भवन एवं निर्माण कार्य समिति की तेईसवीं बैठक का कार्यवृत्त

MINUTES OF THE 23rd MEETING OF THE BUILDING & WORKS COMMITTEE

10th JUNE 2009



भारतीय प्रौद्योगिकी संस्थान रूड़की रूड़की – 247 667 (भारत)

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE ROORKEE - 247 667 (INDIA)



Lt Col A K Srivastava (Retd)

Registrar

भारतीय प्रौद्योगिकी संस्थान रुड़की

रुड़की - 247 667, उत्तरांचल, भारत

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE ROORKEE - 247 667, UTTARANCHAL, INDIA

: (91) 1332 - 285310, 273560

: (91) 1332 - 272430, 285311 (O), 272445, 285312 (R)

e-mail: regis@iitr.ernet.in / srivastava-a@lycos.com

No.IITR/MS/23rd B&WC /2717 Dated 1st July 2009

Subject: Recommendations (Minutes) of the 23rd (Special meeting) of the Building and Works Committee held on 10th June 2009.

Enclosed herewith please find a copy of the recommendations (minutes) of the 23rd meeting (Special Meeting) of the Building & Works Committee of this Institute held on 10th June 2009 for favour of information of the members and record. Members who attended the meeting are requested to kindly offer their comments, if any, within a week. If no comments are received, it will be presumed that they have no comments to offer and approve of the minutes as recorded.

Encl: as above.

Yours faithfully,

(A.K. Srivastava)

Lt. Col. (Retd.)

Registrar

& Member Secretary, B&WC

0 1 JUL 2009

- Prof. S.C. Saxena 1. Director, IIT Roorkee (Chairman)
- 2. Prof. H.K. Verma Dv. Director Indian Institute of Technology Roorkee
- 3. Prof. V.K. Gupta Chairman, Estate & Works Indian Institute of Technology Roorkee

- Ms. Seema Raj
 Director (T), Govt. of India
 Department of Secondary & Higher Education
 Ministry of Human Resource Development
 Shastri Bhawan,
 New Delhi 110 001
- 5. Er. P.K. Jain R-13/83, Raj Nagar Ghaziabad
- 6. Er. M.S. Chandola
 Dy. General Manager,
 Uttaranchal Power Corporation Ltd.,
 Roorkee 247 667
- 7. Prof. Akhilesh Gupta
 Department of Mechanical & Indl. Engg.
 Indian Institute of Technology Roorkee
- 8. Prof. S.P. Gupta
 Department of Electrical Engineering
 Indian Institute of Technology Roorkee
- Prof. G. Ramasamy
 Department of Civil Engineering
 Indian Institute of Technology Roorkee
- 10. Er. Salek ChandInstitute EngineerIndian Institute of Technology Roorkee
- 11. Prof. Surendra KumarDean, Finance & PlanningIndian Institute of Technology of Roorkee
- Special Invitee
- 12. Lt. Col. (Retd) A. K. Srivastava Registrar Indian Institute of Technology Roorkee

- Member Secretary

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE ROORKEE 247 667



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23.2	To consider the preliminary estimate for extension of the Departments of Architecture & Planning and the Civil Engineering.				
23.3	To consider the preliminary estimate for extension of the Departments of Metallurgical & Materials Engineering and Chemical Engineering.	2			
23.4	To consider the preliminary estimate of Rs.93,20,850.41 for extension of Community Centre at DPT Saharanpur Campus.				
23.5	To consider the revised layout for 56 multi-storied Category 'A' residences near the Hill View Apartments.	3			
APPEND	ICES				
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INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE ROORKEE - 247 667

Minutes of the 23rd Meeting (Special meeting) of the Building & Works Committee held on 10th June 2009 at 12.00 Noon in the Board Room of the Institute.

