including bonding to earth:-				
		(iv) Distribution board 8 way (SPN)	7	Each	439.50	3076.50
		(v) Distribution board 4 way (TPN)	3	Each	394.50	1183.50
		(vi) Distribution board 6 way (TPN)	21	Each	1246.50	26176.50
		(vii) Distribution board 8 way (TPN)	16	Each	1386.00	22176.00
4	31.13	Supply and erection of M.S. angle iron frame duly welded for Housing M.S. sheet & main switches etc. on il, fixed on wall by means of suitable size of rag bolts with cement concrete, duly painted with three coats of approved paint including one coat of red oxide				
		(iii) Size 40 mm x 40 mm x 6 mm.	60	Meter	97.65	5859.00
5	31.14	Supply and erection of 3 mm thick mild steel sheet duly welded on existing M.S. angle iron frame for fixing the main switches etc. as required, duly painted with three coats of approved paint including one coat of red oxide	8.2	Sq m	707.70	5803.14
6	31.15	Supply and erection of sheet steel enclosures 2 pole/ 3 pole with earth plug and socket suitable for incorporating single pole/ triple pole MCB on wall/ on existing pedestal complete with necessary connections etc.				
		(ii) SPN enclosure for single pole MCB 20 amp	2	Nos.	439.50	879.00
7	31.16	Supply and erection of blanking sheet in existing distribution board	24	Each	3.38	81.00
8	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-				
		(a) Miniature Circuit Breakers of 9 K.A. breaking capacity				

		(ii) 6 amp to 32 amp (SP) Havell's/ Standard	836	Each	123.50	103246.00
		(iii) 40 amp to 63 amp. (TPN) Havell's/ Standard	40	Each	648.70	25948.00
		(ii) 6 amp to 32 amp (SPN) Havell's/ Standard	8	Each	256.10	2048.80
		(iv) 40 Amp to 63 Amp (TP) Havell's/ Standard	4	Each	490.10	1960.40
9	31.18	Supply and erection of Fittings and Accessories				
		(vii) Call bell 220/230 volts A.C. bakelite with double coil	3	Each	39.90	119.70
		(xi) Bakelite angle/ straight button holder large size	410	Each	11.78	4829.80
		(xxiv) Erection only of 1 x 40 Watts or 2 x 40 Watts, 1220 mm long/1 x 20 watts or 2 x 20 Watts, 610 mm long fluorescent tube fitting directly on wall including necessary connection with 0.75 sq mm (24/0-20 mm) PVC copper flexible cable for connection the tube with the adjacent light point	979	Each	20.71	20275.09
		(xxvi) Supply and erection of hexagonal M.S. box 1.60 mm thick having each side 8 cms, 7.5 cms deep, top covered with M.S. lid by means of screws including 10 mm dia 30 cm long mild steel rod made into suitable suspension hook and erected in R.C.C. slab of erection of fan, the bottom covered with 3 mm thick bakelite sheet with suitable holes, painting etc. complete with all labour and material required to complete the job	510	Each	49.97	25484.70
		(xxxii) Making suitable size of wall niche including cement plastering of inside of niche for metal clad switches, branch distribution boards, bus bar chambers and energy meters	2	Cum	125.40	250.80
10	31.20	Erection and carriage of fans				
		(i) Erection of ceiling fan complete with necessary earthing of fan and regulator including carriage from local railway station/Goods transport/PWD store to the site of work	510	Each	24.70	12597.00
		(iii) Erection of exhaust fan complete with necessary earthing of fan and regulator including carriage from local railway station /Goods transport /PWD store to the site of work	49	Each	47.50	2327.50
		(v) Making suitable hole in the wall up to 450 mm sweep exhaust fan including finishing the same and fixing of wire mesh duly fixed with Deodar wood frame of section 40 x 25 mm thick	49	Each	100.70	4934.30
		(vi) Pdg. And fixing required size of deodar wood frame of section 50 mm x 32 mm for fixing exhaust fan up to 450 mm sweep	49	Each	104.50	5120.50
11	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-				
		(xxii) Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	3700	Meter	32.60	120620.00
		(xxii) Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness flushed	5200	Meter	39.20	203840.00
		(xxiii) Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness flushed (for lighting main)	620	Meter	48.40	30008.00
		(xxiv) Heavy gauge welded conduit pipe (for power main) 40 mm dia 2.00 mm thickness flushed	620	Meter	68.20	42284.00
		(xxx) Supply and erection of PVC pipe of 6 Kg. pressure, laid 1 meter below ground level complete, including digging refilling of the trench with jointing etc.				
		(a) PVC pipe 120 mm (for main cable in electricity room)	110	Meter	118.00	12980.00
		(b) PVC pipe 80 mm dia	70	Meter	84.00	5880.00
		(c) PVC pipe 65 MM dia	70	Meter	62.00	4340.00
12	31.22	Earthing				
		(iii) Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc.(but without charcoal or coke and salt) complete as required	18	Each	860.70	15492.60

		(v) Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	18	Each	353.40	6361.20
		(xi) Pdg. and fixing 25 mm x 5 mm G.I. Strip in 40 mm dia G.I. pipe from earth electrode as required	248	Meter	123.69	30675.12
		(xv) pdg. and fixing 25 mm x 5 mm GI strip on surface or in recess for connections etc. as required with all labour and material	164	Meter	38.57	6325.48
		(xvi) Pdg. and fixing 4.00 mm dia G.I. wire on surface or in recess for loop earthing as required	156	Meter	6.46	1007.76
13	31.24	(ii) Excavation earth pit 180 cm round at top and 90 cm at bottom 4.5 m deep and refilling the same in plains including supply of necessary charcoal/ coke and salt mixture	8	Nos.	508.00	4064.00
		(iv) Supply and erection of 60 cm x 60 cm x 6 mm thick galvanised iron plate including necessary bolts and nuts to GI tape.	8	Nos.	430.00	3440.00
		(v) Providing standard watering tank including down pipe and CI cover with locking arrangements etc.	8	Nos.	380.00	3040.00
		(vi) Supply and erection of 20 mm x 3 mm thick lighting conductor GI tape fixed with suitable GI staples of same size.	950	Meter	28.20	26790.00
		(viii) Supply and erection of 25 mm dia meter 1.5 meter long lighting GI tube rod tapered into a point at the top with 16 cm x 16 cm x 3 mm thick GI base plate and necessary nuts and bolts with washers. (In numbers)	14	Each	216.00	3024.00
		(ix) Providing and fixing testing joint made from 20 mm x 3 mm thick GI strip 125 mm with 4 Nos. GI bolts and nuts with washers complete.	8	Each	13.40	107.20
14	31.25	Supply and erection of under ground cable 1 meter below ground level covered with sand and bricks including necessary connections, digging and refilling of trenches:-				
		(xxxiii) 240 Sq mm 3.5 core cable (arm)	440	Meter	537.48	236491.20
		(xxvii) 50 Sq mm 3 1/2 Core cable (armoured)	30	Meter	160.74	4822.20
		(xxix) 70 Sq mm 3 1/2 Core cable (armoured)	60	Meter	207.00	12420.00
		(xl) 16 Sq mm 4 Core cable (armoured)	50	Meter	109.44	5472.00
		(xxv) 120 Sq.mm 3.5 Core cable (arm)	30	Meter	116.10	3483.00
		(xxx) 120 Sq.mm 3.5 Core cable (arm)	60	Meter	290.70	17442.00
15	31.26	Supply and erection of under ground cable loose in existing pipe or trenches complete with necessary connections.				
		(xxvii) 50 sq mm 3 1/2 Core cable	28	Meter	134.46	3764.88
		(xxviii) 70 Sq mm 3 1/2 Core cable	74	Meter	180.54	13359.96
		(xxxiii) 240 Sq mm 3 1/2 Core cable	100	Meter	514.80	51480.00
		(xi) 16 Sq mm 4 Core cable	80	Meter	84.24	6739.20
		(xxv) 25 Sqmm 3.5 Core cable	30	Meter	89.82	2694.60
		(xxx) 120 Sq.mm 3.5 Core cable	74	Meter	265.68	19660.32
16	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-				
		(ii) 10 Sq mm to 16 Sq mm Cable 2 to 4 Core	6	Each	16.56	99.36
		(iii) 25 Sq mm to 50 Sq mm Cable 2 to 4 Core	4	Each	30.24	120.96
		(iv) 70 Sq mm to 95 Sq mm Cable 3 to 3 1/2 Core	8	Each	40.50	324.00
		(v) 120 Sq. mm to 185 Sq.mm cable 3 to 3 1/2 Core	8	Each	51.48	411.84
		(vi) 240 Sqmm cable 3 to 3 1/2 Core	6	Each	63.00	378.00
17	31.30	(xv) Supply and erection of 32 mm dia meter 1.5 long brackets (B-class) making an angle of 10 degree to 15 degree with horizontal plane for mounting street light fitting fixing of GI bracket on wall with 2 Nos. 32 mm x 3 mm thick MS clamps including cost of cutting, welding of GI pipe complete with cement sand mixture bolts and nuts etc. including necessary connections.	27	Each	306.00	8262.00

		(xvi) Supply and erection of weather proof Ms box of size 20 cm x 15 cm x 10 cm covered with 3.00 mm thick MS sheet hinged cover, locking arrangements, housed in wall including the cost of 1 No. 16 amp 415 V kitkatand 2 Nos. 63 Amp. 415 V neutral links fixed on hard wood board in the MS box including paiting and necessary connections.	27	Each	255.00	6885.00
18	31.35	Miscellaneous				
		(i) Supply of M.S. pipe(B- Class) for suspension rod of ceiling fan including threading if required.				
		(a) 15 mm dia	40	Meter	47.31	1892.40
		(iii)Supply and erection of caution notice plate in three languages	24	Job	3.80	91.20
		(iv)Supply and erection of shock restoration chart in glass frame	2	Job	71.25	142.50
		(vii) Supply and erection of 75 mm x 75 mm x 60 mm deep M.S. box for telephone and inter-communication system including 2 pin 5 amp. socket including cost of bakelite sheet	7	Each	34.20	239.40
		(ix)Supply and erection of aluminum lugs heavy duty including crimping etc. up to the entire satisfaction of the Engineer-in-charge of the work:-				
		(d) 16 Sq mm	26	Each	3.04	79.04
		(f) 25 Sq mm	8	Each	4.75	38.00
		(g) 50 Sq mm	6	Each	4.94	29.64
		(h) 70 Sq mm	32	Each	9.69	310.08
		(m) 240 Sq mm	18	Each	35.15	632.70
		(j) 120 Sq mm	30	Each	15.01	450.30
		(f) 35 Sq mm	8	Each	4.75	38.00
		(x) Provided ferrule over the wires for distinction complete with all labour and material required to complete the job				
		(a) 1.5 Sq mm to 2.5 Sq mm	960	Each	0.10	91.20
		(b) 4 Sq mm to 10 Sq mm	1140	Each	0.19	216.60
		(xi) Supply & erection of cable route marker made of 50 cm long 10 mm dia M.S. Rod welded/revitted at the top with 10 cm dia 5 mm thick G.I. plate inscribed with 'cable' word on it, having a cross arm 30 cm long of the same dia welded at the bottom, in existing trench 45 cm below ground level	60	Each	32.30	1938.00
		Total:				1998092.57
		Add 60% Premium (HSR+CP)				1198855.54
		Total:				3196948.00
1		Supply, Installation, testing, commissioning handling etc. of power distribution board fabricated with 1.6 mm steel (CRCA) after having sever tank treatment duly powder coated paint all enclosure must have hinged door/cover, inner side of cover having circuit diagram enclosure, ferrules on all wire, earth grid all bottom with terminals, floor mounted, top & bottom cable entry plate of cubical panel having cable allay & bus bar allay, IP 52 protection, volt meter with voltage selector switch, Am meter with ampere sector & with, C.T.'s, space for energy meter. The panel single line diagram & general arrangement must be approved before fabrication and having following incoming/outgoing:				
		MAIN PCC PANEL				
		1. Incomers				
		(i) 630A, 4 Pole, 35 KA, MCCB, rotary handle, overload & short circuit release - 01 Nos.				
		(ii) 400 A, 4 pole, 35 KA MCCB, rotary handle overload & short circuit release - 01 Nos.				
		(iii) 400 A, 4 Pole, 415V changeover switch -01 Nos.				

		(iv) Metering with 2 sets of 3 phase indicator lamp with protection fuse, 2 sets of voltmeter 0-500 V with selector switch, 2 set of Ammeter (0-600 A & 0-400A) with selector switches and CTS= 1 set				
		(v) 2 Nos. A1 TPN bus bar with one of 800 Amp. & second of 5000 Amp.				
		2. Out goings:				
		(i) 160 A 4 pole, 35 KA MCCB-5 Nos.				
		(ii) 125 A, 4 Pole, 35 KA, MCCB rotary handle with overload & short circuit release - 5 Nos.				
		(iii) 63 A, 4 Pole, 25 KA, MCCB, rotary handle with overload & short circuit Release - 04 Nos.				
		(Makes of MCCB etc. as per approved list of material)	1	Each	250000.00	250000.00
2	NS	Sub panels as above with following incoming/out goings: (PDB 1 to PDB-4)				
		1. Incoming				
		(i) 160 A, 4 Pole, 35 KA, MCCB, rotary handle with adjustable overload & Short circuit release - 01 Nos.				
		(ii) 1 set of 3 phase indicator lamp with voltmeter 0-500V 2 selector switch & protection fuse= 1 set				
		(iii) 200 A AL TPN busbar= 1 No.				
		2. Out going				
		(i) 63 A, 4 Pole, 25 KA MCCB, rotary handle with adjustable overload & Short circuit release - 06 Nos.	4	Each	85000.00	340000.00
3	NS	Sub panels as above with following incoming/out goings: LDB-1 to LDB-4				
		1. Incoming				
		(i) 125 A, 4 Pole, 35 KA, MCCB, rotary handle with adjustable overload & Short circuit release - 01 No.				
		(ii) 1 set of 3 phase indicator lamp with voltmeter 0-500V 2 selector switch & protection fuse= 1 set				
		(iii) 150 AAL TPN bus bar= 1 set				
		2. Out going				
		(i) 63 A, 4 Pole, 25 KA MCCB, rotary handle with adjustable overload & Short circuit release - 07 Nos.				
		(ii) 32 A MCB DP (for campus light)= 1 No.	4	Each	105000.00	420000.00
4	NS	Supply of following luminaries comprising of basic channel, holder, Instant start, flicker free electronic operation, Easy to fit snap on adjustable installer, compatible with energy saving tube light as per specification, including connecting wires, clamps screws fixing arrangement etc.				
	(a)	T5, 28 W Philips TCH 128/2005/865 light fitting including 28 W, t5 tube fixture (Rooms, Mess, Common rooms etc.	428	Each	700.00	299600.00
	(b)	T5 2x28 W Philips light fitting including 2 Nos. 28 W, t5 tube fixture (Mess, Common rooms etc.	100	Each	1800.00	180000.00
	(b)	TCH 114/2005/865 light fitting i/c T5 14 W tube rod fixture (corridors, bathrooms etc.)	500	Each	700.00	350000.00
	(c)	250 W 1 X SON/SON - T 250 Philips with lamps 250 W for security light. SRP 202/250	27	Each	7000.00	189000.00
	(d)	Ceiling light decorative fitting Deco Twist Lux BCS 1902 Philips make along with 25W CFL Lamp compete as required	352	Each	850.00	299200.00
	(e)	2 x 36 watt mirror optical CFL surface mounted square type fitting 2'-2' size complete with copper wound choke and @ 36 watt CFL lamps. The fitting should be Bajaj make BLWS 236 CFLP-5 or equivalent philips/ wipro make.	8	Each	4000.00	32000.00
5	NS	Supplying ceiling fan 1200 mm sweep, double ball bearing with mechanical regulator including all accessories, wiring, down rod of standard length etc. complete as required.	367	Each	1450.00	532150.00

6	NS	Supplying ceiling fan 1400 mm sweep, double ball bearing with mechanical regulator including all accessories, wiring, down rod of standard length etc. complete as required.	143	Each	1600.00	228800.00
7	NS	Supplying exhaust fan 300 mm sweep, heavy duty including louvers/ shutters all accessories wiring etc. complete as required.	9	Each	3000.00	27000.00
8	NS (a)	Supplying exhaust fan 450 mm sweep, 900 rpm heavy duty including louvers/ shutters all accessories wiring etc. complete as required.	40	Each	4000.00	160000.00
	(b)	Supply and laying of telephone wire PVC copper 2 pair 0.5 sq.mm. in existing MS conduit including cost of petty material required to draw the wire and making connections.	200	Meter	50.00	10000.00
	(c)	Supply and erection of 75 mm x 75 mm x 60 mm deep MS box flushed in wall for TV socket including S/E of TV socket and bakelite sheets 3 mm thick and other petty material.	3	Each	300.00	900.00
	(d)	S/E of wall fan 16" size oscillating type with built in regulator to be fixed on wall with screws etc. and making connections with cost of wire etc.	1	Each	15000.00	15000.00
	(e)	S/E of computer outlet with RJ-45 modular type with box, cover plate recessed in wall	5	Each	5000.00	25000.00
	(f)	Supply and laying of Cat-6 computer cable in existing conduit pipe including termination	200	Meter	200.00	40000.00
	(g)	Supply and laying of TV co-axial wire RS-11 in existing conduct pipe including making connections	100	Meter	65.00	6500.00
	(h)	Supply and making of masonry chamber of size 450 mm x 450 mm made of 9" thick brick masonry walls dully plastered from inside. The frame of haudi should be 40 x 40 x 5 mm angle iron and cover of 35 x 35 x 5 mm angle with RCC and top surfac matching to floor surfac. The job includes cost of all abov said material including excavation pit for land.	7	Each	3500.00	24500.00
		Total:				3429650.00
		Total (A)				3,196,948.00
		Total (B)				3,429,650.00
		Total of Electrical Work				6,626,598.00
		Total of Civil Work				110,253,546.00
		Total of Public Health Work				3,593,274.00
		Grand Total				120,473,418.00

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

Item No: 10.9

To consider and approve cost estimate for the extension of existing road between Tubewell No. 5 and Students Activity Centre upto 350 Seaters Boys Hostel at National Institute of Technology, Kurukshetra

The B&WC in its 8th meeting held on 28-05-2007 vide item No. 8.15 approved an estimated cost of Rs. 37.00 Lacs for the construction of extension of existing road between Tubewell No. 5 and Students Activity Centre upto 350 Seaters Boys Hostel at National Institute of Technology, Kurukshetra. A sum of Rs. 39.26 Lacs was actually incurred at site for the construction of this work. In addition, a sum of Rs. 4.28 Lacs was also incurred for the construction of 3.05 mtrs. Span culvert over the storm water drain which was falling in the extension of existing road between Tubewell No. 5 & Students Activity Centre the work was carried out by obtaining the approval of the Chairman, B&WC in anticipation to the approval of the B & WC. The Revised Cost Estimate for both the works was Rs.43.54 lacs (Rs.39.26 Lacs + Rs. 4.28 Lacs).

It is therefore, requested that B&WC may consider & accord approval amounting to Rs.43.54 Lacs for both the works cited above.

REVISED COST ESTIMATE CONSTRUCTION of EXTENSION of EXISTING ROAD BETWEEN TUBEWELL No. 5 & STUDENT'S ACTIVITY CENTRE UPTO 350 SEATERS BOYS HOSTEL AT NIT, KURUKSHETRA

Sr. No.	Description of Items	Qty.	Rate	Unit	Amount
1	Earth work for embankment inclusive of cost of borrow soil, spreading in layers bringing to appropriate moisture content and compacting to specification requirements as per MORTH specification latest revision clause 305 and it's sub clauses where required including consolidating. The original ground by rolling as directed by the Engineer in charge with 8-10 tonnes roller with all lead and lift including preparation of sub grade wherever applicable (Full rate @Rs. 105/- Per Cum)	4793.60	105.00	Per Cum	503,328.00
2	Providing preparation of Sub-grade, including trenching, rough dressing of spoil, final dressing of earth, to give levels and camber watering and rolling with road roller and compacting the bed. (Full rate @Rs. 4.25 Per Sqm)	3104.78	4.25	Per Sqm	13,195.00
3	Collection & carriage of coarse aggregate of size 63mm to 45mm (Grade-2) for sub base course from Deodhar or any approved quarry shall be either crushed broken stone. They shall be hard durable and from excess of flat along lid soft and disintegrated particles, dust and other objectionable matter. They shall be stacked 2mx1.5mx0.35m in size. For purpose of payment the volume of stacks will be worked out as per actual measurement and quality will be reduced by prescribed percentage and the reduced quality will considered as the quality supplied for purposed payment (MORTH specification No. 404.2.2 & Table No. 400.7) respectively. (Full rate @Rs. 695/- Per Cum)	973.88	695.00	Per Cum	676,847.00
4	Laying and consolidation of stone metal, soling coat to water bound macadam specification, carrying the metal from stack and spreading the binding material and consolidating the stone metal and binding material to proper camber with road roller, excluding the cost of templates barriers & lighting arrangement and Chowkidars. (Full rate @Rs. 97/- Per Cum)	973.88	97.00	Per Cum	94,466.00
5	Collection & carriage of coarse aggregate of size 53mm to 22.4mm (Grade-3) for base course from Deodhar or any approved quarry shall be either crushed broken stone. They shall be hard durable and from excess of flat along lid soft and disintegrated particles, dust and other objectionable matter. They shall be stacked 2mx1.5mx0.35m in size. For purpose of payment the volume of stacks will be worked out as per actual measurement and quality will be reduced by prescribed percentage and the reduced quality will considered as the quality supplied for purposed payment (MORTH specification No. 404.2.2 & Table No. 400.7) respectively. (Full rate @Rs. 711/- Per Cum)	543.51	711.00	Per Cum	386,436.00
6	Collection and carriage of screening as non plastic material such as maximum as Grand (other than river berms material) free from dust and objectionable material from the local bed. The material shall be predominantly non-plastic having liquid Limit of plasticity index below 20 and 6 respectively and practice paring 75 micron sieve does not exceed 10 percent and conforming to specification No.360 of Haryana PWD specification latest edition.(Full rate @Rs. 351/- Per Cum)	51.41	351.00	Per Cum	18,045.00