The following were present:

1.	Prof. S.C. Saxena, Director	- Chairman
2.	Prof. H.K. Verma, Dy. Director	- Member
3.	Prof. V.K. Gupta, Chairman (Estate & Works)	- Member
4.	Prof. S.P. Gupta, Electrical Engineering Department	- Member
5.	Er. Salek Chand, Institute Engineer	- Member
6.	Prof. Surendra Kumar, Dean (Finance & Planning)	- Special Invitee
7.	Lt. Col. (Retd) A.K. Srivastava, Registrar	- Member Secretary

Communication was received from the following members for not attending the meeting:

- 1. Prof. Akhilesh Gupta, IIT Roorkee
- 2. Er. M.S. Chandola, Dy. General Manager, UPCL
- 3. Er. P.K. Jain, Ghaziabad

The Chairman, Building & Works Committee (B&WC), extended a hearty welcome to the members for attending the 23rd meeting (Special meeting) of the B&WC, before taking up the agenda. He stated that the special meeting was convened for making a presentation on Sewerage System & Sewage Treatment Plant for Roorkee and Saharanpur campus of the Institute by the National Building Construction Corporation Ltd.

Deliberations:

All the items of the Agenda were discussed and the deliberations/ recommendations are summarized as under:

Item No. 23.1: To receive a presentation on Sewerage Systems and Sewage Treatment Plants for Roorkee and Saharanpur Campus in accordance with the decision taken by the B&WC in its meeting held on 18th May 2009.

A detailed presentation on Sewerage Systems and Sewage Treatment Plants for the Roorkee and Saharanpur Campuses was made by the NBCC. The queries raised by the members on the floor, were responded to by the NBCC. After due deliberation, the

Committee decided that after incorporating the suggestions given by the members on the floor, a preliminary estimate on Sewerage Systems and Sewage Treatment Plants for Roorkee and Saharanpur Campuses be placed before the B&WC for consideration.

Under any other items:

Item No.23.2: To consider the preliminary estimate for extension of the Departments of Architecture & Planning and the Civil Engineering.

The B&WC considered the preliminary estimates submitted by the UP Rajkiya Nirman Nigam Ltd for extension of the Departments of Architecture & Planning and Civil Engineering on the recommendations of the Prof. H.O. Committee (Appendix 'A'), and decided that the estimate of Rs.326.31 lacs for extension of the above mentioned Departments' buildings (Appendix 'B'), which is as per the approved plinth area rates of the Uttarakhand PWD be recommended to the Finance Committee and the Board of Governors for according administrative approval and expenditure sanction.

Item No.23.3: To consider the preliminary estimate for extension of the Departments of Metallurgical & Materials Engineering and Chemical Engineering.

The B&WC considered the preliminary estimates submitted by the UP Rajkiya Nirman Nigam Ltd for extension of the Departments of Metallurgical & Materials Engineering and Chemical Engineering on the recommendations of the Prof. H.O. Gupta's Committee (Appendix 'C'), and decided that the estimate of Rs.251.67 lacs for extension of the above mentioned Departments' buildings (Appendix 'D'), which is as per the approved plinth area rates of the Uttarakhand PWD be recommended to the Finance Committee and the Board of Governors for according administrative approval and expenditure sanction.

Item No. 23.4: To consider the preliminary estimate of Rs.93,20,850.41 for extension of Community Centre at DPT Saharanpur Campus.

The proposal for extension of the Community Centre at DPT Saharanpur Campus was considered by the Committee and decided that the same be not accepted at this moment.

Item No. 23.5: To consider the revised layout for 56 multistoried Category 'A' residences near the Hill View Apartments.

The Building & Works Committee considered the letter No.NBCC/Roorkee/IIT/SA-II/2009/310 dated 28th May 2009 received from AGM (Engg.), NBCC and decided that keeping in view the existence of a three storied building adjoining the Hill view Apartments, which is fit for use, the proposed revised layout submitted by the NBCC for the construction of 56 multi-storied Category 'A' residences near the Hill View Apartments, be accepted.

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

REPORT OF VIST OF PROF. H.O.GUPTA COMMITTEE DATED ON 20.5.2009

As per decision of Building Works Committee dated 18.5.09 Prof. H.O. Gupta alongwith Prof. G.S. Srivastava Dean (Acd.), Prof. Promod Agarwal Associate Dean(Acd.), Chariman Estate & Works and Institute Engineer visited the Met.& Mat. Engg., Chemical Engg. Deptt. & Civil Engg Deptt. The Committee recommends the following:-

- The complete IInd floor on the Met. & Mat. Engg. Workshop and Chemical Engg. Workshop and Auditorium may be constructed.
- 2. The three floors building inplace of Arch. & Planning Workshop shed and Civil Engg. Workshop shed (they are adjusent at present) may be constructed. Three floors building in front of Structural Engg. Test Hall may be constructed.