7	Laying and consolidation of stone metal wearing coat, to water bound macadam specification, i/c making side towards, carrying the metal from stock and spreading to templates, screening and spreading the binding material and consolidating the stone metal & binding materials, i/c proper camber with road roller, excluding the cost of templates, barriers and lighting arrangement and Chowkidars.(Full rate @Rs. 105/- Per Cum)	543.51	105.00	Per Cum	57,069.00
8	Providing and laying tack coat on WBM surface with bitumen 80/100 grade 75 Kg P%SqM complete as per MORT &H specification including cost of bitumen.(Full rate @Rs. 25/- Per sqm)	5454.96	25.00	Per Sqm	136,374.00
9	Providing and laying .50mm thick bituminous macadam with 60/70 grade bitumen content of 3.3.% by weight of mix complete in all respect as per MORTH specification latest revision clause 504 including cost of bitumen (60/70 grade). Heating the asphalt and aggregate by continuous batching of hot mix plant and spreading the same by paver finisher and consolidation with power roller with necessary equipments, oil kerosene, fire wood, labour charges etc. complete with contractor's own machineries. (Full rate @Rs. 18/- Per sqm)	5731.09	18.00	Per sqm	103,160.00
10	Providing and laying tack coat on black top surface with bitumen 80/100 grade, 50 KgP%SqM complete as per MORT &H specification including cost of bitumen.(Full rate @Rs. 3795/- Per Cum)	272.75	3795.00	Per cum	1,035,086.00
11	Providing and laying 20mm thick mix seal surface i/c supply of grit of all sizes, mixing in hot mix plant, laying the mixed material with paver and compaction with road roller complete in all respect as per specification including cost of bitumen 80/100 grade.(Full rate @Rs. 77/- Per sqm)	5731.09	77.00	Per Sqm	441,294.00
12	Providing and laying 'B' type seal coat with Bitumen and fine aggregate mixing in hot mix plant, laying the mixed material and compacted with road roller complete in all respects as per specification including cost of bitumen 80/100 grade. (Full rate @Rs. 31/- Per sqm)	5731.09	31.00	Per Sqm	177,664.00
13	Providing and laying 300mm dia NP-3 pipe complete with sockets below 150mm thick CC 1.4.8 with stone aggregate 40mm nominal size as per satisfaction of the engineer in charge (N.S. Approved on 8-10-2008)	7.32	1627.00	PRmtr	11,910.00
14	Payment of increased rate of bitumen of refinery, as per terms & condition of the agreement (P-38 clause II) 60/70 grade bitumen.	19.28	8427.55	PR MT.	162,483.00
15	-Do- 80/100 grade bitumen	19.21	9282.02	Per MT	178,308.00
Total					3,995,665.00
Rebate 2% on above items except item no. 1 & 13 on Rs. 39,95,665 (-) Rs.(503328+11910) =Rs. 34,80,427.00					-69609.00
Total					3,926,056.00

Executive Engineer,
Construction Cell,
NIT, Kurukshetra

Revised Cost Estimate for Construction of 3.05 Mtr. Span Culvert for Extension of existing road between Tubewell No. 5 & students activity centre upto 350 seaters Boys Hostel at NIT, Kurukshetra

Sr. No.	HSR	Description of Items	Qty.	Rate	CP	Total Rate (Rs)	Unit	Amount
1	6.6 + 6.2 (c) (i)	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs (Full rate @ Rs. 1153.40 per 100 cum)	143.77	1153.40	350%	5190.30	Per 100 Cum	7,462.00
2	10.36	Cement concrete 1:4:8 with Brick Ballast 40mm nominal size in foundation and plinth (Full @ Rs. 385.25 per cum)	21.21	385.25	370%	1810.68	Per Cum	38,403.00
3	11.4	First class brickwork laid in cement sand mortar 1:4 in foundation & plinth (Full rate @ Rs. 424.60 per cum)	49.22	424.60	350%	1910.70	Per Cum	94,045.00
4	11.9	First class brick work laid in cement sand mortar 1:4 in first storey up to 4 meters above plinth level (Full rate @ Rs. 445.60 per cum)	20.68	445.60	350%	2005.20	Per Cum	41,468.00
5	10.30	Cement Concrete 1:6:12 under floor (Full rate @ Rs. 329.95 per cum)	3.11	329.95	370%	1550.77	Per Cum	4,823.00
6	10.41	Cement Concrete 1:1½:3 stone aggregate 20mm nominal size in foundation and plinth (Full @ Rs. 615.60 per cum)	3.14	615.60	370%	2893.32	Per Cum	9,085.00
7	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 (Full rate @ Rs. 917.05 per Qtl.)	11.60	917.05	325%	3897.46	Per Qtl.	45,211.00
8	10.82 + 10.95 (a)	Cement Concrete 1:1½:3 with stone aggregate 20mm nominal size for reinforced concrete work in slabs with inclination not exceeding 25degree with horizontal, excluding steel reinforcement. but including centring and shuttering, laid in position, complete in all respect (Full rate @ Rs. 1084.80 per cum)	12.30	1084.80	370%	5098.56	Per Cum	62,712.00
9	15.5	12mm thick cement plaster 1:4 on wall (Full @ 12.70 per sqm)	32.09	12.70	325%	53.98	Per Sqm	1,732.00
10	15.7	Cement pointing 1:2 flush on brick on edge flooring (Full rate @ Rs. 7.45 per sqm)	17.69	7.45	325%	31.66	Per Sqm	560.00
11	6.2 (a) (@ Rs. 415.50 per 100 cum)	Earth work excavation in ordinary soil exclusive of compensation of earth:- (a) Kassi work undressed involving an average horizontal throw upto 2 meters, and an average vertical lift upto 0.5 meter including breaking of clods	23.21	415.50	350%	1869.75	Per 100 Cum	434.00
12	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth)(Full rate @Rs. 403.10 per cum)	8.93	403.10	370%	1894.57	Per Cum	16,918.00
13	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete. (Rs. @ 642.40 per Cum.)	12.89	642.40	370%	3019.28	Per Cum	38,918.00
		Total						361,771.00
		Add 12.20% Premium on (HSR + CP) Except HSR Item No. 18.22 i.e						38,620.00
		Add 61% Premium on (HSR + CP) Item No. 7 i.e 18.22						27,579.00
		Grand Total						427,970.00

**Executive Engineer,
Construction Cell,
NIT, Kurukshetra**

Item No: 10.10 To consider and approve cost estimate for the special repair, renovation and miscellaneous works at National Institute of Technology, Kurukshetra

Five numbers boys hostel and one number girls hostel in the Institute (constructed about 40 years ago) require special repair in terms of replacement of doors, windows, wire gauge shutters, wooden chowkhats, shelves, plastering, fixed wooden table tops etc. Similarly, some of the residences in the campus (constructed more than 35 years ago) also require urgent repair in terms of replacement of wooden fixtures, doors, windows, chowkhats, plastering of walls, flooring, internal sanitary fittings, etc. Besides, special maintenance/renovation of class rooms, Computer Centre, Library, Laboratories, Offices of the Faculty, Administrative Officers and Secretarial Staff, etc. have also become a routine affair. The Institute lawns, herbs, shrubs and trees also require special attention to maintain greenery and pollution free environment. The repair/renovation of water supply lines (laid about 35 years ago) has also become essential to provide regular water supply to the inhabitants.

To maintain the above facilities including the maintenance of Electric Lines, Electrical appliances (i.e. fans, tubes, lights, desert coolers, water coolers, air conditioners, etc.) in the Administrative Offices, funds are required. The Govt. of India sanctioned and released an amount of Rs.70 lacs for special repair/renovation and miscellaneous work in the Institute for the year 2005-06 including Rs.10 lacs for the replacement of furniture in the first year hostel .

During the current financial year, the following amount mentioned against each item is required for carrying out the above special repairs/renovation and miscellaneous works in the Institute:

Sr.No.	Name of the work	Amount (Rs. in lacs)
1.	Civil Maintenance	20.00
2.	Public Health Maintenance	15.00

3.	Electrical Maintenance	10.00
4.	Horticulture	05.00
5.	Maintenance of Tractor and fuel charges, etc.	05.00
6.	Maintenance of communication facilities	10.00
7.	Maintenance of electrical gazettes (Computers, printers, photo-copiers, hardwares, scanners, cartridges, tuners, stationary etc.)	05.00
8.	Renovation of labs, class rooms and offices of Faculty, administrative officers and secretarial staff including miscellaneous works.	30.00
	Total	100.00

It is, therefore, requested that BWC may consider and approve an amount of Rs.100.00 lacs for special repair/renovation and miscellaneous works in the Institute during the financial year 2009-10.

Item No: 10.11 To consider & approve the Revised Cost Estimate for the construction of 350 Seaters Boys Hostel for Under-Graduate Students at NIT Kurukshetra.

The B&WC in its 9th meeting held on 17.03.08 vide item No.9.3, approved an estimated cost of Rs. 12.60 Crores for the construction of additional 350 Seaters Boys Hostel for Under-Graduate students to accommodate additional students who may be admitted on account of O.B.C reservation.

In compliance to the approval of the B&WC, the Institute invited tenders through press & the work was allotted at revised premium to the lowest tenderer M/S Satish Kumar contractors, Industrial area, Panchkula with estimated cost of Rs.15.42 Crore after the approval of the Chairman, B&WC in anticipation to the approval of the B&WC. It has been worked out that there would be a saving of about Rs.40 Lacs in the execution of this work. Hence, this amount is to be incurred on the items such as external water supply to cater the requirement of the students of the above hostel and provision for the construction of boundary wall and cycle stand from the safety point view of the students. Now the Revised Cost Estimate including these works would be Rs.15.42crores.

It is therefore, requested that B&WC may consider & accord approval amounting to Rs.15.42 Crores for the above mentioned work.

REVISED COST ESTIMATE OF CIVIL WORKS FOR CONSTRUCTION OF 350 SEATERS BOYS HOSTEL FOR UNDER GRADUATE STUDENTS AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA

Sr. No.	HSR	Description	Qty.	Unit	Rate	C.P.	Total Rate (Rs.)	Amount (in Rs.)
1	6.27	Clearing grass and removal of the rubbish upto distance of 50m outside the periphery of the area cleared	13800	100 Sqm	21.45	300%	85.80	11840.40
2	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs	6580	100 Cum	1108.10	350%	4986.45	328108.41
3	6.2 c ii	Earth work in excavation in ordinary soil exclusive of compensation of earth						
		Overall Lead 120 mtrs	6580	100 Cum	166.00	300%	664.00	43691.20
4	9.9 + note-II (a)	Centring & shuttering for columns (square or rectangular or polygonal in plan) (Third Storey)	40	Sqm	50.65	225%	164.61	6584.50
		Fifth storey	450	Sqm	51.85	225%	168.51	75830.63
5	10.56 + note v b	Cement concrete 1:4:8 with stone aggregate 20mm nominal size in first storey upto 4 metres above plinth level (Third Storey)	6	Cum	431.35	370%	2027.35	12164.07
		Fifth storey	45	Cum	436.45	370%	2051.32	92309.18
6	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth)						
		For Foundation	410	Cum	403.10	370%	1894.57	776773.70
		For Paved Area	450	Cum	403.10	370%	1894.57	852556.50
7	10.39+ Note (v) 2	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 2m depth)	70	Cum	405.65	370%	1906.56	133458.85
8	10.90 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestal and approach slabs of bridges etc. excluding steel reinforcement but including centering and shuttering laid in position complete in all respects (for works upto 1.5m below grounds level)	1983	Cum	774.00	370%	3637.80	7213757.40
9	10.86+ 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders, stairs, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.						
	10.86+ 10.95 (a)	-do- (first storey)	850	Cum	1188.75	370%	5587.13	4749056.25
	10.86+ 10.95 (a)+ note(v)(b)	-do- (second storey)	610	Cum	1196.05	370%	5621.44	3429075.35
	10.86+ 10.95 (a)+ note(v)(b)	-do- (third storey)	370	Cum	1203.35	370%	5655.75	2092625.65

	10.86+ 10.95 (a)+ note(v)(b)	-do- (forth storey)	330	Cum	1210.65	370%	5690.06	1877718.15
	10.86+ 10.95 (a)+ note(v)(b)	-do- (fifth storey)	12	Cum	1217.95	370%	5724.37	68692.38
10	10.87+ 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls (10cm to 20 cm thickness) straight and curved excluding steel reinforcement but including centring and shuttering, laid in position, complete in all respects.						
	10.87+ 10.95 (a)	-do- (first storey)	13	Cum	1486.90	370%	6988.43	90849.59
	10.87+ 10.95 (a)	-do- (second storey)	10	Cum	1494.20	370%	7022.74	70227.40
	10.87+ 10.95 (a)	-do- (third storey)	10	Cum	1501.50	370%	7057.05	70570.50
	10.87+ 10.95 (a)	-do- (forth storey)	10	Cum	1508.80	370%	7091.36	70913.60
	10.87+ 10.95 (a)	-do- (fifth storey)	4	Cum	1516.10	370%	7125.67	28502.68
	10.87+ 10.95 (a)	-do- (Sixth storey)	1	Cum	1523.40	370%	7159.98	7159.98
11	10.88 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work circular or curved columns excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.						
		-do- (first storey)	5	Cum	1352.95	370%	6358.87	31794.33
	10.88 + 10.95 (a) + note(v)(b)	-do- (second storey)	3	Cum	1360.25	370%	6393.18	19179.53
12	10.81	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in shelves excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.						
	10.81 + note (v)(b)	-do- (first storey)	20	Cum	947.70	370%	4454.19	89083.80
	10.81 + note (v)(b)	-do- (second storey)	15	Cum	955.00	370%	4488.50	67327.50
	10.81 + note (v)(b)	-do- (third storey)	12	Cum	962.30	370%	4522.81	54273.72
	10.81 + note (v)(b)	-do- (forth storey)	12	Cum	969.60	370%	4557.12	54685.44
13	10.82 + 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.						
	10.82 + 10.95 (a)+note(v)(b)	-do- (first storey)	405	Cum	1084.80	370%	5098.56	2064916.80
	10.82 + 10.95 (a)+note(v)(b)	-do- (second storey)	390	Cum	1092.10	370%	5132.87	2001819.30

	10.82 + 10.95 (a)+note(v)(b)	-do- (third storey)	350	Cum	1099.40	370%	5167.18	1808513.00
	10.82 + 10.95 (a)+note(v)(b)	-do- (forth storey)	313	Cum	1106.70	370%	5201.49	1628066.37
	10.82 + 10.95 (a)+note(v)(b)	-do- (fifth storey)	10	Cum	1114.00	370%	5235.80	52358.00
	10.82 + 10.95 (a)+note(v)(b)	-do- (Sixth storey)	1	Cum	1121.30	370%	5270.11	5270.11
14	10.89 + 10.95 (a)	Cement concrete 1:1:5:3 with stone aggregate 20mm nominal size for reinforced concrete work in fascias, parapet and other thin vertical sections, not covered by items nos. 10.82, 10.86-10.88 not exceeding 10 cm excluding steel reinforcement but including centering and shuttering laid in position complete in all respects						
	10.89 + 10.95 (a)	-do- (first storey)	10	Cum	1708.95	370%	8032.07	80320.65
	10.89 + 10.95 (a)+note(v)(b)	-do- (second storey)	10	Cum	1716.25	370%	8066.38	80663.75
	10.89 + 10.95 (a)+note(v)(b)	-do- (third storey)	10	Cum	1723.55	370%	8100.69	81006.85
	10.89 + 10.95 (a)+note(v)(b)	-do- (forth storey)	10	Cum	1730.85	370%	8135.00	81349.95
	10.89 + 10.95 (a)+note(v)(b)	-do- (fifth storey)	2	Cum	1738.15	370%	8169.31	16338.61
	10.89 + 10.95 (a)+note(v)(b)	-do- (Sixth storey)	1	Cum	1745.45	370%	8203.62	8203.62
15	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.	7015	Qtl	917.05	325%	3897.46	27340699.44
16	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	250	Sqm	35.05	370%	164.74	41183.75
17	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	640	Cum	642.40	370%	3019.28	1932339.20
18	11.2	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	600	Cum	393.45	350%	1770.53	1062315.00
19	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.						

		-do- (first storey)	600	Cum	414.45	350%	1865.03	1119015.00
	11.7+11.41 (i)	-do- (second storey)	575	Cum	422.70	350%	1902.15	1093736.25
	11.7+11.41 (i)	-do- (third storey)	507	Cum	430.95	350%	1939.28	983212.43
	11.7+11.41 (i)	-do- (forth storey)	507	Cum	439.20	350%	1976.40	1002034.80
	11.7+11.41 (i)	-do- (fifth storey)	300	Cum	447.45	350%	2013.53	604057.50
	11.7+11.41 (i)	-do- (Sixth storey)	14	Cum	455.70	350%	2050.65	28709.10
20	11.42	Extra for brick work in Square or rectangular pillars in buildings	50	Cum	12.40	350%	55.80	2790.00
21	11.45 c	Extra for brick work curved on plan up to a mean radius not exceeding 6 metres	50	Cum	47.80	350%	215.10	10755.00
22	11.47	11.43 cm thick brick wall laid in cement sand mortar 1:4 without reinforcement in foundation & plinth	250	Sqm	52.70	350%	237.15	59287.50
23	11.48 (a)	11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure in first storey						
		-do- (first storey)	1398	Sqm	55.10	350%	247.95	346634.10
	11.48 (a) + note (iv)(a)	-do- (second storey)	1269	Sqm	56.05	350%	252.23	320073.53
	11.48 (a) + note (iv)(a)	-do- (third storey)	1228	Sqm	57.00	350%	256.50	314982.00
	11.48 (a) + note (iv)(a)	-do- (forth storey)	1228	Sqm	57.95	350%	260.78	320231.70
	11.48 (a) + note (iv)(a)	-do- (fifth storey)	300	Sqm	58.90	350%	265.05	79515.00
24	11.81	Dressing, chamfering of bricks to require shape in masonry work	8000	100 Each	73.75	350%	331.88	26550.00
25	13.43	Providing & embedding 100mm dia HCI rain water without ears ISI mark pipe in cement mortar during masonry work	950	Mtr.	93.35	350%	420.08	399071.25
26	13.46 (a)	Extra over rate of item No.13.43 and 13.45 (a) in case lead joints are used instead of cement joints						
		100 mm diameter pipe	710	Each	24.30	350%	109.35	77638.50
27	13.49	Providing & fixing CI plain bends in position with gutter etc.						
	(a)	For 100mm diameter pipe	144	Each	57.45	350%	258.53	37227.60
28	13.50	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	90	Each	12.30	200%	36.90	3321.00
29	13.55	Supplying & fixing in position GI pipe class 'B' Spouts in chajjas and cantilevers.						
	(c)	25 mm internal dia. G.I. pipe	45	Mtr.	40.45	200%	121.35	5460.75
	(d)	40 mm internal dia. G.I. pipe	45	Mtr.	59.00	200%	177.00	7965.00
30	13.57	Bottom Khurra on ground 1.2m x 0.6m consisting of brick-on-edge laid in cement mortar 1:3 over 75 mm cement concrete 1:8:16 including 12mm thick cement plaster 1:3.	90	each	64.30	200%	192.90	17361.00
31	13.62	Providing and laying four courses of water proofing treatment consisting of first and third course of blown type bitumen grade 85/25 applied hot at 1.6 kg per sqm. For each course and second course of fibre glass RP Tissue and fourth and final course of stone grit 6 mm and down size or pea-sized grit spread at 0.006 cum per sqm. including preparation of surface.	100	sqm	31.00	200%	93.00	9300.00

32	13.64	Cement concrete 1:2:4 gola 10cmx10cm quadrant along junction of roof with parapet wall finished smooth where specially specified.	1011	Mtr.	5.35	200%	16.05	16226.51
33	13.66	Providing and laying cinder concrete in cement 1:15 (1 cement: 15 cinder) on terraced roofs, laid to slope, including consolidating the same.						
	13.66+ note (III)	-do- (second storey)	52	Cum	216.65	200%	649.95	33797.40
	13.66+ note (III)	-do- (third storey)	49	Cum	219.65	200%	658.95	32288.51
	13.66+ note (III)	-do- (forth storey)	49	Cum	222.65	200%	667.95	32729.51
34	14.1-10.26 Based derived rate	Sand filling under floor i/c laying consolidation, compaction & watering etc.	7500	Cum	69.30	370%	325.71	2442825.00
35	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	3453	Sqm.	36.95	370%	173.67	599665.25
36	14.4	Screed of 50mm thick concrete 1:8:16 to be laid below the topping.						
	14.4+ note (I)	-do- (second storey)	2821	Sqm	15.65	370%	73.56	207498.66
	14.4+ note (I)	-do- (third storey)	2393	Sqm	15.95	370%	74.97	179391.25
	14.4+ note (I)	-do- (forth storey)	2393	Sqm	16.25	370%	76.38	182765.38
	14.4+ note (I)	-do- (fifth storey)	180	Sqm	16.55	370%	77.79	14001.30
	14.4+ note (I)	-do- (Sixth storey)	10	Sqm	16.85	370%	79.20	791.95
37	14.8	Conglomerate floor 25mm thick cement concrete topping 1:2:4						
	14.8 + note	-do- (first storey)	160	Sqm	22.40	370%	105.28	16844.80
	14.8 + note	-do- (second storey)	130	Sqm	22.70	370%	106.69	13869.70
	14.8 + note	-do- (third storey)	130	Sqm	23.00	370%	108.10	14053.00
	14.8 + note	-do- (fourth storey)	130	Sqm	23.30	370%	109.51	14236.30
38	14.10	Conglomerate floor 50mm thick cement concrete topping 1:2:4	550	Sqm	37.6	370%	176.72	97196.00
39	14.3	Floating coat of 1.50mm thick neat cement laid in one operation to the topping.	550	Sqm	3.70	370%	17.39	9564.50
40	14.25 (a) (ii)	Terrazzo topping rubbed and polished to a granolithic finish under layer 34mm thick cement concrete 1:2:4 and top layer as specified below:-						
		With grey Cement :- 43mm thick with top layer 9mm thick with white marble Makrana/Narnaul chipping of size above 4mm but upto 7mm laid in cement marble powder mix in the ratio of 3:1 (3 parts of cement and one part of marble powder) by weight in proportion of 4:7 (4 parts of cement marble powder mix : 7 parts of white chips) by volume complete						
	14.25 (a) (ii)	-do- (first storey)	970	Sqm	80.35	370%	377.65	366315.65
	14.25 (a) (ii) note (i)	-do- (second storey)	970	Sqm	80.65	370%	379.06	367683.35
	14.25 (a) (ii) note (i)	-do- (third storey)	970	Sqm	80.95	370%	380.47	369051.05
	14.25 (a) (ii) note (i)	-do- (forth storey)	970	Sqm	81.25	370%	381.88	370418.75
	14.25 (a) (ii) note (i)	-do- (fifth storey)	50	Sqm	81.55	370%	383.29	19164.25