-29/5/cg 27/5/09

(Salek Chand)

H.o. Guftar

G.S. Servastava

(V.K. Gupta 329)

उत्तर प्रदेश राजकीय निर्माण निगम लिमिटेड

(राज्य सरकार का उपक्रम) (ISO 9001:2000 CERTIFIED)

कैम्प कार्यालय, आई०आई०टी० परिसर, गंगा भवन होस्टल,



कार्यालय इकाई प्रभारं 87/26 उत्तरी सिविल लाइन रोडवेज बस स्टैंड के सामने, मुजण्फरनगर

U.P. Rajkiya Nirman Nigam Ltd

Name of work: - Construction of Architecture & Planning Deptt, Civil Deptt Pavement Testing workshop Building at I.I.T Campus Roorkee Distt Haridwar (U.K)

Cost of Preliminary Estimate: - Rs 326.31 lacs only

Name of Unit:-

U.P.R.N.N. LTD
I.I.T. Campus
Cautley bhawan Hostel Campus
Roorkee [Distt: Haridwar]

G.M. Office:-U.P. Rajkiya Nirman Nigam Ltd Officers Colo Officers Hostel Campus Delhi road saharanpur (U.P.)

Head Offic:-U.P. Rajkiya Nirman Nigam Ltd Vishwaria bhawan,Vibhuti khan Comantinagar Lucknow (U.P.)

U.P. Rajkiya Nirman Nigam Ltd Muzaffarnagar Unit Muzaffarnagar (U.P)

Name of work: - Construction of Architecture & Planning Deptt, Civil Deptt and
Pavement Testing Deptt work Building at I.I.T campus
Roorkee Distt Haridwar (U.K.)

Analysis of rate	
(A) Ground floor Plinth area (Per Square meter)	14 m, 2 0 p 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
(1) Findin area rate as per U.A.P.W.D. vide Letter No.	
309/33 Bhawan -2008 dated 12-03-2008	D 4444
(2) Add Extra height for 0.30M beyond 2.90M	Rs 6180.00
neight is 3.20M	5
(3) Add for Provision for R.C.C Framed 1x160.00Per M2	Rs 160.00
structure (a) 12 % on amount Rs 6180 00	35
(4) Add Internal Water supply & sewage system of well 0.10 at	Rs 741.60
(5) Find External water supply & sewage system of work (2) 5 or	Rs 741.60
(o) ridd internal Electrification work (a) 12 %	Rs 309.00
(7) Add for Ant termite treatment of work	Rs 741.60
(8) Add for Earthquake Provision	Rs 180.00
(9) Add for Power wiring 3%	Rs 370.00
(10) Add for provision for Ceiling Fan 4%	Rs 185.40
(11) Add for Contingencies 4%	Rs 247.20
Section 470	Rs 394.26
	Rs 10,250.66
B) First fleor Plinth area (Per Square meter)	Square meter
(1) Plinth at a rate as per U.A P.W.D vide Letter No	
369/55 Bhawan -2008 dated 12-03-2008	
(2) Add Extra height for 0 2004 by 12 2005	Rs 5560.00
(2) Add Extra height for 0.30M beyond 2.90M height is 3.20M	
(3) Add for Provision for R.C.C Framed	Rs 160.00
structure @ 12.04 on annual C. P. 6100 on	
structure @ 12 % on amount Rs 6180.00	Rs 667.20
(4) Add Internal water supply & sewage system of work @ 12 %	Rs 667.20
(3) Full External Water Supply & sewage system of work @ 5 0/	Rs 278.00
(b) And Internal Electrication work (a) 12 %	Rs 667.20
(7) Add for Earthquake Provision	Rs 370.00
(8) Add for Power wiring 3%	Rs 166.80
(9) Add for provision for Ceiling Fan 4%	Rs 222.40
(10) Add for Contingencies 4%	Rs 350.35
	Da 0 100 15
Pon S	Rs 9,109.15 / quare meter
Ter s	dane meter
A.R.E Unit Incharge U.P.R.N.N.Ltd U.P.D.N.N.Ltd	regare meter