41	14.26 (a) (i)	Terrazzo skirting or dado or on wall face rubbed and polished to a granolithic finish under layer 12mm thick cement coarse sand plaster 1:3 and top layer as specified below:- With grey Cement :- 18mm thick with top layer 9mm thick with white marble Makrana/Narnaul chipping of size 1mm to 4mm laid in cement marble powder mix in the ratio of 3:1 (3 parts of cement and one part of marble powder) by weight in proportion of 4:7 (4 parts of cement marble powder mix :7 parts of white chips) by volume complete						
	14.26 (a) (i)	-do- (first storey)	180	Sqm	71.00	370%	333.70	60066.00
	14.26 (a) (i)	-do- (second storey)	180	Sqm	71.30	370%	335.11	60319.80
	14.26 (a) (i)	-do- (third storey)	180	Sqm	71.60	370%	336.52	60573.60
	14.26 (a) (i)	-do- (forth storey)	180	Sqm	71.90	370%	337.93	60827.40
	14.26 (a) (i)	-do- (fifth storey)	20	Sqm	72.20	370%	339.34	6786.80
42	14.45 with note + Note I of Ch. 14	Precast colour chequered tiles of 20 mm thickness in ordinary grey cement without chips laid on 20 mm thick bed of cement coarse sand mortar 1:3 with neat cement slurry between joints and over the base in floors, treads of steps and landings						
		First story	66	Sqm	111.49	370%	524.00	34584.20
		-do- (second storey)	66	Sqm	111.79	370%	525.41	34677.26
		-do- (third storey)	66	Sqm	112.09	370%	526.82	34770.32
43	14.49	Marble stone flooring 20 mm to 25 mm thick slab including matching grains of marble laid in any pattern as specified over base of 12 mm thick cement coarse sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing (using the marble stone slab of size more than 0.38 sqm each)						
	a	White marble						
		(i) White makrana marble (1 st Quality)						
	14.49 + note (i)	-do- (first storey)	900	Sqm	782.20	60%	1251.52	1126368.00
	14.49 + note (i)	-do- (second storey)	490	Sqm	782.50	60%	1252.00	613480.00
	14.49 + note (i)	-do- (third Storey)	25	Sqm	782.80	60%	1252.48	31312.00
	14.49 + note (i)	-do- (forth storey)	25	Sqm	783.10	60%	1252.96	31324.00
44	14.50	Extra for nosing in marble stone for treads	98	mtr	19.00	60%	30.40	2979.20
45	14.51	Extra for marble stone flooring in treads of step not exceeding 30 cm in width.	50	Sqm	21.80	60%	34.88	1744.00

46	14.52	Marble stone 20mm to 25 mm thick in risers of step, skirting, dado, pillars and wall lining including matching the grains of marble slab in any pattern as specified laid on 12mm thick cement coarsed sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing , including labour for fixing cramps, pins and dowels etc. (using size of marble slab above 0.38 sqm. each)						
	a	White marble						
		(i) White makrana marble (1 st Quality)						
		-do- (first storey)	150	Sqm	830.00	60%	1328.00	199200.00
		-do- (second storey)	100	Sqm	830.30	60%	1328.48	132848.00
		-do- (third storey)	25	Sqm	830.60	60%	1328.96	33224.00
		-do- (forth storey)	25	Sqm	830.90	60%	1329.44	33236.00
47	14.62	Kotah stone flooring 34 mm to 40 mm thick in any pattern as specified over 12 mm thick base of cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing and polishing						
	14.62+note (i)	-do- (first storey)	1900	Sqm	201.95	135%	474.58	901706.75
	14.62+note (i)	-do- (second storey)	1500	Sqm	202.25	135%	475.29	712931.25
	14.62+note (i)	-do- (third storey)	1200	Sqm	202.55	135%	475.99	571191.00
	14.62+note (i)	-do- (fourth storey)	1200	Sqm	202.85	135%	476.70	572037.00
	14.62+note (i)	-do- (fifth storey)	180	Sqm	203.15	135%	477.40	85932.45
48	14.64	Extra for Kotah stone flooring in treads of steps not exceeding 30 cm in width	350	sqm	1.15	135%	2.70	945.88
49	14.65	Extra for nosing in treads of steps of Kotah stone slab	1400	mtr	6.10	135%	14.34	20069.00
50	14.66	Kotah stone 20 mm thick in skirting, risers of steps, dados and wall facing (lining) and pillars laid on 12 mm thick cement coarse sand mortar 1:3 laid and jointed with neat cement slurry mixed with pigment to match the shade of stone including rubbing and polishing including labour for fixing clamps, dowls and pins etc						
	14.66 +note (i)	-do- (first storey)	225	Sqm	237.00	135%	556.95	125313.75
	14.66 +note (i)	-do- (second storey)	194	Sqm	237.30	135%	557.66	108185.07
	14.66 +note (i)	-do- (third storey)	173	Sqm	237.60	135%	558.36	96596.28
	14.66 +note (i)	-do- (fourth storey)	173	Sqm	237.90	135%	559.07	96718.25
	14.66 +note (i)	-do- (fifth storey)	7	Sqm	238.20	135%	559.77	3918.39
	14.66 +note (i)	-do- (Sixth storey)	5	Sqm	238.50	135%	560.48	2802.38
51	14.81 (b)	Providing and fixing PVC strips, 40mm wide in floors						
		5.5 mm thick	8300	metre	7.50	370%	35.25	292575.00
52	15.7	12mm thick cement plaster 1:6 on wall						
	15.7+note 1	-do- (first storey)	3682	Sqm	10.65	325%	45.26	166656.53

	15.7+note 1	-do- (second storey)	3240	Sqm	10.83	325%	46.03	149129.1
	15.7+note 1	-do- (third storey)	2900	Sqm	11.01	325%	46.79	135698.2
	15.7+note 1	-do- (forth storey)	2981	Sqm	11.19	325%	47.56	141768.9
	15.7+note 1	-do- (fifth storey)	45	Sqm	11.37	325%	48.32	2174.5
	15.7+note 1	-do- (Sixth storey)	33	Sqm	11.55	325%	49.09	1619.8
53	15.12	15mm thick cement plaster 1:6 on the rough side of singe or half brick						
	15.12 +note (1)	-do- (first storey)	3682	Sqm	13.10	325%	55.68	204995.3
	15.12 +note (1)	-do- (second storey)	3240	Sqm	13.28	325%	56.44	182865.6
	15.12 +note (1)	-do- (third storey)	2900	Sqm	13.46	325%	57.21	165894.5
	15.12 +note (1)	-do- (forth storey)	2981	Sqm	13.64	325%	57.97	172808.5
	15.12 +note (1)	-do- (fifth storey)	45	Sqm	13.82	325%	58.74	2643.0
	15.12 +note (1)	-do- (Sixth storey)	33	Sqm	14.00	325%	59.50	1963.5
54	15.10	15mm thick cement plaster 1:4 on the rough side of singe or half brick						
		-do- (first storey)	1200	Sqm	15.65	325%	66.51	79815.0
	15.10+note (1)	-do- (second storey)	1200	Sqm	15.83	325%	67.28	80733.0
	15.10+note (1)	-do- (third storey)	1200	Sqm	16.01	325%	68.04	81651.0
	15.10+note (1)	-do- (forth storey)	1200	Sqm	16.19	325%	68.80	82563.9
	15.10+note (1)	-do- (fifth storey)	2500	Sqm	16.37	325%	69.57	173931.2
55	15.18	Rough cast exterior cement plaster on walls with a mixture of sand and gravel or crushed stone graded from 2.36 mm to 12mm nominal size dashed over and including fresh plaster in 2 coats, first coat 10mm cement plaster 1:4 finished coat 10 mm. cement plaster with cement mortar 1:3 (1 cement, 3 sand, mixed with 10% finely ground hydrated lime by volume of cement including arises, chamfers and/ or rounded angles not exceeding 80mm in girth.						
	15.18 + note (I)	-do- (first storey)	3206	Sqm	35.40	325%	150.45	482342.7
	15.18 + note (I)	-do- (second storey)	2837	Sqm	35.58	325%	151.22	428996.9
	15.18 + note (I)	-do- (third storey)	2517	Sqm	35.76	325%	151.98	382533.6
	15.18 + note (I)	-do- (forth storey)	2168	Sqm	35.94	325%	152.75	331151.1
	15.18 + note (I)	-do- (fifth storey)	1322	Sqm	36.12	325%	153.51	202940.2
56	15.51	10 mm thick cement plaster 1:3 on underside of ceiling						
	15.50 + Note (1)	-do- (first storey)	4043	Sqm	14.55	325%	61.84	250009.0
	15.50 + Note (1)	-do- (second storey)	4400	Sqm	14.73	325%	62.60	275451.0
	15.50 + Note (1)	-do- (third storey)	3200	Sqm	14.91	325%	63.37	202776.0
	15.50 + Note (1)	-do- (fourth storey)	3150	Sqm	15.09	325%	64.13	202017.3

	15.50 + Note (1)	-do- (fifth storey)	200	Sqm	15.27	325%	64.90	12979.50
	15.50 + Note (1)	-do- (sixth storey)	10	Sqm	15.45	325%	65.66	656.60
57	15.79	20mm thick raised or sunk cement mortar band/drip course in cement mortar 1:4 (3 cm width)	2100	m/cm width	0.45	325%	1.91	4016.25
58	15.81	Extra for plastering on circular work not exacting 6 metres in radius:-in two coats	900	Sqm	2.20	325%	9.35	8415.00
59	15.77	20mm thick cement plaster damp proof course 1:3 with 2 coats of bitumen at 1.65 Kg. per sqm laid hot and sanded:-						
	(a)	Vertical						
	15.77 + Note (1)	-do- (second storey)	250	Sqm	30.70	325%	130.48	32618.75
	15.77 + Note (1)	-do- (third storey)	200	Sqm	30.88	325%	131.24	26248.00
	15.77 + Note (1)	-do- (forth storey)	200	Sqm	31.06	325%	132.01	26401.00
	(b)	horizontal						
	15.77 + Note (1)	-do- (second storey)	150	Sqm	28.95	325%	123.04	18455.63
	15.77 + Note (1)	-do- (third storey)	150	Sqm	29.13	325%	123.80	18570.38
	15.77 + Note (1)	-do- (forth storey)	150	Sqm	29.31	325%	124.57	18685.13
60	15.80	Extra for lining out rough cast/pebble/cement plaster and terrazzo finished surfaces on walls to imitate stone or concrete block lining	12363	Sqm	3.3	325%	14.03	173391.08
61	17.69 (b)	P/F wooden handrail of required shape and design with necessary screws, including labour, for rounding, vertical and horizontal bends and curves complete fixed in position: Commercial hard wood, such as hollock, champ, chikrassy etc. (Non-ciniferous timber other than teak conforming to I.S. specification No. 1003 kiln seasoned)	5	Cum	10238.00	175%	28154.50	140772.50
62	17.90 (a)-note-1 of 17.18	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
		For Glazed windows (30mm thick)	479	Sqm	398.15	175%	1094.91	524463.09

63	17.92 -note-1 of 17.18	Factory manufactured wire glaze door and window shutter of Wire Gauge Commercial hard wood such as hollock, champ, chikrassy and chaplash (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & wire gauze of 140G or 120G designation i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
	(i)	30mm thick (Window shutters)	479	Sqm	310.40	175%	853.60	408874.40
	(ii)	35mm thick (Doors)	900	Sqm	335.70	175%	923.18	830857.50
64	17.93(a)-note (i) of 17.18	Factory manufactured solid flush door shutters with black board, core as per I.S .No. 1659-1969 bounded with water proof type phenol formaldehyde synthetic resin, hot pressed, conforming to I.S.2202 part I and II, fixed in position i/c iron hinges, screws, chocks/cleats and stops, etc. excluding the cost of any fittings other than specified above, but i/c labour for fixing the same in position						
	(a)	Commercial veenering with vertical grains or cross bands and face venter on both sides commercial facing its laminated core and lipped edges.						
	(iii)	35mm thick	1650	Sqm	436.15	150%	1090.38	1799118.75
	(i)	25mm thick	815	Sqm	387.15	150%	967.88	788818.13
65	17.71	Cost of Iron fittings complete for doors and windows, such as tower bolts, handles etc., and screws for these fittings (excluding sliding bolt)						
	(a)	For single leaf shutter	3280	Sqm	6.40	175%	17.60	57728.00
	(b)	For double leaf shutter	1110	Sqm	10.15	175%	27.91	30982.88
66	17.87	Providing and fixing 0.50 mm thick aluminium sheet, including cost of necessary screws etc., complete	100	Sqm	90.55	175%	249.01	24901.25
67	17.81(b)	Providing & fixing M.S. double acting spring hinges with necessary screws, etc. complete-125mm	5	Each	31.60	175%	86.90	434.50
68	17.79 (b)	Providing & fixing helical door spring 150mm (superior quality), including necessary screw, complete						
		Iron	510	Each	23.85	175%	65.59	33449.63
69	17.78 [c]	Providing & fixing 150mm hasps and staples with necessary screws, etc., complete						
		Iron	790	Each	4.30	175%	11.83	9341.75
70	17.83 [c]	Providing and fixing sliding bolt with nuts and screws, etc. complete						
	(C)	Iron						
	(i)	Size 300 x 16mm	73	Each	17.45	175%	47.99	3503.09
	(ii)	Size 250mm x 16mm	740	Each	16.35	175%	44.96	33272.25

71	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position	365	Qtl.	1040.35	325%	4421.49	1613842.9
72	18.30	S/F glass panes including special metal sash putty of approved make						
	(b)	Glass panes 4mm thick, exceeding 40 sq.dm.area	1424	Sqm	115.40	325%	490.45	698400.80
73	Top note (v) of chapter 17	Extra for providing and fixing frosted glass instead of ordinary glass	98	Sqm	11.50	175%	31.63	3099.25
74	18.34	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-						
	(a)	Size 89mm x 50mm x 40mm wide single rebate	4710	Mtr.	71.55	325%	304.09	1432252.13
	(b)	Size 76mm x 38mm x 35mm wide single rebate	3610	Mtr.	58.60	325%	249.05	899070.50
	(c)	Size 127mm x 50mm x 40mm wide double rebate	9210	Mtr.	76.80	325%	326.40	3006144.00
75	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete (with first quality paint)	10808	Sqm.	4.60	125%	10.35	111862.80
76	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc.	10808	Sqm.	3.75	125%	8.44	91192.50
77	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	29000	Sqm.	9.40	125%	21.15	613350.00
78	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	18389	Sqm.	2.95	125%	6.64	122056.99
79	16.25	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surface.	40755	Sqm	4.15	125%	9.34	380549.81
80	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to the required finish complete	40755	Sqm.	11.15	125%	25.09	1022441.06

81	16.58	Distempering with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	40755	Sqm.	9.10	125%	20.48	834458.63
82	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	43490	Sqm	7.25	125%	16.31	709430.63
83	24.35	Providing and fixing premoulded bituminous joint filler, for expansion joints, including the cost of sealing compound and primer coat.						
		(ii) 25mm wide	42210	Per mtr. per cm depth	3.75	325%	15.94	672721.86
84	30.103	Painting H.C.I. soil, waste, vent and pipes and fitting with ordinary quality synthetic enamel paint in all shades on existing or new work two coats paints including cleaning, rubbing etc.						
	(a)	100mm internal diameter	1600	Mtr.	3.25	250%	11.38	18200.00
	(b)	75mm internal diameter	576	Mtr.	2.35	250%	8.23	4737.60
		Total:						100968621.78
		The rate quoted by the contractor shall be for all heights and levels as per drawings and for all scaffolding work and other connecting operations for below mentioned items.						
1	NS	Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies terraces etc. consisting of following operations:						
	a	Applying and grouting a slurry coat of neat cement using 2.75 Kg/sqm of cement admixed with proprietary water proofing compound conforming to IS : 2645 over the RCC slab including cleaning the surface before treatment						
	b	Laying cement concrete using broken bricks/ brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 to required slope and treating similarly the adjoining walls up to 300mm height including rounding of junctions of walls and slabs.						
	c	After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645						

	d	Finishing the surface with 20mm thick joint less cement mortar of mix 1:4 (1 cement:4 coarse sand) admixed with proprietary water proofing compound confirming to IS 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300mmx300mm square.						
	e	The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge.						
	f	With average thickness of 120 mm and minimum thickness at khurra as 65mm	3980	sqm	400.00		400.00	1592000.00
2	NS	Supplying chemical emulsion, Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL ANTI-termite treatment and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surroundings of pipes and conduits etc. complete as per following specifications (Plinth area of the building at ground floor only shall be measured for payment) Chlorpyrifos emulsifiable concentrate 20% with 1% concentration.	4500	Sqm	120.00		120.00	540000.00
	a	Treating the bottom and sides of excavation at the rate of 5 litres of emulsion per square metre of surface area.						
	b	Treating the backfill in contact with foundation at the rate of 7.5 litres of emulsion per square metre of vertical surface.						
	c	Treating the top surface of filled earth at the rate of 5 litres of emulsion per square metre of surface.						
	d	Treating the soil under plinth protection at the rate of 5 litres of emulsion per square metre of surface area.						
	e	Treating the soil along with external perimeter of building at the rate of 2.25 litre of emulsion per metre of the perimeter wall.						
3	NS	Providing and fixing 18 mm thick mirror polished, machine cut for Kitchen platforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 with joints treated with white cement mixed with matching pigment, epoxy touchups, including rubbing, curing etc. and making opening of required size and shape for wash basins/ sinks etc. complete at all levels						
		Granite stone	62	sqm	2800.00		2800.00	173600.00

4	NS	Extra for providing edge moulding to granite stone counters including machine polishing to edge to give high gloss finish etc.. Complete in all respects	101	Mtr.	35.00		35.00	3535.00
5	NS	Providing and fixing first class plain coloured glazed tiles (of Orient/Somany make) of size 300x200 mm with minimum thickness 5mm in skirting and dado on 12mm thick cement plaster 1:3 (1 cement:3 coarse sand) the back of the tiles to be buttered with grey cement slurry and edges with white cement slurry and to be set in bedding mortar of 1:3 (1 cement: 3 fine sand) and jointed with white cement slurry mixed with pigment to match with the colour of the tiles.	2200	Sqm.	475.00		475.00	1045000.00
6	NS	Providing and laying in floor plain coloured matt finish ceramic tiles of Orient/Kajaria make, size 300mm x 300mm (thickness as per manufacture) without warpage, laid on 20mm thick cement mortar 1:3 (1 cement: 3 coarse sand) including grouting the joints with tile grouts with matching pigment etc. complete in all respects at all heights and levels to the entire satisfaction of the Engineer-in-charge. 25mm thick CC 1:2:4 will be laid before laying the mortar. (First quality anti skid tiles to be used)	700	Sqm	600		600.00	420000.00
7	NS	Providing and Fixing 150 mm wide sheet covering over expansion joints with rawl plugs and iron screws as per design to match the colour/shade of wall treatment with 3.15mm thick aluminium fluted strips.	463	Meter	400.00		400.00	185200.00
8	NS	Providing, laying & fixing including necessary screws 350mm wide 3.15 thick aluminium sheet bend to shape as per drawing/instructions to act as metal cradle on expansion joint including embedding in concrete complete in all respects upto the entire satisfaction of the Engineer-in-charge	224	Mtr.	950.00		950.00	212800.00
9	NS	Providing Dr. Fixit pidiseal PS 41G (Gun grade), 42P (Pouring grade) or equivalent for horizontal and vertical expansion joint complete in all respects as per manufacturer detail to the satisfaction of EIC on all the floors.	224	Mtr.	250.00		250.00	56000.00
10	N.S.	Providing expansion joints in roof slab, terrace joints filled with bitumen filler or impregnated fiber board etc. all complete as per building specifications and directions of the Engineer-in-charge.						
		50mm wide and 20mm deep	1600	Mtr.	80.00		80.00	128000.00
11	N.S.	Providing precast CC jali 1:2:4 reinforced with 1:6 mm dia mild steel wire including centering & shuttering, roughening, cleaning, fixing and finishing in CM 1:3 etc. complete excluding plastering of the joints stills and soffits, 100 mm thick	194	Sqm.	350.00		350.00	67900.00

12	NS	Providing & Fixing 25mm CP fancing rod in Cupboard complete with all necessary fittings	600	mtr.	300.00		300.00	180000.00
13	NS	Providing and laying 300mm dia NP-2 pipe complete with sockets as per satisfaction of the Engineer-in-charge	200	mtr.	500.00		500.00	100000.00
14	NS	Providing and fixing chiken wiremesh complete with screws and labours as per satisfaction of the Engineer-in-charge	50	Sqm	50.00		50.00	2500.00
15	NS	Providing and fixing in position 50mm x 50mm Hollow sq. Pipe for perapet railing or any type of railing including cost of welding roads etc. complete with one coat of primer.	2500	kg	70.00		70.00	175000.00
16	NS	Providing & fixing aluminium doors made from 100mm x 44.45mm x 2mm outer frame, 85mmx44.45mmx2mm for door shutters vertical and top horizontal, lock rail and bottom rail 150mmx44.45mmx2mm tubes complete with mortice lock, handles, tower bolts and glazed with 5mm thick float glass (of reputed manufacture) fixed with necessary beadings, Urubber etc. complete in all recepts and to the entire satisfaction of the Engineer-in-charge	80	Sqm	4300.00		4300.00	344000.00
17	NS	Providing & fixing fixed aluminium glazing made from 100mm x 44.45mm x 2mm thick tube for vertical, top I and bottommembers, intermediate members 44.45mmx44.45mmx2mm glazed with 5mm thick float glass (of reputed manufacture) fixed with necessary beadings, Urubber etc. complete in all recepts and to the entire satisfaction of the Engineer-in-charge	100	Sqm	4700.00		4700.00	470000.00
18	NS	Extra for tinted glass instead of plain float glass	100	Sqm	100.00		100.00	10000.00
19	NS	Extra for 5mm thick bakelite instead of plain float glass	80	Sqm	100.00		100.00	8000.00
20	NS	Extra for 12mm thick laminated board instead of plain float glass	60	Sqm	300.00		300.00	18000.00
21	NS	Extra for openable window in fixed partition including tower boalt, handles etc. complete in all respects	50	Sqm	1000.00		1000.00	50000.00
22	NS	Providing & fixing double action floor spring of reputed manufacturer and to the satisfaction of the Engineer-in-charge	20	Each	1500.00		1500.00	30000.00
		Total:						5811535.00
		SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)						100968621.78
		SUB HEAD-II : INTERNAL CIVIL WORKS (NON SCHEDULED ITEMS)						5811535.00
		Total;						106780156.78
		Add 25% on (HSR+CP) except steel Ch.18						16669153.19
		Add 54% on steel chapter 18						18517684.86
		Total of Civil Works						141966994.83

Sr. No.	HSR No.	Description	Qty.	Unit	Rate	C.P.	Total Rate (Rs.)	Amount (in Rs.)
1	30.40	Providing & fixing 25mm thick, marble partitions for different type of urinals.						
	(a)	Size 375mmx750mm	24	Each	98.00	250%	343.00	8232
2	30.41	P/F in position best Indian make lavatory Suites						
		White						
		(iv) Size 550mmx400mm with one no. tap	56	Each	407.00	250%	1424.50	79772
3	30.45	Providing and fixing in position best Indian make chromium plated brass 2nd tap for lavatory suite.	56	Each	92.00	250%	322.00	18032
4	30.48	P/F in position 32mm diameter G.I.waste pipe embedded in wall	56	Each	98.00	250%	343.00	19208
5	30.50	P/F in position best Indian make C.P. brass bottle traps 32mm diameter	56	Each	92.00	250%	322.00	18032
6	30.58	Providing and fixing in position best quality stainless steel draining board with iron brackets for building into wall including painting, cutting and making good the walls etc.						
		Size 600 mm x 450 mm	1	Each	1774.00	250%	6209.00	6209
7	30.62	P/F 40mm diameter G.I.waste pipe embedded in wall or upto floor level including cost of union and plumbing joints	18	Each	118.00	250%	413.00	7434
8	30.66	P/F in position best Indian make showers with 15mm diameter inlet.						
	(c)	C.P. brass with revolving shower	51	Each	122.00	250%	427.00	21777
9	30.67	P/F in position best Indian make paper holder fixed into C.P. including cutting & making good the walls etc.						
	(a)	C.P. brass	38	Each	27.50	250%	96.25	3658
10	30.68	Providing and fixing in position best Indian make towel rails fixed including cutting and making good the wall etc.						
	(b)	20 mm diameter C.P. brass adjustable						
		(i) 750 mm long	64	Each	65.00	250%	227.50	14560
		(ii) 600 mm long	64	Each	57.00	250%	199.50	12768
11	30.69	P/F in position glass shelf fixed in with rawl plugs with C.P. brass screws complete including cutting & making good the walls etc.						
	(a)	With C.P. brass bracket and guard rail						
		(i) 600mm x 125m	58	Each	72.50	250%	253.75	14718
12	30.70	P/F in position best Indian make soap dish fixed into wall with C.P. brass screws complete in all respects including cutting & making good the walls etc.						
	(a)	C.P. brass						
	(i)	Soap dish large	110	Each	59.00	250%	206.50	22715
13	30.71	P/F in position best Indian make bevelled edge 5.5mm thick mirror fixed in position by means of 4 nos. C.P. brass screws and washers complete including cutting and making good the walls etc.						
	(a)	Indian make						
		(ii) 600 mm x 450mm	56	Each	107.00	250%	374.50	20972
14	30.73	P/F in position best Indian make coat & hat hooks fixed with C.P. brass screws complete including cutting and making good the walls etc.						
	(a)	C.P. brass						
		(ii) Two way	520	Each	43.00	250%	150.50	78260

15	30.74	Providing and fixing in position super quality 65 mm i/d opening CP brass dome type hinged grating weighting about 750 gms. Fixed in cement mortar 1:2 complete in all respects (as required by the Engineer-in-charge).	50	Each	67.50	250%	236.25	11813
16	30.75	Providing & fixing in position 15mm i/d C.P. brass bib cocks of best quality (as required by the Engineer-in-charge)						
	(a)	Bib cock long body	150	Each	116.00	250%	406.00	60900
	(c)	Bib cocks	68	Each	100.00	250%	350.00	23800
17	30.76	P/F in position C.P. brass stop cocks (as approved by Engineer-in-charge)						
	(a)	15mm stop cocks						
		(ii) Concealed stop cocks with flange	162	Each	130.00	250%	455.00	73710
18	30.83	P/F in position best Indian make C.P. brass inlet connection 15mm with 375mm pipe & CP brass nuts.	390	Each	115.00	250%	402.50	156975
19	30.84	P/F in position HCI soil, waste, vent pipes to ISI specification or any other reputed firm including cutting & wastage etc. & cutting holes in walls, roofs or floor etc. and making good the floor & wall but excluding cost of lead jointing.						
	(a)	100mm internal diameter	690	Mtr.	97.50	300%	390.00	269100
	(b)	75mm internal diameter	804	Mtr.	83.00	300%	332.00	266928
20	30.87	Providing lead caulked joints to HCI pipes & specials conforming to ISI specification of ELC or any other reputed firm including cost of lead yarn, fuel & tools etc.						
	(a)	100mm internal diameter (1.13 kg)	800	Each	33.50	225%	108.88	87100
	(b)	75 mm internal diameter (0.91 kg)	900	Each	27.50	225%	89.38	80438
21	30.88	Providing and fixing in position MS or Heavy flat iron clamps made out of MS flat not less than 5 mm of the approved design for fixing CI Soil waste vent or anti pipes to walls complete in all respects including cutting and making good the walls and floors etc. and painting						
	(a)	For 100 mm internal diameter pipes	160	Each	12.50	300%	50.00	8000
	(b)	For 75 mm internal diameter pipes	160	Each	11.00	300%	44.00	7040
22	30.89	P/F HCI floor trap ISI marked of the self-cleaning design with C.P. brass hinged grating with or without vent arm & including cement concrete 1:2:4 complete in all respects						
	(b)	With 75mm internal diameter outlet	47	Each	105.00	300%	420.00	19740
23	30.90	PROVIDING AND FIXING IN POSITION HCI 50mm INTERNAL DIAMETER OUTLET PLAIN NAHAN TRAP ISI Marked of the self cleaning design with CP BRASS HINGED GRATING WITH FRAME WEIGHING 6.80 KG EACH FIXED complete as fully described in item no. 30.89 above.						
	(b)	75 mm i/d outlet plain Nahani Trap.	140	Each	100.00	300%	400.00	56000
24	30.91	P/F In position HCI specials for soil waste vent pipes to ISI specification including cutting holes in walls & making good but excluding cost of lead joints						
	(a)	For 100mm internal diameter pipes						
	(i)	heal rest bend	22	Each	58.00	300%	232.00	5104

		(iv) single junction with door 100mm x100mm x100mm	66	Each	86.50	300%	346.00	22836
		(vi) Single junction plain 100mmx100mmx100mm	50	Each	76.50	300%	306.00	15300
		(xiii) Bend with door	25	Each	60.00	300%	240.00	6000
		(xiv) Bend plain	25	Each	53.00	300%	212.00	5300
		(xvii) door piece	25	Each	53.00	300%	212.00	5300
		(xvi) Cowls	22	Each	36.50	300%	146.00	3212
		(xxii) Collars	90	Each	27.50	300%	110.00	9900
	(b)	For 75mm internal diameter pipes						
		(i) Heal rest bend	22	Each	39.50	300%	158.00	3476
		(iv) Single junction with door 75mmx75mmx75mm	66	Each	59.00	300%	236.00	15576
		(xiii) Bend with door	25	Each	42.00	300%	168.00	4200
		(xiv) Bend plain	25	Each	39.50	300%	158.00	3950
		(xvi) door piece	25	Each	40.50	300%	162.00	4050
		(xvii) Cowls	22	Each	28.00	300%	112.00	2464
		(xviii) Collars	160	Each	22.50	300%	90.00	14400
25	30.95	Cutting chase in brick wall in cement for embedding G.I. or HCI pipe lines & making good the same						
	(a)	Size 75x75mm	240	Mtr.	6.00	250%	21.00	5040
26	30.101	Painting HCI soil waste and vent pipes and fittings with black bitumastic ordinary paint of approved manufacture two coats on new work.						
		(a) 100 mm internal diameter	288	MTR	1.85	250%	6.48	1865
		(b) 75 mm internal diameter	288	MTR	1.35	250%	4.73	1361
27	30.110	P/F in position automatic brass ball valves in tanks						
	(b)	With plastic ball						
		(iii) 25mm diameter	24	Each	65.50	250%	229.25	5502
28	30.114	P/F in position Gully traps fixed in cement concrete 1:4:8 with HCI grating 150x150mm CI cover weighing approximately 7.26 kg & frame clear opening 300 x 300mm and chamber including cost of brick work 1:5 cement concrete 1:8:16 and C.C. 1:2:4 in coping						
	(b)	100mm internal diameter HCI gully traps	30	Each	208.00	300%	832.00	24960
29	30.115	Providing and fixing in position best Indian make vitreous china ware channel of size 600 mm x 150 including laying and fixing in cement concrete 1:2:4 complete as required by the Engineer-in-charge.						
	(i)	White	56	Each	92.00	250%	322.00	18032
30	28.24	Cutting holes upto 23cm through brick work in cement wall for pipes and making good						
	(a)	11.43cm thickness of walls	250	Each	14.00	215%	44.10	11025
	(b)	22.86 cm. thickness of walls	350	Each	20.35	215%	64.10	22436
31	28.47	Bailing out water from the trenches for making new connections in fully charged pipelines						
	(a)	Upto 200mm internal diameter	4	Each	67.50	215%	212.63	851
32	29.84	Constructing brick masonry inspection chamber upto 60 mtr.depth in cement mortar 1:5 cement concrete 1:2:4 benching, 12mm thick cement plaster, RCC 1:2:4 slab 100mm thick with with 455x455 mmx455x610mm inside llght duty GI inspection chamber cover & frame with 3 coats of black bitumastic paint.						
	(c)	Size 600x900mm inside	50	Each	690.00	330%	2967.00	148350

33	29.85	Extra for every 0.30 mts. depths of inspection chamber						
	(c)	600mmx900mm	50	Per .3 mtr. depth	139.00	330%	597.70	29885
34	6.8	Excavation for pipelines running under pressure in trenches and pits in open areas where disposal of surplus earth is done alongwith the alignment and restoration of unmetalled surface to the original condition						
	(a)	Without timbering and shoring upto 1.5 meters depth	273	100 Cum	1030.00	300%	4120.00	11248
35	6.10	Excavation of trenches in street lanes or in open area for storm sewer, sewers running by gravity & man holes to full depth and removal of surplus soil upto to a lead of 1Km in ordinary soil						
	(a)	For depth of excavation not exceeding 3 mts. below ground level	795	100 Cum	1189.00	300%	4756.00	37810
36	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth	70	Cum	403.10	370%	1894.57	132620
37	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth	25	Cum	615.60	370%	2893.32	72333
38	10.59	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in in first storey upto 4 metres above plinth level						
	10.50+ note (v)(b)	-do- (first storey)	10	Cum	621.85	370%	2922.70	29227
	10.50+ note (v)(b)	-do- (second storey)	10	Cum	624.40	370%	2934.68	29347
	10.50+ note (v)(b)	-do- (third storey)	10	Cum	626.95	370%	2946.67	29467
	10.50+ note (v)(b)	-do- (forth storey)	10	Cum	629.50	370%	2958.65	29587
		TOTAL SCHEDULE ITEMS:						2229901
		SUB PART-IV: INTERNAL PH SERVICES (NON-SCHEDULE ITEMS)						
1	NS	Providing & fixing in position best Indian make (to the approval of Engineer-in-charge) 580mm white Indian make Orissa type water closet suit for sinking into floor with raised foot best treads with 100mm H.C.I.P trap along with:-	38	Each	2700.00		2700.00	102600
		1. White PVC 10 lts. Capacity low level flushing cistern (as approved by Engineer-in-charge) complete with Internal PVC fitting like syption, 15mm i/d ball cock along with R.S. or CI painted bracket and 32mm dia CP/GI outlet pipes. Mosquito proof over flow pipe etc. complete in all respect including cutting and making good the wall and floor and painting fitting. Note: PVC cistern of make Titanic OASIS, Jindal, Parryware, Front Line to be used						
2	NS	Providing & fixing in position best Indian make (to the approval of Engineer-in-charge) Single trap symphonic European type white water closet suit consisting of:-	27	Each	3000.00		3000.00	81000

		(i) White PVC 10 Ltr. Capacity low level flushing like syphon, 15mm i/d ball cock along with R.S. or CI bracket and 32mm dia CP brass bend for out let, Mosquito proof over flow pipe etc.					
		(ii) Best laid in make white plastic seat (Solid) and i/d fitting with set & C.P. chromium plated hinges and rubber buffers (to the approval of Engineer-in-charge). Complete in all respect including cutting and making good the wall and floor.					
3	N.S	Providing & fixing in position best Indian make flat back single front Urinals 610mm high consisting of:-	42	Each	2500.00	2500.00	105000
		1. Flat back lipped urinal basin of vitreous china ware (to the approval of Engineer-in-charge)					
		2. Pair of C.I. or M.S. special type bracket for urinal.					
		3. 32 mm dia waste coupling (Prayag make) with standard size G.I. flush pipe.					
		4. 15mm dia Urinal cock and spreader (Prayag Make connected 10 Lt. C.P. brass copper pipe and C.P. brass nuts.					
		Complete including cutting and making good the wall and floor (as approved by Engineer-in-charge)					
4	N.S	Providing & laying Cement Concrete 1:2:4 75mm in bed and around C.I. Soil waste pipe 100mm and 75mm i/d under floor including centering and shuttering where required.					
	(a)	100mm dia	100	Mtr.	180.00	180.00	18000
	(b)	75 mm dia	100	Mtr.	160.00	160.00	16000
5	NSR	P/F in position C.P. jet connection of EWC complete including C.P. plate for jet & PVC connection for jet point complete in all respects.	27	Each	200.00	200.00	5400
6	NSR (based on 30.53)	Providing and fixing in position best quality stainless steel sinks with complete fittings as fully described in item No.30.51 above.					
	(a)	600 mm x 450 mm x 200 mm	1	Each	600.00	600.00	600
7	NSR (based on 30.59)	Providing and fixing in position best quality stainless steel sink built in draining board of size 600 mm x 450 mm complete as described in item no. 30.53 and 30.58 above					
	(a)	Sink size 600 x 450 x 200 mm	4	Each	5000.00	5000.00	20000
8	NSR	Providing, laying, jointing glazed stoneware pipes grade A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement, 1 fine sand) including testing of joints etc. complete.					
		150mm i/d	800	Mtr.	250.00	250.00	200000
	(b)	200mm i/d	300	Mtr.	300.00	300.00	90000
9	NS	Providing and fixing of G.M. Peat valves heavy patterns with hand wheels ISI marked to GI pipe lines.					
	(a)	25mm i/d	60	Each	450.00	450.00	27000
	(b)	40mm i/d	32	Each	1200.00	1200.00	38400
	(c)	80mm i/d	6	Each	3500.00	3500.00	21000

10	NSR	Providing, testing and fixing G.I. pipe 'B' class medium duty including cost of specials such as Tee, elbow, bends etc. and threading inside the building & Ground						
		15mm i/d	2000	Mtr.	140.00		140.00	280000
		20mm i/d	300	Mtr.	170.00		170.00	51000
		25mm i/d	1200	Mtr.	240.00		240.00	288000
		40mm i/d	800	Mtr.	320.00		320.00	256000
		50mm i/d	350	Mtr.	410.00		410.00	143500
		80mm i/d	500	Mtr.	675.00		675.00	337500
11	NSR	Extra for providing and fixing union coupling to G.I. pipe lines including cost of union complete						
		15mm i/d	20	each	70.00		70.00	1400
		20mm i/d	10	each	100.00		100.00	1000
		25mm i/d	25	each	125.00		125.00	3125
		40mm I/d	10	each	205.00		205.00	2050
		80mm I/d	20	each	690.00		690.00	13800
12		Providing and stringing S & S centrifugally cast (spun) iron pipes (Class LA) complete in trenches to the approval of Engineer-in-charge.						
		80mm i/d	200	Mtr.	1450.00		1450.00	290000
13		Supplying and fixing ISI marked sluice valve double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 80 mm	5	Each	3500.00		3500.00	17500
14		Const. of sluice valve haudi 1m x 1m x 1m with brick work 1:5 cement sand mortar finished with 12.5mm cement plaster 1:4 including RCC 1:2:4 slab with reinforcement, surface box complete in all respect to the approval of Engineer-in-charge	5	Each	4500.00		4500.00	22500
15		Providing and fixing in position H.D.P.E. water tanks complete with inlet, outlet, scour and overflow flanges including masonry based underneath as approved by the Engineer-in-charge of different capacity tanks complete in all respect.						
		Capacity upto 2000 litres	44000	Ltrs.	6.50		6.50	286000
16		Construction brick masonry manhole in cement mortar 1:4 (1cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1cement:2coarse sand: 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8mix (1cement:4coarse sand :8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1cement :3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1cement : 2coarse sand :4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design ;						
		Inside Size 120x90cm and 90 cm deep including SFRC Cover with frame (Heavy duty) 580mm internal diameter						
		With Sewer bricks	15	Each	8000.00		8000.00	120000
17	NSR	Extra for depth for manholes						
		Size 120x90cm						

18	NSR	Making sewer connection with the existing sewer line	2	Each	1000.00		1000.00	2000
19	NSR	Providing M.S. foot rests including fixing in manholes with 20x20x10cm cement concrete blocks 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size) as per standard design :						
		With 20x20mm square bar	70	Each	200.00		200.00	14000
		TOTAL NON-SCHEDULE ITEMS:						2885875
	Note (i)	All china ware should be of CERA/HINDWARE/ PERRYWARE Make Ist quality						
		All C.P. fittings/fixtures should be of SEIKO/PARKO/ Chilly make.						
		All G.I. fittings should be UNIK & G.I Pipe should be TATA/Jindal Hissar						
		Total HSR+CP						2229901
		Total NS						2885875
		Total						5115776
		Add 40% on (HSR+CP)						891960
		Total PH						6007736

Sr. No.	HSR	Description	Qty	Unit	Rate	C.P.	Total Rate (Rs.)	Amount (Rs.)
1	31.12 (D)	Supply and erection of sheet steel enclosures distribution boards suitable for MCBs etc. on wall/existing board pedestal with rag bolts including bonding to earth:-						
		(iv) Distribution board 8 way (SPN)	7	Each	293.00	50%	439.50	3077
		(v) Distribution board 4 way (TPN)	3	Each	263.00	50%	394.50	1184
		(vi) Distribution board 6 way (TPN)	21	Each	831.00	50%	1246.50	26177
		(vii) Distribution board 8 way (TPN)	16	Each	924.00	50%	1386.00	22176
2	31.13	Supply and erection of M.S. angle iron frame duly welded for Housing M.S. sheet & main switches etc. on it, fixed on wall by means of suitable size of rag bolts with cement concrete, duly painted with three coats of approved paint including one coat of red oxide						
		(iii) Size 40 mm x 40 mm x 6 mm.	60	Meter	46.50	150%	116.25	6975
3	31.14	Supply and erection of 3 mm thick mild steel sheet duly welded on existing M.S. angle iron frame for fixing the main switches etc. as required, duly painted with three coats of approved paint including one coat of red oxide	8.2	Sq m	337.00	150%	842.50	6909
4	31.15	Supply and erection of sheet steel enclosures 2 pole/ 3 pole with earth plug and socket suitable for incorporating single pole/ triple pole MCB on wall/ on existing pedestal complete with necessary connections etc.						
		(ii) SPN enclosure for single pole MCB 20 amp	2	Nos.	293.00	50%	439.50	879
5	31.16	Supply and erection of blanking sheet in existing distribution board	24	Each	2.25	50%	3.38	81
6	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-						
		(a) Miniature Circuit Breakers of 9 K.A. breaking capacity						
		(ii) 6 amp to 32 amp (SP) Havell's/ Standard	836	Each	95.00	30%	123.50	103246
		(iii) 40 amp to 63 amp. (TPN) Havell's/ Standard	40	Each	499.00	30%	648.70	25948
		(ii) 6 amp to 32 amp (SPN) Havell's/ Standard	8	Each	197.00	30%	256.10	2049
		(iv) 40 Amp to 63 Amp (TP) Havell's/ Standard	4	Each	377.00	30%	490.10	1960
7	31.18	Supply and erection of Fittings and Accessories						
		(vii) Call bell 220/230 volts A.C. bakelite with double coil	3	Each	21.00	200%	63.00	189
		(xi) Bakelite angle/ straight button holder large size	410	Each	6.20	200%	18.60	7626
		(xxiv) Erection only of 1 x 40 Watts or 2 x 40 Watts, 1220 mm long/ 1 x 20 watts or 2 x 20 Watts, 610 mm long fluorescent tube fitting directly on wall including necessary connection with 0.75 sq mm (24/0-20 mm) PVC copper flexible cable for connection the tube with the adjacent light point	979	Each	10.90	200%	32.70	32013

		(xxvi) Supply and erection of hexagonal M.S. box 1.60 mm thick having each side 8 cms, 7.5 cms deep, top covered with M.S. lid by means of screws including 10 mm dia 30 cm long mild steel rod made into suitable suspension hook and erected in R.C.C. slab of erection of fan, the bottom covered with 3 mm thick bakelite sheet with suitable holes, painting etc. complete with all labour and material required to complete the job.	510	Each	26.30	200%	78.90	40239
		(xxxii) Making suitable size of wall niche including cement plastering of inside of niche for metal clad switches, branch distribution boards, bus bar chambers and energy meters	2	Cum	66.00	200%	198.00	396
8	31.20	Erection and carriage of fans						
		(i) Erection of ceiling fan complete with necessary earthing of fan and regulator including carriage from local railway station/Goods transport/P.W.D store to the site of work	510	Each	13.00	130%	29.90	15249
		(iii) Erection of exhaust fan complete with necessary earthing of fan and regulator including carriage from local railway station /Goods transport /P.W.D store to the site of work	49	Each	25.00	130%	57.50	2818
		(v) Making suitable hole in the wall up to 450 mm sweep exhaust fan including finishing the same and fixing of wire mesh duly fixed with Deodar wood frame of section 40 x 25 mm thick	49	Each	53.00	130%	121.90	5973
		(vi) Peg. And fixing required size of deodar wood frame of section 50 mm x 32 mm for fixing exhaust fan up to 450 mm sweep	49	Each	55.00	130%	126.50	6199
9	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-						
		(xxii) Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	3700	Meter	16.30	150%	40.75	150775
		(xxii) Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness flushed	5200	Meter	19.60	150%	49.00	254800
		(xxiii) Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness flushed (for lighting main)	620	Meter	24.20	150%	60.50	37510
		(xxiv) Heavy gauge welded conduit pipe (for power main) 40 mm dia 2.00 mm thickness flushed	620	Meter	34.10	150%	85.25	52855
		(xxx) Supply and erection of PVC pipe of 6 Kg. pressure, laid 1 meter below ground level complete, including digging refilling of the trench with jointing etc.						
		(a) PVC pipe 120 mm (for main cable in electricity room)	110	Meter	59.00	150%	147.50	16225
		(b) PVC pipe 80 mm dia	70	Meter	42.00	150%	105.00	7350
		(c) PVC pipe 65 MM dia	70	Meter	31.00	150%	77.50	5425
10	31.22	Earthing						