-- 6 --

U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarngar (U.P)

Name of work:-Construction of Architecture & Planning Deptt, Civil Deptt and Pavement Testing Workshop Building at I.I.T Campus Roorkee Distt Haridwar (U.K)

Measurements

(1) Ground Floor Plinth Area

(A) Plinth Area Measurement

(a) Architecture &Planning Deptt Workshop 1x21.00x15.25 = 320.25M²

(b) Civil Deptt Work Shop

1x15.25x10.50 = 160.13

© Pavement Testing work shop Dept

1x17.73x15.25 = 270.38

(d) Structural Engg Test Hall

1x18.00x10.50 = 189.00

939.76M²

(B) First Floor Plinth Area

Quantity same as first floor Plinth area

 $939.76M^2$

(D) Second Floor Plinth area

Quantity same as first floor Plinth area

 $939.76M^2$

(E) Third Floor Plinth Area

Stair case Mumty

 $1x2x7.85x3.73 = 58.56M^2$

(2) Supply & Fixing Kota stone Flooring Over coarse sand Mortar with mix 1:4 Including supply of all materials lab our T&P etc complete

Architecture & Planning Deptt Workshop

G.F to Second Floor $1x3x20.54x14.99 = 923.68M^2$

Civil Deptt Workshop

G.F to Second Floor

1x3x14.99x10.24 = 460.49

Pavement Testing Workshop

G.F to Second Floor

1x3x14.99x17.47 = 785.63

Structural & test Hall

1x3x18.00x10.50 = 567.00

For Staircase

S. Walterballs Super Riser 1x2x80x1.50x0.300 = 72.00

the track in specific by the Landing .

1x2x80x1.50x0.150 = 36.00

2x3x2x3.47x1.50 = 62.46

2907.26M

(3) Brick coba Treatment over roof of 100mm thick average depth with i/c Costing of all materials lab our T&P etc complete

Quantity same as G.F. Plinth Area 939.76'M2



U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarngar (U.P)

Name of work:-Construction of Architecture & Planning Deptt, Civil Deptt and Pavement Testing Workshop Building at I.I.T Campus Roorkee Distt Haridwar (U.K)

Measurements

(4) Supplying & Fixing Aluminum Glazing Open able Portion 1.5mm thick with rubber. ,beading etc complete

G.F to Third Floor

Entrance Door

 $3x4x2.40x2.10=60.48M^2$

D2

2x4x0.90x2.10=15.12

Open able Window

11x2x1/2x4x3.50x1.20 = 184.80

For Structural Engg Test Hall

1x4x090x2.10 = 7.56

 $267.96M^2$

(5) Supplying & Fixing Aluminum Glazing Fixed Portion1.5mm thick with rubber, beading etc complete G.F Floor to Second Floor

Window

11x2x1/2x4x3.50x1.20=184.80M²

1x3x2x4x0.55x2.10 = 27.72

Entrance side Top

1x3x4x3.50x1.10=46.2

Structural Engg Test hall

1x3x4x3.50x1.10 = 46.20

 $304.92M^2$

(6) Supply&Fixing12mm thick Partical Board With fitting etc complete

50% quantity of open able Portion $267.96M^2 = 133.98M^2$

(7)Supply& Fixing or Floor spring With fitting etc complete

Ground Floor to Second Floor

For D1 Door 3x4x2=24 No of Floor Spring

D2 Door

2x4=8

32 No of Floor Spring

U.P.R.N.N.Ltd

U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarnagar (U.P)
Name of work:-Construction of Architecture Planning Deptt, Civil Deptt
and Pavement Testing Workshop Building at I.I.T Campus
Roorkee Distt Haridwar (U.K)