		(iii) Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) complete as required	18	Each	453.00	150%	1132.50	20385
		(v) Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	18	Each	186.00	150%	465.00	8370
		(xi) Pdg. and fixing 25 mm x 5 mm G.I. Strip in 40 mm dia G.I. pipe from earth electrode as required	248	Meter	65.10	150%	162.75	40362
		(xv) pdg. and fixing 25 mm x 5 mm GI strip on surface or in recess for connections etc. as required with all labour and material	164	Meter	20.30	150%	50.75	8323
		(xvi) Pdg. and fixing 4.00 mm dia G.I. wire on surface or in recess for loop earthing as required	156	Meter	3.40	150%	8.50	1326
11	31.24	(ii) Excavation earth pit 180 cm round at top and 90 cm at bottom 4.5 m deep and refilling the same in plains including supply of necessary charcoal/ coke and salt mixture	8	Nos.	254.00	150%	635.00	5080
		(iv) Supply and erection of 60 cm x 60 cm x 6 mm thick galvanised iron plate including necessary bolts and nuts to GI tape.	8	Nos.	215.00	150%	537.50	4300
		(v) Providing standard watering tank including down pipe and CI cover with locking arrangements etc.	8	Nos.	190.00	150%	475.00	3800
		(vi) Supply and erection of 20 mm x 3 mm thick lighting conductor GI tape fixed with suitable GI staples of same size.	950	Meter	14.10	150%	35.25	33488
		(viii) Supply and erection of 25 mm dia meter 1.5 meter long lighting GI tube rod tapered into a point at the top with 16 cm x 16 cm x 3 mm thick GI base plat and necessary nuts and bolts with washers. (In numbers)	14	Each	108.00	150%	270.00	3780
		(ix) Providing and fixing testing joint made from 20 mm x 3 mm thick GI strip 125 mm with 4 Nos. GI bolts and nuts with washers complete.	8	Each	6.70	150%	16.75	134
12	31.25	Supply and erection of under ground cable 1 meter below ground level covered with sand and bricks including necessary connections, digging and refilling of trenches:-						
		(xxxiii) 240 Sq mm 3.5 core cable (arm)	440	Meter	298.60	130%	686.78	302183
		(xxvii) 50 Sq mm 3 1/2 Core cable (armoured)	30	Meter	89.30	130%	205.39	6162
		(xxix) 70 Sq mm 3 1/2 Core cable (armoured)	60	Meter	115.00	130%	264.50	15870
		(xi) 16 Sq mm 4 Core cable (armoured)	50	Meter	60.80	130%	139.84	6992
		(xxv) 120 Sq.mm 3.5 Core cable (arm)	30	Meter	64.50	130%	148.35	4451
		(xxx) 120 Sq.mm 3.5 Core cable (arm)	60	Meter	161.50	130%	371.45	22287
13	31.26	Supply and erection of under ground cable loose in existing pipe or trenches complete with necessary connections.						
		(xxvii) 50 sq mm 3 1/2 Core cable	28	Meter	74.70	130%	171.81	4811
		(xxviii) 70 Sq mm 3 1/2 Core cable	74	Meter	100.30	130%	230.69	17071

		(xxxiii) 240 Sq mm 3 ½ Core cable	100	Meter	286.00	130%	657.80	65780
		(xi) 16 Sq mm 4 Core cable	80	Meter	46.80	130%	107.64	8611
		(xxv) 25 Sqmm 3.5 Core cable	30	Meter	49.90	130%	114.77	3443
		(xxx) 120 Sq.mm 3.5 Core cable	74	Meter	147.60	130%	339.48	25122
14	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-						
		(ii) 10 Sq mm to 16 Sq mm Cable 2 to 4 Core	6	Each	9.20	130%	21.16	127
		(iii) 25 Sq mm to 50 Sq mm Cable 2 to 4 Core	4	Each	16.80	130%	38.64	155
		(iv) 70 Sq mm to 95 Sq mm Cable 3 to 3 ½ Core	8	Each	22.50	130%	51.75	414
		(v) 120 Sq. mm to 185 Sq.mm cable 3 to 3 ½ Core	8	Each	28.60	130%	65.78	526
		(vi) 240 Sqmm cable 3 to 3 ½ Core	6	Each	35.00	130%	80.50	483
15	31.30	(xv) Supply and erection of 32 mm dia meter 1.5 long brackets (B-class) making an angle of 10 degree to 15 degree with horizontal plane for mounting street light fitting fixing of GI bracket on wall with 2 Nos. 32 mm x 3 mm thick MS clamps including cost of cutting, wedding of GI pipe complete with cement sand mixture bolts and nuts etc. including necessary connections.	27	Each	102.00	200%	306.00	8262
		(xvi) Supply and erection of weather proof Ms box of size 20 cm x 15 cm x 10 cm covered with 3.00 mm thick MS sheet hinged cover, locking arrangements, housed in wall including the cost of 1 No. 16 amp 415 V kitkat and 2 Nos. 63 Amp. 415 V neutral links fixed on hard wood board in the MS box including painting and necessary connections.	27	Each	85.00	200%	255.00	6885
16	31.35	Miscellaneous						
		(i) Supply of M.S. pipe (B- Class) for suspension rod of ceiling fan including threading if required.						
		(a) 15 mm dia	40	Meter	24.90	130%	57.27	2291
		(iii) Supply and erection of caution notice plate in three languages	24	Job	2.00	130%	4.60	110
		(iv) Supply and erection of shock restoration chart in glass frame	2	Job	37.50	130%	86.25	173
		(vii) Supply and erection of 75 mm x 75 mm x 60 mm deep M.S. box for telephone and inter-communication system including 2 pin 5 amp. socket including cost of bakelite sheet	/	Each	18.00	130%	41.40	290
		(ix) Supply and erection of aluminum lugs heavy duty including crimping etc. up to the entire satisfaction of the Engineer-in-charge of the work:-						
		(d) 16 Sq mm	26	Each	1.60	130%	3.68	96
		(f) 25 Sq mm	8	Each	2.50	130%	5.75	46
		(g) 50 Sq mm	6	Each	2.60	130%	5.98	36
		(h) 70 Sq mm	32	Each	5.10	130%	11.73	375
		(m) 240 Sq mm	18	Each	18.50	130%	42.55	766
		(j) 120 Sq mm	30	Each	7.90	130%	18.17	545
		(f) 35 Sq mm	8	Each	2.50	130%	5.75	46
		(x) Provided ferrule over the wires for distinction complete with all labour and material required to complete the job						
		(a) 1.5 Sq mm to 2.5 Sq mm	960	Each	0.05	130%	0.12	110
		(b) 4 Sq mm to 10 Sq mm	1140	Each	0.10	130%	0.23	262

		(xi) Supply & erection of cable route marker made of 50 cm long 10 mm dia M.S. Rod welded/revitted at the top with 10 cm dia 5 mm thick G.I. plate inscribed with 'cable' word on it, having a cross arm 30 cm long of the same dia welded at the bottom, in existing trench 45 cm below ground level	60	Each	17.00	130%	39.10	2346
	(A)	PVC Insulated wiring in recessed conduit.						
17	31.36	Wiring in 1.5 sq.mm PVC Insulated copper conductor cable in 1.6 mm thick conduit pipe.						
	(I)	Fan Point						
	(a)	Short Point	434	Each	343.00			148862
	(c)	Long Point	126	Each	733.00			92358
	(II)	Light Point						
	(a)	Short Point	101	Each	251.00			25351
	(b)	Medium Point	886	Each	433.00			383638
	(c)	Long Point	779	Each	639.00			497781
	(III)	Twin control light point with 2 way 5 amp. single pole switch-						
	(c)	Long Point	30	Each	726.00			21780
	(VI)	Call bell point including M.S Box of size 180mmx100mmx60mm deep for call bell -						
	(C)	Long Point	3	Each	664.00			1992
	(VII)	3 pin 5 amp. plug point including earthing the 3rd. pin etc. -						
	(a)	Short Point	43	Each	283.00			12169
	(b)	Medium Point	2	Each	466.00			932
	(C)	Long Point	20	Each	672.00			13440
	(VIII)	3 pin 15 amp. plug point with 4 sqmm PVC insulated copper conductor cable including earthing the 3rd pin etc.. pin etc. -						
	(a)	Short Point	4	Each	403.00			1612
	(b)	Medium Point	8	Each	667.00			5336
	(C)	Long Point	389	Each	970.00			377330
18	31. 40	Supply and erection of PVC unsheathed copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe.						
	(i)	Size 1.50 sqmm (3 / 0.81mm).	16500	Mtr	10.20			168300
	(ii)	Size 2.50 sqmm (3 / 1.05mm).	450	Mtr	16.30			7335
	(iii)	Size 4.0 sqmm (7 / 0.85mm).	15000	Mtr	24.50			367500
	(iv)	Size 6.0 sqmm (7 / 1.05mm).	2800	Mtr	35.60			99680
	(v)	Size 10 sqmm (7 / 1.35mm).	2800	Mtr	50.00			140000
		TOTAL HSR+CP						3838170

1		Supply, Installation, testing, commissioning handling etc. of power distribution board fabricated with 1.6 mm steel (CRCA) after having sever tank treatment duly powder coated paint all enclosure must have hinged door/cover, inner side of cover having circuit diagram enclosure, ferrules on all wire, earth grid all bottom with terminals, floor mounted, top & bottom cable entry plate of cubical panel having cable allay & bus bar allay, IP 52 protection, volt meter with voltage selector switch, Am meter with ampere sector & with, C.T.'s, space for energy meter. The panel single line diagram & general arrangement must be approved before fabrication and having following incoming/outgoings:						
		MAIN PCC PANEL						
		1. Incomers						
		(i) 630A, 4 Pole, 35 KA, MCCB, rotary handle, overload & short circuit release - 01 Nos.						
		(ii) 400 A, 4 pole, 35 KA MCCB, rotary handle overload & short circuit release - 01 Nos.						
		(iii) 400 A, 4 Pole, 415V changeover switch -01 Nos.						
		(iv) Metering with 2 sets of 3 phase indicator lamp with protection fuse, 2 sets of voltmeter 0-500 V with selector switch, 2 set of Ammeter (0-600 A & 0-400A) with selector switches and CTS= 1 set						
		(v) 2 Nos. A1 TPN bus bar with one of 800 Amp. & second of 5000 Amp.						
		2. Out goings:						
		(i) 160 A 4 pole, 35 KA MCCB-5 Nos.						
		(ii) 125 A, 4 Pole, 35 KA, MCCB rotary handle with overload & short circuit release - 5 Nos.						
		(iii) 63 A, 4 Pole, 25 KA, MCCB, rotary handle with overload & short circuit Release - 04 Nos.						
		(Makes of MCCB etc. as per approved list of material)	1	Each	250000.00		250000.00	250000
2	NS	Sub panels as above with following incoming/out goings: (PDB 1 to PDB-4)						
		1. Incoming						
		(i) 160 A, 4 Pole, 35 KA, MCCB, rotary handle with adjustable overload & Short circuit release - 01 Nos.						
		(ii) 1 set of 3 phase indicator lamp with voltmeter 0-500V 2 selector switch & protection fuse= 1 set						
		(iii) 200 A AL TPN busbar= 1 No.						
		2. Out going						
		(i) 63 A, 4 Pole, 25 KA MCCB, rotary handle with adjustable overload & Short circuit release - 06 Nos.	4	Each	80000.00		80000.00	320000
3	NS	Sub panels as above with following incoming/out goings: LDB-1 to LDB-4						
		1. Incoming						
		(i) 125 A, 4 Pole, 35 KA, MCCB, rotary handle with adjustable overload & Short circuit release - 01 No.						

		(ii) 1 set of 3 phase indicator lamp with voltmeter 0-500V 2 selector switch & protection fuse= 1 set						
		(iii) 150 AAL TPN bus bar= 1 set						
		2. Out going						
		(i) 63 A, 4 Pole, 25 KA MCCB, rotary handle with adjustable overload & Short circuit release - 07 Nos.						
		(ii) 32 A MCB DP (for campus light)= 1 No.	4	Each	75000.00		75000.00	300000
4	NS	Supply of following luminaries comprising of basic channel, holder, Instant start, flicker free electronic operation, Easy to fit snap on adjustable installer, compatible with energy saving tube light as per specification, including connecting wires, clamps screws fixing arrangement etc.						
	(a)	T5,28 W Philips TCH 128/2005/865 light fitting including 28 W, t5 tube fixture (Rooms, Mess, Common rooms etc.	428	Each	850.00		850.00	363800
	(b)	T5 2x28 W Philips light fitting including 2 Nos. 28 W, t5 tube fixture (Mess, Common rooms etc.	100	Each	2500.00		2500.00	250000
	(b)	TCH 114/2005/865 light fitting i/c T5 14 W tube rod fixture (corridors, bathrooms etc.)	500	Each	675.00		675.00	337500
	(c)	250 W 1 X SON/SON – T 250 Philips with lamps 250 W for security light. SRP 202/250	27	Each	7500.00		7500.00	202500
	(d)	Ceiling light decorative fitting Deco Twist Lux BCS 1902 Philips make along with 25W CFL Lamp compete as required.	352	Each	825.00		825.00	290400
	(e)	2 x 36 watt mirror optical CFL surface mounted square type fitting 2'-2' size complete with copper wound choke and @ 36 watt CFL lamps. The fitting should be Bajaj make BLWS 236 CFLP-5 or equivalent Philips/ winpro make.	8	Each	5000.00		5000.00	40000
5	NS	Supplying ceiling fan 1200 mm sweep, double ball bearing with mechanical regulator including all accessories, wiring, down rod of standard length etc. complete as required.	367	Each	1800.00		1800.00	660600
6	NS	Supplying ceiling fan 1400 mm sweep, double ball bearing with mechanical regulator including all accessories, wiring, down rod of standard length etc. complete as required.	143	Each	2100.00		2100.00	300300
7	NS	Supplying exhaust fan 300 mm sweep, heavy duty including louvers/ shutters all accessories wiring etc. complete as required.	9	Each	2500.00		2500.00	22500
8	NS (a)	Supplying exhaust fan 450 mm sweep, 900 rpm heavy duty including louvers/ shutters all accessories wiring etc. complete as required.	40	Each	3200.00		3200.00	128000
	(b)	Supply and laying of telephone wire PVC copper 2 pair 0.5 sq.mm. in existing MS conduit including cost of petty material required to draw the wire and making connections.	200	Meter	15.00		15.00	3000

(c)	Supply and erection of 75 mm x 75 mm x 60 mm deep MS box flushed in wall for TV socket including S/E of TV socket and bakelite sheets 3 mm thick and other petty material.	3	Each	200.00		200.00	600
(d)	S/E of wall fan 16" size oscillating type with built in regulator to be fixed on wall with screws etc. and making connections with cost of wire etc.	1	Each	3500.00		3500.00	3500
(e)	S/E of computer outlet with RJ-45 modular type with box, cover plate recessed in wall	5	Each	250.00		250.00	1250
(f)	Supply and laying of Cat-6 computer cable in existing conduit pipe including termination	200	Meter	25.00		25.00	5000
(g)	Supply and laying of TV co-axial wire RS-11 in existing conduct pipe including making connections	100	Meter	15.00		15.00	1500
(h)	Supply and making of masonry chamber of size 450 mm x 450 mm made of 9" thick brick masonry walls dully plastered from inside. The frame of haudi should be 40 x 40 x 5 mm angle iron and cover of 35 x 35 x 5 mm angle with RCC and top surface matching to floor surface. The job includes cost of all above said material including excavation pit for land.	7	Each	3000.00		3000.00	21000
	TOTAL NON SCHEDULED ITEMS:						3501450
	Total (SCHEDULE ITEMS)						3838170
	Total (NON SCHEDULED ITEMS)						3501450
	Total						7339620
	Add 30% on (HSR+CP)						1151451
	Total EI						8491071
	Total Civil						141966995
	Total PH						6007736
	Grand Total						156465801
	Less Rebate 1.5% on BOQ						2346987
	Net Value						154118814
	Say Rs. in Crore.						15.42

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

Item No: 10.12 To consider and approve the cost estimate for providing & fixing of Wash Basin & Looking Glass alongwith necessary accessories in G-Type Houses at NIT Kurukshetra.

The B&WC in it's 9th meeting held on 17.03.08 vide item No 9.7 approved an estimated cost of Rs. 6.00 Lacs for providing & fixing Wash Basin & Looking Glass alongwith necessary accessories in G-Type houses at NIT, Kurukshetra. Due to minor additions & alterations in the execution of the works which were not included earlier in the preliminary estimate, the actual cost was incurred Rs.7.03 Lacs after obtaining the approval of the Chairman B&WC in anticipation to the approval of B&WC.

It is therefore, requested that B&WC may consider & accord approval amounting to Rs.7.03 Lacs for the above mentioned work.

Revised Cost Estimate for Providing & fixing of Wash Basin & Looking Glass alongwith necessary accessories in G-type houses at NIT Kurukshetra

Sr. No.	HSR	Description of Items	Qty.	UOM	Rate	Unit	Amount
1	30.84 (b)	P/F in position HCI soil, waste, vent pipes to ISI specification or any other reputed firm including cutting & wastage etc. & cutting holes in walls, roofs or floor etc. and making good the floor & wall but excluding cost of lead jointing.					
		(b) For 75mm i/d pipes.	158.50	Nos	850.00	Per Mtr.	134,725.00
2	30.91 (b) (xviii)	P/F in position HCI specials for soil waste vent pipes to ISI specification including cutting holes in walls & making good but excluding cost of lead joints					
		(b) For 75mm internal diameter pipes (xviii) Collars	60.00	Nos	240.00	Each	14,400.00
3	30.87 (b)	Providing Lead Caulked Joints to H.C.I. Pipes and special conforming to I.S.I. specification of E.L.C. manufacture or any other reputed firm, i/c cost of lead varn. fuel and tools etc.					
		(b) 75mm internal diameter (0.91 kg)	177.00	Nos	285.00	Each.	50,445.00
4	30.89 (b)	Providing & fixing H.C.I. Floor Traps I.S.I. Marked of the self cleaning design with C.P. Brass Hinged grating with frame with or without vent arm and i/c cement concrete 1:2:4 under and around the floor trap where required upto floor level Complete in all respect i/c cutting & making good the walls and floors etc.; minimum depth of water should be 150mm with a minlmm seal of 50mm					
		(b) With 75mm i/d outlet.	60.00	Nos	625.00	Each	37,500.00
5	28.18	Providing, laying, jointing, fixing & testing G.I. pipe line and specials such as Tee, elbow, bends, sockets etc. inside the building and testing etc. complete i/c cutting & threading					
		(b) including cost of specials 15mm i/d	362.66		245.00	Per Mtr.	88,852.00
		40mm i/d	64.29		620.00	Per Mtr.	39,860.00
6	28.21	Extra for providing, fixing & jointing union couplings to G.I. pipe lines including cost of union complete					
		15mm i/d	90.00	Nos	70.00	Each.	6,300.00
7	30.41	Providing & fixing in position best Indian make (Ordinary) Lavatory Suites consisting of Lavatory in Vitreous Chinaware size as given below (to the approval of the Engineer-in-charge) including china plug for tap hole where necessary; R.S. or C.I. Brackets for building into wall including painting; 32mm C.P. Brass Waste with C.P. brass chain and rubber plug; 15mm C.P. Brass Screw Down Pillar Tap with jam nuts or coupling best design (as approved by the Engineer-in-charge) All Fitting Best Indian Make and; to the approval of the Engineer-in-charge. All Brass work chromium plated and Complete in all respect i/c cutting & making good the walls floors and painting of fittings etc. WHITE					
		(i) Size 450mmx300mm with one no. tap	30.00	Nos	1750.00	Each	52,500.00
		(iii) Size 510mmx400mm with one no. tap	36.00	Nos	1875.00	Each.	67,500.00
		Not fixed without labour rate 1875- (48 x 120) - 1707.00	24.00	Nos	1707.00	Each.	40,968.00

8	30.68 [c]	Providing & fixing in position best Indian make Towel Rails fixed in with rawl plugs embedded in walls with C.P. Brass screws. Complete in all respect i/c cutting & making good the walls etc.					
		[c] 25mm Dia Aluminium 600mm long	66.00	Nos	390.00	Each	25,740.00
		Not fixed in position without labour rate 390- (1.95*250+1.95)=383.17	24.00	Nos	383.17	Each	9,196.00
9	30.69 (b)	Providing & fixing in position Glass Shelf fixed in with Rawl Plugs with C.P. Brass screws complete i/c cutting & making goods the walls etc.					
		(b) With Aluminium Brackets and Guard Rail 600mmx125mm	66.00	Nos	380.00	Each.	25,080.00
		Not fixed in position without labour rate 380- (2.05*250+2.05)=372.82	24.00	Nos	372.82	Each.	8,948.00
10	30.71 (a)(i)	Providing & fixing in position best Indian make Bevelled Edge 5.5mm thick Mirror mounted on Asbestos sheet Ground fixed in position by means of 4nos. Chromium Plated Brass Screws and Washers over rubber washers and rawl plug embedded in the wall or chromium plated brass clamps with C.P. Brass screws (as required by the Engineer-in-charge) Complete i/c cutting & making good the walls etc.					
		(a) Indian Make (i) 600mmx450mm	66.00	Nos	745.00	Each	49,170.00
		Not fixed in position without labour rate 745- (17.50*250+17.50)=683.75	24.00	Nos	683.75	Each	16,410.00
11	30.76 (a)(i)	Providing and fixing in position C.P. Brass stop cocks (as approved by the Engineer-in charge)					
		(a) 15mm stop cock (i) Stop cock male and female end	90.00	Nos	480.00	Each	43,200.00
12	NS	Providing & fixing of PVC connection 15mmx450mm of good quality	90.00	Nos	60.00	Each	5,400.00
13	NS	Providing & fixing of PVC waste pipe 32mm of good quality	90.00	Nos	60.00	Each	5,400.00
		Total				Rs.	721,594.00
		Less Rebate of 2.5%				Rs.	18,040.00
		Total				Rs.	703,554.00

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

Item No: 10.13 To consider & approve the Revised Cost Estimate for providing & installation of 2 Nos. Tubewells in NIT, Kurukshetra.

The B&WC in its 9th meeting held on 17.03.08 vide item No.9.8 approved an estimated cost of Rs.19.75 Lacs for the installation of 2 Nos. Tubewells in NIT Kurukshetra. The Existing Tubewells in the Institute are inadequate to cater the need of water for the existing Boys Hostels & New PG Hostel at NIT, Kurukshetra.

Tenders were invited for the said work & the work could be allotted at the revised premium of Rs.30.16 Lacs to the lowest tenderer after obtaining the approval of the Chairman, B&WC in anticipation to the approval of the B&WC. While allotting the tender some items remained to be included in the tender. After including these items, the Revised Cost Estimate has been framed Rs. 35.50 Lacs.

It is therefore requested that the B&WC may consider & accord the approval for the Revised Cost Estimate of Rs.30.16 Lacs for the above work.