Abstract of Cost

S.No Particular of Item	Plinth Area	Rate	Amount
(1) Construction of Architecture&	Planning Dep	tt	<u> در در آن برا سان ندید و رسه است مخطر آن کا نابات کا در کاری برا سام</u>
,Civil Deptt and Pavement Testi			· ·
Building		•	
(a) Ground Floor Plinth Area	939.76M ²	Rs 10,250.6	S Rs 96,33,160.24
(b) First Floor Plinth Area	939.76M ²	Rs 9,109.15	Rs 85,60,414.80
(c) Second Floor Plinth Area	939.76M ²	Rs 10,063.46	
(d) Forth Floor Plinth area	58.56M ²	Rs 10,063.46	, ,
(2)) Supply & Fixing Kota stone Floo			100,000,010,22
Over coarse sand Mortar with mix	1:4		
Including supply of all materials la	b our		
T&P etc complete		Rs (680,00-240,0	0) Rs 12,79,194.40
(3) Supplying & Fixing Aluminum			
Glazing Open able Portion 1.5mm		•	
thick with rubber. ,beading etc	•	•	• •
complete	267.96M ²	Rs(2475-1076.06) Rs 3,74,876.04
(4) Supplying & Fixing Aluminum			,
Glazing Fixed Portion 1.5mm			
thick with rubber, beading	_		
etc complete	304.92M ²	Rs 1669.00	Rs.5,08,911.48
(5) Supply&Fixing12mm thick			
Partical Board With fitting etc			
complete	133.98M2	Rs 322.00	Rs 43,141.56
(6) Supply Fixing door Floor spring			
with fitting etc complete	32No	Rs 800.00	Rs 25,600,00
(7) Brick coba Treatment over roof			
100mm thick average depth with		•	
Costing of all materials labour To	_		
Etc complete	939.76M ²	Rs 355.00	Rs 3,33,614.80
		Borra Barras Joseph	Rs 3,08,05,466.71
(8) Less 5 % Due to U.P.R.N.N.Ltd 1	Working (()	Rs 15,40,273.34
Control of the Contro		ses i	
	•		Rs 2,92,65,193.37
(9) Add 11.5 % U.P.R.N.N.Ltd Centa	ige Charges (+)	Rs 33,65,497.24
	•		Rs 3,26,30,690.61
			Say Rs 326.31 Lacs

(S.K. JAIN)
Addl. Project Manager
U.P. Rajkiya Nirman Nigam
MUZAFFARNAGAR

U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarnagar (U.P)

Name of work:-Construction of Architecture Planning Deptt, Civil Deptt and Pavement Testing Workshop Building at I.I.T Campus Roorkee Distt Haridwar (U.K.)

Summery of Cost

S.No Particular of Item

(1) Construction of Architecture & Planning Deptt
, Civil Deptt and Pavement Testing Workshop Deptt

Say Rs 326,30,690.61

Say Rs 326.31 Lacs

A.R.E U.P.R.N.N.Ltd

Project Manager
U.P.R.N.N.Ltd

REPORT OF VIST OF PROF. H.O.GUPTA COMMITTEE DATED ON 20.5,2009

As per decision of Building Works Committee dated 18.5.09 Prof. H.O. Gupta alongwith Prof. G.S. Srivastava Dean (Acd.), Prof. Promod Agarwal Associate Dean(Acd.), Chariman Estate & Works and Institute Engineer visited the Met. Mat. Engg., Chemical Engg. Deptt. & Civil Engg Deptt. The Committee recommends the following:-

- 1. The complete Hnd floor on the Met. & Mat. Engg. Workshop and Chemical Engg. Workshop and Auditorium may be constructed.
- 2. The three floors building inplace of Arch. & Planning Workshop shed and Civil Engg. Workshop shed (they are adjusent at present) may be constructed. Three floors building in front of Structural Engg. Test Hall may be constructed.

29/5/09 (127/5)°9

(Salek Chand)

(H.O. Gupta)

29/5

G.S. Saivastava

(V.K. Supta 329)5

उत्तर प्रदेश राजकीय निर्माण निगम लिमिटेड

(राज्य सरकार का उपक्रम) (ISO 9001:2000 CERTIFIED)

केंड्य कार्यालय, आई०आई०टी० परिसर, गंगा भवन होस्टल, रुड्की (हरिद्वार)



कार्यालय इकाई प्र 87/26 उत्तरी सिविल ल रोडवेज बस स्टैंड के सा

U.P. Rajkiya Nirman Nigam Ltd

Name of work: - Construction for Extension of Metallurgy and Chemical work shop

Building at I.I.T Campus Roorkee Distt Haridwar (U.K.)

Cost of Preliminary Estimate:- Rs 251.67 lacs only

Name of Unit:-

U.P.R.N.N. LTD
I.I.T. Campus
Cautley bhawan Hostel Campus
Roorkee [Distt: Haridwar]

G.M. Office:-U.P. Rajkiya Nirman Nigam Ltd Officers Colo Officers Hostel Campus Delhi road saharanpur (U.P.)

Head Offic:-U.P. Rajkiya Nirman Nigam Ltd Vishwaria bhawan,Vibhuti khan Comantinagar Lucknow (U.P.)

U.P. Rajkiya Nirman Nigam Ltd Muzaffarnagar Unit Muzaffarnagar (U.P)

Name of work: - Construction of Metallurgy and Chemical Work shop Building at I.I.T campus Roorkee Distt Haridwar (U.K.)

Analysis of rate	
(A) Ground floor Plinth area (Per Square meter)	u in 1820 in 201 in La transferation de la companyation
(1) Plinth area rate as per U.A P.W.D vide Letter No	
369/55 Bhawan -2008 dated 12-03-2008	. .
(2) Add Extra height for 0.30M beyond 2.90M	Rs 6180.00
neight is 3.20M	(O 'D +
(3) Add for Provision for R.C.C Framed	12 Rs 160.00
structure (a) 12 % on amount Rs 6180 00	D 514 50
(4) Add Internal water supply & sewage system of work @ 12 av	Rs 741.60
(5) Add External Water Supply & sewage system of work @ 5 0/	
(b) Add internal Electrification work @ 12 %	
(/) Add for Ant termite treatment of work	Rs 741.60
(8) Add for Earthquake Provision	Rs 180.00
(9) Add for Power wiring 3%	Rs 370.00
(10) Add for provision for Ceiling Fan 4%	Rs 185.40
(11) Add for Contingencies 4%	Rs 247.20
	Rs 394.26
	Rs 10,250.66
B) First floor Plinth area (Per Square meter)	er Square meter
(1) P'inth area rate as per U.A P.W.D vide Letter No	
369/55 Bhawan -2008 dated 12-03-2008	
(2) Add Extra height for 0.30M beyond 2.90M	Rs 5560.00
(3) Add for Provision for R.C.C Framed	Rs 160.00
structure @ 12 % on amount Rs 6180.00	
(4) Add Internal water supply & sewage system of work @ 12 %	Rs 667.20
(5) Add External water supply & sewage system of work @ 12% (6) Add Internal Election	Rs 667.20
(6) Add Internal Electrification work @ 12 %	Rs 278.00
(7) Add for Earthquake Provision	Rs 667.20
(8) Add for Power wiring 3%	Rs 370.00
(9) Add for provision for Ceiling Fan 4%	Rs 166.80
(10) Add for Contingencies 4%	Rs 222.40
(10) Add for Contingencies 4%	Rs 350.35
	Da 0 100 15
Dan	Rs 9,109.15
A. Ter	Square meter
A.R.E Unit Incharge	
U.P.R.N.N.Ltd U.P.R.N.N.Ltd	

U.P. Rajkiya Nirman Nigam Ltd Muzaffarnagar Unit Muzaffarnagar (U.P)

Name of work: - Construction of Metallurgy and Chemical Work shop Building at I.I.T campus Roorkee Distt Haridwar (U.K)