Revised Cost Estimate for Installation of 2 Nos. Tubewells & construction of Chambers of size (14' x 16') at National Institute of Technology, Kurukshetra

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs.	15.00	100 Cum	1108.10	350%	4986.45	747.97
2	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth)						
		For Foundation	7.50	Cum	403.10	370%	1894.57	14209.28
3	10.82 + 10.95 (a)	Cement concrete 1:1:5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.	3.00	Cum	1084.80	370%	5098.56	15295.68
4	10.89 + 10.95 (a)	Cement concrete 1:1:5:3 with stone aggregate 20mm nominal size for reinforced concrete work in fascias, parapet and other thin vertical sections, not covered by items nos. 10.82, 10.86-10.88 not exceeding 10 cm excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.	1.50	Cum	1622.05	370%	7623.64	11435.45
5	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	7.00	Sqm	35.05	370%	164.74	1153.15
6	11.3	First class brickwork laid in cement sand mortar 1:5 in foundation and plinth.	7.00	Cum	407.60	350%	1834.20	12839.40
7	11.8	First class brickwork laid in cement sand mortar 1:5 in first storey upto 4 meter above plinth level.	7.00	Cum	428.60	350%	1928.70	13500.90
8	13.13	Terracing consisting of tile 22.86cm X 11.43cm X 3.81cm laid over 87.50 m mud filling on a layer of 25mm mud plaster and an other layer of mud motor for laying , the tiles including two coats of bitumen laid hot at 1.65 kg per sqm on top of RCC slab including grouting with cement sand mortar 1:3 and top surface to be left cleanetc.	30.00	Sqm	52.95	350%	238.28	7148.25
9	13.45	Providing and fixing cast iron rain water non pressure pipe ISI mark with ears with screw and wooden plugs fixed on Well face including filling joints with spun yarn and cement Mortar 1:2 excluding head and shoe etc. a) 100mm i/d pipe	6.00	mtrs.	88.25	350%	397.125	2382.75
10	13.47	Providing and fixing cast iron head for rain water pipe on wooden plugs fixed on wall face including filling the joints with spun yarn and cement plaster 1:2 .	1.00	Each	36.55	350%	164.475	164.48
11	13.48	Providing and fixing cast iron shoe for 100mm dia rain water pipe on wooden plugs fixed on wall face including filling the joints with spun yarn and cement mortar 1:2 .	2.00	Each	31.05	350%	139.725	279.45
12	13.50	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	2.00	Each	12.30	200%	36.90	73.80

13	13.57	Bottom Khurra on ground 1.2m x 0.6m consisting of brick-on-edge laid in cement mortar 1:3 over 75 mm cement concrete 1:8:16 including 12mm thick cement plaster 1:3.	2.00	each	64.30	200%	192.90	385.80
14	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	22.00	Sqm.	36.95	370%	173.67	3820.63
15	14.17	40mm thick grey polished flooring cement concrete 1:2:4 topping finished with 1mm thick neat coat of cement rubbed and polished	22.00	Sqm.	53.10	370%	249.57	5490.54
16	14.18	18mm thick grey polished skirting or dado consting of bottom layer of 15mm thick cement sand plaster 1:3 and finishing with thick topping of neat cement rubbed and polished including rounding off junction with floors	22.00	Sqm.	46.30	370%	217.61	4787.42
17	15.5	12mm thick cement plaster 1:4	90.00	Sqm	12.70	325%	53.98	4857.75
18	15.51	10 mm thick cement plaster 1:3	22.00	Sqm	14.55	325%	61.84	1360.43
19	15.60	Cement pointing 1:2 deep variety on brick and tile work	60.00	Sqm	9.90	325%	42.08	2524.50
20	16.2	Applying pink primer or aluminium priming coat of wood work cluding preparation of surface knotting and stopping etc. (with second quality paint)	60.00	Sqm	3.60	125%	8.10	486.00
21	16.4	Painting two coats excluding priming coat with ready mixed paint in all shades on new wood work /(with second quality paint)	30.00	Sqm	6.05	125%	13.61	408.38
22	16.48	White washing three coats	90.00	Sqm	1.25	125%	2.81	253.13
23	16.50	Colour washing two coats	60.00	Sqm	0.90	125%	2.03	121.50
24	16.54	Distempering with dry distemper (of approved manufacture) two coats over one priming coat on new work	90.00	Sqm	6.90	125%	15.53	1397.25
25	16.61	Finishing walls with exterior decorative cement based paints such as snowcem robbiacem etc. on new work two coats to give an even shade	60.00	Sqm	7.25	125%	16.31	978.75
26	18.1	Steel work, fixed independently without connecting plates,including cutting, hoisting and fixing in position in :- (a) RS joints.	3.75	Qtl.	1011.45	325%	4298.66	16119.98
27	18.34 ©	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-						
	(c)	Size 127mm x 50mm x 40mm wide dobule rebate	30.00	Mtr.	76.80	325%	326.40	9792.00
28	18.22	Cold twisted deformed (ribbed/tor steel) bars for RCC works where not included in the complete Rate of RCC including bending binding and Placing in position complete	7.50	Qtl.	917.05	325%	3897.46	29230.97
29	18.38	Providing and fixing fan hooks 80cm long of required shape and size . a) 16mm dia	1.00	Each	13.40	325%	56.95	56.95
		Total Amount						161302.51
		Add 44% Premium on item no.1 to 25						46685.15
		Add 62% Premium on item no.26 to 29						34223.94
		Amount of 1 No. Tubewell						242211.60
		Total Amount of 2 No. Tubewell						484423.20

Sr. No.	HSR No.	Description of Item	Qty.	Unit			Rate (in Rs.)	Amount (in Rs.)
		Schedule-II						
		SUB HEAD NO. 1					PUMPING MACHINERY	
1		Supplying and fixing submersible pumping set ISI marked of approved KSB make with 1400 LPM discharge with 67 M head 5 stage 35HP (motor HBC/333 & Pump BPHA/333/5) with suitable capacity with complete submersible finolex flat cable 10mm ² 3 core plain copper double length for lowering of pumping sets with M. S. clamp 4" i/d.	1	Set			95000.00	95000.00
2		Supplying and welding MS flange with GI pipe 100mm & lowering the same in T/W including cost of rubber insertion Nut bolts rate completed Av. Length 3 mtrs. with M. S. flanged welded both sides with rubber insertion and nuts and bolts complete including lowering of pipe. Make : Jindal Hisar, Jai Parkash, TATA of B Class	15	Each			4400.00	66000.00
3		Supplying and erection of D/F sluice valves ISI marked. (i) 100mm i/d	3	Each			5400.00	16200.00
4		Supplying and erection of reflex valve ISI marked. (i) 100mm i/d	1	Each			5450.00	5450.00
5		Prov. and fixing C. I. specials such as flanged tapper / D.F. bend / D.F. tees , tail paics plain etc. including nuts and bolts and rubber insertion complete fixed in position.	200	Per Kg.			92.00	18400.00
		SUB HEAD NO.1 TOTAL						201050.00
		SUB HEAD NO. 2					PANEL	
1		Supply installation testing commessning of 35HP 415V, 50HZ ston delta starter comarisng of following:	1	Each			53000.00	53000.00
	(i)	16 gauge M.S. Sheet, powder coating dust proof panel	1	No.				
	(ii)	MCCB 100A, 415V, 4 Pole, 25KA (L&T/ABB/SIEMENS)	1	No.				
	(iii)	ML-3 contactor for ston delta operation (Ston Delta & main mode) L&T/BCH make coil voltage 415V	3	Nos.				
	(iv)	Singlr phasing prenentier minilec make	1	No.				
	(v)	24 Hrs. programmable timer GIC	1	No.				
	(vi)	Overload relay 22-32A L&T/BCH	1	No.				
	(vii)	Control supply fuses						
	(viii)	Voltmeter with selector switch (RY-YB-BR)	1	Set				
	(ix)	Ameter, CT's & selector switch (R-Y-B)	1	Set				
	(x)	RYB supply indication lamps						
	(xi)	Starter ON/OFF indication lamps						
	(xii)	Auto manual selecter switch with manully operation (ON/OFF) of starter						
	(xiii)	ON/OFF puch buttons & overload reset push button	1	Set				
	(xiv)	All internal copper wiring						
	(xv)	02 Nos G.I. pipe earting with connections including all material						
		SUB HEAD NO.2 TOTAL						53000.00
		SUB HEAD NO. 3		Drillin				

1		Drilling of 685.8mm dia bore by hydraulic rotary drilling (reverse circulation method) according to ISI specification No. 2800-1991 (Part-I) as amended upto date and modified to extent of the specification attached with this schedule of items of work in all kinds of soils and boulders upto 125mm dia except rocky strata including the cost of all consumable Stores, fuel, oil, soil stabilizing material and transportation of rig and other accessories to the size of proposed bore and back (including cost of lowering of all sizes of casing pipe while boring and extracting the same against earth frictions etc.) complete to the satisfaction of the Engineer-in-Charge						
		0 to 15 mtrs. Bore hole	1x15 mtrs.	15 mtrs.				
		15 to 30 mtrs. Bore hole	1x15 mtrs.	15 mtrs.				
		30 to 45 mtrs. Bore hole	1x15 mtrs.	15 mtrs.				
		45 to 60 mtrs. Bore hole	1x15 mtrs.	15 mtrs.				
		60 to 75 mtrs. Bore hole	1x15 mtrs.	15 mtrs.				
		75 to 90 mtrs. Bore hole	1x15 mtrs.	15 mtrs.				
		90 to 105 mtrs. Bore hole	1x15 mtrs.	15 mtrs.				
		105 to 120 mtrs. bore holes	1x15 mtrs.	15 mtrs.				
		120 to 135 mtrs. bore holes	1x15 mtrs.	15 mtrs.				
		135 to 150 mtrs. bore holes	1x15 mtrs.	15 mtrs.				
		150 to 165 mtrs. bore holes	1x15 mtrs.	15 mtrs.				
		165 to 180 mtrs. bore holes	1x15 mtrs.	15 mtrs.				
		1 x 180mtr.	180	Per mtr.			960.00	172800.00
2-		Supplying and lowering 273.00 mm (10" inch) outer dia ERW steel pipes as per IS 4270/1992 as amended upto date, duly ISI marked for housing pipe in 4 to 7 mtrs. Random length with 88.90 mm of threaded ends (8 threads to an inch or 25.40mm) manufactured out of 8mm thick M.S. Plates with required number of M.S. socket 177.80mm with inside thread to match the pipe threads and made out of M.S. Plate into borehole in vertical position including cost of all scaffolding, derricks, Jim, poles, tools and plants, ropes, gags M.S. clamp embedded in foundation etc. complete in all respect to the satisfaction of the Engineer-in-Charge of the work including, cost of all cutting, threading of pipe welding where required and all sockets.						
		1 X 100 mtrs.	100	Per mtr.			4800.00	480000.00
3-		Supplying and lowering 219.10 mm outer dia ERW steel pipes as per IS 4270/1992 as amended upto date, duly ISI marked for housing pipe in 4 to 7 metres random length with 88.90 mm of threaded ends (8 threads to an inch or 25.40 mm) manufactured out of 6.40 mm thick M.S. Plates with required number of M.S. socket 177.80 mm with inside thread to match the pipe threads and made out of M.S. Plate into borehole in vertical position including cost of all scaffolding, derricks, Jim, poles, tools and plants ropes, gags M.S. clamps embedded in foundation etc. complete in all respects to the satisfaction of the Engineer-in-charge of the work including cost of all cutting threading of pipe welding where required and all sockets.						
		1 X 25 mtrs.	25	Per mtr.			4050.00	101250.00
4-		Lowering 200mm i/d all welded low carbon galvanized steel pipe as per satisfaction of the Engineer-in-charge						
		1 X 20 mtrs.	20	Per mtr.			5200.00	104000.00

5-		Supplying, fixing and lowering reducing socket as per IS : 226/1975 as amended upto date 273.10 mm Outer dia, into 219.10 mm outer dia with 8 threads per inch or 25.40 mm, to be made out of M.S. plate with interior threads to be suitable for jointing 273.10 mm outer dia pipe and 219.10 mm outer dia ERW pipe as per item no. 2 & 3 above or by cement grouting.						
		1 X 1 No.	1	Each			4100.00	4100.00
6-		Providing and fixing in position suitable end plug hook of 219.10 mm as per IS 226/1975 as amended upto date, including the cost of M.S. screwed socket etc. complete in all respects, to the entire satisfaction of the Engineer-in-charge of the work.						
		1 X 1 No.	1	Each			1300.00	1300.00
7-		Supplying and packing graded gravel of size as per ISI 4097/1988, as amended upto date and specification attached with this schedule of item of work,. The gravel should be free from dust, dirt or vegetable matters. Packing to be done from the housing pipe to the bottom of liner all around in the bore and will be placed after liner and housing pipes have been lowered and suitably clamped, thickness and size of the gravel packing will be as directed by the Engineer-in-charge strictly as per relevant ISI						
		1 X 60 cum	60	cum			1000.00	60000.00
8-		Supplying and fixing well threaded M.S. cap. For 273.00 mm outer dia M.S. pipe as per ISI 226 / 1975 as amended upto date to the satisfaction of the Engineer-in-charge.						
		1 X 1 No.	1	1 No.			1100.00	1100.00
9-		Supplying as per IS : 226/1975 as amended upto date deodar wooden box made of 20 mm thick wood size 60mm x 30cm x 75 cm with lid and locking arrangement etc. for preserving the strata samples received from the bore as and when desired by the Engineer-in-charge.						
		1 X 1 No.	1	Each			1100.00	1100.00
10-		Supplying and fixing 273.00mm (10" inch) M.S. clamp as per 226/1975 as amended upto date for supporting on two girders not less than 100mm x 150mm and two meters long each embedded in suitable foundation as approved by the Engineer-in-charge						
		1 X 1 No.	1	Each			2750.00	2750.00
11-		Development of tubewell according to clause 9.3 of IS : 2800-1991 (part-I) as amended upto date and specification attached and as directed by the Engineer-in-charge of the work including the cost of all consumable stores, fuel, oil compressors, pumps and machinery etc. as required for this work.						
		1 job	1	Each			97000.00	97000.00
12		Providing and stringing S & S centrifugally cast (spun) iron pipes (Class LA) with CI specials, bends, tees, required fittings, lead and yarn etc complete in trenches to the approval of Engineer-in-charge. 150mm dia pipe	20	Mtr.			2900.00	58000.00
13		Supply & erection of chlorine Dosing system includes the supply erection, commissioning & testing of chlorine dosing pump and one no.300 liter capacity ISI marked HDPE storage tank of sintex or other reputed and approved make.	2	Set			12400.00	24800.00

14		Supplying and fixing ISI marked C.I. sluice valve complete with bolts,nuts, rubber insertions etc. (the tail pices if required will be paid separately) double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 150mm dia meter	4	Each	8198		8198.00	32792.00
		200mm dia meter	4	Each	11366		11366.00	45464.00
15		Supplying and fixing ISI marked C.I. Reflex valve complete with bolts,nuts, rubber insertions etc. (the tail pices if required will be paid separately) double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 150mm dia meter	1	Each	7702		7702.00	7702.00
		Sub Head No.1 Total						201050.00
		Sub Head No.2 Total						53000.00
		Sub Head No.3 Total						1194158.00
		Total						1448208.00
		Amount for One No. Tubewell						1448208.00
		Amount for Two Nos. Tubewell						2896416.00
		Add Two Nos. Chambers of Size 14'x16'						484423.20
		Total						3380839.20
		Add 5% Contigencies Charges						169041.96
		Grand Total						3549881.16
		Say Rs. In Lacs						35.50

Executive Engineer,
Construction Cell,
NIT, Kurukshetra

Item No: 10.14 To consider and approve the Revised Cost Estimate for the construction of 350 Seaters Boys Hostel at N.I.T, Kurukshetra

The B&WC in its 9th meeting held on 17.03.2008 vide item no.9.14 approved the Revised Cost Estimate of Rs.12.50 Crores for the construction of 350 Seaters Boys Hostel.

During the execution of the above work, the following additional works were essentially required to be carried out as the part and partial of this work:

- (i). Providing & Installation of external Public Health work (water supply & sewerage system) to connect with the existing water supply and sewerage line.
- (ii). Providing & Installation of Campus lighting in and around of 350 Seaters Boys Hostel and along the roads.
- (iii). Construction of One Room Size 14'x12' for Housing Transformer and CT/PT Energy Meter Box with ACC Seating Instead of RCC Slab.
- (iv). Providing & Installation of 11KV Sub-Station for 350 Seaters Boys Hostel.
- (v). Construction of Boundary Wall and Gate on the back side of kitchen Court Yard.
- (vi). Construction of Boundary Wall and Cycle Stand for Students in 350 Seaters Boys Hostel.

The works mentioned at serial No.(i) to (iv) have already been completed and the works mentioned at serial No.(v) and (vi) are in process after obtaining the approval of the Chairman B&WC in anticipation to the approval of B&WC. These additional works are estimated to be executed within the approved Revised Cost Estimate worth Rs.12.50 Crores already approved by the B&WC in its 9th meeting held on 17.03.2008.

It is therefore requested that the B&WC may consider and accord approval for the above additional works.

**Revised Cost Estimate for Providing & Installation of external Public Health work (Water Supply & Sewerage system) for
350 seaters Boys Hostel at NIT, Kurukshetra**

Sr. No.	HSR Item	Description of Items	Qty.	Unit	Rate	C.P	Total Rate	Amount
1	6.8 (a)	Excavation for pipelines running under pressure in trenches and pits, in open areas, where disposal of surplus earth is done alongwith the alignment including trimming & dressing side, leveling of beds of trenches to correct grade, cutting joint holes, cutting trees and bushes, etc., refilling consolidation and watering of refill, in 15 cm layers and restoration of unmetalled or unpaved surface to its original condition, including the cost of dewatering of rain water, diversion of traffic, night signals, fixing caution boards, watching, fencing etc., and outside the town in ordinary soil:- (a) Without timbering and shoring upto 1.5 metres depth	2245.67	Per 100 Cum	1030.00	300%	4120.00	92,522.00
2	NS-10	Providing and stringing S & S centrifugally cast (spun) iron pipes (Class LA) with CI specials, bends, tees, required fittings, lead and yarn etc complete in trenches to the approval of Engineer-in-charge.						
		150 mm dia Pipes	1177.20	Per Mtr.	2100		2100.00	2,472,120.00
		100 mm dia Pipes	482.11	Per Mtr.	1450		1450.00	699,060.00
		80 mm dia Pipes	246.36	Per Mtr.	1270		1270.00	312,877.00
3	NS-11	Supplying and fixing ISI marked C.I. sluice valve(with cap) complete with bolts,nuts, rubber insertions etc. (the tail pices if required will be paid separately) double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge.						
		100 mm dia Pipes	5	Each	4100		4100.00	20,500.00
		150 mm dia Pipes	8	Each	7200		7200.00	57,600.00
		80 mm dia Pipes	6	Each	3100		3100.00	18,600.00
4	NS-12	Supplying and fixing ISI marked C.I. Scouring valve (with cap) complete with bolts,nuts, rubber insertions etc. (the tail pices if required will be paid separately) double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge.	4	Each	7400		7400.00	29,600.00
5	6.10	EXCAVATION OF TRENCHES IN STREETS, LANES OR IN OPEN AREAS FOR STORM SEWER, SWERS RUNNING BY GRAVITY AND MANHOLES. TO FULL DEPTHS AS SHOWN IN DRAWINGS INCLUDING SHORING, TIMBERING OF POOLING BOARDS, FRAME SYSTEM TYPE, dressing to correct sections and dimensions, according to templates and levels, dewatering, provision for diversion of traffic, cutting trees and bushes, etc. night signals, prefiles, pegs, sight rails, boning rods, crossing over trenches for access to the houses, watching, fencing, etc., fixing and maintenance of caution boards, refilling of trenches, watering of refill, in 15 cm layers, ramming and restoration of unmetalled or unpaved surface to original condition AND REMOVAL OF SURPLUS SOIL, FROM SUE OF WORK, UPTO A LEAD OF 1 KM IN ORDINARY SOIL. (a) For depth of excavation not exceeding 3 mts. below ground level	1351.84	Per 100 Cum	1919	300%	7676.00	103,767.00
		(b) For depth of excavation exceeding 3 mts., but not exceeding 4.50 mtrs	1650.57	Per 100 Cum	2114	300%	8456.00	139,572.00
6	10.32 + Note V e (2)	Cement Concrete 1:6:12 with stone aggregate 40 mm nominal size in foundation and plinth below 1.5 mtr. Depth	99.21	Per Cum	350.80	370%	1648.76	163,573.00
7	NS-4	Providing, laying, jointing glazed stoneware pipes grade A with stiff mixture of cement mortar in the proportion of 1:1 (1 cement, 1 fine sand) including testing of joints etc. complete.	359.37	Per Mtr.	910		910.00	327,027.00
		300mm dia pipes						
		200mm dia pipes	154.05	Per Mtr.	340		340.00	52,377.00
		150mm dia pipes	40.93	Per Mtr.	195		195.00	7,981.00
8	NS-6	Construction brick masonry manhole in cement mortar 1:4 (1cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1cement:2coarse sand: 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8mix (1cement:4coarse sand :8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1cement :3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1cement : 2coarse sand :4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design.					0.00	
	B	Inside Size 150x90cm including SFRC Cover with frame (Heavy duty) 580mm internal diameter						
	II	300 mm dia sewers						
	c	for 3.00 mtr depth below GL	3	Each	21600		21600.00	64,800.00
	d	for 3.40 mtr depth below GL	5	Each	22400		22400.00	112,000.00

	A	Inside Size 120x90cm including SFRC Cover with frame (Heavy duty) 580mm internal diameter					
	I	150 mm dia sewers					
	d	for 2.10 mtr depth below GL	3	Each	15900	15900.00	47,700.00
	II	200 mm dia sewers					
	b	for 2.10 mtr depth below GL	3	Each	15900	15900.00	47,700.00
	c	for 2.40 mtr depth below GL	3	Each	18700	18700.00	56,100.00
9	N.S. 8	PCC Ventilating shaft, 20 M high with PCC 1:2:4 foundation and fitted with cowls etc., complete as required to the satisfaction of EIC.	2	Each	65000	65000.00	130,000.00
10	N.S. 5	Providing and stringing S & S centrifugally cast (spun) iron pipes (Class LA) with required fittings complete in trenches to the approval of Engineer-in-charge. 200mm dia pipe	18.02	Per Mtr.	2870	2870.00	51,717.00
11	N.S. 13	Supplying and fixing ISI marked C.I. fire hydrant (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 80mm dia meter	6	Each	3250	3250.00	19,500.00
12	N.S. 14	Const. of sluice valve haudi 1m x 1m x 1m with brick work 1:5 cement sand mortar finished with 12.5mm cement plaster 1:4 including RCC 1:2:4 slab with reinforcement, surface box complete in all respect to the approval of Engineer-in-charge.	31	Each	13500	13500.00	418,500.00
13	N.S. 7	Providing M.S. foot rests including fixing in manholes with 20x20x10cm cement concrete blocks 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size) as per standard design : With 20x20mm square bar	176	Each	270	270.00	47,520.00
14	11.3	First class brickwork laid in cement sand mortar 1:5 in foundation and plinth.	18.40	Per Cum	407.60	350%	1834.20
15	15.5 + 15.75	12mm thick cement plaster 1:4 on wall Cement rendering on plaster 1mm thick	33.86	Per Sqm	16.95	325%	72.04
16	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth	0.73	Per Cum	615.60	370%	2893.32
17	11.4 + note (vi) (b)	First class brickwork laid in cement sand mortar 1:4 in foundation and plinth.	2.33	Per Cum	432.85	350%	1947.83
18	15.4 + 15.75	12mm thick cement plaster 1:3 on wall Cement rendering on plaster 1mm thick	5.23	Per Sqm	19.25	325%	81.81
19	N.S. 1	Providing & fixing 100mm i/d T.P. F/S	14	Each	1807	1807.00	25,298.00
20	N.S. 2	Providing & fixing 150mm i/d T.P. F/S	22	Each	2881	2881.00	63,382.00
21	N.S. 3	Providing & fixing 80mm i/d T.P. F/S	33	Each	1462	1462.00	48,246.00
22	N.S. 4	Providing & fixing 300mm i/d C.I. Pipe (L.A.)	6	Per Mtr.	6087	6087.00	36,522.00
23	N.S. 5	Providing & fixing C.I. Reducer 200x150mm i/d D/S	1	Each	6073	6073.00	6,073.00
24	N.S. 6	Providing & fixing 150mm i/d C.I.D. Joint	6	Each	699	699.00	4,194.00
25	N.S. 7	Providing & fixing C.I.D./S 80mm i/d Bend 90	6	Each	2268	2268.00	13,608.00
26	N.S. 8	Providing & fixing P.V.C. Pipe 200mm i/d	3.66	Per Mtr.	847	847.00	3,100.00
27	N.S. 9	Providing & fixing P.V.C. Pipe 150mm i/d	18.30	Per Mtr.	675	675.00	12,353.00
28	N.S. 10	Prov. 225mm drilling under the road	5	Each	5339	5339.00	26,695.00
29	N.S. 11	Prov. 175mm drilling under the road	5	Each	4755	4755.00	23,775.00
30	N.S. 12	Providing & fixing D/F 80mm i/d Bend 90	8	Each	1291	1291.00	10,328.00
31	N.S. 13	Providing & fixing 80mm i/d T.P.F/Sp.	7	Each	1101	1101.00	7,707.00
32	N.S. 14	Providing & fixing Flange 80mm i/d	8	Each	1145	1145.00	9,160.00
33	N.S. 15	Providing & fixing 80mm i/d A/F Tee	10	Each	2081	2081.00	20,810.00
34	N.S. 16	Providing & fixing 100mm i/d A/F Tee	2	Each	2819	2819.00	5,638.00
35	N.S. 17	Providing & fixing 150 x 80mm i/d A/F Tee	2	Each	3936	3936.00	7,872.00
36	N.S. 18	Providing & fixing D/F 150x80mm i/d Reducer	4	Each	2269	2269.00	9,076.00
37	N.S. 19	Providing & fixing Blank Flange 100mm i/d	1	Each	730	730.00	730.00
38	N.S. 20	Making Sewer Connection in existing man hole 300 mm i/d Sewer Line	2	Each	2163	2163.00	4,326.00
		Total					6,040,773.00
		Add 15% Premium on (HSR + CP)					81,405.00
		Total					6,122,178.00
		Less 14 % rebate					722,285.00
		Grand Total					5,399,893.00