Analysis of r	ate	
(C) Second Floor Plinth area (Per Square meter		목국관리 누 교수 도보는 역 밖 중 모임을 보는 뜻
(1) Fillion area rate as per U.A.P.W.D. vide I as) Her No	
369/55 Bhawan -2008 dated 12-03-2008	1101 110	99 - 44.5.5
(2) Add Extra height for 0.30M beyond 2.90M	A	Rs 6180.00
height is 3.20M		_
(3) Add for Provision for R.C.C Framed	1x160.00Per M2	Rs 160.00
structure @ 12 % on amount Rs 6180.00	-	
(4) Add Internal water supply & sewage system	n of mode (2004)	
(5) Add External water supply & sewage system (6) Add Internal Floring	m of work @ 12%	Rs 741.60
(6) Add Internal Electrification work @ 12 %	in of work @ 5 %	Rs 309.00
(7) Add for Earthquake Provision		Rs 741.60
(8) Add for Power wiring 3%		Rs 370.00
(9) Add for provision for Ceiling Fan 4%		Rs 185.40
(10) Add for Contingencies 4%		Rs 247.20
(10) 1100 Tol Contingencies 476	· ·	Rs 394.26
		Rs 10,063.46
D) 3 rd Floor Plinth area (Per Square meter)	Per	Square meter
(1) Plinth area rate as per U.A P.W.D vide Lette	3.7	· ·
369/55 Bhawan -2008 dated 12-03-2008	r No	•
(2) Add Extra height for 0.30M beyond 2.90M	•	Rs 6180.00
height is 3.20M		
(3) Add for Provision for R.C.C Framed	1x160.00Per M2	Rs 160.00
structure @ 12 % on amount Rs 6180.00		
(4) Add Internal water county & account		
(4) Add Internal water supply & sewage system	of work @ 12 %	Rs 741.60
(5) Add External water supply & sewage system (6) Add Internal Floatification	of work @ 5 %	Rs 309.00
(6) Add Internal Electrification work @ 12 %		Rs 741.60
(7) Add for Earthquake Provision	•2	Rs 370.00
(8) Add for Power wiring 3%		Rs 185.40
(9) Add for provision for Ceiling Fan 4%		Rs 247.20
(10) Add for Contingencies 4%		Rs 394.26
	R	s 10,063.46
Andrews Andrew	Per So	uare meter

A.R.E

Project Manager

U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarngar (U.P)

Name of work:- Construction for Extension of Metallurgy Workshop and Chemical workshop Building at I.I.T Campus Roorkee Distt Haridwar (U.K)

Measurements

(1) Plinth area Measurement

(a) Second Floor Plinth area Chemical

1x35.75x27.90=997.43M2

1x17.75x3.50=62.13

1x13.55x4.80=65.04

1x16.80x4.35=73.08

Toilet

1x4.45x2.25 = 10.01Entrance

1x6.40x2.30 = 14.72

Metallurgy Work shop

1x27.90x13.55=378.05

1x23.25x18.50 = 430.13

Connecting Passage

1x8.75x3.65=31.94

 $2062.53M^{2}$

(b) Third Floor Plinth Area

For Stair case Munty

 $1x7.50x4.70 = 35.25M^2$

1x7.00x4.60 = 32.20

 $67.40M^{2}$

(2) Supply & Fixing Kota stone Flooring Over coarse sand Mortar with mix 1:4 Including supply of all materials lab our T&P etc complete

For Staircase

Landing

 $2x3x4.00x3.00=72.00M^2$

Tread

2x20x1.20x0.300=14.40

Riser

2x20x1.20x0.150=7.20

second Floor

Quantity same as IInd Floor as item no(1) 2062.53

2156.13M

(3) Brick coba Treatment over roof of 100mm thick average depth with i/c costing of all materials lab our T&P etc complete

Quantity same as second Plinth Area 2062.53'M2

U.P.R.N.N.Ltd

U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarngar (U.P)

Name of work:- Construction for Extension of Metallurgy Workshop and Chemical workshop Building at I.I.T Campus Roorkee Distt Haridwar (U.K)

Measurement

(3) Supplying & Fixing Aluminum Glazing Open able Portion 1.5mm thick with rubber, beading etc complete

Second Floor

Door

 $8x2x1.20x2.10 = 40.32M^2$

2x2x0.90x2.10 = 7.56

1x2x4.60x2.10 = 19.32

Toilet 4x2x0.90x2.10 = 15.12

Connecting Passage 1x2x3.65x2.50 =18.25

Window 1x1/2x10x4.08x1.70 = 34.68

22x1/2x1.90x1.70=35.53

1x14x1/2x2.00x1.70=23.80

1x8x1/2x1.50x1.70 = 10.20

1x6x0.90x1.20=6.48

1x8x1.10x1.30=11.44

222.70M²

(4) Supplying & Fixing Aluminum Glazing Fixed Portion 1.5mm thick with rubber. , beading etc complete

Second Floor

Window 1x1/2x10x4.08x1.70=34.68

22x1/2x1.90x1.70=35.53

1x14x1/2x2.00x1.70=23.80

1x8x1/2x1.50x1.70 = 10.20

Ventilator

1x2x0.90x0.75=1.35

1x2x1.90x0.45=1.71

2x2x2.50x0.55=5.50

In Stair case 1x2x4.70x3.50=32.90

 $145.67M^2$

(5) Supply&Fixing12mm thick practical board In open able portion

50% quantity of item no (3) $222.70M2 = 111.35M^2$

(6) Supply & Fixing doorFloorspring

with fitting etc complete

First Floor to Second Floor 2x3x10=60No of Floor Spring

A.R.E U.P.R.N.N.Ltd

U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarnagar (U.P)

Name of work:- Construction for Extension of Metallurgy Workshop and Chemical workshop Building at I.I.TCampus Roorkee Dist Haridwar (U.K.)

Abstract of Cost

S.No Particular of Item	Plinth A	rea	Rate	Amount
(1) Construction for Extension of	Metallurgy W	Vorksho	n	
ana Chemical workshop Build	ling			
(a) Second Floor Plinth Area (b) Third Floor Plinth Area	2062.53M ² 67.40M ²		10,063.46 0,063.46	Rs 2,07,56,188.1. Rs 6,78,277.04
(2) Supply & Fixing Kota stone Floori	ng		-,	20 0,70,277,04
Over coarse sand Mortar with mix	1:4			
Including supply of all materials la	b our			
T&P etc complete	$2156.13 M^2$	Rs (68)	0.00-240.00	Rs 9,48,697.2
(3) Supplying & Fixing Aluminum		•		7 10,097.2
Glazing Open able Portion 1.5mm				
thick with rubber. ,beading etc				
complete	226.70M ²	Rs(247	5-1076.00)	Rs 3,17,153.30
(4) Supplying & Fixing Aluminum				110 5,17,133.30
Glazing Fixed Portion 1.5mm thick	•	•		•
with rubber, beading etc complete	145.67M ²	. Rs 1	669.00	Rs 2,43,123.23
(5) Supply& Fixing 12mm thick				,.0,123.23
Partical Board With fitting etc			•	
complete	111.35M2	Rs 32	2.00	Rs 35,854.70
(6) Supply Fixing door Floor spring	•			
with fitting etc complete	60No	Rs 800.	00 F	Rs 48000.00
(7) Brick coba Treatment over roof of				, -
100mm thick average depth with i/c				
Costing of all materials labour T&P				
Etc complete	2062.53M ²	Rs 355.	00 1	Rs 7,32,198.15
			•	
(8) Lace 50/ Due to II D D SY SY Y			· R	s 2,37,59,491.77
(8) Less 5 % Due to U.P.R.N.N.Ltd Work	ting (-)			s 11,87,974.59
			m → _m .	u
(0) Add 11 5 9/ TI D D N N N T . I G			Rs	2,25,71,517.18
(9) Add 11.5 % U.P.R.N.N.Ltd Centage (Charges (+)	-11		25,95,724.48
ratifik i saman sahu esti pada inggan				
Contraction of the Contraction o			Rs 2	,51,67,241.66
	•		·	\$251.67 Lacs

A.R.E U.P.R.N.N.Ltd

Project Manager U.P.R.N.N.Ltd

U.P.R.N.N.Ltd Muzaffarnagar Unit Muzaffarnagar (U.P)

Name of work:- Construction for Extension of Metallurgy Workshop and Chemical workshop Building at I.I.T Campus Roorkee Distt Haridwar (U.K)

Summary of Cost

S.No Particular of Item Amount

(1) Construction for Extension of Metallurgy Workshop
and Chemical Work shop Building Rs 2,51,67,241.66

Say Rs 251.67 Lacs

A.R.E U.P.R.N.N.Ltd

Project Manager U.P.R.N.N.Ltd