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

	(i)	7m long single bracket pole duly embedded 1.25m below ground level conforming to 410-SP-2 of IS:2713 (part-II) 1980, extending the top section by 1.25m and smoothly curved making an angle of 10 to 15 degree with the horizontal plane, bracket fitted with suitable size of mild steel nipple (minimum 10cm in the bracket) to hold the fitting.	95.00	Each	1295.00	200%	3885.00	36907
12	31.30 (V)	Supply and erection of weather proof MS box of size 20cm x 15cm x 10cm covered with 3mm thick MS sheet hinged cover housed in 1:2:4 cement concrete muff including suitable size of PVC pipe for incoming and outgoing cables, including the cost of 1 No. 16A 415V Kit Kat and 2 Nos. 63A 415V neutral links, fixed on hard wood board in the MS box including the cost of locking arrangement, painting and necessary connections etc.						
	(i)	Muff size 40cm dia 50cm high	95.00	Each	120.00	200%	360.00	3420
13	31.33	Supply and erection of Godrej Almirah type MS pedestal made of 50mmx50mmx6mm angle iron frame with 3mm thick MS sheet covering including shutters with suitable hinges and locking arrangement with Godrej type handle including round bars. The top covering should have downward overhang of 75mm on all sides of pedestal, having two sets of water proof ventilation holes of suitable size on the sides, at top and bottom, each set containing four Nos. holes to discharge the heat produced by the current. The shutters fixed with rubber gasket of superior quality and of suitable size to make it water proof.						
		The pedestal duly painted both inside and outside with two coats of approved paint and primary coat and its legs are embedded upto the entire depth in 1:2:4 cement concrete block, projected 75mm all around the pedestal and 200mm above the ground level including the cost of all labour and material required to complete the job in all respect upto the entire satisfaction of engineer-in-charge of work:						
	(ii)	MS pedestal of size 750mm wide, 1200mm high and 300mm deep and bottom totally open, duly embedded in cement concrete block of size 900mmx450mmx200mm above ground level duly plastered with 12mm thick 1:4 cement plaster, having a base of size 1050mmx600mmx250mm below ground level.	1	Each	1492.00	150%	3730.00	3730
		Total						8366
								7111
		Total of scheduled items						1,547,834.0
								665000.0
1.	NS 1 Agreement page 31	Supply, erection, testing and commissioning of 4x24W T-5 street light fitting suitable for T-5, 4x24W FTL 2' long Asian make Cat No. ABFFS43S00 complete with electronic ballast, lamp holder, acrylic cover and tube rods. The fitting is to be erected on existing 7mtr high pole	95.00	Each	7000.00			
2.	NS 2 Agreement page 31	Supply and laying of PVC copper wire single core unsheathed including making necessary connections (Havell's / polycab / finolex make).	1520.00	mtrs	14.00			21280.0

3.	NS 3 Agreement page 31	Supply, erection, testing and commissioning of electronic time switch suitable for 3 Phase system comprising of 1 No. timer clock with battery 1 No. ML-3 contactor of L&T / BCH make, bypass toggle switch, HRC fuse and complete wiring with PVC copper wire. The time switch sheet and enclosed in 16G sheet MS enclosure with front hinged cover. The time is to be fixed in existing pedestal with nut-bolts and making connections to Street lighting circuit with cost of PVC copper wire of required size.	1.00	Each	8000.00			8000.0
		Total						694,280.0
		Less Rebate of Rs.1,00,000.00						-100000.0
		Total of non-scheduled items						594,280.0
		Total of scheduled items						1,547,834.0
		Total						2,142,114.0

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

COST ESTIMATE OF CIVIL WORKS FOR CONSTRUCTION OF ONE ROOM OF SIZE 14'X12' FOR HOUSING TRANSFORMER AND CT/PT ENERGY METER BOX WITH ACC ROOF SEATING AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs.	8.03	100 Cum	1108.10	350%	4986.45	400.00
2	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth	3.89	Cum	403.10	370%	1894.57	7370.00
3	11.2	First class brick work laid in cement sand mortar 1:6 in foundation and plinth.	7.84	Cum	393.45	350%	1770.53	13882.00
4	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	3.06	Sqm	35.05	370%	164.74	504.00
5	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.	11.17	Cum	414.45	350%	1865.03	20832.00
6	18.22	Cold twisted deformed (ribbed/tor steel) bars for RCC works where not included in the complete rate of RCC including bending, binding and placing in position complete.	0.58	Qtl.	917.05	325%	3897.46	2261.00
7	10.86+10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders stairs, columns, (square or rectangular) battens and lintels etc. excluding steel reinforcement	0.44	Cum	1188.75	370%	5587.13	2458.00
8	13.19	Corrugated asbestos sheet roofing 7mm thick sheets fixed with G.I. hooks and bolts, limpet and bitumen washers complete, fixed in position, excluding the cost of purlins rafters and trusses	20.48	Sqm	77.10	200%	231.30	4738.00
9	18.34	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-	6.29	Mtr.	71.55	325%	304.09	1914.00
	(c)	Size 127mm x 50mm x 40mm wide double rebate	26.47	Mtr.	76.80	325%	326.40	8640.00

10	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	1.58	Qtl.	1040.35	325%	4421.49	6986.00
11	15.7	12mm thick cement plaster 1:6 on wall	53.86	Sqm	10.65	325%	45.26	2438.00
12	15.12	15mm thick cement plaster 1:6 on the rough side of singe or half brick	74.29	Sqm	13.10	325%	55.68	4136.00
13	14.1-10.26 Based derived	Sand filling under floor i/c laying consolidation, compaction & watering etc.	2.56	Cum	69.30	370%	325.71	834.00
14	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	25.74	Sqm.	36.95	370%	173.67	4470.00
15	14.3	Floating coat of 1.50mm thick neat cement laid in one operation to the topping	14.27	Sqm	3.70	370%	17.39	248.00
16	14.10	Conglomerate floor 50mm thick cement concrete topping 1:2:4	30.44	Sqm	37.60	370%	176.72	5380.00
17	10.46	Cement concrete 1:8:16 with stone aggregate 40 mm nominal size	2.76	Cum	324.90	370%	1527.03	4215.00
18	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete	3.23	Cum	642.40	370%	3019.28	9753.00
19	18.18 (b)	Supplying and fixing rolling shutters of approved make M.S. Laths interlocked together trough their entire length and jointed together at the end by end locks mounted on specially designed plpe shaft with brackets side guides 27.5cm long wire spring grade no.2 and arrangement for inside and outside locking with push and pull operation complete including top cover 0.80mm thick (payment is to be made for the exact size of opening where rolling shutter is to be fixed);						
		With 80mm x 1.25mm M.S. Laths	6.66	Sqm	401.75	325%	1707.44	11372.00
20	18.30	S/F glass panes including special metal sash putty of approved make						
	(b)	Glass panes 3mm thick, exceeding 40 sq.dm.area	3.56	Sqm	97.50	325%	414.38	1475.00
21	17.90 (a)-note-1 of 17.18	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other tham specified above but including the labour for fixing the same in possition	1.69	Sqm	398.15	175%	1094.91	1850.00
		For Glazed windows (30mm thick)	1.85	Sqm	424.15	175%	1166.41	2159.00

22	17.92 - note-1 of 17.18	Factory manufactured wire glaze door and window shutter of Wire Gauge Commercial hard wood such as hollock, champ, chikrassy and chaplash (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm wide vertical styles, 150mm wide lock rail, 200mm wide bottom rail & wire gauze of 140G or 120G designation i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
	(i)	30mm thick (Window shutters)	1.69	Sqm	310.40	175%	853.60	1443.00
23	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete (with first quality paint)	9.83	Sqm.	4.60	125%	10.35	102.00
24	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc. (with 1st quality paint)	9.83	Sqm.	3.75	125%	8.44	83.00
25	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	42.99	Sqm.	9.40	125%	21.15	910.00
26	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	25.96	Sqm.	3.15	125%	7.09	184.00
27	16.25	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surface	53.86	Sqm	4.15	125%	9.34	504.00
28	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surface to the required finish complete.	53.86	Sqm.	11.15	125%	25.09	1351.00
29	16.58	Distempering with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	53.86	Sqm.	9.10	125%	20.48	1103.00
30	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	74.29	Sqm	7.25	125%	16.31	1212.00
		Total:						125,207.00
		Add 19% Premium on (HSR+CP)						23,789.00
		Total:						148,996.00

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

COST ESTIMATE FOR INSTALLATION OF 11KV SUB-STATION FOR 350 SEATERS BOYS HOSTEL AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA

Item No.	No.	Description of Item	Unit	Qty.	Rate	CP %	Total Rate	Amount
1	31.12 (D)	Supply and erection of sheet steel enclosures distribution boards suitable for MCBs etc. on wall/existing board pedestal with rag bolts including bonding to earth:-						
		(v) Distribution board 6 way (SPN)	1	Each	279.00	50%	418.50	418.5
2	31.13	Supply and erection of M.S. angle iron frame duly welded for Housing M.S. sheet & main switches etc. on it, fixed on wall by means of suitable size of rag bolts with cement concrete, duly painted with three coats of approved paint including one coat of red oxide						
		(ii) Size 40 mm x 40 mm x 6 mm.	1.8	mtr	46.50	150%	116.25	209.2
3	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-						
		(a) Miniature Circuit Breakers of 9 K.A. breaking capacity						
		(ii) 6 amp to 32 amp (SP) Havell's/ Standard	3	Each	95.00	30%	123.50	370.5
		(iii) 40 amp to 63 amp. (SPN) Havell's/ Standard	1	Each	240.00	30%	312.00	312.0
4	31.18	Supply and erection of Fittings and Accessories						
		(xi) Bakelite angle/ straight button holder large size	1	Each	6.20	200%	18.60	18.6
5	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-						
		(xxi) Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	3	mtr	16.30	150%	40.75	122.7
6	31.22	Earthing						
		(iii) Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc.(but without charcoal or coke and salt) complete as required	7	Each	453.00	150%	1132.50	7927.5
		(v) Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	7	Each	186.00	150%	465.00	3255.0
		viii) Supply and laying 25mmx5mm GI strip at 0.5m below ground as strip earth electrode including soldering etc. as required.	29	mtr	16.20	150%	40.50	1174.0
7	31.25	Supply and erection of under ground cable 1 meter below ground level covered with sand and bricks including necessary connections, digging and refilling of trenches:-						
		(xxxii) 3.5x185 Sq mm (arm)	130	Meter	228.00	130%	524.40	68172.0
8	31.26	Supply and erection of under ground cable loose in existing pipe or trenches complete with necessary connections.						
		(xxxii) 3.5x185 Sq mm (arm)	20	Meter	215.40	130%	495.42	9908.0

9	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-						
		(v)20 Sq mm to 185 Sqmm Cable 3 to 3.5 Core	1	Each	28.60	130%	65.78	65.7
10	31.35	Miscellaneous						
		(iv)Supply and erection of shock restoration chart in glass frame	1	Job	37.50	130%	86.25	86.2
		(ix)Supply and erection of aluminum lugs heavy duty including crimping etc. up to the entire satisfaction of the Engineer-in-charge of the work:-						
		(i) 95 Sq mm	4	Each	5.60	130%	12.88	51.5
		(l) 185 Sq mm	12	Each	11.20	130%	25.76	309.1
11	31.36	Wiring in 1.5 sq mm PVC insulated Copper conductor cable in 1.6 mm thick conduit pipe						
		(i) Fan point						
		(b) Medium Point	1	Each	524.00	0%	524.00	524.0
		(ii) Light Point						
		(b) Medium Point	1	Each	251.00	0%	251.00	251.0
		(c) Long Point	2	Each	639.00	0%	639.00	1278.0
		(vii) 3 pin 5 amp. Plug point including earthing the 3 rd pin etc.						
		(a) Short Point	2	Each	283.00	0%	283.00	566.0
		(viii) 3 pin 15 amp. Plug point including earthing the 3 rd pin etc. with 4 sq mm size						
		(b) Medium Point	2	Each	667.00	0%	667.00	1334.0
12	31.40	Supply and erection of PVC unsheathed copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe						
		(iii) Size 4.0 Sq mm (1/2.24 mm)	15	mtr	24.50	0%	24.50	367.5
		Total:						96721.0
		Add 17% Premium on (HSR+CP)						16442.0
		Total of items with premium					(A)	113163.0
1.	NS	TRANSFORMER						
		Supply erection testing and commissioning of suitable rating 11/0.433KV distribution transformer indoor type oil immersed, natural cooled having following specifications confirming to IS 2026 latest.						
		Rate Supply frequency -50Hz per second						
		No. of phases - 3						
		No. of winding - 2						
		Winding connection - Primary Delta, Secondary star with fully insulated neutral brought out to secondary terminals.						
		Material of Winding - Copper wound						
		Voltage taps - OFF load taps on primary for $\pm 7.50\%$ in steps of 2.5%						
		Primary side connections- Box suitable for XLPE 11KV cable.						
		Vector group DYn 11 group.						
		Secondary side connections - Box suitable for 1 No. three phase (3.5C) LT cable.						
		Under carriage - Suitable under carriage with rollers with edges designed so as to permit sliding without damaging the floor and 2 Nos. lifting lugs.						

		Marshalling box - To facilitate connections of all protection devices like oil temp. indicator etc.						
		Fitting & Accessories - As per IS specifications, such as silica jel breather, conservator, cable end box for HT & LT sides, 2 Nos. earthing terminals, explosion vent drain valve, with plug including first filling of oil, Radiator thermometer Pockets, oil temperature indicator with A/T contacts etc. The transformer is to be erected on existing platform and making all incoming & outgoing connections. The job includes cost of transformer & painting of all MS parts & as per UHBVN terms (Transformer make from the approved make list of UHBVN Ltd.) including first filling of transformer of warranty-02 years						
a)		315 KVA Indoor Transformer	Each	1	355,000.00	0%	355,000.00	355,000.00
2	NS	Supply and erection for 11KV CT, PT, metering panel consisting of trivector meter CT 15/5 or 20/5 having accuracy class 0.5 and burden 05VA meter secure premier-5A HT as approved by UHBVN Ltd.. PT with voltage ratio 11KV/110V, 3Phase having burden 10VA per phase for 3phase 4 wire system 0.5 accuracy class and conforming to relevant ISS and as per UHBVN specifications and requirements complete enclosed in 14/16G CRCA sheet enclosure including making all the necessary connections to the satisfaction of Engineer-in-charge. Testing & approval of C.T./P.T./Meter from UHBVN Ltd. is included in this scope of work without any further financial benefit. C.T., P.T. & meter other detailed specifications as per UHBVN rules & regulations	Each set	1	68,500.00	0%	68,500.00	68,500.00
3	NS	Providing & fixing MV danger notice plate 142x192mm made out of MS sheet 2mm thick with inscription in single red colour on front side as required & approved by UHBVN.	Each	4	90.00	0%	90.00	360.00
4	NS	Supply, installation, testing and commissioning of outdoor two pole 11KV HT structure as per drawing and specifications of 9m Height complete with following equipment inter connections and all hardware, consumables, welding rods etc.						
		a. 400A, 11KV, 3 Phase GO switch with GI operating rod and handle with padlocking arrangement = 1 No.						
		b. 11KV grade, IGE make, station class lightning arrester = 1 set of 3 Nos.						
		c. 11KV, dropout fuse mounting complete with 50A DO fuses, 100A fuse holders etc. = 1 set of 3 Nos.						
		d. Insulated Operating rod for DO fuse = 1 No.	Each	1	31,000.00	0%	31,000.00	31,000.00
5	NS	SAFETY EQUIPMENTS						
		a. Supply & laying of 12mm thick and 1 mtr wide rubbermat for panel board.	Each	2	1,310.00	0%	1,310.00	2,620.00

		b. Supply, filling and fixing of following type of fire extinguishers in electrical room.					
		i) CO ₂ type fire extinguishers 5kg	Each	2	1,250.00	0%	2,500.00
6	NS A.	Supply & laying of HT cable 11KV XLPE 1m below ground level covered with sand and second class bricks / in existing trench as per site requirement complete with cost of sand brick etc. required as per satisfaction engineer-in-charge (Havell's / Polycab / Incab make or as approved by Engineer-in-charge)					
		b) 70sqmm 3C cable	mtr	42	617.00	0%	25,914.00
	B.	Supply and termination of HT cable 11KV XLPE jointing kit with cost of end joint heatshrink type with all accessories required (Raychem / Denson / M-seal make or as approved by Engineer-in-charge).					
		a) Outdoor type for 70sqmm 3C cable	Each	2	3,200.00	0%	6,400.00
		c) Indoor type for 70sqmm 3C cable	Each	2	2,900.00	0%	5,800.00
		DISTRIBUTION BOARDS					
7	NS	Supply of erection of metal clad switch with tag bolts on wall or existing angle board/pedestal including bonding to earth & necessary connections. Triple pole with neutral 400A, 415V 50HZ, 3Ph. HRC fuses 400A in metal clad chamber of L&T/English Electric/ Siemien make					
			Each	1	15,500.00	0%	15,500.00
		Total				(B)	513594.00
		Total				(A)	113163.00
		Grand Total				(A+B)	626757.00

Sd/-
 Executive Engineer,
 Construction Cell,
 NIT, Kurukshetra

REVISED COST ESTIMATE FOR CONSTRUCTION OF BOUNDARY WALL AROUND KITCHEN COURTYARD ALONGWITH GATE & WINDOW ON THE BACKSIDE IN NEWLY CONSTRCTED 350 SEATERS BOYS HOSTEL AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA

Sr. No.	HSR No.	Description	Qty.	Unit	Rate	C.P.	Total Rate (Rs.)	Amount (in Rs.)
SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)								
1	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.	1.59	Cum	414.45	350%	1865.03	2965.00
2	11.48 (a)	11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure in first storey	59.46	Sqm	55.10	350%	247.95	14743.00
3	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth	2.68	Cum	615.60	370%	2893.32	7754.00
3	15.10	15mm thick cement plaster 1:4 on the rough side of singe or half brick wall	200.18	Sqm	15.65	325%	66.51	13314.00
4	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	181.42	Sqm	7.25	125%	16.31	2959.00
5	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	1.40	Qtl.	1040.35	325%	4421.49	6190.00
Total:								47924.00
Add 19% Premium on (HSR+CP)								9106.00
Grand Total								57030.00

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra

Item No: 10.15 To consider and approve the Cost Estimate for the replacement of existing normal light fittings with energy efficient (T-5) type lighting fittings.

The Haryana Govt. has designed the department of renewable Energy as the Designated Agency to co-ordinate, regulate & enforce the provision of Energy conservation Act 2001 in the state Haryana. We are in receipt of Memo No 714-43 dated 25.09.2008 to replace the existing fixtures with energy efficient Lighting Tube Lights (T5-28W) & with CFL bulbs otherwise the Electricity Deptt. has full right to disconnect the electric connection by giving one month notice.

For the implementation of above a committee under the chairmanship of Dean (P&D) was constituted by the Director and the committee decided to put up the matter in B&WC. The Cost Estimate of the above work is 43.09 Lacs.

In view of above, it is requested that the B&WC may consider & accord the approval amounting to Rs. 43.09 Lacs for the installation of T-5 type tube fittings and also accord the approval to writ off the existing normal type fitting

1. 1x28 TMS 122/128HF 1xTL5 28W PHILIPS

Description	Amount Rs.
MRP	- 1100.00
Less 30%	- 330.00
	770.00
Tube	- 60.00
	830.00
Vat 12.5/-	- 104.00
	934.00
Labour charges (Dismantling of existing & installation of New fittings)	- 50.00
	984.00
Contactor profit 10%	- 98.40
	1082.40
Say	- 1082/-
Total=2766x1082	= 29.93 lacs

2. 2x28W T5 TMS 122/128 HF PHILIPS

Description	Amount Rs.
MRP	- 1450.00
Less 30%	- 435.00
	1015.00
Tube	- 120.00
	1135.00
Vat 12.5/-	- 142.00
	1277.00
Labour charges (Dismantling of existing & installation of New fittings)	- 50.00
	1327.00
Contactor profit 10%	- 133.00
	1460.00
Total=815x1460	= 11.90 lacs
Total 1&2	= 29.93 lacs
	<u>11.90 lacs</u>
	41.83 lacs
Contingency @ 3%	- 1.26 lacs
Gross Total	= Rs. 43.09 lacs

Item No: 10.16 (i). Cost Estimate For Provision Of Approach Road & Gates in CA-3, CA-5, CA-6 & BB-5 Houses at NIT, Kurukshetra.

(ii). Cost Estimate For Replacement of Garage Rolling Shutters with openable Iron Gates For BB-1 to BB-8, BC-1 to BC-4 & BC-6, BA-1 to BA-4 & BA-6 and CA-9 Houses at NIT, Kurukshetra.

✓ **(iii). Cost Estimate for the provision Of Garages with openable Iron Gate and approach road for AD-5 & AD-6 Houses at NIT, Kurukshetra.**

- (i) The proposed Cost Estimate for the work of construction of approach Road & Gates in CA-3, CA-5, CA-6 & BB-5 House at NIT, Kurukshetra has been framed for Rs. 2.15 Lacs. The resident of these houses were pressing hard as this facility has already been given in such type of houses and this is the genuine demand of them.
- (ii) The cost estimate for the proposed work of the replacement of rolling Shutters of the Garages with openable Iron Gates in houses BB-1 to BB-8, BC-1 to BC-4 & BC-6, BA-1 to BA-4, BA-6 and CA-9 at NIT, Kurukshetra has been framed Rs.1.80 Lacs. These rolling shutters are very old and beyond economical repair hence required to be replaced.
- (iii) The cost estimate for the construction of Garages with openable Iron Gate and approach road in House No. AD-5 and AD-6 has been framed Rs.5.59 Lacs. The residents of these houses are requesting continuously as this facility has already been provided in other such type of houses.

It is therefore requested that B&WC may consider and accord approval for Rs.9.54 Lacs to cover the cost of above works.

**ESTIMATE FOR PROVISION OF APPROACH ROAD AND GATES ETC.
FOR CA-3, CA-5, CA-6 & BB-5 HOUSES AT NIT, KURUKSHETRA**

Sr. No.	HSR Item	Description	Qty.	Unit	Rate	Amount
1	6.25 (a)	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish lead upto 50m and lift upto 1.5m Soft/loose soil	250.27	100 Sqm	67.55	169.06
					CP @ 300%	507.18
2	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth)	37.55	Cum	403.10	15,136.41
					CP @ 370%	56,004.72
3	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	37.55	Cum	642.40	24,122.12
					CP @ 370%	89,251.84
4	11.4	First class brickwork laid in cement sand mortar 1:4 in foundation and plinth.	1.50	Cum	424.60	636.90
					CP @ 350%	2,229.15
5	8.5 (b)	Dismantling Brick Work, Tile Masonry or Tile Lining and Tile Terracing in Cement	7.00	Cum	35.60	249.20
					CP @ 390%	1,221.08
6	NS	Providing & fixing Iron Gate consisting of MS Flats, Angles, Hold Fast and Locking arrangement etc. including priming, painting etc. complete in all respect	270	Kg.	50.00	13,500.00
					TOTAL	2,03,027.66
					Contingences @ 5%	10,151.38
					Grand Total	2,13,179.04
					Say Rs. 2.15 Lacs	

Sd/-
Prof. I/C (E, EM & C)

Sd/-
Estate Officer

Sd/-
J.E.-II (C)

Cost Estimate For Replacement Of Garage Rolling Shutters With Openable Iron Gates For BB-1 to BB-8, BC-1 to BC-4 & BC-6, BA-1 to BA-4 & BA-6 and CA-9 Houses at NIT, Kurukshetra.

Sr. No.	Detail of one gate	Qty.	Unit	Rate	Amount
1.	Wrought iron and mild steel(using angles, flats, square bars, tees and channels) ladders, grills, grating frames, window guards, iron doors openable or fixed stair case or parapet or any other type of railing, gates and tree guards etc., including cost of screws and welding rods or bolts and nuts complete fixed in position.	40.66	Qtl.	4421.49	179777
				Total =	179777
				Say Rs.1.80 Lacs.	

**Executive Engineer
Construction Cell
NIT, Kurukshetra**

**Cost Estimate For Provision of Garage and Approach Road & Iron Gates etc.
For AD-5 & AD-6 Houses at NIT, Kurukshetra.**

Sr. No.	HSR Item	Description	Qty.	Unit	Rate	Amount
1	6.6	Earth work in excavation in foundations, trenches etc. in all kinds of soils, not exceeding to 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 15cm layers with compaction including disposal of all surplus soil, as directed within a lead of 30 meters	10.54	100 cum	4986.45	526.00
2	10.36	Cement concrete 1:4:8 with brick ballast 40mm nominal size in foundation and Plinth	3.50	cum	1810.68	6337.00
3	11.4	First class brickwork laid in cement sand mortar 1:4 in foundation and plinth.	3.50	Cum	1910.70	6687.00
4	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm laid hot and sanded	3.40	Sqm	167.74	560.00
5	11.8	First class brick work laid in cement sand mortar 1:5 in first storey upto 4 meters above plinth level	19.10	Cum	1928.70	73638.00
6	10.86 + 10.95(a)	Cement concrete 1: 1.5: 3 with stone aggregate 20mm nominal size for reinforced concrete for walls exceeding 20cm thickness (straight & curved)beams, girders, stairs, columns (Square or Rectangle) battens and lintels etc. excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects	1.80	Cum	5587.13	10057.00
7	10.82 + 10.95	Cement concrete 1: 1.5: 3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement, but including centering & shuttering laid in position complete in all respects	9.00	Cum	5098.56	45887.00
8	15.6	12mm thick cement plaster 1:5(walls)	205	Sqm	49.30	10106.00
9	15.52	10mm thick cement plaster 1:4(ceiling)	73.18	Sqm	53.76	3934.00

10	15.62	Cement pointing 1:3 flush on brick and tile walls	270	Sqm	31.66	8548.00
11	16.47	Whitewashing two coats	273.5	Sqm	2.16	591.00
12	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work, two coats to give an even shade	270	Sqm	17.40	4698.00
13	18.22	Cold twisted deformed (ribbed /tor steel) bars for R.C.C works, where not included in complete rate of R.C.C including bending, binding and placing in position complete.	9.88	Qtl.	3897.46	38507
14	18.12	Wrought iron and mild steel (using angles, flats, square bars tees and channels) ladders, grils, grating frames, window guards, iron doors openabel or fixed stair case or parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position	5.00	Qtl.	4421.48	22107.00
15	18.34	Pressed steel sheet frames (chowkats) consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications, including bolts for fixing stops, locknotch provision for receiving tower bolts, and finished with one coat of ready-mixed paint red lead non-setting primer of approved quality, fixed in position including cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete (127mm x 50mm x 40mm)	30.60	Rm	326.40	9988.00
16	17.90	Factory-manufactured paneled door or glazed window, shutters of commercial hard wood. Such as hillock, champ, chikrassy and chaplash, etc. (non-coniferous timber other than teak, con-forming to I.S. specification No. 1003, kiln-sea-soned), with 100mm wide vertical styles, 150mm wide lock rail, 20mm wide bottom rail and 100mm wide other rails with panels of 15mm thick, tongued and grooved of commercial hardwood and including cost of iron hinges, screw, chocks/cleats, stops, nails etc., complete fixed in position (excluding the cost of any fittings, other than	6.80	Sqm	1308	8894.00

		specified above, but including labour for fixing the same in position. (b)35mm thick)				
17	16.1	Preparation of Plywood surface for painting including sand papering the surface and applying filling with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete	13.60	Sqm	10.35	141.00
18	16.2	Applying pink primer or aluminum priming coat on wood work including preparation of surface, knotting and stopping, etc.	13.60	Sqm	8.44	115.00
19	16.3	Painting two coats excluding priming cost with synthetic enamel paint in all shades on new wood work or metallic or plastered or concrete surface to give an even shade	13.60	Sqm	21.15	288.00
20	16.9	Applying priming coat with metal primer on new steel work including preparation of surface	64	Sqm	7.09	454.00
21	6.25 (a)	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish lead upto 50m and lift upto 1.5m Soft/loose soil	250.2 7	100 Sqm	270.20	676.00
22	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth)	37.55	Cum	1894.57	71141.00
23	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and runways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	37.55	Cum	3019.28	113374.00
24	11.4	First class brickwork laid in cement sand mortar 1:4 in foundation and plinth.	1.50	Cum	1910.70	2866.05
25	8.5 (b)	Dismantling Brick Work, Tile Masonry or Tile Lining and Tile Terracing in Cement	8.43	Cum	174.44	1470.53
26	NS	Providing & fixing Iron Gate consisting of MS Flats, Angles, Hold Fast and Locking arrangement etc. including priming, painting etc. complete in all respect	270	Kg.	50	13500

27	14.1	Base course of floors consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	73.18	Sqm	173.66	12708.00
28	14.10	Conglomerate floor 50mm thick cement concrete topping 1:2:4	73.18	Sqm	176.72	12932.00
29	13.14	Tile terracing of with one layer of tile, 22.86 cm x 11.43 cm x 3.81 cm laid dry over a layer of mud mortar including grouting with cements sand mortar 1:3 and top surface to be left clean	73.18	Sqm	163.80	11987.00
					Total	492717.00
		ADD: - @8% for EI works				39417.00
					Total	532134
			ADD: -Contingencies @ 5%			26607
			Grand Total			558740
			Say Rs.			5.59 Lacs

**Executive Engineer
Construction Cell
NIT, Kurukshetra**

Item No: 10.17 To consider and approve the Cost Estimate for the provision of stores in DA Type Houses (DA-10 to DA-15) at NIT, Kurukshetra.

There are 15 Nos. DA type houses in the Institute. The provision of stores already exists in the House Nos. DA-1 to DA-9 as these houses were constructed about 35 years back. The House Nos. DA-10 to DA-15 were constructed about a decade before without the provision of stores in these houses. Now, the residents of houses DA-10 to DA-15 are demanding continuously for stores in their houses. Accordingly, the Cost Estimate for the construction of additional stores in DA-10 to DA-15 houses has been framed amounting to Rs.7.63 Lacs.

It is therefore requested that B&WC may consider & accord the approval for the cost estimate amounting to Rs.7.63 Lacs for the above work.

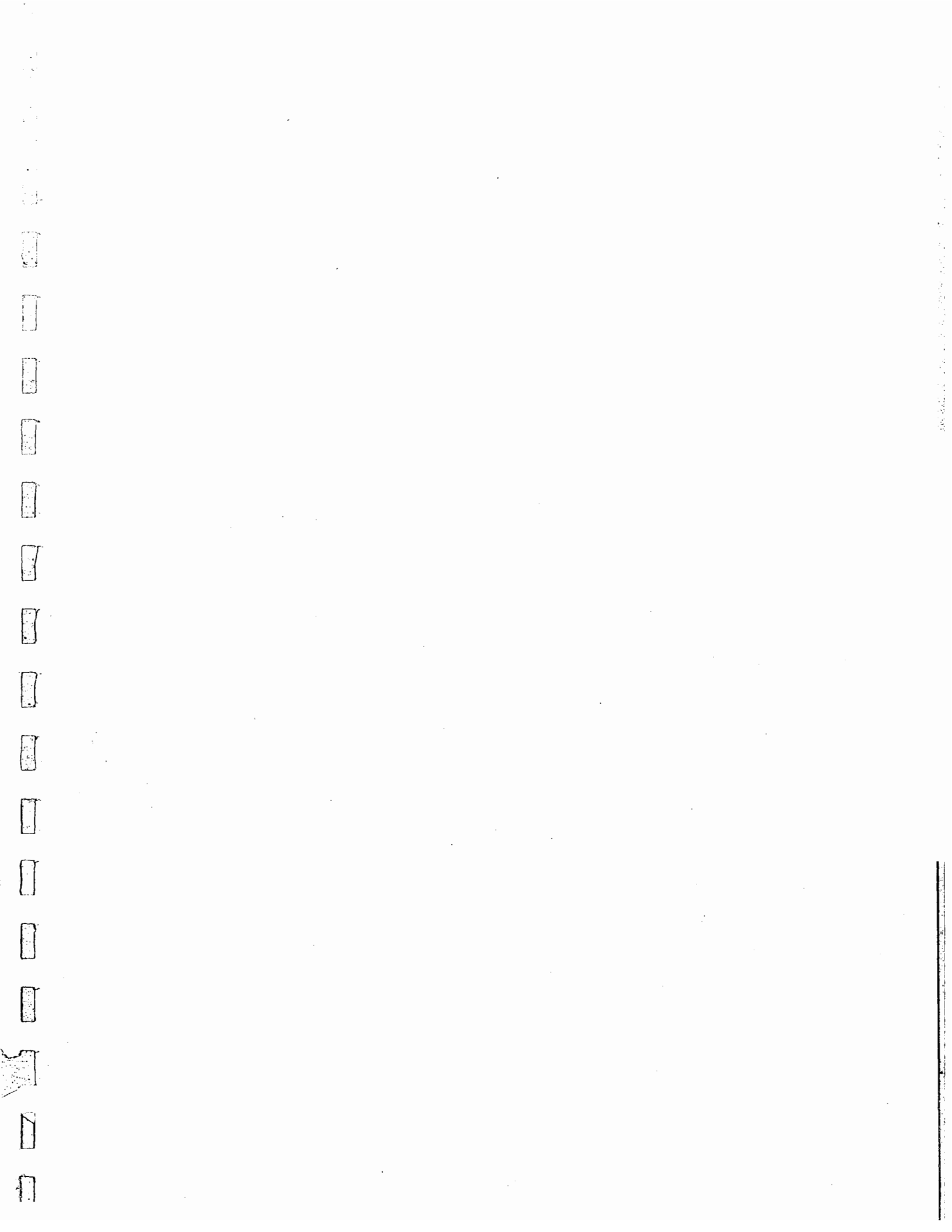
**COST ESTIMATE FOR THE PROVISION OF STORES IN DA TYPE HOUSES AT NATIONAL INSTITUTE OF TECHNOLOGY,
KURUKSHETRA**

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)								
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. 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 mtrs.	26.00	100 Cum	1108.10	350%	4986.450	1296.48
2	8.5 (b)	Dismantling Brick Work, Tile Masonry or Tile Lining and Tile Terracing						
		In Cement	9.50	Cum	35.60	390%	174.440	1657.18
3	8.6 (b)	Dismantling Concrete						
		Cement Concrete plain 1:4:8 or 1:5:10	6.00	Cum	37.4	390%	183.260	1099.56
4	8.25 + note II (b)	Dismantling Cement conglomerate/terrazzo-floors 25mm to 50mm thick including concrete base	9.50	Sqm	5.75	390%	28.175	267.66
5	10.36	Cement concrete 1:4:8 with brick ballast 40mm nominal size in foundation and plinth	11.50	Sqm	382.25	370%	1796.575	20660.61
6	10.82 + 10.95 (a)	Cement concrete 1:1:5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.						
	10.82 + 10.95 (a)+note (v)(b)	-do- (first storey)	17.50	Cum	1084.80	370%	5098.560	89224.80
7	10.86+ 10.95 (a)	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders, stairs, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.						
	10.86+ 10.95 (a)	-do- (first storey)	3.00	Cum	1188.75	370%	5587.125	16761.38
8	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.	21.40	Qtl	917.05	325%	3897.463	83405.70

9	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	12.00	Sqm	35.05	370%	164.735	1976.82
10	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	6.00	Cum	642.40	370%	3019.280	18115.68
11	11.3	First class brickwork laid in cement sand mortar 1:5 in foundation and plinth.	16.50	Cum	407.60	350%	1834.200	30264.30
12	11.8	First class brickwork laid in cement sand mortar 1:5 in first storey upto 4 meter above plinth level.						
		-do- (first storey)	40.00	Cum	428.60	350%	1928.700	77148.00
	11.8+11.41 (i)	-do- (second storey)	12.00	Cum	436.85	350%	1965.825	23589.90
13	13.50	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	16.00	Each	12.30	200%	36.900	590.40
14	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	70	Sqm.	36.95	370%	173.665	12156.55
15	14.17	40mm thick grey polished flooring cement concrete 1:2:4 topping finished with 3mm thick neat coat of cement rubbed and polished	65	Sqm	53.10	370%	249.570	16222.05
16	15.7	12mm thick cement plaster 1:6 on wall						
	15.7+note 1	-do- (first storey)	116.00	Sqm	10.65	325%	45.263	5250.45
17	15.12	15mm thick cement plaster 1:6 on the rough side of single or half brick						
	15.12 +note (1)	-do- (first storey)	116.00	Sqm	13.10	325%	55.675	6458.30
18	15.52	10 mm thick cement plaster 1:4 on underside of ceiling						
	15.52 + Note (1)	-do- (first storey)	65.00	Sqm	14.55	325%	61.838	4019.44
19	15.62	Cement pointing 1:2 flush on brick and tile walls	180.00	Sqm	7.45	325%	31.663	5699.25
20	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete (with first quality paint)	90.00	Sqm.	4.60	125%	10.350	931.50
21	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc.	90.00	Sqm.	3.75	125%	8.438	759.38
22	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	150.00	Sqm.	9.40	125%	21.150	3172.50

23	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	150.00	Sqm.	2.95	125%	6.638	995.63
24	16.25	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surface	400.00	Sqm	4.15	125%	9.338	3735.00
25	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surface to the required finish complete	400.00	Sqm.	11.15	125%	25.088	10035.00
26	16.58	Distemping with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	400.00	Sqm.	9.10	125%	20.475	8190.00
27	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	250.00	Sqm	7.25	125%	16.313	4078.13
28	17.90 (a) note-1 of 17.18	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in possition						
		For Glazed windows (30mm thick)	20.00	Sqm	398.15	175%	1094.913	21898.25
29	17.92 - note-1 of 17.18	Factory manufactured wire glaze door and window shutter of Wire Gauge Commercial hard wood such as hollock, champ, chikrassy and chaplash (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & wire gauze of 140G or 120G designation i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in possition						
	(i)	30mm thick (Window shutters)	25.00	Sqm	310.40	175%	853.600	21340.00
	(ii)	35mm thick (Doors)	24.00	Sqm	335.70	175%	923.175	22156.20

30	17.71	Cost of Iron fittings complete for doors and windows, such as tower bolts, handles etc., and screws for these fittings (excluding sliding bolt)						
	(a)	For single leaf shutter	40.00	Sqm	6.40	175%	17.600	704.00
31	17.79 (b)	Providing & fixing helical door spring 150mm (superior quality), including necessary screw, complete						
		Iron	8.00	Each	23.85	175%	65.588	524.70
32	17.83 [c]	Providing and fixing sliding bolt with nuts and screws, etc. complete						
	(C)	Iron						
	(ii)	Size 250mm x 16mm	8.00	Each	16.35	175%	44.963	359.70
33	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	9.50	Qtl.	1040.35	325%	4421.488	42004.13
34	18.30	S/F glass panes including special metal sash putty of approved make						
	(b)	Glass panes 4mm thick, exceeding 40 sq.dm.area	20.00	Sqm	115.40	325%	490.450	9809.00
35	18.34	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-						
	(c)	Size 127mm x 50mm x 40mm wide double rebate	150.00	Mtr.	76.80	325%	326.400	48960.00
36	4.1 (a)	Stone (building or pitching), sand, bajri, shingle, spalls, brick-bats, brick ballast and stone metal	30.00	Cum	4.75	350%	21.375	641.25
37	5.2 (a)	Carriage of material (metalled roads), lead more than 2.00 Km excluding loading, unloading and stacking (A) Surkhi, sand, bajri, ballast, stone boulders kankar & building rubbish	30.00	Cum	12.40	300%	49.600	1488.00
		Total:						617646.86
SUB PART-II: INTERNAL CIVIL WORKS (NON-SCHEDULE ITEMS)								
		The rate quoted by the contractor shall be for all heights and levels as per drawings and for all scaffolding work and other connecting operations for below mentioned items.						
1	NS	Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies terraces etc. consisting of following operations:						



	a	Applying and grouting a slurry coat of neat cement using 2.75 Kg/sqm of cement admixed with proprietary water proofing compound conforming to IS : 2645 over the RCC slab including cleaning the surface before treatment						
	b	Laying cement concrete using broken bricks/ brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 to required slope and treating similarly the adjoining walls up to 300mm height including rounding of junctions of walls and slabs.						
	c	After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645						
	d	Finishing the surface with 20mm thick joint less cement mortar of mix 1:4 (1 cement:4 coarse sand) admixed with proprietary water proofing compound confirming to IS 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300mmx300mm square						
	e	The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge.						
	f	With average thickness of 120 mm and minimum thickness at khurra as 65mm	90.00	sqm	400.00		400.00	36000.00
2	NS	Providing & fixing 3.05 mtr. (average length) rain water pipe 4kg per cm ² pressure of 100mm dia of ISI make approved by Engineer-in-charge including depth socket screw and clumpes	16	Each	600.00		600.00	9600.00
		Total:						45600.00
		SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)						617646.86
		SUB HEAD-II : INTERNAL CIVIL WORKS (NON SCHEDULED ITEMS)						45600.00
		Total;						663246.86
		Add 5% contingencies charges						33162.34
		Add 10% Excalation charges						66324.69
		Grand Total:						762733.89
		Say Rs. Lacs						7.63

Sd/-
 Executive Engineer,
 Construction Cell,
 NIT, Kurukshetra

Item No:10.18 To consider & approve the cost estimate for providing premix carpeting with 'B' Type seal coat on various existing roads in the Institute at NIT, Kurukshetra.

It is proposed that the surfacing of black top of various existing roads in the Institute has been worn out. The premix carpeting was laid on these roads about five years back. Hence, these roads needs re-surfacing on black top of existing roads by providing 20mm thick premix carpet 'B' Type seal coat. Accordingly, the cost estimate has been framed amounting to Rs.39.90 Lacs to cover the cost of the above work.

It is therefore requested that the B&WC may consider and accord the approval for amounting to Rs.39.90 Lacs for the above work.

**COST ESTIMATE FOR PROVIDING 20MM THICK PREMIX CARPATING WITH 'B' TYPE SEAL COAT
ON VARIOUS EXISTING ROADS IN THE CAMPUS OF NATIONAL INSTITUTE OF TECHNOLOGY,
KURUKSHETRA**

Sr. No.	Description of Items	Qty.	Rate	Unit	Amount
1	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish lead upto 50m and lift upto 1.5m.				
(a)	soft/loose soil	17115.20	270.20	Per 100 Sqm	46,245.27
2	Providing and laying tack coat on existing black top surface with bitumen 50 kg per hudred Sqm	17115.20	30.00	Per Sqm	513,456.00
3	Providing and laying 20mm thick premix carpet, using tar or bitumen as binder, for all operations,binder and aggregate heated and mixed with mechanical mixer, laying and rolling it with road roller including cost of lighting arragnement, sign boards, and night watch,but excluding the cost of laying tack coat and seal coat.	17115.20	120.00	Per Sqm	2,053,824.00
4	Providing and laying premix 'B' type seal coat, with bitumen and fine aggregate mixed and heated with mechanical mixer including rolling with road roller etc. complete.	17115.20	50.00	Per Sqm	855,760.00
Total					3,469,285.27
Add 10% for removing waviness from road surface					346928.53
Add 5% contingencies charges					173464.26
Grand Total					3,989,678.06
Say Rs.in Lacs					39.90

Sd/-
Executive Engineer,
Construction Cell,
NIT, Kurukshetra